DRAFT
SUBSEQUENT MITIGATED NEGATIVE DECLARATION

Carpinteria Rincon Trail

October 29, 2019

Applicant

Matthew Roberts, Parks and Recreation Director
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013
(805) 684-5405 x449
mattr.ci.carpinteria.ca.us

Contact

Steve Goggia, Community Development Director
City of Carpinteria
(805) 755-4414
Email: steveg@ci.carpinteria.ca.us

Table of Contents

List of Tables

List of Figures

List of Illustrations

Appendices

This Page Left Blank Intentionally

City of Carpinteria Draft Subsequent Mitigated Negative Declaration

1. Project title: Carpinteria Rincon Trail

2. Lead agency name and address: City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

3. Contact person and phone number: Steve Goggia, Community Development Director
(805) 755-4414

4. Project location: The proposed Carpinteria Rincon Trail would extend from the eastern end of Carpinteria Avenue in the City of Carpinteria to the western end of Rincon Beach County Park and the Ventura County Line in Santa Barbara County. Figure 1 shows the regional location of the trail.

5. Project sponsor: City of Carpinteria, Parks and Recreation Department

6. General Plan/Local Coastal Land Use Plan designations:

City of Carpinteria: Visitor-Serving Commercial (VC) and Transportation Corridor (TC)

County of Santa Barbara: Other Open Land and Recreation

7. Zoning:

City of Carpinteria: No zoning designation

County of Santa Barbara: Transportation Corridor (TC) and Recreation (REC) Zone Districts

8. Description of project:

See Section 2 for project-specific information.

9. Surrounding land uses and setting:

See Section 2.5 for a discussion of the surrounding land uses and environmental setting.

10. Other public agencies whose approval is required:

See Section 1.3 for a discussion of other public agencies whose approval is required.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially significantly affected by this Project as indicated by the checklist on the following pages.

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

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 adequate 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 on-site, 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" to "Less Than Significant." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures 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 processes, an effect has been adequately analyzed in an earlier EIR or negative declaration (§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 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) 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.

This Page Left Blank Intentionally

Section 1: Project Background and Regulatory Process

1.1 Project Background and Overview

A proposed Carpinteria Rincon Trail was first evaluated under a 2015 Mitigated Negative Declaration (SCH 2012061019). The original proposal entailed a multi-use (shared-use) trail extending from the eastern terminus of Carpinteria Avenue to Rincon Beach Park, 12–feet in width and approximately 4,000 feet in length. Shared use paths are designed for both transportation and recreation purposes, and are used by pedestrians, bicyclists, and other users. The original alignment extended from the east end of Carpinteria Avenue along the existing benched slope adjacent to US Highway 101, bending around the east end of this ridge and heading southwest to a bridge crossing over the Union Pacific Railroad (UPRR) alignment, continuing a little further west after the rail crossing, and then extending eastward to Rincon Beach Park. The trail would provide safe access for bicyclists and pedestrians traveling from Carpinteria Avenue, in the City of Carpinteria, to Rincon Beach County Park in Santa Barbara County at the Ventura County line.

The original design would have necessitated approximately 1,000 feet of retaining wall, with a maximum height of 14 feet. Approximately 30,000 cubic yards of cut were anticipated, with 7,000 cubic yards of fill, for a total export quantity of 23,000 cubic yards. Several look-out points, a stormwater cistern, and pathway lighting at sharp horizontal grade changes and within the parking areas for the trail were also proposed. The current revised proposed Carpinteria Rincon Trail represents a simplification of the originally proposed design, through elimination of a long switch-back section within the alignment for the UPRR railway, elimination of parking lot improvements at the western trail terminus at Carpinteria Avenue, and elimination of the storm water cistern and any trail lighting. The revised trail alignment avoids areas with historic landslides, eliminates the need for retaining walls, and shortens the path length from approximately 4,000 feet to 2,800 feet.

The proposed Rincon Trail would provide a crucial non-motorized link to popular beaches and surfing destinations, and would feature a bridge for safe railroad crossing and an acceptable slope pursuant to the Federal Architectural and Transportation Barriers Compliance Board (Access Board) guidelines. These guidelines include technical provisions for making newly constructed and altered shared use paths covered by the Americans with Disabilities Act of 1990 (ADA) and the Architectural Barriers Act of 1968 accessible to persons with disabilities in all areas for maximum accessibility for hikers and bicyclists of all levels.

1.2 CEQA Lead Agency and Land Use Approval

The City of Carpinteria has authority to act as the Lead Agency for the proposed project in accordance with CEQA Guidelines Sections 15050-15051, and is responsible for preparing this environmental document. The purpose of the analysis is to determine whether the project may have significant effects on the environment. Among other things, it provides the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND), and provides

documentation of the factual basis for the finding in a MND that a project will not have a significant effect on the environment.

1.3 Other Public Agencies Whose Review and/or Approval May Be Required

This Mitigated Negative Declaration is also intended to be used by Responsible and Trustee agencies with permit or approval authority over the project. The following agencies have been identified by the City as having permit or approval authority over a portion of the project:

- County of Santa Barbara – for discretionary oversight and approval of the trail sections located within the County's jurisdiction, including at Rincon Beach County Park.
- Caltrans District 5 – for permit authority and easement or fee simple acquisition for portions of the trail located within US Highway 101 right-of-way.
- Union Pacific Railroad (UPRR) – for approval of a railway crossing and portions of the trail.
- Santa Barbara County Air Pollution Control District – for construction emissions associated with earthmoving activities.

1.4 Public Review Process

In accordance with CEQA, the City has provided a Notice of Intent to Adopt a Mitigated Negative Declaration (MND) to the public, Responsible agencies, Trustee agencies and the Santa Barbara County Clerk's Office. Comments can be submitted on the MND in writing before the end of the comment period or at the Planning Commission hearing on its potential adoption and project approval.

In reviewing the MND, affected agencies and interested public should focus on the adequacy of the information provided in identifying environmental impacts of the project.

A 30-day review and comment period will be established in accordance with Section 15105(b) of the CEQA Guidelines. Following the close of the public comment period, the City will consider this MND, as well as comments provided by agencies and interested parties in determining whether to approve the project. Written comments should be mailed to the following contact:

Steve Goggia, Community Development Director
City of Carpinteria
5775 Carpinteria Avenue
Carpinteria, CA 93013

Section 2: Project Description

2.1 Introduction

The City of Carpinteria is situated along the California coast where the Santa Ynez Mountains meet the Pacific Ocean. California State Highway 150 (Highway 150), United States Highway 101 (US Highway 101), and the coastal railroad all intersect in the southeastern entrance to the Carpinteria Valley. The transportation infrastructure improvements at this location have not included planning or installation of a needed Class I bicycle route or pedestrian trail linking the urban area of the City of Carpinteria with the coastal resources of the County and State Beach Parks at Rincon Point as well as a connection to the newly opened bike path to Mussel Shoals. The proposed Carpinteria Rincon Trail will provide an important and desirable connection in this area and also serve as a link in the larger California Coastal Trail.

Access between the City of Carpinteria and Rincon Beach County Park has primarily been provided by US Highway 101, though the distance between the two destinations is less than one mile. The use of US Highway 101 requires a bicyclist to travel along the highway shoulder. Many bicyclists and pedestrians use the railroad corridor as an alternative route, as evidenced by the unsanctioned trail that is present along the railroad tracks connecting the City of Carpinteria with Rincon Beach County Park. Use of the railroad corridor, however, presents a public access and safety concern.

The proposed Carpinteria Rincon Trail would extend from the eastern end of Carpinteria Avenue, in the City of Carpinteria, to Rincon Beach County Park, in Santa Barbara County. The new, shared-use trail would provide a strategic addition to Carpinteria's Coastal Vista Trail that upon completion, will connect Padaro Lane to the west and Rincon Beach County Park to the east. In addition to providing critical improvements in public safety, the completion of this trail segment would provide improved public coastal access and recreational opportunities, and enhancement of non-vehicular travel alternatives to the region’s significant coastal resources. Regional vicinity and project site location are presented in Figures 1 and 2, respectively.

2.2 Purpose and Need

2.2.1 Public Safety

Due to the lack of a direct, non-vehicular access corridor, the most traveled route to hike or bike to Rincon Beach County Park from the City of Carpinteria is along the railroad corridor, which presents a known safety risk. The railroad corridor in the City of Carpinteria is a major north-south rail route with freight and passenger trains running frequently each day. Recent projections in railroad use indicate the frequency of trains will almost double by 2020 (City of Carpinteria 2009b). The continuous rail tracks that the UPRR recently installed are quieter than previous segmented rail track; thereby increasing safety hazards as rapidly approaching trains may not be audible. Despite safety concerns, it is common to see individuals and groups walking and biking along the tracks from the City to Rincon Beach County Park or points in between. Many trail users are carrying surfboards and day packs, making them vulnerable to the speed of oncoming trains. From 2005 to

2008, the Federal Railroad Administration Office of Safety records indicate that there were fourteen rail incidents in Santa Barbara County; nine deaths and five injuries (City of Carpinteria 2009b). Unfortunately, within the Carpinteria community, four rail deaths occurred from 2004 to 2009 (City of Carpinteria 2009a).

2.2.2 Local Environment Enhancement

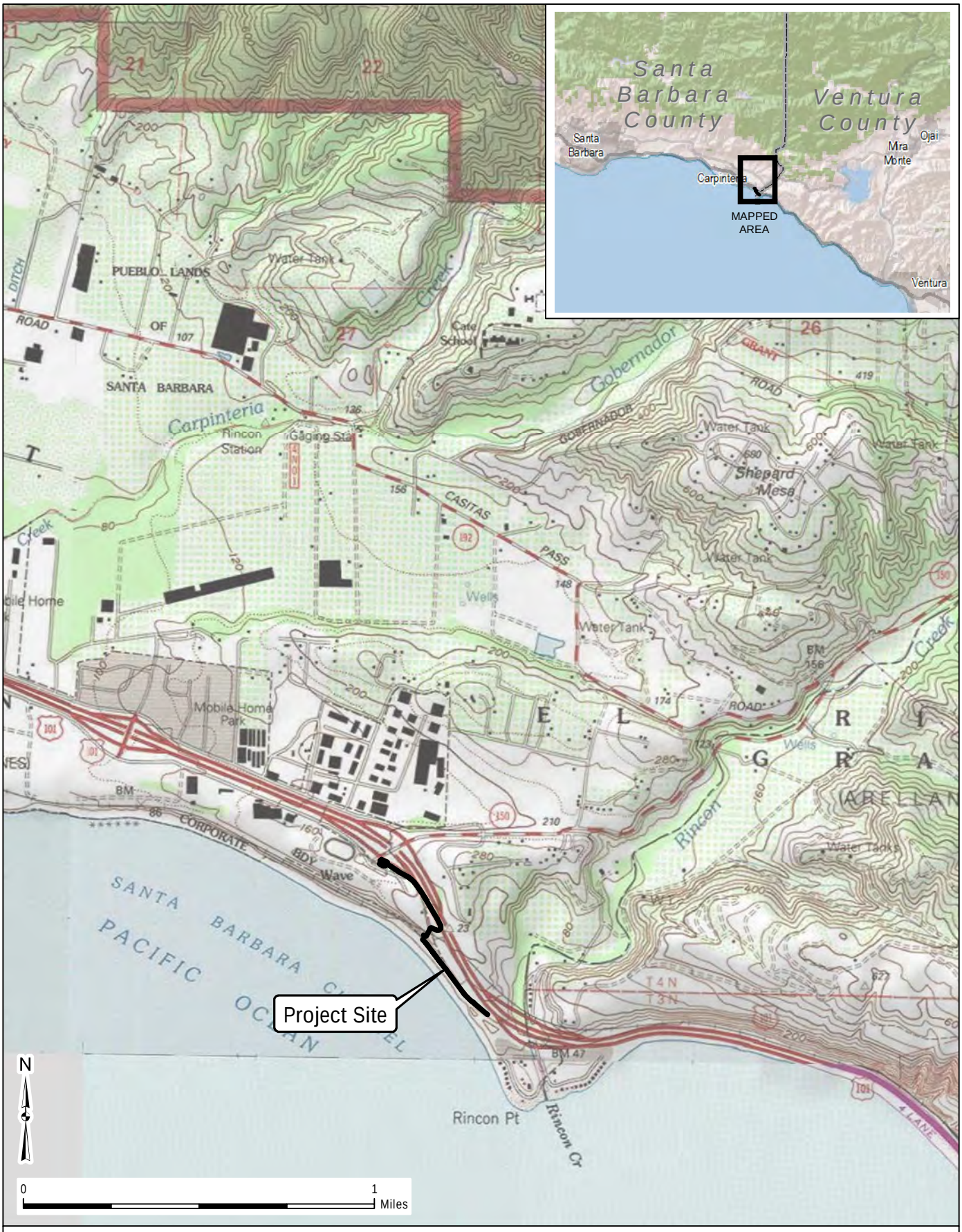
Bicycling and walking are cost effective, energy efficient and provide an alternative means of travel to the use of motorized vehicles. The City of Carpinteria's mild Mediterranean climate coupled with its scenic coastal bluffs provide a favorable environment for bicycling and walking year-round. Bicycles also provide easy mobility for residents and tourists, and the proposed trail would offer a new direct, safe and efficient access route to Rincon Beach County Park, as well as a connection between Ventura and Santa Barbara counties.

Near the west end of the Coastal Vista Trail is the Carpinteria Bluffs Nature Preserve, which provides visitors with a unique overlook along one of the last remaining undeveloped coastal regions along the South Coast. In addition, the 21 acre parcel adjacent to the eastern terminus of Carpinteria Avenue (formerly known as Carpinteria Bluffs Area III) has recently been purchased by the Land Trust for Santa Barbara County to be preserved in perpetuity as a public open space preserve (Rincon Bluffs Preserve) that will provide additional passive recreation and scenic enjoyment opportunities. Commonly seen from the bluffs are white-tailed kites, turkey vultures, red-tailed hawks, American kestrels, brush bunnies, bottlenose and common dolphins, California sea lions, Pacific harbor seals, California brown pelicans, western gulls, and migrating gray whales (City of Carpinteria 2009a). Views of the Northern Channel Islands and Channel Islands National Marine Sanctuary are also afforded. The proposed trail provides an extension to the Carpinteria Bluffs trail system, allowing hikers and bicyclists to continue along the coastal bluffs into neighboring coastal resource areas of interest.

2.2.3 Recreational Opportunities

The City of Carpinteria is a popular year-round tourist attraction, with close to two million visitors a year (City of Carpinteria 2009a). The City’s beach is recognized as one of the safest and cleanest beaches in Santa Barbara County. Northeast of the City beach is the Carpinteria Salt Marsh Nature Park, which is one of the few remaining healthy coastal wetland systems in California, and a well-used hiking area. East of the City beach is Carpinteria State Beach Park, one of California’s most popular camping and recreation areas.

Within the State Beach Park, Carpinteria Creek flows out to the ocean. This creek is currently the focus of a successful steelhead restoration effort. East of the State Beach, the coastal bluffs begin where the Casitas Pier is located. Part of the coastal bluff is also located within the Carpinteria Bluffs Nature Preserve and the newly created Rincon Bluffs Preserve. Located just east of the Casitas Pier is the Pacific harbor seal sanctuary, a natural haul out and pupping rookery where over 500 of these pinnipeds have been observed on shore at once (City of Carpinteria 2009a).



SOURCE: USGS 1:24,000 Topological Survey

FIGURE 1

Regional Location

Carpinteria Rincon Trail Subsequent MND

This Page Left Blank Intentionally

AERIAL SOURCE: CIRGIS 2010
ENGINEERING SOURCE: Bengal 2019

FIGURE 2

Project Vicinty and Alignment

Carpinteria Rincon Trail Subsequent MND

This Page Left Blank Intentionally

Offshore, the Channel Islands National Marine Sanctuary and Channel Islands National Park provide additional recreation opportunities. The City aims to complete the Carpinteria Coastal Vista Trail for the recreational use of the surrounding communities and to provide public access and connections to these natural places.

The proposed Carpinteria Rincon Trail segment would help close a gap in the California Coastal Trail at a critical location. The segment would link the Carpinteria Bluffs and Rincon Beach County Park, and would also extend the Pacific Coast Bikeway, thereby improving recreation opportunities along the South Coast. Eventually, upon completion of other segments, the Carpinteria Coastal Vista Trail will connect to Carpinteria State Beach Park and the Carpinteria Salt Marsh Preserve, west of the City. The Pacific Coast Bikeway currently extends east to Seaside and eventually to Ventura's Seaside Wilderness Park and Emma Wood State Park. From Emma Wood State Park, cyclists and pedestrians can join the California Coastal Trail to the Ventura County Fairgrounds and the City of Ventura waterfront. Figure 3 presents the proposed Carpinteria Rincon Trail segment in context of the Carpinteria Coastal Vista Trail.

2.3 Objectives

The proposed trail was identified by the City to meet a critical safety and public access need. Objectives of the proposed project include:

- Improve pedestrian and bicyclist safety by eliminating incentives to use the railway corridor and the Highway 101 shoulder.
- Reduce the use of motorized vehicles in Carpinteria's coastal areas.
- Improve the local coastal bluff environment through improved water quality and reduced air pollution.
- Provide new coastal access and coastal tourism opportunities in the City of Carpinteria and Santa Barbara County.
- Complete a critical link in the California Coastal Trail.

This Page Left Blank Intentionally

AERIAL SOURCE: BING 2011

FIGURE 3

Existing Trail Network

Carpinteria Rincon Trail Subsequent MND

This Page Left Blank Intentionally

2.4 Location

The project is located on lands within the jurisdiction of the City of Carpinteria and the County of Santa Barbara. Carpinteria is a quaint seaside town located about 12 miles east of Santa Barbara near the intersection of Highway 150 and US Highway 101, near the Ventura County line.

The proposed trail would provide a dedicated connection from Carpinteria Avenue to the Ventura County line through Rincon Beach County Park. The updated design for the trail would maintain the western starting point at the eastern terminus of Carpinteria Avenue, and would proceed as originally proposed eastward along the existing benched slope adjacent to US Highway 101. However, to achieve compliance with pathway surface slope limitations under the Americans with Disability Act (ADA), the existing benched slope would be regraded.

As with the original design, the updated design includes a clear-span bridge over the UPRR alignment. The bridge would be approximately 160-feet-long, with a width of between 14-feet and 16-feet (clear width, measured inside the bridge rails).

At the south end of the UPRR bridge, the trail would continue eastward as previously proposed along the benched slope constructed for the former UPRR alignment. However, for compliance with ADA pathway slope requirements, and to provide longer-term stability for the trail, this benched slope would also be regraded. Figure 1 illustrates the overall alignment of the currently proposed Carpinteria Rincon Trail. The proposed route is grade and horizontally separated from the US Highway 101 freeway.

2.5 Surrounding Land Uses and Environmental Setting

Carpinteria and its surrounding area contain important natural resources, including outstanding beaches, the Carpinteria Salt Marsh Preserve, Carpinteria Reef, a Pacific harbor seal sanctuary, and coastal bluff, foothill and creek habitats supporting numerous plant communities and wildlife species.

US Highway 101 is located to the north of the proposed trail alignment, the Pacific Ocean is located to the south below the Carpinteria bluffs; the UPRR rail corridor bisects the central portion of the trail alignment. Currently undeveloped bluff open space designated for visitor-serving commercial use (City of Carpinteria 2003) is located adjacent the western end of the trail on Carpinteria Avenue, with the Rincon Point residential community located adjacent the eastern terminus of the trail. Surrounding land uses are shown in Figure 2. Appendix A contains photographs depicting existing conditions along the trail alignment.

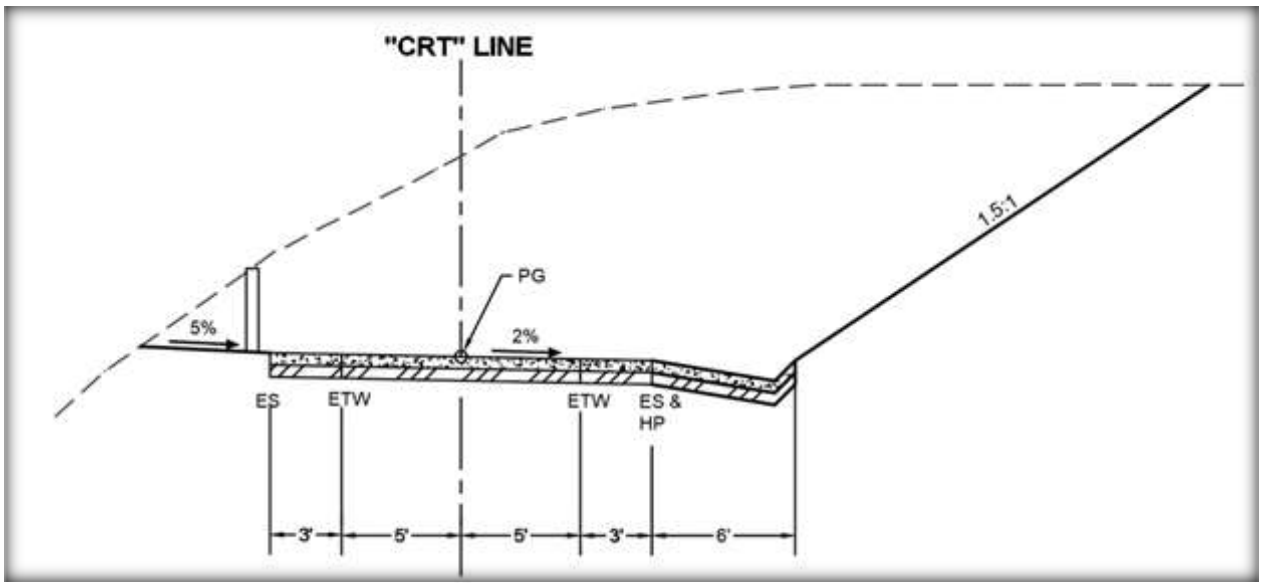
The majority of the proposed trail route is located along and above US Highway 101, and old terraced road and rail cuts. Most of the area has been mechanically manipulated over the years. A small unsanctioned trail exists in some areas of the proposed trail, including the portion of the proposed trail from the railroad crossing to the Rincon Beach County Park parking lot. At both ends of the trail are pre-existing parking areas; Rincon Beach County Park has a paved lot and at Carpinteria Avenue there is an existing dirt lot, which would continue to provide informal parking for the proposed project.

The first portion of the trail, from the eastern terminus of Carpinteria Avenue to the UPRR corridor, traverses an engineered slope, cut during construction of US Highway 101. The trail would cross the UPRR tracks in an area that consists of engineered slopes cut during construction of the railroad corridor. The second portion of the trail, from the UPRR crossing to the westernmost end of Rincon Beach County Park, is currently occupied by an existing informal trail on an existing cut bench that was abandoned by the railroad in the early 1970s. The proposed trail route is flat in this area and its surface is mostly dirt; however, some original asphalt paving associated with the previous rail use remains in some areas. A few abandoned underground utilities exist in or nearby the proposed route.

2.6 Project Description

The proposed project consists of a 16-foot wide (10-foot wide path with 3-foot wide paved shoulder along both sides) and approximately 2,800-foot long shared-use trail that would provide safe access for bicyclists and pedestrians traveling from Carpinteria Avenue in the City of Carpinteria to Rincon Beach County Park in Santa Barbara County at the Ventura County line. Figure 4 illustrates the proposed trail alignment.

A cross-section illustrating the proposed trial configuration is provided below. Note that the "travel" area of the path is intended to be 10 feet in width, but a paved 3-foot shoulder is provided along both sides (which allows additional space for pedestrians or cyclists to navigate when opposite direction travelers are present). A safety fence is also illustrated (on the left) to prevent users from encountering the slope below the trail. A 6-foot wide swale would also be provided along the path where cut slopes are present, as shown below in Illustration 1.



SOURCE: Bengal Engineering

Illustration 1 Rincon Trail Cross Section - Widths of Components

AERIAL SOURCE: CIRGIS 2010
ENGINEERING SOURCE: Bengal 2019

FIGURE 4

Site Plan

Carpinteria Rincon Trail Subsequent MND

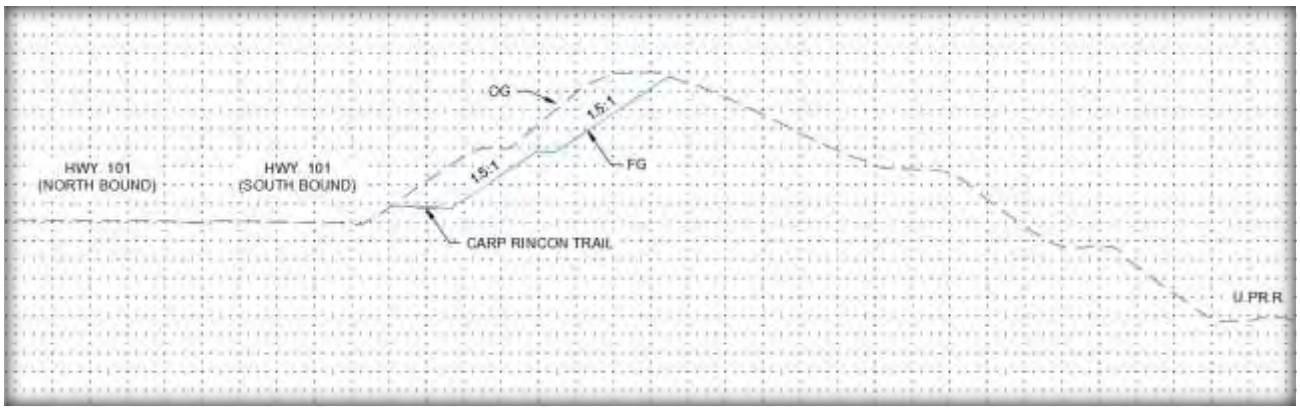
This Page Left Blank Intentionally

Earthwork

The current (updated) design has been engineered to incorporate pathway travel slopes that are consistent with ADA standards. This includes the removal of sharp bends and steeper grades that were present in the original design as well as the elimination of retaining walls, which were relatively extensive in the original design. To achieve a gentler pathway slope and to create cut or fill slopes above and below the path alignment, earthwork volumes for the current design have increased compared to the original design. The original trail design envisioned approximately 30,000 cubic yards of cut, with 7,000 cubic yards of fill and a total export quantity of 23,000 cubic yards. Construction of the currently proposed path design would involve a total of 104,400 cubic yards of cut, a total of 10,300 cubic yards of fill, and the export of a total of 94,100 cubic yards of earth material. The re-contouring of existing topography along the path alignment is described in more detail below.

Pathway Slope Profiles Adjacent to US Highway 101 (North of UPRR Alignment)

Cut slopes above the trail would have a slope ratio of 1.25:1, fill slopes (which would be present only adjacent to the bridge over the UPRR) are proposed to have slope ratios between 2:1 and 4:1. The earthwork would alter the elevation of the bench on which the trail would be aligned, but would not alter the top elevation of the hill/ridge. The "Pathway Grading Profile Adjacent to US Highway 101" illustration below presents the existing versus proposed slope profile for earthwork modifications above and below the trail.



SOURCE: Bengal Engineering

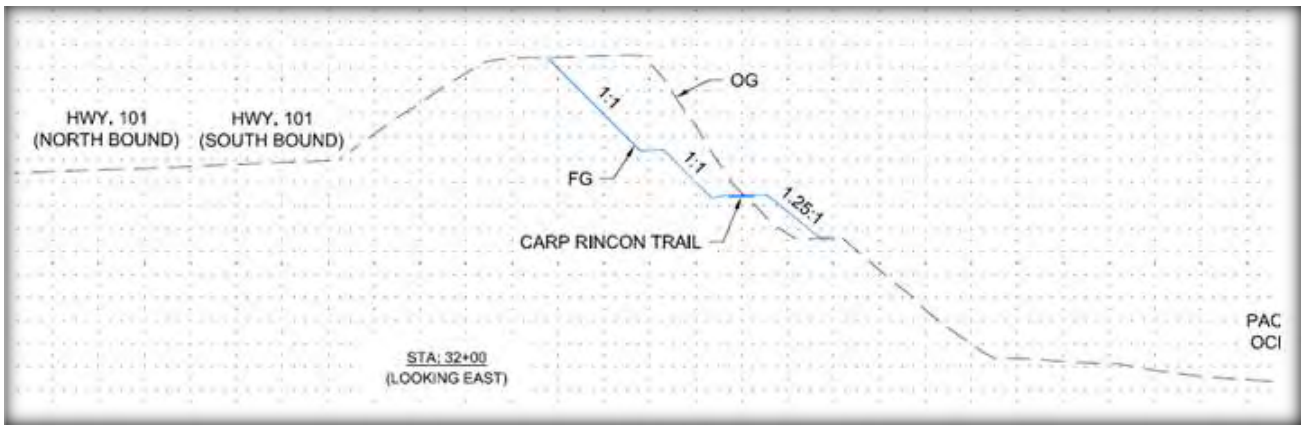
Illustration 2 Pathway Grading Profile Adjacent to US Highway 101

Note in Illustration 2 that the proposed cut-slopes are similar in profile to those created during the US Highway 101 construction. Some portions of the trail along the north side of the UPRR alignment would not have the upper bench shown above, where Carpinteria Avenue is in close proximity to US Highway 101.

Pathway Slope Profiles South of UPRR Alignment

For the portion of the path on the ocean side of the UPRR alignment, the regraded slopes for the trail "bench" would employ cut slopes with a ratio of 1:1 above the trail, while a ratio of 1.25:1 would be employed for the

"reinforced" fill slopes below the trail. The earthwork would alter the elevation of the bench on which the trail would be aligned, but would not alter the top elevation of the hill/ridge. The "Pathway Grading Profile South of UPRR Alignment" illustration below presents the existing versus proposed slope profile for earthwork modifications above and below the trail.



SOURCE: Bengal Engineering

Illustration 3 Pathway Grading Profile South of UPRR Alignment

Note in Illustration 3 that the proposed cut-slopes are less-steep than those constructed for the railroad alignment in this area (illustrated as "OG" above). Note there is also a proposed bench above the trail that would intercept rainwater and also prevent rock fall on the path below. The bench would also provide maintenance access for the manufactured slopes and path.

Bridge Detail

As with the original design, the updated design includes a clear-span bridge over the UPRR alignment. The bridge would be approximately 160-feet-long, with a width of between 14-feet and 16-feet (clear width, measured inside the bridge rails).

The bridge would be supported on foundations using deep piles. The bridge would be a factory-built steel structure, painted to protect it from corrosion because of the proximity to the ocean. The bridge would be delivered substantially complete, likely in 2 sections. After the two "halves" of the bridge are bolted together this unit would be lifted into place, likely using two cranes, one situated on either side of the UPRR tracks. Once the "factory made" portion of the bridge is in place, a concrete bridge deck would be cast-in-place, and the wing walls and abutment back walls would be completed. Illustration 4 provides an example of a similar scale pre-fabricated steel frame bridge that was recently installed for the San Jose Creek Bikepath in Goleta, California. Note the bridge for Rincon Trail will have some similar characteristics, except that UPRR requires high "safety fences" for the full length of the bridge to protect the trains from potential objects thrown from the bridge platform.

SOURCE: Bengal Engineering

Illustration 4 Representative Steel Framed Bikepath Bridge

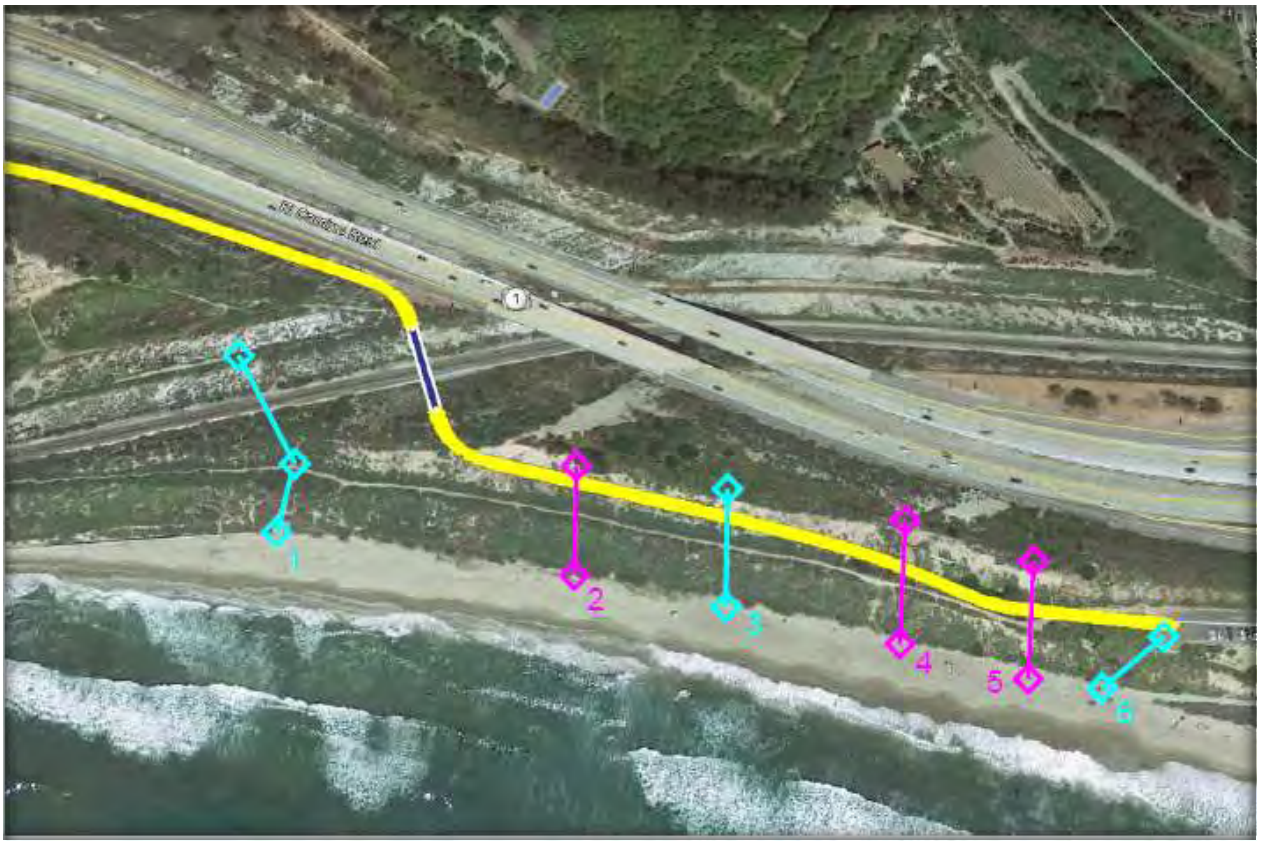
The approximate location of the Rincon Trail bridge over the UPRR (the magenta colored line) is shown in Illustration 5, below. The relative elevation of the bridge can be compared to the US Highway 101 bridge over the UPRR corridor (just above the elevation of the pictured train).

SOURCE: Bengal Engineering

Illustration 5 Approximate Profile and Location for Rincon Trail Bridge

Drainage

The proposed trail project includes an integrated storm drainage system to ensure storm water run-off from the trail surface is conveyed to the ocean very efficiently, avoiding potential erosion of slopes along the trail alignment. Along the portion of the trail north of the UPRR alignment, a concrete swale (v-ditch) would convey water along the trail edge, where it would be released into a surface drainage swale now serving US Highway 101. This swale connects to an existing storm drain that crosses underneath the UPRR alignment, and then descends to the beach level. This storm drain is labelled as "1" in illustration 6. No improvements are proposed to storm drain 1, and the trail storm drain volumes contributed to this storm drain would be negligible compared to existing flows already contributed from portions of US Highway 101.



SOURCE: Bengal Engineering

Illustration 6 Major Storm Drainage Components of the Project

On the south side of the UPRR alignment, a concrete drainage swale would also carry surface run off from the trail, conveying such drainage along the side of the trail until it reaches one of the storm drain inlets lower in elevation. A total of 5 vertical storm drains would convey this storm water from the trail to the beach elevation, for the trail segment south of the UPRR alignment (refer to Illustration 6). Drains #3 and #6 (shown in light blue in illustration 6) are existing and would be re-used, including rehabilitation of existing piping; drains #2,# 4, and #5 (shown in magenta in illustration 6) would be newly developed for the project.

The new vertical storm drains would be installed during earth work for the trail and adjacent slopes, and would be buried to cross beneath the trail and then descend on the slope face to outlet at the beach elevation. Buried portions of the storm drain would be constructed of high density plastic, transitioning to galvanized steel for the above-ground portions. Engineering design plans for the proposed storm drain system and discussion of storm drain designs found not to be feasible are included in Appendix D. The storm drain design is based upon the Carpinteria Rincon Trail Drainage Report (Bengal Engineers 2019a), which is on file with the City of Carpinteria.

Under California Central Coast Regional Water Quality Control Board Resolution No. R3-2013-0032, bicycle paths where no other impervious surface is created or replaced are exempt from post-construction storm water quality control requirements (or PCRs). Given that at this time there are no parking lots or other facilities involving creation of impervious surfaces proposed with the bike path, this project would be considered exempt from post-construction water quality control requirements. The exemption is based on the expectation that bike paths and multi-use trails do not include contaminants typically associated with transportation facilities where motor vehicle usage is involved. As such, the proposed Rincon Trail drainage facilities are focused on the efficient collection and delivery of storm water run-off from the trail surface to the ocean, no storm water treatment components are included or required.

Trail/Path Features

An informal dirt parking area adjacent to the Carpinteria Avenue terminus at the west end of the trail would serve pedestrians wishing to drive to the vicinity. The trail would be constructed of concrete to ensure longevity and low maintenance, including a concrete surface on the proposed bridge structure over the UPRR alignment. The trail width would be wide enough for bicyclists and hikers to easily ride and walk side-by-side, and pass others headed in the opposite direction. The 16-foot trail would also accommodate emergency vehicle access to the project area. The bridge over the UPRR alignment would provide safe crossing for trail users over the railway and to reduce the risk of accidents or fatalities associated with unsanctioned rail crossings. Additionally, the project would feature native plantings deigned to transition to natural communities and restored native plant areas.

Security fencing and/or railings would be provided along portions of the trail for safety and route guidance, and would also inhibit users from deviating off the designated path to ensure protection of adjacent native restoration plantings. The proposed fencing would be either three-rail post and rail with a concrete base, chain link or other design of similar dimensions consistent with trail fencing in the community. A fence may be required along one or both sides of the trail depending on the characteristics of that segment's location, such as adjacency to bluff or slope features. As mentioned above, the bridge crossing would include chain link fence and a safety rail along both sides of the trail that lead up to the bridge. Safety fencing along other segments of the trail would consist of a three-rail post and rail and/or chain link fence approximately 42 inches in height.

Vehicle parking at the trailhead on the western end would be provided via an existing dirt lot adjacent to the Carpinteria Avenue terminus; no improvements to the informal dirt parking lot are proposed. Visitors

traveling both northbound and southbound on US Highway 101 would access Carpinteria Avenue from exit 84 for Highway 150 towards Ojai/Lake Casitas. Carpinteria Avenue is paved for approximately one-tenth of a mile past the existing dirt parking lot. The Rincon Beach County Park parking lot is also accessible from Via Real to the east. Exit 83 for Bates Road off of Highway 101 provides access to South Via Real. Parking facilities and other park amenities are currently provided at Rincon Beach County Park; as such, no additional amenities are proposed in that location.

A sign providing a map of the trail and trail rules would be placed near the existing dirt parking lot at the western end of the trail. Additional wayfinding signs would be provided along the trail and up to four interpretive nature signs to illustrate surrounding biology, local geography and history of the area would also be provided.

Vegetation and landscaping would consist of native trees and low-lying, native shrubs and groundcover. Native vegetation that would be removed along the immediate side of the trail for grading and improvements would be restored, and additional plantings to offset permanent removal of native vegetation beneath the trail alignment would be accomplished. Existing plant species in the project area that would have the potential to be restored include quail bush (*Atriplex lentiformis*), California sagebrush (*Artemisia californica*), California bush sunflower (*Encelia californica*) and lemonade berry (*Rhus integrifolia*).

Fire hydrants are currently provided at Rincon Beach County Park; no additional fire hydrants would be provided along the proposed trail. In the event of a wildfire, Carpinteria-Summerland Fire Protection District crews could access the trail from the west via Carpinteria Avenue or from the east via Rincon Beach County Park parking lot. Restrooms are also available at Rincon Beach County Park, which would serve users of the proposed trail as no additional restrooms would be provided along the trail.

Construction

The shared-use trail would be 16 feet in paved width, including 10-feet for the travel lanes and a three-foot paved shoulder along each side (which would be available as additional travel way for navigating around pedestrians or cyclists that are within the main travel lanes). During construction of the trail, an additional one to four feet of area may be potentially impacted during grading for a total impact width of up to 20 feet depending on the trail location. However, much of the trail would be located on abandoned road or railway cuts or existing terraces that have been disturbed previously.

To prepare the site for trail construction, the trail bench and slopes above and below the trail alignment would be rough graded to meet the proposed finished grade surface. The first stage would involve separate crews performing earthwork on the north side and south side of the UPRR alignment; the northern crew would use the Carpinteria Avenue extension for access, while the southern crew would access the earthwork areas from the Rincon Beach County Park parking area. Storm drain construction would be integrated with the rough grading activities. The second stage would involve bridge construction. Construction would begin with the bridge foundations, using deep piles. The bridge would be a factory-built steel structure. The bridge would be delivered substantially complete but in 2 sections. After the two “halves” of the bridge are bolted

together this unit would be lifted into place using two cranes, one situated on either side of the UPRR tracks. Once this “factory made” portion of the bridge in place, the concrete bridge deck will be cast-in-place, and the wing walls and abutment back walls will be completed. After the bridge is in place, finish grading of the path will occur. Next, the path surfacing, consisting of aggregate base under concrete paving would be completed. The final major stage would include the landscaping installation, habitat restoration activities, and erosion protection. Other final touches would include fencing, signing, and the path striping

Cut material onsite would be utilized for the necessary fill material, as feasible. Excess cut volume would be exported from the site by haul trucks and transferred to the closest available receiver site. The quality of the excess graded material is anticipated to be suitable for fill material, which could be utilized by local on-going and future construction projects; several landowners in close proximity to the project site have also expressed interest in receiving soil. However, if at the time of project construction there are no local receiver sites for fill material, the project graded material would be transported to the closest transfer station or transported directly to the regional landfill.

It is anticipated that construction of the proposed project would commence in March 2020 and reach completion by March 2021, for a total construction window of approximately twelve months. The trail would be constructed using common earthwork equipment such as dozer, excavator, dump truck, and roller. Removal of vegetation located within or adjacent to the proposed trail route would be conducted using a crawler tractor or similar small loader or backhoe. A haul truck would transport removed vegetation to the Marborg Construction and Demolition Recycling Center, located at 119 N. Quarantina Street in Santa Barbara, California or other green waste collection facility; construction waste would also be delivered to Marborg or another similar recycling facility in Ventura County.

Temporary fencing would be installed where necessary and would be removed after construction activity in the area is complete. Permanent safety rails and fencing would consist of wood and cement for the post and rail fences and steel for the chain link fences and would be installed using small tractors, such as a skid steer, and other hand tools. A small excavator would also be used to construct the proposed concrete v-trench that would guide runoff water to the proposed storm drain system. Paving of the proposed parking lot would take approximately one to three weeks and would require use of medium-sized tractors and trucks.

The proposed bridge structure would be fabricated offsite. The bridge would be delivered by truck and installed using cranes, also delivered by truck. Additional smaller pieces of equipment, including welders and concrete saws, may also be utilized to link the bridge to the trail ramps. Construction of the overhead bridge would not interfere with railroad use in accordance with UPRR requirements, and may occur at night if required by UPRR to avoid daily train operations.

Signs would be installed after completion of the trail and bridge. Signs would be installed using a jackhammer and hand tools. Landscaping along the proposed trail would also occur after completion of trail construction. Revegetation of native plants would be achieved by hydroseeding using hydroseed trucks. Container plants would also be incorporated in the landscape palette. To ensure successful establishment of plantings, the

planted vegetation would be watered weekly or bi-monthly depending on the season during the first two years of project operation through use of a water truck.

Operation

The proposed trail would accommodate multiple users including bicyclists and pedestrians. With the exception of "power-driven mobility devices" for persons with disabilities and maintenance or emergency vehicles, motorized vehicles would be prohibited on the proposed trail.

As with the majority of public trails in the City, access to the trail would be provided 24 hours a day, seven days a week. Trail closure would occur, however, during unsafe or emergency conditions, such as the unlikely event of a landslide or for some maintenance operations. No additional staffing for maintenance would be needed; instead, any trail needs would be accommodated by existing City of Carpinteria or County of Santa Barbara work crews.

Trash and recycling cans would be provided in the existing dirt parking lot at the western trail terminus. Waste collection services would be provided by E. J. Harrison and Sons or other local service provider and would occur weekly. As dogs would be allowed on the proposed trail, a dog waste bag dispenser and waste receptacle would be provided at the western end of the trail near the proposed parking lot. The dispenser would be similar to those currently provided by the City of Carpinteria's dog waste disposal bag program.

2.7 Acquisition of Right-of-Way Easements

The proposed trail route crosses several parcels of land owned by public agencies. The trail parking lot location on Carpinteria Avenue is owned by the City of Carpinteria; trail implementation would require no easements for this portion. Heading east, the next portion of the trail, which courses down a hill parallel to the highway, is owned by the State of California as part of the US Highway 101 right-of-way. For this portion of the route, it is proposed that Caltrans would transfer title to the land to the City of Carpinteria.[1] From there, the proposed trail route crosses two parcels of land owned by UPRR (APN 001-010-032 and APN 001-220-092), an easement from UPRR would be sought to accommodate placement of the trail and bridge structure on this property. The trail then connects to a parcel of land owned by the County of Santa Barbara as part of Rincon Beach County Park; trail implementation would also require no easements for this portion.

2.8 Implementation and Discretionary Approvals

The City of Carpinteria has authority to act as the Lead Agency for the proposed project in accordance with CEQA Guidelines Sections 15050-15051, and is responsible for preparing this environmental document. The purpose of the document is to determine whether the project may have significant effects on the environment. Among other things, it provides the Lead Agency with information to use as the basis for

[1] The process for transfer of surplus land from Caltrans to another public entity typically entails several months, and in this case would probably not be completed prior to completion of environmental review for the Rincon Trail; however, transfer of the property would be completed prior to any construction commencing on the trail.

deciding whether to prepare an EIR or negative declaration, and provides documentation of the factual basis for the finding in a negative declaration that a project will not have a significant effect on the environment.

This Mitigated Negative Declaration is also intended to be used by Responsible and Trustee agencies with permit or approval authority over the project. The following agencies have been identified by the City as having permit or approval authority over a portion of the project:

- County of Santa Barbara – for discretionary oversight and approval of the trail sections located within the County's jurisdiction, including at Rincon Beach County Park.
- Caltrans District 5 – for permit authority and easement acquisition for portions of the trail located within US Highway 101 right-of-way.
- UPRR – for approval of a railway crossing and grant of trail easement on APNs 001-010-032 and APN 001-220-092.
- Santa Barbara County Air Pollution Control District – for construction and/or operation emissions associated with earthmoving activities.

2.9 Funding

Funding through available recreational trails grants programs, such as through California State Parks and/or the Federal Highway Administration, will likely be sought for construction of the proposed Rincon Trail. Funding could also potentially be provided by one or a combination of the following: Santa Barbara County Association of Governments, California Coastal Conservancy, Rails-to-Trails Conservancy, Federal Transportation Administration, revenue from the Measure A transportation measure, private development funds and the City of Carpinteria parks improvements funds.

This Page Left Blank Intentionally

Section 3: Impact Discussion

The City, as the CEQA Lead Agency, has prepared this Initial Study to identify potentially significant environmental impacts associated with the proposed project. This Initial Study provides a checklist for each resource topic and supporting explanations concerning potential impacts in each resource area.

The resource topics considered in this document include:

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

3.1 AESTHETICS

Would the project:	**Potentially Significant Impact**	**Potentially Significant Unless Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**	**Reviewed Under Previous Document**
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?	☐	☐	☒	☐	☐

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?	☐	☒	☐	☐	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	☐

Existing Environmental Setting

Carpinteria's coastal location affords visual and recreation opportunities not readily available to inland communities. In addition, the City and surrounding area are situated against the Santa Ynez Mountain range that further contributes to the aesthetic appeal of the community. The creeks that are formed out of the hills, as well as the wetlands that they feed are valuable as visual, recreational and open space areas. Carpinteria's streams, beaches, open spaces, foothills, agricultural lands, urbanized areas, landscapes and landforms all contribute to scenic views.

The Carpinteria bluffs provide visitors with a unique overlook along one of the few remaining undeveloped coastal bluffs of the South Coast of Santa Barbara County. Commonly seen from the bluffs are white-tailed kites, turkey vultures, red-tailed hawks, American kestrels, brush bunnies, bottlenose and common dolphins, California sea lions, Pacific harbor seals, California brown pelicans, western gulls, and migrating gray whales (City of Carpinteria 2009a). Views of the Channel Islands National Marine Sanctuary and the Northern Channel Islands are also afforded.

The majority of the proposed trail route is located along abandoned roadways, or old terraced road and railroad cuts, and most of the area has been mechanically manipulated over the years. The informal existing trail extending west from Rincon Beach County Park has been graded flat and is currently mostly dirt, with original asphalt associated with the previous rail use remaining in some areas. Appendix A provides photographs of the entire trail alignment illustrating existing visual conditions within and adjacent to the alignment.

The project traverses seven vegetation communities and areas that are developed or otherwise unvegetated. Five of the seven vegetation communities found are native scrub communities that qualify as coastal sage scrub or coastal bluff scrub. Long stretches of the proposed shared-use trail are dominated by native scrub vegetation. Between Rincon Beach County Park and the UPRR pedestrian bridge crossing, native quail bush (*Atriplex lentiformis*) dominates much of the project alignment. Additional native vegetation borders the parking lot in the county park and occupies portions of the proposed trail alignment. Between the eastern terminus of Carpinteria Avenue and the UPRR crossing, California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*) and quail bush are the dominant plants.

Environmental Thresholds

The assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers will have varying opinions and reactions to changes in a viewshed or the appearance of new development. This evaluation compares the existing visual characteristics of the project study area against the potential changes in visual characteristics that could result from implementation of the project.

The City of Carpinteria and County of Santa Barbara both have adopted Guidelines for the Implementation of the California Environmental Quality Act of 1970, as Amended (1994), which provide criteria for determining the potential significance of visual impacts. Key factors in assessing the aesthetic resources of a project site include the physical attributes of the site, its relative visibility and its relative uniqueness. Four types of areas are especially important: coastal and mountain views, the urban fringe, and travel corridors. A project is considered to have a significant effect on the environment if it would alter important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape or involve extensive grading visible from public areas. Based on criteria contained in the City's and County’s Guidelines, the proposed project would result in a significant visual impact if it would result in one or more of the following conditions:

Views

Projects that would impair public views from designated open space (public easements and right-of-way), roads or parks to significant visual landmarks or scenic vistas (Pacific Ocean, downtown skyline, mountains, waterways). To meet this significance threshold, one or more of the following conditions must apply:

- *The project would substantially impair a view through a designated public view corridor as shown in the adopted community plan, General Plan or Local Coastal Plan. Minor view blockages would not be considered to meet this condition. In order to determine whether this condition has been met, consider the level of effort required by the viewer to retain the view.*
- *The project would cause "substantial" view impairment of a public resource (such as the ocean) that is considered significant by the applicable community plan.*
- *The project exceeds the allowed height or bulk regulations and this excess caused unnecessary view impairment.*

- *The project would have a cumulative effect by opening up a new area for development, which will ultimately cause "extensive" view impairment (cumulative effects are usually considered significant for a community plan analysis, but not necessarily for individual projects). View impairment would be considered "extensive" when the overall scenic quality of a resource is changed; for example, from an essentially natural view to a largely man-made appearance.*

Neighborhood Character/Architecture

Projects that severely contrast with the surrounding neighborhood character. To meet this significance threshold, one or more of the following conditions must apply:

- *The project exceeds the allowed height or bulk regulations and existing patterns of development in the surrounding area by a significant margin.*

- *The project would have an architectural style or use building materials in stark contrast to adjacent development, where the adjacent development follows a single or common architectural theme.*

- *The project would result in the physical loss or degradation of a community identification symbol or landmark (e.g., a stand of trees, coastal bluff, historic landmark) which is identified in the General Plan, applicable community plan or Local Coastal Program.*

- *The project is located in a highly visible area (e.g., adjacent to an interstate highway) and would strongly contrast with the surrounding development through excessive bulk, signage or architectural projections.*

- *The project would have a cumulative effect by opening up a new area for development or changing the overall character of the area (e.g., rural to urban, single-family to multi-family).*

For this analysis, changes to existing visual conditions are not considered significant if the project-related changes would be subordinate to the existing visual environment. Only views available from public viewing locations, such as roadways, are evaluated against these significance thresholds.

Project Specific Impacts

a) The proposed project would not have a significant adverse impact on scenic vistas. The trail is designed to take advantage of the area's scenic views and is set into the existing major ridge element present in this vicinity. The project would provide pedestrians and bicyclists traveling along the trail expansive views of the Santa Ynez mountain range backdrop (from trail sections north of the UPRR alignment), and of the Pacific Ocean, the local coastline and the Northern Channel Islands in the Santa Barbara Channel, thereby resulting in a beneficial impact in regard to scenic vistas. Fencing along the trail would be only the maximum height necessary to provide safety, would be visually permeable, and would use materials/colors that would blend with the natural environment. ***Impacts would be less than significant.***

b) Currently there are no officially designated scenic highways in the City of Carpinteria or within the project area located within the County of Santa Barbara. Designation of "Official Scenic Highways" is governed by Article 2.5 of the California Streets and Highways Code and pertains to State Highway Routes. Section 263.1 and 263.6 of the California Streets and Highways Code identifies Highway 150 and US Highway 101 as eligible for designation as state scenic highways (City of Carpinteria 2003). The County of Santa Barbara Scenic Highway Element (2009) indicates the entire length of US Highway 101 within Santa Barbara County and Highway 150 from its junction with US Highway 101 east into Ventura County as eligible highways.

Motorists traveling along US Highway 101 northbound have a brief (a few seconds) glimpse of blue water views of the Pacific Ocean between the terraced and vegetated hillsides flanking the UPRR corridor. In the distance, the ocean bluffs and Casitas Pier, as well as the mountains beyond frame the view. Travelers headed southbound would need to glance over their shoulder to capture the same view. The proposed shared use trail would be visible to travelers in both directions as it would initially traverse the highway side of the terraced hill above the US Highway 101 southbound shoulder before turning northwest along the existing cut to connect with the proposed pedestrian bridge.

This view beyond the highway itself, which currently contains steeper vegetated slopes and minimal visible development, namely a chain link fence, and highway lights and signage, would now contain human-scale activity, including pedestrians and bicyclists as well as brief views of the concrete pathway and safety fencing, as well as the more notable pedestrian bridge spanning the UPRR corridor as indicated in the conceptual visual simulation presented in Figure 5. Although the lower deck of the bridge would be at the same height as the US Highway 101 bridge over the railway corridor, the open metal truss structure would span the middle-ground view. However, these views are considered short duration and as shown in the simulation, the new trail and bridge would not substantially modify or block any significant vistas or blue water ocean views. To the extent feasible, fencing and other man-made elements along the trail would be composed of materials and/or painted colors that would blend with the natural environment. In addition, the trail has been designed to be subordinate to the natural context and environment surrounding it and to enhance the scenic views and resources available in the area.

No designated scenic highways are located in the project's vicinity, and no designated public view corridors in the City or County's General Plans/Local Coastal Land Use Plans would be adversely affected by the project. There are no historic buildings within the project area and the proposed project would not remove trees that contribute to the overall aesthetic character of the project area. ***Impacts would be less than significant.***

FIGURE 5

Trail Concept Visual Simulation

Carpinteria Rincon Trail Subsequent MND

This Page Left Blank Intentionally

c) Approximately 0.75 acres of the identified vegetation communities located within the development footprint would be permanently removed, while an additional 9.01 acres would be temporarily disturbed during construction. Specifically, approximately 0.45 acres of coastal sage scrub and 0.3 acres of coastal bluff scrub would be permanently removed due to construction. An additional 6.69 acres of coastal sage scrub and 2.31 acres of coastal bluff scrub would be removed in temporarily impacted areas. Additional plants occurring within the project alignment could be destroyed during construction or damaged from runoff and erosion caused by construction.

In general, it should be noted the currently proposed Carpinteria Rincon Trail alignment is situated on slopes that were previously graded to accommodate the construction of either US Highway 101 or the Union Pacific Railroad. Appendix A provides low altitude aerial photograph exhibits of the entire trail alignment. As illustrated in the Appendix A photographs, the existing slopes along the trail alignment have the common characteristic appearance of a manufactured slope, where the slope face is relatively planar and at a uniform slope angle, rather than a more undulating form normally present in natural slopes. With regard to the updated trail design, the western portion of the trail (beginning at the eastern terminus of Carpinteria Avenue and extending to the UPRR alignment), would involve creation of an 18-foot wide bench for the trail, and re-grading of the existing slope above the trail to produce a shallower (more stable) slope. A second bench above the trail elevation would also be created on the eastern portion of this segment, to reduce erosion over the slope face of this segment with higher relative slope elevation (i.e., longer vertical face). Refer to Appendix D for earthwork cross-sections/profiles illustrating the slope re-working. The top elevation of this ridge would not be affected by the re-grading, and the overall area would continue to have the same general appearance as the existing condition (i.e., a manufactured slope along a road cut).

The new alignment would move the location for the railroad crossing bridge much closer to US Highway 101 than the original alignment, consolidating bridge structures in one area rather than having a new bridge in an area removed from the existing bridges. Locating the rail crossing in the same vicinity as the freeway bridges would reduce the noticeability of this new structure, as compared to the original design.

The eastern portion of the trail would involve regrading of the slope above the former UPRR track alignment, to include a fill slope below the new trail bench, and a cut slope with mid-elevation bench above the trail bench. Refer to Appendix D for earthwork cross-sections/profiles illustrating the slope re-working. Again, the top elevation of the ridge within this segment of the trail alignment would not be modified and the overall area would continue to have the same general appearance as the existing condition (i.e., a manufactured slope along the original cut made for the railroad alignment).

Temporary adverse effects during construction due to the loss of mature vegetation would occur over a limited time period as new landscaping and restoration of native plants are proposed as part of the project. The project would enhance area aesthetics by native landscape installations along the perimeter of the trail and ongoing landscape maintenance. Where feasible, the project would remove the invasive weeds along the proposed trail alignment that could suppress native plants. Native plants, once

established, would live without need for supplemental water, helping to ensure their ongoing success. The project would have a potentially significant adverse impact on visual character or quality of the site and its surroundings because of the removal of mature vegetation and addition of new human-scale development. ***Impacts would be potentially significant without mitigation.*** Mitigation Measure **BIO-1** has been required to address loss of native vegetation resulting from project implementation, and would reduce potential project impacts to the visual character and quality of the project site and surroundings to ***less than significant***

d) Materials used in the trail construction, including metal railings for the bridge structure, would be finished in non-reflective coatings. No lighting is incorporated in the proposed trail design. ***Impacts would be less than significant.***

Cumulative Impacts

The City of Carpinteria and County of Santa Barbara General Plans/Local Coastal Land Use Plans incorporate numerous objectives and policies that provide mitigation for the actions allowed under the Plans, including mitigation for aesthetic impacts as a result of buildout. The proposed project must be found consistent with the objectives and policies of each agency's Plan in order to be approved. Cumulative development throughout the Carpinteria Valley within the City of Carpinteria and County of Santa Barbara would incrementally contribute to aesthetic impacts, however, with adherence to the Plans' objectives and policies and incorporation of Mitigation Measure BIO-1, the project's contribution to cumulative aesthetic impacts would not be considerable.

Required Mitigation Measures

Mitigation Measure **BIO-1**, Coastal Scrub Restoration Plan would reduce potential impacts to the visual character and quality of the project site and surroundings to less than significant. ***Plan Requirements and Timing:*** This mitigation measure requires review and approval of a Coastal Scrub Restoration Plan prior to issuance of a grading permit. The Coastal Scrub Restoration Plan shall outline efforts to restore or enhance coastal sage scrub and coastal bluff scrub communities in areas temporarily impacted by construction of the trail or off-site areas and provide compensatory mitigation for coastal sage scrub and bluff scrub communities permanently removed to accommodate the proposed trail alignment. ***Monitoring:*** Restored areas shall be monitored for five years following planting. Annual reports and the final report shall be submitted to the City and County.

Residual Impacts

Implementation of Mitigation Measure **BIO-1** Coastal Scrub Restoration Plan would reduce potentially significant visual impacts due to removal of mature vegetation to ***less than significant***.

3.2 AGRICULTURAL AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?	☐	☐	☐	☒	☐

Existing Environmental Setting

Agricultural soil is defined as soil that is utilized or suitable for agricultural crop production. The project site and immediately adjacent lands are designated on California Department of Conservation Important Farmland Maps as “Urban and Built-Up Land” and “Other Land” (CDC 2010). The California Department of Conservation Santa Barbara County Williamson Act Lands Map designates the project area as “Urban and

Built-up Land" and "Public Land Survey System" (CDC 2009). Soils within the project site have been classified as Xerorthents, cut and fill areas (USDA NRCS 2011). Xerorthents can be rock, concrete, asphalt or other debris or earthy fill and typically consist of mechanically removed and mixed soil material in cut and fill areas used primarily for highways and urban development. Soils in the project area are rated as "Not Prime Farmland" (USDA NRCS 2011).

No agricultural resources or forest land are present nor have any been thought to exist in modern times.

Environmental Thresholds

This threshold is based in part upon the State CEQA Guidelines Appendix G, the policies of the City's General Plan/Local Coastal Land Use Plan, and the "Criteria for Agricultural Preserves" adopted by the Santa Barbara County Board of Supervisors.

CEQA Section 15064 states that:

The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area.

The following general thresholds may apply to agricultural lands:

- *Development proposed on any property five acres or greater in size with a Prime Agricultural Soils designation may represent a significant environmental impact.*
- *Development proposed on any property in an Agricultural Preserve would represent a significant environmental impact.*
- *Development proposed on any property which in the past five years has been in agricultural production and which is agriculturally zoned may represent a significant environmental impact.*
- *Development of 10 or more acres of non-prime soils may be significant due to historical use or surroundings (conversion may make adjacent agricultural land ripe for conversion).*

CEQA Appendix G states that a project will have a significant impact on the environment if it will:

(a) *Conflict with adopted environmental plans and goals of the community where it is located.*

(b) *Convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land.*

Project Specific Impacts

a-e) Most of the project area has been mechanically manipulated over the years and has been subject to extensive ground disturbances associated with previous construction of roadways and railway. Further, soils within the project area are not favorable and could not support agriculture or forest land growth. No agricultural resources or forest land are present at the project site. ***No impacts to agricultural resources would occur***.

Cumulative Impacts

As the proposed project would not result in project-specific impacts to agricultural resources or forest land, it would not result in a cumulatively considerable contribution to cumulative impacts.

Required Mitigation Measures

Mitigation would not be required.

Residual Impacts

There would be no residual impact.

3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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) affecting a substantial number of people?	☐	☐	☒	☐	☐

Existing Environmental Setting

The City of Carpinteria and Santa Barbara County are located in the South Central Coast Air Basin (Basin), composed of Ventura County, Santa Barbara County and San Luis Obispo County; development activities potentially impacting the Basin are under the jurisdiction of the Santa Barbara County Air Pollution Control District (APCD). The physical and regulatory air quality setting for the Carpinteria Valley and Santa Barbara County is described in detail in the APCD's 2013 Clean Air Plan (CAP), which is incorporated by reference (SBCAPCD 2015). The 2013 CAP is available for review at local libraries, Carpinteria City Hall and at the APCD office at 260 N. San Antonio Road, Suite A, Santa Barbara or on their website at: www.sbcapcd.org.

Air Quality Standards and Attainment Status. Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards or criteria for outdoor concentrations to protect public health. The federal and state standards have been set with an adequate margin of safety at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Criteria air pollutants include the following: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size ($PM_{2.5}$) and lead. Ambient air quality is determined by comparing contaminant levels in ambient air samples to national and State standards that are set by the United States Environmental Protection Agency (EPA) and the California Air Resources Board (CARB). National Ambient Air Quality Standards (NAAQS) were first established by the federal Clean Air Act of 1970. The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation; these NAAQS may not be exceeded more than once a year, except annual standards, which may never be exceeded.

California Ambient Air Quality Standards (CAAQS) were established by CARB in 1967 and are generally more restrictive than the NAAQS. They are consistent with the Clean Air Act that requires state regulations to be at least as restrictive as the federal requirements. The CAAQS provide thresholds used to determine if basin pollution levels are low enough to attain the national clean air standard. Basin air quality is considered in “attainment” if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The NAAQS and CAAQS are presented in Table 3.3-1, Ambient Air Quality Standards.

Table 3.3-1 Ambient Air Quality Standards

Pollutant	Average Time	California Standards	National Standards
O_3	1 hour	0.09 ppm (180 μg/m^3)	—
	8 hours	0.070 ppm (137 μg/m^3)	0.075 ppm (147 μg/m^3)
NO_2	Annual Arithmetic Mean	0.030 ppm (57 μg/m^3)	0.053 ppm (100 μg/m^3)
	1 hour	0.18 ppm (339 μg/m^3)	0.100 ppm (188 μg/m^3)
CO	8 hours	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)
	1 hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)
SO_2	24 hours	0.04 ppm (105 μg/m^3)	
	1 hour	0.25 ppm (655 μg/m^3)	0.075 ppm (196 μg/m^3
PM_{10}	24 hours	50 μg/m^3	150 μg/m^3
	Annual Arithmetic Mean	20 μg/m^3	—
$PM_{2.5}$	24 hours	No Separate State Standard	35 μg/m^3
	Annual Arithmetic Mean	12 μg/m^3	15.0 μg/m^3

Source: CARB 2019a

ppm = parts per million by volume; μg/m^3 = micrograms per cubic meter; mg/m^3= milligrams per cubic meter

The attainment classifications for these criteria pollutants are outlined in Table 3.3-2, Santa Barbara County Attainment Classification.

Table 3.3-2 Santa Barbara County Attainment Classification

Pollutant	*Averaging Time*	*State Designation/Classification*	*National Designation/Classification*
O_3	*8 hour*	*Nonattainment - Transitional*	*Unclassified / Attainment*
	1 hour	*Nonattainment*	—
NO_2	*1 hour*	*Attainment*	—
	Annual arithmetic mean	*Attainment*	*Unclassified / Attainment*
CO	*1 hour, 8 hour*	*Attainment*	*Unclassified / Attainment*
SO_2	*1 hour*	*Attainment*	—
	24 hour	*Attainment*	*Unclassified /Attainment*
PM_{10}	*24 hour*	*Nonattainment*	*Unclassified*
	Annual arithmetic mean	*Nonattainment*	—
$PM_{2.5}$	*24 hour*	*Unclassified*	*Unclassified / Attainment*
	Annual arithmetic mean	*Unclassified*	*Unclassified / Attainment*

Source: CARB 2019b; EPA 2019

As shown in Table 3.3-2, Santa Barbara County is designated as a nonattainment area for state O_3 eight-hour and one-hour standards. Santa Barbara is also designated as a nonattainment area for state PM_{10} standards. It is an attainment area or unclassified for all other standards.

Air Quality Monitoring Data. The APCD maintains ambient air quality monitoring stations throughout the County. The closest ambient air quality monitoring station to the project site is located on Gobernador Canyon Road in Carpinteria, which measures O_3 and NO_2. The nearest station measuring CO, PM_{10}, and $PM_{2.5}$ is the Santa Barbara monitoring station located at 700 E. Canon Perdido. The UCSB West Campus monitoring station is the nearest station to the project site that measures SO_2. The most recent background ambient air quality data from 2016 to 2018 is presented in Table 3.3-3.

Table 3.3-3 Ambient Air Quality Data
(parts per million (ppm) unless otherwise indicated)

Pollutant	Averaging Time	2016	2017	2018	Most Stringent Ambient Air Quality Standard	Monitoring Station
O_3	8-hour	0.064	0.057	0.070	0.070	Carpinteria – Gobernador Road
	1-hour	0.072	0.072	0.084	0.09	
CO	1-hour*	1.8	2.1	1.5	20	Santa Barbara
SO_2	1-hour	0.002	0.003	0.002	0.25	West Campus
PM_{10}	Annual	-	46 µg/m³	25.2 µg/m³	20 µg/m³	Santa Barbara
	24-hour	-	356 µg/m³	128.0 µg/m³	50 µg/m³	
$PM_{2.5}$	Annual	-	15.37 µg/m³	8.5 µg/m³	12 µg/m³	Santa Barbara
	24-hour	-	231.6 µg/m³	38.0 µg/m³	35 µg/m³	
NO_2	1-hour	0.013	0.017	0.029	0.18	Carpinteria – Gobernador Road

Source: SBCAPCD Annual Monitor Reports 2016-2018.
Notes: µg/m³ = micrograms per cubic meter
-- = no data available to determine the value.

As Table 3.3-3 demonstrates, air quality within the project region is in compliance with both CAAQS and NAAQS for O_3, NO_2, CO and SO_2. The PM_{10} levels monitored at the air monitoring stations exceeded the state 24-hour and annual standards during 2017 and 2018 (the Santa Barbara station did not monitor for PM during 2016). $PM_{2.5}$ levels exceeded the state and the federal 24-hour and annual standards during 2017; during 2018 the state 24-hour $PM_{2.5}$ standard was exceeded, but the annual standard was not.

Santa Barbara County Air Pollution Control District. The APCD Rules and Regulations establish emission limitations and control requirements for various sources, based upon their source type and magnitude of emissions. The APCD rules applicable to the proposed project may include the following:

- Rule 302 (Visible Emissions). Rule 302 prohibits emissions of visible air contaminants from any potential source of air contaminants. The rule prohibits air contaminants, other than water vapor, that are a certain level of darkness or opacity from being discharged for a combined period of more than three minutes in any one hour.

- Rule 303 (Nuisance). This rule could apply to fugitive dust emitted during proposed construction activities or odors during operation. This rule states that a person shall not discharge air contaminants from any source that can cause injury, detriment, nuisance or annoyance to any considerable number of persons, or that can endanger the comfort, repose, health or safety of any such persons or their business or property.

- Rule 311 (Sulfur Content of Fuels). The purpose of this rule is to limit the sulfur content in gaseous fuels, diesel and other liquid fuels and solid fuels for the purpose of both reducing the formation of SO_X and particulates during combustion.

- Rule 345 (Control of Fugitive Dust from Construction and Demolition Activities). Rule 345 establishes limits on the generation of visible fugitive dust emissions at demolition and construction sites. The rule includes prohibition of visible dust (opacity of 20% or greater) beyond the property line, a requirement to cover soil hauling trucks or maintain adequate freeboard below the truck bed rim, and minimization of road dust from track-out/carry out by construction vehicles.

Environmental Thresholds

Air quality impacts are evaluated on both a short-term and long-term basis. Short-term impacts are generally considered to occur during project construction while long-term impacts are associated with project operation.

Air quality threshold criteria are developed and applied using federal, state and local data and methodologies including computerized modeling techniques. State CEQA Guidelines state in Appendix G, that for air quality, a project will ordinarily have a significant effect on the environment if it will:

- *Violate any ambient State or Federal air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations.*

In addition, the APCD has prepared criteria and thresholds for determining significance under CEQA. According to the APCD's Scope and Content of Air Quality Sections in Environmental Documents (APCD 2011a), a project would have a significant air quality effect on the environment if operation of the project would:

- *Emit (from all project sources, both stationary and mobile) more than the daily trigger for offsets or air quality impact analysis set in the APCD New Source Review Rule, for any pollutant;*

- *Emit 25 pounds per day or more of NOX or ROC from motor vehicle trips only;*

- *Cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);*

- *Exceed the APCD health risk public notification thresholds adopted by the APCD Board for non-cancer risk;*

- *Be inconsistent with the latest adopted federal and state air quality plans for Santa Barbara County; or*

- *Expose new or existing receptors to objectionable odors.*

Due to the relatively low background ambient CO levels in Santa Barbara County, localized CO impacts associated with congested intersections are not expected to exceed the CO health related air quality standards. Therefore, CO "hotspots" analyses are not required.

Quantitative thresholds of significance are not currently in place for short-term or construction emissions; however, the APCD uses 25 tons per year for ROG or NO_X as a guideline for determining the significance of construction impacts. Under APCD Rule 202 D.16, if the combined emissions from all construction equipment used to construct a stationary source that requires an Authority to Construct permit will have the potential to exceed 25 tons of any pollutant, except CO, in a 12-month period, the owner of the stationary source shall provide offsets under the provisions of Rule 804, and shall demonstrate that no ambient air quality standard would be violated (APCD 2011a). Please note that this project is not a stationary source and this latter threshold is not applicable.

Although quantitative thresholds of significance are not currently in place for short-term emissions, CEQA requires that short-term impacts such as exhaust emissions from construction equipment and fugitive dust generation during grading be discussed in the environmental document. In the interest of public disclosure, the APCD recommends that construction-related NO_X, ROC, PM_{10} and $PM_{2.5}$ emissions from diesel and gasoline powered equipment, paving and other activities, be quantified.

Standard dust control measures must be implemented for any discretionary project involving earth-moving activities. Some projects have the potential for construction-related dust to cause a nuisance. Because Santa Barbara County is currently in nonattainment for the state PM_{10} standard, dust mitigation measures are required for all discretionary construction activities (regardless of the significance of the fugitive dust impacts) based on policies within the 1979 Air Quality Attainment Plan (APCD 2011a).

Also, because diesel particulate matter is the primary airborne carcinogen in California, if the activity involves the use of diesel-powered equipment within a quarter-mile of a sensitive receptor such as a school, residence, daycare or eldercare facility, the APCD may consider the impact significant. Currently undeveloped bluff open space designated for visitor-serving commercial use (City of Carpinteria 2003) is located adjacent the western terminus of the trail and proposed parking lot, while the Rincon Point residential community is located adjacent the eastern terminus of the trail. The closest sensitive receptors to the project site are residences of the Rincon Point community. The closest residence to the proposed trail is located approximately 180 feet (55 meters) at the eastern end of the trail. Residences within the Rincon Point community are located south of the trail for approximately 500 feet (152 meters). US Highway 101 and

mature trees and scrub act as a barrier between the proposed trail alignment and residences to the north. The closest residence north of US Highway 101 is located approximately 0.1 miles (153 meters) north of the trail. Though not considered sensitive receptors, the closest land uses to the east of the proposed project are commercial land uses, located approximately 0.3 miles (483 meters) northeast of the proposed parking lot.

Project Specific Impacts

a) A project is considered consistent with regional air quality plans if it has been adequately incorporated into the Clean Air Plan (CAP) (APCD 2011b). The current applicable air quality plan is Santa Barbara County APCD's 2010 CAP. The proposed project does not include housing and would not directly or indirectly result in population growth. As such, the proposed project would not contribute to the projected City of Carpinteria or Santa Barbara County populations as estimated in the 2007 Santa Barbara County Association of Government's Regional Growth Forecast. ***Accordingly, the project is considered to be consistent with the APCD 2010 CAP and impacts to air quality would be less than significant.***

b) Air pollutants would be generated during the construction phase of the project due to soil disturbance, dust emissions and combustion pollutants from on-site construction equipment, as well as from personal vehicles and off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. Fugitive dust emissions would primarily result from grading and site preparation activities. NO_X and CO emissions would primarily result from the use of construction equipment and motor vehicles.

   Emissions from construction were estimated using the South Coast Air Quality Management District's California Emissions Estimator Model (CalEEMod) version 2011.1.1. For the purposes of modeling, it was assumed that construction would commence in March 2020 and would be completed by approximately March 2021, which also accommodates periods where work would not occur due to potential weather-related conditions. Consistent with the construction details provided in Section 2.6, Project Description, modeled construction would consist of the following phases:

   - Site Preparation (Clearing and grubbing) – 4 weeks
   - Grading (Grading and excavating) – 23 weeks
   - Construction (Finish grading, drainage structures) – 10 weeks
   - Construction (Bridge construction) – 1 week
   - Paving (Trail Concrete) – 4 weeks

   The equipment mix anticipated for construction activity was based on the City of Carpinteria Parks and Recreation Department input for typical construction practices. The equipment mix is meant to represent

a reasonably conservative estimate of construction activity. For the analysis, it was generally assumed that heavy construction equipment would be operating at the site for approximately eight hours per day, five days per week (22 days per month). To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least three times daily, resulting in an approximately 61% reduction in dust generation to comply with APCD Rule 303 (Nuisance).

To prepare the site for trail construction, the existing topography along the trail alignment would first be mass graded, and then would be fine-graded to meet the proposed finished grade surface. It is anticipated that total cut would be approximately 104,400 cubic yards and total fill would be approximately 10,300 cubic yards during the grading phase. Cut material onsite would be utilized for the necessary fill material, as feasible. Excess cut volume of approximately 94,100 cubic yards would be exported from the site by haul trucks. For the purposes of this analysis, haul trucks were assumed to have a capacity of 16 cubic yards; therefore, approximately 5,880 haul truck round trips would be required to export excess graded material.

Estimated maximum daily construction emissions are presented in Table 3.3-4. Complete model results and additional details of the construction schedule are included in Appendix B.

Table 3.3-4 Estimated Maximum Daily Construction Emissions (pounds per day unmitigated)

	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project[1]	2.14	45.04	14.81	0.09	6.73	3.68

Notes: See Appendix B for complete results
[1] Maximum emissions of the Summer and Winter model results.
Assumes 61% reduction per compliance with APCD Rule 303.

As shown in Table 3.3-4, maximum daily construction-generated emissions would be 2.14 pounds per day of VOC, 45.04 pounds per day NO_X, 14.81 pounds per day of CO, 0.09 pounds per day SO_X, 6.73 pounds per day PM_{10}, and 3.68 pounds per day $PM_{2.5}$. Maximum daily emissions associated with project construction would occur during the grading phase. Ground disturbances and equipment operation during construction activities would produce short-term PM_{10} and $PM_{2.5}$ emissions associated with entrained dust and vehicle emissions. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Vehicle exhaust results from internal combustion engines used by construction equipment and vehicles, which results in emissions of PM_{10} and $PM_{2.5}$, as well as NO_X, VOCs, and CO.

Grading of the project site could cause localized nuisance dust and minor increases in PM_{10}. Although quantitative thresholds of significance are not currently in place for short-term emissions, the project does have the potential to contribute to construction-related air quality impacts. Due to the County's non-attainment status for PM_{10}, the APCD requires that standard dust control measures be implemented for any discretionary project involving earth-moving activities (see Mitigation Measure AQ-1).

Due to the temporary, short-term nature of construction emissions, the APCD does not apply the quantitative operational emissions thresholds of 25 pounds per day for ROC and NO_X to construction activities. ***As no quantitative emissions thresholds for maximum daily construction emissions are established, the proposed project air quality impacts in relation to construction activity would be adverse, but less than significant.***

Proposed project operation would consist of maintenance activities including landscape watering, vegetation control and other trail amenity care and repair, which would involve the temporary use of a light-duty truck that would generate nominal air pollutant emissions. The proposed project would not increase population that would generate an increase in vehicle trips and associated motor vehicle emissions. Local contractors and materials would be used whenever possible, minimizing vehicle miles traveled for the project, thereby minimizing pollutant emissions. Finally, the completed project would facilitate non-motorized forms of transportation, reducing reliance on motor vehicles, thereby reducing pollutant emissions. As such, the project would not violate any air quality standard or contribute substantially to an air quality violation, nor would it exceed the APCD health risk thresholds. ***Potential air quality impacts associated with operation of the proposed project would be less than significant.***

c) Types of land uses typically associated with sensitive receptors include schools, parks and open space, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals and clinics. The project is not located near any known point source of air emissions. Emissions generated during construction of the project would be temporary. Therefore, the project would not expose sensitive receptors to a substantial pollutant concentration impact, and ***impacts would be less than significant.***

d) Odors are a form of air pollution that are most obvious to the general public. Although offensive odors seldom cause physical harm, they can be annoying and cause concern for the source and/or surrounding land uses. As described above, APCD Rule 303 (Nuisance) would also apply to odor generating sources. Potential sources that may emit odors during construction activities include diesel equipment and gasoline, though odors from these sources would be localized and generally confined to the project site. The majority of the project alignment is surrounded by open space used for recreational purposes, and land use within a transportation corridor. The closest sensitive receptor to the project site is the Rincon Point residential development. Construction of the proposed project near the residences would not require extensive grading or clearing as the trail alignment has been previously disturbed during construction of the Rincon Beach County Park parking lot. Additionally, potential odors would be temporary. The proposed project land use is not considered an odor-generating use. Trail maintenance activities involving the occasional use of a light-duty truck would not generate noticeable odor emissions above existing vehicles using Rincon Beach County Park or nearby US Highway 101. Odors associated with equipment and trail maintenance would be temporary and generally confined to the project alignment. ***Proposed project construction and operation would not cause an odor nuisance; impacts would be less than significant.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally increase air pollutant emissions, which could cumulatively degrade regional air quality. However, all new development within the Carpinteria Valley would be consistent with the City or County's General Plan/Local Coastal Land Use Plans; therefore, all such development would be within the projections contained in the adopted CAP. Therefore, cumulative development in the Carpinteria Valley should not hinder progress toward attainment of the County's air quality objectives and cumulative impacts are considered less than significant.

Required Mitigation Measures

As Santa Barbara County is currently in nonattainment for the state PM_{10} standard, dust mitigation measures are required for all discretionary construction activities (regardless of the significance of the fugitive dust impacts) based on policies within the 1979 Air Quality Attainment Plan.

AQ-1 **PM_{10} Mitigation Measures.** Dust generated by construction activities shall be kept to a minimum with a goal of retaining dust on the site. The following dust control measures shall be implemented by the contractor/builder:

a. During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, water trucks or sprinkler systems are to be used to prevent dust from leaving the site and to create a crust after each day's activities cease.

b. During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this would include wetting down such areas in the later morning and after work is completed for the day and whenever winds exceed 15 miles per hour. If wind speeds increase to the point when such measures cannot prevent dust from leaving the site, construction activities shall be suspended.

c. Grading operations shall be suspended when wind speeds exceed 20 mph.

d. Gravel pads shall be installed at all access points to the project site to prevent tracking of mud onto City roadways.

e. Soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation.

The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering as necessary to prevent transport of dust off-site. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to City staff and the APCD and shall be posted in three locations along the proposed project site's perimeter for the duration of grading and construction activities.

Plan Requirements: All requirements shall be shown on grading and building plans. ***Timing***: Condition shall be adhered to throughout all grading and construction activities. ***Monitoring***: The City of Carpinteria Community Development Department (CDD) and County P&D shall ensure measures are on plans. CDD/P&D Grading Inspectors shall spot check and ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

AQ-2 **Grading and Dust Generation.** If the construction site is graded and left undeveloped for over three weeks, the applicant shall employ the following methods immediately to inhibit dust generation:

- Seeding and watering to revegetate graded areas; and/or
- Use of a water truck to moisten exposed dirt areas during grading activity.
- Any other methods deemed appropriate by Community Development.

Plan Requirements: All requirements shall be shown on grading and building plans. ***Timing***: Condition shall be adhered to throughout all grading and construction activities. ***Monitoring***: City of Carpinteria CDD and County P&D shall ensure measures are on plans. CDD/P&D Grading Inspectors shall spot check and ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

AQ-3 **Equipment Exhaust.** During all project grading and hauling, construction contracts must specify that construction contractors shall adhere to requirements that reduce emissions of ozone precursors and particulate emissions from diesel exhaust. The following shall apply:

a. All portable diesel-powered construction equipment shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.

b. Diesel powered equipment should be replaced by electric equipment whenever feasible.

c. Diesel construction equipment meeting the CARB Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards should be used to the maximum extent feasible.

d. Other diesel construction equipment, which does not meet CARB standards, shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines. Diesel catalytic converters, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California shall be installed.

e. Catalytic converters shall be installed on gasoline-powered equipment, if feasible.

f. All construction equipment shall be maintained in tune per the manufacturer's specifications.

g. The engine size of construction equipment shall be the minimum practical size.

h. The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.

i. Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.

Plan Requirements: All construction emission requirements shall be shown on grading and building plans. ***Timing***: Condition shall be adhered to throughout all grading and construction activities. ***Monitoring***: City of Carpinteria CDD and County P&D shall ensure measures are on plans. Grading Inspectors shall ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

AQ-4 **Diesel Fuel Vehicles.** Diesel fuel emissions shall be limited. The following limitations on diesel-fueled vehicles in excess of 10,000 pounds shall apply during all construction activities:

a. Diesel-fueled vehicles in excess of 10,000 pounds shall not idle in one location for more than five minutes at a time.

b. Diesel-fueled vehicles in excess of 10,000 pounds shall not use diesel-fueled auxiliary power units for more than five minutes to power heater, air conditioner, or other ancillary equipment on any such vehicle.

c. The applicant shall designate one or more locations as deemed appropriate for the posting of a notice(s) to all drivers of diesel-fueled vehicles in excess of 10,000 pounds of these limitations on vehicle idling in all areas of the property that may be frequented by such vehicles. Such signs shall be maintained in their approved location(s) throughout the construction period.

Plan Requirements: All construction emission requirements shall be shown on grading and building plans. The location and information provided on the sign(s) shall be reviewed and approved by CDD/P&D prior to issuance of grading permits. ***Timing***: Condition shall be adhered to throughout all grading and construction activities. ***Monitoring***: CDD/P&D shall ensure measures are on plans and periodically conduct site inspections to ensure compliance on-site. APCD inspectors shall respond to nuisance complaints.

Residual Impacts

With incorporation of mitigation measures **AQ-1 through AQ-4** for construction-related dust control and diesel emissions, residual impacts to air quality resources would ***be less than significant***.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 Game 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 Game or US 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?	☐	☐	☐	☒	☐

Existing Environmental Setting

The project alignment is located largely along an area of coastal bluff located in the eastern portion of the City of Carpinteria. A series of terraces interspersed with steep slopes along the route are evidence of extensive past grading for a former railroad bed and road cuts. The UPRR right-of-way provides an unvegetated corridor approximately 100 feet wide that divides the project alignment near the center. The eastern portion of the proposed trail is in Rincon Beach County Park, in a largely developed area where pavement and landscaping dominate. An existing unsanctioned trail lies between Rincon Beach County Park and the UPRR tracks. The western segment of the alignment partly occupies an unvegetated pull-out at the eastern terminus of Carpinteria Avenue and includes an area of disturbed ground adjacent to the pull-out.

Despite past disturbances, long stretches of the proposed route are dominated by native scrub vegetation. Between Rincon Beach County Park and the UPRR crossing along the eastern section of the proposed trail, native quailbush (*Atriplex lentiformis*) dominates much of the area. Additional native vegetation borders the parking lot in the county park and occupies portions of the proposed trail alignment. Between the eastern terminus of Carpinteria Avenue and the UPRR crossing along the western sections of the proposed trail, California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*) and quailbush are the dominant plants.

Regulatory Setting

Vegetation

The General Plan and Local Coastal Plan (GP/LCP; City of Carpinteria 2003) identify the following native plant communities as environmentally sensitive habitat areas (ESHA); coastal sage scrub, riparian scrub, coastal bluff scrub, and native oak woodlands. Additionally, in September 2010, the CDFG published the Natural Communities List (NCL; CDFG 2010). In January 2018, the CDFW published a list containing California Sensitive Natural Communities (CSNC; CDFW 2018). The CSNC provides the current list of vegetation Alliances, Associations, and Special Stands. State and Global rarity ranks are indicated for Alliances and some Associations; those with ranks 1-3 are considered Sensitive. CDFW does not identify the state rank for every association or alliance combination found in California. The MCV2 nomenclature is different than vegetation communities described in the City's GP/LCP; however, one or more alliances are found within standard vegetation communities allowing for objective comparisons and consistencies between the MCV2 and GP/LCP.

Special-Status Plant Species

For the purposes of the analysis presented herein, special-status plant species are defined as those that:

- Have been designated as either rare, threatened, or endangered by CDFG or the U.S. Fish and Wildlife Service (USFWS) and are protected under either the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.) or federal Endangered Species Act (ESA) (16 U.S.C. § 1531 et seq.), or meet the CEQA definition for endangered, rare, or threatened (Cal. Code Regs., tit. 14, § 15380(b),(d));

- Are candidate species being considered or proposed for listing under these same acts; or
- Are of expressed concern to resource/regulatory agencies or local jurisdictions. This includes plants included on the CDFG Special Plants List (2011) as well as species with a California Rare Plant Ranking (CRPR) of 1 or 2 of the CNPS Inventory of Rare and Endangered Plants of California (CNPS Inventory). Plants included on the CNPS Inventory are classified as follows:
    - CRPR 1A: plants presumed extinct in California;
    - CRPR 1B: plants rare, threatened, or endangered in California and elsewhere;
    - CRPR 2: plants rare, threatened, or endangered in California, but more common elsewhere.

Species of CRPR 3 or 4 may, but generally do not, qualify for protection under this provision. Species of CRPR 3 and 4 are those that require more information to determine status and plants of limited distribution. For this document CNPS CRPR 4 species are considered "special-status" per CEQA guidelines if they meet one or more of the following criteria, which are some of the criteria CNPS uses to consider a species "locally rare": a) the area is considered a type locality (i.e., the area from which the plant was originally described) for that species; b) populations are at the periphery of a species range; c) occurrences are in areas where the taxon is especially uncommon or has sustained heavy losses; or d) populations exhibit unusual morphology or occur on unusual substrates. The Rare Plants of Santa Barbara County (Wilken 2018) lists those native vascular plant taxa with a limited distribution in Santa Barbara County, regardless of their distribution elsewhere. The list includes vascular plant taxa that are currently known from 1-5 "occurrences". Any two documented locations that were estimated to be 1+ km (ca. 0.6+ mi) apart are considered separate "occurrences".

Special-Status Wildlife Species

For the purposes of the analysis presented herein, special-status wildlife species are defined as those that:

- Have been designated as either rare, threatened, or endangered by CDFG or the USFWS and are protected under either the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.) or federal Endangered Species Act (ESA) (16 U.S.C. § 1531 et seq.), or meet the CEQA definition for endangered, rare, or threatened (Cal. Code Regs., tit. 14, § 15380(b),(d));
- Are candidate species being considered or proposed for listing under these same acts;
- Are fully protected by the California Fish and Game Code sections 3511, 4700, 5050, or 5515;
- Are of expressed concern to resource/regulatory agencies or local jurisdictions. This includes wildlife that are considered a state Species of Special Concern or are on the CDFG Watch List.

Findings related to special-status plants and wildlife were later cross-referenced against habitat conditions, elevation and soil types to determine the potential for occurrence.

Aquatic Resources

U.S. Army Corps of Engineers

The USACE Regulatory Program regulates the discharge of dredge or fill material within wetland and other waters of the U.S., under Section 404 of the Clean Water Act (CWA). Since the Clean Water Rule (CWR) went into effect in California in August 2018, aquatic resources are evaluated under the definition of Waters of the U.S. detailed in the CWR, which includes traditional navigable waters (TNW), interstate waters, territorial seas, impoundments of jurisdictional waters, covered tributaries, and covered adjacent waters. These waters are considered jurisdictional by rule. Other aquatic features that may constitute waters of the U.S. are analyzed on a case-specific basis through a significant nexus analysis. Characteristic indicators of potential wetland and other waters of the U.S. are essentially unchanged following implementation of the CWR. The discharge of dredge or fill material into wetland and non-wetland waters of the U.S. requires authorization from the USACE prior to impacts.

Regional Water Quality Control Board

The State of California has concurrent jurisdiction with the federal government over Section 401 of the CWA, Water Quality Certification (WQC) for jurisdictional wetland and other waters of the U.S. Under Section 401 of the CWA, each RWQCB regulates their respective region at the state level; at the federal level, USACE regulates all activities. Where isolated waters and wetlands (not subject to federal jurisdiction) are involved, the state will exert independent jurisdiction via the Porter-Cologne Act. Pursuant to the provisions of the state Porter-Cologne Act, the RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State” (California Water Code 13260(a)), which are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (California Water Code 13050(e)). The Porter-Cologne Act requires that each RWQCB “formulate and adopt water quality control plans for all areas within the region”. The resulting Basin Plan lists the various waters uses, describes the water quality that must be maintained to allow those uses, includes an implementation plan that describes the programs, plans, and actions necessary to achieve the standards established in the plan, and describes statewide and regional surveillance and monitoring programs (RWQCB 2017).

The State Water Resources Control Board has moved forward with adoption of "Procedures for Discharges of Dredged or Fill Material to Waters of the State," and for the first time, uniform standards and definitions will be in place dictating regulation and review of applications for discharge to wetlands (i.e., development, operations and maintenance, and other dredge/fill activities) throughout the state's nine regional boards. The new procedures are effective for applications (primarily for 401 Water Quality Certifications) submitted after January 2, 2020. Current applications, whether deemed complete or not, are not subject to the new procedures. The standards come after a decade of preparation and intensive stakeholder workshops over the past few months. Activities that will potentially affect water quality within waters of the State require authorization from the RWQCB prior to impacts.

California Department of Fish and Wildlife

Under California Fish and Game Code Sections 1600–1616, the CDFW has authority to regulate work that will substantially divert or obstruct the natural flow, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake. CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of (1) definable bed and banks and (2) existing fish or wildlife resources. Furthermore, CDFW jurisdiction extends to the upland edge of riparian habitat, which is defined as the vegetation supported by the hydrologic conditions within a jurisdictional waterway. Under CDFW definition, a watercourse need not exhibit evidence of an OHWM to be under CDFW jurisdiction. The CDFW does not have jurisdiction over ocean or shoreline resources. Based on more recent decisions, the CDFW may also exert jurisdiction to "one-parameter" wetlands displaying positive indicators for one of the three wetland indicators identified in Section 2.1 above (i.e. hydrophytic vegetation, hydric soils, and wetland hydrology) based on a case-specific analysis. Activities that will potentially affect jurisdictional lake or streambed resources require authorization from the CDFW prior to impacts.

Local Coastal Plan

The City of Carpinteria General Plan and Local Coastal Plan (City of Carpinteria 2003) defines wetlands as areas of land which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens. The definition of wetland used by the City of Carpinteria is adopted from the California Coastal Act (PRC § 30121) and defines broadly areas that may be determined to be wetlands and are therefore subject to regulation.

Methods

Literature Review

Prior to the 2011 field visit conducted by Dudek as part of this environmental analysis, the California Natural Diversity Database (CDFG 2008) was queried for records of special-status plants and wildlife in the vicinity of the site. In addition, Carpinteria local botanist Larry Ballard was consulted for information on rare plants potentially occurring in the project vicinity, including those on the Rare Plants of Santa Barbara County list, issued by the CCCPC (Wilken 2010).

Prior to 2018 and 2019 field surveys, the location of documented special-status plant species near the Project area and that have potential to occur on-site were identified through a query of the California Natural Diversity Database (CNDDB; CDFW 2019a) and the updated Rare Plants of Santa Barbara County (Wilken 2018).

Vegetation Mapping

Nomenclature for on-site vegetation communities reflects the most current system, MCV2 and CSNC. Vegetation communities were mapped based on these sources, and the rarity rankings of the vegetation communities were referenced from A Manual of California Vegetation, Online Edition (CNPS 2018). If

vegetation observed did not meet the membership rules of the vegetation communities in these sources, a new name was recorded based on the dominant species observed, consistent with the MCV2.

The following minimum vegetation mapping units applied during vegetation mapping:

- 0.5–1.0 acre for inaccessible areas of the site due to steep terrain.
- 0.1 acre for wetland (i.e., hydrophytic) vegetation in traditional wetland environments (i.e., not all FAC (facultative – plant species equally likely to occur in wetlands and non-wetlands) species comprising a vegetation alliance will be mapped unless associated with a hydrologic unit – stream, depression, swale, etc.).
- 0.1 acre sensitive vegetation communities

Plant Species

Dudek biologists familiar with the target special-status plant species and general flora of coastal Santa Barbara County, conducted the special-status plant species surveys in accordance with the U.S. Fish and Wildlife Service, CDFW, and California Native Plant Society guidelines (USFWS 2000, CDFG 2009; CNPS 2001). Biologists surveyed the survey area for special-status plant species by meandered along transects to ensure the entire survey area was completely surveyed. During the surveys, when a special-status species was observed, the occurrence was mapped using Environmental Systems Research Institute (ESRI) Collector.

Native and naturalized plant species encountered during the surveys were identified and recorded. Scientific and common names for plant species with a California Rare Plant Rank (CRPR) follow the California Native Plant Society On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2019). For plant species without a CRPR, scientific names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2019) and common names follow the California Natural Community list (CDFW 2018) or the U.S. Department of Agriculture Natural Resources Conservation Service Plants Database (USDA 2019). The cumulative list of plants identified during both 2018 and 2019 surveys is included as Appendix A.

Wildlife Species

During the initial 2011 general biological survey, a reconnaissance-level survey was performed documenting observed wildlife species. No focused special-status wildlife species surveys were performed. During all surveys, wildlife species detected by sight, audio cues, tracks, scat or other sign were noted. Any habitat for special-status species was also noted. The locations of any special-status species observed were recorded using a Trimble GeoXT handheld Global Positioning System (GPS) unit with sub-meter accuracy.

Aquatic Resources

During the initial 2011 general biological survey, a reconnaissance level survey was performed for aquatic resources. A formal aquatic resources delineation (i.e., wetland delineation) was not conducted.

Results

An initial assessment of the biological resources along the proposed Rincon Trail alignment was performed by City Biologist Vince Semonsen in July 2008. This initial evaluation documented wildlife and plant species in the general project area, and made general note of vegetation communities. However, this preliminary assessment did not provide a vegetation map or a quantitative assessment of impacts (both direct and indirect) to vegetation communities.

Dudek biologist Dave Compton conducted a general biological survey of the project area on August 31, 2011 (as shown in Table 3.4-1), walking the length of the proposed trail, except where it crosses the railroad right-of-way and where it borders US Highway 101 on a steep slope near the end of Carpinteria Avenue. Although access to these areas by foot was limited, both areas were examined from adjacent locations.

During 2018 and 2019, Dudek biologist conducted focused special-status plant species surveys and vegetation mapping within the Project Site/Grading Plan (dated October 4, 2018) as shown in Table 3.4-1 and Figure 6.

Table 3.4-1 Survey Dates, Times, Personnel, and Conditions for Biological Surveys

Survey Date	Time	Personnel	Survey Conditions	Survey Type
8/31/2011	0940-1253	Dave Compton	61-63 °F, 70-100% cloud cover, 1-8 mph winds	General Biological Survey
5/5/2018	0655-1040	Heather Moine	55-68 °F, 50-70% cloud cover, 1-2 mph winds	Special-Status Plant Species Survey
5/15/2018	0630-0755	Heather Moine	51-60 °F, 0% cloud cover, 1-3 mph winds	Vegetation Mapping
7/21/2018	0700-0900	Heather Moine	63-64 °F, 100% cloud cover, 1-2 mph winds	Special-Status Plant Species Survey
9/26/2018	1300-1510	Heather Moine	67-69 °F, 50-75% cloud cover, 2-3 mph winds	Special-Status Plant Species Survey, Vegetation Mapping
4/8/2019	1505-1825	Heather Moine	80-85 °F, 10-80% cloud cover, 2-3 mph winds	Special-Status Plant Species Survey
7/23/2019	1300-1605	Heather Moine	75-79 °F, 0-20% cloud cover, 4-5 mph winds	Special-Status Plant Species Survey

Notes:
mph – miles per hour

Vegetation Communities

A total of 13 vegetation communities and land cover types were recorded within the biological survey area, including one native woodland community, five native scrub communities and seven non-native communities and land cover types (Figure 6 and Table 3.4-2). Although the Monterey cypress stand is considered sensitive (S1), the Monterey cypress trees are not naturally occurring and thus not a sensitive vegetation community. Five of the seven vegetation communities found are native scrub communities that qualify as coastal sage scrub or coastal bluff scrub, native plant communities that are protected under the County's Coastal Land

Use Plan (2009) and the City's GP/LCP (2003), and are thus considered sensitive vegetation communities. Two of these five communities, California brittle bush scrub and lemonade berry scrub, are also sensitive vegetation communities by virtue of their state rank (Sensitive Yes and S3, respectively). These communities are described in NCCL and MCV2. Eucalyptus, ice plant mats, and myoporum are non-native and do not have a state rank (state not ranked [SNR]). The other four communities and land cover types are not listed in CSNC or MCV2.

Table 3.4-2 Summary of Existing Vegetation Communities and Land Cover Types

	General Habitat	Vegetation Community	Global, State Rank	Acreage
Native Forest and Woodland	Native Woodland	Monterey Cypress Stands	G1, S1	0.01
			Native Forest and Woodland	*0.01*
Native Scrub Communities	Coastal Bluff Scrub	California Brittle Bush Scrub	G3, Sensitive Yes	0.96
		Quail Bush Scrub	G4, S4	6.17
			Coastal Bluff Scrub	*7.13*
	Coastal Sage Scrub	California Sagebrush Scrub	G5, S5	2.08
		Coyote Brush Scrub	G5, S5	1.18
		Lemonade Berry Scrub	G3, S3	0.31
			Coastal Sage Scrub	*3.57*
Non-native Communities and Land Cover Types	Non-native Communities	Eucalyptus	GNR, SNR	0.21
		Ice Plant Mats	GNR, SNR	0.14
		Myoporum Groves	GNR, SNR	0.07
		Parks and Ornamental Plantings	NA	0.10
		Ruderal	NA	0.17
	Land Cover Types	Developed	NA	1.08
		Disturbed Habitat	NA	1.45
			Non-native Communities and Land Cover Types	*3.22*
			COMBINED TOTAL	*13.93*

Notes:
GNR – globally not rare
NA – not applicable. Not included in CSNC (CDFW 2018)
SNR – state not rare

This Page Left Blank Intentionally

AERIAL SOURCE: CIRGIS 2017
ENGINEERING SOURCE: Bengal 2019

FIGURE 6

Biological Resources

Carpinteria Rincon Trail Subsequent MND

This Page Left Blank Intentionally

Native Scrub Communities

California Brittle Bush Scrub Alliance (G3, Sensitive Yes). This community includes California brittle bush as the dominant or co-dominant shrub in the canopy. California brittle bush scrub has an intermittent to continuous shrub canopy less than two meters (seven feet) in height with a variable herbaceous ground layer. The California brittle bush scrub alliance occurs on sunny, steep south-facing slopes with soils derived from sandstone, volcanic or shale substrates (Sawyer et al. 2009). Species associated with California brittle bush scrub on-site include quail bush, California sagebrush, coyote brush, western prickly pear (*Opuntia littoralis*) and black mustard. Because of its G3, Sensitive Yes designation, California brittle brush scrub is considered a sensitive vegetation community. California brittle bush scrub is considered coastal bluff scrub per the County of Santa Barbara (2009) and City of Carpinteria (2003). This alliance occurs in the proposed trail alignment in and near Rincon Beach County Park (Figure 6). Approximately 0.96 acres of this community, or 6.9 percent of the total biological survey area was identified.

California Sagebrush Scrub Alliance (G5, S5). This community includes California sagebrush (*Artemisia californica*) as the dominant or co-dominant shrub in the canopy. California sagebrush scrub has an intermittent to continuous shrub canopy less than two meters (seven feet) in height with a variable herbaceous ground layer (Sawyer et al. 2009). Species associated with the California sagebrush scrub alliance include California brittle bush (*Encelia californica*), coast goldenbush (*Isocoma menziesii*) and coyote brush (*Baccharis pilularis*). Black mustard and other non-native species are found in this community on-site. California sagebrush is considered coastal sage scrub per the County of Santa Barbara (2009) and City of Carpinteria (2003). This alliance occurs in the western portion of the project site, near Carpinteria Avenue and US Highway 101, in a heavily engineered portion of the proposed trail alignment graded during highway construction (Figure 6). A smaller patch occurs adjacent to the parking lot for Rincon Beach County Park. Approximately 2.08 acres of this community, or 14.9 percent of the total biological survey area was identified.

Coyote Brush Scrub Alliance (G5, S5). Coyote brush scrub communities include coyote brush as the dominant or co-dominant shrub in the canopy. Coyote brush scrub has a variable shrub canopy less than three meters (10 feet) in height with a variable herbaceous ground layer (Sawyer et al. 2009). Species associated with this alliance in the proposed trail alignment include California sagebrush (*Artemisia californica*), California brittle bush, myoporum (*Myoporum laetum*) and black mustard (*Brassica nigra*). Coyote brush scrub is considered coastal sage scrub per the County of Santa Barbara (2009) and City of Carpinteria (2003). It occurs in the proposed trail alignment mostly near the western terminus, but also in small patches in the vicinity of Rincon Beach County Park. The coyote brush scrub between UPRR and US Highway 101 occurs in old road cuts, in relatively disturbed conditions (Figure 6). Approximately 1.18 acres of this community, or 8.5 percent of the total biological survey area was identified.

Lemonade Berry Scrub (G3, S3). This vegetation community includes lemonade berry as either a dominant or co-dominant species. Lemonade berry scrub has a two-tiered, open to continuous shrub canopy less than five meters (16 feet) in height with an open herbaceous ground layer and sparse cover of emergent trees (Sawyer et al. 2009). Species associated with this community on-site include coyote brush and myoporum. Because of its G3, S3 designation, lemonade berry scrub is considered a sensitive vegetation community.

Also, it is considered coastal sage scrub per the County of Santa Barbara (2009) and City of Carpinteria (2003). Lemonade berry scrub occurs in a small patch west of the Rincon Beach County Park (Figure 6). Approximately 0.31 acres of this community, or 2.2 percent of the total biological survey area was identified.

Monterey Cypress Stands (G1, S1). This vegetation community includes Monterey cypress as either a dominant or co-dominant species. Monterey cypress has an open to intermittent tree canopy less than 25 meters (82 feet) in height with a sparse to intermittent shrub layer and sparse to grassy herbaceous layer (Sawyer et al. 2009). Because of its G1, S1 designation, Monterey cypress stands are considered a sensitive vegetation community; however, Monterey cypress trees are not naturally occurring at this location and thus not a sensitive vegetation community. It is not considered a sensitive vegetation community per County of Santa Barbara (2009) and City of Carpinteria (2003). A small patch of Monterey cypress stands occur west of the Rincon Beach County Park (Figure 6). Approximately 0.01 acres of this community, or 0.1 percent of the total biological survey area was identified.

Quailbush Scrub Alliance (G4, S4). This vegetation community includes quailbush (*Atriplex lentiformis*) as a dominant species. Quailbush scrub has an open to intermittent scrub canopy less than five meters (16 feet) in height with a variable herbaceous layer (Sawyer et al. 2009). In the proposed trail alignment, species associated with this community include California brittle bush, lemonade berry (*Rhus integrifolia*) and Australian saltbush (*Atriplex semibaccata*). Quail bush scrub is considered coastal bluff scrub per the County of Santa Barbara (2009) and City of Carpinteria (2003). It occurs extensively in the proposed trail alignment east of the UPRR and in patches west of the UPRR (Figure 6). Approximately 6.17 acres of this community, or 44.3 percent of the total biological survey area was identified.

Non-Native Communities

Eucalyptus (GNR, SNR). Eucalyptus is listed in MCV2 (Sawyer et al. 2009) and CSNC (CDFW 2018b) but does not have a global rank or state rank as it is composed of non-native species; it is not considered sensitive. The eucalyptus within the biological survey area are sparse and do not create a windrow; and thus are not included on the list of sensitive vegetation communities per County of Santa Barbara (2009) and City of Carpinteria (2003). Eucalyptus contains eucalyptus trees (*Eucalyptus* spp.) as the dominant species in the tree canopy. The groves have an open to continuous tree canopy less than 60 meters (197 feet) in height. Understory shrubs and herbaceous layers are sparse to intermittent, and the herbaceous layer is sparse to intermittent. Throughout California, eucalyptus groves semi-natural alliance occurs as planted trees, groves, and windbreaks, naturalized on uplands or bottomlands and adjacent to stream courses, lakes, or levees (Sawyer et al. 2009). Approximately 0.21 acres of this community, or 1.5 percent of the biological survey area was identified.

Ice Plant Mats (GNR, SNR). Ice plant mats is listed in MCV2 (Sawyer et al. 2009) and CSNC (CDFW 2018b) but does not have a global rank or state rank as it is composed of non-native species; therefore, it is not considered sensitive. Additionally, ice plant mats is not included on the list of sensitive vegetation communities per County of Santa Barbara (2009) or City of Carpinteria (2003). Ice plant mats contains hottentot fig (*Carpobrotus edulis*), sea fig (*Carpobrotus chilensis*), or other ice plant taxa as the dominant or co-dominant species in the herbaceous layer. These species invade coastal bluff scrub, dune mat, dune scrub, and coastal prairies and compete with

native plants (Sawyer et al. 2009). Ice plant semi-natural alliance areas have an intermittent to continuous canopy within the herbaceous layer less than 0.5 meter (1.6 feet) in height. Approximately 0.14 acres of this community, or 1.0 percent of the biological survey area was identified.

Myoporum Groves (GNR, SNR). Myoporum groves are listed in MCV2 (Sawyer et al. 2009) and CSNC (CDFW 2018b) but does not have a global rank or state rank as it is composed of non-native species; it is not considered sensitive. Myoporum groves consist of myoporum (*Myoporum laetum*) as the dominant species in the tree canopy. The groves have an open to continuous tree canopy less than 18 meters (59 feet) in height. Understory shrubs are infrequent or common and the herbaceous layer is simple to diverse. Throughout central and southern California, myoporum groves woodland semi-natural alliances occurs in coastal canyons, washes, slopes, riparian areas, and roadsides. Myoporum trees form dense single-species stands in coastal areas (Sawyer et al. 2009). Approximately 0.14 acres of this community, or 0.5 percent of the biological survey area was identified.

Parks and Ornamental Plantings. This community is not described in CSNC or MCV2 because it is not a naturally occurring community in California; it is not considered sensitive. It includes landscaping plants as dominants. The ornamental vegetation community in the proposed trail alignment is characterized by the dominance of landscaped plant species. It occurs within the eastern part of Rincon Beach County Park (Figure 6). Approximately 0.10 acres of this community, or 0.7 percent of the biological survey area was identified.

Ruderal. Ruderal is not described in CSNC or MCV2 because it is not a naturally occurring community in California; it is not considered sensitive. Also, ruderal habitats are not included in the list of sensitive vegetation communities and habitats per County of Santa Barbara (2009) or City of Carpinteria (2003). Ruderal areas are characterized by limited native vegetation resulting in low function ecological processes. Plants in these areas are dominated by non-native species and there is not a dominant plant species or overall structure to the habitat. Ruderal areas provide little habitat or foraging potential for wildlife, due to the lack of significant cover by vegetation; however, there are often patchy areas of non-native plant species. Mapped ruderal includes roadside areas and areas with disturbed non-native vegetation (Figure 6). Approximately 0.17 acres of this community, or 1.3 percent of the biological survey area was identified.

Land Cover Types

Developed. Within the biological survey area, developed areas are unvegetated areas, such as pavement and development with impervious materials. Developed areas include the parking lot at Rincon Beach County Park and the wide turnout at the eastern terminus of Carpinteria Avenue (Figure 6). Approximately 1.08 acres of developed area, or 7.7 percent of the biological survey area was identified.

Disturbed Habitat. This land cover type, which is not described in NCL or MCV2, includes invasive non-native and other disturbance-tolerant species as dominants. Species occurring within this community, including some natives, are those that are tolerant to disturbances such as grading or vegetation clearing. On-site, species appearing in disturbed areas include poison hemlock (*Conium maculatum*), black mustard, Hottentot fig (*Carpobrotus edulis*) and horseweed (*Erigeron canadensis*). Approximately 1.45 acres of this land cover type, or 10.45 percent of the biological survey area was identified.

Plant Species

A total of 133 plant species were observed and identified. Of these, 57 (43%) are considered native and 76 (57%) are considered non-native to California. The CNDDB (CDFW 2018a) query returned 23 special-status plant species that have been documented within the four adjacent quadrangles. Based on Dudek's habitat suitability analysis including elevation and habitats, 12 of the special-status plant species had the potential to occur within the project site. These special-status plant species include Aphanisma (*Aphanisma blitoides*), Miles' milk-vetch (*Astragalus didymocarpus* var. *milesianus*), Coulter's saltbush (*Atriplex coulteri*), South Coast saltscale (*Atriplex pacifica*), southern tarplant (*Centromadia parryi* ssp. *australis*), Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*), mesa horkelia (*Horkelia cuneata* var. *puberula*), Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata*), cliff malacothrix (*Malacothrix saxatilis* var. *saxatilis*), south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*), Nuttall's scrub oak (*Quercus dumosa*), and woolly seablite (*Suaeda taxifolia*).

Two CNPS CRPR 4.2 plant species, cliff malacothrix (*Malacothrix saxatilis* var. *saxatilis*) and woolly seablite (*Suaeda taxifolia*), and one CNPS CRPR 3.2 plant species, south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*) were detected within the biological survey area (Figure 6). CNPS CRPR 3 and 4 species are not normally considered special-status plants for CEQA purposes. As discussed above in the biological resources regulatory context section, CNPS CRPR 3 and 4 plant species would be considered special-status if locally rare. Cliff malacothrix, south coast branching phacelia, and woolly seablite are not included on the Rare Plants of Santa Barbara County list (Wilken 2018); therefore, these are not considered special-status plant species. No federal, state, or CNPS CRPR plant species were observed.

Cliff malacothrix (*Malacothrix saxatilis* var. *saxatilis*). This CNPS CRPR 4.2 species is a perennial herb that occurs in coastal bluff scrub and coastal scrub at 10 to 220 feet in elevation. It occurs along the coast from Orange County north to Santa Barbara County, and inland in Kern and San Bernardino Counties and blooms March through September. A total of 68,385 square feet and 834 individuals were documented (Figure 6) in the biological survey area.

South coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*) is a perennial herb that is native to California and included as CNPS CRPR 3.2. It occurs in chaparral, coastal dunes, coastal scrub, marshes and swamps (coastal salt) in sandy sometimes rocky soils and blooms March through August. A total of 14 square feet and 2 individuals were documented (Figure 6) in the biological survey area.

Woolly seablite (*Suaeda taxifolia*). This CNPS CRPR 4.2 species is found in coastal bluff scrub, coastal dunes, and marshes and swamps at 0 to 165 feet elevation. It occurs along the coast from Orange County north to San Luis Obispo County, as well as on the Channel Islands and blooms January through December, year-round. In the project vicinity, this species is distributed in monotypic patches along the bluffs just west of Rincon Beach County Park, adjacent to the trail alignment (Figure 6). A total of 75,161 square feet and 617 individuals were documented in the biological survey area.

Trees

Two planted Monterey cypress (*Hesperocyparis macrocarpa*) are located in the proposed trail alignment in or near Rincon Beach County Park. Several smaller eucalyptus trees (*Eucalyptus* sp.) were located adjacent to the trail near its proposed western terminus and US Highway 101. No other trees were located within approximately 50 feet of the proposed trail alignment.

Wildlife Species

A total of 28 wildlife species (21 birds, two invertebrates, three mammals, and two reptiles) were either directly observed or detected based on vocal cues or observation of sign (Appendix C). A variety of special-status wildlife occurs within five miles of the project site, including the Monarch butterfly (*Danaus plexippus*; Special Animal), tidewater goby (*Eucyclogobius newberryi*; Federally endangered [FE]), southern steelhead (*Oncorhynchus mykiss irideus*; FE), California red-legged frog (*Rana draytonii*); Federally threatened [FT]), silvery legless lizard (*Anniella pulchra pulchra*; California Species of Concern [CSC]), two-striped garter snake (*Thamnophis hammondii*; CSC), Cooper's hawk (*Accipiter cooperi*; CDFG Watch List ([WL]), white-tailed kite (*Elanus leucurus*; State fully protected [FP]); light-footed clapper rail (*Rallus longirostris levipes*; FE, State endangered [SE], FP), snowy plover (*Charadrius nivosus*; FT) and Belding's savannah sparrow (*Passerculus sandwichensis beldingi*; SE). A portion of proposed trail may provide habitat for the silvery legless lizard, while potential nesting habitat for Cooper's hawk (*Accipiter cooperi*) was observed adjacent to Rincon Beach County Park.

One special-status bird species, the white-tailed kite (*Elanus leucurus*), a State fully protected (FP) species, is known to occur in the area (City of Carpinteria 2003). In addition to protections by the state, the white-tailed kite receives protection under the Santa Barbara County Coastal Land Use Plan (2009) and the City's General Plan/Local Coastal Land Use Plan (2003). The City specifically cites the Carpinteria Bluffs as a location where this species occurs and is protected. However, no kites were detected in the project vicinity, and the scrub vegetation that predominates there is unsuitable for foraging by this species, which hunts in habitats dominated by grasses and forbs. Trees near the site are relatively small, unsuitable for white-tailed kite nesting, and in areas with high levels of human disturbance where kites are unlikely to nest.

Monarch butterflies are also protected under County (2009) and City (2003) policies. Several smaller eucalyptus trees are located near the western terminus of the site, but these do not provide suitable roosting habitat for Monarchs.

Semonsen (2008) noted the potential for silvery legless lizards to occur just south of the railroad crossing. No legless lizards were detected during the survey, but this species is extremely difficult to detect without taking specific measures to do so. Some potential exists for this species to occur in this area.

Habitat is lacking for all other special-status wildlife species known to occur within five miles of the site, with the exception of Cooper's hawk. This bird of prey species has the potential to nest in trees within or near Rincon Beach County Park, but not within the proposed trail alignment. Otherwise, no habitat for special-status wildlife species was found and no special-status wildlife species were detected during the field survey.

Wildlife Movement Corridors

The site is located adjacent to the Pacific Ocean and does not connect important habitat areas used by large or small wildlife species. In addition, US Highway 101 and adjacent chain link fencing along the southbound lanes of the highway provide impediments to wildlife movement between the bluffs and more inland areas. Medium-sized mammal species such as the striped skunk (*Mephitis mephitis*) or northern raccoon (*Procyon lotor*) may move locally along the coast.

Aquatic Resources

No jurisdictional features were detected during the field survey.

Environmental Thresholds

The majority of the project area and its biological resources are located within the County of Santa Barbara area. Therefore, the County's Environmental Guidelines and Thresholds are used in this analysis. Impacts to habitat types may be considered significant if they substantially (1) reduce or eliminate species diversity or abundance; (2) reduce or eliminate the quality of nesting areas; (3) limit reproductive capacity through losses of individuals or habitat; (4) fragment, eliminate or otherwise disrupt foraging areas and/or access to food sources; (5) limit or fragment range and movement; or (6) interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Project Specific Impacts

a) No special-status plant species were observed within the biological survey area during special-status plant surveys conducted during the proper blooming periods. Habitat was documented for two special-status wildlife species, either within or adjacent to the trail alignment. Habitat for the silvery legless lizard was found in the proposed trail alignment immediately south of the UPRR crossing. Individuals of this species could suffer injury or mortality because of grading and other construction activities. Therefore, impacts to special-status wildlife species from project disturbances along the proposed trail route would be ***potentially significant without mitigation***.

   In addition, 19 species of native birds were detected on-site, including several with the potential to nest there. Nests, eggs and nestlings of all native bird species are protected by the Migratory Bird Treaty Act and the California Fish and Game Code. Vegetation clearing and grading, if occurring during the nesting season (typically mid-February to August), have the potential to destroy nests, eggs and nestlings, which could violate these regulations. Therefore, impacts to nesting birds from project disturbances would be ***potentially significant without mitigation***.

b) Although largely existing in relatively disturbed conditions, five native scrub communities that are considered either coastal bluff scrub or coastal sage scrub are found in the proposed trail alignment and adjacent areas. Both coastal bluff scrub and coastal sage scrub are considered sensitive native communities per the County (2009) and City (2003) policies. Communities impacted include costal bluff

scrub: California brittle bush scrub (0.94 acres temporary impacts, 0.03 acres permanent impacts) and quailbush scrub (5.75 acres temporary impacts, 0.42 acres permanent impacts) and coastal sage scrub: California sagebrush scrub (1.94 acres temporary impacts, 0.14 acres permanent impacts), coyote brush scrub (1.04 acres temporary impacts, 0.14 acres permanent impacts), and lemonade berry scrub (0.28 acres temporary impacts, 0.02 permanent impacts). These impacts would be ***potentially significant without mitigation***.

c) No wetlands or streams were detected within or adjacent the proposed trail alignment, therefore ***no impacts to wetland or streams*** would occur.

d) The proposed trail alignment is located adjacent to the Pacific Ocean and does not connect important habitat areas used by large or small terrestrial wildlife species. In addition, US Highway 101 and the chain link fence adjacent to the southbound lanes of the highway provide impediments to movement of larger and medium-sized wildlife. Medium-sized mammal species such as the striped skunk (*Mephitis mephitis*) or northern raccoon (*Procyon lotor*) may occasionally use the opening provided by the trail to move locally along the coast. The trail may provide some hazard to common, smaller terrestrial species such as the western fence lizard (*Sceloporus occidentalis*), common side-blotched lizard (*Uta stansburiana*) and California pocket mouse (*Chaetodipus californicus*), but the trail and associated fencing will not present a physical barrier to their movement. Therefore, impacts through interference with the movement of wildlife species are considered ***less than significant***.

e) Two Monterey pines, a species native to California but not to the project region, exist on or near the proposed alignment, including a single mature tree adjacent to the site at Rincon Beach County Park and a ten-foot tall tree just west of the park. Several eucalyptus (*Eucalyptus* sp.) are adjacent to the western sections of the proposed trail. These trees are not native or naturally occurring. In addition, they are not a part of any windbreak on the Carpinteria Bluffs, which are protected under the City of Carpinteria General Plan/Local Coastal Land Use Plan (2003). Therefore, the project does not conflict with any local tree preservation policy and impacts to trees would be ***less than significant***.

f) No habitat conservation plans apply to the project area. ***No impact would occur.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to the loss of native plant communities and habitat area for wildlife species, which could cumulatively impact biological resources. However, all new development within the Carpinteria Valley would be consistent with the City or County's GP/LCP; which require that mitigation be provided to completely offset the removal of native plant communities and environmentally sensitive habitat areas (ESHA). The project would itself be required to accomplish native plant community restoration to offset project-specific impacts (BIO-1 through BIO-3). With required mitigation, the project's contribution to cumulative biological resources impacts would not be considerable.

Required Mitigation Measures

Impacts to Coastal Sage Scrub and Coastal Bluff Scrub Communities. Approximately 0.45 acres of coastal bluff scrub and 0.30 acres of coastal sage scrub would be permanently removed due to construction. An additional 6.69 acres of coastal bluff scrub and 3.26 acres of coastal sage scrub would be removed in temporarily impacted areas (Table 3.4-3). These native plant communities are protected under County (2009) and City (2003) policies.

Table 3.4-3
Temporary and Permanent Impacts to Sensitive Native Vegetation Communities

	Temporary Impacts (acres)	Permanent Impacts (acres)	Total Impacts (acres)
Coastal Bluff Scrub			
California Brittle Bush Scrub	0.94	0.03	0.97
Quail Bush Scrub	5.75	0.42	6.17
Total	*6.69*	*0.45*	*7.14*
Coastal Sage Scrub			
California Sagebrush Scrub	1.94	0.14	2.08
Coyote Brush Scrub	1.04	0.14	1.18
Lemonade Berry Scrub	0.28	0.02	0.30
Total	*3.26*	*0.30*	*3.56*
Combined Total	9.95	0.75	10.70

BIO-1 **Mitigation and Monitoring Plan**. Prior to issuance of a grading permit, the City shall contract with a qualified biologist to develop a Mitigation and Monitoring Plan (Plan) for impacts to coastal scrub and coastal bluff scrub communities. The plan shall outline efforts to restore or enhance coastal sage scrub and coastal bluff scrub communities in areas temporarily impacted by construction of the trail or off-site areas. The Plan may focus on the following:

- In-kind, on-site restoration of areas where coastal sage scrub or coastal bluff scrub has been removed;
- Enhancement of temporarily impacted areas on-site currently occupied by ornamental, disturbed or developed areas;
- Off-site restoration of areas occupied by non-native habitats or native habitats with large components of non-native vegetation.

Under the Plan, areas of native habitat (coastal sage scrub and coastal bluff scrub) temporarily impacted by vegetation clearance shall be restored on-site at a 1:1 ratio. Any remaining on-site

mitigation potential (in disturbed land/disturbed areas or developed areas) shall be restored at a ratio of 2:1 for coastal sage scrub and coastal bluff scrub permanently removed on-site. As on-site mitigation potential may be insufficient for mitigating permanent impacts to coastal sage scrub and coastal bluff scrub, any additional mitigation required shall be carried out off-site. Typically, off-site mitigation for removal of native habitats in the coastal zone is carried out at a ratio of 3:1. This ratio shall apply to all coastal sage scrub occurring between UPRR and the Pacific Ocean and to all coastal bluff scrub permanently removed along the proposed trail alignment. As coastal sage scrub communities between UPRR and US Highway 101 occur in a disturbed condition, in heavily engineered areas and with high components of non-native species, off-site mitigation for these areas shall be conducted at a ratio of 2:1.

A qualified biologist/botanist shall develop the Plan, which shall provide specific measures to restore or enhance habitat to replace the loss of coastal sage scrub and coastal bluff scrub communities. This Plan shall be focused on adaptive management principles, and shall identify detailed enhancement areas and strategies based on the parameters outlined below, with long-term timing and monitoring requirements. The Plan shall:

1. Provide an up-to-date inventory of on-site native vegetation resources.
2. Define attainable and measurable goals and objectives to achieve through implementation of the Plan. Goals and objections shall focus on replacement of coastal sage scrub, coastal bluff scrub and rare plants removed during construction.
3. Provide site selection and justification.
4. Detail a restoration work plan including methodologies, restoration schedule, plant materials (seed) and implementation strategies.
5. Provide a detailed maintenance plan to include removal of invasive non-native species.
6. Define performance standards.
7. Provide a monitoring plan to include methods and analysis of results. Also, include goal success or failure criteria, and an adaptive management plan and suggestions for failed restoration efforts.

Plan Requirements and Timing: Prior to issuance of a grading permit, the City of Carpinteria shall contract with a P&D-qualified biologist to develop a Coastal Scrub Restoration Plan (Plan). The Plan shall outline efforts to restore or enhance coastal sage scrub and coastal bluff scrub communities in areas temporarily impacted by construction of the trail or off-site areas. ***Monitoring***: The City of Carpinteria shall ensure development of the Plan and adherence to Plan measures are completed prior to commencement of any earth-moving activities. City staff shall periodically conduct site inspections to ensure compliance on-site. Restored areas shall be monitored for five years following planting. Annual reports and the final report shall be submitted to the City.

Impacts to Silvery Legless Lizards. Silvery legless lizards, a CSC, may occur on the southwest side of the UPRR right of way. Injury and mortality to some lizards may occur due to grading or other ground disturbance activities.

BIO-2 **Pre-construction Silvery Legless Lizard Survey and Relocation**. Prior to initiation of construction, capture and relocation efforts for silvery legless lizards shall be conducted. Trapping shall be conducted by a qualified biologist and shall include the following steps:

1. Prior to initiation of capture and relocation, a suitable receptor site shall be located. This site shall include areas with loose, moist soils occurring in scrub habitat with high coverage of deerweed (*Lotus scoparius*) or California goldenbush, in arroyo willow (*Salix lasiolepis*) thickets or in other suitable scrub or woodland habitat.
2. Capture and relocation shall take place no more than five days prior to the initiation of construction.
3. These surveys shall be performed by lightly raking loose soil, sand and leaf litter with a wooden rake for a sufficient period to determine that no legless lizards are present, or all legless lizards have been captured.
4. Any lizards found shall be placed in a receptacle with sand and a wet towel and relocated to the previously designated receptor site.

Plan Requirements and Timing: Prior to initiation of construction, capture and relocation efforts for silvery legless lizards shall be conducted where appropriate. Trapping shall be conducted by a qualified biologist. ***Monitoring***: the City of Carpinteria shall ensure the pre-construction survey and relocation efforts, if required, are completed prior to commencement of any earth-moving activities.

Impacts to Nesting Birds. Should construction or vegetation clearing be initiated during the bird nesting season (typically, mid-February to August), injury and mortality to native nesting birds protected under the Migratory Bird Treaty Act and the California Fish and Game Code may occur.

BIO-3 **Pre-construction Nesting Bird Surveys**. Within 30 days prior to any vegetation clearing or ground disturbance associated with construction or grading that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically mid-February through August in the project region, or as determined by a qualified biologist), the City shall have weekly surveys conducted by a qualified biologist to determine if active nests of special-status bird species, or of any bird species protected by the Migratory Bird Treaty Act or the California Fish and Game Code, are present in the disturbance zone or within 100 feet (300 feet for raptors) of the area to be disturbed. The surveys shall occur on a weekly basis, with the last survey being conducted no more than seven days prior to initiation of disturbance work. If ground disturbance is delayed, then additional pre-disturbance surveys shall be conducted such that no more than seven days will have elapsed between the survey and ground disturbance

activities. The City or contractor shall provide the biologist with plans detailing the extent of proposed ground disturbance prior to the survey effort.

If active nests are found, clearing and construction within 100 feet of the nest (300 feet for raptors) shall be postponed or halted, at the discretion of the biologist, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. Limits of construction to avoid an active nest shall be established in the field with highly visible construction fencing, and construction personnel shall be instructed on the sensitivity of nest areas. The results of the surveys, including graphics showing the locations of any nests detected, and any avoidance measures recommended, shall be submitted to the City within 14 days of completion of the pre-construction surveys to document compliance with applicable state and federal laws pertaining to the protection of native birds.

Plan Requirements and Timing: Pre-construction nesting bird surveys shall be completed within 30 days prior to any vegetation clearing or ground disturbance associated with construction or grading during the bird nesting season (typically mid-February to August). The surveys shall occur on a weekly basis, with the last survey being conducted no more than seven days prior to initiation of disturbance work. ***Monitoring***: the City of Carpinteria shall ensure the pre-construction nesting bird surveys and any avoidance requirements are completed prior to commencement of any earth-moving activities.

Residual Impacts

After implementation of Mitigation Measure **BIO-1**, impacts to sensitive vegetation communities would be ***less than significant***. Implementation of Mitigation Measure **BIO-2**, would reduce impacts to silvery legless lizard to ***less than significant***. After implementation of Mitigation Measure **BIO-3**, impacts to nesting birds and Cooper's hawk during the bird nesting season would be ***less than significant***.

3.5 CULTURAL RESOURCES

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

Existing Environmental Setting

A Phase 1 cultural resources investigation for the originally proposed Carpinteria Rincon Trail was prepared by Dudek in March 2008. The cultural resources investigation included an archaeological site records and literature search at the Central Coast Information Center (CCIC), University of Santa Barbara, California and an intensive surface survey covering the entire project area. For the current revised trail design, Dudek performed a new Phase 1 Cultural Resources Survey of the entire alignment to document existing conditions and in order to assess impacts of the updated trail alignment on cultural resources. The updated Phase 1 cultural resources investigation included an archaeological site records and literature search at the Central Coast Information Center (CCIC), University of Santa Barbara, California and an intensive surface survey of the revised trail alignment and area within earthwork limits and temporary impact areas delineated for the transportation and storage of construction equipment. As is customary for Phase 1 cultural resource surveys, the document is not circulated with the associated CEQA document. The updated Dudek Phase 1 survey is on-file with the City of Carpinteria, Community Development Department and with the County of Santa Barbara Planning & Development Department.

The records search indicates that CA-SBA-1, the ethnohistoric/historic Chumash village of *Shuku*, is southeast of the proposed project area, near the mouth of Rincon Creek. No cultural resources were observed in situ, or within intact soils, during the intensive field survey under generally good to excellent ground surface visibility. However, the Project site is not only located partially within a significant archaeological site (CA-SBA-1168), it is also surrounded, in every direction, by significant archaeological sites CA-SBA-1/CA-VEN-62, the closest loci immediately adjacent to the southeastern extent of the proposed Project site. Based on the presence of a portion of the proposed Project site overlapping a small portion of the archaeological site CA-SBA-1168, the close proximity of multiple archaeological sites to the proposed Project site, as well as the general significance of the archaeological resources surrounding the proposed Project site, there is substantial evidence for potential unknown significant prehistoric and historic archaeological resources to exist within the Project site.

Environmental Thresholds

If a proposed project has the potential to affect a cultural resource, the significance (importance) of that resource must be determined. For the purposes of CEQA, an "important archaeological resource" is defined in Section 15064.5 of the State CEQA Guidelines as one which:

- *Is associated with an event or person of*
    - *Recognized significance in California or American history, or*
    - *Recognized scientific importance in prehistory.*
- *Can provide information which is of both demonstrable public interest and useful in addressing scientifically consequential and reasonable or archaeological research questions.*
- *Has a special or particular quality such as oldest, best example, largest, or last surviving example of its kind.*

- *Is at least 100 years old and possesses substantial stratigraphic integrity; or*
- *Involves important research questions that historical research has shown can be answered only with archaeological methods.*

Appendix G, Significant Effects, of CEQA defines the need for evaluating the impacts a project may have on a community, ethnic or social group. A project will normally have a significant effect on the environment if it will cause one of the following:

- *Disrupt or adversely affect a prehistoric or historical archaeological site or a property of historical or cultural significance to a community or ethnic or social group.*
- *Conflict with established recreational, educational, religious, or scientific uses of the area.*

According to the County and City Environmental Thresholds for archaeological resources, the criterion usually applied is whether a resource "has yielded, or may be likely to yield, information important in prehistory or history." A project that may cause a substantial adverse effect on an archaeological resource may have a significant effect on the environment.

Project Specific Impacts

a) The 2008 Phase 1 Cultural Resources Survey concluded that no potentially significant historic resources were identified and therefore the proposed project (as defined in 2008) would have no significant impact on historical resources. ***Impacts would be less than significant.***

b) The current updated Phase 1 Cultural Resources Survey identified several pieces of weathered shellfish within the proposed project area, in disturbed contexts near the metal gate at the western end of Rincon Beach County Park and along the northern edge of the Rincon Beach County Park parking lot. Particularly since the shellfish pieces were identified on the ground surface in areas that have been impacted by previous grading, their location is considered to be the result of modern activities and soil movement (i.e., grading associated with construction of US Highway 101, the UPRR alignment, an asphalt path and the Rincon Beach County Park parking lot) and not an intact or disturbed cultural deposit. The recovered shellfish, mainly unidentifiable *Veneridae* (Venus clams), lacked the density and diversity documented at CA-SBA-1. No other cultural material associated with prehistoric occupation including stone tools, animal bone, or ground stone implements were identified. Even if the shellfish were *in situ* (i.e., in its original depositional location) and associated with prehistoric activity, the shell is not of sufficient density or diversity to provide important information to explain and understand the prehistoric occupation of coastal areas of Santa Barbara County, particularly when compared to the substantial CA-SBA-1 deposits. Therefore, the pieces of shellfish observed in disturbed contexts within the proposed project area are not considered a potentially significant archaeological resource under CEQA Guidelines Section 15064.5.a.3, City of Carpinteria Environmental Review Guidelines and Santa Barbara County Cultural Resources Guidelines.

Extensive topographic modification of the existing terrain in the project area occurred with construction of US Highway 101 in the late 1960's, after the earliest archeological investigations in this area were completed. Information to conclusively define the boundary of CA-SBA-1168 compared to limits of earthwork completed for the US Highway 101 construction does not evidently exist (the boundary description in the original archaeological investigation was poorly described, and was not verified with perimeter excavations at many points). It is therefore possible that some portion of CA-SBA-1168 exists at depth beneath fill materials used to construct some of the slope faces along the south side of US Highway 101. Deep excavations for the Rincon Trail UPRR bridge foundation on the north side of the UPRR alignment could potentially encounter intact deposits associated with CA-SBA-1168, which would be a ***potentially significant impact.*** Mitigation measures **CR-1** and **CR-2** have been required in order to address this impact.

c) The Phase 1 Survey included a search of the Native American Heritage Commission's (NAHC) Sacred Land Files. The search results were negative, but did include a strong suggestion from the (NAHC) that specific Native American individuals be contacted to see if they might have any additional information regarding the cultural or archaeological significance of the proposed Project site. No human remains have been identified within the proposed Project or within the associated archaeological site CA-SBA-1168 as a result of previous or current archaeological investigations. ***No impacts relating to disturbance of human remains is expected to occur as a result of this project.***

Cumulative Impacts

Potentially significant project-specific impacts to cultural resources would be reduced to less than significant with implementation of MM CR-1 and CR-2, avoiding the potential for the proposed project to contribute to cumulative impacts to cultural resources. The project would, therefore, result in a less than cumulatively considerable impact to cultural resources.

Required Mitigation Measures

The potential exists for cultural resources to exist at depth below portions of the trail alignment, given the existence of recorded archaeological sites in the project vicinity. As such, mitigation measures are necessary in order to avoid significant impacts to such resources. Excavation to install support pilings for the UPRR bridge represent the greatest potential to encounter intact archaeological resources, but existing slope steepness and thickness of fill material overlying the archaeological resources makes physical investigation of these resources infeasible in advance of construction. Construction monitoring and data (resource) recovery are therefore considered the most effective mitigation approach. The following measures are required.

CR-1 Initial ground-disturbing activities shall be monitored in accordance with the following specifications:

<u>Temporary Impact Areas</u> (equipment staging and materials storage outside trail alignment) - a County-qualified/City-approved archaeologist and Native American observer shall monitor transport

and placement activities until such time that it is reasonable to ascertain that no additional prehistoric archaeological/cultural resources are located within areas of temporary disturbance of the proposed Project site.

Permanent Impact Areas not including bridge piling installation (all areas of the trail alignment excepting the bridge approach area on the north side of the UPRR alignment) – a County-qualified /City-approved archaeologist and Native American observer shall monitor project implementation during the initial grading and excavation activities until such time as sufficient subsurface soil has been uncovered/excavated to ascertain that no additional prehistoric archaeological/cultural resources are located on the proposed Project improvement area.

Bridge piling installation – a County-qualified/City-approved archaeologist and Native American observer shall monitor the installation of bridge pilings within intact soils and/or any soils deeper than 10 feet below current ground surface to ascertain that no additional prehistoric archaeological/cultural resources are located on the proposed Project improvement area.

Plan Requirements and Timing: Prior to issuance of a grading permit, the City of Carpinteria/County of Santa Barbara shall contract with a County-qualified/City-approved archaeologist and Native American observer to monitor initial ground disturbance activities in accordance with the above criteria. ***Monitoring***: The contracted archaeologist and Native American observer shall provide monitoring of initial ground disturbance activities in accordance with the above criteria, assembling field documentation describing each day of monitoring, construction activity occurring during the monitoring, and observed soil profile conditions related to the potential for presence of archaeological resources. The monitors shall immediately inform equipment operators in the event archaeological resources are encountered, and shall be empowered to immediately halt construction activity in the area of the discovery until assessment can be completed, and materials recovered as appropriate (refer to CR-2 for additional detail). Monitor reports shall be provided to the City of Carpinteria/County of Santa Barbara on a monthly basis during construction, with a final monitoring report produced at the conclusion of construction activities.

CR-2 **In the event cultural resources are encountered, construction shall be redirected to another area of the project while data/resource assessment and recovery is accomplished.** Grading/construction shall be immediately suspended in the immediate area where cultural resources are encountered and temporarily redirected to another portion of the project area to allow the archaeologist to assess the nature, extent and significance of any discoveries and develop appropriate management recommendations for archaeological resource treatment consistent with Santa Barbara County Guidelines for the Implementation of California Environmental Quality Act of 1970 (as amended May 25, 2010). It is anticipated that recovery of artifacts would occur where project elements (such as pilings) would conflict with in-situ artifact locations, and such artifacts would be properly archived in accordance with CEQA, City of Carpinteria and Santa Barbara County guidelines.

Plan Requirements and Timing: Prior to issuance of a grading permit, the City of Carpinteria/County of Santa Barbara shall contract with a County-qualified/City-approved archaeologist to provide archaeological assessment and recovery of any archaeological resources encountered during project construction, in accordance with the above criteria. ***Monitoring***: The contracted archaeologist shall assess the nature, extent and significance of any archaeological discoveries occurring during project construction, and develop appropriate management recommendations for archaeological resource treatment. Identified remedial action for the discovery shall be completed prior to allowing construction to re-commence in the area of the discovery. The project sponsors shall be responsible for funding the assessment of archaeological resources encountered during construction, and for the proper archiving or preservation of such resources. A Phase 3 Archaeological Resources Assessment and Data Recovery Report shall be prepared to document any archaeological resources encountered during construction.

Residual Impacts

Potential impacts to cultural resources would be reduced to less than significant with implementation of mitigation measures CR-1 and CR-2.

3.6 ENERGY

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?	☐	☐	☒	☐	☐

Existing Environmental Setting

According to the California Energy Commission, California used approximately 288,613 gigawatts per hour of electricity in 2017 (CEC 2018). Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Because of the state's energy efficiency standards, and efficiency and

conservation programs, California's per-capita energy use has remained stable for more than 30 years, while the national average has steadily increased (CEC 2018).

One third of energy commodities consumed in California is natural gas and mainly falls into four sectors: residential, commercial, industrial, and electric power generation. In addition, natural gas is a viable alternative to petroleum for use in cars, trucks, and buses (CEC 2017). According to the U.S. Energy Information Administration, California used approximately 2.382 quadrillion British thermal units (BTU) of natural gas in 2015 (EIA 2017a). By sector, industrial uses utilized approximately 35.8% of the state's natural gas, followed by approximately 35.0% from electric power, approximately 17.5% from residential uses, approximately 10.3% from commercial uses, and approximately 1.5% from transportation uses (EIA 2017).

The Rincon Trail project site is currently undeveloped, and therefore does not consume energy of any kind. Several informal trail segments accessible from Rincon Beach County Park are currently used by Park visitors, and some related petroleum use is occurring in association with visitor travel to and from the Park.

Environmental Thresholds

Neither the City of Carpinteria nor County of Santa Barbara have identified significance thresholds for electrical and/or natural gas service impacts. Private electrical and natural gas utility companies provide service to customers in Central and Southern California, including the City of Carpinteria and unincorporated areas of Santa Barbara County.

Project Specific Impacts

(a, b.). The project would result in the use of some petroleum fuels associated with vehicular travel for a portion of the pedestrian and cyclist users of the proposed trail. However, the trail would also complete an important gap in the Coastal Bike Trail system, allowing cyclists to ride from Ventura to Carpinteria, thus supporting an alternative transportation mode for commuting. In summary, the project would have minimal long term energy requirements and a negligible effect on regional energy needs. No adverse impacts would result.

Cumulative Impacts

The project's contribution to the regionally significant demand for energy is not considerable, and is therefore less than significant.

Required Mitigation Measures

The project would result in less than significant impacts upon energy consumption. As no significant energy impacts are anticipated, no mitigation would be required.

Residual Impacts

No residual impacts would occur.

3.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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? 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 offsite 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?	☐	☐	☒	☐	☐

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐	☐

Existing Environmental Setting

Geologic and soils information presented in this section is based, in part, on a project-specific geotechnical report prepared by Bengal Engineers (Geotechnical Report for the Proposed Rincon Beach Multi-Use Trail, 2019). The project geotechnical report is on file at the City of Carpinteria.

Faults. Faults in the Carpinteria area include the Carpinteria Fault, the Rincon Creek Fault, the Arroyo Parida Fault and the Shepard Mesa Fault. According to the State of California Conservation Department, Division of Mines and Geology (CDMG), none of these faults are considered "active." The CDMG has calculated the probabilities for earthquakes throughout the state of California; the research indicates a 10 percent probability within the next 50 years for an earthquake between magnitudes 6.5 and 7.0 to occur along a fault within five miles of the Carpinteria Planning Area. The geotechnical report for Rincon Trail (Bengal Engineers 2019b) identifies a potential peak ground acceleration of 0.8 g for the project site ("g" represents acceleration rate of gravity). There are no Alquist-Priolo Special Studies Zones for the Carpinteria Planning Area. No recent movement (within the last 11,000 years) or recent fault rupture has been identified along the known faults in the Carpinteria Planning Area.

Geologic Formations. The trail alignment north of the UPRR corridor is underlain by Miocene age and older surficial sediments (alluvium), bedrock of the Santa Barbara Formation (Qsb) consisting of silty sand and sand-like material, and bedrock of the Monterey Formation (Tm) consisting mainly of sandy silt and siltstone/shale (Dibblee 1986, Bengal Engineers 2019b). The trail alignment within and south of the UPRR corridor is underlain directly by bedrock of the Monterey Formation (Tm) siltstone/shale and Sisquoc Formation (Tsq) siltstone/mudstone both consisting mainly sandy silt/silt-like materials (Dibblee 1986, Bengal Engineers 2019b).

Liquefaction. Liquefaction is a phenomenon that occurs when loosely consolidated soils lose their load bearing capabilities during ground shaking and flow in a fluid-like manner. The specific soil condition conducive to liquefaction is loose sands and silty sands below the water table and typically within the top 50

feet of the ground surface. The Bengal geotechnical investigation did not identify the presence of soil horizons that would have the potential for liquefaction (Bengal Engineers 2019b). Consequently, soils with liquefaction potential are not anticipated to occur within the trail alignment.

Landslide/Rockfall. Landslides generally occur on steep slopes that have been undercut by erosion or on slopes where the bedding planes of the bedrock are inclined down the slope. The updated project alignment avoids slopes with identified historic landslide activity. However, the Bengal geotechnical investigation found that due to the relatively low shear strength of the Monterey and Sisquoc Formations (Tm and Tsq) and the slope face orientation, the existing ocean-facing slope south of the proposed trail bridge is considered to be susceptible to surficial/local instability under static conditions.

Soil Settlement/Consolidation. Settlement is the downward movement of soil or of structures it supports, resulting from a reduction in the voids in the underlying strata. The Bengal geotechnical investigation did not identify the presence of soil horizons that would have the potential for settlement or consolidation (Bengal Engineers 2019b). Consequently, soils with settlement potential are not anticipated to occur within the trail alignment.

Expansive Soils. Expansive soils are those characterized as having a high shrink-swell potential, associated with a high percentage of clay content. The Bengal geotechnical investigation did not identify the presence of soil horizons that would have the potential for expansiveness (Bengal Engineers 2019b). Consequently, soils with expansion potential are not anticipated to occur within the trail alignment.

Environmental Thresholds

The City of Carpinteria's Guidelines for the Implementation of the California Environmental Quality Act of 1970, as Amended (1997), states the following conditions or impacts shall be considered significant:

- *The graded or cleared portion of the site includes more than 10,000 square feet of area having a slope greater than 15 percent.*
- *There is a significant risk that more than 2,500 square feet will be unprotected or inadequately protected from erosion during any portion of the rainy season.*
- *Grading or clearing will occur within 50 feet of any watercourse or 100-year floodplain.*
- *Grading will involve cut and fill volumes of 3,000 cubic yards or more, or cut or fill heights of 15 feet or greater.*
- *The project will significantly increase water runoff, velocities, peak discharges, or water surface elevations on or off-site. Coordinate with the Department of Public Works for clarification.*

- *The project will produce erosion impacts which constitute a structural hazard or significant visual impact, or will result in sediment or excessive drainage flows which cannot be contained or controlled on-site.*
- *The project will result in impacts which violate or are in conflict with any of the Federal, State, or local policies, ordinances or regulations listed above.*
- *Any cut or fill slope over 15 feet in height is potentially significant for grading, visual, erosion, siltation and community character impacts.*
- *Any grading which includes the addition, removal or moving of earth is potentially significant.*
- *Any grading proposed within environmentally sensitive areas is potentially significant.*

The County thresholds are similar and include the following criteria:

- *The project site or any part of the project is located on land having substantial geologic constraints, as determined by P&D or PWD. Areas constrained by geology include parcels located near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. "Special Problems" areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.*
- *The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.*
- *The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.*
- *The project is located on slopes exceeding 20% grade.*

Project Specific Impacts

a) The California Department of Conservation provides an index map that identifies all Official Maps of Earthquake Fault Zones delineated by the California Geological Survey through December 2010 under the Alquist-Priolo Earthquake Fault Zoning Act. According to the most recent data, the proposed project is not located within an Alquist-Priolo earthquake fault zone; however, the project site is to the north of the Pitas Point quadrangle (Department of Conservation 2011). The northwestern corner of the Pitas Point quadrangle encompasses a very small portion of Santa Barbara County, consisting of the Rincon Point neighborhood south of Rincon Point Lane. The fault line within the Pitas Point Quadrangle that is closest to the proposed project runs northwest-southeast, north of La Conchita Beach in Ventura County, approximately two miles southeast from Rincon Beach County Park (Department of Conservation 1991).

According to the City of Carpinteria's General Plan Fault Map, the Rincon Creek fault is located to the north of the proposed project and the Carpinteria Fault is located to the south (City of Carpinteria 2003).

In the immediate vicinity of the proposed trail and parking lot, the project is located on the up-thrown side on an inferred fault located to the north of US Highway 101 near the connection to Highway 150 (City of Carpinteria 2003). According to the Santa Barbara County's South Coast Seismic Tectonic Map, the entire south coast portion of the county, including the project site, is rated as having a high seismic potential with a moderate possible variation from the assigned rating (County of Santa Barbara 2011). The Santa Barbara County South Coast Seismic Tectonic Map indicates that the Red Mountain fault is the closest known potentially active fault and traverses the proposed trail near the intersection of the UPRR and the trail alignment. The Red Mountain fault is approximately 39 km (24 miles) long and trends in a generally east-west direction, running parallel to the coastline, near the project area. A maximum credible earthquake of moment magnitude 6.8 has been assigned to this reverse displacement fault (CDMG 1996).

The proposed project consists of a shared-use path with pedestrian bridge and other trail improvements. The project would not introduce new buildings that would be subject to structural damage in the unlikely event of strong seismic ground shaking. Moreover, there are no existing buildings within the project area that would pose a risk of loss, injury, or death as a result of potential structural damage caused by earth movement. However, the pedestrian bridge structure could be damaged by seismic activity if not designed to withstand the potential peak ground acceleration of 0.8 g, as identified in the Bengal geotechnical report (Bengal Engineering, 2019b).

Slopes along the trail alignment are proposed to be re-graded to achieve a finished slope face that is more gradual (less steep) than the existing slope faces. Slopes adjacent to US Highway 101 would be reshaped with those above the trail having a slope ratio of 1.25:1, fill slopes (which would be present only adjacent to the bridge over the UPRR) are proposed to have slope ratios between 2:1 and 4:1. For the portion of the path on the ocean side of the UPRR alignment, the regraded slopes for the trail "bench" would employ cut slopes with a ratio of 1:1 above the trail, while a ratio of and 1.25:1 would be employed for the "reinforced" fill slopes below the trail. These slope angles are each shallower than existing conditions, and mid-elevation benches in the slopes would further decrease the potential for mass soil movement (shallow landslides).

The Carpinteria Valley is subject to geologic hazards related primarily to earthquakes and secondary hazards, such as landslides and liquefaction; the project includes manufactured slopes and a bridge structure that could be damaged by seismic ground shaking. ***As such, potential impacts relating to adverse effects caused by strong seismic ground shaking, or seismic related ground failure would be significant without mitigation.***

b) Soils within the project site have been classified as Xerorthents, cut and fill areas (USDA 2019). The NRCS Web Soil Survey provides an erosion hazard rating that indicates the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. Xerorthents in the project area have a moderate erosion hazard rating, which indicates that some erosion is likely and that erosion control measures may be needed (USDA 2019).

To prepare the site for trail construction, the trail alignment along with adjacent slopes would be graded to meet the proposed finished grade surface and to achieve stable slope profiles above and below the trail. It is anticipated that total cut would be approximately 104,400 cubic yards and total fill would be approximately 10,300 cubic yards during the grading phase. Cut material onsite would be utilized for the necessary fill material, as feasible The re-grading of previously manufactured slopes is intended to reduce the angle of the slope face, decreasing historic erosion rates and increasing the long-term stability of the slope faces. The lower angle slopes would not be noticeably different from the existing manufactured slopes, but should eliminate or greatly reduce the amount of soil materials moving down the slope areas to be deposited on the trail or areas below the trail. Erosion potential would be lessened with the proposed engineered slope design. However, soil erosion could be increased unless proper slope construction techniques are employed. ***Accordingly, soil erosion impacts would be potentially significant without mitigation.***

c) Due to relatively low strength of the underlying Monterey Formation (Tm) siltstone/shale bedrock, the single span bridge structure could experience differential settlement and related damage or collapse, ***a potentially significant impact without mitigation***. The Bengal geotechnical report also concluded that from a slope stability perspective, the slopes along the coastal bluff, both above and below the existing unsanctioned County trail are problematic with respect to local/surficial slope instability. The proposed grading plans were reviewed by Bengal and existing slopes and proposed cut slopes were analyzed for gross stability. Shear strength test results were obtained and slope stability analyses were performed to evaluate the global or overall static as well as seismic loading conditions. Based on the Bengal slope stability analysis, the subject slopes containing the proposed trail alignment are considered to have adequate stability against static loading or under normal, short and long term service conditions. However, with seismic activity, shallow slope instability could occur. ***As such, shallow slope instability associated with seismic activity is considered a potentially significant impact without mitigation***.

d) The Bengal geotechnical report did not identify soils with expansive characteristics, and therefore the potential is very low for expansive soils to be present within the trail alignment. ***Potential impacts relating to expansive soil would be less than significant.***

e) The proposed project does not include restrooms of other waste generating facilities that would require the use of septic tanks, sewers or alternative wastewater disposal systems. ***No impact would occur.***

f) The soil in the area of the proposed trail was characterized as Xerorthents, cut and fill areas consisting of mechanically manipulated soils where the original profile is no longer discernible (USDA 2019). Monterey Formation marine siliceous shale of the early to late Miocene age, sand and cobbles of the Santa Barbara formation, and older dissected surficial sediments composed of former alluvial deposits of silt, sand and gravel that in places are weakly consolidated, form the geologic base of the project site (Dibblee 1986). The potential for paleontological resources to be encountered during project grading is low to none due to the extensive historical cut and fill within the project area and due to the existing quality of soils, which have been mechanically manipulated as a result of previous construction projects.

The Phase 1 survey found that no prehistoric artifacts are mixed with modern debris and that the area has already been subject to extensive ground disturbances associated with construction. The Phase 1 conclusion is confirmed by the previous SAIC investigation (1996) that was conducted along the northern edge of the Rincon Beach County Park parking lot for a cellular communications facility. The investigation concluded that prehistoric artifacts were mixed with modern debris and the area had been subject to extensive ground disturbances associated with the construction, and subsequent abandonment, of US Highway 101. Therefore, the prehistoric cultural remains were not considered an important resource and no additional measures were required. ***Impacts would be less than significant.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to geologic resource impacts. However, the project's contribution to cumulative geologic resource impacts would not be considerable based on the information above because the project impacts are site-specific and would not contribute to on or off-site regional seismic hazards, erosion or water quality impacts and would be further reduced through the implementation of the project specific measures identified in Hydrology and Water Quality.

Required Mitigation Measures

The potential exists for significant geology-related impacts to occur involving structural damage from seismic events, differential settlement of the pedestrian bridge structure, shallow slope instability associated with seismic activity, and increased soil erosion on slopes graded for the project. The following mitigation measures are required.

GEO-1 Seismicity. The pedestrian bridge shall adhere to the recommendation identified in the Bengal Engineering geotechnical report for engineering design and construction to withstand a peak ground acceleration (PGA) at the site of 0.8g generated by an earthquake of moment magnitude Mw=7.4.

Plan Requirements and Timing: Prior to issuance of a grading or building permit, the City of Carpinteria/County of Santa Barbara shall verify the engineering plans include this bridge design specification. ***Monitoring***: City of Carpinteria/County of Santa Barbara public works staff or construction inspector retained for the project shall inspect bridge construction to verify conformance with this specification.

GEO-2 Differential Settlement of Pedestrian Bridge Foundations. Bridge foundation construction shall adhere to the recommendation identified in the Bengal Engineering geotechnical report which specifies a deep foundation employing cast-in-drilled hole (CIDH) piles. Based on the anticipated loadings, Caltrans Standard Plan 24" CIDH Concrete Piles with 200 kips design capacity are recommended in the geotechnical report. Should hard cemented bedrock be encountered during the installation of the CIDH piles, coring may be necessary.

Plan Requirements and Timing: Prior to issuance of a grading permit, the City of Carpinteria/County of Santa Barbara shall verify the engineering plans include this bridge foundation specification. ***Monitoring***: City of Carpinteria/County of Santa Barbara public works staff or construction inspector retained for the project shall inspect foundation construction to verify conformance with this specification.

GEO-3 Soil Erosion/Slope Stability. Slope construction shall adhere to the recommendations in the geotechnical report, summarized below.

1. All new fills placed along the trail alignment shall be placed as engineered geotextile-reinforced soils with subsurface/back drains.
2. Manufactured slope profiles shall be no steeper than those depicted in the 30% Project Plans for Rincon Multi-Use Trail (Bengal Engineering, September 2019).
3. Install adequate surface drainage facilities to collect and dispose of surface-run off properly, consistent with the drainage system designs included in 30% Project Plans for Rincon Multi-Use Trail (Bengal Engineering, September 2019).
4. Hydro-seed the exposed newly cut and fill surfaces.

These measures, in conjunction of the slope flattening and load reduction resulting from the proposed slope cut backs, should substantially reduce the hazards associated with both slope erosion and local/surficial slope instability under both static and seismic loading conditions.

Plan Requirements and Timing: Prior to issuance of a grading permit, the City of Carpinteria/County of Santa Barbara shall verify the engineering plans include the above specifications. ***Monitoring***: City of Carpinteria/County of Santa Barbara public works staff or construction inspector retained for the project shall inspect slope and drainage system construction to verify conformance with these specifications.

Residual Impacts

Potential impacts related to geology and soils would be reduced to less than significant with implementation of mitigation measures GEO-1, GEO-2, and GEO-3.

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐	☐

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐	☐

Existing Environmental Setting

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind, lasting for an extended period (decades or longer) (EPA 2010a). The earth's climate has undergone many changes during its history, ranging from ice ages to long periods of warmth. Historically, natural factors such as volcanic eruptions, changes in the earth's orbit, and the amount of energy from the sun have affected global temperatures and the earth's climate.

Gases that trap heat in the atmosphere are often called greenhouse gases (GHGs). The greenhouse effect traps heat in the troposphere through a threefold process: short-wave radiation emitted by the sun is absorbed by the earth; the earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit this long-wave radiation into space and toward the earth. This “trapping” of the long-wave (thermal) radiation emitted back toward the earth is the underlying process of the greenhouse effect. The greenhouse effect is a natural process that contributes to regulating the earth’s temperature. Without it, the temperature of the earth would be about 0°F (-18°C) instead of its present 57°F (14°C). Global climate change concerns are focused on whether human activities are leading to an enhancement of the greenhouse effect (NCDC 2010).

Principal GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone, O_3, and water vapor (H_2O). Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted to the atmosphere through natural processes and human activities. Emissions of CO_2 are largely by-products of fossil-fuel combustion, whereas CH_4 results mostly from off-gassing associated with agricultural practices and landfills. Manmade GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases, such as hydrofluorocarbons (HFCs), perfluorocarbons (PFC), sulfur hexafluoride (SF_6) and nitrogen trifluoride (NF_3), which are associated with certain industrial products and processes (CAT 2006).

The effect each GHG has on climate change is measured as a combination of the mass of its emissions and the potential of a gas or aerosol to trap heat in the atmosphere, known as its global warming potential (GWP). Total GHG emissions are expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG gas emissions are typically measured in terms of pounds or tons of “CO_2 equivalent” (CO_2E).

Several recent studies have attempted to explore the possible negative consequences that climate change, if left unchecked, could have in California. These reports acknowledge that climate scientists' understanding of the complex global climate system, and the interplay of the various internal and external factors that affect climate change, remains too limited to yield scientifically valid conclusions on such a localized scale. Substantial work has been done at the international and national level to evaluate climatic impacts, but far less information is available on regional and local impacts. Nonetheless, climate change modeling provides a picture of potential future changes and according to CARB, some of the potential impacts in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high O_3 days, more large forest fires, and more drought years (CARB 2006).

On a global scale, the primary effect of climate change has been a rise in average global tropospheric temperature of 0.2°C per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using emission rates from the year 2000 shows that further warming would occur, which would induce further changes in the global climate system during the current century. Changes to the global climate system and ecosystems and to California may include, but would not be limited to, the following:

- The loss of sea ice and mountain snowpack resulting in higher sea levels and higher sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures (IPCC 2007)
- A rise in global average sea level primarily due to thermal expansion and melting of glaciers and ice caps and the Greenland and Antarctic ice sheets (IPCC 2007)
- Changes in weather that include widespread changes in precipitation, ocean salinity, and wind patterns; and more energetic aspects of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold and the intensity of tropical cyclones (IPCC 2007)
- A decline of Sierra snowpack, which accounts for approximately half of the surface water storage in California, by 70% to as much as 90% over the next 100 years (CAT 2006)
- An increase in the number of days conducive to O_3 formation by 25% to 85% (depending on the future temperature scenario) in high O_3 areas of Los Angeles and the San Joaquin Valley by the end of the 21st century (CAT 2006)
- A high potential for erosion of California's coastlines and seawater intrusion into the Delta and levee systems due to the rise in sea level (CAT 2006)

In 2008, the United States produced 6,957 million metric tons of CO_2E ($MMTCO_2E$) (EPA 2010b). The primary GHG emitted by human activities in the United States was CO_2, representing approximately 85% of total GHG emissions. The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 94% of the CO_2 emissions. According to the 2008 GHG inventory data compiled by CARB for the California Greenhouse Gas Inventory for 2000–2008, California emitted 478 MMTCO2E of GHGs, including emission resulting from out-of-state electrical generation (CARB 2010c). The primary

contributors to GHG emissions in California are transportation, electric power production from both in-state and out-of-state sources, industry, agriculture and forestry, and other sources, which include commercial and residential activities.

Regulation of GHGs in the United States and California is relatively recent, beginning mid-2000s. As the proposed project would consist of construction of a shared-use path and associated amenities, many federal and state regulatory efforts do not apply to the proposed project. Mitigation measures, design strategies, and other emissions reduction measures primarily focus on operational GHG emissions as well, and thus, would not result in reductions of project-generated construction GHG emissions.

Environmental Thresholds

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). This approach is consistent with that recommended by the California Natural Resource Agency, which noted in its Public Notice for the proposed CEQA amendments that the evidence before it indicates that in most cases, the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact (CNRA 2009a). Similarly, the Final Statement of Reasons for Regulatory Action for amendments to the CEQA Guidelines confirms that an EIR or other environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable (CNRA 2009b).

OPR's Technical Advisory titled CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008, p. 4). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact', individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice" (OPR 2008, p. 6).

In May 2015, the County of Santa Barbara Board of Supervisors adopted the Energy and Climate Action Plan (ECAP) (County of Santa Barbara Long Range Planning Division, 2015) and certified the accompanying EIR (SCH# 20144021021) (PMC, 2015). The ECAP includes a greenhouse gas emissions forecast for unincorporated Santa Barbara County to 2035 and otherwise meets the criteria in CEQA Guidelines Section 15183.5(b) for a "plan to reduce greenhouse gas emissions." The ECAP commits the County to reduce community-wide greenhouse gas emissions by 15 percent below 2007 levels by 2020 consistent with the California Global Warming Solutions Act of 2006 (AB 32) and the related Climate Change Scoping Plan (California Air Resources Board, 2008). The ECAP concludes that the County can meet this emission reduction target by implementing 53 existing and new County projects, policies, and programs ("emission reduction

measures"), such as an energy checklist for residential building permits (BE 2), energy efficiency education and outreach programs (BE 4), and additional opportunities to recycle cardboard, glass, paper, and plastic products (WR 2). As a result, specific projects included in the ECAP's emission forecast are not currently required to incorporate emission reduction measures listed in the ECAP or any other mitigation measures to reduce greenhouse gas emissions. Concurrent with the ECAP, the Board of Supervisors also adopted an amendment to the Energy Element of the Comprehensive Plan that requires the County to monitor progress meeting the emission reduction target and, as necessary, update the ECAP.

The growth estimates used in the ECAP's greenhouse gas emissions forecast were based on the Santa Barbara County Regional Growth Forecast 2005-2040 (Santa Barbara County Association of Governments, 2007) and the 2010 U.S. Census. The growth estimates were based on factors such as population projections, vehicle trends, and planned land uses. The sources of greenhouse gas emissions included various sectors, such as transportation, residential energy, commercial energy, off-road, solid waste, agriculture, water and wastewater, industrial energy, and aircraft. As a result, most residential and commercial projects that are consistent with the County's zoning (in 2007) were included in the forecast, as were parks and recreation resources at levels to maintain adopted policies regarding ratios of recreation acreage to resident population. However, certain projects were not included in the emissions forecast, such as stationary source projects (e.g., large boilers, gas stations, auto body shops, dry cleaners, oil and gas production facilities, and water treatment facilities), Comprehensive Plan amendments, and community plans that exceed the County's projected population and job growth. A proposed project that was included in the ECAP's emissions forecast may tier from the ECAP's EIR for its CEQA analysis of greenhouse gas emissions. A project that tiers from the ECAP's EIR is considered to be in compliance with the requirements in the ECAP and, therefore, its incremental contribution to a cumulative effect is not cumulatively considerable (Class III).

Project Specific Impacts

a) *Construction.* The County's approach to evaluating potential project impacts related to GHG emissions under CEQA is based on consistency with the ECAP, which does not require a quantitative evaluation of project-generated GHG emissions. Nonetheless, GHG emissions resulting from construction of the project were estimated and included herein for disclosure purposes. Project-generated GHG emissions are estimated using CalEEMod consistent with the SBCAPCD recommendations for project-level review because CalEEMod has the ability to quantify indirect GHG emissions and GHG mitigation (SBCAPCD 2015a). Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. GHG emissions associated with temporary construction activity were quantified using the CalEEMod. On-site sources of GHG emissions include off-road equipment, and off site sources include hauling and vendor trucks and worker vehicles. Table 3.8-1 presents annual construction emissions in metric tons during 2020.

Table 3.8-1
Estimated Annual Construction Greenhouse Gas Emissions

	MT CO_2	MT CH_4	MT N_2O	MT CO_2E
Proposed Project	184.56	0.02	0.00	184.93

Source: See Appendix B for complete results.
MT CO_2 – metric tons carbon dioxide
MT CH_4 – metric tons methane
MT N_2O – metric tons nitrogen dioxide
MT CO_2E – metric tons carbon dioxide equivalent

As shown in Table 3.8-1, the estimated total GHG emissions during construction would be 185 metric tons CO_2E in the year 2020. Additional details regarding these calculations are found in Appendix B. ***As project-generated construction GHG emissions would be short-term, lasting approximately twelve months, the project's construction would have a less than cumulatively considerable impact on the environment.***

Operation. Proposed project operation would consist of maintenance activities including landscape watering, vegetation control, and other trail amenity care and repair, which would involve the temporary use of a light-duty truck that would generate nominal GHG emissions. The proposed project would not increase population that would generate an increase in vehicle trips. The project is designed to minimize use of materials in order to have less impact on the landscape and on natural resources. Local contractors and materials would be used whenever possible, minimizing vehicle miles traveled for the project, thereby further minimizing GHG emissions. Landscaping would be accomplished with native drought-tolerant plant species to reduce project water demand and GHG emissions associated with water supply, treatment, and distribution. Finally, the completed project would facilitate non-motorized forms of transportation, reducing reliance on motor vehicles to access the beach and supporting non-motorized commuting between Carpinteria and Ventura, also minimizing GHG emissions. ***As such, the proposed project would result in a less than cumulatively considerable contribution to GHG emissions and global climate change.***

The bluff face portion of the project south of the UPRR corridor is identified in both the City of Carpinteria's Sea Level Rise Vulnerability Assessment and the County of Santa Barbara's Vulnerability Assessment as being an area expected to be susceptible to erosional impacts as a result of sea level rise, which could reach up to a worst-case maximum of 10 feet by year 2100 (Carpinteria 2019). The proposed trail is located approximately 65 feet above sea level at the lowest elevation along the bluffs, and is also set back from the base of the bluffs by a distance ranging between 60 and 100 feet horizontally. Thus, even with accelerated erosion of the bluff face caused by greater wave uprush or more frequent inundation of the bluff base, the alignment of the trail south of the UPRR corridor is not anticipated to be impacted by sea level rise over the useful life of the project. In the future, the trail could be moved closer to the south side of the UPRR corridor, were bluff retreat to undermine this portion of the trail.

b) In May 2015, the County of Santa Barbara Board of Supervisors adopted an ECAP which includes a greenhouse gas emissions forecast for unincorporated Santa Barbara County to 2035 and otherwise meets the criteria in CEQA Guidelines Section 15183.5(b) for a "plan to reduce greenhouse gas emissions." The growth estimates used in the ECAP's greenhouse gas emissions forecast were based on the Santa Barbara County Regional Growth Forecast 2005-2040 (Santa Barbara County Association of Governments, 2007) and the 2010 U.S. Census. The growth estimates were based on factors such as population projections, vehicle trends, and planned land uses. The sources of greenhouse gas emissions included various sectors, such as transportation, residential energy, commercial energy, off-road, solid waste, agriculture, water and wastewater, industrial energy, and aircraft. As a result, most residential and commercial projects that are consistent with the County's zoning (in 2007) were included in the forecast, as were parks and recreation resources at levels to maintain adopted policies regarding ratio of recreation acreage to resident population. If the project complies with the ECAP, the GHG emissions are deemed not significant. The proposed multi-use trail is consistent with the City of Carpinteria land use designation of transportation corridor and with the County of Santa Barbara land use designation of recreation. ***Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.***

Cumulative Projects Impacts

As previously discussed, the ECAP EIR contains a programmatic analysis of GHG emissions for unincorporated Santa Barbara County and a project may tier from the ECAP's certified EIR for its cumulative impact analysis of GHG emissions. The activities associated with the proposed project were included in the ECAP's GHG emissions forecast. As a result, the project could tier from the ECAP's certified EIR for its cumulative impact analysis of GHG emissions.

The ECAP contains 53 County- and community-wide programmatic emission reduction measures intended to achieve the 15 percent GHG emissions reduction target by 2020. The County created the Energy and Sustainability Initiatives Division and is taking other steps to implement and monitor the effectiveness of these measures throughout the unincorporated county. As a result, the ECAP does not require the proposed project to incorporate project-specific emission reduction measures or mitigation measures to reduce GHG emissions. Therefore, the project complies with the requirements of the ECAP and, as provided in CEQA Guidelines 15183.5(b), its incremental contribution to the cumulative effect is not cumulatively considerable and would not have a significant impact on the environment.

Required Mitigation Measures

No mitigation measures would be required.

Residual Impacts

No residual impacts would occur.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 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??	☐	☐	☐	☒	☐
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒	☐

Existing Environmental Setting

The project area has no known history of illicit dumping and has been highly engineered and extensively disturbed related to construction of US Highway 101 and the UPRR. Because the northern trail area (northward of the UPRR) is adjacent to US Highway 101, aerially deposited lead could occur in shallow soils, from the historic presence of lead as a gasoline additive affecting vehicle activities within the US Highway 101 alignment. No other hazardous waste or contaminants are anticipated to be present within the proposed Rincon Trail alignment.

Environmental Thresholds

Appendix G of the CEQA Guidelines indicates that a project would have a significant impact due to hazards or hazardous materials if it would create a public health hazard, expose people to a potential health hazard or pose a threat to the environment through the use, production or disposal of materials which pose a hazard. The County's safety thresholds address involuntary public exposure from facilities or activities involving significant quantities of hazardous materials (e.g., oil wells, pipelines, rocket propellants, chlorine, etc.). The County of Santa Barbara Thresholds and Guidelines Manual (2008) identifies that these thresholds do not apply when populations are sporadic, which includes land uses such as hiking trails.

Project Specific Impacts

a,b) The proposed shared-use path and trail amenities would not use or generate hazardous materials. Therefore, no impacts with regard to the transport, use, accidental release or disposal of hazardous materials would occur. ***No impact would occur.***

c) No existing or proposed public schools are located within a quarter mile of the project site. Additionally, no known hazardous materials would be kept on-site. Therefore, there would be no impact to adjacent schools from the use or handling of any hazardous materials on the project site. ***No impact would occur.***

d) The project site is not included on a list of hazardous materials sites. Therefore, the project does not have the potential to expose people to a significant risk as a result of a known hazardous materials site. However, the northern portion of the trail alignment is immediately adjacent to the US Highway 101

alignment, and therefore aerially deposited lead (ADL) could occur in shallow soils, from the historic presence of lead as a gasoline additive affecting vehicle activities within the US Highway 101 alignment. Because of proposed grading for the trail, surface soils that could potentially contain ADL are likely to be removed, and transported off the site. However, some soils containing ADL could be used as fill for the project, or could be used off-site as fill in areas where the public could have exposure to the soils. Consequently, impacts from ADL containing soil could be ***potentially significant without mitigation***.

e) The project site is not located within the airport land use plan for any public use airport and is also not within two miles of a public airport. The closest public airport to the project site is the Santa Barbara municipal airport, located approximately 30 miles to the northwest. ***No impact would occur.***

f) The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Access to the proposed trail would be provided via the proposed parking lot at the western end of the trail that connects to Carpinteria Avenue and also at Rincon Beach County Park from Bates Road, both of which are public streets that could be accessed by emergency vehicles and personnel. The Carpinteria-Summerland Fire Protection District will review the proposed project to ensure no interference with emergency response or evacuation would occur during construction, as potentially related to truck traffic on area roadways. The proposed project is designed to correct unsafe conditions such as those that exist in the current alignment of the Pacific Coast Bikeway along US Highway 101 and the common practice of trespassing along the railroad corridor to access Rincon Beach County Park from the City of Carpinteria, thereby, reducing potential emergency events. ***No impact would occur.***

g) According to the City of Carpinteria's General Plan/Coastal Plan Fire Hazards Zones Map, the project alignment is located within a moderate fire hazard area (City of Carpinteria 2003). According to the Santa Barbara County's Fire Protection Districts, High Fire Hazard Areas and Flood Hazard Areas Map, the proposed project is not located within a fire hazard area (County of Santa Barbara 2011). The proposed project would not involve the construction of buildings or introduce substantial numbers of people into the area. The proposed project is designed to prevent unwarranted fire hazards to the land and public safety through vegetation control and use of native plant species along the alignment and within the proposed parking area. ***No impact would occur.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to hazardous materials/safety impacts. However, based on the analysis above, and with adherence to applicable Objectives and Policies found in the City and County's General Plan/Local Coastal Land Use Plans, the project is not expected to result in any site-specific public health or hazard. The project's contribution to cumulative hazards impacts would not be considerable.

Required Mitigation Measures

HM-1 **Aerially Deposited Lead (ADL).** Surface soils within the trail alignment segment north of the UPRR corridor shall be tested for potential ADL presence to determine if such soils may be used as fill, or must be disposed in a properly licensed landfill. Using the risk based screening levels developed by California Office of Environmental Health Hazard Assessment (OEHHA), excavated soils with a lead concentration less than or equal to 80 mg/kg total lead (analyzed by USEPA Method 6010 or 6020) would be acceptable for reuse without restrictions, including as fill material within the Rincon Trail project. Excavated soils that are considered a California hazardous waste (total lead concentration greater than or equal to 1,000 mg/kg or a soluble lead concentration greater than or equal to 5 milligrams per liter [mg/L] as determined by the California Waste Extraction Test [CAWet]) or are a RCRA hazardous waste and must be disposed of in a Class I hazardous waste landfill. Excavated soils with lead concentrations below 1,000 mg/kg but above 80 mg/kg total lead may be eligible for reuse with specific restrictions to reduce or eliminate exposure, with prior written approval from DTSC, or may be disposed of at an appropriately permitted landfill.

Plan Requirements: ADL testing requirements and soil re-use restrictions according to identified ADL concentration be shown on grading and building plans. Since excess soil material would be generated through proposed grading activities, soils containing greater than 80 mg/kg total lead shall not be used as fill material for the project, but shall be exported off-site. Soil containing total lead greater than 1,000 mg/kg shall be disposed in a Class I hazardous waste landfill. ***Timing***: Condition shall be adhered to throughout all grading and construction activities. ***Monitoring***: City of Carpinteria CDD and County P&D shall ensure measures are on plans. CDD/P&D Grading Inspectors shall spot check and ensure compliance on-site.

Residual Impacts

With incorporation of mitigation measure **HM-1** to address the potential for ADL to be present in shallow soils, residual impacts related to hazardous materials would ***be less than significant***.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐	☐

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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 result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐	☐
d) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	☐	☒	☐	☐	☐
e) 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?	☐	☒	☐	☐	☐
f) Otherwise impede or redirect flood flows?	☐	☐	☒	☐	☐
g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒	☐
h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒	☐

Existing Environmental Setting

The majority of the proposed trail route is located along abandoned roadways, or old terraced road and rail cuts; most of the area has been mechanically manipulated over the years. A small unsanctioned trail exists in some areas of the proposed trail, including the portion of the proposed trail from the railroad crossing to the Rincon Beach County Park parking lot. At both ends of the trail are pre-existing parking areas; Rincon Beach

County Park has a paved lot and at Carpinteria Avenue there is an existing dirt lot which would continue to provide informal parking for the proposed project.

The proposed Carpinteria Avenue trail head and parking lot is currently unimproved with an area crowned in the approximate center of the lot for drainage purposes. It is anticipated that the majority of the storm water runoff from the lot enters Highway 150, and then drains onto the southbound freeway on ramp and ultimately collects into the freeway drainage system; drainage from this freeway sub-area is currently conveyed by a storm drain which outlets at the beach. The remaining runoff likely enters Carpinteria Avenue and drains to the southern edge curb line, then west until it enters at a drop inlet located within the curb.

The Rincon Beach County Park parking lot has three visible drainage points. An infiltration area is located along the south side of the parking lot and appears to serve the westernmost portion of the parking area, although most of the runoff from this area appears to enter a drop inlet located at the western terminus of the parking area, which continues draining to the beach below. The eastern portion of the parking area appears to drain from the County property onto Bates Road, where it enters a drop inlet located just north of the park entrance on the west side of the road, and likely into Rincon Creek through the existing storm drain system.

Under California Central Coast Regional Water Quality Control Board Resolution No. R3-2013-0032, bicycle paths where no other impervious surface is created or replaced are exempt from post-construction storm water quality control requirements (or PCRs). Given that at this time there are no parking lots or other facilities involving creation of impervious surfaces proposed with the bike path, this project would be considered exempt from post-construction water quality control requirements. The exemption is based on the expectation that bike paths and multi-use trails do not include contaminants typically associated with transportation facilities where motor vehicle usage is involved.

The proposed alignment is not located within a 100-year flood hazard zone (FEMA 2018), nor is it within a Tsunami Inundation Zone (California Department of Conservation Tsunami Inundation Map For Emergency Planning - Carpinteria Quadrangle, CDOC 2009).. The bluff face portion of the project south of the UPRR corridor is identified in both the City of Carpinteria's Sea Level Rise Vulnerability Assessment and the County of Santa Barbara's Vulnerability Assessment as being an area expected to be susceptible to erosional impacts as a result of sea level rise, which could reach up to a worst-case maximum of 10 feet by year 2100 (Carpinteria 2019).

Environmental Thresholds

The City of Carpinteria's Guidelines for the Implementation of the California Environmental Quality Act of 1970, as Amended (1997), states that the following conditions or impacts shall be considered significant:

<u>Hydrology</u>

Flooding

a) *Significant impacts result if the project would impose flood hazards on other properties.*

b) *The Municipal Code prohibits development within areas of special flood hazard except under certain circumstances. The policy requires approval by the Floodplain Administrator before construction, development or alteration begins within any area of special flood hazard.*

If the project would result in increased runoff:

a) *Impacts on hydrologic conditions may be significant because the area available for aquifer recharge is reduced. This may impact well water supplies.*

b) *There may be significant impacts on stream hydrology if uncontrolled runoff results in erosion and subsequent sedimentation of downstream water bodies.*

Threshold:

- moderate to large-scale projects where grading would occur during rainy season; or
- projects proximate to bodies of water or drainageways.

If project would result in modifications to existing drainage patterns:

a) *There may be significant impacts on biological communities if drainage patterns are changed.*

Threshold:

- Projects where drainage patterns are influenced such that existing vegetation would decline because long-or short-term soil-plant-water relationships would no longer meet habitat requirements.
- Projects which would result in substantial changes to streamflow velocities.

<u>Water Quality</u>

Pollution/Contamination

a) *Impacts on water quality may result in significant human health and safety impacts.*

Threshold:

- Projects which would generate any amount of highly noxious substance.
- Projects which would generate large amounts of substances which in small amounts are insignificant but are cumulatively hazardous.
- Projects that would result in the deterioration of the quality of a drinking water source.

b) *Impacts on water quality may have significant impacts on biological communities.*

Threshold:

- Projects which would generate, or result in the accumulation of substances which affect health, or cause genetic defects of wildlife either by direct physical contact with contaminated water, or by water quality changes which cause decline in riparian or lacustrine vegetation which provide wildlife habitat.

Project would be significant if it would result in erosion and subsequent sedimentation of water bodies:

Threshold:

- moderate to large-scale grading project (>2,000 cubic yards per graded acre)
- projects that results in loss of vegetation on slopes (e.g., brush management measures).

Project Specific Impacts

a) Under California Central Coast Regional Water Quality Control Board Resolution No. R3-2013-0032, bicycle paths where no other impervious surface is created or replaced are exempt from post-construction storm water quality control requirements. Nonetheless, the proposed project has been designed to reduce or minimize the potential for adverse impacts on storm water quality. The proposed trail would result in approximately 2,800 linear feet (or 1.0 acre) of impermeable surfaces (concrete), but would also include native restoration plantings or hydro-seed application at graded areas along the alignment. Native plantings or the application of hydro-seed would stabilize slope areas to minimize soil erosion and avoid water sediment-related water quality impacts. Trail use would be limited to pedestrians and cyclists, motor vehicles would be prohibited except for emergency response or infrequent maintenance activities. Consequently, petroleum distillate contaminants associated with many transportation facilities would not be associated with the proposed mixed-use trail. The use of the trail by pets may lead to pet waste contamination of water runoff. Dog feces, if left behind, can contribute to high bacteria counts in runoff water. However, pet waste receptacles with bags will be provided at the trailheads within the parking areas to encourage clean-up by pet owners and trail users.

The proposed project must also meet the construction-related standards set out in the City's Storm Water Management Plan. During construction, soil, dust, paints and concrete may inadvertently enter the storm water drainage system. A Storm Water Pollution Prevention Plan (SWPPP) covering water quality protection during the construction phase of the project would be required to be prepared and implemented by the applicant pursuant to the National Pollutant Discharge Elimination System (NPDES) State Construction Activities Storm Water General Permit. The General Permit, which is implemented by the State Water Resources Control Board, is required for projects disturbing one acre or more of soil. The SWPPP is required to include BMPs to be implemented during construction to control the discharge of materials from the site, and may include temporary retention basins, straw bales, sand bagging, mulching, erosion control blankets or soil stabilizers. Standard erosion control measures, as identified below, would ensure that the project does not have the potential to result in substantial soil erosion affecting water resources. ***Accordingly, the project's impacts to water quality would be potentially significant without mitigation.***

b) The project would not significantly deplete groundwater supplies or interfere substantially with groundwater recharge. Given the relatively small size of the alignment (approximately 1.0 acre of trail surface) and the use of native vegetation restoration where feasible, the project would not significantly

interfere with natural groundwater recharge. With respect to groundwater depletion, no new water supply would be required to serve the proposed trail use; native vegetation employed for biological restoration and project landscaping would not require irrigation following an initial grow-in period. Cut and fill areas are typically well drained with a very rapid surface runoff (USDA 2011) which will be addressed through project design features and standard storm water and erosion control measures to ensure no adverse effects on existing groundwater supplies will occur from project implementation. ***The project's impact on groundwater supplies would be less than significant.***

c-e) The project would moderately alter the existing drainage patterns of the site, via regrading of project slopes and short-term removal of vegetation, as well as through introduction of the impervious trail surface (approximately 1 acre of new impervious surface). Increased storm water run-off and erosion potential during construction and until new vegetation is established are addressed under Wat-1, Wat-2, Wat-3 and Wat-4. Long-term storm water run-off from the trail surface would be collected by a concrete v-ditch adjacent to the trail, and released through a series of short length storm drains with discharge along the adjacent beach. The provision of project-specific storm drains would accommodate the storm run-off volumes anticipated from the project's impervious surfaces, and also avoid directing storm water to existing public storm drain systems in the project vicinity that could lack surplus capacity to accommodate the project. Release of project storm drainage along the beach would not result in substantial erosion, as wave action typically redeposits sand to any depressions along the beach face. The proposed storm drain system includes concrete v-ditch for collection and conveyance of run-off water, drop inlets connecting to vertical drain pipes, and outlets at the beach elevation. The concrete v-ditch components would be durable, and not prone to weathering or failure over time. The vertical drains are proposed to be composed of a 12-inch diameter corrugated metal pipe. The pipe would be buried to cross beneath the trail section, and would descend partly down the bluff face. However, in order to allow visual access for inspection of the pipe integrity, the lower portion of the storm drain pipe would be mounted on the surface of the slope/bluff face. The corrugated metal material was selected for weight consideration and as a superior material to PVC for withstanding damage from fire or sun exposure. However, the metal is prone to rust or corrosion, with the potential for collapse or failure over time. Leaks from the vertical drains would contribute to erosion of the bluff face, failure of a vertical storm drain could lead to significant erosion of the bluff face. The storm drains would be installed by the project, WAT-5 requires periodic inspection and maintenance of the storm drains in perpetuity to prevent failure of such facilities. ***Accordingly, the project's impacts on existing drainage patterns and storm drain systems would be potentially significant without mitigation.***

f) The proposed project does not include housing units or habitable structures other than minor trail amenities and ancillary support features, such as the proposed pedestrian bridge over the UPRR corridor. Furthermore, according to the current Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) for the area (Panel 06083C1438H), the project is not located within a 100-year or a 500-year flood boundary (FEMA 2018). According to the Santa Barbara County's Fire Protection Districts, High Fire Hazard Areas and Flood Hazard Areas Map, the proposed project is not located within a 100-year flood hazard overlay (County of Santa Barbara 2011). The project alignment would not be located in the

vicinity of a levee or dam. The bluff face portion of the project south of the UPRR corridor is identified in both the City of Carpinteria's Sea Level Rise Vulnerability Assessment and the County of Santa Barbara's Vulnerability Assessment as being an area expected to be susceptible to erosional impacts as a result of sea level rise, which could reach up to a worst-case maximum of 10 feet by year 2100 (Carpinteria 2019). However, the proposed trail is located at a minimum of 65 feet above sea level at the lowest elevation along the bluffs, and is also set back from the base of the bluffs by a distance ranging between 60 and 100 feet horizontally. Thus, even with accelerated erosion of the bluff face caused by coastal flooding (i.e., greater wave uprush or more frequent inundation of the bluff base), the alignment of the trail south of the UPRR corridor is not anticipated to be impacted by sea level rise or exacerbated coastal flooding over the useful life of the project. ***No flood hazard impacts would occur.***

g) Inundation by seiche, tsunami, or mudflow can result from strong seismic activity, and such inundation is especially of concern where it could affect development involving pollutant sources potentially released to the environment. According to the City of Carpinteria's General Plan/Coastal Plan Fault Map, the Rincon Creek fault is located to the north of the proposed project and the Carpinteria Fault is located to the south (City of Carpinteria 2003). Although the Pacific Ocean is located to the south of the proposed project site, the proposed trail is located at elevations ranging from 40 feet above sea level to 185 feet above sea level. Where the trail is aligned along the bluffs the elevation ranges from approximately 65 to 75 feet above sea level. According to the California Department of Conservation Tsunami Inundation Map For Emergency Planning - Carpinteria Quadrangle, the project site is not located within an area of potential tsunami inundation (CDOC 2009). The proposed project is not located near an enclosed or partially enclosed body of water; therefore, there would not be subject to inundation by seiche. Areas susceptible to debris and mud flows correspond to the areas with a high potential for earthquake-induced landslides. The City of Carpinteria's General Plan Slope Stability Hazards Map indicates that the project is not located within a high landslide potential area or a high rock fall potential area (City of Carpinteria 2003). Finally, the project does not involve any hazardous materials or other pollutants that could be released in the event of inundation of the project site. ***Impacts relating to inundation by seiche, tsunami or mudflow would be less than significant.***

h) Under California Central Coast Regional Water Quality Control Board Resolution No. R3-2013-0032, bicycle paths where no other impervious surface is created or replaced are exempt from post-construction storm water quality control requirements. The project proposes drought-tolerant native landscaping with no permanent irrigation source, and therefore groundwater extraction to support the project would be temporary during plant establishment, and would not conflict with any adopted sustainable groundwater management plan. ***No impacts would occur to a water quality control plan or sustainable groundwater management plan.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to hydrology and water quality impacts. However, based on the analysis above, and with adherence to applicable Objectives and Policies found in the City and County's General Plan/Local Coastal Land Use Plans, the project's

contribution to cumulative water resource impacts would not be considerable and would be further reduced through the implementation of the project specific measures below.

Required Mitigation Measures

Wat-1 **Obtain Coverage Under Construction General Permit**. The project shall obtain coverage under a Construction General Permit via the Central Coast Regional Water Quality Control Board (Water Quality Order 99-08-DWQ).

Plan Requirements: The requirement to obtain coverage from the CCRWQCB under a Construction General Permit shall be indicated on grading plans. ***Timing***: Evidence of coverage under a Construction General Permit shall be provided to the City of Carpinteria Public Works Department and County of Santa Barbara Public Works Division prior to the initiation of grading. ***Monitoring***: Public Works staff shall confirm evidence of the Construction General Permit issuance prior to issuance of grading permits.

Wat-2 **Storm Water Pollution Prevention Plan.** The construction contractor shall prepare a Storm Water Pollution Prevention Plan that includes Best Management Practices (BMPs) to be implemented and monitored prior to and during construction. The following BMPs shall be incorporated into the SWPPP to minimize potential construction-related water quality impacts:

1. Disturbed areas shall be stabilized or re-vegetated prior to the start of the rainy season. The work area shall be flagged to identify its limits. Vegetation shall not be removed or intentionally damaged beyond these limits.
2. Construction materials shall be placed in designated areas where they could not enter water bodies or storm drains due to spillage or erosion.
3. Waste and debris generated during construction shall be stored in designated waste collection areas and containers away from watercourses, and shall be disposed of regularly.
4. During construction, washing of concrete trucks, paint, equipment, or similar activities shall occur only in areas where polluted water and materials can be contained for subsequent removal from the site. Wash water shall not be discharged to the storm drains, street, drainage ditches, creeks, or wetlands. The concrete washout area shall be isolated from water bodies, and wash water and waste shall be removed from the project site. The location of the washout area shall be clearly noted at the construction site with signs.
5. All fueling of heavy equipment shall occur in a designated area removed from water bodies and other drainages, such that any spillage would not enter surface waters. The designated refueling area shall include a drain pan or drop cloth and absorbent materials to clean up spills. The location of the fueling area shall be clearly noted at the construction site with signs.

6. Vehicles and equipment shall be maintained properly to prevent leakage of hydrocarbons and coolant, and shall be examined for leaks on a daily bases. All maintenance shall occur in a designated offsite area. The designated area shall include a drain pan or drop cloth and absorbent materials to clean up spills.

7. Any accidental spill of hydrocarbons or coolant that may occur on the construction site shall be cleaned up immediately. Absorbent materials shall be maintained on the construction site for this purpose.

Plan Requirements: A Storm Water Pollution Prevention Plan (SWPPP) shall be prepared and implemented prior to construction and shall include the above elements.. The SWPPP shall be submitted to Public Works for review and approval prior to the issuance of grading permits for the project. ***Timing***: The storm water features and BMPs shall be installed and operational prior to initiation of grading. ***Monitoring***: Public Works staff shall site inspect for installation and maintenance in accordance with the approved plan and periodically thereafter to ensure proper maintenance over the duration of construction activities.

Wat-3 **Erosion and Sediment Control Plan.** Best available erosion and sediment control measures shall be implemented and maintained during grading and construction. Best available erosion and sediment control measures may include, but are not limited to use of sediment basins, gravel bags, silt fences, geo-bags or gravel and geotextile fabric berms, erosion control blankets, coir rolls, jute net and straw bales. Construction access points shall be stabilized using gravel beds, rumble plates or other measures to prevent sediment from being tracked onto adjacent roadways. Any sediment or other materials tracked offsite shall be removed the same day as they are tracked using dry cleaning methods.

Plan Requirements and Timing: An erosion and sediment control plan shall be submitted to and approved by Public Works prior to issuance of a grading permit. The plan shall be designed and implemented to address erosion and sediment control during all phases of development of the site. ***Monitoring***: Public Works shall perform site inspections throughout construction.

Wat-4 **Planting of Vegetation.** As soon as practicable following the completion of trail construction, the contractor shall install native plantings for biological restoration and hydro-seed slope areas with an appropriate native plant seed mix, in order to provide long-term stabilization of soils disturbed during construction .

Plan Requirements and Timing: Landscaping plans including biological restoration areas and hydro-seeding of manufactured slope areas submitted to CDD/P&D for review prior to issuance of a grading permit. ***Monitoring***: CDD/P&D shall site inspect vegetation plantings and hydro-seed application before issuing final clearance and acceptance of the trail project.

Wat-5 **Periodic Inspection and Maintenance of Storm Drain Components.** Staff from City and County Parks/Public Works departments shall perform an annual inspection of storm water components annually, prior to the on-set of the rainy season (November 1) to ensure all components are in good repair and are not blocked by debris or sediment. Any materials found to be obstructing flow in the drainage system shall be removed prior to November 1 each year. The exposed vertical portion of each of the corrugated metal pipe drains shall be examined annually for signs of corrosion or openings in the drain pipe wall. Corrosion visible on the exterior pipe wall shall be treated and sealed promptly, any holes through the pipe wall shall be patched, or the affected segment shall be replaced.

Plan Requirements and Timing: The applicant shall include these inspection and maintenance requirements in the final drainage system design plans. The plans shall be submitted to CDD/P&D and Public Works for review prior to approval of a grading permit. ***Monitoring***: A memo with the annual inspection notes and corrective maintenance performed shall be prepared and submitted to the City and County Public Works Director.

Residual Impacts

With incorporation of Mitigation Measures **Wat-1 through Wat-5**, residual impacts to hydrology and water quality resulting from potential uncontained storm water runoff or soil erosion and sedimentation during construction and operation of the project would be ***less than significant***.

3.11 LAND USE AND PLANNING

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

Existing Environmental Setting

The Land Use Elements in the City and County's General Plan/Local Coastal Land Use Plans establish the types and intensities of land uses and guide growth and development within Carpinteria and unincorporated County lands within the Carpinteria Valley. The Land Use Element is the heart of the Land Use Plan of the two certified Local Coastal Programs (California Coastal Act of 1976, §30108.5); however, other elements of the General Plan are also included as components of the Land Use Plan for the purposes of the Local Coastal Program.

The vision for the City includes qualities the community would like to retain and aspects that could benefit from change. The City and surrounding area enjoy a variety of attractive natural resources including safe, clean beaches, coastal bluffs, a salt marsh, several creeks, a narrow valley and a coastal mountain range. These same features contribute to the environmental qualities of the surrounding County lands.

US Highway 101 is located to the north of the proposed trail alignment, with the Pacific Ocean to the south below the Carpinteria bluffs; the UPRR rail corridor bisects the central portion of the trail alignment. Undeveloped bluff open space designated for visitor-serving commercial use (City of Carpinteria 2003) is located adjacent to the western terminus of the trail and proposed parking lot, while the Rincon Point residential community is located adjacent to the eastern terminus of the trail. The subject parcels are designated Visitor-Serving Commercial (VC) by the City of Carpinteria Land Use Plan and Other Open Land and Recreation by the County of Santa Barbara.

Environmental Thresholds

Neither the City of Carpinteria's Guidelines for the Implementation of the California Environmental Quality Act of 1970, as Amended (1997), nor the County of Santa Barbara Thresholds and Guidelines Manual provide thresholds related to land use and planning. Generally, a potentially significant impact can occur if a project would result in a physical effect related to the checklist questions above.

Project Specific Impacts

a) The proposed project consists of a shared use path that would provide safe access from Carpinteria Avenue to Rincon Beach County Park and the Ventura County line. The project site is currently undeveloped with an unsanctioned trail in some areas. The proposed project would not traverse an established community; instead, the project would provide safe, non-vehicular access and connections from neighborhoods in the City of Carpinteria and the County of Santa Barbara, potentially benefiting land uses near the project site. ***No impact would occur.***

b) The project site within the City of Carpinteria has a Carpinteria General Plan/Coastal Land Use Plan land use designation of Visitor-Serving Commercial (2003) and has been zoned for Resort Zone District use. The portion of the project within the County of Santa Barbara is designated as Other Open Land and Recreation and is zoned Transportation Corridor and Recreation (County of Santa Barbara 2010b). The

proposed trail is an apt use for the City's and County's vision for the properties within each jurisdiction. With the incorporation of mitigation measures identified in this document to reduce environmental impacts to less than significant levels, the proposed project would not conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project. In addition, no habitat conservation plans or natural community conservation plans apply to the project site. Land use impacts would be ***less than significant with mitigation incorporated.***

Cumulative Impacts

The proposed project would not have any negative cumulative impacts involving land use matters. The trail link between Carpinteria and the Santa Barbara/Ventura County line would provide a meaningful route between established communities and would enhance the opportunity for residents and visitors to walk or use bicycles as transportation instead of taking a motor vehicle between the two locations.

Cumulative development throughout the Carpinteria Valley would incrementally contribute to land use impacts. However, based on the analysis above, and with adherence to applicable Objectives and Policies found in the City and County's General Plans/Coastal Land Use Plans, the project's contribution to cumulative land use impacts would not be considerable and would be further reduced through the implementation of the project specific mitigation measures identified in this document.

Required Mitigation Measures

Required or recommended mitigation measures have been identified in the Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology & Soils, Hazards & Hazardous Materials, Hydrology/Water Quality Noise, and Tribal Cultural Resources sections of this document. There are no additional required mitigation measures addressing Land Use.

Residual Impacts

Residual impacts resulting from land use policy conflicts would be ***less than significant*** with mitigation incorporated.

3.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?	☐	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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?	☐	☐	☐	☒	☐

Existing Environmental Setting

Oil is the only mineral resource known in the Carpinteria Area in significant quantities. Historically in the Carpinteria area, oil mining and extraction activities have been limited to offshore drilling and extraction platforms, onshore oil storage facilities, a crew boat base, product transportation terminal and an oil and natural gas processing plant; many of these activities have been discontinued at this time. No other mineral resources are known to exist in the project area.

Environmental Thresholds

Neither the City of Carpinteria's Guidelines for the Implementation of the California Environmental Quality Act of 1970, as Amended (1997), nor the County's Thresholds and Guidelines documents provide thresholds related to mineral resources. The CEQA Guidelines Appendix G thresholds in the checklist above are applied in this analysis.

Project Specific Impacts

a-b) No mineral resources or mineral recovery sites have been identified within the project vicinity. As the proposed project consists of a public shared-use path for alternative transportation and recreational use, the project would not result in the loss of available mineral resources or a mineral recovery site. ***No impacts to mineral resources would occur.***

Cumulative Impacts

As the proposed project would not result in impacts to mineral resources, it would not result in a contribution to cumulative impacts to mineral resources. No cumulative impacts would occur.

Required Mitigation Measures

No mitigation would be required.

Residual Impacts

No residual impacts would occur.

3.13 NOISE

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

Existing Environmental Setting

The City of Carpinteria and surrounding County of Santa Barbara area are affected by several different sources of noise, including automobile and rail traffic, agricultural and industrial activity, ocean waves and wind, and periodic nuisances such as construction, loud parties and other events. Noise is typically defined as any sound that is undesirable. The level of annoyance that noise causes depends upon several factors including the magnitude of the noise, the duration of the noise event and the time at which the noise event occurs. The major noise sources in Carpinteria are transportation related noise sources, including US Highway 101, freight and passenger railroad service and major arterial roads.

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment of actual sound power levels to better correlate with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note

on a piano) and less sensitive to low frequencies (below 100 Hertz) (CDPR 2008). In addition to the actual instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress.

The City of Carpinteria General Plan/Local Coastal Land Use Plan Noise Contour Maps indicate that the proposed project is located within a 70 dBA noise contour for existing and future conditions (City of Carpinteria 2003). US Highway 101 and the UPRR are the predominant noise sources in the project area.

Some land uses are considered more sensitive to noise levels than others, based upon the amount of noise exposure (in terms of both exposure time and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, and auditoriums are generally considered more sensitive to noise than are commercial and industrial land uses (CDPR 2008). As described in Section 3.3 Air Quality, the closest sensitive receptors to the project site are residences in the Rincon Point community with the closest residence to the proposed trail is located approximately 900 feet (274 meters) south of the easternmost trail section. Residences north of US Highway 101 would not be subject to potential noise generated during project construction or operation as noise would not be audible over highway noise associated with vehicle movement. Carpinteria Avenue and adjacent US Highway 101 run along the northern boundary of the commercial land uses located approximately 0.3 miles (483 meters) northwest of the parking lot proposed on Carpinteria Avenue in the westernmost section. Similar to land uses north of US Highway 101, potential project-generated noise would not be audible over roadway noise. As such, the residences within the Rincon Point neighborhood are the only potentially sensitive receptors.

Environmental Thresholds

Both the City of Carpinteria and County of Santa Barbara prohibit unnecessary, excessive and annoying noises from all sources, be it noise associated with short-term construction activities or long-term use of land. The City's and County's CEQA Guidelines provide thresholds for the analysis of noise impacts. The Guidelines establish both interior and exterior thresholds for noise compatibility, as well as thresholds for construction-related noise generation.

In general, development that would generate noise levels in excess of 65 dBA and could affect sensitive receptors is generally presumed to have a significant impact. In addition, according to the Santa Barbara County Environmental Thresholds Manual (2008), noise generating construction activities within 1,600 feet of sensitive receptors, including schools and residences, is limited to the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday only. Similar limitations on construction hours are applied in the City of Carpinteria when there is the potential to impact sensitive receptors. The closest residences to the construction area for the eastern trail portion are also approximately 900 feet away (Rincon Point); haul trucks travelling through Rincon Beach Park would pass within 125 feet of the closest Rincon Point residences.

Project Specific Impacts

a) The project may include noise generation from pedestrian and bicyclists using the proposed trail and from trail maintenance activities. These noises are infrequent and periodic and would not trigger any thresholds of significance. Further, project noise is not expected to be audible over the ambient noise of the adjacent highway and railroad transportation corridors. The project area is located in a 70 dBA noise contour for existing and future conditions, as designated within the City's General Plan/Coastal Land Use Plan. Rincon County Beach Park is located adjacent to the western boundary of the Rincon Point neighborhood. Noise generated by the addition of a shared-use path would not result in a substantial increase in noise associated with park and recreational use. As the project only proposes lighting at the western parking lot and not along the entire trail alignment, it is anticipated that trail use before sunrise or after dark would be less than during the daytime hours; therefore, potential noise generating activities would be limited to daytime hours. ***Project-generated permanent noise impacts would be less than significant.***

   Project-generated construction noise would be short term in nature and construction hours and days would be limited to existing County standards. However, to ensure that noise levels would be kept to a minimum and to reduce construction noise near the Rincon Point residential sensitive receptors, the hours of construction and days of the week in which construction may occur would be limited by the application of the County's standard noise condition included as Mitigation Measure Noise-1. Separate mitigation measures that require that all construction equipment be maintained in proper working order and fitted with standard noise reduction features (e.g., mufflers), and that require loud stationary equipment to be buffered from adjacent sensitive receptors have also been incorporated as mitigation measure Noise-2. ***Impacts would be potentially significant without mitigation.***

b) The main concern associated with ground-borne vibration is annoyance, however, in extreme cases, vibration can cause damage to buildings, particularly those that are old or otherwise fragile. Some common sources of ground-borne vibration are trains, and construction activities such as blasting, pile-driving, and heavy earth-moving equipment. The existing railroad presents a significant source of ground borne vibration in the project area. The proposed project would not generate any long-term (operational) new sources of vibration, and the pedestrian bridge would be designed to withstand occasional vibrations as a result of passing trains. Further, the vibration would be infrequent and periodic for any trail users. The primary source of ground-borne vibration occurring as part of the proposed project would be short-term construction activity.

   Ground-borne vibration information related to construction activities has been collected by Caltrans (Caltrans 2013b). Information from Caltrans indicates that transient vibrations (such as construction activity) of approximately 0.035 inch per second (in/sec) peak particle velocity (PPV) may be characterized as barely perceptible, and vibration levels of 0.24 in/sec PPV may be characterized as distinctly perceptible by persons. Caltrans identifies a threshold for structural building damage, which typically occurs at vibration levels of 0.5 in/sec PPV or greater for buildings of reinforced-concrete, steel, or timber construction, or 0.2 in/sec PPV for typical residential construction.

The most important equipment relative to generation of vibration, and the vibration levels produced by such equipment, is illustrated in Table 13.3-1. Large bulldozers and loaded trucks would produce the highest level of vibration for the proposed project. The closest residences to the construction area for the eastern trail portion are approximately 900 feet away (Rincon Point); haul trucks travelling through Rincon Beach Park would pass within 125 feet of the closest Rincon Point residences.

Table 13.3-1
Vibration Velocities for Typical Construction Equipment

Equipment	PPV at 25 Feet (Inches Per Second)
Large Bulldozer	0.089
Loaded Trucks	0.076
Drill Rig / Auger	0.089
Jackhammer	0.035
Small Bulldozer	0.003

Source: Caltrans 2013(b).

As shown in Table 13.3-1, a large bulldozer generates vibration levels of 0.089 in.sec PPV at a distance of 25 feet, while a loaded truck generates vibration levels of 0.076 in/sec PPV at a distance of 25 feet. The nearest residences to the trail construction activity would approximately 900 feet from ground disturbance (use of a bulldozer), and could experience vibration levels of 0.0004 inches per second PPV during bulldozer operations. The closest residence to the haul route for loaded trucks traveling through Rincon Beach County Park would be at a distance of approximately 125 feet, and could experience vibration levels of 0.007 inches per second PPV during loaded truck pass-by. Vibration levels at these receptors would not exceed the Caltrans building damage threshold of 0.2 inches per second PPV for fragile or historic structures. These vibration levels would also be well below the level considered barely perceptible to persons (0.035 in/sec PPV), and therefore should generally not be discernible to area residents. While some persons particularly sensitive to vibration may perceive some vibration episodes during certain construction activities, vibration levels would not be anticipated to reach annoyance levels for residents along the project alignment. Ground-borne vibration would not be associated with the proposed project following construction activities. Impacts related to ground-borne vibration **would be less than significant**. No mitigation is required.

c. The proposed project would not expose people residing or visiting in the project area to excessive noise levels from aircraft. The nearest public airport is Santa Barbara Airport, located approximately 20 miles west of the project site. There are no private airports in the vicinity of the project site. As such, no impacts from airport/aircraft noise would occur. No mitigation is required.

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to noise impacts. However, noise analysis for the project indicates that future noise conditions will not exceed the City's or

County's established parameters with the identified mitigation. In addition, the measures identified to reduce short term construction noise impacts would reduce the project's contribution to cumulative noise impacts on nearby sensitive receptors. Therefore, cumulative noise impacts would not be considerable.

Required Mitigation Measures

Noise-1 **Construction Hours.** Construction activity for site preparation and for future development shall be limited to the hours between 8:00 a.m. and 5:00 p.m., Monday through Friday. No construction shall occur on State holidays (e.g. Thanksgiving, Labor Day) or weekends. Construction equipment maintenance shall be limited to the same hours. Non-noise generating construction activities are not subject to these restrictions.

Plan Requirements: Two signs stating these restrictions shall be posted on-site at each end of the proposed trail. ***Timing***: Signs shall be in place prior to the beginning of and throughout all grading and construction activities. ***Monitoring***: Grading Inspectors shall spot check and respond to complaints.

Noise-2 **Construction Equipment.** All construction equipment with engines must have original manufacturer's approved muffling devices. All stationary equipment shall be physically buffered from nearby sensitive receptors.

Plan Requirements: Plans shall indicate the requirement of OEM muffled equipment. ***Timing***: This condition applies when any engine driven equipment is in use at the project site during construction. ***Monitoring***: Grading Inspectors shall spot check and respond to complaints.

Residual Impacts

With incorporation of mitigation measures **Noise-1 and Noise-2**, residual noise impacts on nearby sensitive receptors during construction would be ***less than significant***.

3.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
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)?	☐	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐

Existing Environmental Setting

Carpinteria is a city of approximately 13,000 residents and covers a land area of approximately 2.7 square miles. The project site is currently undeveloped. Existing City of Carpinteria or County of Santa Barbara staff would provide maintenance of the proposed trail. No housing is currently present on the project site, nor is the site designated for residential uses.

Environmental Thresholds

Neither the City of Carpinteria nor the County of Santa Barbara's Guidelines for the Implementation of the California Environmental Quality Act provide thresholds related to population and housing. The CEQA Guidelines Appendix G thresholds listed above are applied in this analysis.

Project Specific Impacts

a-b) The proposed project is not anticipated to result in an increase in population for the City of Carpinteria or the County of Santa Barbara. The proposed project does not include the demolition of existing housing, construction of new housing or displacement of people. The proposed project would generate short-term employment opportunities during construction of the trail. Given the temporary duration of project construction of approximately 12 months and availability of construction workers within Santa Barbara County and Ventura County, project construction is unlikely to generate a significant increase in population and/or new development that could result in a significant impact to the environment. The proposed trail maintenance would be performed by existing City of Carpinteria or County of Santa Barbara parks and recreation/maintenance staff. There would be no increase in part or full-time staff equivalents. ***Therefore, no project impacts on population or housing would result.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to population and housing impacts. However, as the project would not generate population growth or develop housing, the project would not contribute to cumulative population and housing impacts resulting from related project development identified in Figure 6, Cumulative Projects.

Required Mitigation Measures

No mitigation measures would be required.

Residual Impacts

There would be no residual impacts.

3.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a) Would the project 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?	☐	☐	☐	☒	☐

Existing Environmental Setting

Fire. Under the Fire Protection Law of 1961, the Carpinteria Planning Area is serviced by the Carpinteria-Summerland Fire Protection District. This District covers 40 square miles along the Pacific Ocean including land area within the City and the County. The District is bordered on the east by the Santa Barbara/Ventura County line and to the west by the community of Montecito. This District provides the Carpinteria Valley with adequate staff and facilities to serve the area in the event of a fire or emergency. There are currently two fire

stations that serve the area: one in the City (Walnut Avenue) and one in Summerland. Current response times range from three minutes to five minutes. All fire fighters (full-time and reserves) have EMT-1 training (City of Carpinteria 2003).

Wildland or brush fires are defined as those fires occurring in undeveloped areas commonly covered by heavy vegetation, typically in the hills and canyons. The Santa Barbara County Fire Department generally responds to wildland fires outside the urban limit zone defined by the Carpinteria-Summerland Fire Protection District (City of Carpinteria 2003).

Police. Law enforcement services within the incorporated City of Carpinteria are provided by the Santa Barbara County Sheriff's Department.

Schools. Schools within the Carpinteria Planning Area are administered by the Carpinteria Unified School District, which includes Aliso Elementary School, Canalino Elementary School and Canalino Preschool, Carpinteria High School, Carpinteria Middle School, Carpinteria Family School, Carpinteria Children's Project at Main, Rincon High School and Summerland Elementary School (CUSD 2019).

Parks. Carpinteria has approximately 97.96 acres of City parks within the City boundary. Carpinteria State Beach is also within the City boundary. Various County parks in the area include Rincon Beach County Park and Toro Canyon Park. Rincon State Beach Park is located just east of Rincon Beach County Park.

Environmental Thresholds

The City of Carpinteria's Guidelines for the Implementation of the California Environmental Quality Act of 1970, as Amended (1997), does not provide thresholds related to public services. The County of Santa Barbara's Environmental Thresholds and Guidelines Manual includes public safety thresholds; however, the guidelines state use of these thresholds are not applicable when transitory populations are considered to be sporadic or often absent, such as in the case of the proposed multi use trail where the infrequent presence of people renders a conclusion of significance as overly speculative. In addition, the County's manual includes an interim threshold for schools, which generally mirrors the CEQA Guidelines Appendix G thresholds listed above, which are applied in this analysis.

Project Specific Impacts

a-i) According to the City of Carpinteria's General Plan/Coastal Plan Fire Hazards Zones Map, the project site is located within a moderate fire hazard area (City of Carpinteria 2003). Carpinteria – Summerland Fire Protection District Fire Station #1, located at 911 Walnut Avenue, approximately two miles west of the project site, is the closest fire station to the project site that has the primary responsibility for responding to emergencies (Carpinteria – Summerland Fire Protection District 2011). The proposed project would not involve the construction of buildings or introduce substantial numbers of people into the area. The proposed project would also not require the construction of new fire facilities to accommodate the proposed trail and amenities. Further, the project may help reduce the fire danger from the current setting as proposed native plantings, vegetation control and fire-resistant project materials would be less

prone to fire danger than the currently dry and unmaintained vegetation sources on-site. ***Less than significant impact to fire services.***

a-ii) The proposed project is not anticipated to require the construction of new police facilities. The Santa Barbara County Sheriff's Department, Carpinteria Station, is located at City Hall at 5775 Carpinteria Avenue, approximately 1.3 miles west of the project site (Santa Barbara County Sheriff's Department 2019). The proposed project would not result in the construction of new buildings that could present unique challenges for police protection services on-site or result in an increase in population that would warrant the construction of new facilities to provide adequate police protection services. The trail would permit more convenient patrol of the project area by Park Rangers and County Sheriff personnel, resulting in a potential benefit to police protection. ***Less than significant impact to police services.***

a-iii) The proposed project is not anticipated to generate an increase in population that would have an adverse effect on existing schools or warrant the construction of new or expanded schools. ***Therefore, there would be no impact related to the development of new school facilities.***

a-iv) The proposed project is not anticipated to generate an increase in population that would warrant the construction of additional new parks. The proposed project would provide a safe connection from Carpinteria Avenue to Rincon Beach County Park, thereby increasing the ease of pedestrian and bicycle access to the County Park, which is an objective of the proposed project. As the project would facilitate safe access to the County Park, it is anticipated to increase recreational use of the Rincon Beach County Park and the Carpinteria Trail system. However, the increased use is not anticipated to result in the degradation of Rincon Beach County Park, other nearby parks, trails or associated recreational facilities and amenities. Also, the Rincon Trail would enhance access between the existing Rincon Point residential community and the newly established Rincon Bluffs preserve, benefitting the Rincon Point population as well as other Ventura County residents that would be able to walk or bike to the Rincon Bluffs preserve area. Lastly, the Rincon Trail itself represents a recreation resource for biking and hiking, with opportunities including enjoyment of the natural scenery.

The proposed project would require additional and occasional trail maintenance. Initially, the landscape areas would require weed management and irrigation during the dry months. Park design attributes such as the use of native plants would help to reduce costs associated with watering and plant care. Annual estimated maintenance costs are expected to be minimal. ***No impact to park resources would occur.***

a-v) The proposed project is not anticipated to generate an increase in population that would increase the demand for any other public facilities. ***There would be no impact***.

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to public service impacts. However, current and future projects proposed in the City of Carpinteria and County of Santa Barbara will be required be consistent with applicable General Plan/Coastal Plan policies, and to pay

Development Impact Fees (DIFs) and all special district fees. The proposed project would not result in significant impacts to public services. As such, the proposed project would not result in a cumulatively considerable impacts to public services.

Required Mitigation Measures

No mitigation would be required.

Residual Impacts

There would be no residual impacts.

3.16 RECREATION

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

Existing Environmental Setting

The City of Carpinteria Parks and Recreation Department's recent history of park and trail development dates back to 1985. In January 2010, the Carpinteria City Council approved the 2010 Parks Department Work Plan, which includes plans to complete the Rincon segment of the Carpinteria Coastal Vista Trail. As of December 2017, five miles of the Carpinteria Coastal Vista Trail have been constructed (Coastal Conservancy 2017). The proposed trail would link the City's trail and an existing County Park with a parking lot that can be very crowded on summer weekends when beach use is high, or during the winter when surfing conditions are favorable. The proposed trail would provide a safe route for alternative transportation between the City and the County Park.

There are several types of recreation-oriented open space in the project vicinity, including areas that are located in and maintained by the City, private entities, and state or county agencies.

- Public parks: state, county and local
- Natural areas publicly owned or privately owned with public access easements
- Undeveloped vacant lots, privately owned
- Privately owned recreational facilities
- School playgrounds and ball fields
- Trails: equestrian, bicycle, jogging and walking, and
- Coastal access and beaches.

Carpinteria has approximately 97.96 acres of City parks within the City boundary. Carpinteria State Beach is also within the City boundary. Carpinteria offers a variety of opportunities for coastal recreation. Downtown shops and restaurants draw visitors, as well as opportunities for surfing, fishing, bird watching, wildlife viewing and walking on nearby beaches. A number of special events take place in Carpinteria each year, including the California Avocado Festival and the Rincon Classic Surf Competition. Carpinteria is a city of approximately 13,000 people, with close to two million visitors a year due to the popularity of the area's beaches, parks and campground. The State Beach facilities are primarily used by out-of-town campers and local residents share the beachfront picnicking, restrooms and beach day use area (City of Carpinteria 2003).

The City of Carpinteria has a total of 4.1 bikeway miles, including 3.6 miles of formal street bikeway facilities and 0.5 miles of off-street bikeway facilities. Walking to recreational sites promotes direct interface with the physical environment as well as ecologically benefiting the community. Class I bikeways are trails or paths that have entirely separate rights of way from automobile roadways for the use of bicycles and pedestrians. The paths minimize crossflow with vehicle traffic and can be located in parks, recreational areas or road rights-of-way if such width permits (City of Carpinteria 2003). The proposed shared use path would be designed as a Class I Bikeway for the exclusive use of bicycles and pedestrians.

The City is in the process of completing an Open Space Management Plan for the City-owned Carpinteria Bluffs Nature Preserve and Tar Pits Park properties (Coastal Conservancy 2010). The Open Space Management Plan includes a public access element and lays out the City's vision for completion of the larger Carpinteria Coastal Vista Trail. In the meantime, the City has pursued completion of other segments of the Carpinteria Coastal Vista Trail, all of which have undergone extensive public hearings to receive Coastal Development Permits. Notable recent accomplishments with respect to regional bike circulation include the completion of the Class I bike path from Rincon Beach Park to Mobil Pier in Ventura County and the extension of a new all-weather bike path from Via Real to Carpinteria Avenue along Carpinteria Creek (as part of the Linden Avenue and Casitas Pass Road Interchanges and Via Real Extension project). Both of these bike paths would connect to the proposed Rincon Trail project. A trail easement has also been acquired by the City along the S&S Seeds property (6155 Carpinteria Avenue), and the Land Trust for Santa Barbara County has acquired the former Carpinteria Bluffs III 21-acre parcel at the eastern Carpinteria Avenue terminus which will be transferred to the City of Carpinteria as permanent public open space to be known as Rincon Bluffs.

In 2009, the City completed a Coastal Access Feasibility Study to analyze the feasibility of new sanctioned access points to connect Carpinteria's beaches and coastal resources with the rest of the community, determine potential railroad crossing alternatives, refine and prioritize alternatives based on public input, and create an implementation plan (City of Carpinteria 2009). The study was needed because of the "barrier effect" of the rail corridor on the City, the increased public use of the coast, the level of current and predicted passenger and freight train traffic with increased potential risk of conflict at uncontrolled crossings, the limited number of sanctioned crossings and the hazardous practice of trespassing over railroad tracks to reach coastal destinations. The study has resulted in a number of specific recommendations and preliminary designs for crossings, including the proposed crossing in the Coastal Vista Trail Rincon segment.

The proposed Carpinteria Rincon trail segment of the Carpinteria Coastal Vista Trail will ultimately connect with the Carpinteria Bluffs Nature Preserve portion of the trail constructed in 2004. This segment was constructed as a condition of the Coastal Development Permit for the Preserve allowing development of a parking area, baseball fields and restroom building (Coastal Conservancy 2010). The Carpinteria Bluffs Nature Preserve trail segment was planned and built to connect to the subject Carpinteria Rincon Trail segment and bridge across UPRR now proposed to create a contiguous trail.

Environmental Thresholds

The City of Carpinteria's and County of Santa Barbara Guidelines for the Implementation of the California Environmental Quality Act do not provide thresholds related to impacts to recreation from development of new recreational amenities. The CEQA Guidelines Appendix G thresholds listed above are applied in this analysis.

Project Specific Impacts

a,b) The proposed project includes a shared-use path for walking or biking. The proposed trail would connect an existing segment of the California Coastal Trail between the Carpinteria Bluffs Nature Preserve, which includes several miles of interconnected coastal bluff open space trails, and Rincon Beach County Park with one mile of blufftop trail. As the Rincon segment will expand the Carpinteria Coastal Trail System and would connect the City of Carpinteria with Rincon Beach County Park and points east and west along the Pacific Coast Bikeway, it would provide additional recreation and access opportunities along the Santa Barbara coastline. The project would provide a safe, direct and scenic coastal pedestrian and bike trail link to Ventura County paralleling US Highway 101 and would formalize one railroad overcrossing along this segment, providing for safe access to the coast. Therefore, no adverse impacts to recreation resources would occur; rather, a beneficial impact would result from the provision of additional recreation opportunities in the community. ***No impact would occur.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to recreation impacts. However, the proposed project would result in a beneficial impact to recreational resources and therefore, would not have a cumulatively considerable impact on recreation.

Required Mitigation Measures

Mitigation would not be required.

Residual Impacts

The proposed project would result in a beneficial impact to recreation. No residual impacts would occur.

3.17 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐	☐
c) 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?	☐	☐	☒	☐	☐

Existing Environmental Setting

The City of Carpinteria is situated along the California coast where the Santa Ynez Mountains meet the Pacific Ocean; Highway 150, US Highway 101 and UPRR all intersect in the southeastern entrance to the Carpinteria Valley near the Ventura County/Santa Barbara County line. The intensive transportation infrastructure improvements in this location included planning a bicycle route along the highway shoulder, but there is no other alternative access route between the City of Carpinteria and the Ventura County line. The proposed Carpinteria Rincon Trail will provide an important connection in this area and will link the two regions of Ventura County and Santa Barbara County, particularly now that the Class I Bikeway along the southbound US Highway 101 shoulder is completed between Rincon State Beach Park and Mussel Shoals in Ventura County.

Access between the City of Carpinteria and Rincon Beach County Park has primarily been provided by US Highway 101, though the distance between the two destinations is less than two miles. The use of US Highway 101 requires a motor vehicle or a bicycle to travel along the highway shoulder. Many bicyclists and pedestrians use the railroad corridor as an alternative route, as evidenced by the well-worn, unsanctioned trail that is currently present along the railroad tracks connecting Carpinteria residents and Carpinteria State Beach visitors with Rincon Beach County Park. The railroad corridor, however, presents a public access and safety concern equal to or greater than travel along the highway shoulder.

The proposed Carpinteria Rincon Trail would extend from the eastern end of Carpinteria Avenue to Rincon Beach County Park along abandoned roadways or old terraced road and rail cuts. A small unsanctioned trail exists in some areas of the proposed trail, including the portion of the proposed trail from the railroad crossing to the Rincon Beach County Park parking lot. At both ends of the trail are pre-existing parking areas; Rincon Beach County Park has a paved lot and at Carpinteria Avenue there is an existing dirt lot used for informal parking area. Neither of these parking areas are proposed to be modified under the Rincon Trail project.

Environmental Thresholds

The threshold for traffic impacts is the same in both the City of Carpinteria and the County of Santa Barbara. The threshold determines whether a project may cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system. The threshold criteria assume that an increase in traffic that creates a need for road improvements is substantial. The increase in traffic is measured in several ways including the levels of service (LOS) at affected intersections, the effect of proposed project access on existing traffic circulation and the safety of a roadway with additional project traffic.

The impacts of project-generated traffic are assessed against the following thresholds. A significant traffic impact occurs when:

a. The addition of project traffic to an intersection increases the volume to capacity (V/C) ratio by value provided below or sends at least 5, 10 or 15 trips to an intersection operating at Level of Service (LOS) F, E or D, respectively.

LEVEL OF SERVICE (including project)	INCREASE IN V/C GREATER THAN
A	0.20
B	0.15
C	0.10
	OR THE ADDITION OF
D	15 trips
E	10 trips
F	5 trips

b. Project access to a major road or arterial road would require a driveway that would create an unsafe situation, or a new traffic signal or major revisions to an existing traffic signal.

c. Project traffic would utilize a substantial portion of an intersection(s) capacity where the intersection is currently operating at acceptable levels of service (A-C) but with cumulative traffic would degrade to or approach LOS D (V/C 0.81) or lower. Substantial is defined as a minimum change of 0.03 for intersections which would operate from 0.80 to 0.85 and a change of 0.02 for intersections which would operate from 0.86 to 0.90 and 0.01 for intersections operating at anything lower.

If the above thresholds would be exceeded, construction of improvements or project modification to reduce the levels of significance to insignificance would be required.

A traffic study is generally required when it appears that the thresholds of significance identified above would be exceeded. In almost all cases where trip generation during the peak hour is expected to exceed 100 vehicles, a traffic study will be required. As the proposed project is not anticipated to exceed 100 vehicles during the AM or PM peak hour, a traffic study for this project is not required.

Project Specific Impacts

a) Construction of the proposed project would generate haul truck trips and construction employee vehicle trips to and from the project site. Fill would be accomplished with on-site cut material. Haul trucks with an approximately 16 cubic yard capacity would export excess cut to the closest disposal site. Heavy truck trip generation would be around 20 heavy truck trips (10 truckloads) a day during the grading and excavation phase of the project. With the exception of the pedestrian bridge delivery, which would be delivered by truck, no major material import or export in one day or within a short time period is anticipated. Instead, haul truck trips exporting excess cut material would occur throughout the grading phase duration. Traffic generated during construction would be temporary, lasting the duration of

construction, which would be less than one year. ***Construction traffic would be short term and less than significant.***

The Rincon Trail segment would reduce vehicle trips and encourage bicycle and pedestrian modes of transportation to access popular coastal destinations. The project would provide a safe, direct and well-maintained coastal pedestrian and bike trail link to Ventura paralleling US Highway 101 and would formalize one railroad crossing along this segment, providing for safe access to the coast. Positive benefits would include a reduction in vehicle trips from Carpinteria residents and visitors who travel between the City of Carpinteria and Rincon Beach County Park. Since no dedicated pedestrian or bicycle amenities exist currently between these two destinations, many use vehicles even for short trips. The proposed project would encourage non-vehicle travel between these two locations, thus reducing vehicle trips and minimizing the impacts of vehicles in the community and parking at Rincon Beach County Park. ***No operational traffic impacts would occur.***

b) The Santa Barbara County Association of Governments has developed a set of traffic impact thresholds to assess the impacts of land use decisions made by local jurisdictions on regional transportation facilities located within the Congestion Management Program system. The guidelines set forth in the current Congestion Management Program state that a project should be evaluated for potential impacts if total trip generation exceeds 50 peak hour trips or 500 daily trips. As the project would not generate enough peak hour or total daily trips to exceed either of these thresholds, no further analysis is required. ***The project's impacts to the Congestion Management Program system would be less than significant***.

c) The proposed shared-use path is not expected to create new or increased motor vehicle traffic or result in a hazardous road condition. Bicyclists using the proposed trail would most likely access this portion of the regional traffic network by bike. Pedestrian trail users may access the trail by car, utilizing the existing dirt parking lot at the west end of the trail or the existing Rincon Beach County Park parking lot at the east end of the trail. The proposed trail and parking lot are not anticipated to result in a hazardous design feature or an incompatible use. ***Impacts would be less than significant.***

d) The project would connect to the existing eastern terminus of Carpinteria Avenue, providing emergency vehicle access to a 16-foot wide concrete trail. The 16-foot trail width would accommodate emergency vehicle access to the project area. Development of the proposed project would therefore increase emergency access to the project area. ***Impacts would be less than significant.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to traffic impacts. However, the proposed project would reduce vehicle trips and encourage bicycle and pedestrian modes of transportation to access popular coastal destinations. Accordingly, the proposed project would not degrade the nearby intersections' levels of service by any significant level or affect roadway capacity. Therefore, the project's contribution to cumulative transportation and traffic impacts would not be considerable.

Required Mitigation Measures

Mitigation would not be required.

Residual Impacts

No residual impacts would occur.

3.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, 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), or?	☐	☐	☐	☒	☐
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☐	☐	☒	☐

Existing Environmental Setting

A Phase 1 cultural resources investigation for the originally proposed Carpinteria Rincon Trail was prepared by Dudek in March 2008, which included an archaeological site records and literature search at the Central Coast Information Center and an intensive surface reconnaissance of the proposed project area. For the current revised trail design, Dudek performed a new Phase 1 Cultural Resources Survey of the entire alignment to document existing conditions and in order to assess impacts of the updated trail alignment on cultural resources. The updated Phase 1 Survey included an archaeological record search and walk-over survey of the trail alignment and area within earthwork limits and temporary impact areas delineated for the transportation and storage of construction equipment. As is customary for Phase 1 Cultural Resource Surveys, the document is not circulated with the associated CEQA document. The updated Dudek Phase 1 survey is on-file with the City of Carpinteria, Community Development Department and with the County of Santa Barbara Planning & Development Department

The records search indicates that CA-SBA-1, the ethnohistoric/historic Chumash village of *Shuku*, is southeast of the proposed project area, near the mouth of Rincon Creek. No cultural resources were observed in situ, or within intact soils, during the intensive field survey under generally good to excellent ground surface visibility; however, the Project site is not only located partially within a significant archaeological site (CA-SBA-1168), it is also surrounded, in every direction, by significant archaeological sites: CA-SBA-1/CA-VEN-62, the closest loci immediately adjacent to the southeastern extent of the proposed Project site. Based on the presence of a portion of the proposed Project site overlapping a small portion of the archaeological site CA-SBA-1168, the close proximity of multiple archaeological sites to the proposed Project site, as well as the general significance of the archaeological resources surrounding the proposed Project site, there is substantial evidence for potential unknown significant prehistoric and historic archaeological resources to exist within the Project site.

The updated Phase 1 Survey included a search of the Native American Heritage Commission's Sacred Land File in order to determine the location of any sacred and/or burial sites within the proposed project area. The search did not indicate the presence of Native American cultural resources within the proposed project area.

Native American Coordination

Sacred Lands File Search and Tribal Outreach

A search of the Native American Heritage Commission's (NAHC's) Sacred Land File was requested on May 1, 2018, and was conducted on May 23, 2018 (received on May 25, 2018) (Frank Lienert, Associate Government Program Analyst) to determine the presence of any Native American cultural resources within the proposed Project site (see Appendix B). The NAHC indicated that no known Native American heritage resources are identified within the proposed Project site. The NAHC identified six (6) Native American individuals who would potentially have specific knowledge as to whether or not other cultural resources are identified within the Project site that could be at-risk. Letters were sent via email and certified mail on May 25, 2018 to six (6) Native Americans representatives identified by the NAHC who might have

knowledge of previously undocumented cultural resources within the APE (see Appendix B). Dudek made follow-up phone calls on June 4 and 11, 2018. Three (3) responses were received on June 4, 2018, one (1) response was received on June 11, 2018. As of September 28, 2018, two (2) of the Native American representatives have not responded to Dudek's multiple and varied communication efforts.

The three responses to Dudek's outreach efforts included the following individuals all belonging to the Barbareño/Ventureño Band of Mission Indians: Julie Lynn Tumamait-Stenslie (June 11, 2018 phone call initiated by Dudek), Chair; Patrick Tumamait, Chair (June 4, 2018 phone call initiated by Dudek); and Eleanor Arrellanes (June 4, 2018 phone call initiated by Dudek). Each representative expressed concern about proposed disturbances, a desire to be contacted regarding any aspect of the proposed Project, as well as the need for archaeological and Native American monitoring. Should additional responses be received, they will be forwarded to the City.

Assembly Bill 52

A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource (TCR) is a project that may have a significant effect on the environment (PRC Section 21084.2). Under AB 52, a TCR must have tangible, geographically defined properties that can be impacted by project implementation. The proposed project is subject to compliance with AB 52.

On October 25, 2019, the City of Carpinteria sent AB-52 notification letters certified mail (with copies provided via email to contacts that provided their email address), to each Native American contact provided by the NAHC on May 25, 2018 and to those tribal entities that have formally requested notification from the City. The NAHC provided an updated contact list to the City on October 29, 2019, which included five new contacts; the City sent AB-52 notification letters to the five newly identified contacts on October 29, 2019. The formal AB-52 government-to-government consultation process is therefore underway. As such, the following information describes the informal consultation efforts conducted by Dudek and the consequent results. Upon completion of the AB-52 consultation process, all results of the formal consultation will be incorporated into the final version of this MND.

Project Specific Impacts

a) A CHRIS records search was conducted at the SCCIC on March 29, 2018 and September 20, 2018, for the proposed project site and within a 0.5-mile buffer around the site. The CHRIS search included a review of mapped prehistoric, historical, and built-environment resources; Department of Parks and Recreation site records; technical reports; archival resources; and ethnographic references. Additional consulted sources included historical maps of the project site, the NRHP, the CRHR, the California Historic Property Data File, and the lists of California State Historical Landmarks, California Points of Historical Interest, and the Archaeological Determinations of Eligibility. No previously recorded TCRs listed in the CRHR or a local register were identified within the project site.

   Along with the negative results of the Sacred Land Files search, the NAHC provided Dudek with a list of six tribal representatives representing three tribes who may have knowledge of cultural resources within or

near the project site. On May 25, 2018, Dudek mailed certified notification letters to all six contacts provided by the NAHC. Three responses were received by Dudek and include the following individuals all belonging to the Barbareño/Ventureño Band of Mission Indians: Julie Lynn Tumamait-Stenslie, Chair; Patrick Tumamait, Chair; and Eleanor Arrellanes. Each representative expressed concern about proposed disturbances, a desire to be contacted regarding any aspect of the proposed Project, as well as the need for archaeological and Native American monitoring. Although three Native American representatives identified by the NAHC did express concern regarding the impacts on potential cultural resources, no TCRs have been expressly identified by California Native American tribes as part of the informal consultation process conducted by Dudek in May and June of 2018. As such, it is assumed that impacts to tribal cultural resources would be less than significant. Note: this determination is subject to modification dependent on the results of formal AB-52 consultation conducted by the City.

b) Extensive topographic modification of the existing terrain in a portion of the project area occurred with construction of US Highway 101 in the late 1960's, after the earliest archeological investigations in this area were completed. Information to conclusively define the boundary of CA-SBA-1168 compared to limits of earthwork completed for the US Highway 101 construction does not evidently exist. It is therefore possible that some portion of CA-SBA-1168 exists at depth beneath fill materials used to construct some of the slope faces along the south side of US Highway 101. Deep excavations for the Rincon Trail UPRR bridge foundation on the north side of the UPRR alignment could potentially encounter intact deposits associated with CA-SBA-1168, which would be a potentially significant impact. Mitigation measures CR-1 and CR-2 have been required in order to address this impact. Further, no TCRs were expressly identified within the project site by California Native American tribes as part of the informal consultation process conducted by Dudek in May and June of 2018.

   As no information regarding TCRs has been received by Dudek as a result of the informal consultation process, it is assumed that no TCRs are present in the project site. However, there is still a potential for unknown subsurface TCRs to be significantly impacted by the project, which could result in a potentially significant impact. Therefore, protocols for the inadvertent discovery of TCRs are included as CR-2, which will reduce the potentially significant impact to a less than significant level.

Cumulative Impacts

Potentially significant project-specific impacts to tribal cultural resources would be reduced to less than significant with implementation of MM CR-1 and CR-2, avoiding the potential for the proposed project to contribute to cumulative impacts to cultural resources. The project would, therefore, result in a less than cumulatively considerable impact to cultural resources. Note: this determination is subject to modification dependent on the results of formal AB-52 consultation conducted by the City.

Residual Impacts

Potential impacts to tribal cultural resources would be reduced to less than significant with implementation of mitigation measures CR-1 and CR-2. Note: this determination is subject to modification dependent on the results of formal AB-52 consultation conducted by the City.

3.19 UTILITIES AND SERVICES SYSTEMS

Would the project:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact	Reviewed Under Previous Document
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐	☐
c) Result in a determination by the wastewater treatment provider 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?	☐	☐	☒	☐	☐

Existing Environmental Setting

Water Service. Water is supplied by the Carpinteria Valley Water District through line and storage facilities controlled by the District. The District connected to State water in November of 1997 (City of Carpinteria 2003). There are no water lines adjacent to or underlying the project area. Water and wastewater service is currently provided at Rincon Beach County Park.

Wastewater Service. Wastewater collection and treatment services are managed by the Carpinteria Sanitary District. This community-wide service agency has the obligation of operating and maintaining this system for the transmission, treatment and disposal of sewage generated within this area. The Carpinteria Sanitary District is also responsible for providing treatment to the level necessary to meet various discharge requirements set by the Regional Water Quality Control Board and other State and Federal agencies. Currently, service is provided to areas both within and outside the limits of the City. Sewage generated in this area is conveyed through district lines to the treatment facility located between Olive and Oak Avenues, south of 6th Street and adjacent to the UPRR (City of Carpinteria 2003).

Solid Waste Disposal. Solid waste produced in the City of Carpinteria is collected by E.J. Harrison and Sons, Inc., located in Ventura. E.J. Harrison and Sons, Inc. provides solid waste collection and disposal for all residential, commercial and industrial areas in the City. Once collected, the solid waste is transported to the Gold Coast Material Recovery Facility and the residual is ultimately deposited in the Toland landfill (City of Carpinteria 2003).

Environmental Thresholds

Neither the City of Carpinteria's nor County of Santa Barbara's Guidelines for the Implementation of the California Environmental Quality Act provide thresholds related to utilities and service systems. The CEQA Guidelines Appendix G thresholds listed above are applied in this analysis.

Project Specific Impacts

a) The proposed project is a shared-use path that would be used primarily for bicycle and pedestrian travel. The project would therefore not create additional demands in the areas of natural gas, electricity or telecommunications facilities. The project would moderately alter the existing drainage patterns of the site, via regrading of project slopes and short-term removal of vegetation, as well as through introduction of the impervious trail surface (approximately 1 acre of new impervious surface) Increased storm water run-off during construction and until new vegetation is established are addressed under **Wat-1, Wat-2, Wat-3 and Wat-4**. Storm water run-off from the trail surface would be collected by a concrete v-ditch adjacent to the trail, and released through a series of short storm drains with discharge along the adjacent beach. The storm drains would be installed by the project, and would be the responsibility of the project sponsors to maintain. **WAT-5** requires maintenance of the storm drains in perpetuity to prevent failure of such systems. ***Potential impacts related to storm water system facilities would be less than significant with mitigation.***

b) The proposed project would not require new water supply to serve the trail and its supporting facilities; minimal water would be required for landscape irrigation and maintenance purposes. Recycled water would be used for irrigation if locally available. Following restoration and during the plant establishment period, native plants would require regular irrigation during the dry season until they are established; approximately one to two years. The Carpinteria Valley Water District releases an annual report which assesses its water supply and indicates the District has excess water to meet the demands of all lands

within the District's jurisdiction into the foreseeable future (CDPR 2013). A minimal amount of water would be required during construction of the proposed trail for fugitive dust control during earthwork activities. Furthermore, project construction is not anticipated to adversely affect or disrupt water service. The total amount of water required during construction and operation of the project would not impact the availability of water to the District's service area. ***Impacts would be less than significant.***

c) The proposed project is a shared-use path that would be used primarily for bicycle and pedestrian travel. The project would not include the use of septic systems or alternative wastewater disposal systems; therefore, the proposed project is not anticipated to generate a need for new or altered sewer system facilities. Effluent generated by users of the proposed trail would be serviced by existing facilities at the Rincon Beach County Park. The proposed project would not adversely affect the wastewater treatment provider's ability to serve existing commitments. ***Potential impacts related to sewer system facilities would be less than significant.***

d,e) The proposed project consists of a shared-use path that would not generate a substantial amount of solid waste that would adversely affect landfill capacity or would breach national, state or local standards. Solid waste generated by the use of the trail would be limited to trash and recycling materials deposited in the waste receptacles provided at the existing dirt parking lot at the west end of the trail. Existing waste and recycling receptacles are provided at Rincon Beach County Park. Construction waste generated by the project, including concrete, steel rebar, and wood for concrete forms, would be taken to an appropriate construction waste recycling facility in Santa Barbara or Ventura County, to avoid such waste from entering a landfill facility. ***Impacts would be less than significant.***

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to utility and service impacts. However, as the proposed project would result in less than significant or no impacts to utilities and service systems, it would have a less than cumulatively considerable contribution to cumulative impacts.

Required Mitigation Measures

No mitigation would be required.

Residual Impacts

No residual impacts would occur.

3.20 WILDFIRE

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

Existing Environmental Setting

Wildland or brush fires are defined as those fires occurring in undeveloped areas commonly covered by heavy vegetation, typically in the hills and canyons. The project site may be characterized as a ridgeline and associated slopes, supporting areas of native vegetation as well as bare ground. While the native vegetation within the project area could become involved in a wildland fire, the project site is somewhat isolated from ignition sources by virtue of the presence of the US Highway 101 corridor along the northern side and the Pacific Ocean along the southern side. These features would also act to limit the spread of a wildland fire originating within the project area or immediately adjacent urban areas to the west (City of Carpinteria) or east (Rincon Point).

With respect to fire protection resources, the Carpinteria Planning Area is serviced by the Carpinteria-Summerland Fire Protection District. This District covers 40 square miles along the Pacific Ocean including land area within the City and the County. The District is bordered on the east by the Santa Barbara/Ventura County line and to the west by the community of Montecito. There are currently two fire stations that serve the area: one in the City (Walnut Avenue) and one in Summerland. Current response times range from three minutes to five minutes. All fire fighters (full-time and reserves) have EMT-1 training (City of Carpinteria 2003). The Santa Barbara County Fire Department generally responds to wildland fires outside the urban limits associated with Cities within the County, and would therefore participate in responding to a wildfire incident involving portions of the trail within unincorporated County lands.

Project Specific Impacts

a) The Rincon Trail property is currently undeveloped and spans an area roughly between the eastern terminus of Carpinteria Avenue and Rincon Beach County Park. There are no developed roads within the project site, and consequently there are no evacuation routes currently extending onto the property from adjacent areas. In addition, no official evacuation routes have been designated by the County Office of Emergency Services and the Santa Barbara Operational Area Emergency Management Plan (County of Santa Barbara 2013). The 2017 Santa Barbara County Multi-Jurisdictional Hazard Mitigation Plan (County of Santa Barbara 2017) also does not provide specific emergency management plans for the vicinity of the project. Consequently, the project would have **no impact** on an adopted emergency response plan or emergency evacuation plan.

b) The project involves the creation and maintenance of a concrete trail and steel frame bridge crossing over the UPRR alignment. These are non-combustible materials that would not increase fire risk. Slopes along the trail alignment would be regraded to achieve a shallower slope angle, which would marginally decrease the potential for wildfire spread and also facilitate access for firefighters to extinguish a potential wildland fire on the property. The trail would also allow lightweight fire-fighting equipment to access all points of the trail, facilitating firefighting activities. As such, the project would not exacerbate wildfire risks or the uncontrolled spread of wildfire, resulting in **no impact** to wildland fire risks.

c) The project would not require the installation of associated infrastructure for fire protection purposes. No structures or other improvements subject to combustion or requiring protection from fire are included or proposed in the multi-use trail proposal. The trail itself would assist firefighting access to most of the project site, without the need for other roads. The project would therefore have **no impact** with respect to infrastructure or systems necessary for fire protection.

d) The project would not include the development of any habitable structures. The concrete path and steel frame bridge structure would not be prone to damage by wildfire. Created slopes along the trail alignment would be less steep than the existing manufactured slopes, decreasing the potential for shallow soil movement down these slopes. Run off from the new trail would be accommodated by existing and proposed drainage facilities which would convey storm water short distances for release at the adjacent beach. No existing homes or structures are located adjacent to the trail alignment that could be affected by secondary effects from a wildland fire event which involves the project site. Therefore the project would have **no impacts** on risks related to wildland fire.

Cumulative Impacts

Cumulative development throughout the Carpinteria Valley would incrementally contribute to wildland fire risks and related impacts. However, as the proposed project would result in less than significant or no impacts to wildland fire risks, it would have a less than cumulatively considerable contribution to cumulative impacts.

Required Mitigation Measures

No mitigation would be required.

Residual Impacts

No residual impacts would occur.

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 that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

a) As identified in the Air Quality section, the project would create dust and vehicle exhaust emissions which are subject to standard mitigations required by the Santa Barbara County APCD As discussed in this document, development of the proposed project would have the potential to degrade the quality of the environment from removal of native habitat communities during grading and construction activities without the incorporation of the identified biological resources mitigation measures. Based on the Phase 1 Cultural Resources Study and the analysis contained in this document, the project could potentially encounter prehistoric archaeological resources leading to impacts upon this resource, without the incorporation of the identified cultural resources mitigation measures. Based upon the geotechnical report, the project could be impacted by seismicity and could increase shallow slope instability without the incorporation of geology mitigations. Soil contamination could exist involving aerially deposited lead, which could lead to exposure of visitors to unacceptable lead concentrations unless mitigation for hazardous materials is applied. The project could impact noise-sensitive receptors during construction without incorporation of prescribed noise mitigation measures. And the project could result in construction-related storm water quality impacts unless identified mitigation measures are implemented regarding storm water quality. With these identified measures, the project is not anticipated to have substantial environmental effects that would substantially degrade any habitat area or sensitive species or eliminate important examples of California history or prehistory.

b) Based on the analysis contained in this document, the project would not represent a considerable contribution to any cumulative impact.

c) As presented in this document, the project has the potential to degrade the quality of the environment in several issue areas including Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology, Hazardous Materials, Hydrology/Water Quality and Noise without the incorporation of the identified mitigation measures. With the incorporation of mitigation measures, the project is not anticipated to have substantial environmental effects that would adversely affect human beings. As proposed, the project would also result in beneficial effects in the issue areas of Recreation and Safety.

3.22 PROJECT ALTERNATIVES

No significant unmitigable impacts were identified; therefore, identification of project alternatives is not required.

3.23 RECOMMENDATION BY STAFF

On the basis of this initial study, the staff of the City of Carpinteria:

☐ Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a NEGATIVE DECLARATION (ND) be prepared.

☒ Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of an ND. The ND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

☐ Finds that the proposed project WILL have a significant effect on the environment and recommends that an ENVIRONMENTAL IMPACT REPORT (EIR) be prepared.

☐ Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

__**X**__ With Public Hearing _____ Without Public Hearing

Authority cited: Sections 21083 and 21087 21083.05, Public Resources Code. Reference: Section *65088A,* Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County* of *Mendocino,* (1988) 202 CaLApp.3d 296 (1988); *Leonoff v. Monterey Board* of *Supervisors,* (1990) 222 CaLApp.3d 1337 (1990); *Eureka Citizens for Responsible Govt. v. City* of *Eureka* (2007) 147 CaLAppAth 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 CaLAppAth at 1109; *San Franciscans Upholding the Downtown Plan v. City and County* of *San Francisco* (2002) 102 CaLAppAth 656.

This Page Left Blank Intentionally

Section 4: References, Contacts and Preparers of the Draft Mitigated Negative Declaration

The following information sources have been referenced in preparation of this Draft MND, and will be made available for review upon request at the City offices located at 5775 Carpinteria Avenue, in Carpinteria:

14 CCR 15000–15387 and Appendix A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

Bengal Engineering. 2019a *Carpinteria Rincon Trail Drainage Report,* February 2019.

Bengal Engineering. 2019b *Geotechnical Report for the Proposed Rincon Beach Multi-Use Trail,* January 2019.

Bengal Engineering. 2019c Project Plans for Rincon Multi-Use Trail (30% Design Stage), September 2019.

Ballard, L. 2011. Local Carpinteria botanist. Personal communication.

California Air Pollution Control Officers Association (CAPCOA). 2008. *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January 2008.

CARB (California Air Resources Board). 2017. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017. Accessed March 2018. https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

_____ 2019a. "iADAM Air Quality Data Statistics." Accessed September 2019. http://arb.ca.gov/adam.

_____. 2019b. "Ambient Air Quality Standards." Accessed September 2019. http://www.arb.ca.gov/research/aaqs/aaqs.htm.

_____. 2019c. "Area Designations Maps / State and National." Accessed September 20. http://www.arb.ca.gov/desig/adm/adm.htm.

_____. 2006. *Public Workshop to Discuss Establishing the 1990 Emissions Level and the California 2020 Limit and Developing Regulations to Require Reporting of Greenhouse Gas Emissions*. PowerPoint Slides. Sacramento, California: CARB. December 1, 2006.

California Climate Action Team (CAT). 2006. *Climate Action Team Report to the Governor and Legislature*. Sacramento, California: California Environmental Protection Agency, California Climate Action Team. March 2006.

California Coastal Conservancy (Coastal Conservancy). 2010. *Staff Recommendation Carpinteria Rincon Coastal Trail*. Final No. 10-032-01. December 2.

California Department of Conservation (CDC). 2011."Alquist-Priolo Earthquake Fault Zone Maps." Division of Mines and Geology (CDMG). Accessed September 2011. http://www.quake.ca.gov/gmaps/ap/ap_maps.htm.

_____. 2010. *Santa Barbara County Important Farmland 2010*. Farmland Mapping and Monitoring Program (FMMP). Division of Land Resources Protection.

_____ 2009. Santa Barbara County Tsunami Inundation Maps. Tsunami Inundation Map for Emergency Planning Carpinteria Quadrangle. January 31.

_____. 2009. *Santa Barbara County Williamson Act Lands 2009 - Land Enrolled in Williamson Act and Farmland Security Zone Contracts as of January 1, 2009*. Division of Land Resources Protection, Williamson Act Program.

_____. 1996. *Probabilistic Seismic Hazard Assessment for the State of California*. DMG Open-File Report 96-08. Division of Mines and Geology (CDMG) http://www.conservation.ca.gov/cgs/rghm/psha/ofr9608/Pages/Index.aspx

_____. 1991. *Revised Official Map*. Special Studies Zones. Delineated in compliance with Chapter 7.5, Division 2 of the California Public Resources Code (Alquist-Priolo Special Studies Zones Act). Effective November 1, 1991. http://gmw.consrv.ca.gov/shmp/download/ap/pdf/PITAS.PDF

California Department of Fish and Game (CDFG). 2010. List of Vegetation Alliances and Associations (Natural Communities List). Accessed September 2011. http://www.dfg.ca.gov/biogeodata/vegcamp/natural_comm_list.asp.

CDFW (California Department of Fish and Wildlife). 2019. Rarefind 5: Commercial version. Online database. California Natural Diversity Database. CDFW, Biogeographic Data Branch. Accessed April 2018–August 2019. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

CDFW (California Department of Fish and Wildlife). 2018. "California Natural Community list." Sacramento, California: CDFW. October 15, 2018. Accessed January 2019 at https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities.

California Department of Parks and Recreation (CDPR). 2008. *Carpinteria State Beach Interpretive Play Area/Bioswale/Palm-Linden Trail Project Mitigated Negative Declaration*. Final. SCH#2008051005. June.

CEC. 2016a. *California Energy Demand 2016-2026, Revised Electricity Forecast*. CEC-200-2016-001-V1. January 2016. Accessed December 2018. http://docketpublic.energy.ca.gov/ PublicDocuments/15-IEPR-03/TN207439_20160115T152221_California_Energy_ Demand_20162026_Revised_Electricity_Forecast.pdf.

_____ 2017. *California Energy Commission – Tracking Progress*. "Renewable Energy Overview." Last updated December 22, 2016. Accessed December 2018. http://www.energy.ca.gov/renewables/tracking_progress/documents/renewable.pdf.

_____ 2018. California Energy Consumption Database. Accessed January 2019. http://www.ecdms.energy.ca.gov/.

_____ 2019. "Electricity Consumption by Entity." Accessed August 2019. http://www.ecdms.energy.ca.gov/elecbyutil.aspx.

California Governor's Office of Planning and Research (OPR). 2008. *CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act (CEQA) Review.* Technical Advisory. Sacramento, California: OPR. June 19, 2008. http://opr.ca.gov/download.php?dl=ceqa/pdfs/june08-ceqa.pdf.

CNPS (California Native Plant Society). 2019. California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org. Accessed August 2019.

California Natural Resources Agency (CNRA). 2009a. Notice of Public Hearings and Notice of Proposed Amendment of Regulations Implementing the California Environmental Quality Act. Sacramento, CA: CNRA. http://www.ceres.ca.gov/ceqa/docs/ Notice_of_Proposed_Action.pdf.

_____. 2009b. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. December 2009.

Carpinteria, City of. 2010. *City of Carpinteria Zoning Districts Map*. April

_____. 2009a. *Carpinteria Rincon Trail Project Study Report*. September 30.

_____. 2009b. *Coastal Access Feasibility Study*. Prepared by HDR for the City of Carpinteria Department of Parks and Recreation. Final Report. September 23.

_____. 2007. *City of Carpinteria Land Use Map*.

_____. 2003. *General Plan/Local Coastal Land Use Plan & Environmental Impact Report*. State Clearinghouse No. 1997121111. April.

Carpinteria – Summerland Fire Protection District. 2019. "Stations." http://carpfire.com/stations

Carpinteria Unified School District (CUSD). 2011. "Schools." Accessed September 2019. http://www.cusd.net/

County of Santa Barbara. 2008. *Environmental Thresholds and Guidelines Manual*. Published October 2008. Revised July 2015.

_____ 2009a. "Open Space Element." In *Santa Barbara County Comprehensive Plan.* Adopted 1979. Republished May 2009. Accessed August 2019. http://longrange.sbcountyplanning.org/ programs/genplanreformat/PDFdocs/OpenSpace.pdf.

_____ 2009b. “Scenic Highways Element.” In *Santa Barbara County Comprehensive Plan.* Adopted 1975. Republished May 2009. Accessed August 2019. http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/ScenicHwys.pdf.

____ 2010. “Conservation Element.” In *Santa Barbara County Comprehensive Plan.* Adopted 1979. Amended August 2010. Accessed August 2019. http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/ Conservation.pdf.

_____ 2013. Santa Barbara Operational Area Emergency Management Plan. Office of Emergency Management.

_____ 2014. *Coastal Land Use Plan*. Adopted 1982. Republished June 2019. Accessed August 2019. http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/CoastalPlan.pdf.

_____ 2015a. “Seismic Safety and Safety Element.” In *Santa Barbara County Comprehensive Plan.* Adopted 1979. Republished May 2009. Amended February 2015. Accessed August 2019. http://longrange.sbcountyplanning.org/programs/genplanreformat/PDFdocs/Seismic.pdf.

_____ 2015b. *Energy and Climate Action Plan*. May 2015. Accessed April 2018. http://longrange.sbcountyplanning.org/programs/climateactionstrategy/docs/ Final%20ECAP_May%202015.pdfDibblee, Thomas W. Jr. 1986. *Geologic Map of the Carpinteria Quadrangle*. Santa Barbara County, California.

Dudek. 2018. *Phase 1 Cultural Resources Survey, Rincon Trail, Carpinteria*. August.

FEMA (Federal Emergency Management Agency). 2019. FEMA Flood Map Service Center. Accessed October 2019. https://msc.fema.gov/portal/firmette?latitude= 34.38428478705369&longitude=-119.45652897338809

Intergovernmental Panel on Climate Change (IPCC). 2007. "Summary for Policymakers." In *Climate Change 2007: The Physical Science Basis,* ed. S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor, and H.L. Miller, 1–18. A report of Working Group I of the IPCC. New York, New York: Cambridge University Press. http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf.

Jepson Flora Project. 2019. Jepson eFlora. Berkeley, California: University of California. Accessed January 3, 2019 at http://ucjeps.berkeley.edu/interchange/index.html.

National Climatic Data Center (NCDC). 2010. “Global Warming Frequently Asked Questions.” August 20, 2008. Accessed September 2011. http://lwf.ncdc.noaa.gov/oa/climate/globalwarming.html.

RWQCB (Regional Water Quality Control Board). 2017. Water Quality Control Plan for the Central Coastal Basin. Central Coast Region. September.

SBCAPCD (Santa Barbara County Air Pollution Control District) and SBCAG. 2015. *Clean Air Plan*. Final. March 2015. Accessed April 2018. https://www.ourair.org/wp-content/uploads/Final2013CleanAirPlan.pdf.

_____ 2016. *2016 Ozone Plan*. October 2016. Accessed April 2018. https://www.ourair.org/wp-content/uploads/Final-2016-Ozone-Plan-Approved-October-20-2016.pdf.

_____ 2016. 2016 Annual Air Quality Report

_____ 2017. 2017 Annual Air Quality Report

_____ 2018. 2018 Annual Air Quality Report

Santa Barbara County Sheriff's Department. 2019. "Stations." http://www.sbsheriff.org/

Science Applications International Corporation (SAIC). 1996. *Phase 1 Cultural Resources Investigation Cellular Communications Facility, AT&T Wireless Services, Bates Road, Rincon Point, California*.

Sawyer, J., T. Keeler-Wolf, J. Evens. 2009. *Manual of California Vegetation*, 2nd ed. California Native Plant Society, Sacramento.

Semonsen, V. 2008. *Initial Biological Assessment: Rincon Trail*. Letter to Matt Roberts, City of Carpinteria, Director of Parks and Recreation.

Wilken, Dieter. 2018. DRAFT Rare Plants of Santa Barbara County. Santa Barbara Botanical Garden (SBBG). Version 2.0. March.

Wilken, Dieter. 2010. *Rare Plants of Santa Barbara County*. Central Coast Center for Plant Conservation, Santa Barbara Botanic Garden.

USDA (U.S. Department of Agriculture). 2018. "California." State PLANTS Checklist. Accessed March 2018 at http://plants.usda.gov/dl_state.html.

USDA, Natural Resources Conservation Service (USDA NRCS). 2019. *Web Soil Survey*. Accessed October 2019.http://websoilsurvey.nrcs.usda.gov.

United States Environmental Protection Agency (EPA). 2011. "The Green Book Nonattainment Areas for Criteria." August 30, 2011. Accessed September 2011. http://www.epa.gov/air/oaqps/greenbk/index.html

_____. 2010a. "Glossary of Climate Change Terms." April 14, 2011. Accessed May 2011. http://www.epa.gov/climatechange/glossary.html#Climate_change.

_____. 2010b. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2008*. April 15, 2010. EPA 430-R-10-006. Accessed September 2011. http://epa.gov/climatechange/emissions/downloads10/US-GHG-Inventory-2010_Report.pdf.

_____. 2009. "AirData: Access to Air Pollution Data." January 10. Accessed September 2011. http://epa.gov/air/data.

United States Geologic Survey (USGS). 2009. Minor, S.A., Kellogg, K.S., Stanley, R.G., Gurrola, L.D., Keller, E.A., and Brandt, T.R., 2009, Geologic Map of the Santa Barbara Coastal Plain Area, Santa Barbara County, California: U.S. Geological Survey Scientific Investigations Map 3001, scale 1:25,000, 1 sheet, pamphlet, 38 p.

4.1 Agencies and Persons Consulted

Matthew Roberts, Director, City of Carpinteria Parks and Recreation Department. 2019. Personal communication.

4.2 Preparers of the Draft Mitigated Negative Declaration

Dudek

Jonathan V. Leech, AICP, Project Manager

Nicholas Lorenzen, Deputy Project Manager

Jennifer Pace, Air Quality & Greenhouse Gas Emissions

John Davis, IV, Biological Resources

Dave Compton, Biological Resources

Heather Moine, Biological Resources

Perry Russell, PG, Geology & Soils

Heather McDevitt, Cultural Resources

APPENDIX A

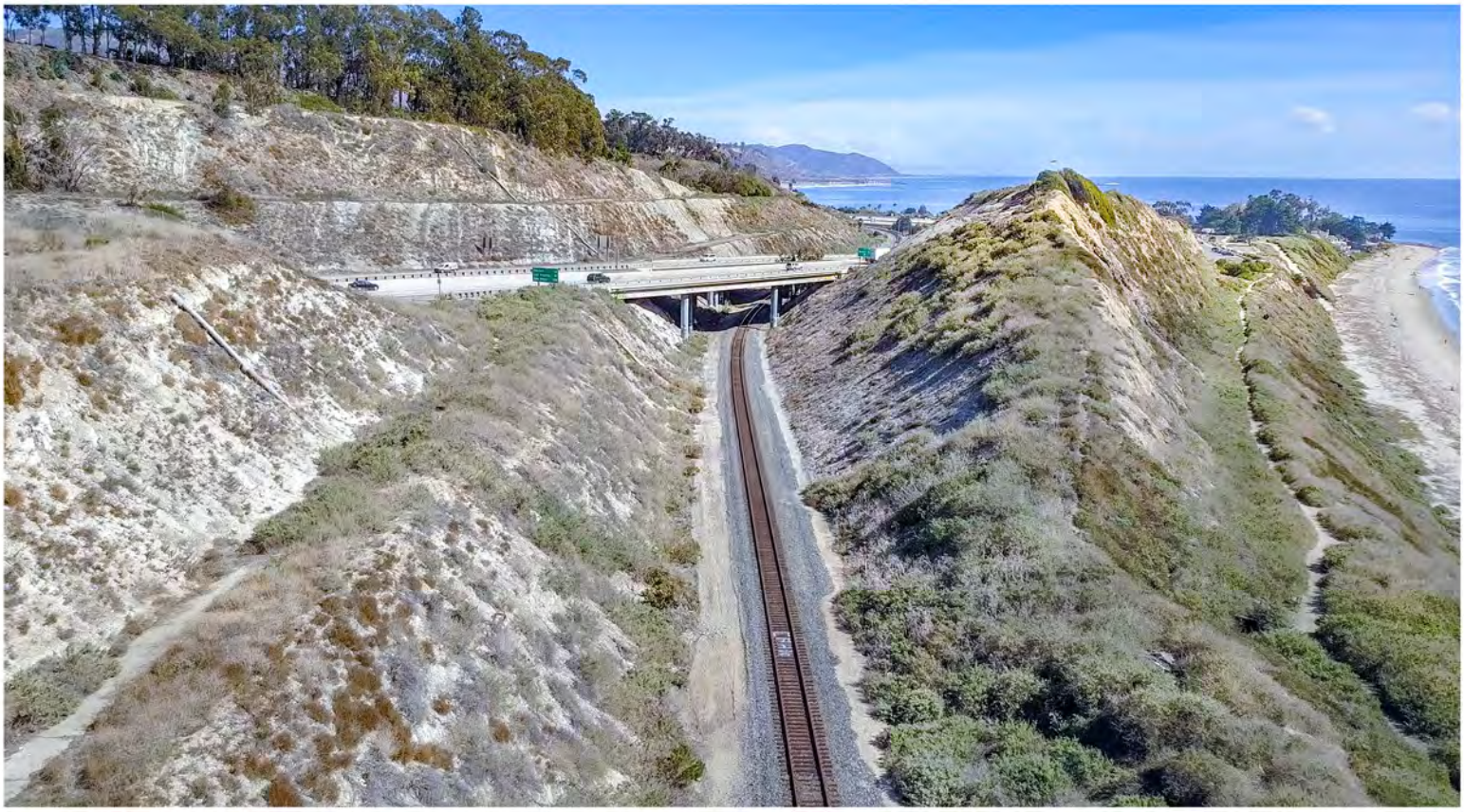
Photographs Depicting Existing Conditions Along Trail Alignment

CARPINTERIA - RINCON TRAIL

SITE PHOTOS - MARCH 2018

BENGAL ENGINEERING INC

CARPINTERIA - RINCON TRAIL



BENGAL ENGINEERING INC

CARPINTERIA - RINCON TRAIL

BENGAL ENGINEERING INC

CARPINTERIA - RINCON TRAIL

BENGAL ENGINEERING INC

CARPINTERIA - RINCON TRAIL

BENGAL ENGINEERING INC

CARPINTERIA - RINCON TRAIL

BENGAL ENGINEERING INC

CARPINTERIA - RINCON TRAIL

BENGAL ENGINEERING INC

CARPINTERIA - RINCON TRAIL

APPENDIX B

Air Quality and Greenhouse Gas Modeling Results

Carpinteria Rincon Trail

Santa Barbara-South of Santa Ynez Range County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	6.15	1000sqft	0.14	6,150.00	0
City Park	1.40	Acre	1.40	60,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - mod

Off-road Equipment - Bridge Construction

Off-road Equipment - mod

Off-road Equipment - mod

Off-road Equipment - mod

Trips and VMT - mod

Grading -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	5.00
tblConstructionPhase	NumDays	200.00	48.00
tblConstructionPhase	NumDays	4.00	112.00
tblConstructionPhase	NumDays	10.00	16.00
tblConstructionPhase	NumDays	2.00	16.00
tblGrading	MaterialExported	0.00	85,260.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1619	3.0874	1.1038	5.6600e-003	0.2032	0.0625	0.2658	0.0578	0.0580	0.1157	0.0000	554.2061	554.2061	0.0751	0.0000	556.0826
Maximum	**0.1619**	**3.0874**	**1.1038**	**5.6600e-003**	**0.2032**	**0.0625**	**0.2658**	**0.0578**	**0.0580**	**0.1157**	**0.0000**	**554.2061**	**554.2061**	**0.0751**	**0.0000**	**556.0826**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1619	3.0874	1.1037	5.6600e-003	0.1417	0.0625	0.2042	0.0396	0.0580	0.0976	0.0000	554.2059	554.2059	0.0751	0.0000	556.0825
Maximum	**0.1619**	**3.0874**	**1.1037**	**5.6600e-003**	**0.1417**	**0.0625**	**0.2042**	**0.0396**	**0.0580**	**0.0976**	**0.0000**	**554.2059**	**554.2059**	**0.0751**	**0.0000**	**556.0825**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**30.30**	**0.00**	**23.17**	**31.47**	**0.00**	**15.71**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	**Start Date**	**End Date**	**Maximum Unmitigated ROG + NOX (tons/quarter)**	**Maximum Mitigated ROG + NOX (tons/quarter)**
1	**1-2-2019**	**4-1-2019**	0.7754	0.7754

2	**4-2-2019**	**7-1-2019**	1.5301	1.5301
3	**7-2-2019**	**9-30-2019**	0.7340	0.7340
		Highest	1.5301	1.5301

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1900e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.6858	0.6858	3.0000e-005	1.0000e-005	0.6883
Mobile	3.3000e-003	0.0114	0.0325	7.0000e-005	5.9700e-003	9.0000e-005	6.0500e-003	1.6000e-003	8.0000e-005	1.6800e-003	0.0000	6.3898	6.3898	3.6000e-004	0.0000	6.3987
Waste						0.0000	0.0000		0.0000	0.0000	0.0249	0.0000	0.0249	1.2400e-003	0.0000	0.0558
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.8602	1.8602	8.0000e-005	2.0000e-005	1.8669
Total	**4.4900e-003**	**0.0114**	**0.0326**	**7.0000e-005**	**5.9700e-003**	**9.0000e-005**	**6.0500e-003**	**1.6000e-003**	**8.0000e-005**	**1.6800e-003**	**0.0249**	**8.9359**	**8.9608**	**1.7100e-003**	**3.0000e-005**	**9.0098**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1900e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.6858	0.6858	3.0000e-005	1.0000e-005	0.6883
Mobile	3.3000e-003	0.0114	0.0325	7.0000e-005	5.9700e-003	9.0000e-005	6.0500e-003	1.6000e-003	8.0000e-005	1.6800e-003	0.0000	6.3898	6.3898	3.6000e-004	0.0000	6.3987

Waste						0.0000	0.0000		0.0000	0.0000	0.0249	0.0000	0.0249	1.2400e-003	0.0000	0.0558
Water						0.0000	0.0000		0.0000	0.0000	0.0000	1.8602	1.8602	8.0000e-005	2.0000e-005	1.8669
Total	**4.4900e-003**	**0.0114**	**0.0326**	**7.0000e-005**	**5.9700e-003**	**9.0000e-005**	**6.0500e-003**	**1.6000e-003**	**8.0000e-005**	**1.6800e-003**	**0.0249**	**8.9359**	**8.9608**	**1.7100e-003**	**3.0000e-005**	**9.0098**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Bridge Construction	Building Construction	10/7/2019	10/11/2019	5	5	
2	Site Preparation	Site Preparation	2/1/2019	2/22/2019	5	16	
3	Grading	Grading	2/25/2019	7/30/2019	5	112	
4	Trail Construction	Building Construction	7/31/2019	10/4/2019	5	48	
5	Paving	Paving	10/14/2019	11/4/2019	5	16	

Acres of Grading (Site Preparation Phase): 8

Acres of Grading (Grading Phase): 91

Acres of Paving: 0.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Bridge Construction	Air Compressors	0	0.00	78	0.48
Bridge Construction	Cranes	1	8.00	231	0.29
Bridge Construction	Forklifts	0	0.00	89	0.20
Bridge Construction	Generator Sets	0	0.00	84	0.74
Bridge Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Bridge Construction	Welders	3	8.00	46	0.45
Grading	Crawler Tractors	1	7.00	212	0.43
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trail Construction	Cranes	0	6.00	231	0.29
Trail Construction	Crawler Tractors	1	7.00	212	0.43
Trail Construction	Forklifts	0	6.00	89	0.20
Trail Construction	Generator Sets	0	8.00	84	0.74
Trail Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Trail Construction	Welders	0	8.00	46	0.45
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Pavers	0	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Bridge Construction	5	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Bridge Construction	5	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	10,658.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Trail Construction	2	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	6.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Bridge Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5900e-003	0.0316	0.0236	4.0000e-005		1.6800e-003	1.6800e-003		1.6000e-003	1.6000e-003	0.0000	3.2303	3.2303	8.1000e-004	0.0000	3.2505
Total	**4.5900e-003**	**0.0316**	**0.0236**	**4.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**3.2303**	**3.2303**	**8.1000e-004**	**0.0000**	**3.2505**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	7.2900e-003	2.6400e-003	1.0000e-005	6.0000e-004	6.0000e-005	6.5000e-004	1.6000e-004	5.0000e-005	2.2000e-004	0.0000	1.4067	1.4067	1.1000e-004	0.0000	1.4094
Worker	4.9000e-004	4.3000e-004	3.7600e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	0.7287	0.7287	3.0000e-005	0.0000	0.7294
Total	**7.9000e-004**	**7.7200e-003**	**6.4000e-003**	**2.0000e-005**	**2.2100e-003**	**7.0000e-005**	**2.2700e-003**	**5.7000e-004**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**2.1354**	**2.1354**	**1.4000e-004**	**0.0000**	**2.1388**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.5900e-003	0.0316	0.0236	4.0000e-005		1.6800e-003	1.6800e-003		1.6000e-003	1.6000e-003	0.0000	3.2303	3.2303	8.1000e-004	0.0000	3.2505
Total	**4.5900e-003**	**0.0316**	**0.0236**	**4.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**3.2303**	**3.2303**	**8.1000e-004**	**0.0000**	**3.2505**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-004	7.2900e-003	2.6400e-003	1.0000e-005	6.0000e-004	6.0000e-005	6.5000e-004	1.6000e-004	5.0000e-005	2.2000e-004	0.0000	1.4067	1.4067	1.1000e-004	0.0000	1.4094
Worker	4.9000e-004	4.3000e-004	3.7600e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	0.7287	0.7287	3.0000e-005	0.0000	0.7294
Total	**7.9000e-004**	**7.7200e-003**	**6.4000e-003**	**2.0000e-005**	**2.2100e-003**	**7.0000e-005**	**2.2700e-003**	**5.7000e-004**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**2.1354**	**2.1354**	**1.4000e-004**	**0.0000**	**2.1388**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Fugitive Dust					0.0464	0.0000	0.0464	0.0236	0.0000	0.0236	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0137	0.1559	0.0631	1.4000e-004		7.0600e-003	7.0600e-003		6.4900e-003	6.4900e-003	0.0000	12.3734	12.3734	3.9100e-003	0.0000	12.4713
Total	**0.0137**	**0.1559**	**0.0631**	**1.4000e-004**	**0.0464**	**7.0600e-003**	**0.0535**	**0.0236**	**6.4900e-003**	**0.0301**	**0.0000**	**12.3734**	**12.3734**	**3.9100e-003**	**0.0000**	**12.4713**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	2.0000e-004	1.7200e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3331	0.3331	1.0000e-005	0.0000	0.3334
Total	**2.3000e-004**	**2.0000e-004**	**1.7200e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3331**	**0.3331**	**1.0000e-005**	**0.0000**	**0.3334**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.2200e-003	0.0000	9.2200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0137	0.1559	0.0631	1.4000e-004		7.0600e-003	7.0600e-003		6.4900e-003	6.4900e-003	0.0000	12.3734	12.3734	3.9100e-003	0.0000	12.4713

Total	**0.0137**	**0.1559**	**0.0631**	**1.4000e-004**	**0.0181**	**7.0600e-003**	**0.0252**	**9.2200e-003**	**6.4900e-003**	**0.0157**	**0.0000**	**12.3734**	**12.3734**	**3.9100e-003**	**0.0000**	**12.4713**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	2.0000e-004	1.7200e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3331	0.3331	1.0000e-005	0.0000	0.3334
Total	**2.3000e-004**	**2.0000e-004**	**1.7200e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3331**	**0.3331**	**1.0000e-005**	**0.0000**	**0.3334**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0545	0.0000	0.0545	6.1600e-003	0.0000	6.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0618	0.7826	0.3164	8.2000e-004		0.0313	0.0313		0.0288	0.0288	0.0000	73.2794	73.2794	0.0232	0.0000	73.8591
Total	**0.0618**	**0.7826**	**0.3164**	**8.2000e-004**	**0.0545**	**0.0313**	**0.0858**	**6.1600e-003**	**0.0288**	**0.0349**	**0.0000**	**73.2794**	**73.2794**	**0.0232**	**0.0000**	**73.8591**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0515	1.7789	0.5120	4.1900e-003	0.0908	9.6800e-003	0.1005	0.0249	9.2600e-003	0.0342	0.0000	421.6250	421.6250	0.0373	0.0000	422.5567
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	1.3800e-003	0.0120	3.0000e-005	2.7700e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.3317	2.3317	9.0000e-005	0.0000	2.3339
Total	**0.0531**	**1.7803**	**0.5240**	**4.2200e-003**	**0.0936**	**9.7000e-003**	**0.1033**	**0.0256**	**9.2800e-003**	**0.0349**	**0.0000**	**423.9567**	**423.9567**	**0.0374**	**0.0000**	**424.8906**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0213	0.0000	0.0213	2.4000e-003	0.0000	2.4000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0618	0.7826	0.3164	8.2000e-004		0.0313	0.0313		0.0288	0.0288	0.0000	73.2794	73.2794	0.0232	0.0000	73.8590
Total	**0.0618**	**0.7826**	**0.3164**	**8.2000e-004**	**0.0213**	**0.0313**	**0.0526**	**2.4000e-003**	**0.0288**	**0.0312**	**0.0000**	**73.2794**	**73.2794**	**0.0232**	**0.0000**	**73.8590**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Hauling	0.0515	1.7789	0.5120	4.1900e-003	0.0908	9.6800e-003	0.1005	0.0249	9.2600e-003	0.0342	0.0000	421.6250	421.6250	0.0373	0.0000	422.5567
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5800e-003	1.3800e-003	0.0120	3.0000e-005	2.7700e-003	2.0000e-005	2.7900e-003	7.4000e-004	2.0000e-005	7.5000e-004	0.0000	2.3317	2.3317	9.0000e-005	0.0000	2.3339
Total	**0.0531**	**1.7803**	**0.5240**	**4.2200e-003**	**0.0936**	**9.7000e-003**	**0.1033**	**0.0256**	**9.2800e-003**	**0.0349**	**0.0000**	**423.9567**	**423.9567**	**0.0374**	**0.0000**	**424.8906**

3.5 Trail Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0170	0.2100	0.0956	2.2000e-004		9.1400e-003	9.1400e-003		8.4100e-003	8.4100e-003	0.0000	19.8299	19.8299	6.2700e-003	0.0000	19.9867
Total	**0.0170**	**0.2100**	**0.0956**	**2.2000e-004**		**9.1400e-003**	**9.1400e-003**		**8.4100e-003**	**8.4100e-003**	**0.0000**	**19.8299**	**19.8299**	**6.2700e-003**	**0.0000**	**19.9867**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4400e-003	0.0350	0.0127	7.0000e-005	1.6700e-003	2.7000e-004	1.9500e-003	4.8000e-004	2.6000e-004	7.4000e-004	0.0000	6.7524	6.7524	5.2000e-004	0.0000	6.7653
Worker	2.3700e-003	2.0700e-003	0.0181	4.0000e-005	4.1500e-003	3.0000e-005	4.1800e-003	1.1000e-003	3.0000e-005	1.1300e-003	0.0000	3.4975	3.4975	1.3000e-004	0.0000	3.5009
Total	**3.8100e-003**	**0.0371**	**0.0307**	**1.1000e-004**	**5.8200e-003**	**3.0000e-004**	**6.1300e-003**	**1.5800e-003**	**2.9000e-004**	**1.8700e-003**	**0.0000**	**10.2499**	**10.2499**	**6.5000e-004**	**0.0000**	**10.2662**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0170	0.2100	0.0956	2.2000e-004		9.1400e-003	9.1400e-003		8.4100e-003	8.4100e-003	0.0000	19.8299	19.8299	6.2700e-003	0.0000	19.9867
Total	**0.0170**	**0.2100**	**0.0956**	**2.2000e-004**		**9.1400e-003**	**9.1400e-003**		**8.4100e-003**	**8.4100e-003**	**0.0000**	**19.8299**	**19.8299**	**6.2700e-003**	**0.0000**	**19.9867**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4400e-003	0.0350	0.0127	7.0000e-005	1.6700e-003	2.7000e-004	1.9500e-003	4.8000e-004	2.6000e-004	7.4000e-004	0.0000	6.7524	6.7524	5.2000e-004	0.0000	6.7653
Worker	2.3700e-003	2.0700e-003	0.0181	4.0000e-005	4.1500e-003	3.0000e-005	4.1800e-003	1.1000e-003	3.0000e-005	1.1300e-003	0.0000	3.4975	3.4975	1.3000e-004	0.0000	3.5009
Total	**3.8100e-003**	**0.0371**	**0.0307**	**1.1000e-004**	**5.8200e-003**	**3.0000e-004**	**6.1300e-003**	**1.5800e-003**	**2.9000e-004**	**1.8700e-003**	**0.0000**	**10.2499**	**10.2499**	**6.5000e-004**	**0.0000**	**10.2662**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5900e-003	0.0820	0.0408	1.0000e-004		3.3100e-003	3.3100e-003		3.0400e-003	3.0400e-003	0.0000	8.5682	8.5682	2.7100e-003	0.0000	8.6360
Paving	1.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7700e-003**	**0.0820**	**0.0408**	**1.0000e-004**		**3.3100e-003**	**3.3100e-003**		**3.0400e-003**	**3.0400e-003**	**0.0000**	**8.5682**	**8.5682**	**2.7100e-003**	**0.0000**	**8.6360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.5000e-004	1.2900e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2498	0.2498	1.0000e-005	0.0000	0.2501
Total	**1.7000e-004**	**1.5000e-004**	**1.2900e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2498**	**0.2498**	**1.0000e-005**	**0.0000**	**0.2501**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.5900e-003	0.0820	0.0408	1.0000e-004		3.3100e-003	3.3100e-003		3.0400e-003	3.0400e-003	0.0000	8.5682	8.5682	2.7100e-003	0.0000	8.6360

Paving	1.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7700e-003**	**0.0820**	**0.0408**	**1.0000e-004**		**3.3100e-003**	**3.3100e-003**		**3.0400e-003**	**3.0400e-003**	**0.0000**	**8.5682**	**8.5682**	**2.7100e-003**	**0.0000**	**8.6360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	1.5000e-004	1.2900e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2498	0.2498	1.0000e-005	0.0000	0.2501
Total	**1.7000e-004**	**1.5000e-004**	**1.2900e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2498**	**0.2498**	**1.0000e-005**	**0.0000**	**0.2501**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.3000e-003	0.0114	0.0325	7.0000e-005	5.9700e-003	9.0000e-005	6.0500e-003	1.6000e-003	8.0000e-005	1.6800e-003	0.0000	6.3898	6.3898	3.6000e-004	0.0000	6.3987
Unmitigated	3.3000e-003	0.0114	0.0325	7.0000e-005	5.9700e-003	9.0000e-005	6.0500e-003	1.6000e-003	8.0000e-005	1.6800e-003	0.0000	6.3898	6.3898	3.6000e-004	0.0000	6.3987

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.65	31.85	23.44	15,715	15,715
Parking Lot	0.00	0.00	0.00		
Total	2.65	31.85	23.44	15,715	15,715

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	6.60	5.50	6.40	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.553205	0.030828	0.204091	0.129951	0.023898	0.006086	0.017139	0.018453	0.002761	0.002481	0.007244	0.002707	0.001156
Parking Lot	0.553205	0.030828	0.204091	0.129951	0.023898	0.006086	0.017139	0.018453	0.002761	0.002481	0.007244	0.002707	0.001156

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.6858	0.6858	3.0000e-005	1.0000e-005	0.6883
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.6858	0.6858	3.0000e-005	1.0000e-005	0.6883
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2152.5	0.6858	3.0000e-005	1.0000e-005	0.6883
Total		**0.6858**	**3.0000e-005**	**1.0000e-005**	**0.6883**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2152.5	0.6858	3.0000e-005	1.0000e-005	0.6883
Total		**0.6858**	**3.0000e-005**	**1.0000e-005**	**0.6883**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1900e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Unmitigated	1.1900e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**1.1900e-003**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.7000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.3000e-004	1.3000e-004	0.0000	0.0000	1.4000e-004
Total	**1.1900e-003**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.3000e-004**	**1.3000e-004**	**0.0000**	**0.0000**	**1.4000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1.8602	8.0000e-005	2.0000e-005	1.8669
Unmitigated	1.8602	8.0000e-005	2.0000e-005	1.8669

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.66807	1.8602	8.0000e-005	2.0000e-005	1.8669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.8602**	**8.0000e-005**	**2.0000e-005**	**1.8669**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
City Park	0 / 1.66807	1.8602	8.0000e-005	2.0000e-005	1.8669
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**1.8602**	**8.0000e-005**	**2.0000e-005**	**1.8669**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0249	1.2400e-003	0.0000	0.0558
Unmitigated	0.0249	1.2400e-003	0.0000	0.0558

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.12	0.0249	1.2400e-003	0.0000	0.0558
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0249**	**1.2400e-003**	**0.0000**	**0.0558**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0.12	0.0249	1.2400e-003	0.0000	0.0558
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0249**	**1.2400e-003**	**0.0000**	**0.0558**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carpinteria Rincon Trail

Santa Barbara-South of Santa Ynez Range County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	6.15	1000sqft	0.14	6,150.00	0
City Park	1.40	Acre	1.40	60,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - mod

Off-road Equipment - Bridge Construction

Off-road Equipment - mod

Off-road Equipment - mod

Off-road Equipment - mod

Trips and VMT - mod

Grading -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	5.00
tblConstructionPhase	NumDays	200.00	48.00
tblConstructionPhase	NumDays	4.00	112.00
tblConstructionPhase	NumDays	10.00	16.00
tblConstructionPhase	NumDays	2.00	16.00
tblGrading	MaterialExported	0.00	85,260.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.1441	45.0397	14.8114	0.0903	5.8501	0.8827	6.7328	2.9671	0.8121	3.7792	0.0000	9,834.1615	9,834.1615	1.1846	0.0000	9,863.7758
Maximum	**2.1441**	**45.0397**	**14.8114**	**0.0903**	**5.8501**	**0.8827**	**6.7328**	**2.9671**	**0.8121**	**3.7792**	**0.0000**	**9,834.1615**	**9,834.1615**	**1.1846**	**0.0000**	**9,863.7758**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.1441	45.0397	14.8114	0.0903	2.3124	0.8827	3.1950	1.1653	0.8121	1.9774	0.0000	9,834.1615	9,834.1615	1.1846	0.0000	9,863.7758
Maximum	**2.1441**	**45.0397**	**14.8114**	**0.0903**	**2.3124**	**0.8827**	**3.1950**	**1.1653**	**0.8121**	**1.9774**	**0.0000**	**9,834.1615**	**9,834.1615**	**1.1846**	**0.0000**	**9,863.7758**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.47**	**0.00**	**52.55**	**60.72**	**0.00**	**47.68**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0606	0.1962	0.5561	1.2700e-003	0.1090	1.5200e-003	0.1105	0.0292	1.4300e-003	0.0307		128.4020	128.4020	6.9100e-003		128.5746
Total	**0.0671**	**0.1962**	**0.5569**	**1.2700e-003**	**0.1090**	**1.5200e-003**	**0.1105**	**0.0292**	**1.4300e-003**	**0.0307**		**128.4036**	**128.4036**	**6.9100e-003**	**0.0000**	**128.5764**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0606	0.1962	0.5561	1.2700e-003	0.1090	1.5200e-003	0.1105	0.0292	1.4300e-003	0.0307		128.4020	128.4020	6.9100e-003		128.5746
Total	**0.0671**	**0.1962**	**0.5569**	**1.2700e-003**	**0.1090**	**1.5200e-003**	**0.1105**	**0.0292**	**1.4300e-003**	**0.0307**		**128.4036**	**128.4036**	**6.9100e-003**	**0.0000**	**128.5764**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Bridge Construction	Building Construction	10/7/2019	10/11/2019	5	5	
2	Site Preparation	Site Preparation	2/1/2019	2/22/2019	5	16	
3	Grading	Grading	2/25/2019	7/30/2019	5	112	
4	Trail Construction	Building Construction	7/31/2019	10/4/2019	5	48	
5	Paving	Paving	10/14/2019	11/4/2019	5	16	

Acres of Grading (Site Preparation Phase): 8

Acres of Grading (Grading Phase): 91

Acres of Paving: 0.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Bridge Construction	Air Compressors	0	0.00	78	0.48
Bridge Construction	Cranes	1	8.00	231	0.29
Bridge Construction	Forklifts	0	0.00	89	0.20
Bridge Construction	Generator Sets	0	0.00	84	0.74
Bridge Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Bridge Construction	Welders	3	8.00	46	0.45
Grading	Crawler Tractors	1	7.00	212	0.43
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trail Construction	Cranes	0	6.00	231	0.29
Trail Construction	Crawler Tractors	1	7.00	212	0.43
Trail Construction	Forklifts	0	6.00	89	0.20
Trail Construction	Generator Sets	0	8.00	84	0.74
Trail Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Trail Construction	Welders	0	8.00	46	0.45

Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Pavers	0	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Bridge Construction	5	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Bridge Construction	5	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	10,658.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Trail Construction	2	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	6.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Bridge Construction - 2019

Unmitigated Construction On-Site

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

Category	lb/day										lb/day					
Off-Road	1.8341	12.6328	9.4416	0.0158		0.6707	0.6707		0.6409	0.6409		1,424.3002	1,424.3002	0.3578		1,433.2440
Total	**1.8341**	**12.6328**	**9.4416**	**0.0158**		**0.6707**	**0.6707**		**0.6409**	**0.6409**		**1,424.3002**	**1,424.3002**	**0.3578**		**1,433.2440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1175	2.8754	1.0036	5.7800e-003	0.2437	0.0224	0.2661	0.0658	0.0215	0.0873		626.2277	626.2277	0.0465		627.3895
Worker	0.1925	0.1543	1.4826	3.3000e-003	0.6609	2.3300e-003	0.6633	0.1692	2.1500e-003	0.1714		328.4278	328.4278	0.0124		328.7368
Total	**0.3100**	**3.0297**	**2.4862**	**9.0800e-003**	**0.9046**	**0.0248**	**0.9294**	**0.2351**	**0.0236**	**0.2587**		**954.6555**	**954.6555**	**0.0588**		**956.1263**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8341	12.6328	9.4416	0.0158		0.6707	0.6707		0.6409	0.6409	0.0000	1,424.3002	1,424.3002	0.3578		1,433.2440
Total	**1.8341**	**12.6328**	**9.4416**	**0.0158**		**0.6707**	**0.6707**		**0.6409**	**0.6409**	**0.0000**	**1,424.3002**	**1,424.3002**	**0.3578**		**1,433.2440**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1175	2.8754	1.0036	5.7800e-003	0.2437	0.0224	0.2661	0.0658	0.0215	0.0873		626.2277	626.2277	0.0465		627.3895
Worker	0.1925	0.1543	1.4826	3.3000e-003	0.6609	2.3300e-003	0.6633	0.1692	2.1500e-003	0.1714		328.4278	328.4278	0.0124		328.7368
Total	**0.3100**	**3.0297**	**2.4862**	**9.0800e-003**	**0.9046**	**0.0248**	**0.9294**	**0.2351**	**0.0236**	**0.2587**		**954.6555**	**954.6555**	**0.0588**		**956.1263**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	**0.0275**	**0.0221**	**0.2118**	**4.7000e-004**	**0.0505**	**3.3000e-004**	**0.0509**	**0.0134**	**3.1000e-004**	**0.0137**		**46.9183**	**46.9183**	**1.7700e-003**		**46.9624**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2618	0.0000	2.2618	1.1519	0.0000	1.1519			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**2.2618**	**0.8824**	**3.1442**	**1.1519**	**0.8118**	**1.9637**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	**0.0275**	**0.0221**	**0.2118**	**4.7000e-004**	**0.0505**	**3.3000e-004**	**0.0509**	**0.0134**	**3.1000e-004**	**0.0137**		**46.9183**	**46.9183**	**1.7700e-003**		**46.9624**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9740	0.0000	0.9740	0.1101	0.0000	0.1101			0.0000			0.0000
Off-Road	1.1028	13.9747	5.6505	0.0146		0.5587	0.5587		0.5140	0.5140		1,442.4421	1,442.4421	0.4564		1,453.8514
Total	**1.1028**	**13.9747**	**5.6505**	**0.0146**	**0.9740**	**0.5587**	**1.5327**	**0.1101**	**0.5140**	**0.6240**		**1,442.4421**	**1,442.4421**	**0.4564**		**1,453.8514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9089	31.0429	8.9491	0.0752	1.6534	0.1712	1.8246	0.4523	0.1638	0.6162		8,344.8011	8,344.8011	0.7264		8,362.9620
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	**0.9364**	**31.0650**	**9.1609**	**0.0757**	**1.7039**	**0.1716**	**1.8755**	**0.4657**	**0.1641**	**0.6299**		**8,391.7194**	**8,391.7194**	**0.7282**		**8,409.9244**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3799	0.0000	0.3799	0.0429	0.0000	0.0429			0.0000			0.0000
Off-Road	1.1028	13.9747	5.6505	0.0146		0.5587	0.5587		0.5140	0.5140	0.0000	1,442.4421	1,442.4421	0.4564		1,453.8514
Total	**1.1028**	**13.9747**	**5.6505**	**0.0146**	**0.3799**	**0.5587**	**0.9385**	**0.0429**	**0.5140**	**0.5569**	**0.0000**	**1,442.4421**	**1,442.4421**	**0.4564**		**1,453.8514**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9089	31.0429	8.9491	0.0752	1.6534	0.1712	1.8246	0.4523	0.1638	0.6162		8,344.8011	8,344.8011	0.7264		8,362.9620
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0275	0.0221	0.2118	4.7000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		46.9183	46.9183	1.7700e-003		46.9624
Total	**0.9364**	**31.0650**	**9.1609**	**0.0757**	**1.7039**	**0.1716**	**1.8755**	**0.4657**	**0.1641**	**0.6299**		**8,391.7194**	**8,391.7194**	**0.7282**		**8,409.9244**

3.5 Trail Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7086	8.7478	3.9842	9.2000e-003		0.3808	0.3808		0.3503	0.3503		910.7790	910.7790	0.2882		917.9830
Total	**0.7086**	**8.7478**	**3.9842**	**9.2000e-003**		**0.3808**	**0.3808**		**0.3503**	**0.3503**		**910.7790**	**910.7790**	**0.2882**		**917.9830**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0588	1.4377	0.5018	2.8900e-003	0.0711	0.0112	0.0823	0.0205	0.0107	0.0312		313.1138	313.1138	0.0232		313.6947
Worker	0.0962	0.0772	0.7413	1.6500e-003	0.1768	1.1700e-003	0.1780	0.0469	1.0800e-003	0.0480		164.2139	164.2139	6.1800e-003		164.3684
Total	**0.1550**	**1.5149**	**1.2431**	**4.5400e-003**	**0.2479**	**0.0124**	**0.2603**	**0.0674**	**0.0118**	**0.0792**		**477.3277**	**477.3277**	**0.0294**		**478.0632**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7086	8.7478	3.9842	9.2000e-003		0.3808	0.3808		0.3503	0.3503	0.0000	910.7790	910.7790	0.2882		917.9830

Total	**0.7086**	**8.7478**	**3.9842**	**9.2000e-003**		**0.3808**	**0.3808**		**0.3503**	**0.3503**	**0.0000**	**910.7790**	**910.7790**	**0.2882**		**917.9830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0588	1.4377	0.5018	2.8900e-003	0.0711	0.0112	0.0823	0.0205	0.0107	0.0312		313.1138	313.1138	0.0232		313.6947
Worker	0.0962	0.0772	0.7413	1.6500e-003	0.1768	1.1700e-003	0.1780	0.0469	1.0800e-003	0.0480		164.2139	164.2139	6.1800e-003		164.3684
Total	**0.1550**	**1.5149**	**1.2431**	**4.5400e-003**	**0.2479**	**0.0124**	**0.2603**	**0.0674**	**0.0118**	**0.0792**		**477.3277**	**477.3277**	**0.0294**		**478.0632**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8233	10.2506	5.1031	0.0119		0.4134	0.4134		0.3803	0.3803		1,180.6022	1,180.6022	0.3735		1,189.9405
Paving	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8462**	**10.2506**	**5.1031**	**0.0119**		**0.4134**	**0.4134**		**0.3803**	**0.3803**		**1,180.6022**	**1,180.6022**	**0.3735**		**1,189.9405**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0206	0.0165	0.1589	3.5000e-004	0.0379	2.5000e-004	0.0381	0.0101	2.3000e-004	0.0103		35.1887	35.1887	1.3200e-003		35.2218
Total	**0.0206**	**0.0165**	**0.1589**	**3.5000e-004**	**0.0379**	**2.5000e-004**	**0.0381**	**0.0101**	**2.3000e-004**	**0.0103**		**35.1887**	**35.1887**	**1.3200e-003**		**35.2218**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8233	10.2506	5.1031	0.0119		0.4134	0.4134		0.3803	0.3803	0.0000	1,180.6022	1,180.6022	0.3735		1,189.9405
Paving	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8462**	**10.2506**	**5.1031**	**0.0119**		**0.4134**	**0.4134**		**0.3803**	**0.3803**	**0.0000**	**1,180.6022**	**1,180.6022**	**0.3735**		**1,189.9405**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0206	0.0165	0.1589	3.5000e-004	0.0379	2.5000e-004	0.0381	0.0101	2.3000e-004	0.0103		35.1887	35.1887	1.3200e-003		35.2218
Total	**0.0206**	**0.0165**	**0.1589**	**3.5000e-004**	**0.0379**	**2.5000e-004**	**0.0381**	**0.0101**	**2.3000e-004**	**0.0103**		**35.1887**	**35.1887**	**1.3200e-003**		**35.2218**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0606	0.1962	0.5561	1.2700e-003	0.1090	1.5200e-003	0.1105	0.0292	1.4300e-003	0.0307		128.4020	128.4020	6.9100e-003		128.5746
Unmitigated	0.0606	0.1962	0.5561	1.2700e-003	0.1090	1.5200e-003	0.1105	0.0292	1.4300e-003	0.0307		128.4020	128.4020	6.9100e-003		128.5746

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.65	31.85	23.44	15,715	15,715
Parking Lot	0.00	0.00	0.00		
Total	2.65	31.85	23.44	15,715	15,715

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	6.60	5.50	6.40	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.553205	0.030828	0.204091	0.129951	0.023898	0.006086	0.017139	0.018453	0.002761	0.002481	0.007244	0.002707	0.001156
Parking Lot	0.553205	0.030828	0.204091	0.129951	0.023898	0.006086	0.017139	0.018453	0.002761	0.002481	0.007244	0.002707	0.001156

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003

Unmitigated	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Total	**6.5600e-003**	**1.0000e-005**	**7.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6500e-003**	**1.6500e-003**	**0.0000**		**1.7600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Total	**6.5600e-003**	**1.0000e-005**	**7.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6500e-003**	**1.6500e-003**	**0.0000**		**1.7600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Carpinteria Rincon Trail

Santa Barbara-South of Santa Ynez Range County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	6.15	1000sqft	0.14	6,150.00	0
City Park	1.40	Acre	1.40	60,984.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.7	**Precipitation Freq (Days)**	37
Climate Zone	8			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - mod

Off-road Equipment - Bridge Construction

Off-road Equipment - mod

Off-road Equipment - mod

Off-road Equipment - mod

Trips and VMT - mod

Grading -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	200.00	5.00
tblConstructionPhase	NumDays	200.00	48.00
tblConstructionPhase	NumDays	4.00	112.00
tblConstructionPhase	NumDays	10.00	16.00
tblConstructionPhase	NumDays	2.00	16.00
tblGrading	MaterialExported	0.00	85,260.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	VendorTripNumber	11.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.1746	45.2639	15.2551	0.0893	5.8501	0.8827	6.7328	2.9671	0.8121	3.7792	0.0000	9,724.7928	9,724.7928	1.2004	0.0000	9,754.8021
Maximum	**2.1746**	**45.2639**	**15.2551**	**0.0893**	**5.8501**	**0.8827**	**6.7328**	**2.9671**	**0.8121**	**3.7792**	**0.0000**	**9,724.7928**	**9,724.7928**	**1.2004**	**0.0000**	**9,754.8021**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	2.1746	45.2639	15.2551	0.0893	2.3124	0.8827	3.1950	1.1653	0.8121	1.9774	0.0000	9,724.7928	9,724.7928	1.2004	0.0000	9,754.8021
Maximum	**2.1746**	**45.2639**	**15.2551**	**0.0893**	**2.3124**	**0.8827**	**3.1950**	**1.1653**	**0.8121**	**1.9774**	**0.0000**	**9,724.7928**	**9,724.7928**	**1.2004**	**0.0000**	**9,754.8021**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**60.47**	**0.00**	**52.55**	**60.72**	**0.00**	**47.68**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0599	0.2035	0.6053	1.2400e-003	0.1090	1.5400e-003	0.1106	0.0292	1.4500e-003	0.0307		125.5318	125.5318	7.1700e-003		125.7111
Total	**0.0665**	**0.2035**	**0.6061**	**1.2400e-003**	**0.1090**	**1.5400e-003**	**0.1106**	**0.0292**	**1.4500e-003**	**0.0307**		**125.5334**	**125.5334**	**7.1700e-003**	**0.0000**	**125.7129**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0599	0.2035	0.6053	1.2400e-003	0.1090	1.5400e-003	0.1106	0.0292	1.4500e-003	0.0307		125.5318	125.5318	7.1700e-003		125.7111
Total	**0.0665**	**0.2035**	**0.6061**	**1.2400e-003**	**0.1090**	**1.5400e-003**	**0.1106**	**0.0292**	**1.4500e-003**	**0.0307**		**125.5334**	**125.5334**	**7.1700e-003**	**0.0000**	**125.7129**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Bridge Construction	Building Construction	10/7/2019	10/11/2019	5	5	
2	Site Preparation	Site Preparation	2/1/2019	2/22/2019	5	16	
3	Grading	Grading	2/25/2019	7/30/2019	5	112	
4	Trail Construction	Building Construction	7/31/2019	10/4/2019	5	48	
5	Paving	Paving	10/14/2019	11/4/2019	5	16	

Acres of Grading (Site Preparation Phase): 8

Acres of Grading (Grading Phase): 91

Acres of Paving: 0.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Bridge Construction	Air Compressors	0	0.00	78	0.48
Bridge Construction	Cranes	1	8.00	231	0.29
Bridge Construction	Forklifts	0	0.00	89	0.20
Bridge Construction	Generator Sets	0	0.00	84	0.74
Bridge Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Bridge Construction	Welders	3	8.00	46	0.45
Grading	Crawler Tractors	1	7.00	212	0.43
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	0	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trail Construction	Cranes	0	6.00	231	0.29
Trail Construction	Crawler Tractors	1	7.00	212	0.43
Trail Construction	Forklifts	0	6.00	89	0.20
Trail Construction	Generator Sets	0	8.00	84	0.74
Trail Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Trail Construction	Welders	0	8.00	46	0.45

Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Paving	Crawler Tractors	1	8.00	212	0.43
Paving	Pavers	0	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	0	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Bridge Construction	5	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Bridge Construction	5	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	10,658.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Trail Construction	2	28.00	12.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	6.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	8.30	6.40	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

3.2 Bridge Construction - 2019

Unmitigated Construction On-Site

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

Category	lb/day										lb/day					
Off-Road	1.8341	12.6328	9.4416	0.0158		0.6707	0.6707		0.6409	0.6409		1,424.3002	1,424.3002	0.3578		1,433.2440
Total	**1.8341**	**12.6328**	**9.4416**	**0.0158**		**0.6707**	**0.6707**		**0.6409**	**0.6409**		**1,424.3002**	**1,424.3002**	**0.3578**		**1,433.2440**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1234	2.8715	1.1020	5.6500e-003	0.2437	0.0230	0.2667	0.0658	0.0220	0.0878		612.0547	612.0547	0.0487		613.2720
Worker	0.2170	0.1766	1.5461	3.2300e-003	0.6609	2.3300e-003	0.6633	0.1692	2.1500e-003	0.1714		320.8389	320.8389	0.0125		321.1511
Total	**0.3405**	**3.0481**	**2.6481**	**8.8800e-003**	**0.9046**	**0.0253**	**0.9299**	**0.2351**	**0.0241**	**0.2592**		**932.8935**	**932.8935**	**0.0612**		**934.4231**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8341	12.6328	9.4416	0.0158		0.6707	0.6707		0.6409	0.6409	0.0000	1,424.3002	1,424.3002	0.3578		1,433.2440
Total	**1.8341**	**12.6328**	**9.4416**	**0.0158**		**0.6707**	**0.6707**		**0.6409**	**0.6409**	**0.0000**	**1,424.3002**	**1,424.3002**	**0.3578**		**1,433.2440**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1234	2.8715	1.1020	5.6500e-003	0.2437	0.0230	0.2667	0.0658	0.0220	0.0878		612.0547	612.0547	0.0487		613.2720
Worker	0.2170	0.1766	1.5461	3.2300e-003	0.6609	2.3300e-003	0.6633	0.1692	2.1500e-003	0.1714		320.8389	320.8389	0.0125		321.1511
Total	**0.3405**	**3.0481**	**2.6481**	**8.8800e-003**	**0.9046**	**0.0253**	**0.9299**	**0.2351**	**0.0241**	**0.2592**		**932.8935**	**932.8935**	**0.0612**		**934.4231**

3.3 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118		1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**5.7996**	**0.8824**	**6.6819**	**2.9537**	**0.8118**	**3.7655**		**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	**0.0310**	**0.0252**	**0.2209**	**4.6000e-004**	**0.0505**	**3.3000e-004**	**0.0509**	**0.0134**	**3.1000e-004**	**0.0137**		**45.8341**	**45.8341**	**1.7800e-003**		**45.8787**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2618	0.0000	2.2618	1.1519	0.0000	1.1519			0.0000			0.0000
Off-Road	1.7123	19.4821	7.8893	0.0172		0.8824	0.8824		0.8118	0.8118	0.0000	1,704.9189	1,704.9189	0.5394		1,718.4044
Total	**1.7123**	**19.4821**	**7.8893**	**0.0172**	**2.2618**	**0.8824**	**3.1442**	**1.1519**	**0.8118**	**1.9637**	**0.0000**	**1,704.9189**	**1,704.9189**	**0.5394**		**1,718.4044**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	**0.0310**	**0.0252**	**0.2209**	**4.6000e-004**	**0.0505**	**3.3000e-004**	**0.0509**	**0.0134**	**3.1000e-004**	**0.0137**		**45.8341**	**45.8341**	**1.7800e-003**		**45.8787**

3.4 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.9740	0.0000	0.9740	0.1101	0.0000	0.1101			0.0000			0.0000
Off-Road	1.1028	13.9747	5.6505	0.0146		0.5587	0.5587		0.5140	0.5140		1,442.4421	1,442.4421	0.4564		1,453.8514
Total	**1.1028**	**13.9747**	**5.6505**	**0.0146**	**0.9740**	**0.5587**	**1.5327**	**0.1101**	**0.5140**	**0.6240**		**1,442.4421**	**1,442.4421**	**0.4564**		**1,453.8514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9335	31.2640	9.3837	0.0742	1.6534	0.1752	1.8285	0.4523	0.1676	0.6199		8,236.5166	8,236.5166	0.7422		8,255.0720
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	**0.9645**	**31.2892**	**9.6046**	**0.0747**	**1.7039**	**0.1755**	**1.8794**	**0.4657**	**0.1679**	**0.6336**		**8,282.3507**	**8,282.3507**	**0.7440**		**8,300.9507**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3799	0.0000	0.3799	0.0429	0.0000	0.0429			0.0000			0.0000
Off-Road	1.1028	13.9747	5.6505	0.0146		0.5587	0.5587		0.5140	0.5140	0.0000	1,442.4421	1,442.4421	0.4564		1,453.8514
Total	**1.1028**	**13.9747**	**5.6505**	**0.0146**	**0.3799**	**0.5587**	**0.9385**	**0.0429**	**0.5140**	**0.5569**	**0.0000**	**1,442.4421**	**1,442.4421**	**0.4564**		**1,453.8514**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.9335	31.2640	9.3837	0.0742	1.6534	0.1752	1.8285	0.4523	0.1676	0.6199		8,236.5166	8,236.5166	0.7422		8,255.0720
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0310	0.0252	0.2209	4.6000e-004	0.0505	3.3000e-004	0.0509	0.0134	3.1000e-004	0.0137		45.8341	45.8341	1.7800e-003		45.8787
Total	**0.9645**	**31.2892**	**9.6046**	**0.0747**	**1.7039**	**0.1755**	**1.8794**	**0.4657**	**0.1679**	**0.6336**		**8,282.3507**	**8,282.3507**	**0.7440**		**8,300.9507**

3.5 Trail Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7086	8.7478	3.9842	9.2000e-003		0.3808	0.3808		0.3503	0.3503		910.7790	910.7790	0.2882		917.9830
Total	**0.7086**	**8.7478**	**3.9842**	**9.2000e-003**		**0.3808**	**0.3808**		**0.3503**	**0.3503**		**910.7790**	**910.7790**	**0.2882**		**917.9830**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0617	1.4358	0.5510	2.8300e-003	0.0711	0.0115	0.0826	0.0205	0.0110	0.0314		306.0273	306.0273	0.0244		306.6360
Worker	0.1085	0.0883	0.7730	1.6100e-003	0.1768	1.1700e-003	0.1780	0.0469	1.0800e-003	0.0480		160.4194	160.4194	6.2400e-003		160.5755
Total	**0.1702**	**1.5241**	**1.3240**	**4.4400e-003**	**0.2479**	**0.0127**	**0.2606**	**0.0674**	**0.0121**	**0.0794**		**466.4468**	**466.4468**	**0.0306**		**467.2115**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7086	8.7478	3.9842	9.2000e-003		0.3808	0.3808		0.3503	0.3503	0.0000	910.7790	910.7790	0.2882		917.9830

Total	**0.7086**	**8.7478**	**3.9842**	**9.2000e-003**		**0.3808**	**0.3808**		**0.3503**	**0.3503**	**0.0000**	**910.7790**	**910.7790**	**0.2882**		**917.9830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0617	1.4358	0.5510	2.8300e-003	0.0711	0.0115	0.0826	0.0205	0.0110	0.0314		306.0273	306.0273	0.0244		306.6360
Worker	0.1085	0.0883	0.7730	1.6100e-003	0.1768	1.1700e-003	0.1780	0.0469	1.0800e-003	0.0480		160.4194	160.4194	6.2400e-003		160.5755
Total	**0.1702**	**1.5241**	**1.3240**	**4.4400e-003**	**0.2479**	**0.0127**	**0.2606**	**0.0674**	**0.0121**	**0.0794**		**466.4468**	**466.4468**	**0.0306**		**467.2115**

3.6 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8233	10.2506	5.1031	0.0119		0.4134	0.4134		0.3803	0.3803		1,180.6022	1,180.6022	0.3735		1,189.9405
Paving	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8462**	**10.2506**	**5.1031**	**0.0119**		**0.4134**	**0.4134**		**0.3803**	**0.3803**		**1,180.6022**	**1,180.6022**	**0.3735**		**1,189.9405**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0233	0.0189	0.1657	3.5000e-004	0.0379	2.5000e-004	0.0381	0.0101	2.3000e-004	0.0103		34.3756	34.3756	1.3400e-003		34.4090
Total	**0.0233**	**0.0189**	**0.1657**	**3.5000e-004**	**0.0379**	**2.5000e-004**	**0.0381**	**0.0101**	**2.3000e-004**	**0.0103**		**34.3756**	**34.3756**	**1.3400e-003**		**34.4090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8233	10.2506	5.1031	0.0119		0.4134	0.4134		0.3803	0.3803	0.0000	1,180.6022	1,180.6022	0.3735		1,189.9405
Paving	0.0229					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8462**	**10.2506**	**5.1031**	**0.0119**		**0.4134**	**0.4134**		**0.3803**	**0.3803**	**0.0000**	**1,180.6022**	**1,180.6022**	**0.3735**		**1,189.9405**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0233	0.0189	0.1657	3.5000e-004	0.0379	2.5000e-004	0.0381	0.0101	2.3000e-004	0.0103		34.3756	34.3756	1.3400e-003		34.4090
Total	**0.0233**	**0.0189**	**0.1657**	**3.5000e-004**	**0.0379**	**2.5000e-004**	**0.0381**	**0.0101**	**2.3000e-004**	**0.0103**		**34.3756**	**34.3756**	**1.3400e-003**		**34.4090**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0599	0.2035	0.6053	1.2400e-003	0.1090	1.5400e-003	0.1106	0.0292	1.4500e-003	0.0307		125.5318	125.5318	7.1700e-003		125.7111
Unmitigated	0.0599	0.2035	0.6053	1.2400e-003	0.1090	1.5400e-003	0.1106	0.0292	1.4500e-003	0.0307		125.5318	125.5318	7.1700e-003		125.7111

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	2.65	31.85	23.44	15,715	15,715
Parking Lot	0.00	0.00	0.00		
Total	2.65	31.85	23.44	15,715	15,715

4.3 Trip Type Information

	Miles	Trip %	Trip Purpose %

Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	6.60	5.50	6.40	33.00	48.00	19.00	66	28	6
Parking Lot	6.60	5.50	6.40	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.553205	0.030828	0.204091	0.129951	0.023898	0.006086	0.017139	0.018453	0.002761	0.002481	0.007244	0.002707	0.001156
Parking Lot	0.553205	0.030828	0.204091	0.129951	0.023898	0.006086	0.017139	0.018453	0.002761	0.002481	0.007244	0.002707	0.001156

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003

Unmitigated	6.5600e-003	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Total	**6.5600e-003**	**1.0000e-005**	**7.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6500e-003**	**1.6500e-003**	**0.0000**		**1.7600e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.1700e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.3200e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	7.0000e-005	1.0000e-005	7.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.6500e-003	1.6500e-003	0.0000		1.7600e-003
Total	**6.5600e-003**	**1.0000e-005**	**7.8000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.6500e-003**	**1.6500e-003**	**0.0000**		**1.7600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C

Plant and Wildlife Species Lists

Eudicots – Vascular Species

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra ssp. *caerulea*—blue elderberry

AIZOACEAE—FIG-MARIGOLD FAMILY

* *Carpobrotus chilensis*—sea fig
* *Carpobrotus edulis*—hottentot fig
* *Mesembryanthemum crystallinum*—common iceplant
* *Tetragonia tetragonoides*—New Zealand spinach

AMARANTHACEAE—AMARANTH FAMILY

* *Amaranthus albus*—prostrate pigweed
Amaranthus blitoides—mat amaranth

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Rhus integrifolia—lemonade berry
* *Schinus terebinthifolius*—Brazilian peppertree

APIACEAE—CARROT FAMILY

Apiastrum angustifolium—mock parsley
* *Conium maculatum*—poison hemlock
* *Foeniculum vulgare*—fennel

ASTERACEAE—SUNFLOWER FAMILY

Ambrosia psilostachya—western ragweed
Artemisia californica—California sagebrush
Baccharis pilularis—coyote brush
Baccharis salicifolia—mulefat
Brickellia californica—California brickellbush
* *Carduus pycnocephalus*—Italian plumeless thistle
* *Centaurea melitensis*—Maltese star-thistle
Corethrogyne filaginifolia—sand-aster
* *Delairea odorata*—Cape-ivy
Encelia californica—California brittle bush
* *Erigeron bonariensis*—asthmaweed
Erigeron canadensis—Canadian horseweed
* *Erigeron sumatrensis*—asthmaweed
Eriophyllum confertiflorum—golden-yarrow
Hazardia squarrosa—sawtooth golden bush
* *Helminthotheca echioides*—bristly oxtongue

Heterotheca grandiflora—telegraphweed
Heterotheca sessiliflora—sessileflower false goldenaster
Isocoma menziesii—Menzies's golden bush
* *Lactuca serriola*—prickly lettuce
Malacothrix saxatilis var. *saxatilis*—cliff malacothrix
Pseudognaphalium beneolens—Wright's cudweed
Pseudognaphalium biolettii—two-color rabbit-tobacco
Pseudognaphalium californicum—ladies' tobacco
* *Pseudognaphalium luteoalbum*—Jersey cudweed
Pseudognaphalium ramosissimum—pink cudweed
* *Silybum marianum*—blessed milkthistle
* *Sonchus asper*—spiny sowthistle
* *Sonchus oleraceus*—common sowthistle
Venegasia carpesioides—canyon sunflower

BORAGINACEAE—BORAGE FAMILY

Amsinckia menziesii—Menzies' fiddleneck
Eriodictyon crassifolium—thick leaf yerba santa
Eucrypta chrysanthemifolia—spotted hideseed
Phacelia ramosissima var. *austrolitoralis*—south coast branching phacelia

BRASSICACEAE—MUSTARD FAMILY

* *Brassica nigra*—black mustard
* *Brassica rapa*—field mustard
* *Brassica tournefortii*—Tournefort's mustard
* *Cakile maritima*—European searocket
* *Capsella bursa-pastoris*—shepherd's purse
Descurainia pinnata—western tansymustard
* *Hirschfeldia incana*—shortpod mustard
Lepidium nitidum—shining pepperweed
* *Lobularia maritima*—sweet alyssum
* *Raphanus sativus*—cultivated radish
* *Sisymbrium irio*—London rocket
* *Sisymbrium orientale*—Indian hedgemustard

CACTACEAE—CACTUS FAMILY

Opuntia littoralis—coast prickly pear

CARYOPHYLLACEAE—PINK FAMILY

* *Spergularia bocconi*—Boccone's sandspurry

CHENOPODIACEAE—GOOSEFOOT FAMILY

Atriplex lentiformis—quailbush
* *Atriplex semibaccata*—Australian saltbush
* *Bassia hyssopifolia*—fivehorn smotherweed
* *Chenopodium album*—lambsquarters
* *Chenopodium murale*—nettleleaf goosefoot
* *Salsola tragus*—prickly Russian thistle
Suaeda taxifolia—woolly seablite

CONVOLVULACEAE—MORNING-GLORY FAMILY

Calystegia macrostegia ssp. *cyclostegia*—island false bindweed
* *Convolvulus arvensis*—field bindweed

EUPHORBIACEAE—SPURGE FAMILY

Croton californicus—California croton
Croton setiger—dove weed
* *Euphorbia peplus*—petty spurge
* *Ricinus communis*—castorbean

FABACEAE—LEGUME FAMILY

Acmispon americanus—Spanish clover
Acmispon glaber—deer weed
* *Medicago polymorpha*—burclover
* *Melilotus indicus*—annual yellow sweetclover
* *Melilotus officinalis*—sweetclover

FAGACEAE—OAK FAMILY

Quercus agrifolia—coast live oak

GERANIACEAE—GERANIUM FAMILY

* *Erodium botrys*—longbeak stork's bill
* *Erodium cicutarium*—redstem stork's bill
* *Erodium moschatum*—musky stork's bill

LAMIACEAE—MINT FAMILY

* *Marrubium vulgare*—horehound
Stachys bullata—California hedgenettle

MALVACEAE—MALLOW FAMILY

* *Malva nicaeensis*—bull mallow
* *Malva parviflora*—cheeseweed mallow

MYRSINACEAE—MYRSINE FAMILY

* *Lysimachia arvensis*—scarlet pimpernel

MYRTACEAE—MYRTLE FAMILY

* *Eucalyptus camaldulensis*—river redgum

NYCTAGINACEAE—FOUR O'CLOCK FAMILY

Mirabilis laevis var. *crassifolia*—California four o'clock

ONAGRACEAE—EVENING PRIMROSE FAMILY

Camissoniopsis bistorta—southern suncup

OXALIDACEAE—OXALIS FAMILY

* *Oxalis pes-caprae*—Bermuda buttercup

PHRYMACEAE—LOPSEED FAMILY

Diplacus aurantiacus—bush monkeyflower

PLANTAGINACEAE—PLANTAIN FAMILY

Plantago erecta—dwarf plantain

* *Plantago lanceolata*—narrowleaf plantain

PLATANACEAE—PLANE TREE, SYCAMORE FAMILY

Platanus racemosa—California sycamore

PLUMBAGINACEAE—LEADWORT FAMILY

* *Limonium perezii*—Perez's sea lavender

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum parvifolium—seacliff buckwheat

* *Polygonum aviculare*—prostrate knotweed

RHAMNACEAE—BUCKTHORN FAMILY

Rhamnus crocea—redberry buckthorn

SALICACEAE—WILLOW FAMILY

Salix laevigata—red willow

Salix lasiolepis—arroyo willow

SCROPHULARIACEAE—FIGWORT FAMILY

* *Myoporum laetum*—myoporum

Scrophularia californica—California figwort

SOLANACEAE—NIGHTSHADE FAMILY

Datura wrightii—sacred thorn-apple
* *Nicotiana glauca*—tree tobacco
Solanum americanum—American black nightshade
Solanum douglasii—greenspot nightshade
Solanum xanti—chaparral nightshade

TROPAEOLACEAE—NASTURTIUM FAMILY

* *Tropaeolum majus*—nasturtium

URTICACEAE—NETTLE FAMILY

* *Urtica urens*—dwarf nettle

VERBENACEAE—VERVAIN FAMILY

Verbena lasiostachys—western vervain

Gymnosperms and Gnetophytes – Vascular Species

CUPRESSACEAE—CYPRESS FAMILY

Hesperocyparis macrocarpa—Monterey cypress

Monocots – Vascular Species

ASPHODELACEAE—ASPHODEL FAMILY

* *Asphodelus fistulosus*—onionweed

POACEAE—GRASS FAMILY

* *Avena barbata*—slender oat
* *Brachypodium distachyon*—purple false brome
* *Bromus diandrus*—ripgut brome
* *Bromus hordeaceus*—soft brome
* *Bromus madritensis*—compact brome
* *Cortaderia jubata*—purple pampas grass
* *Cynodon dactylon*—Bermudagrass
* *Ehrharta calycina*—perennial veldtgrass
Elymus condensatus—giant wild rye
* *Festuca myuros*—rat-tail fescue
* *Festuca perennis*—perennial rye grass
* *Hordeum murinum*—mouse barley
* *Lamarckia aurea*—goldentop grass
Melica imperfecta—smallflower melicgrass
* *Pennisetum setaceum*—fountain grass

* *Pennisetum villosum*—feathertop
* *Poa annua*—annual bluegrass
* *Polypogon monspeliensis*—annual rabbitsfoot grass
* *Schismus arabicus*—Arabian schismus
* *Stipa miliacea*—no common name

* signifies introduced (non-native) species

Birds

AEGITHALIDAE—LONG-TAILED TITS & BUSHTITS

Psaltriparus minimus—bushtit

CARDINALIDAE—CARDINALS & ALLIES

Pheucticus melanocephalus—black-headed grosbeak

FALCONIDAE—CARACARAS & FALCONS

Falco sparverius—American kestrel

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Buteo jamaicensis—red-tailed hawk

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

CORVIDAE—CROWS & JAYS

Corvus brachyrhynchos—American crow

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

SYLVIIDAE—SYLVIID WARBLERS

Polioptila caerulea—blue-gray gnatcatcher

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura—mourning dove

* *Streptopelia decaocto*—Eurasian collared-dove

CUCULIDAE—CUCKOOS, ROADRUNNERS, & ANIS

Geococcyx californianus—greater roadrunner

STURNIDAE—STARLINGS

* *Sturnus vulgaris*—European starling

HIRUNDINIDAE—SWALLOWS

Hirundo rustica—barn swallow

TROGLODYTIDAE—WRENS

Thryomanes bewickii—Bewick's wren

TIMALIIDAE—BABBLERS

Chamaea fasciata—wrentit

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia—song sparrow

Melozone crissalis—California towhee

Zonotrichia leucophrys—white-crowned sparrow

Invertebrates

LYCAENIDAE—BLUES, HAIRSTREAKS, & COPPERS

Brephidium exile—western pygmy-blue

PIERIDAE—WHITES & SULFURS

Pieris rapae—cabbage white

Mammals

LEPORIDAE—HARES & RABBITS

Sylvilagus bachmani—brush rabbit

SCIURIDAE—SQUIRRELS

Spermophilus (*Otospermophilus*) *beecheyi*—California ground squirrel

CRICETIDAE—RATS, MICE, & VOLES

Neotoma sp.—woodrat

Reptiles

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

Uta stansburiana—common side-blotched lizard

* signifies introduced (non-native) species

APPENDIX D

Storm Drain Design Plans and Feasibility Discussion

Drainage Overview

This project is located in a coastal setting where heavy rains are likely to occur regularly. These rains will bring some sediment and perhaps rockfalls, which will likely be heavier in the earlier years, diminishing as vegetation becomes established.

In order to minimize maintenance and to protect the substantial investment in the project, along with concern for the safety of the users, designers feel it is important to provide adequate drainage systems including graded drainage benches where feasible. Such was the concept used during the original construction of the railroad and Hwy 101.

Aerial view looking south: Bengal photo

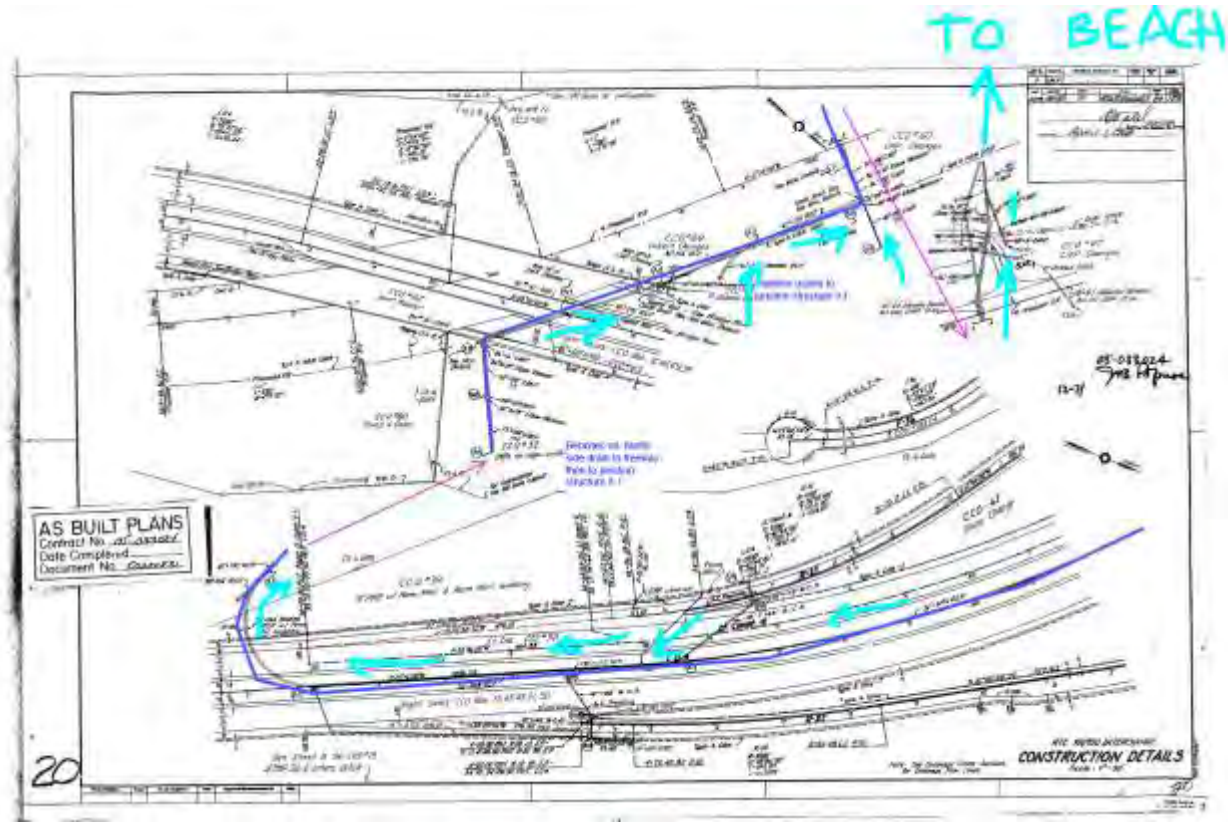
Note the benches built to control drainage on the cut slopes above the US 101 Highway to protect these facilities.

Drainage on Freeway Side of the Project

Designers of Hwy 101 routed all the drainage west of the “wave overhead” (the freeway bridge crossing the UPRR) down the median of the freeway then sweeping along the lower bench above the railroad, then descending to the beach (light blue arrows below). Note this existing system passes under the Union Pacific railroad tracks before it descends to the beach.

Above: Existing Drainage Paths (light blue); Proposed Drainage Path (yellow) . Note that on the freeway side of the UPRR, because the new trail will intercept the water which currently drains either to the existing mid-slope bench or to the southbound ramp below, engineers will include a drainage v-ditch along the trail. This v-ditch will convey water to the existing drainage system, as shown in the yellow arrows above.

As-Built Drawings of Hwy 101 Drainage



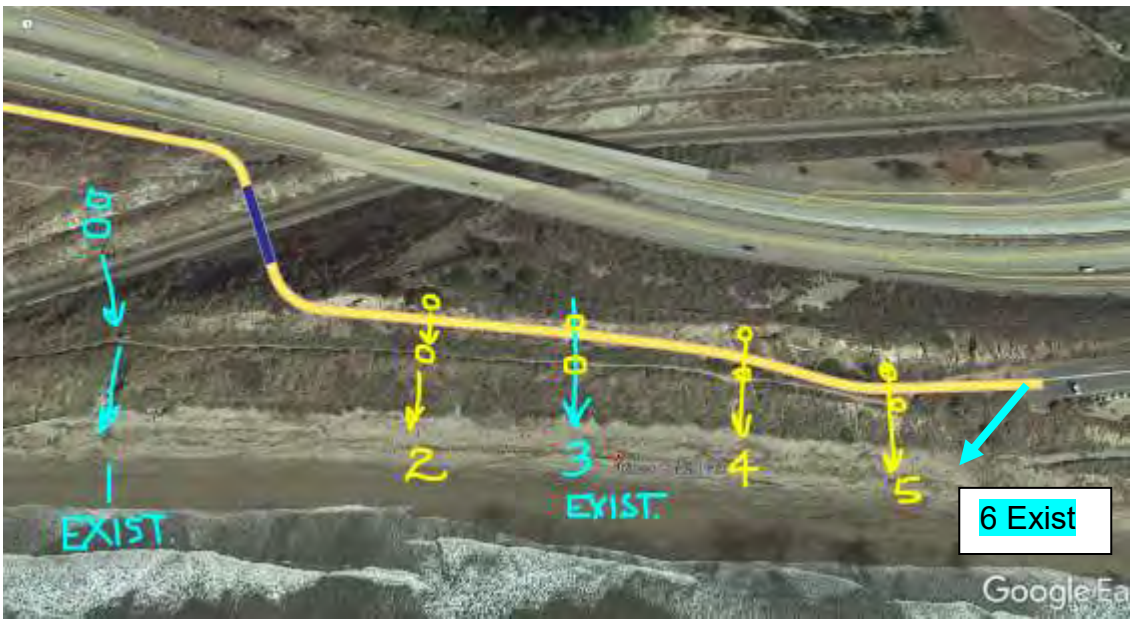
As-built construction plan showing drainage system. Note the freeway drains to the beach.

It is important to understand that as part of the construction of the Rincon Trail, neither the volume of water entering the system, nor the point of discharge on the beach would be changed.

Description of Proposed Drainage on Ocean-side of Project

South of the railroad, Bengal anticipates the need for at least 6 drains to the beach.

[existing drain 6 shown below was discovered in 2019]



View of the Ocean-side of the project: The first drain at the left (west) is the existing system from the freeway, mentioned previously, and shown in the as-built drawings.

View of Drainage Stystem #1 from ocean side of UPRR. Note this drain accepts all the drainage from both sides of the freeway, including the down-drains far in the distance (photo, top right).

View of the outfall of drainage system Number 1 as seen from the beach. Note old concrete sea wall and broken concrete “rip rap” along with remains of the corrugated metal pipe down-drain. The proposed project would not affect this existing facility.

Drainage systems 2, 4 and 5 are proposed as part of the project. These are important design features because they will capture water before it becomes concentrated and flows into the parking lot. Note that if this water is unchecked, it could flow through the Rincon Beach parking lot, and all the way to Bates Road. Designers believe that these vertical drains are imperative for the success of the project and underscore the need to obtain the permits to build them.

Drainage system #3 will replace an existing drainage system which has rusted out.

A view of drainage system #3 as seen from beach. Note that it drains not only the old rail bed, but it originally drained the old state highway. It has since rusted away due to lack of maintenance.

View of the existing drainage system #3, looking westerly along the old Southern Pacific Railroad rail bed. Note the rusty pipe visible at the left, oriented parallel with the old rail bed, is an old communications line, now abandoned. Drainage system #3 passes under it, in-line with the yellow tape measure shown in the photo.

Space Limitations for "Infiltration" Systems

Current engineering practices are evolving to include the use of infiltration measures to limit both the volume of run-off and the amount of sediment.

This project faces the same narrow footprint available for grading which faced the engineers who built both the railroad and the freeway in the past. Because of these space limitations, and because implementation of an infiltration system will add water to the soils, likely reducing their stability, such methods do not appear to be a practical fit for the project as it is currently proposed.

Factors Guiding the Suggested Approach for Drainage Design

The proposed drainage design includes multiple down drains leading to the beach. This approach has been selected based on careful consideration, described next.

Performance of Past Projects

If one visits the site, one can see past projects including both the new and old railroad alignments, the old State Highway 2 (which existed on the ridgeline before Hwy 101 was constructed), the County Park, and Hwy 101, all included drainage systems to protect their investments. Some still function—some are rusty metal skeletons and crumbling concrete relics. These systems have had varying degrees of success. Most were built as "downdrains", as we suggest in the proposed project.

But one these systems is a complicated trunk line storm drain: the Caltrans-constructed "Drainage System Number 3" (mentioned in the record drawings above). Today, the difficulties facing Caltrans maintenance crews for such a complicated trunk line are evident to the designers of the Rincon Trail. This system has no maintenance openings for hundreds of feet—including the railroad crossing. This system cannot easily reached from the old railroad bench or from the beach. And this system also provides no redundancy—no ancillary inlets to accommodate blockage. So should any part of it become blocked, we can expect damage which will be difficult to repair.

Rainfall Intensity: the Future May be Harsher than the Past

Today, engineers expect rain, including heavy rain, at this location. Growing concerns regarding changing climate may prove that heavier rains will be a "new normal". For example, the nearby 2018 flooding in Montecito, was caused not only because of the Thomas fire, but also because of freakishly high rainfall intensity. The results from the plugged drainage systems near Olive Mill Road, which closed the freeway for weeks, are still fresh in our minds.

As it turned out, the existing storm drains which functioned OK for years, failed during the time of greatest need. Rob Lewin, OEM Director, said, "The storm we got was not the storm we prepared for."

Rockfalls could plug an individual downdrain

Because of the nature of the soil in the area, engineers expect that historic rock falls, which are partially-driven by rain, will continue to occur in spite of the proposed cut slopes which are less-steep than those which exist. Such rock falls could plug any drainage system. Therefore engineers have provided redundancy to avoid "having all our eggs in one basket".

Access to remove rockfall.

Designers believe that the project should provide access to remove rockfall debris especially the upper slopes during in the early years of service. Designers envision that rockfall will decrease with time as slopes mature and perhaps some vegetation takes purchase. But given the low organic content in the soils, along with the southern exposure to the sun, designers do not expect to see well-vegetated slopes, based on what we see in the old cuts made by Southern Pacific Railroad.

However new "fills" which will be made below the path will be reinforced with geosynthetic materials, and we envision using a mantle of topsoil on the daylight face of the fill slope to provide better soil vegetation in the zone below the bike path and above the old railroad bench.

Project Engineers Strive to Simplify Maintenance

The designers (engineers) anticipate that agencies like the City of Carpinteria and Santa Barbara County will have shrinking resources: less staff and budget: available to maintain any infrastructure. Therefore the designers prefer designs which avoid the need for specialized equipment or staff; "simpler is better". Even if staff and budget are generous, experience has shown that complicated designs generate complicated maintenance scenarios, and are difficult to understand by emergency crews who will likely be responding in bad weather often at night (like the 2018 Montecito Flood).

Other Drainage Design Concepts Which Were Considered

Facing the challenges mentioned, engineers implemented a design with multiple down drains. However engineers also considered several other ideas, described next:

A) **A trunk line storm drain following the old railroad bench**
We considered a trunk line like the Caltrans "Drainage System 3". This trunk line could descend to the beach near the west end of the County park in a single down drain. The driving force for this concept was considered to minimize the number of drains to the beach.

This concept was disregarded because:

- Likely this trunk line would conflict with a Frontier Fiber Opitic line which already occupies this area in a dedicated easement; <u>this fiber optic line runs the full length of the bench and then into the parking lot.</u>
- Such a storm drain will be much more difficult to maintain. Access below the paved trail would be particularly limited, unless the trail alignment is shifted toward the freeway, generating more cut in the process.

- The existing bench is narrow in places. There is not much room for such a storm drain.
- This bench has areas which will be stabilized by engineering (reinforced fills). Construction will be difficult as the storm drain will conflict with the reinforced fills, a situation we seek to avoid.
- The system has no redundancy—which leads to the next point.
- Should any part of this drain fail, greater damage is expected as "all our eggs will be in one basket".

View of the proposed west end of the trail, near Rincon Park, March 2018.
Note gate, demarking the end of the paved parking lot.
Note muddy conditions which develop due to lack of drainage systems.

B) A trunk line storm drain following the proposed "trail" bench, buried below proposed trail

This concept was disregarded because:

- As mentioned, Rain and rockfalls seem to be certainty, therefore a design which allows for them seems best.
- We envision the upper trunk line B will be plugged at some point. In worse case it could flow off the paved path, uncontrolled.
- Because the slopes *below* the paved trail will not be protected by a drainage system, therefore we'd still need trunk line A, and likely face most of the detriments already mentioned.

C) A combination of 2 trunk lines—A+B, combined.

We considered 2 smaller trunk lines, combining the ideas of A) and B). This idea was disregarded because:

- The detriments of each trunk line: still remain, likely in spite of much higher cost.

View of old retaining walls which remain from State Hwy 2, near Rincon Park, March 2018.

Note that these old walls will be removed as part of the project to make room for the trail and drainage improvements. Drainage at this location appears to have been a problem since construction in 1929.

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

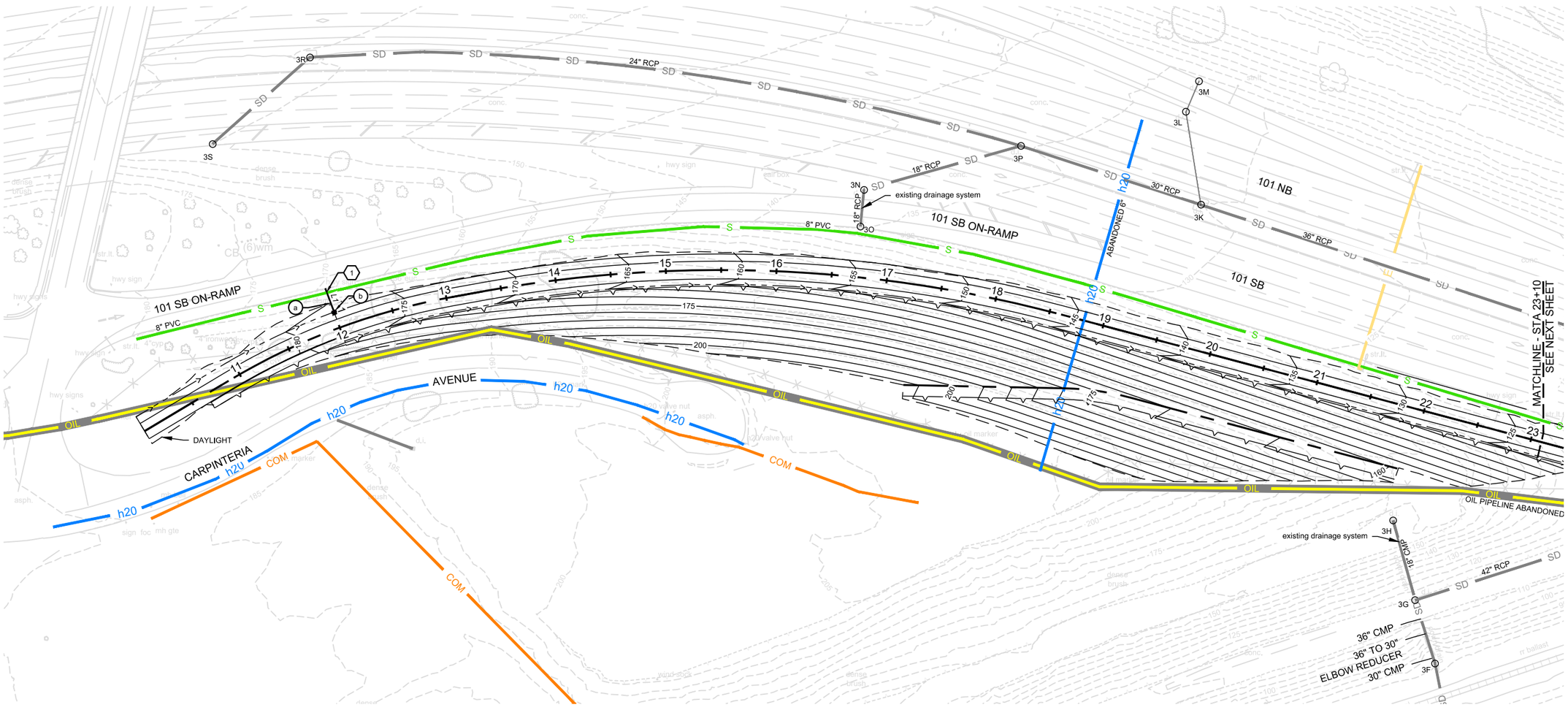
REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C48052
CIVIL
STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.

NOTES

1. FOR COMPLETE RIGHT OF WAY INFORMATION, SEE MAPS IN THE CITY OFFICES.
2. THESE PLANS ARE FOR THE LAYOUT AND CONSTRUCTION OF THE DRAINAGE FACILITIES.
3. EXISTING DRAINAGE SYSTEMS ARE GIVEN IDENTIFICATION FROM CAL TRANS 1968 DRAINAGE PLANS
4. APPROX. 10-FOOT X 10-FOOT PAD OF 2 TON RIP RAP AT OUTFALL OF DRAINAGE SYSTEMS 3,5,6,7&8



NORTH

DRAINAGE - 1

SCALE 1"=50' H

PROJECT ENGINEER	Scott Onishuk, PE
CITY OF CARPINTERIA, CALIFORNIA	Matt Roberts, Project Manager
CALCULATED/DESIGNED BY	MB
CHECKED BY	SO
DATE	
DATE REVISED:	
REVISED BY:	

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION **

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

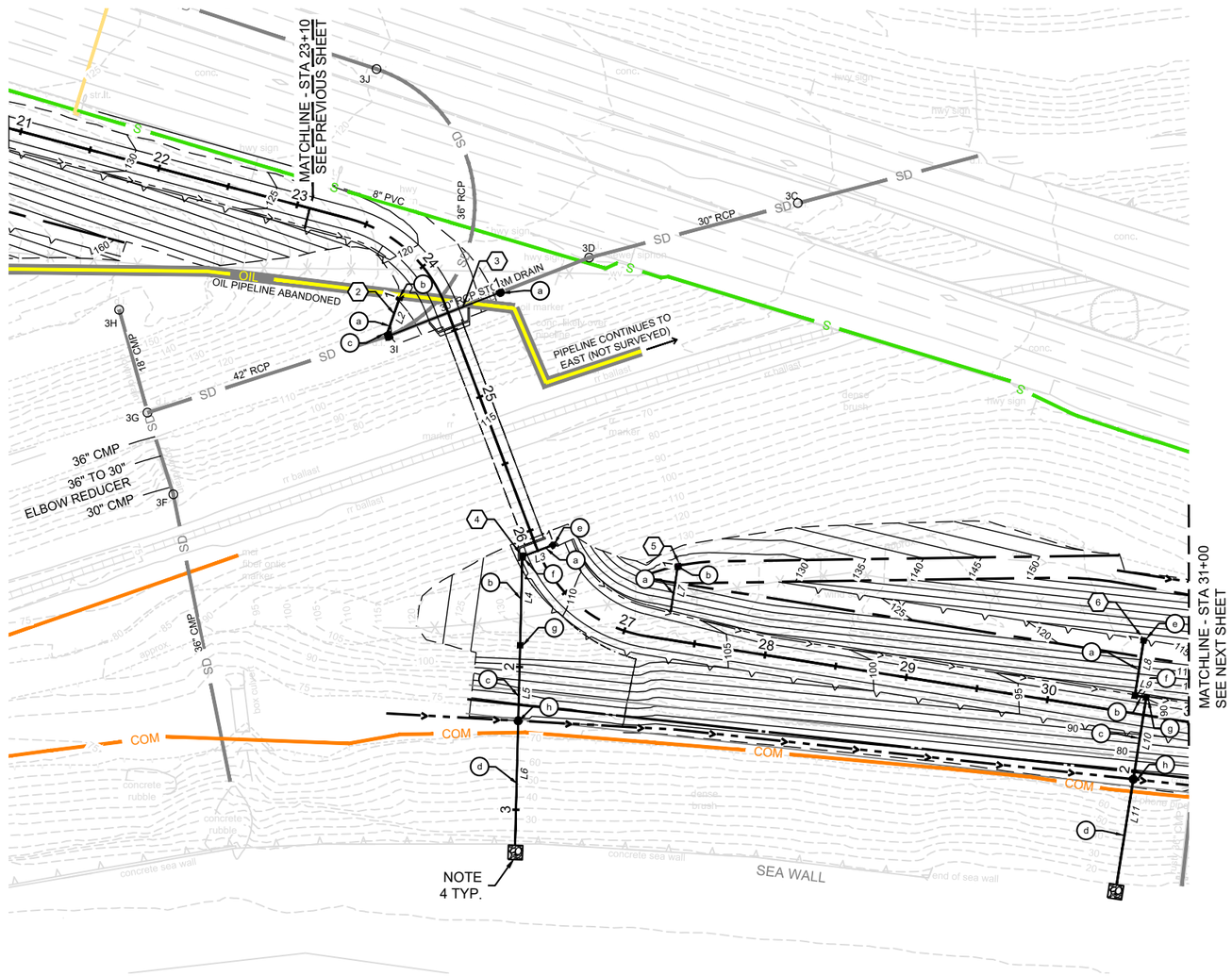
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C48052
CIVIL
STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



NORTH

DRAINAGE - 2

SCALE 1"=50' H

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION **

CALCULATED/ DESIGNED BY	MB	DATE	DATE REVISED:
CHECKED BY	SO		REVISED BY:

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05–tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

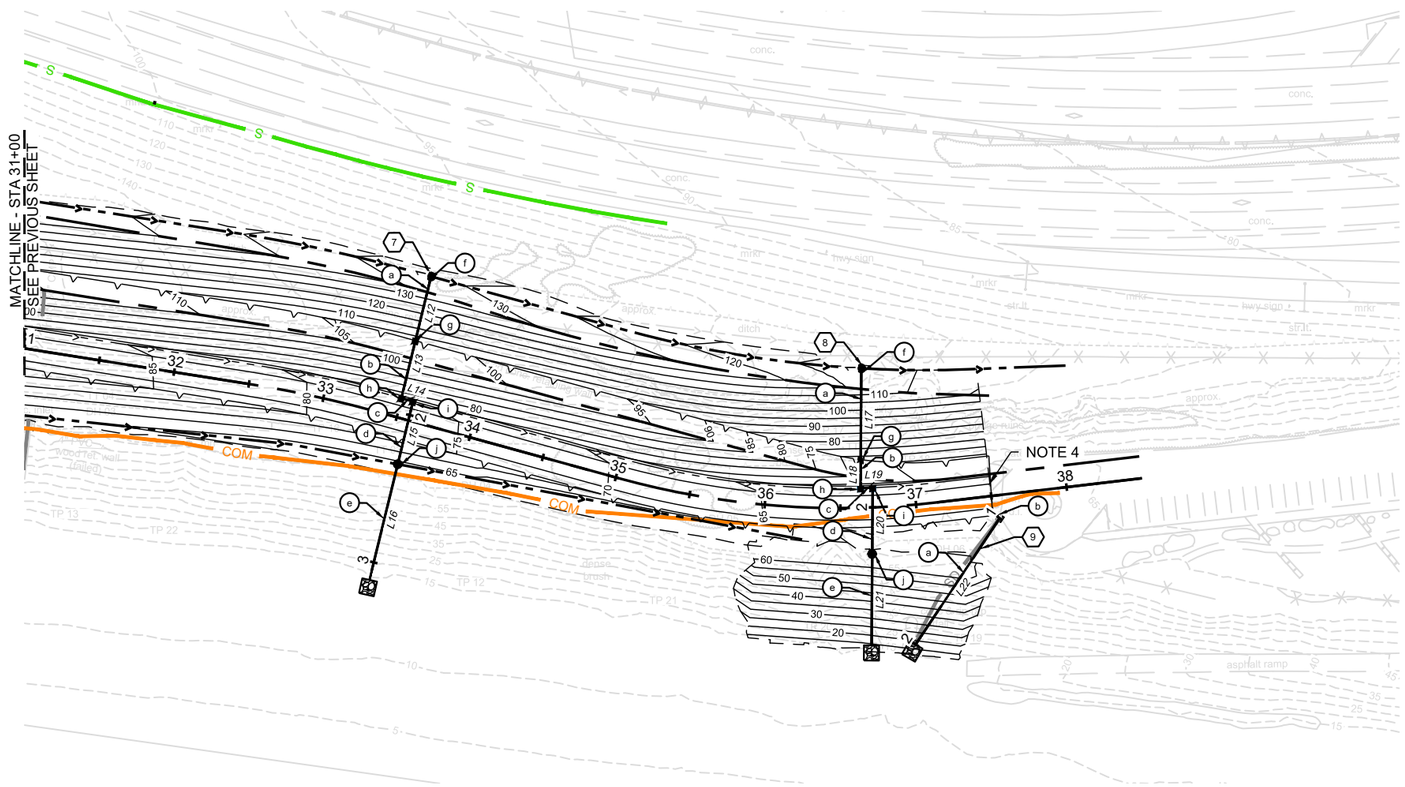
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C48052
CIVIL
STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



NORTH

DRAINAGE - 3

0 50' 100'
SCALE 1"=50' H

CALCULATED/ DESIGNED BY	MB
CHECKED BY	SO
DATE	
DATE REVISED:	
REVISED BY:	

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION
**

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05–tbd

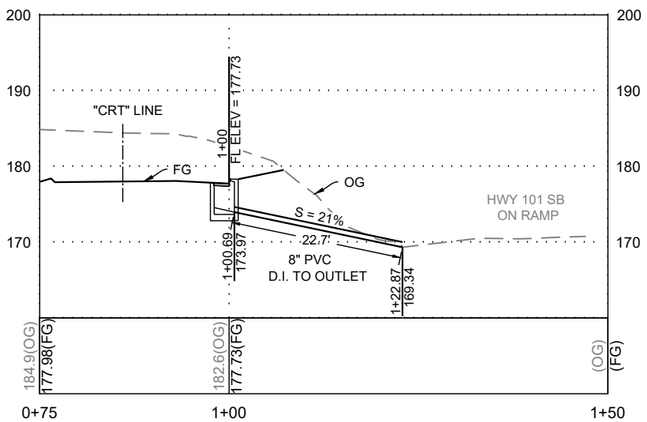
DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

REGISTERED ENGINEER – CIVIL

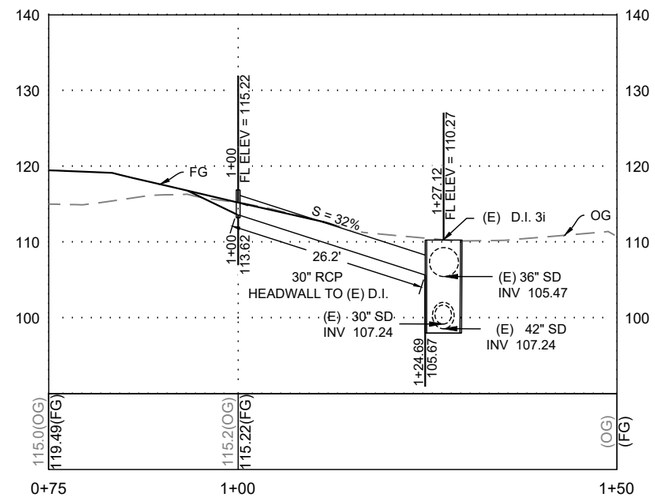
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C48052
CIVIL
STATE OF CALIFORNIA

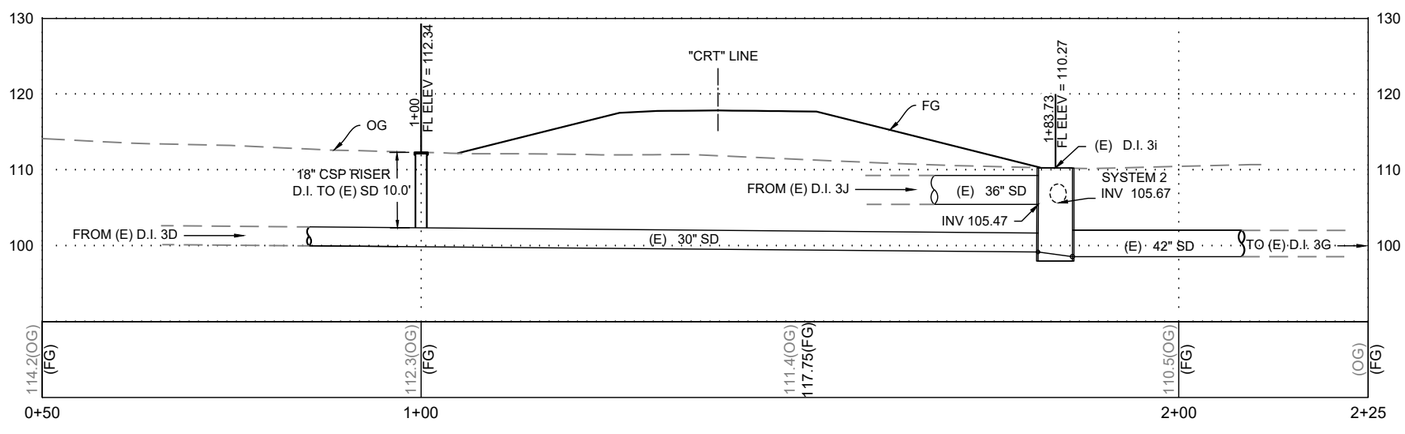
DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105



DRAINAGE SYSTEM 1 PROFILE



DRAINAGE SYSTEM 2 PROFILE



DRAINAGE SYSTEM 3 PROFILE

DRAINAGE - 4

0 10' 20'
SCALE 1"=10' H&V

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION **

CALCULATED/ DESIGNED BY	MB	DATE	DATE REVISED:
CHECKED BY	SO		REVISED BY:

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM | CU | EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

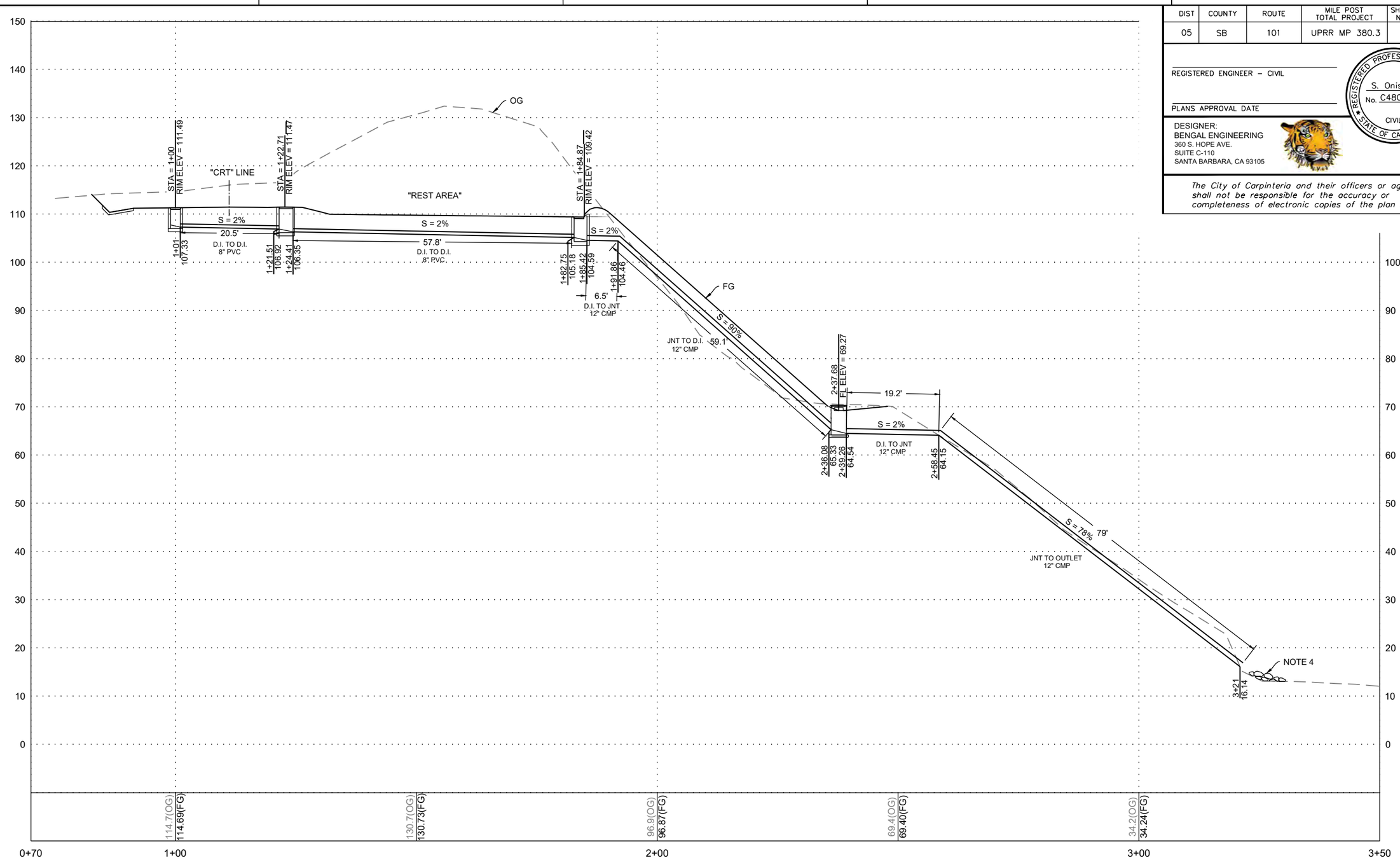
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. Onishuk No. C48052 CIVIL STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



DRAINAGE SYSTEM 4 PROFILE

DRAINAGE - 5

SCALE 1"=10' H&V

DATE REVISED:	REVISED BY:

DATE	MB
	SO

CALCULATED/ DESIGNED BY	CHECKED BY

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION
**

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

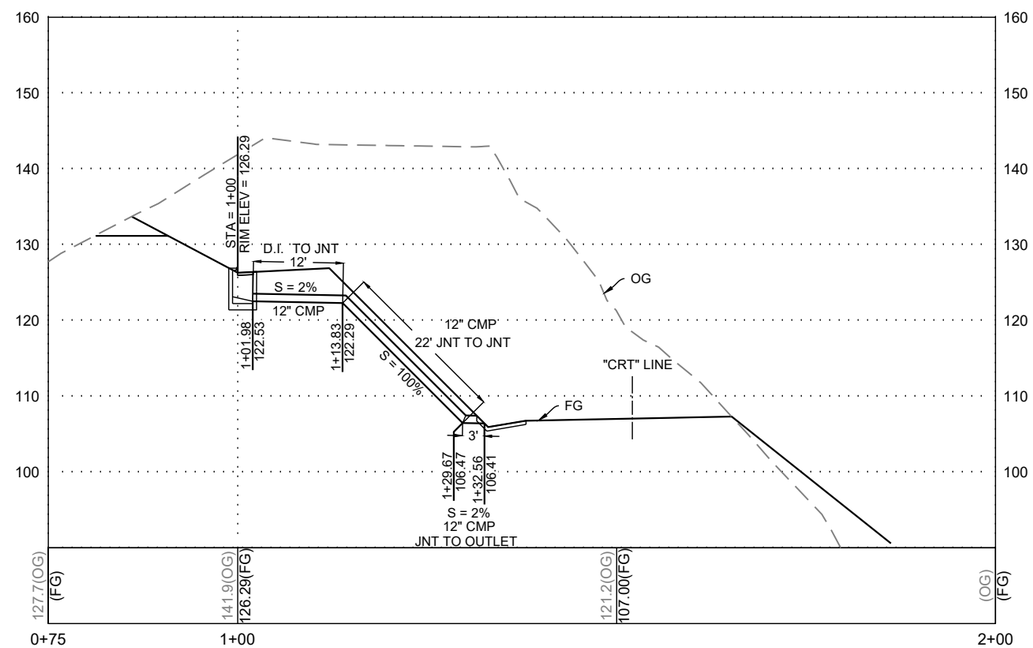
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C48052
CIVIL
STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



DRAINAGE SYSTEM 5 PROFILE

DRAINAGE - 6

0 10' 20'
SCALE 1"=10' H&V

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION
**

CALCULATED/ DESIGNED BY	MB	DATE	DATE REVISED:
CHECKED BY	SO		REVISED BY:

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

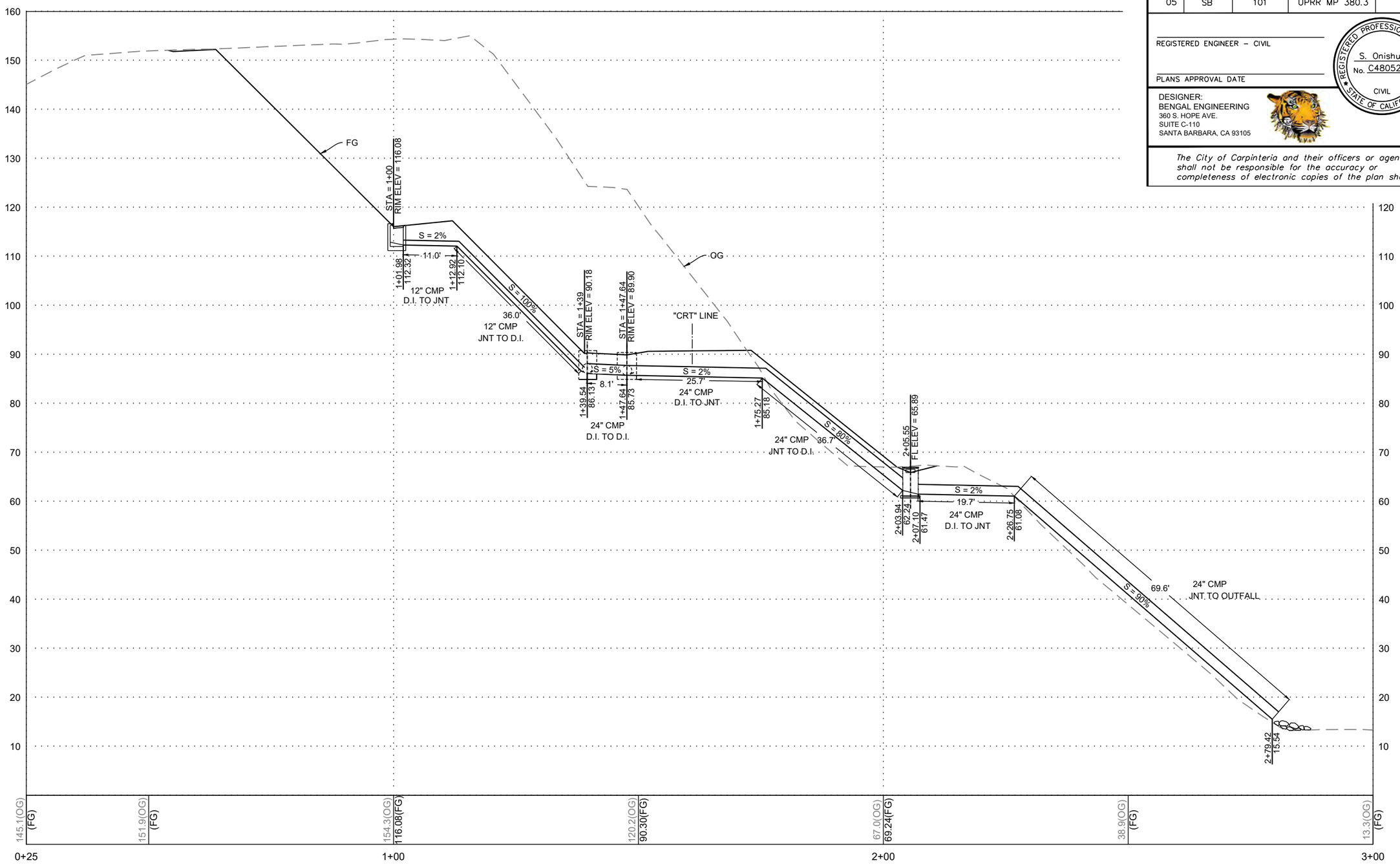
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. Onishuk No. C48052 CIVIL STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



DRAINAGE SYSTEM 6 PROFILE

DRAINAGE - 7

0 10' 20'

SCALE 1"=10' H&V

	DATE	DATE REVISED:
CALCULATED/ DESIGNED BY	MB	
CHECKED BY	SO	REVISED BY:

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION
**

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

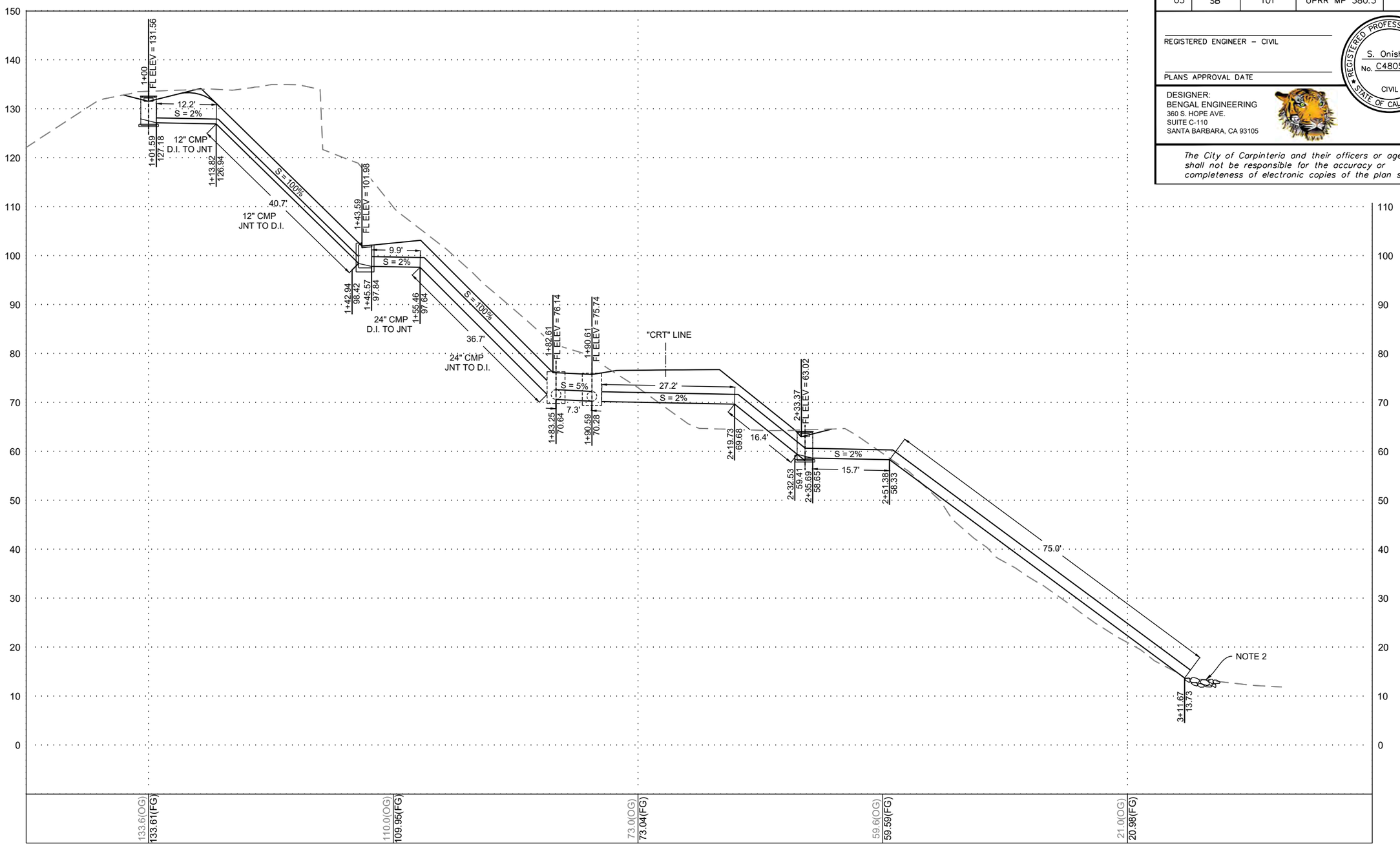
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. Onishuk No. C48052 CIVIL STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



DRAINAGE - 8

0 10' 20'

SCALE 1"=10' H&V

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

CALCULATED/ DESIGNED BY	MB	DATE	DATE REVISED:
CHECKED BY	SO		REVISED BY:

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

LAST REVISION **

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

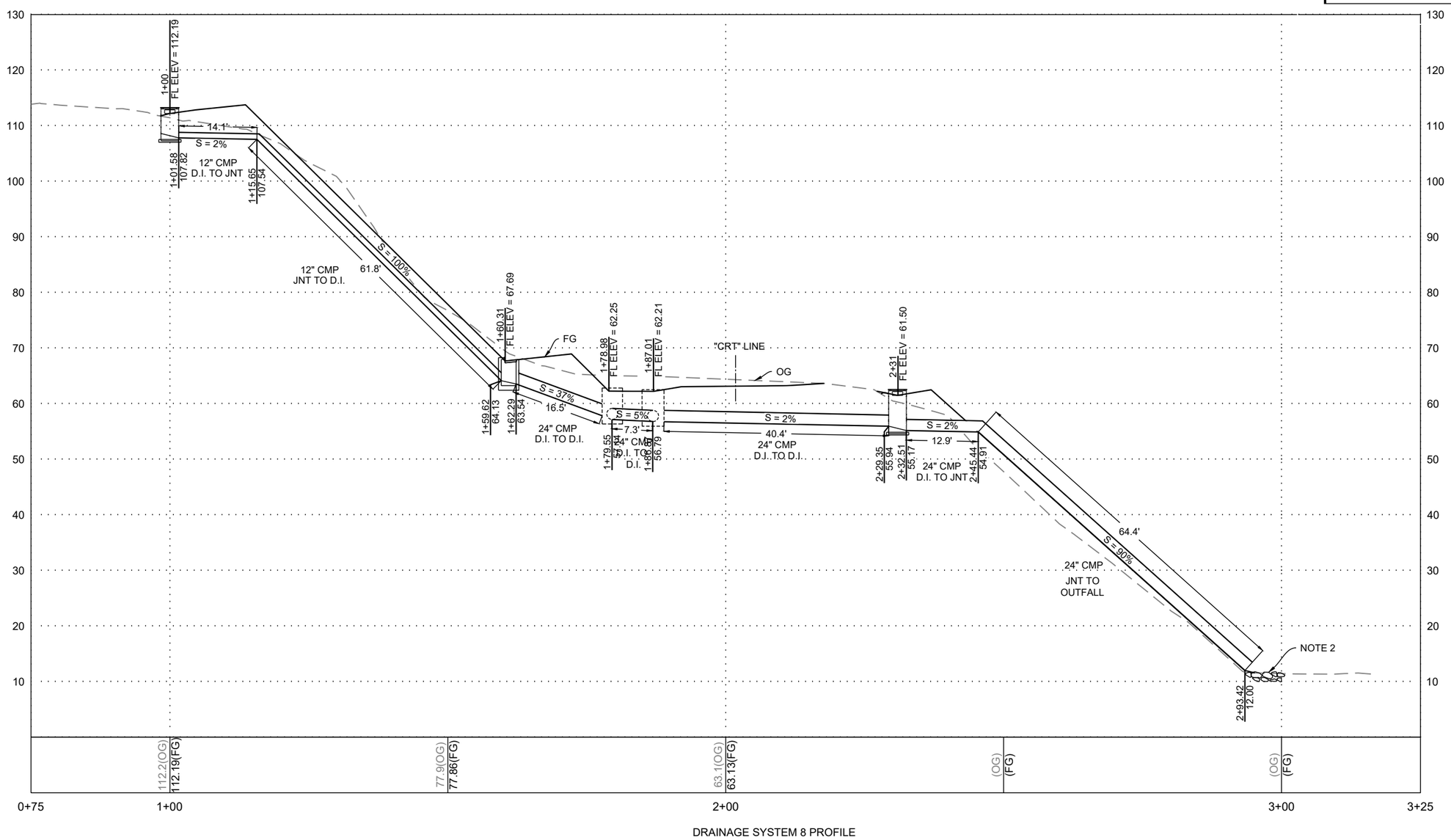
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. Onishuk No. C48052 CIVIL STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



DRAINAGE SYSTEM 8 PROFILE

DRAINAGE - 9

SCALE 1"=10' H&V

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION **

CALCULATED/ DESIGNED BY	MB	DATE	DATE REVISED:
CHECKED BY	SO		REVISED BY:

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

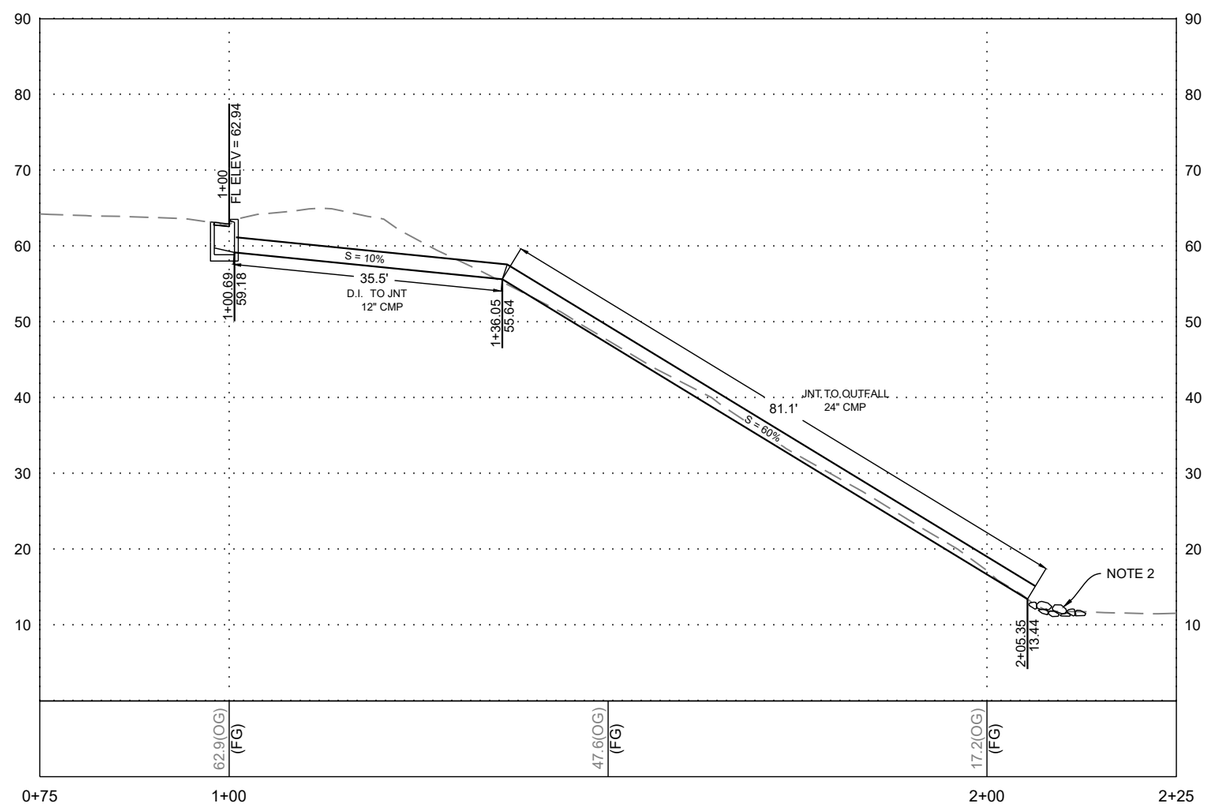
REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C48052
CIVIL
STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

The City of Carpinteria and their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.



DRAINAGE SYSTEM 9 PROFILE

DRAINAGE - 10

0 10' 20'
SCALE 1"=10' H&V

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION **

CALCULATED/ DESIGNED BY	MB	DATE	DATE REVISED:
CHECKED BY	SO		REVISED BY:

PROJECT ENGINEER
Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM

CU

EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. Onishuk No. C48052 CIVIL STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

DRAINAGE SYSTEM 1

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L1	1+00.00	1965057.54	6113746.24	22.87'	N26° 12' 28.25"E	1+22.87	1965078.06	6113756.34

DRAINAGE SYSTEM 2

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L2	1+00.00	1964097.14	6114409.17	24.69'	S65° 44' 03.32"W	1+24.69	1964086.99	6114386.66

DRAINAGE SYSTEM 3

START STATION	START NORTHING	START EASTING
1+00.00	1964049.15	6114461.32

DRAINAGE SYSTEM 4

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L3	1+00.00	1963900.67	6114358.40	22.71'	N63° 58' 19.73"W	1+22.71	1963910.63	6114338.00
L4	1+22.71	1963910.63	6114338.00	62.73'	S47° 55' 44.35"W	1+85.44	1963868.60	6114291.43
L5	1+85.44	1963868.60	6114291.43	52.24'	S47° 55' 18.66"W	2+37.68	1963833.59	6114252.66
L6	2+37.68	1963833.59	6114252.66	83.32'	S47° 55' 32.67"W	3+21.00	1963777.76	6114190.81

DRAINAGE SYSTEM 5

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L7	1+00.00	1963827.28	6114408.15	32.56'	S55° 25' 11.63"W	1+32.56	1963808.80	6114381.34

DRAINAGE SYSTEM 6

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L8	1+00.00	1963555.43	6114595.23	39.67'	S55° 27' 24.04"W	1+39.67	1963532.93	6114562.55
L9	1+39.67	1963532.93	6114562.55	8.00'	S34° 32' 48.53"E	1+47.67	1963526.34	6114567.09
L10	1+47.67	1963526.34	6114567.09	57.91'	S55° 26' 14.58"W	2+05.58	1963493.49	6114519.40
L11	2+05.58	1963493.49	6114519.40	73.84'	S55° 29' 19.80"W	2+79.42	1963451.65	6114458.55

DRAINAGE SYSTEM 7

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L12	1+00.00	1963331.16	6114794.35	43.59'	S60° 11' 37.43"W	1+43.59	1963309.49	6114756.52
L13	1+43.59	1963309.49	6114756.52	39.02'	S60° 11' 37.43"W	1+82.61	1963290.10	6114722.67
L14	1+82.61	1963290.10	6114722.67	8.00'	S28° 09' 54.77"E	1+90.61	1963283.04	6114726.45
L15	1+90.61	1963283.04	6114726.45	42.76'	S60° 10' 16.26"W	2+33.37	1963261.78	6114689.36
L16	2+33.37	1963261.78	6114689.36	78.30'	S60° 12' 09.30"W	3+11.67	1963222.87	6114621.41

DRAINAGE SYSTEM 8

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L12	1+00.00	1963331.16	6114794.35	43.59'	S60° 11' 37.43"W	1+43.59	1963309.49	6114756.52
L13	1+43.59	1963309.49	6114756.52	39.02'	S60° 11' 37.43"W	1+82.61	1963290.10	6114722.67
L14	1+82.61	1963290.10	6114722.67	8.00'	S28° 09' 54.77"E	1+90.61	1963283.04	6114726.45
L15	1+90.61	1963283.04	6114726.45	42.76'	S60° 10' 16.26"W	2+33.37	1963261.78	6114689.36
L16	2+33.37	1963261.78	6114689.36	78.30'	S60° 12' 09.30"W	3+11.67	1963222.87	6114621.41

DRAINAGE SYSTEM 9

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L22	0+75.00	1962953.56	6114961.84	151.10'	S80° 08' 26.36"W	2+26.10	1962927.69	6114812.97

DRAINAGE - 11
LAYOUT

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION **

DATE REVISED:	REVISED BY:
DATE	
MB	SO
CALCULATED/ DESIGNED BY	CHECKED BY

PROJECT ENGINEER Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM | CU | EA 05-tbd

DIST	COUNTY	ROUTE	MILE POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	UPRR MP 380.3		

REGISTERED ENGINEER – CIVIL

PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER S. Onishuk No. C48052 CIVIL STATE OF CALIFORNIA

DESIGNER:
BENGAL ENGINEERING
360 S. HOPE AVE.
SUITE C-110
SANTA BARBARA, CA 93105

DRAINAGE QUANTITIES

DRAINAGE SYSTEM NUMBER	DRAINAGE UNIT	8" PVC	12" CMP	24" CMP	30" RCP	18" CSP RISER CAL TRANS STD D93B	12" CMP DOWNDRAIN CAL TRANS STD D87B	24" CMP DOWNDRAIN CAL TRANS STD D87B	30" SINGLE HEADWALL CAL TRANDS STD D89	24" GCP CAL TRANS STD D75B	TYPE G - 1 DROP INLET TYPE 24-12X CALTRANS D72B	TYPE GT - 4 DROP INLET Type 24-12X CALTRANS D72D	TYPE OMP CALTRANS D75A	CONNECT TO EXISTING RCP	CONNECT TO EXISTING JUNCTION STRUCTURE
		LF			LF	LF	LF	LF	EA	EA	EA	EA	EA	LS	LS
1	a	25													
	b											1			
2	a				30										
	b								1						
	c													1	
3	a					12				1					1
4	a	24													
	b	62													
	c *						70								
	d *						96								
	e										1				
	f										1				
	g											1			
	h												1		
5	a *						30								
	b											1			
6	a *						50								
	b			12											
	c *							66							
	d *							92							
	e											1			
	f											1			
	g											1			
	h												1		
7	a *						54								
	b *						50								
	c			12											
	d *							48							
	e *							94							
	f												1		
	g											1			
	h											1			
	i											1			
	j												1		
8	a *						76								
	b			20											
	c			12											
	d			44											
	e *							82							
	f												1		
	g											1			
	h											1			
	i											1			
	j												1		
9	a *							120							
	b											1			
TOTALS		111	0	100	30	12	426	502	1	1	2	13	6	1	1

*ELBOW USED & INCLUDED IN LENGTH

DRAINAGE - 12
QUANTITIES

CARPINTERIA RINCON TRAIL - Ped Bridge, RR Under, Carpinteria CA, Santa Barbara Sub, M.P. 380.49, DOT 441148Y

LAST REVISION **

CALCULATED/ DESIGNED BY	MB	DATE	DATE REVISED:
CHECKED BY	SO		REVISED BY:

PROJECT ENGINEER: Scott Onishuk, PE

CITY OF CARPINTERIA, CALIFORNIA
Matt Roberts, Project Manager

FOR REDUCE PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME:
DWG FILE: Progress Print: August 6, 2019 9:15AM | CU | EA 05-tbd