CITY OF CARPINTERIA
ARCHITECTURAL REVIEW BOARD
Meeting of October 28, 2021

Agenda Item 2

COMMUNITY DEVELOPMENT DEPARTMENT PROJECT REVIEW

Project: 19-2015-CUP/CDP **Planner:** Nick Bobroff
Address: Eastern terminus of Carpinteria Avenue
APN: City/Caltrans rights-of-way
Zoning: N/A
Applicant: Matt Roberts, Parks & Recreation Director, City of Carpinteria

Project Review:
☐ Conceptual
☑ Preliminary
☐ Final

PROJECT DESCRIPTION

The Carpinteria Rincon Trail is a public multi-use trail that would connect the eastern end of the City of Carpinteria to Rincon Beach County Park located in unincorporated Santa Barbara County near the Ventura County line. The proposed trail would originate from Carpinteria Avenue just east of the intersection with State Route ("SR") 150, and proceed easterly for approximately 2,800 linear feet, terminating at the western terminus of the Rincon Beach County Park parking lot. The proposed trail would be finished in a concrete pavement and feature a usable width of 16 feet (comprised of a five-foot wide "travel lane" in each direction and three-foot wide shoulders on each side). A six-foot wide shallow concrete v-ditch would run along the inside of the trail length for the purposes of capturing and conveying stormwater to onsite drainage facilities. Protective fencing would be provided along the trail alignment to keep trail users on the improved path. The proposed trail project also includes a new 14-foot wide, 160-foot clear-span pre-fabricated bridge crossing over the Union Pacific Railroad ("UPRR") alignment.

Grading and earthwork quantities necessary to cut the trail bench, stabilize slopes, and control stormwater runoff through the project area are estimated at 107,386 cubic yards of cut. Approximately 14,860 cubic yards of the cut material would be used for fill onsite; the remaining 92,526 cubic yards of cut material would be exported offsite. Approximately 40% of the estimated earthwork (equivalent to ~42,950 cubic yards of cut) is expected to occur on the inland side of the UPRR alignment; and the remaining 60% (~64,430 cubic yards) on the ocean side of the UPRR alignment. A storm drain collection system is proposed for the trail alignment, which would utilize a combination of existing and new piped storm drains on the bluff face and drain outlets to the ocean. A habitat restoration plan is included to restore areas temporarily disturbed during construction and to mitigate for permanent removal of vegetation to accommodate the new trail.

The westernmost approximately 850 linear feet of the trail, running roughly parallel to U.S. 101 from the trailhead just east of the Carpinteria Avenue/SR 150 intersection and north of the UPRR alignment falls within the jurisdiction of the City of Carpinteria. The remainder of the trail alignment (approximately 1,950 linear feet), including the new bridge over the UPRR alignment would fall within the permitting jurisdiction of the County of Santa Barbara. As part of the project, the City will obtain an easement from UPRR for the bridge crossing over, and trail improvements within, the UPRR alignment. The City is also anticipating the acquisition of right-of-way from the California Department of Transportation (Caltrans) to accommodate the trail alignment.

The purpose of the Carpinteria Rincon Trail project is to close an existing critical gap in the California Coastal Trail between the Carpinteria Bluffs and the Pacific Coast Bikeway (i.e., bike path from Bates Road to just south of Mussell Shoals along U.S. 101), that would serve to enhance opportunities for public coastal access and recreation, support alternative means of transportation, and provide a safe and attractive alternate route to the existing unsanctioned, informal use trails connecting the Carpinteria Bluffs to Rincon Beach County Park, which trespass through UPRR property, and the unprotected use of the U.S. 101 shoulder between SR 150 and Bates Road by cyclists. With the recent acquisition of the majority of the Bluffs III area for the new Rincon Bluffs Preserve, the proposed trail would also function as a critical connection between existing public recreation amenities in the area.

A Draft Environmental Impact Report (EIR) has been prepared to evaluate the potential environmental impacts of the proposed project and to consider possible project alternatives.[1] The Draft EIR was available for public review in Spring 2021 and was recommended for approval by the City's Environmental Review Committee (ERC) in April 2021, subject to suggested revisions. Responses to comments and project refinements are underway in response to comments received during the public comment period. The project team is targeting January 2022 to refer the proposed project and Proposed Final EIR to the City of Carpinteria Planning Commission. Following review and approval by the City of Carpinteria Planning Commission, the project would be scheduled for consideration by the County of Santa Barbara Planning Commission for their portion of the proposed trail project.[2]

Proposed 95% plans for the proposed trail and bridge are included as Exhibit A. Perspective renderings and other supporting materials are included as Exhibit B. A more detailed project

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[1] All project alternatives, with the exception of the "no project" alternative maintain the identical trail alignment and design from its western terminus in the City of Carpinteria to the UPRR rail corridor crossing. East of the crossing, the other three project alternatives considered in the Draft EIR propose different trail alignments.

[2] As the CEQA Lead Agency for the proposed project, the City of Carpinteria is responsible for preparing and certifying the environmental document for the entirety of the project. The City of Carpinteria Planning Commission will be responsible for the certification of the EIR, in addition to acting upon the CUP/CDP application for the portion of the trail located in the City's jurisdiction. Subsequently, the County of Santa Barbara's Planning Commission will need to consider acceptance of the (City-) certified EIR and the land use applications for the portion of the trail located within the County's jurisdiction.

description in included in Section 2, Project Description, of the Draft EIR included as Exhibit C to this report.

PROJECT BACKGROUND

Site Characteristics

The project site is located near the eastern terminus of Carpinteria Avenue and extends eastward to the western terminus of the Rincon Beach County Park parking lot located in unincorporated Santa Barbara County. The project area appears to be a semi-natural setting at first glance, however, the proposed trail alignment is located upon a series of highly altered, manufactured slopes resulting from earthwork activities associated with the 1969 re-alignment of U.S. 101 (formerly SR 2) and the UPRR corridor inland away from the coastal bluffs. Remnants of the past SR 2 and UPRR alignments are visible in the project area, including the former rail bench along the coastal bluff face, abandoned retaining walls and storm drains associated with the past highway alignment, and remnant sections of highway paving. The existing slopes and soil conditions in the project area are highly dynamic, subject to erosive effects of runoff and areas of remnant historic landslides that further contribute to slope instability. It is expected the area may become vulnerable to coastal bluff retreat from the effects of sea level rise in the future as well.

North of the UPRR alignment, the proposed trail would be located on a new bench cut into the existing manufactured slope overlooking US 101 and the southbound on-ramp from SR 150. After crossing the UPRR alignment just west of where the U.S. 101 crosses the railroad tracks, the proposed trail alignment would round the western shoulder of the ridge located south of the UPRR alignment (sometimes referred to as the "Bates Bluff" or "Rincon Bluff", and traverse across the steep south-facing, or ocean side, of the coastal bluff face on a new cut trail bench located above the abandoned former UPRR rail bench, gradually descending toward the existing turn-around at the western end of the Rincon Beach County Park parking lot where the trail would terminate.

Various underground utilities and infrastructure run through the project area, including but not limited to U.S. Highway 101, which runs just to the north of the proposed trail alignment, major storm drain facilities associated with U.S. 101 which cross the trail alignment, a sewer main serving the homes on Rincon Point which roughly parallels the westerly portion of the trail alignment, the UPRR rail corridor which crosses the trail alignment, an underground communications line which approximately parallels the easterly portion of the trail alignment, and an abandoned in place underground oil pipeline that also crosses the trail alignment just north of the railroad tracks.

Public recreational amenities in the area include the newly acquired Rincon Bluffs Preserve located on Bluffs III, just southwest of the proposed westerly terminus of the trail, Rincon Beach County Park located at the eastern terminus of the proposed trail, and Rincon State Beach, located just east of the vehicular entrance into Rincon Beach County Park. Public beaches are located seaward of the coastal bluff face and proposed trail alignment. Informal use trails crisscross the bluffs in the project area and have provided historic unsanctioned public access to,

and across, the UPRR alignment between the Carpinteria Bluffs and the Rincon Beach County Park. The area is also informally used by members of the soaring community (e.g., hang gliders, parasailers, etc.), who take off from an informal launch point, located on private property, at the southeastern tip of the Carpinteria Bluffs on flights toward Rincon Point or along the Carpinteria Bluffs.

Vegetation in the area is characterized as a mix of native and non-native/disturbed vegetative communities. Several large swatches of undisturbed native vegetation are present in the project area, including several areas with concentrations of identified sensitive species.

The project area within the City is not assigned to a zoning designation on the City's Zoning Map, however the immediately adjacent privately-owned parcels to the south are zoned Resort District ("RES") and have a Visitor-serving Commercial ("VC") land use designation. The U.S. 101 corridor immediately to the north of the project site has a Transportation Corridor ("TC") land use designation. For the portion of the trail project located in the County's jurisdiction, the project area is zoned Transportation Corridor ("TC") and Recreation ("REC"), and has TC and Recreation/Open Space land use designations. The project area is also subject to several Overlay Districts including Environmentally Sensitive Habitat ("ESH"), and Coastal Appeals ("CA") in the City, along with the County's Hwy 101 Corridor Zoning Overlay, and View Corridor Overlay.

Project History

Local Coastal Program Amendment for the Linden Avenue and Casitas Pass Road Interchanges, Via Real Extension , South Coast HOV Lanes, and the Coast Route Bike Path Projects

The Carpinteria Rincon Trail project was initially conceived as part of a suite of transportation improvement projects associated with Caltrans U.S. 101 interchange and widening projects in Carpinteria. Working in close collaboration with Caltrans and the California Coastal Commission ("CCC"), the City received approval and certification of a Local Coastal Program Amendment ("LCPA") in October 2015 (LCP-4-CPN-15-0018-1 / City Project 09-1522-LCPA/ORD) to, among other things, create the new Transportation Corridor Wetland Overlay (Carpinteria Municipal Code ("CMC") §14.45) and Whitney Site Agriculture Overlay (CMC §14.41) Districts to carve out specific exceptions for limited unavoidable impacts to wetlands and prime soils/agriculture associated with the U.S. 101 projects necessary to complete these critical infrastructure projects, subject to specific mitigation measures to reduce impacts to the maximum extent feasible and other beneficial coastal resource enhancement project components.

One of the applicable development standards for the U.S. 101 projects subject to the new Transportation Corridor Wetland Overlay District is to require the construction of two "regionally important improvements to alternative transportation modes for the purpose of increasing access to coastal resources for all members of the public" (CMC §14.45.030[7]); the two identified projects being the Coast Route Bike Path (Santa Claus Lane to Carpinteria Avenue) and the Rincon Coastal Trail (SR 150/Carpinteria Avenue to Rincon County Park). The Coast Route Bike Path project is required to be completed no later than completion of the

adjacent phase of construction for the South Coast HOV Lanes project; the Rincon Coastal Trail project was required to be completed no later than completion of the Linden Avenue and Casitas Pass Road Interchanges and Via Real Extension project construction.

Following certification of the LCPA to create the necessary new Overlay Districts, the City took action on the Conditional Use Permit and Coastal Development Permit application (Project 09-1522-CUP/CDP) for Caltrans' Linden Avenue and Casitas Pass Road Interchanges and Via Real Extension project in November 2015. Condition no. 3.7.15 of the adopted project conditions of approval requires Caltrans to complete construction of the Rincon Trail project as a required coastal access and recreation component of the larger project as depicted in the City of Carpinteria Planning Commission's approval of Project 15-1760-CUP/CDP (discussed below), and subject to approval by the County of Santa Barbara and California Public Utilities Commission. The condition stipulates that while construction of the trail is the sole responsibility of Caltrans acting as the project applicant, the City, County of Santa Barbara, SBCAG and Caltrans are to work cooperatively to complete construction of the trail project. The condition also provides that if the trail cannot be completed along the route described in the MND prepared for Project 15-1760-CUP/CDP, then the applicant shall provide an alternative route. Finally, the condition requires that the trail be open to the public prior to completion of the Linden Avenue and Casitas Pass Road Interchanges and Via Real Extension improvements.

Carpinteria Rincon Trail Project

In anticipation of the CCC's certification of the LCPA establishing the Transportation Corridor Wetland Overlay District and the City's subsequent approval of the CUP/CDP application for the Linden Avenue and Casitas Pass Road Interchange and Via Real Extension project, the City initiated a separate CEQA process for the Rincon Trail project in 2012 and its own CUP/CDP application for the anticipated trail in March 2015 (Project 15-1760-CUP/CDP). This initial iteration of the Rincon Trail Project followed a similar alignment from Carpinteria Avenue to the UPRR corridor crossing, but then incorporated a major switchback element after crossing the railroad tracks to move the trail off the shoulder of the ridge south of the tracks (i.e. "Bates Bluff") and onto the abandoned former railroad bench located along the lower ocean-side bluff face. This existing bench was to accommodate the remainder of the new trail and connect to Rincon Beach County Park. This initial project description also called for additional project components including a new trailhead parking area on Carpinteria Avenue, a rainwater cistern to collect runoff for use in irrigation of mitigation plantings, and trail lighting.

This initial version of the project required preparation of a MND to satisfy the requirements of CEQA, and was reviewed and recommended to the Planning Commission for approval by the City's Environmental Review Committee ("ERC") in June 2012, with only minor revisions to the proposed environmental document. Following formal submittal of the CUP/CDP application, the project was reviewed and recommended for approval by the City's Architectural Review Board in April 2015 as submitted. The City's Planning Commission reviewed and approved the CUP/CDP application for the City's portion of the Rincon Trail project, and acting as Lead Agency for the project, accepted and certified the MND as having satisfied all CEQA requirements in May 2015.

A companion DP/CUP/CDP application for the portion of the trail within the jurisdiction of the County of Santa Barbara was subsequently submitted in 2017, but was deemed incomplete pending submittal of additional information. In May 2017, the City's entitlements for the Rincon Trail project expired due to failure of the project to initiate construction within the allotted two-year timeframe from project approval.

Since that time, the project design team has continued to work on the project plans, completing necessary geotechnical and drainage studies to more closely assess the site conditions and understand how these conditions will affect the construction of the trail, with the intention of obtaining a reauthorization of the City's approval of the trail project and completing the County's permitting process. However, after further study, the more detailed understanding of the site conditions along with further refinement of the trail alignment and design revealed that the initial trail alignment described in the 2012 MND and approved by the City in 2015 was no longer preferable, or possibly even feasible from a constructability standpoint due to a variety of site constraints. These site constraints include but are not limited to, conflicts with major U.S. 101 storm drain infrastructure, unstable geologic conditions within the original trail alignment, more extensive encroachments of improvements into the UPRR corridor, and inability to build the trail in a manner consistent with Americans with Disabilities Act ("ADA") design guidelines.

Further study revealed that an alternative, more direct alignment was available that could avoid interference with critical storm drain infrastructure, avoid the need for construction of costly and unsightly retaining walls, shorten the overall trail length, minimize construction in areas of geologic instability, reduce the extent of work within the UPRR alignment, and provide an ADA-compliant path profile for the entire trail length. This alternate alignment was also found to better achieve the stated project objectives, which are listed below:

- *Improve pedestrian and bicyclist safety, as well as vehicular safety, by significantly reducing unsafe and/or illegal use of the railway corridor and the US Highway 101 shoulder.*
- *Enhance regional mobility for cyclists and pedestrians, while enhancing support of regional initiatives to promote alternative transportation modes between Carpinteria, Santa Barbara County and Ventura County, by providing a continuous bike and pedestrian path connecting Santa Barbara County to Ventura County.*
- *Reduce air pollution from vehicle-related air quality emissions and traffic congestion on local and regional transportation systems by promoting pedestrian and bicycle access to coastal resources and recreation opportunities via a scenic multi-use trail, as an alternative to use of motorized vehicles to access and experience such coastal resources.*
- *Improve the local coastal bluff environment through improved water quality of surface run-off through stabilization of bluff slope faces that are currently eroding into the Pacific Ocean, and enhancement of sensitive coastal bluff scrub habitats in the project area. Also, avoid deposits of petroleum fuels or lubricants associated with typical motor vehicle use for transportation in close proximity to the ocean, preventing such pollutants from stormwater runoff entering the adjacent marine environment.*

- *Complete a critical missing link in the California Coastal Trail consistent with the goals of Senate Bill 908, including the provision of a continuous trail as close to the ocean as possible, with connections to the shoreline at appropriate intervals and sufficient access to encourage public use. The California Coastal Trail is intended to offer scenic coastal vistas, wildlife viewing areas, recreational or interpretive facilities, and other points of interest, and is recognized in regions throughout the state as a key resource or opportunity for these coastal-oriented experiences.*
- *Provide a coastal-oriented pathway that supports the broadest use by the public through a design that complies with standards established via the Americans with Disabilities Act (ADA).*
- *Provide new scenic coastal access and coastal tourism opportunities in the City of Carpinteria, Santa Barbara County, and Ventura County.*

Despite being found to be preferable to the original trail alignment, this new alignment was determined to be significantly different from what was previously considered under the original MND, and identified possible new significant impacts not previously disclosed, such that a new environmental review for the revised alignment was deemed necessary in order to comply with the requirements of CEQA.

A Subsequent Mitigated Negative Declaration (SMND) was prepared for the revised project alignment in fall 2019 and circulated for public review over November/December 2019. The SMND was considered and certified by the Planning Commission at their January 6, 2020 hearing, however an appeal of the Planning Commission's decision was filed by a member of the public during the 10-day appeal period following the Planning Commission's action. Consideration of the appeal by the City Council was postponed due to the onset of the COVID-19 global pandemic. In September 2020, without having ever heard the pending appeal, the City Council elected to instead move forward with the preparation of an EIR as the appropriate CEQA environmental review document in order to allow for a more in-depth analysis of key issue areas identified during consideration of the SMND.

PROJECT ANALYSIS

Carpinteria Municipal Code

Projects of a public works nature, such as the proposed multi-use path improvements, are permissible in any zone district subject to the approval of a Conditional Use Permit (CUP) and Coastal Development Permit (CDP), pursuant to Carpinteria Municipal Code (CMC) §14.62.

The project has also been designed in an effort to comply with the intent of the ESH Overlay district. Lastly, as a project located in the Coastal Appeals Overlay district, any local actions taken by the City will require a discretionary Coastal Development Permit and will be subject to appeal to the California Coastal Commission.

Design Review

The project design team is seeking preliminary feedback from the Board concerning certain design details for the project. The intent is to develop a consistent design theme for the entirety of the project across the two local jurisdictions. As such, the project team is completing an architectural review process with both the City and County design review boards to receive feedback on critical details. The project was conceptually reviewed in May 2021 by the County South Board of Architectural Review (SBAR). The SBAR was generally in support of the project, but provided the following comments for further study:

- Four different railings are shown. Study ways to make the proposed railings more consistent and compatible. Look to wave-patterned fencing design on the southern portion of the freeway as a potential reference. Fourth "vertical picket" design may be inappropriate.
- Consider a rust-red color for bridge instead of green for bridge railing design.
- Return with a comprehensive landscape plan showing how disturbed areas will be revegetated.
- Provide signage information.
- Look into safety lighting, as least at the bridge.
- Chain-link fencing is not appropriate and is underwhelming. Provide a proper architectural fencing solution that it integrated with other fencing styles.

Proposed construction plans are attached for the Board's review. The plans show the proposed trail alignment, construction, and anticipated earthwork. Details and specifications for the proposed bridge and abutments are also provided. The plans include a fencing plan, showing the location of proposed permanent fencing, including both fencing along the trail edge as well as safety fencing to separate the trail from the adjacent highway and railroad corridor. A planting plan has not been provided at this stage, however, the intent is to revegetate disturbed areas with a mix of hydroseed and container plants of appropriate species to restore the various sage scrub communities that would be impacted by the project. Additional compensatory mitigation areas will also be restored/enhanced to offset areas of unavoidable permanent impacts to ESHA.

The Board's comments on the proposed materials, finishes and detailing for the bike path improvements would be appreciated.

General Plan/Coastal Plan Policies

The following General Plan/Coastal Plan objectives and policies apply to the project. The City's Community Design Element of the General Plan contains both general over-arching policies and specific subarea policies. The project site is in Design Subarea 6 (The Bluffs).

Land Use Element

Objective LU-1: *Establish the basis for orderly, well planned urban development while protecting coastal resources and providing for greater access and recreational opportunities for the public.*

Objective LU-3: *Preserve the small beach town character of the built environment of Carpinteria, encouraging compatible revitalization and avoiding sprawl development at the City's edge.*

Policy LU-3h: *Develop land uses that encourage the thoughtful layout of transportation networks, minimize the impacts of vehicles in the community, and encourage alternative means of transportation.*

Policy LU-3i: *Ensure the provision of adequate services and resources, including parking, public transit and recreational facilities, to serve proposed development.*

The proposed project would establish a new public coastal access route and bike/pedestrian path connecting the City of Carpinteria to unincorporated areas southeast of the City. The project would be located within a combination of City and Caltrans rights-of-way, the UPRR rail corridor, and County-owned recreational/open space property. The intent is to create a more direct, safe, convenient and attractive alternative transportation route connecting the east end of the City of Carpinteria to Rincon Beach County Park and other nearby recreational amenities, including Rincon Point State Beach and the Pacific Coast Bikeway. The proposed path would replace informal use trails that trespass through UPRR-owned property and use of the US Highway 101 shoulder by cyclists. The proposed path would also afford new public vantage points of the ocean.

Community Design Element

Objective CD-3: *The design of the community should be consistent with the desire to protect views of the mountains and the sea (California Coastal Act of 1976 §30251).*

The project would enhance public views toward the ocean from a new bluff-top trail overlooking the ocean. The portion of the trail northwest of the UPRR rail corridor that parallels the US 101 Highway may also afford new views towards the Santa Ynez Mountains. The proposed railing/barrier materials are intended to be visually permeable and the bike path would be at an elevated grade above the highway and beach, affording unobstructed views towards the ocean. The path improvements are not expected to have a negative impact on existing views from the highway toward the ocean or mountains.

Objective CD-8: *To encourage and facilitate pedestrian and bicycle pathways.*

Policy CD-8a: *All streets should be designed with safe and pleasant pedestrian ways at their edge. Pedestrian ways shall be spatially separated from vehicular traffic by elements such as trees, other plantings, streetlights, and/or parked cars.*

Policy CD-8b: *To provide convenient pedestrian routes, the existing network of automobile lanes, trails and pedestrian ways in the Downtown District and adjacent neighborhoods should be preserved, reinforced and extended into other neighborhoods. This pedestrian network should be in addition to, not in lieu of, pedestrian ways on the streets.*

The proposed bike path would provide a physically separated bicycle and pedestrian path from the east end of Carpinteria Avenue to Rincon Beach County Park, staying on the ocean side of US Highway 101. The new path would fill in a missing gap of the California Coastal Trail, and replace informal use trails that trespass through the UPRR rail corridor and use of the US Highway 101 shoulders by cyclists to connect to/from Bates Road.

Objective CD-11: *Existing public spaces should be maintained, and new public spaces should be incorporated into neighborhoods and districts as an important aspect of their design.*

Policy CD-11c: *All public spaces and facilities should reflect quality design.*

Policy CD-11g: *The edges of neighborhoods adjoining greenbelts should be streets bike paths or other public ways, allowing their enjoyment by everyone.*

The purpose of this review is to obtain early feedback from the ARB concerning project design details, such as the colors, materials, and treatments for trail/bridge railings, and protective fencing materials. The project is unique in that it spans across jurisdictional boundaries, however the project design team's goal is to come up with a plan that would be mutually supported by both the City and County to ensure the project has a high quality, durable, low maintenance and consistent appearance.

Objective CD-12: *Development should fit quietly into the area's natural and introduced landscape, deferring to open spaces, existing natural features and native and sensitive habitats.*

Policy CD-12a: *Landscape planning shall be respectful of the natural character of the City and enhance existing native plant communities and environmentally sensitive habitat areas.*

CD-12-Implementation Policy 1: *Use of native, locally adapted species shall be encouraged and shall be required within and adjacent to ESHA.*

The proposed trail alignment passes through intact and disturbed areas of various native coastal sage and bluff scrub communities. In areas where the new trail alignment would be cut into the existing bluff faces, permanent impacts to native ESH areas is unavoidable. In surrounding areas where earthwork is needed to stabilize the bluff face, temporary impacts to ESH would occur. In both cases, the proposed project includes plans to restore and revegetate temporarily impacted areas, and in the case of permanent impacts, offset those through compensatory mitigation in the

project area through the enhancement/restoration of disturbed ESH areas. All plantings would be identified by a restoration biologist as being appropriate to the impacted plant communities, and are expected to involve a combination of hydroseed mixes and container plants.

Objective CDS6-2: *Ensure that development is controlled to avoid impacts to significant viewsheds, vistas, and view corridors.*

Policy CDS6-b: *Development on the bluffs shall not obstruct existing view corridors of the ocean and bluff top edge. In addition, views of the ocean and mountains for users of the Carpinteria Bluffs Nature Park and coastal trail(s), for bluffs area property owners and visitors, and for passing motorists, shall be maintained.*

Implementation Policy 58: *All structures, including ancillary structures, shall be appropriately placed so as to minimize their obtrusiveness, and to maintain existing view corridors. Existing views from Bailard Avenue, Carpinteria Avenue, and U.S. 101 to the ocean shall be preserved.*

Implementation Policy 59: *Development that is located on or adjacent to bluffs, beaches, or streams shall be designed and sited to prevent adverse impacts on the visual quality of these resources.*

- *New development is to remain visually subordinate to surrounding natural and introduced landscaping. New buildings, signs, roads, and other man-made features should borrow from naturally established forms, lines, colors, and textures, including the forms, lines, colors, and textures introduced as part of site landscaping. New buildings, signs, roads, and other man-made features should also be at such a scale that they contribute to the desired low intensity character for the Carpinteria Bluffs.*

The portion of the proposed trail located in the City of Carpinteria would begin near the Carpinteria Avenue/State Route 150 intersection and contour along the face of the manufactured bluff above the southbound US Highway 101 on-ramp, gradually descending to the existing bench above the UPRR rail corridor. Given the proposed trail's location relative to the existing topography and transportation infrastructure, as well as the mechanically altered condition of the affected bluff area, the City's portion of the project would have no detrimental effect on viewsheds, vistas, or view corridors. Areas disturbed during the construction of the new trail alignment would be revegetated with appropriate native plantings, which would help to further reduce the visibility of the trail from adjoining areas.

Policy CDS6-d: *Landscape planning shall be respectful of the natural character of the Bluffs and enhance existing native plant communities and environmentally sensitive habitat areas.*

Implementation Policy 75: *Use of native, locally adapted species shall be required.*

Implementation Policy 83: *Development within the Carpinteria Bluffs should fit quietly into the area's natural and introduced landscape, deferring to open spaces, existing natural features, and native and sensitive habitats.*

As previously described, the proposed trail alignment must cut through previously-disturbed areas and manufactured slopes that have since been recolonized by native sage and bluff scrub habitats. Areas disturbed during construction would be restored and revegetated with appropriate native plant mixes. Areas of permanent disturbance (i.e., the location of the trail itself), would be mitigated through compensatory habitat restoration/enhancement of surrounding naturalized areas. All landscaping would be completed under the supervision of a restoration biologist with an emphasis placed on enhancing habitat value.

Circulation Element

Objective C-4: *Improve the Carpinteria Avenue corridor to ensure adequate traffic flow, safe bicycle use and improved aesthetic qualities.*

Objective C-7: *Build demand for alternative transportation use by increasing ease, effectiveness, and social acceptability, and through foresighted planning.*

Policy C-7b: *Develop safe and direct pedestrian accessibility between residential areas, schools, parks, and shopping areas in both new and existing urban areas.*

Objective C-8: *Support and develop safe, direct and well-maintained bicycle and pedestrian systems and recreational boating facilities that serve all segments of the public.*

Policy C-8a: *Integrate the development of bicycle routes and pedestrian pathways in additional areas of the city, and encourage the utilization of such routes for commuting as well as recreational purposes.*

Policy C-8d: *Encourage integration of the city's bicycle routes with state and countywide programs.*

Policy C-8f: *Encourage pedestrian movement by providing pedestrian facilities that are direct and convenient, particularly in the beach and downtown areas.*

Policy C-8g: *Consider rerouting the Pacific Coast Bikeway to another location parallel to the coastline, such as adjacent to the railroad right of way throughout the city. [5-year]*

Policy C-8h: *Encourage a bike trail link from Carpinteria to Summerland along the railroad right of way and a coastal link to Ventura paralleling U.S. 101.*

The proposed project would provide a new separated Class I bicycle and pedestrian path connecting the City of Carpinteria to the unincorporated Santa Barbara and Ventura County lands southeast of the City, and will also serve to fill in a critical missing link in the California Coastal Trail, a statewide coastal public access trail. The bike path will allow for a safer, more direct route to the popular coast route for cyclists, allowing cyclists to bypass the section of US 101 between State Route 150 and Bates Road. Further, the proposed trail would also provide a safe, legal alternative to the illicit use trails currently traveled by pedestrians to get from the City

of Carpinteria to Rincon area beaches. The bike path is intended to support both alternative transportation commuting and recreational activities.

At the western terminus of the proposed path at the intersection of Carpinteria Avenue and State Route 150, the trail would end in an existing dirt turnout that provides an informal public parking area. From there, cyclists and pedestrians can either continue along the existing Class II bike lanes along Carpinteria Avenue or, can continue on into the existing/proposed trail network within the adjacent Rincon Bluffs Preserve, which eventually lead to the City's existing Carpinteria Bluffs trail. At the eastern terminus of the bike path, outside of the City, the proposed path would terminate at the end of the Rincon Beach County Park parking lot. From there, pedestrians and cyclists can either continue through the parking lot to reach recreational amenities farther to the south (e.g., Rincon Point State Beach or the Pacific Coast Bikeway), or utilize existing pathways within the County Park to access park facilities.

Open Space, Recreation and Conservation Element

Objective OSC-1: *Protect, preserve and enhance local natural resources and habitats.*

Policy OSC-1a: *Protect Environmentally Sensitive Habitat Area(s) (ESHA) from development and maintain them as natural open space or passive recreational areas.*

Policy OSC-1b: *Prohibit activities, including development, that could damage or destroy ESHA.*

The proposed project would have both limited permanent and temporary unavoidable impacts to ESHA resulting from construction of the trail, totaling approximately 0.76 acres and 3.55 acres, respectively. Project Alternative 3, identified in the Draft EIR as the environmentally superior alternative, would slightly reduce these quantified impacts through reduced earthwork. In either case, unavoidable temporary and permanent impacts to ESHA have been minimized to the maximum extent feasible, while still achieving the stated project objectives. Temporary and permanent impacts would be fully mitigated with restoration of temporarily impacted areas and compensatory restoration/enhancement of adjacent ESH areas to offset the permanently impacted areas resulting from the new pathway.

Objective OSC-14: *Provide for adequate park and recreation facilities to meet the needs of the community and visitors.*

Policy OSC-14a: *Increase coastal and recreational access for all segments of the population, including the disabled and elderly, while protecting natural resources, particularly environmentally sensitive habitat areas.*

Objective OSC-15: *Maintain the existing trail system and provide additional recreation and access opportunities by expanding the trail system.*

Policy OSC-15c: *Pursue development of a trail and/or boardwalk system along the coastline.*

Implementation Policy 70: *Continue the development of a coastline trail to extend from Carpinteria City Beach to Rincon Beach Park with vertical access points placed as frequently as possible to encourage public access.*

Implementation Policy 73: *As a part of the development of the trail system, minimize the number of formal rail crossings for pedestrians and improve their safety through crossing controls or other improvements such as fences and landscaping. Seek joint funding for such improvements from state and federal agencies and the railroad.*

The proposed project enhances coastal public access and recreational opportunities, providing a safer, more direct pedestrian and bicycle link between the City of Carpinteria and the unincorporated areas of Santa Barbara and Ventura Counties to the southeast of the City. The trail as designed would fill in a critical missing gap in the California Coastal Trail and extend the City's existing Carpinteria Bluffs Trail system to the existing recreation facilities in the County's Rincon Beach Park. The trail, as proposed, has been designed to be ADA-compliant. Project Alternative 3, which is the environmentally superior alternative, resulting in reduced earthwork and impacts to ESH areas, would be mostly ADA-compliant, however a short portion of the trail, east of the UPRR bridge crossing, would slightly exceed ADA pathway slope standards for a limited section in order to route as much of the trail as possible on the existing (former) railway bench. The new bridge crossing of the railroad would provide a safe, separated crossing of the railroad without need for any new crossing controls.

Safety Element

Objective S-2: *Minimize the potential risks and reduce the loss of life, property and economic and social dislocations resulting from seismically-induced and naturally-occurring landslides, from mud and debris flows, from rock falls, and from seacliff retreat.*

Objective S-4: *Minimize the potential risks and reduce the loss of life, property and the economic and social dislocations resulting from flooding.*

The proposed project passes through an area with known geologic hazards. Part of the rationale for the trail re-alignment was to avoid an area of a known historic landslide that the previous 2015-approved trail alignment crossed through. To further facilitate slope stability and ensure the safety and longevity of the proposed trail, portions of the slopes that the proposed trail would cut across are intended to be laid back. This would reduce erosion potential, decrease potential for rock fall, and facilitate revegetation efforts along the affected bluff faces. The project area is also known to be potentially vulnerable to seacliff retreat impacts, including those associated with projected future sea level rise. However, the proposed trail has been sited far enough inland to not be found to be at risk of damage from seacliff retreat over the anticipated lifespan of the trail improvements.

SUMMARY OF ISSUES

- Project design, layout and alignment;
- Railing and fencing designs, and placement; and
- Restoration landscape planting.

RECOMMENDATION

Receive public comment and provide feedback on the proposed project. If the Board finds the proposed project to be consistent with applicable City regulations and policies, then the Board should recommend preliminary approval to the Planning Commission.

ATTACHMENTS

Exhibit A – Proposed project plans and specifications
Exhibit B – Renderings and supporting exhibits
Exhibit C – Project description narrative

Exhibit A

Proposed Plans

Rincon Trail
Project 19-2015-CUP/CDP
October 28, 2021 Preliminary ARB Review

THE CITY OF CARPINTERIA
DEPARTMENT OF PARKS AND RECREATION

PROJECT PLANS FOR
RINCON MULTI-USE TRAIL
IN SANTA BARBARA COUNTY
BETWEEN RINCON ROAD AND BATES ROAD

To be supplemented by 2018 State Standard Plans and Specifications

AERIAL CONCEPT RENDERING OF PROJECT LOOKING SOUTH EAST TOWARD RINCON POINT

SHEET INDEX

UPRR PROJECT INFORMATION
1. MILE POST 380.49 SANTA BARBARA SUB, CARPINTERIA, CA
2. LATITUDE: 34°22'48.18"N LONGITUDE: 119°28'57.20"W
3. UNION PACIFIC DOT NUMBER 44114BY

S. Onishuk
PLANS APPROVAL
Project Engineer

04/23/2021
Date

REGISTERED PROFESSIONAL ENGINEER
S. Onishuk
No. C 48052
CIVIL
STATE OF CALIFORNIA

The City of Carpinteria & their officers or agents shall not be responsible for the accuracy or completeness of electronic copies of the plan sheet.

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
Drawn MS HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
TITLE SHEET

44114BY
UPRR PROJECT NO

04/23/21	TITLE
DATE	SHT. DES.

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

Selected Acronyms and Abbreviations
(See Caltrans Standard Plan for complete list)

AB	Aggregate Base	Dwy	Driveway	HP	Hinge Point	Qty	Quantity
Abn	Abandon	E	Easting	HWM	High water mark	R	Radius
Abut	Abutment	Ease	Easement	Irr	Irrigation	Reinf	Reinforcement
AC	Asphalt Concrete	EB	East Bound	Jct	Junction	Rel	Relocate
Adj	Adjust	EC	End of Curve	Jt	Joint	Ret	Retaining
AP	Angle Point	ECR	End of Curb Return	L	Length	Rev	Revised
BB	Beginning of Bridge	EG	Existing Ground	LOL	Layout line	RSP	Rock Slope Protection
BC	Beginning of Curve	EOD	Edge of Deck	LS	Lump sum	Rt	Right
BCR	Beginning of Curb Return	EP	Edge of Pavement	Lt	Left	R/W	Right of Way
Beg	Begin	ES	Edge of Shoulder	Max	Maximum	Salv	Salvage
Bldg	Building	ESM	Engineered Stream Material	MBGR	Metal Beam Guard Rail	SG	Subgrade
BM	Bench Mark	ETW	Edge of Traveled Way	MH	Manhole	Sht	Sheet
Bot	Bottom	EVC	End Vertical Curve	Min	Minimum	SR	Superelevation Rate
Br	Bridge	Exc	Excavate	Misc	Miscellaneous	Spec	Special/Specification
Brg	Bearing	Exist	Existing	Mod	Modify	Sta	Station
BVC	Beginning of Vertical Curve	Exp	Expansion	NTS	Not to scale	Std	Standard
BW	Bottom of Wall	Exp Jt	Expansion Joint	N	Northing	Str	Structure
CAA	Cable Anchor Assembly	Ext	Exterior	Oblr	Obliterate	SW	Sidewalk
C-C	Center-to-center	F&C	Frame and Cover	OC	Overcrossing	S	Sewer
Chnl	Channel	F&G	Frame and Grate	OD	Outside Diameter	TC	Top of Curb
CI	Cast-iron	Fdn	Foundation	OG	Original Ground	TCB	Traffic Control Box
CIDH	Cast In Drilled Hole	FES	Flared End Section	OH	Overhead	TBM	Temporary Benchmark
CIP	Cast in place	FF	Filter Fabric	O-O	Out-to-out	TG	Top of Grade/Top of Grate
CISS	Cast in Steel Shell	FG	Finished Grade	P	page	Top	Top of Creekbank
CL	Chain Link	FH	Fire Hydrant	PB	Pull box	TP	Telephone Pole
Cl	Class	Fig	Figure	PC	Point of curvature or Precast	Trans	Transition
C/L	Centerline	FL	Flow Line	PCC	Pt of compound curvature	TW	Top of Wall
Clr	Clear	FOC	Face of Concrete	Ped	Pedestrian	TYP	Typical
CM	Corrugated Metal	FS	Finished Surface	Perm Mtl	Permeable Material	UON	Unless otherwise noted
Col	Column	Ftg	Footing	PG	Profile Grade	V	Valve
Conc	Concrete	Ga	Gauge	PI	Point of Intersection	Var	Variable
CP	Catch Point	GB	Grade Break	P/L	Property Line	VC	Vertical Curve
Cr	Creek	GP	Grading Plane	POC	Point on Curve	W	Width
D	Depth	Galv	Galvanized	POT	Point on Tangent	WH	Weep Hole
Deg	Degree	GR	Guard Railing	PRC	Point of Reversing Curve	WM	Wire Mesh/Water Meter
Det	Detail	Gtr	Gutter	PS&E	Plans, Specifications & Estimate	WW	Wing Wall
DI	Drainage Inlet	H	Height	PS	Pre-Stressed	WWLOL	Wing Wall Layout line
Dia	Diameter	h, hr	Hour	P/S	Pre Stressed		
Diaph	Diaphragm	HW	Headwall	PT	Point of Tangent		
Dist	Distance	Horz	Horizontal	PVI	Point of Vertical Intersection		

ABBREVIATIONS AND LEGEND
S-01

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
Drawn MBHS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave., C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
ABBREVIATIONS AND LEGEND

441148Y
UPRR PROJECT NO.

04/23/21	S-01
DATE	SHT. DES.

SANTA BARBARA SUB
MP 380.48
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

1. THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE FLOW IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.

2. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.

3. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.

4. ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.

5. ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.

6. ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.

7. RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.

8. FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.

9. ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.

10. FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD MINIMUM REQUIREMENTS AS PART OF SPECIAL PROVISIONS.

GENERAL UPRR NOTES

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

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360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

441148Y
UPRR PROJECT NO.

04/23/21 DATE | GN SHT. DES

SANTA BARBARA SUB MP 380.48 UPRR MILE POST

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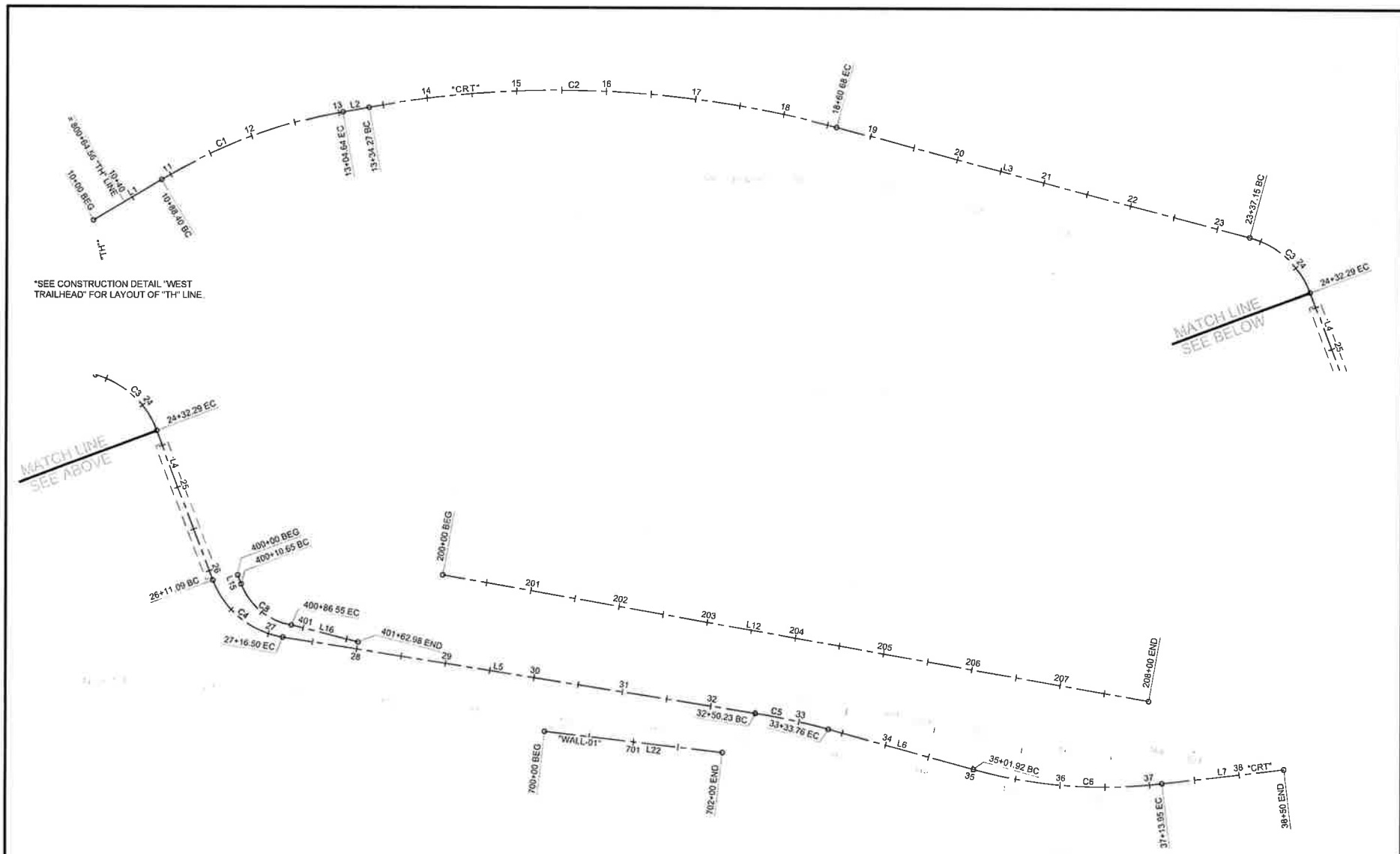

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design
Drawn
Ck'd

BENGAL ENGINEERING
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

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0 1 2

CARPINTERIA RINCON MULTI USE TRAIL

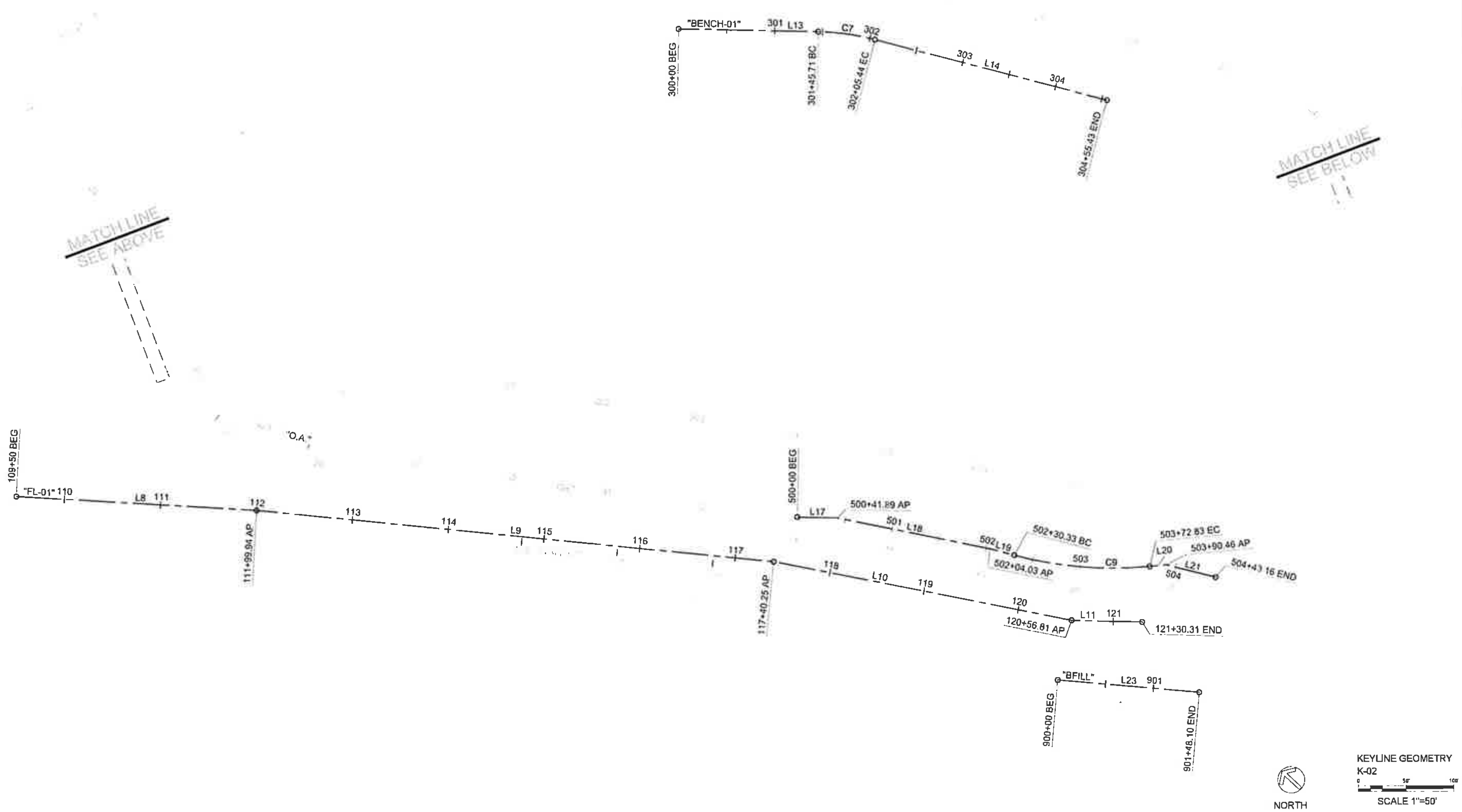
441148Y
WRR PROJECT NO.

04/23/21
DATE

K-1
SHT. DES.

SANTA BARBARA SUB
MP 380.48
LOCAL MILE POST

4 of 119



THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

App'oved Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC
380 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

441148Y
UPRR PROJECT NO

04/23/21 DATE
K-2 SHT DES
SANTA BARBARA SUB MP 380.49 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

"CRT" LINE

SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L1	10+00.00	88.40'	10+88.40	1965107.50	6113550.33	S74° 26' 55.83"E	
C1	10+88.40	216.23'	13+04.64	1965083.80	6113635.50	020°38'56"	600.00'
L2	13+04.64	29.63'	13+34.27	1964989.94	6113829.00	S53° 47' 59.83"E	
C2	13+34.27	526.41'	18+60.68	1964972.44	6113852.92	025°08'03"	1200.00'
L3	18+60.68	476.46'	23+37.15	1964579.72	6114197.11	S28° 39' 56.47"E	
C3	23+37.15	95.14'	24+32.29	1964161.66	6114425.67	054°30'39"	100.00'
L4	24+32.29	178.81'	26+11.09	1964070.09	6114427.92	S25° 50' 43.02"W	
C4	26+11.09	105.40'	27+16.50	1963909.17	6114349.97	060°23'32"	100.00'
L5	27+16.50	533.73'	32+50.23	1963808.87	6114357.60	S34° 32' 48.53"E	
C5	32+50.23	83.53'	33+33.76	1963369.26	6114660.27	006°22'54"	750.00'
L6	33+33.76	168.16'	35+01.92	1963297.96	6114703.72	S28° 09' 54.77"E	
C6	35+01.92	212.03'	37+13.95	1963149.71	6114783.09	022°05'16"	550.00'
L7	37+13.95	136.05'	38+50.00	1962986.44	6114916.29	S50° 15' 10.59"E	

"FL-01" LINE

SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L8	109+50.00	249.94'	111+99.94	1963940.14	6114157.84	S39° 58' 57.52"E	
L9	111+99.94	540.31'	117+40.25	1963748.63	6114318.44	S37° 39' 54.64"E	
L10	117+40.25	316.56'	120+56.81	1963320.92	6114648.50	S32° 17' 37.38"E	
L11	120+56.81	73.50'	121+30.31	1963053.33	6114817.72	S41° 59' 02.24"E	

"FL-02" LINE

SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L12	200+00.00	800.00'	208+00.00	1963728.07	6114531.00	S33° 27' 28.84"E	

"BENCH-01" LINE

SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L13	300+00.00	145.71'	301+45.71	1964639.20	6114052.81	S42° 21' 16.74"E	
C7	301+45.71	59.73'	302+05.44	1964531.52	6114150.97	013°41'20"	250.00'
L14	302+05.44	249.99'	304+55.43	1964483.02	6114185.59	S28° 39' 56.47"E	

"O.A." LINE

SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L15	400+00.00	10.65'	400+10.65	1963893.10	6114373.30	S25° 50' 43.02"W	
C8	400+10.65	75.89'	400+86.55	1963883.51	6114368.65	060°23'32"	72.00'
L16	400+86.55	76.43'	401+62.98	1963811.29	6114374.15	S29° 17' 32.03"E	

"SHD" LINE

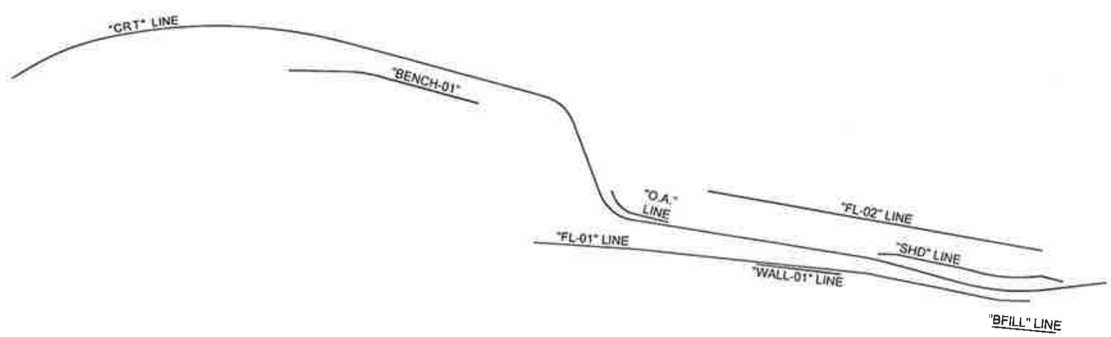
SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L17	500+00.00	41.69'	500+41.69	1963334.77	6114699.58	S42° 11' 30.43"E	
L18	500+41.69	162.13'	502+04.03	1963303.73	6114727.71	S31° 55' 25.29"E	
L19	502+04.03	26.30'	502+30.33	1963166.12	6114813.45	S28° 23' 15.32"E	
C10	502+30.33	142.50'	503+72.83	1963142.98	6114825.95	020°24'44"	400.00'
C9	502+30.33	142.50'	503+72.83	1963142.98	6114825.95	020°24'44"	400.00'
L20	503+72.83	17.63'	503+90.46	1963032.19	6114914.38	S48° 47' 59.54"E	
L21	503+90.46	52.70'	504+43.16	1963020.57	6114927.64	S29° 07' 08.81"E	

"WALL-01" LINE

SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L22	700+00.00	200.00'	702+00.00	1963525.73	6114483.40	S36° 52' 03.04"E	

"BFILL" LINE

SEGMENT ID	START STATION	LENGTH	END STATION	START NORTHING	START EASTING	DIRECTION/ DELTA	RADIUS
L23	900+00.00	148.10'	801+48.10	1963021.64	6114762.73	S38° 19' 43.02"E	



KEYLINE GEOMETRY
K-03

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

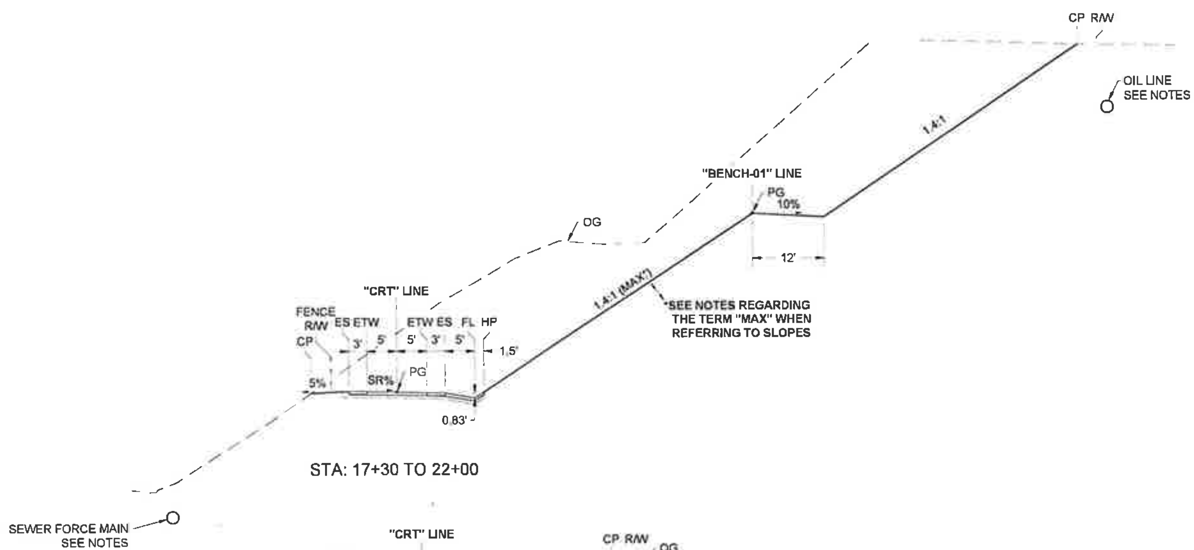
Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave, C-110 Santa Barbara, CA 93105

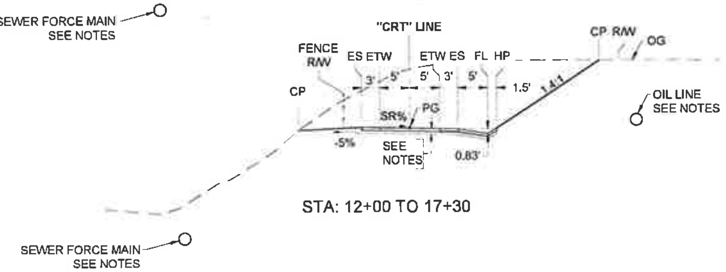
CARPINTERIA RINCON MULTI USE TRAIL

441148Y UPRR PROJECT NO.
04/23/21 DATE
K-3 SHT. DES.
SANTA BARBARA SUB MP 382.49 UPRR MILE POST

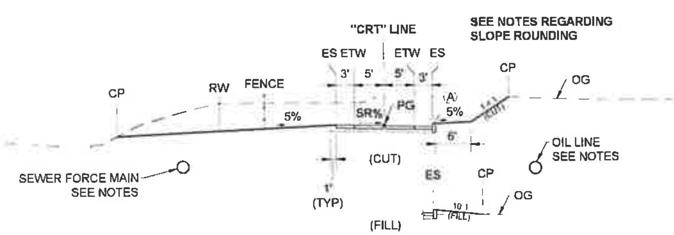
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2



STA: 17+30 TO 22+00



STA: 12+00 TO 17+30



STA: 10+40 TO 12+00

NOTES

1. STRUCTURAL SECTION FOR PATH AND GUTTER IS
   0.42' JPCP
   0.5' AB (CLASS 2)
2. DIMENSIONS OF THE STRUCTURAL SECTION ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
3. SUPERELEVATION AS SHOWN OR AS DIRECTED BY ENGINEER. ALSO SEE PROFILE SHEETS.
4. CHEVRON/VENOCO OIL PIPELINE IS SHOWN 9-FEET BELOW THE ORIGINAL GROUND, BASED ON OBSERVATION NOTES DURING CONSTRUCTION. ACTUAL DEPTH MAY VARY.
5. A SEWER "FORCE MAIN" EXISTS ALONG THE SOUTH BOUND LANE OF HWY 101. RECORD DRAWINGS SHOW THE DEPTH OF THIS SEWER TO BE HIGHLY VARIABLE.
6. CALTRANS ELECTRIC LIGHTING CONDUIT IS NOT SHOWN. THIS EXISTS ALONG SHOULDER OF THE SOUTHBOUND 101 LANES.
7. REGARDING THE TERM "MAX" WHEN REFERRING TO SLOPES, SOME CUT SLOPES ARE BUILT BETWEEN DIFFERENT ALIGNMENTS EACH WITH THEIR OWN PROFILE. THE ENGINEERS HAVE SET THESE ALIGNMENTS TO ACCOMMODATE THE CUT SLOPES SHOWN. THE TERM "MAX" INDICATES THE MAXIMUM VARIABLE SLOPE CREATED BY THE GRADING BETWEEN THESE ALIGNMENTS
8. SLOPE ROUNDING IS NOT SHOWN. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
9. SEE FENCING PLAN FOR FENCE LAYOUT.

CONSTRUCTIONS NOTES

(A) CALTRANS TYPE A1 CURB
"CRT" LINE: 10+40 TO 12+00

TYPICAL SECTIONS
X-01
SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC.
360 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

TYPICAL SECTIONS

441148Y
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DATE	SHT DES

SANTA BARBARA SUB
MP 380.48
UPRR MILE POST

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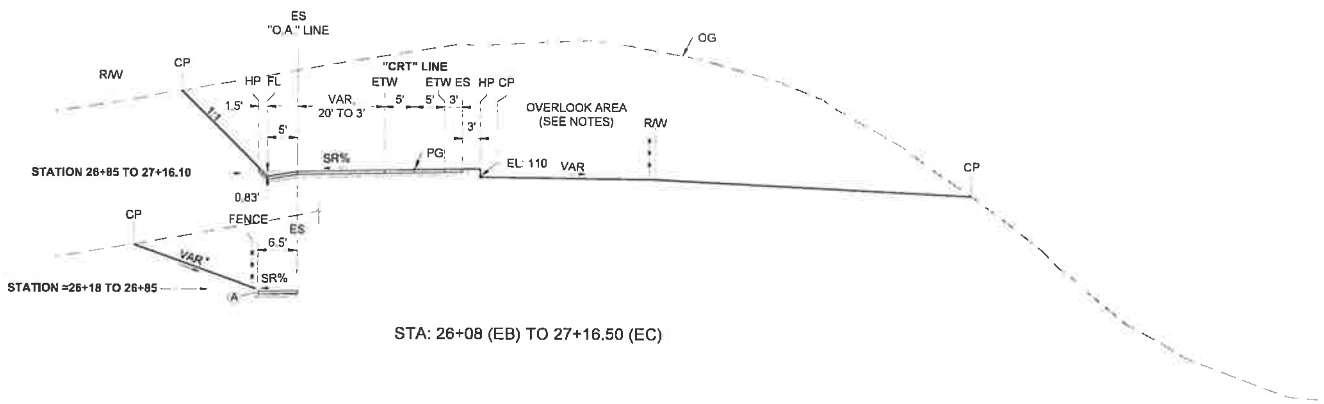
0 1 2

NOTES

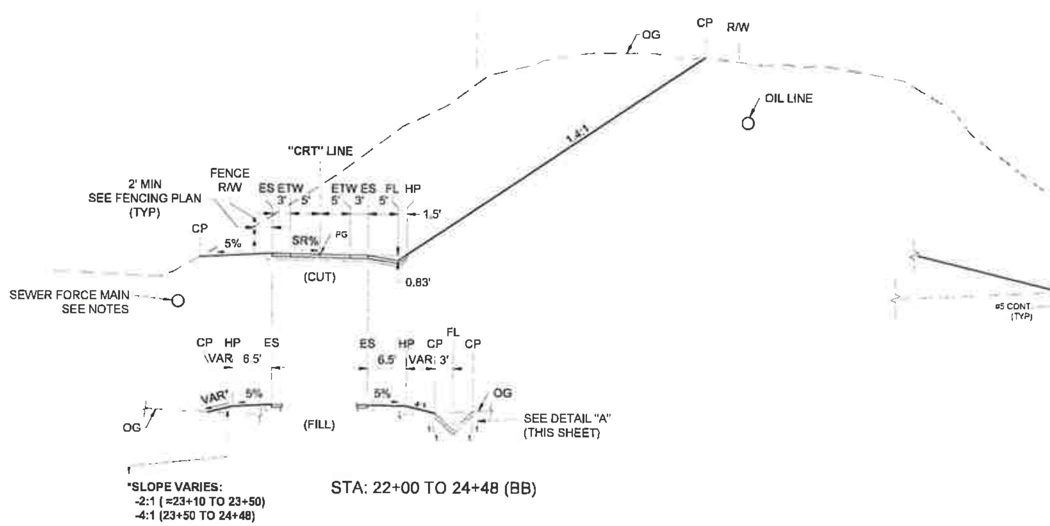
1. SEE OVERLOOK AREA CONSTRUCTION DETAILS FOR MORE INFORMATION.

CONSTRUCTIONS NOTES

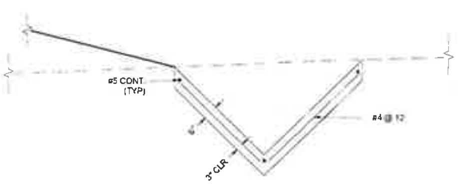
A. CALTRANS TYPE A1 CURB "CRT" LINE 26+18 TO 26+85



STA: 26+08 (EB) TO 27+16.50 (EC)



STA: 22+00 TO 24+48 (BB)



DETAIL A

TYPICAL SECTIONS
X-02
SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approve: Matt Roberts, Project Manager

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Drawn MB
Chk'd SO

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CARPINTERIA RINCON MULTI USE TRAIL

TYPICAL SECTIONS

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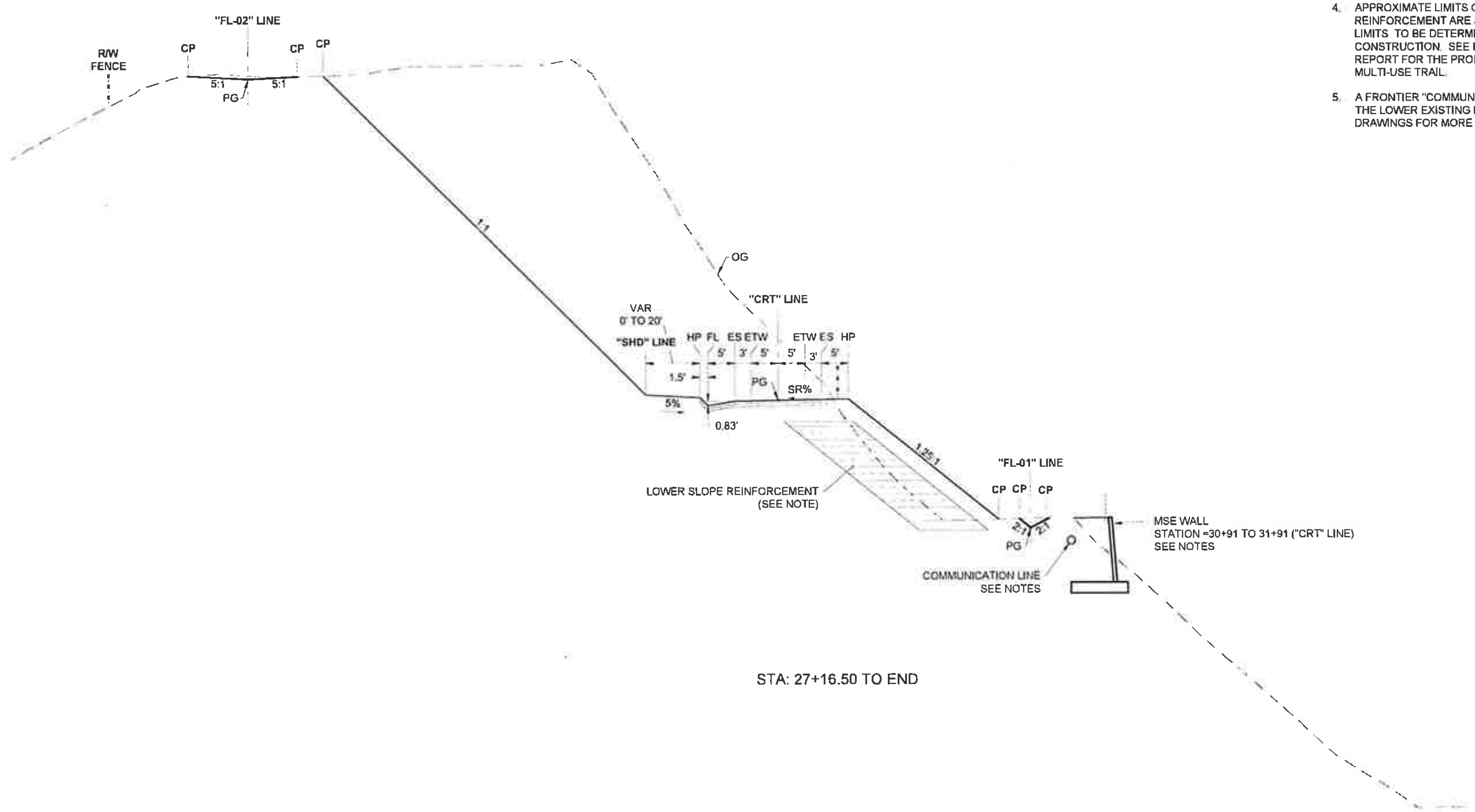

STA: 27+16.50 TO END

NOTES:

1. "KEYWAY" ALONG OLD RAILROAD BENCH IS NOT SHOWN, TO PROVIDE CLARITY REGARDING LAYOUT OF CONCRETE DITCH. SEE CONSTRUCTION DETAILS.
2. SEE "CONSTRUCTION DETAIL" FOR MORE INFORMATION REGARDING SLOPE REINFORCEMENT.
3. SEE "CONSTRUCTION DETAILS" FOR MORE INFORMATION REGARDING MSE WALL.
4. APPROXIMATE LIMITS OF MID SLOPE REINFORCEMENT ARE STATION 32+00 TO 35+00. LIMITS TO BE DETERMINED DURING CONSTRUCTION. SEE BENGAL'S GEOTECHNICAL REPORT FOR THE PROPOSED RINCON BEACH MULTI-USE TRAIL.
5. A FRONTIER "COMMUNICATION LINE" EXISTS ALONG THE LOWER EXISTING BENCH. SEE UTILITY DRAWINGS FOR MORE INFORMATION.

TYPICAL SECTIONS
X-03
0 10 20
SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
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BENGAL ENGINEERING INC.
380 S. Hope Ave. C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
TYPICAL SECTIONS

44114BY
UPRR PROJECT NO.
04/23/21 | X-03
DATE | SHT. DES.
SANTA BARBARA SUB MP 380.48
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FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

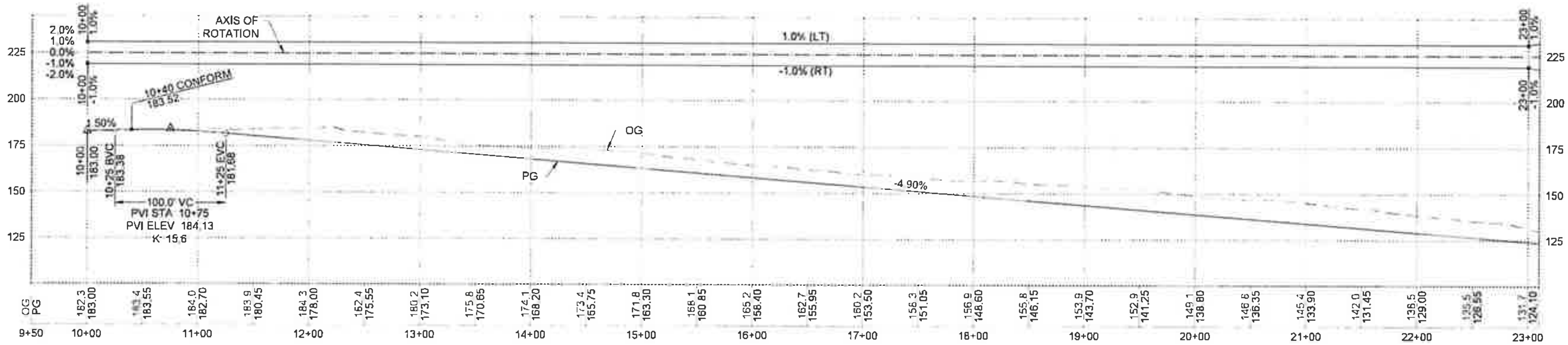
LEGEND

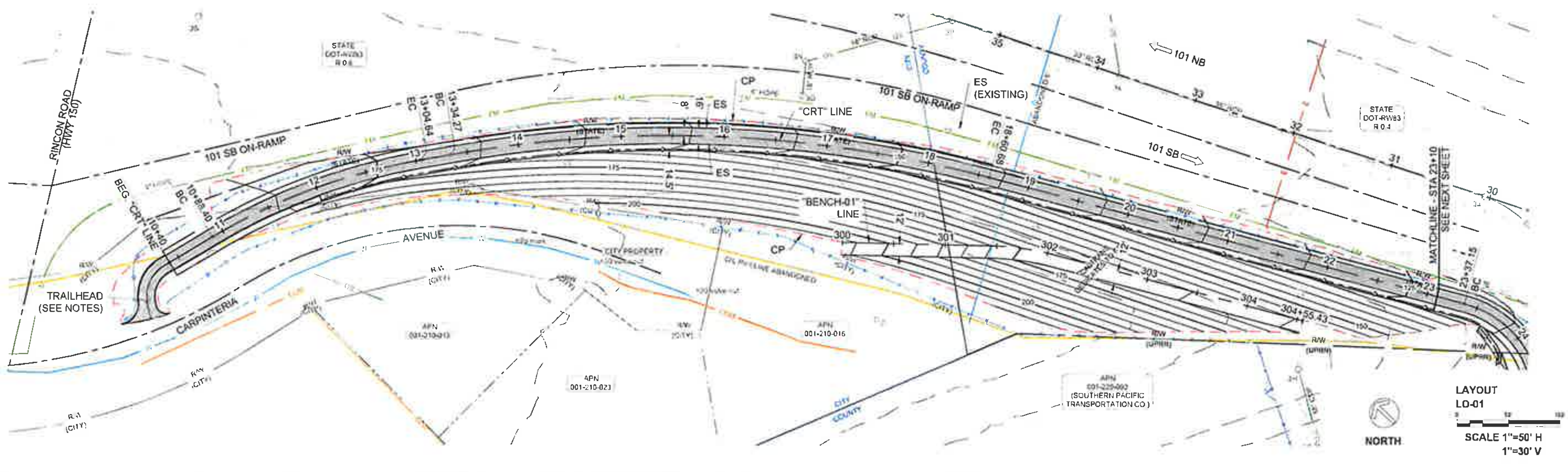
- CITY RIGHT OF WAY — R/W (CITY)
- STATE RIGHT OF WAY — R/W (STATE)
- RAILROAD RIGHT OF WAY — R/W (UPRR)
- PROPERTY LINE
- RIGHT OF WAY TAKE
- CATCH POINT/DAYLIGHT
- CITY/COUNTY LIMITS — CITY / COUNTY
- CENTERLINE

- STORM DRAINS
- SEWER
- CABLE — COM
- OIL
- WATER

NOTES:

1. FOR COMPLETE RIGHT-OF-WAY INFORMATION, SEE RIGHT-OF-WAY MAPS IN COUNTY OFFICES.
2. SEE "KEY LINE GEOMETRY" SHEET FOR LAYOUT INFORMATION.
3. SEE CONSTRUCTION DETAILS SHEET FOR TRAILHEAD INFORMATION AT ENDS OF BIKE PATH.
4. TEMPORARY FENCE, (TYPE ESA) WILL BE LOCATED 10-FEET BEYOND DAYLIGHT LINE OR AS DIRECTED BY THE ENGINEER.
5. SEE CONSTRUCTION DETAILS FOR LAYOUT OF TRAILHEAD.





LAYOUT LD-01

SCALE 1"=50' H 1"=30' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

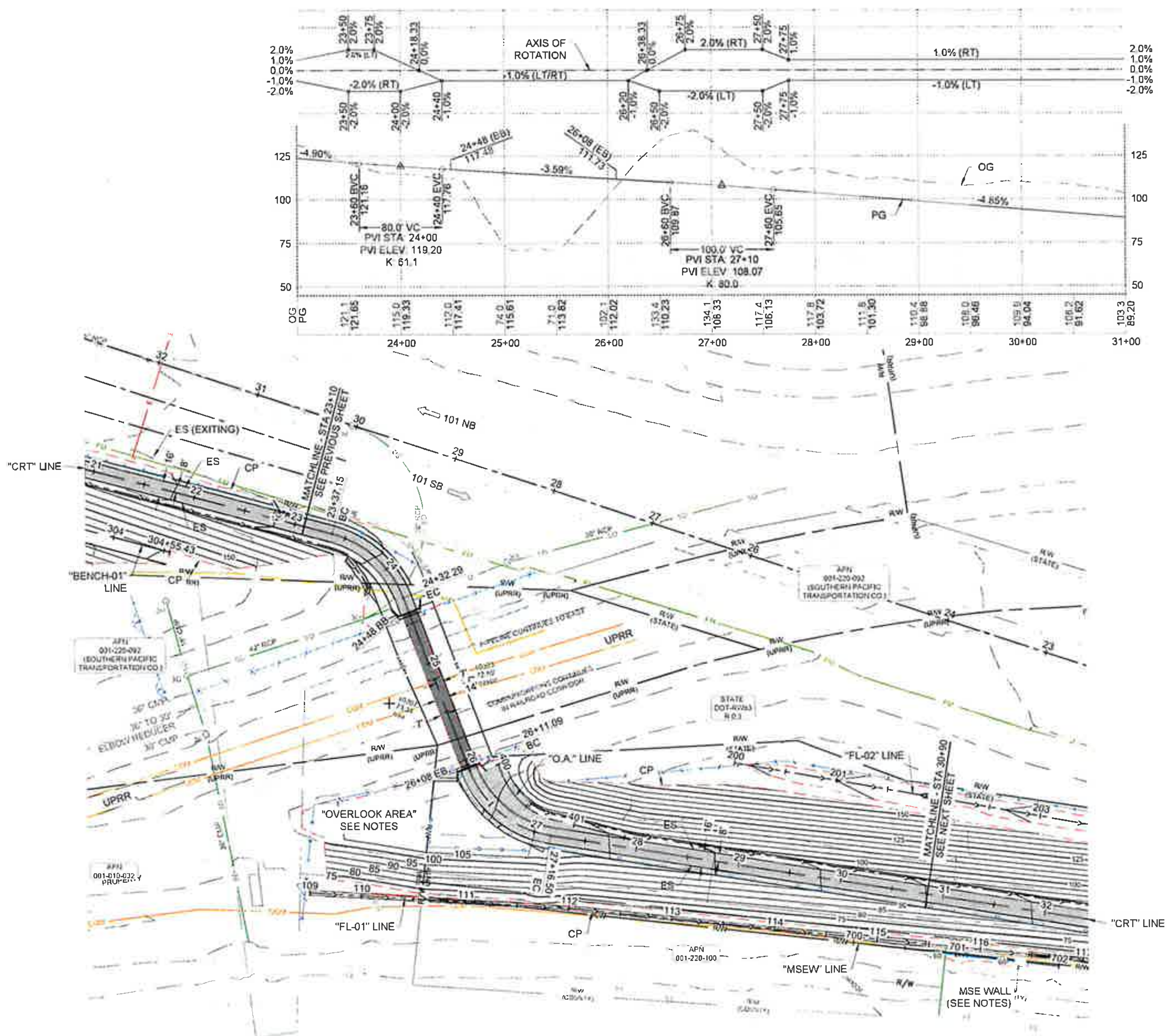
BENGAL ENGINEERING INC.
380 S. Hope Ave., C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

LAYOUT

441148Y UPRR PROJECT NO	
04/23/21 DATE	LD-01 SHT. DES.
SANTA BARBARA SUB MP 380.48 UPRR MILE POST	

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES



NOTES

1. SEE CONSTRUCTION DETAILS FOR GRADING OF OVERLOOK AREA.
2. SEE CONSTRUCTION DETAILS FOR LAYOUT OF MSE WALL.

LAYOUT
LO-02
SCALE 1"=50' H
1"=30' V
NORTH

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC.
380 S. Hope Ave., C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
LAYOUT

441148Y
UPRR PROJECT NO.
04/23/21 | LO-02
DATE | SHT DES.
SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

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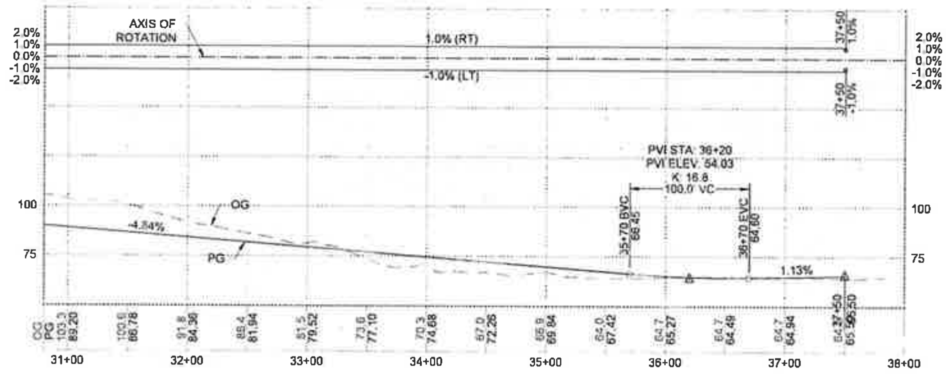
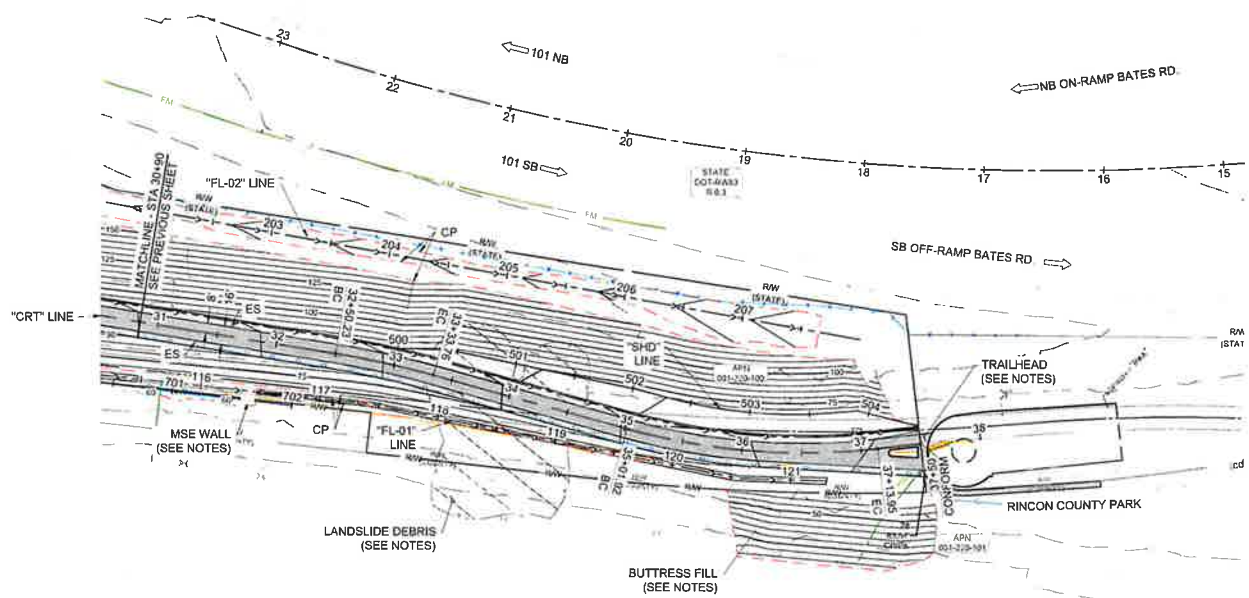




NOTES

1. UTILITIES EAST OF RINCON PARK CUL-DE-SAC NOT SHOWN.
2. SEE CONSTRUCTION DETAILS FOR LAYOUT OF MSE WALL.
3. SEE CONSTRUCTION DETAILS FOR BUTTRESS FILL DETAILS.
4. SEE CONSTRUCTION DETAILS FOR LAYOUT OF TRAILHEAD.
5. SEE BENGAL'S GEOTECHNICAL REPORT FOR THE PROPOSED RINCON BEACH MULTI-USE TRAIL.

LAYOUT
LO-03
SCALE 1"=50' H
1" = 30' V
NORTH

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

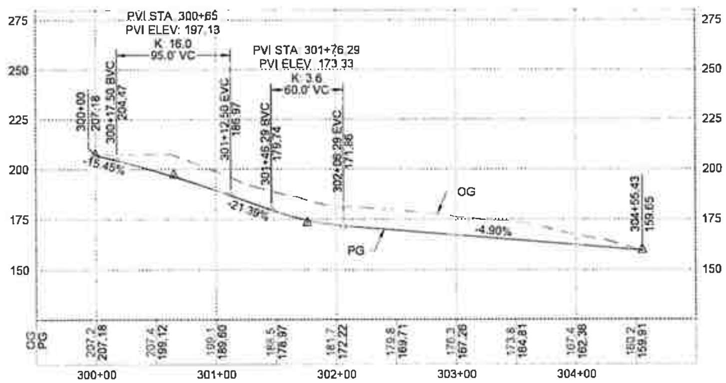
Approved
Matt Roberts, Project Manager

Design SD
Drawn MB
Chk'd SO

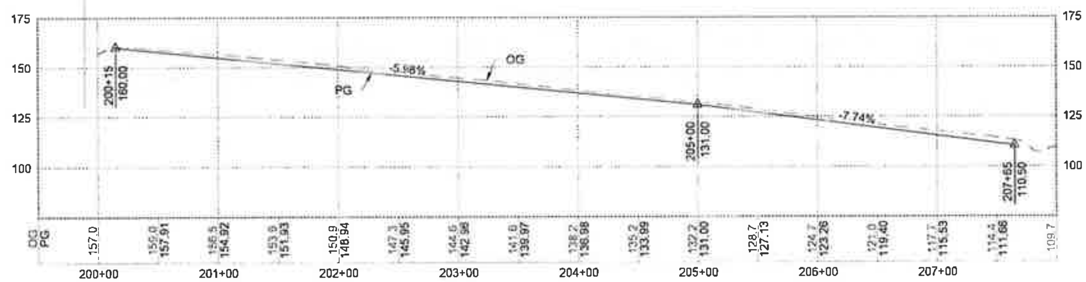
BENGAL ENGINEERING INC
380 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
LAYOUT

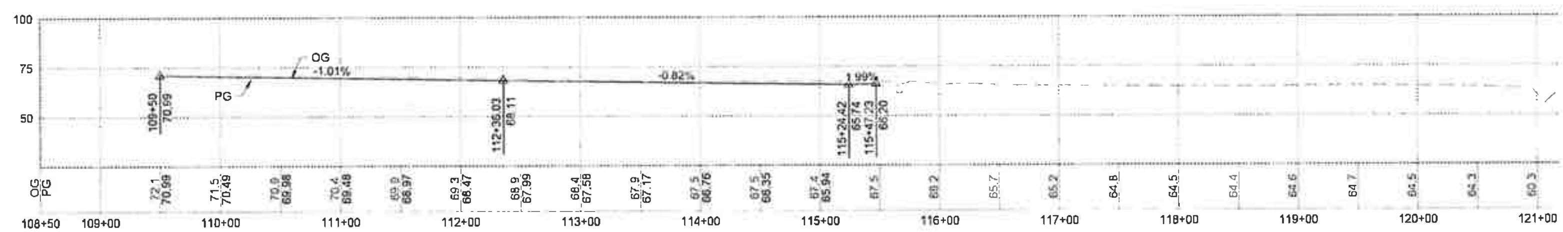
441148Y
UPRR PROJECT NO.
04/23/21 | LO-03
DATE | SHT DES
SANTA BARBARA SUB. MP 380.48
UPRR MILE POST



PROFILE "BENCH-01" LINE



PROFILE "FL-02" LINE



PROFILE "FL-01" LINE

PROFILES
P-01
SCALE 1"=50' H
1" = 30' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC.
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

PROFILES

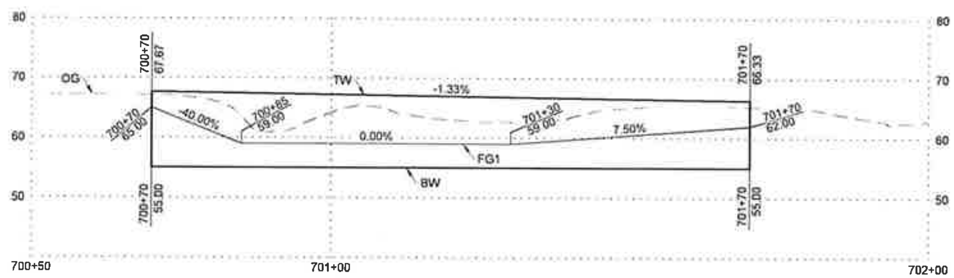
441148Y
UPRR PROJECT NO.

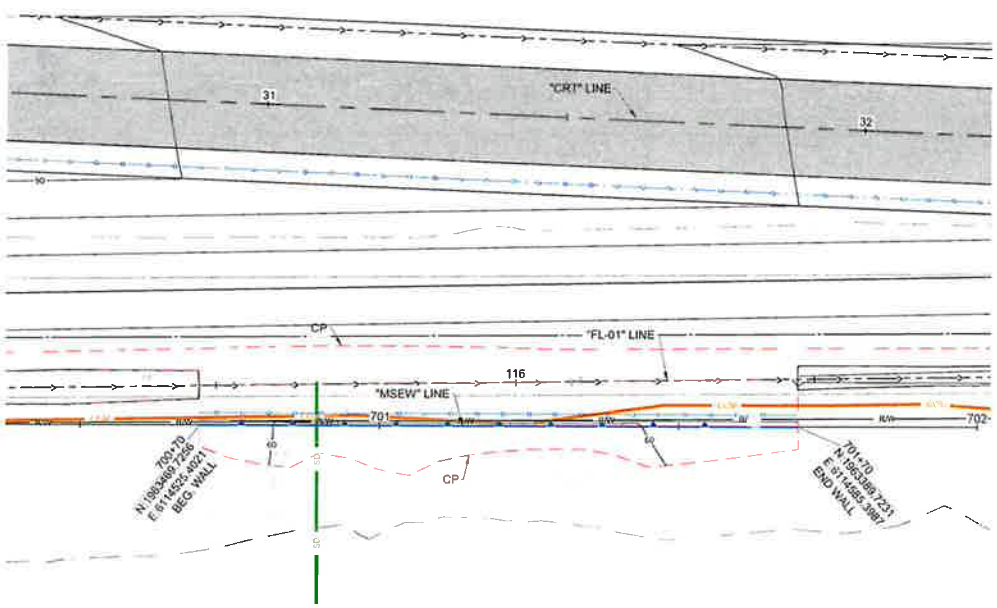
04/23/21 DATE | P-01 SHT DES.

SANTA BARBARA SUB MP 380.48 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

Updated_ active projects\carp rincon trail\p oduction drawings\carp-cv-l.dwg BY Michael Bandich





NOTES

1. THIS PLAN SHEET ACCURATE FOR RETAINING WALL WORK ONLY.

LEGEND

CP = CATCH POINT / DAYLIGHT
TW = TOP OF WALL
BW = BOTTOM OF WALL
OG = ORIGINAL GRADE
PG = PROFILE GRADE
FG1 = FINISHED GRADE AT FACE OF WALL
FG2 = FG AT TOE SLOPE OF "CRT" LINE (SEE LAYOUT SHEETS)

NORTH

CONSTRUCTION DETAIL
MSE WALL
PLAN AND PROFILE
C-01

SCALE 1"=10' H
1"=10' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd BO

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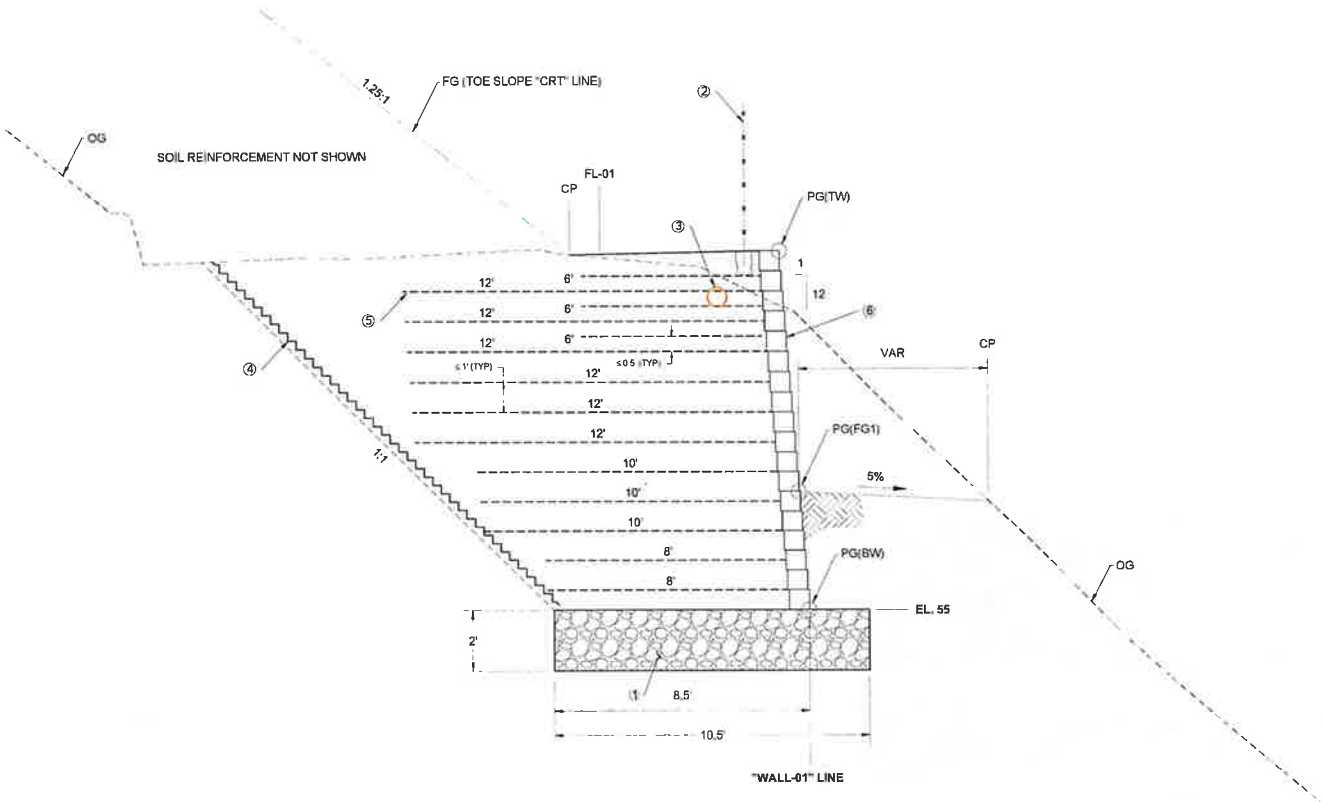
360 S. Hope Ave, C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAIL

441148Y
UPRR PROJECT NO.
04/23/21 DATE
C-01 SHT. DES.
SANTA BARBARA SUB. MP 380.45 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES



MSE WALL SECTION

NOTES:

1. REINFORCED SOIL FOUNDATION (ENCAPSULATED WITH GEOTEXTILE)
2. PLACE POLECRAFT FENCE AT TOP OF WALL
3. EXISTING COMMUNICATION LINE. PROTECT IN PLACE
4. GEOTEXTILE FILTER FABRIC
5. ALL GEOGRID MIRAGRID 5XT (OR APPROVED EQUAL)
6. CONCRETE MASONRY UNIT

CONSTRUCTION DETAIL
MSE WALL SECTION
C-02
SCALE 1"=2' H
1"=2' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design SD
Drawn MB
Chk'd SD

BENGAL ENGINEERING INC.
380 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAIL

441148Y
UPRR PROJECT NO.
04/23/21 DATE
C-02 SHT DES.
SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
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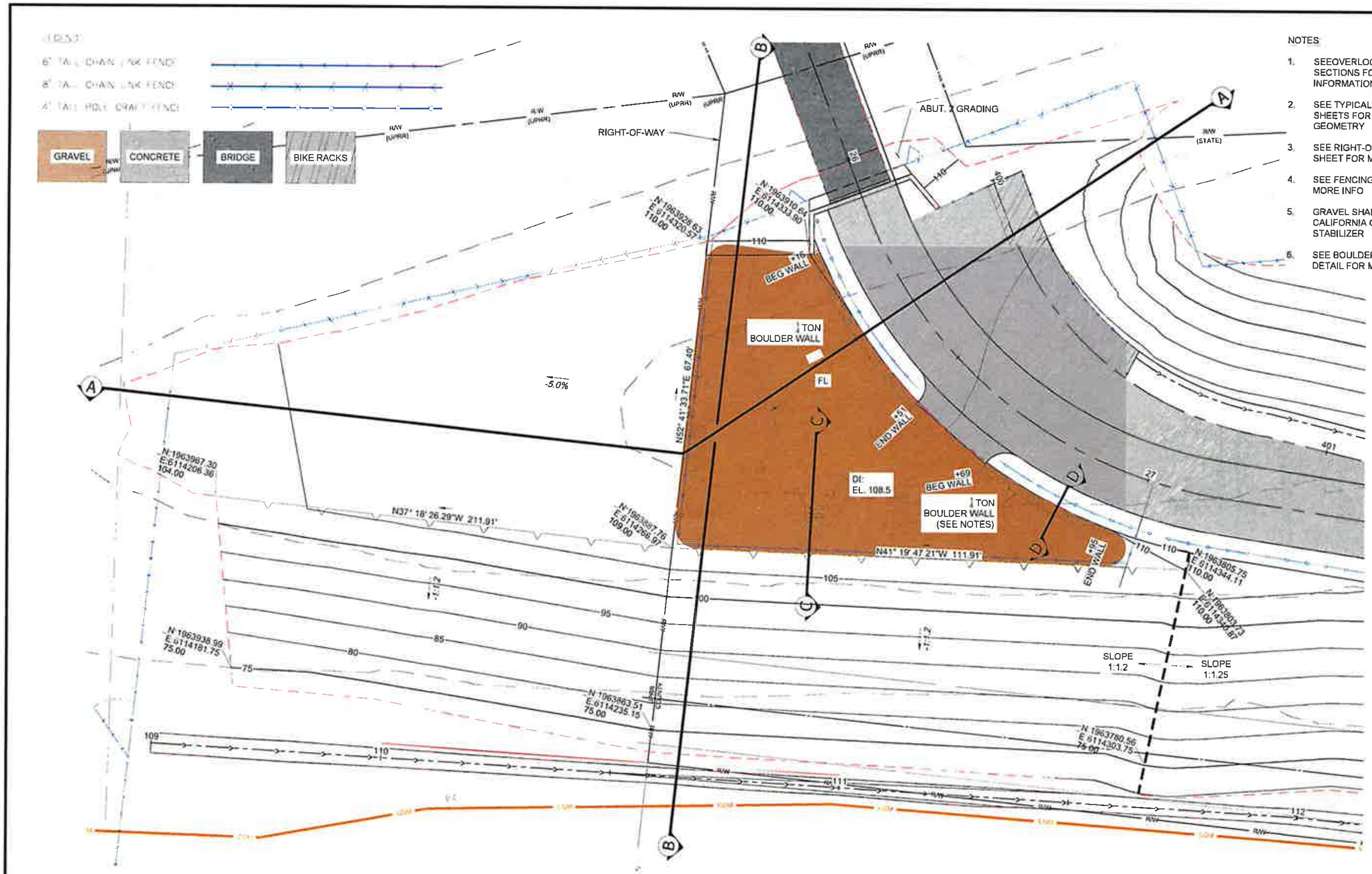


NOTES

1. SEEOVERLOOK AREA SECTIONS FOR MORE INFORMATION
2. SEE TYPICAL SECTION SHEETS FOR TRAIL GEOMETRY
3. SEE RIGHT-OF-WAY MAP SHEET FOR MORE INFO
4. SEE FENCING PLANS FOR MORE INFO
5. GRAVEL SHALL BE CALIFORNIA GOLD WITH STABILIZER
6. SEE BOULDER WALL DETAIL FOR MORE INFO

CONSTRUCTION DETAIL
OVERLOOK AREA GRADING
C-03
SCALE 1"=10'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION
Approved: Matt Roberts, Project Manager
Design SO
Drawn MB
Chk'd SO
BENGAL ENGINEERING INC.
360 S. Hope Ave, C-110 Santa Barbara, CA 93105

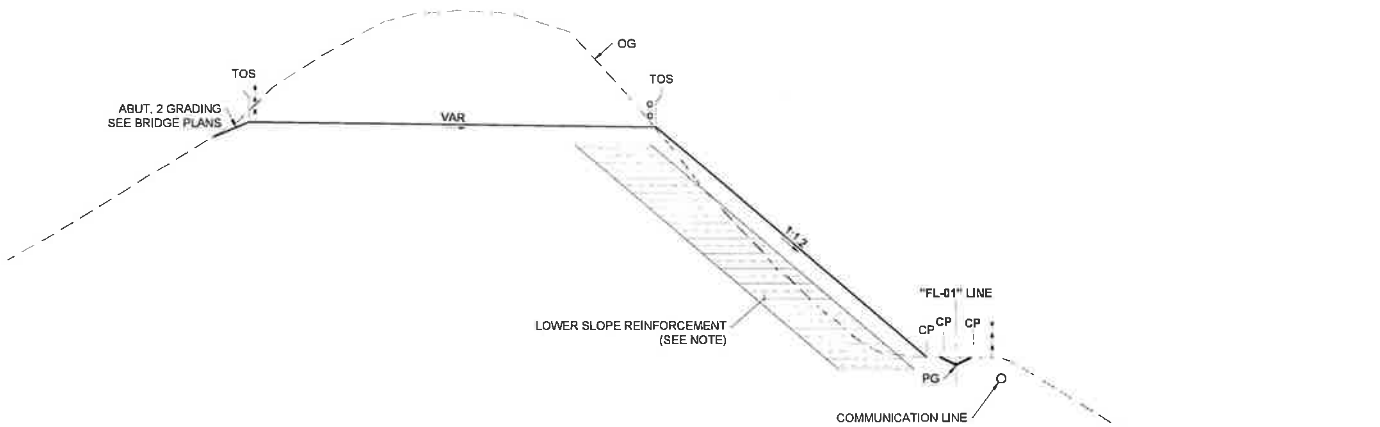
CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAIL

441148Y
UPRR PROJECT NO.
04/23/21 | C-03
DATE | SHT DES
SANTA BARBARA SUB MP 380.48
UPRR MILE POST

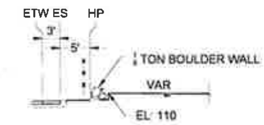
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

NOTES

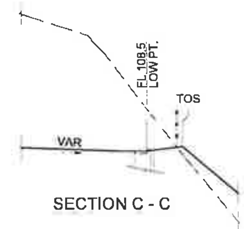
1. SEE FENCING SHEETS FOR MORE INFORMATION
2. SEE SLOPE REINFORCEMENT SHEETS FOR MORE INFORMATION



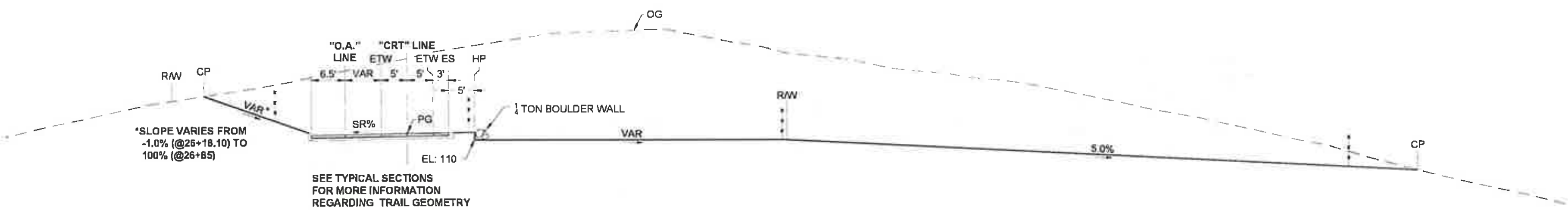
SECTION B - B



SECTION D - D



SECTION C - C



SECTION A - A

CONSTRUCTION DETAIL
OVERLOOK AREA SECTIONS
C-04

SCALE 1"=10' H
1"=10' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

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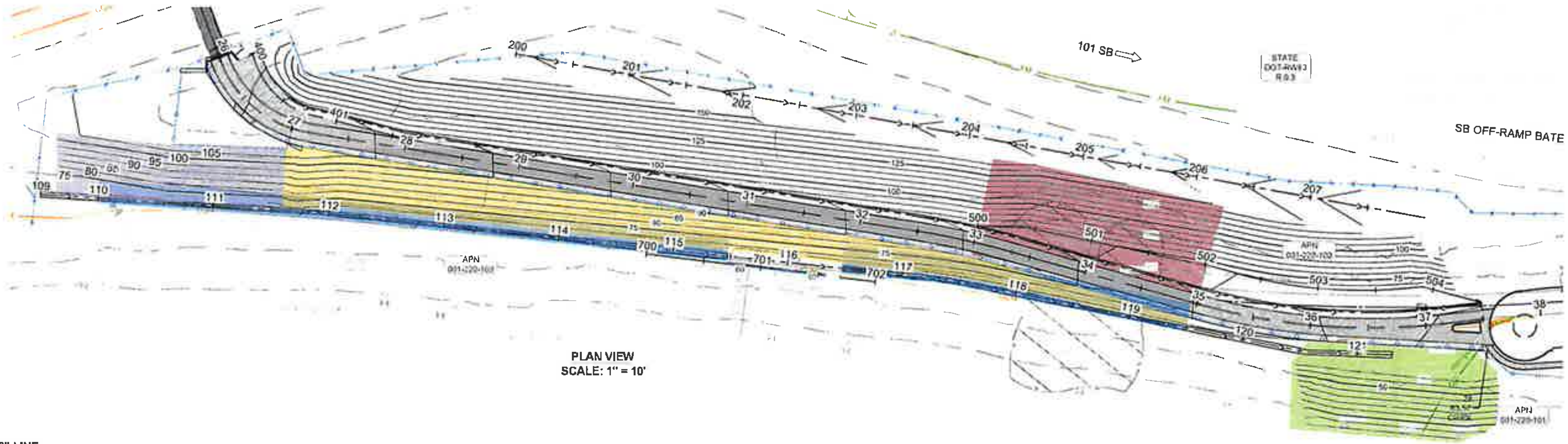
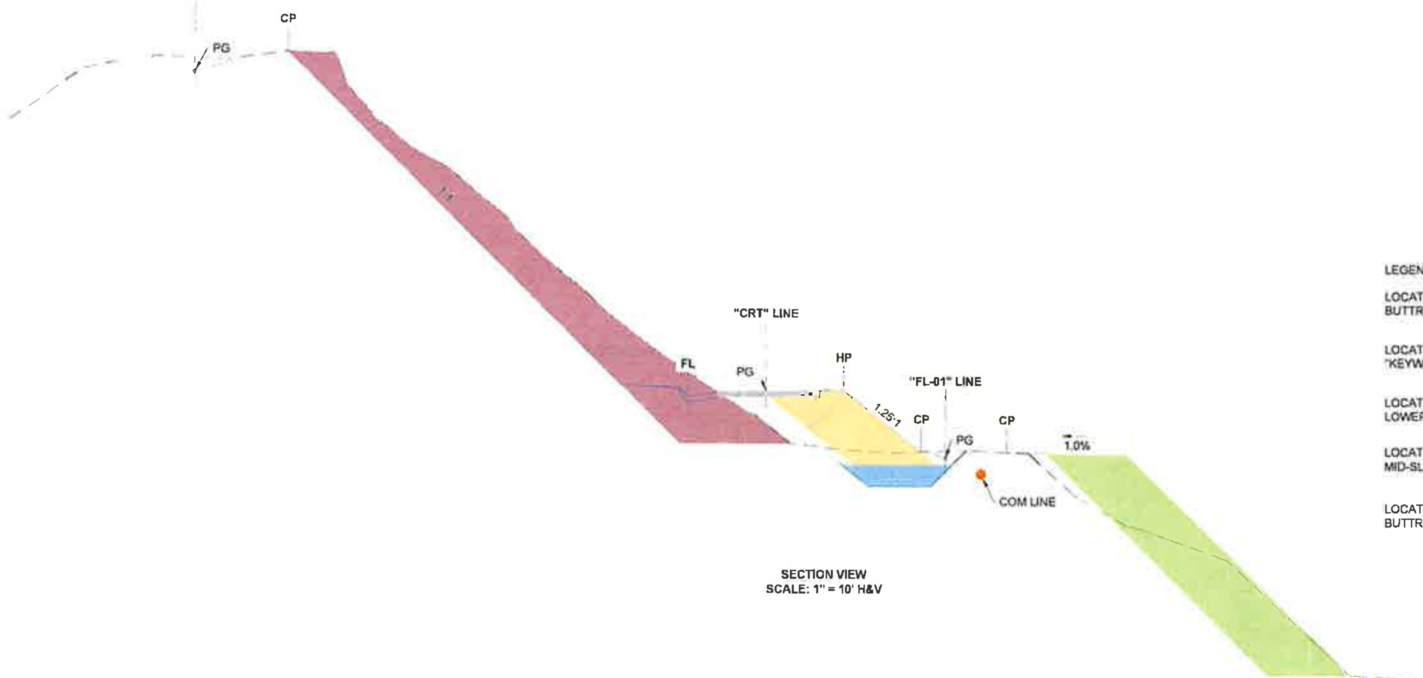
CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAIL

441148Y
UPRR PROJECT NO.
04/23/21 | C-04
DATE | SHT. DES.
SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2



PLAN VIEW
SCALE: 1" = 10'



SECTION VIEW
SCALE: 1" = 10' H&V

NOTES:

1. SEE DETAILS, NEXT SHEET, FOR GRID TYPE, PLACEMENT AND LENGTH.
2. LIMITS OF LOCATION D TO BE DETERMINED DURING CONSTRUCTION. SEE BENGAL'S GEOTECHNICAL REPORT FOR THE PROPOSED RINCON BEACH MULTI-USE TRAIL

LEGEND

LOCATION A BUTTRESS	STATION: 109+63 TO 111+60 ("FL-01" LINE)
LOCATION B "KEYWAY"	STATION: 111+60 TO 115+47.14 AND 116+46.61 TO 119+50 ("FL-01" LINE)
LOCATION C LOWER-SLOPE	STATION: 111+60 TO 119+50 ("FL-01" LINE)
LOCATION D MID-SLOPE	STATION: ≈33+00 TO 35+00 (SEE NOTES) ("CRT" LINE)
LOCATION E BUTTRESS	STATION: 900+15 TO 900+48.10 ("BFILL" LINE)

CONSTRUCTION DETAIL
SLOPE REINFORCEMENT
C-04

NORTH

SCALE: AS NOTED

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave, C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAIL

441148Y
UPRR PROJECT NO.
04/23/21 | C-05
DATE | SHT. DES.
SANTA BARBARA SUB. MP 380.48
UPRR MILE POST

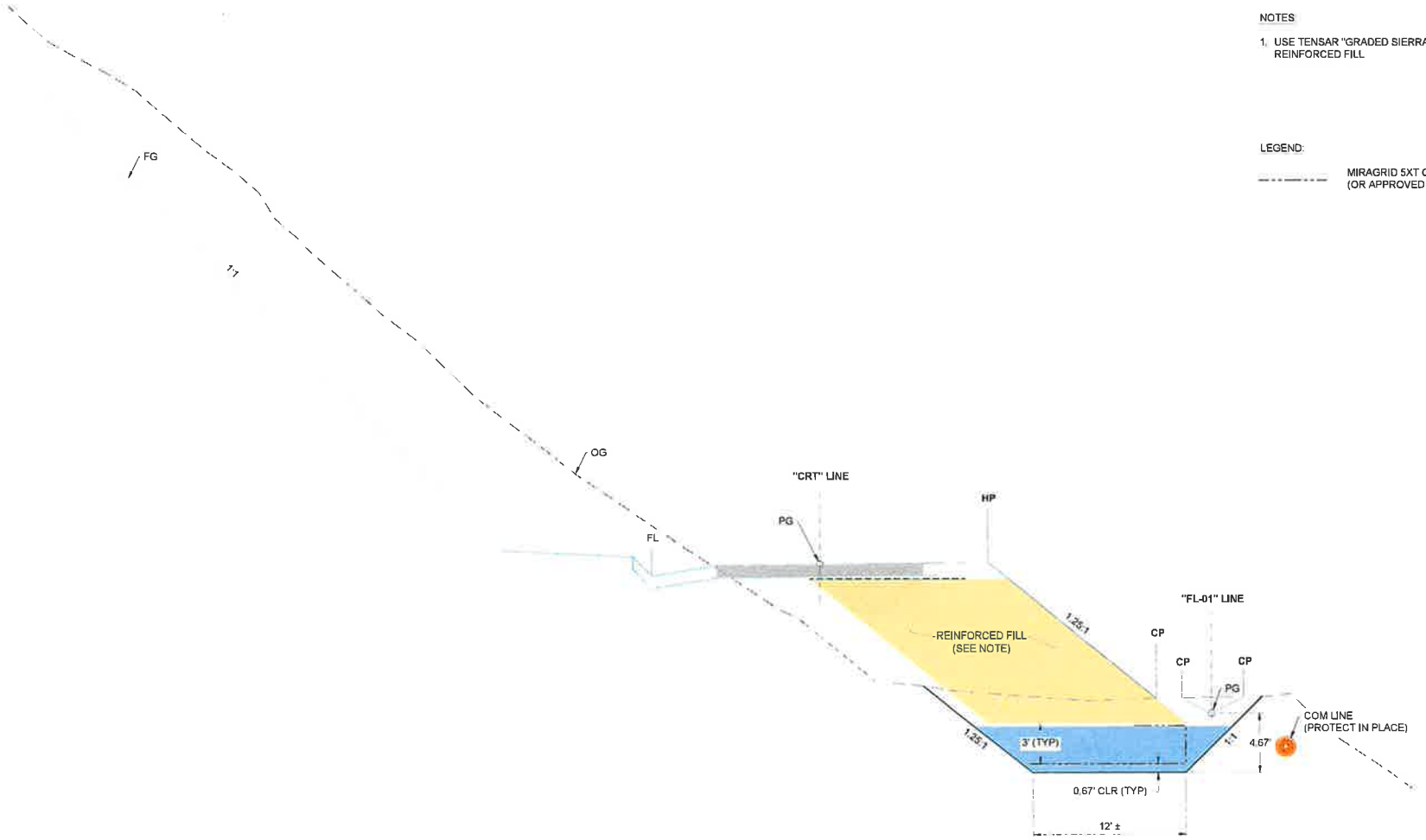
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

NOTES

1. USE TENSAR "GRADED SIERRA SLOPE" REINFORCED FILL

LEGEND:

MIRAGRID 5XT GEOGRID (OR APPROVED EQUAL)



CONSTRUCTION DETAIL
SLOPE REINFORCEMENT
C-05

SCALE 1"=4' H
1"=4' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts Project Manager

Design SO
Drawn MD
Check SO

BENGAL ENGINEERING INC. 305 S. Hope Ave. C-110 Santa Barbara, CA 93105

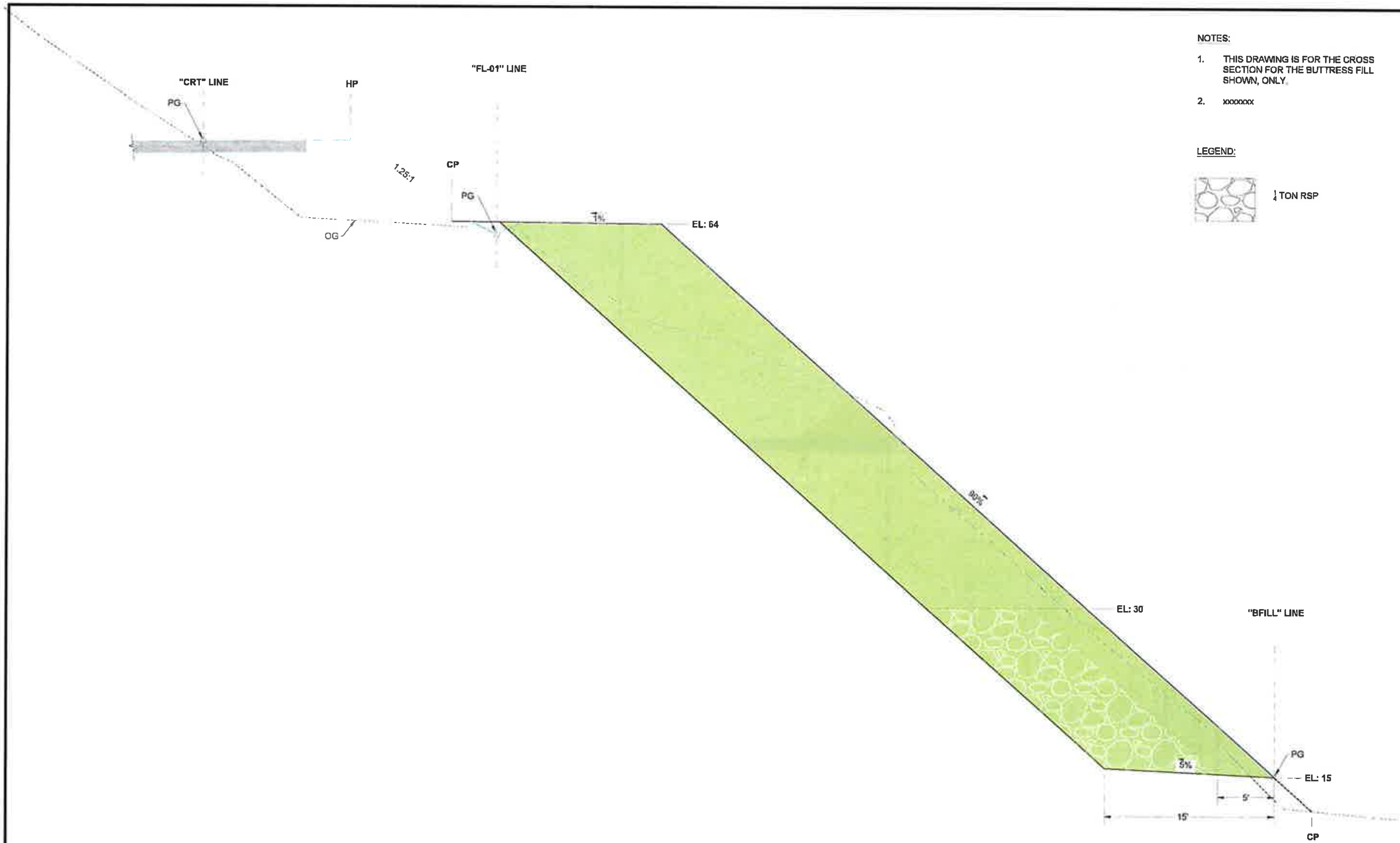
CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAIL

441148Y
UPRR PROJECT NO.

04/23/21 DATE | C-06 SHT. NO.

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES



NOTES:

1. THIS DRAWING IS FOR THE CROSS SECTION FOR THE BUTTRESS FILL SHOWN, ONLY.
2. XXXXXXX

LEGEND:

¼ TON RSP

CONSTRUCTION DETAIL
BUTTRESS FILL
C-06

SCALE 1"=4' H
1"=4' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAIL

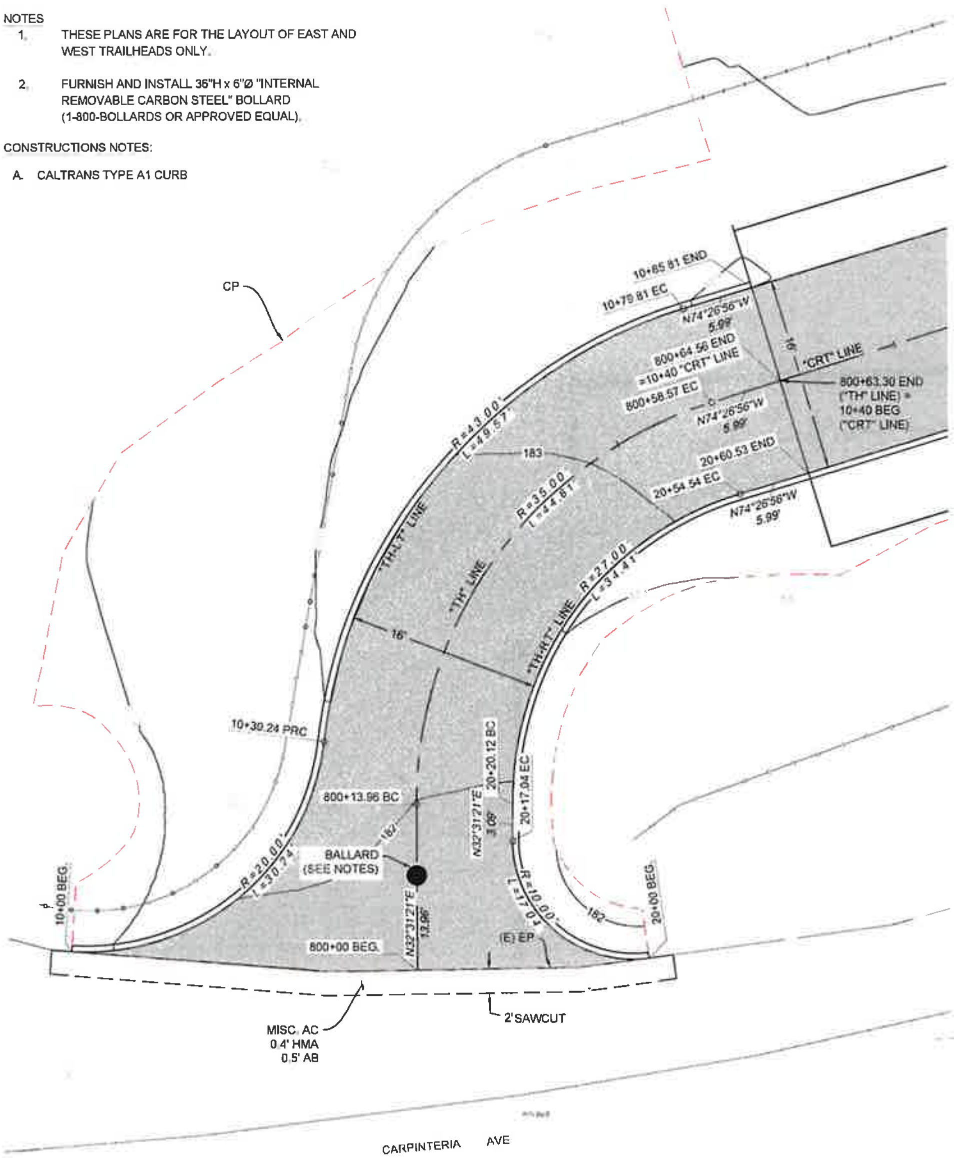
441148Y
UPRR PROJECT NO.

04/23/21	C-07
DATE	SHT DES

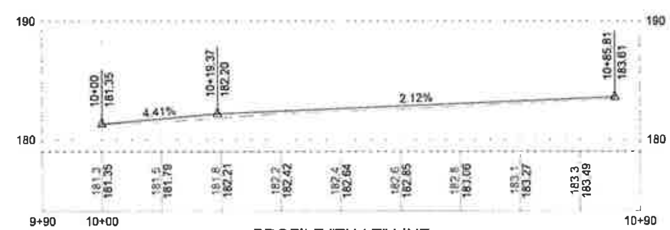
SANTA BARBARA SUB.
MP 380.45
UPRR MILE POST

NOTES
1. THESE PLANS ARE FOR THE LAYOUT OF EAST AND WEST TRAILHEADS ONLY.
2. FURNISH AND INSTALL 35"H x 6"Ø "INTERNAL REMOVABLE CARBON STEEL" BOLLARD (1-800-BOLLARDS OR APPROVED EQUAL).

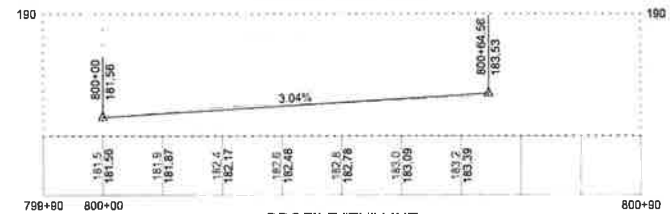
CONSTRUCTIONS NOTES:
A. CALTRANS TYPE A1 CURB



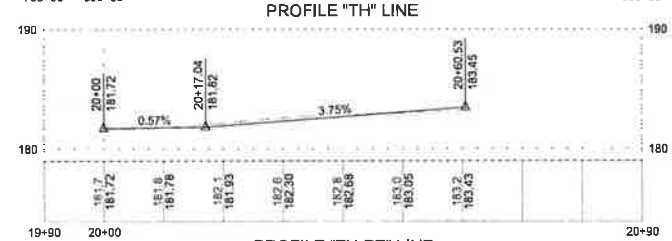
WEST TRAILHEAD CONSTRUCTION DETAILS



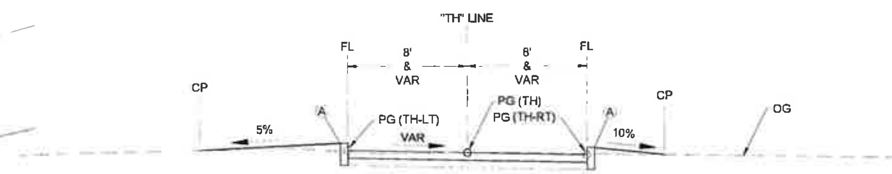
PROFILE "TH-LT" LINE



PROFILE "TH" LINE



PROFILE "TH-RT" LINE



CONSTRUCTION DETAILS
WESTERN TRAILHEAD
C-08

NORTH

SCALE 1"=10' H
1"=10' V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
380 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAILS

44114BY
UPRR PROJECT NO.
04/23/21 | C-8
DATE | SHT. DES.
SANTA BARBARA SUB
MP 380.48
UPRR MILE POST

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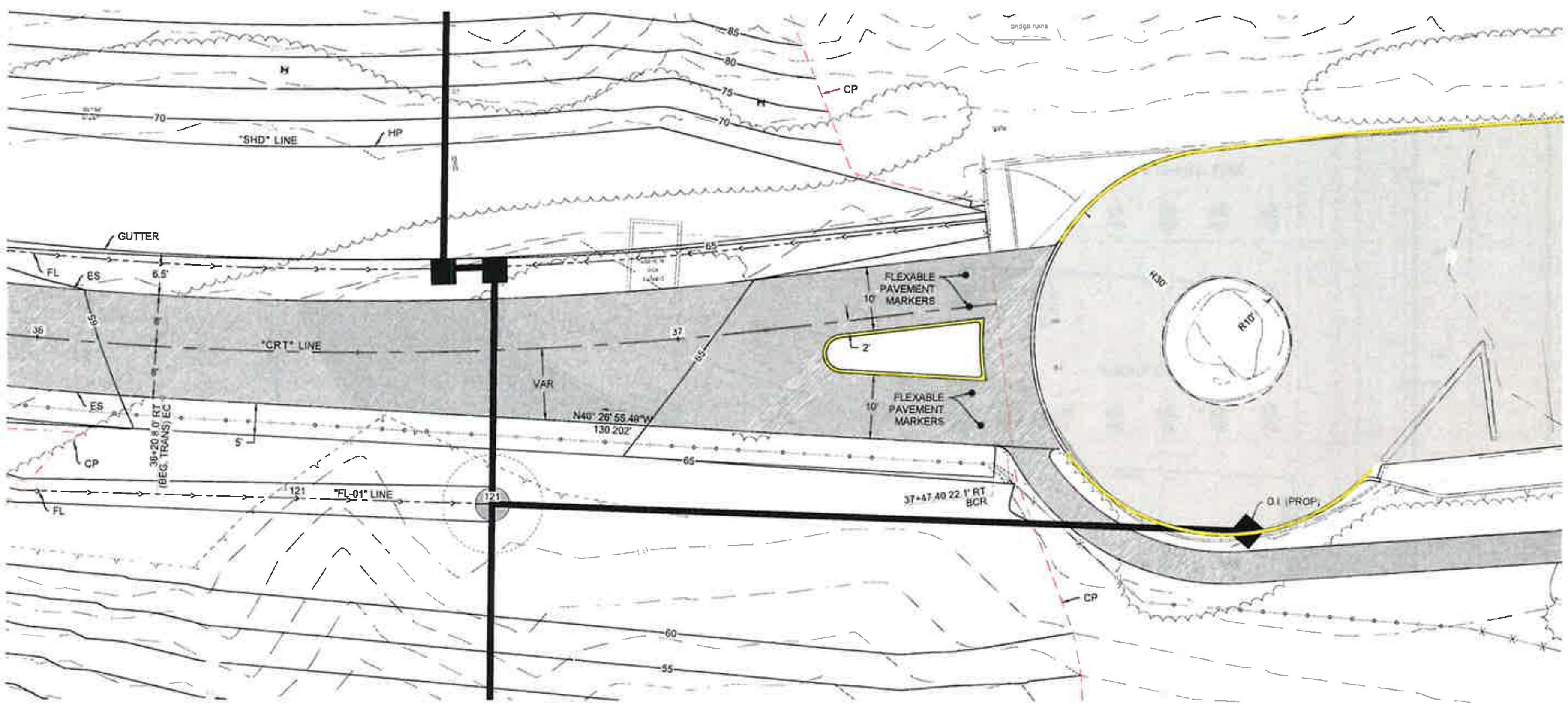
0 1 2



EAST TRAILHEAD CONSTRUCTION DETAIL
SCALE: 1" = 8'

CONSTRUCTION DETAILS
EASTERN TRAILHEAD
C-09

NORTH

SCALE 1"=8' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

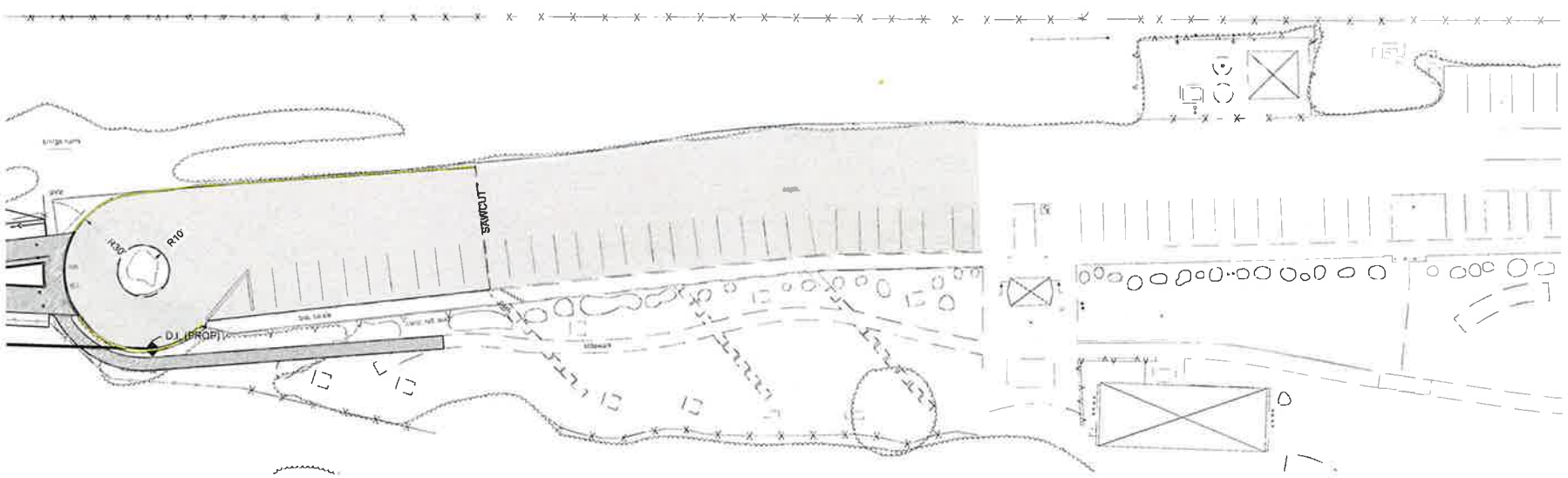
Design SO
Drawn HB
Chk'd SO

BENGAL ENGINEERING INC
380 S. Hope Ave, C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAILS

441148Y
UPRR PROJECT NO.
04/23/21 | C-9
DATE | SHT. SEQ.
SANTA BARBARA SUB.
MP 380.48
UPRR MILE POST

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



EAST PARKING AREA CONSTRUCTION DETAIL
SCALE: 1" = 20'

NORTH

SCALE 1"=20' H

CONSTRUCTION DETAILS
EASTERN TRAILHEAD
C-10

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design: SD
Detailed: HS
Chk'd: SD

BENCAL
300 E. Hope Ave. C-110 Santa Barbara, CA 93105

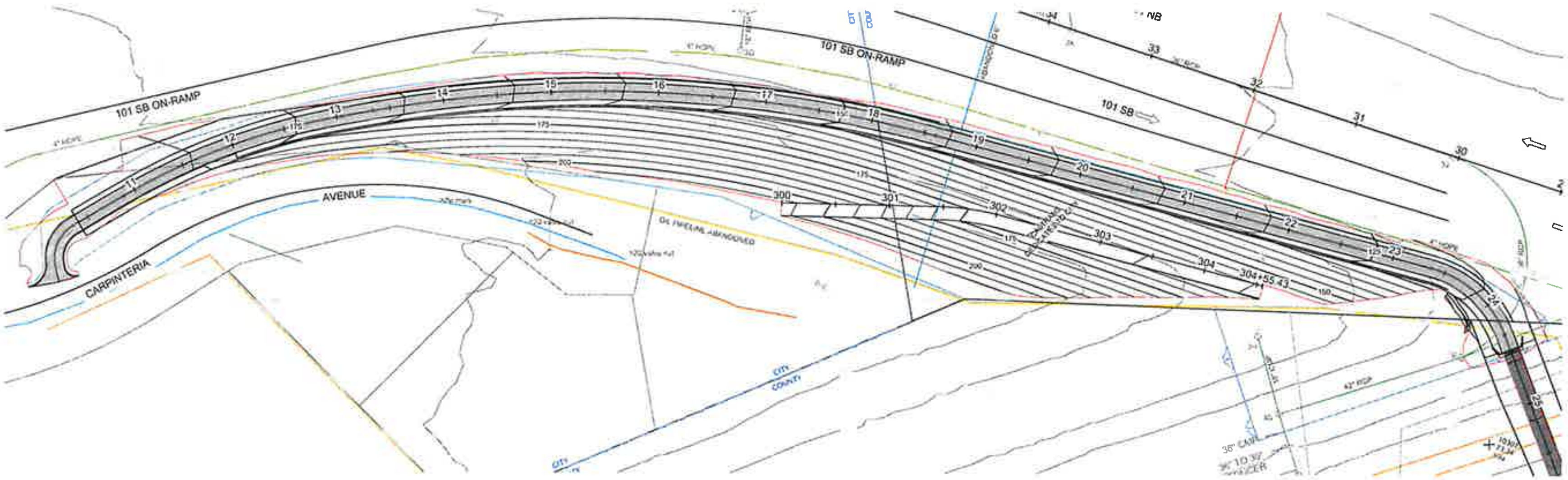
CARPINTERIA RINCON MULTI USE TRAIL
CONSTRUCTION DETAILS

441148Y
UPRR PROJECT. NO

04/23/21 | C-10
DATE | SHT. DES.

SANTA BARBARA SUB
MP 380.48
UPRR MILE POST

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2



CONTOUR GRADING
G-01

SCALE 1"=50' H

NORTH

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

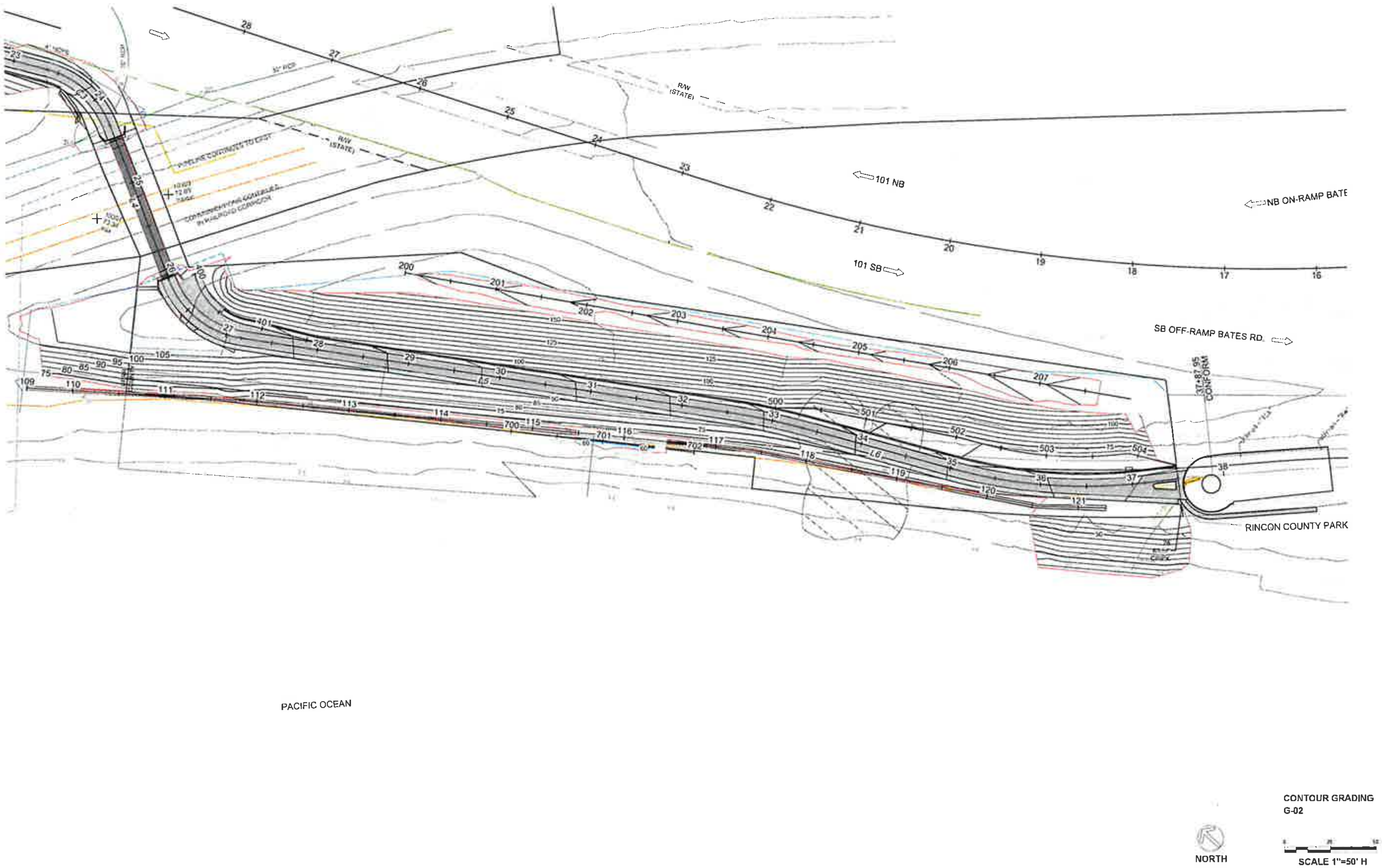
Design SO
Drawn MB
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave, C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
CONTOUR GRADING

441148Y
UPRR PROJECT NO.
04/23/21 | G-01
DATE | SHT. DES.
SANTA BARBARA SUB.
MP 380.48
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2



CONTOUR GRADING
G-02

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design: SO
Drawn: MB
Chk'd: SO

BENGAL ENGINEERING INC
360 S. Hope Ave., C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

CONTOUR GRADING

441148Y
UPRR PROJECT NO.

04/23/21 (DATE) | G-02 (SHT. DES.)

SANTA BARBARA SUB. MP 380.43
UPRR MILE POST

LEGEND

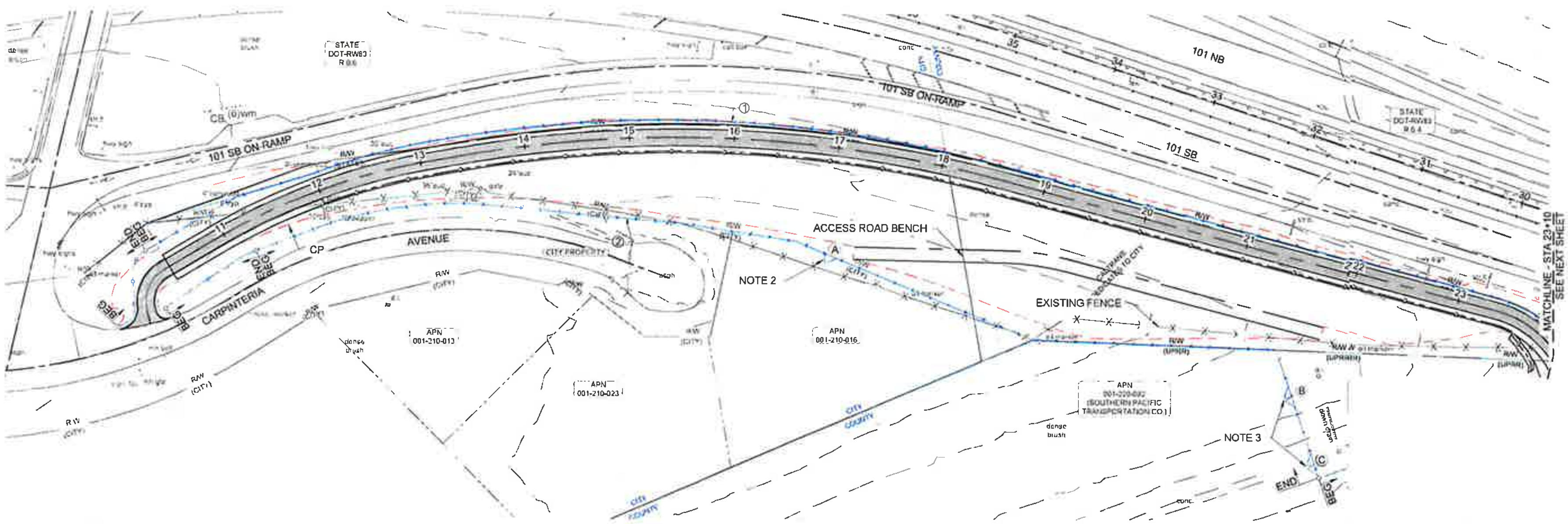
6' TALL CHAIN LINK FENCE

8' TALL CHAIN LINK FENCE

4' TALL POLE CRAFT FENCE

NOTES

1. THIS PLAN IS FOR FENCING ONLY
2. 12' CHAIN LINK GATE
   PER CAL TRANS STANDARD PLANS A85
3. 16' CHAIN LINK GATE (TYPE CL-8)
   PER CAL TRANS STANDARD PLANS A85A



NORTH

FENCE PLAN

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design SO
Drawn MBHS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave., C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

441148Y
UPRR PROJECT NO.

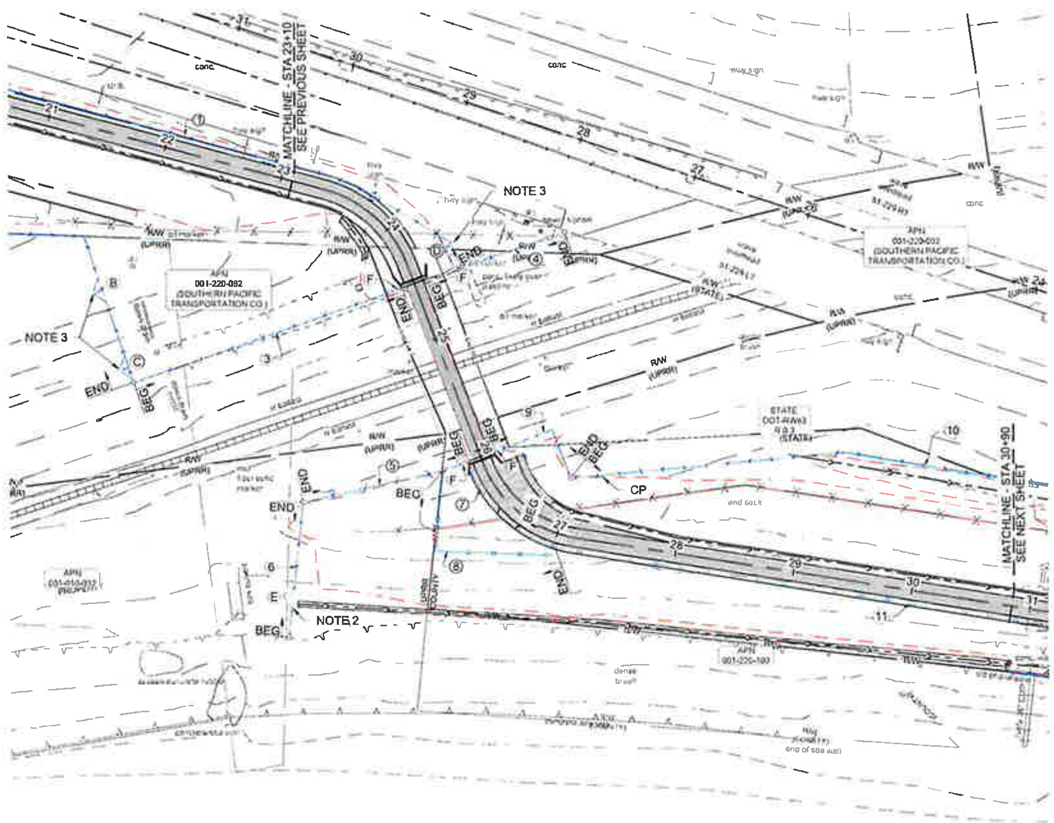
04/23/21 DATE | F-01 SHT. DES.

SANTA BARBARA SUB MP 380.49 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

NOTES

SEE NOTES ON F-01



FENCE PLAN

SCALE 1"=50' H

NORTH

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

THE CITY OF CARPINTERIA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design	BO
Drawn	MBHS
Chk'd	BO

BENGAL ENGINEERING INC

360 S. Hope Ave, C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

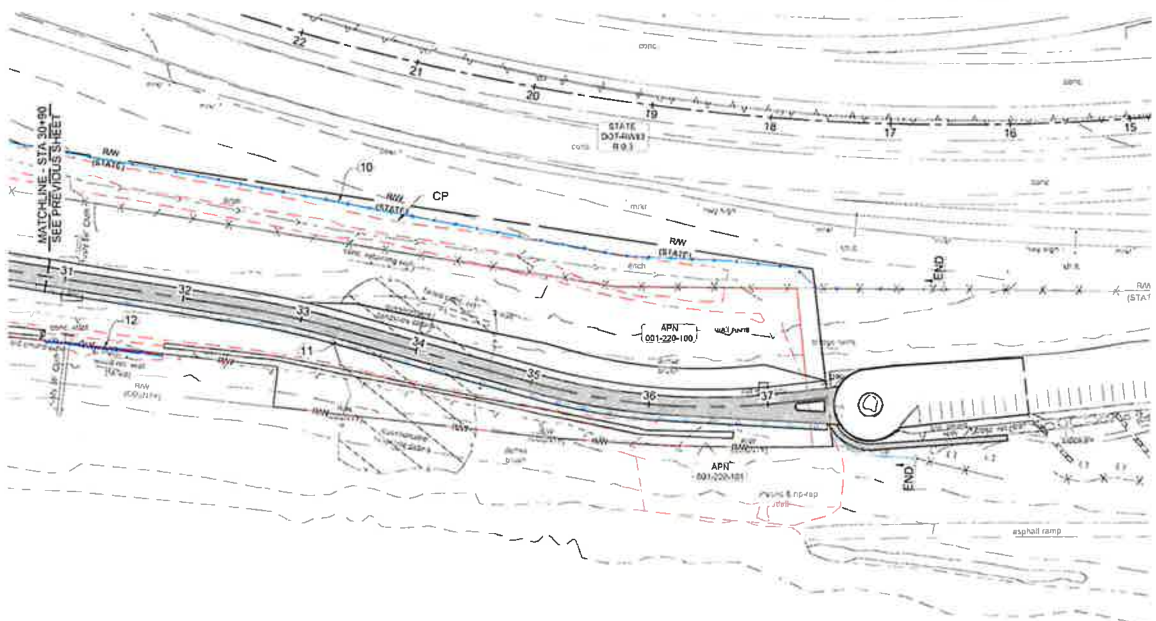
441148Y
UPRR PROJECT NO.

04/23/21	F-02
DATE	SHT. DES.

SANTA BARBARA SUB.
MP 380.49
UPRR MILE POST

NOTES

SEE NOTES ON F-01



FENCE PLAN

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approval: Matt Roberts, Project Manager

Design SO
Drawn MBHS
Chk'd SO

BENGAL ENGINEERING INC
380 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

441148Y
UPRR PROJECT NO

04/23/21 DATE | F-03 SHT DES

SANTA BARBARA SUB.
MP 380.48
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

BY Michael Bandich

FENCING QUANTITIES

FENCE / GATE ID	DESCRIPTION	FENCE (TYPE CL-6)	FENCE (TYPE CL-8)	WOOD FENCE (POLE CRAFT 4')	12' WIDE CL GATE (TYPE CL-6)	16' WIDE CL GATE W/ REMOVABLE CENTER POST (TYPE CL-6)	4' WIDE WALK GATE
		LF	LF	LF	EA	EA	EA
1	LEFT OF TRAIL- WEST TRAILHEAD END TO BRIDGE	1450					
2	RIGHT OF TRAIL - TRAILHEAD ALONG TOP OF SLOPE TOWARD RAILROAD	1150					
3	RIGHT OF TRAIL - ALONG TOP OF SLOPE ABOVE RAILROAD TOWARD BRIDGE FOUNDATION		240				
4	LEFT OF TRAIL- ALONG TOP OF SLOPE ABOVE RAILROAD TOWARD HIGHWAY		125				
5	RIGHT OF TRAIL - FROM BRIDGE FOUNDATION TO EDGE OF OBSERVATION AREA		80				
6	RIGHT OF TRAIL - FROM OBSERVATION AREA DOWN SLOPE TO ORIGINAL BENCH	110					
7	RIGHT OF TRAIL - FROM BRIDGE BETWEEN TRAIL AND OBSERVATION AREA			45			
8	RIGHT OF TRAIL - OUTSIDE OBSERVATION AREA			175			
9	LEFT OF TRAIL - FROM BRIDGE FOUNDATION ALONG RIDGE		100				
10	LEFT OF TRAIL - ALONG TOP OF RIDGE TOWARD RINCON PARK	1135					
11	RIGHT OF TRAIL - ALONG SHOULDER OF TRAIL TOWARD RINCON PARK			1170			
12	RIGHT OF TRAIL - AT TOP OF MSE WALL			100			
A	RIGHT OF TRAIL - STA: 16+85 OFFSET: 114.5'				1		
B	RIGHT OF TRAIL - STA: 21+79 OFFSET: 128.5'					1	
C	RIGHT OF TRAIL - STA: 22+17 OFFSET: 185.5"					1	
D	LEFT OF TRAIL - STA: 24+31 OFFSET: 34.5'					1	
E	RIGHT OF TRAIL - STA: 26+62 OFFSET: 120'				1		
F	AT BRIDGE CORNERS						4
*G	MODIFIED GATE & TRAIL OPENING AT ENTRANCE TO RINCON PARK FROM BATES ROAD						
TOTALS		3845	545	1490	2	3	4

* DESIGN PENDING

NORTH

FENCE PLAN

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn MBHS
Chk'd SO

BENCAL ENGINEERING INC
350 S. Hope Ave, C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

44114BY
UPRR PROJECT NO

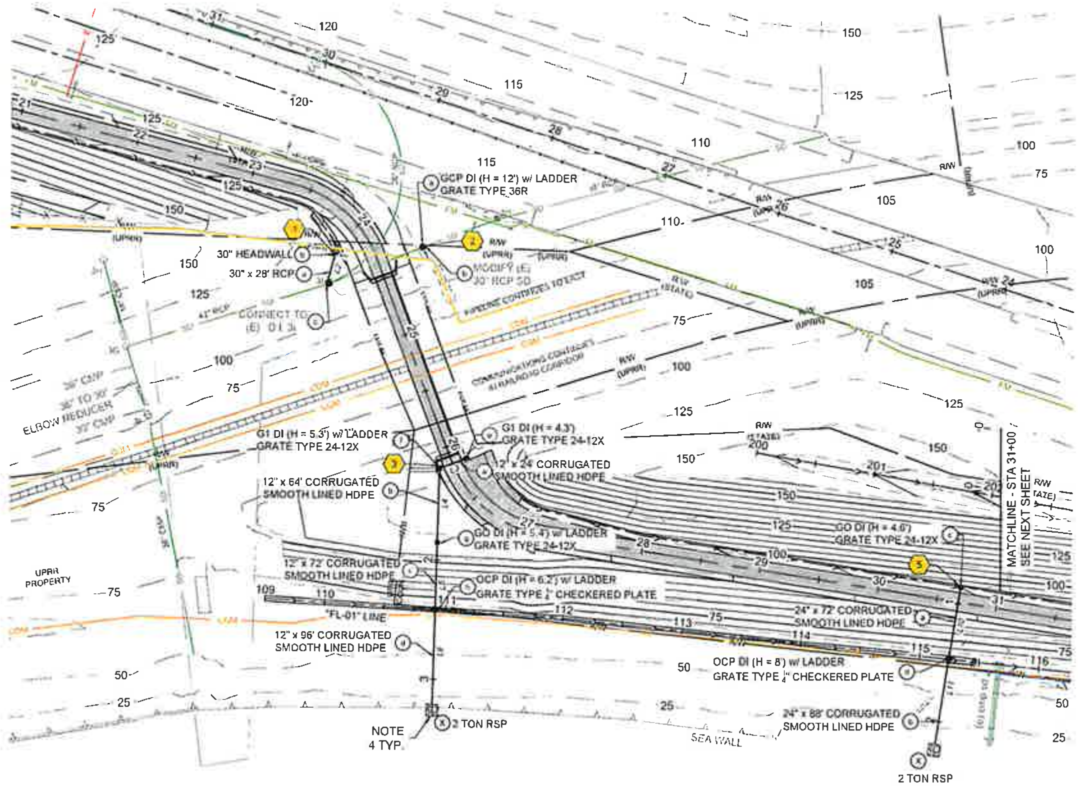
04/23/21 DATE | F-04 SHT. DES

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

NOTES

1. FOR COMPLETE RIGHT OF WAY INFORMATION, SEE MAPS IN THE CITY OFFICES.
2. THESE PLANS ARE APPROVED FOR THE LAYOUT AND CONSTRUCTION OF THE DRAINAGE FACILITIES ONLY.
3. EXISTING DRAINAGE SYSTEMS ARE NAMED ACCORDING TO THE 1968 CALTRANS DRAINAGE PLANS (SEE RECORD DRAWINGS).
4. APPROX. 10-FOOT X 10-FOOT PAD OF 2 TON RIP RAP AT OUTFALL OF DRAINAGE SYSTEMS 3, 5, 6, &7.



NORTH

DRAINAGE - 01

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y
UPRR PROJECT NO.

04/23/21 | D-01
DATE | SHT. DES.

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

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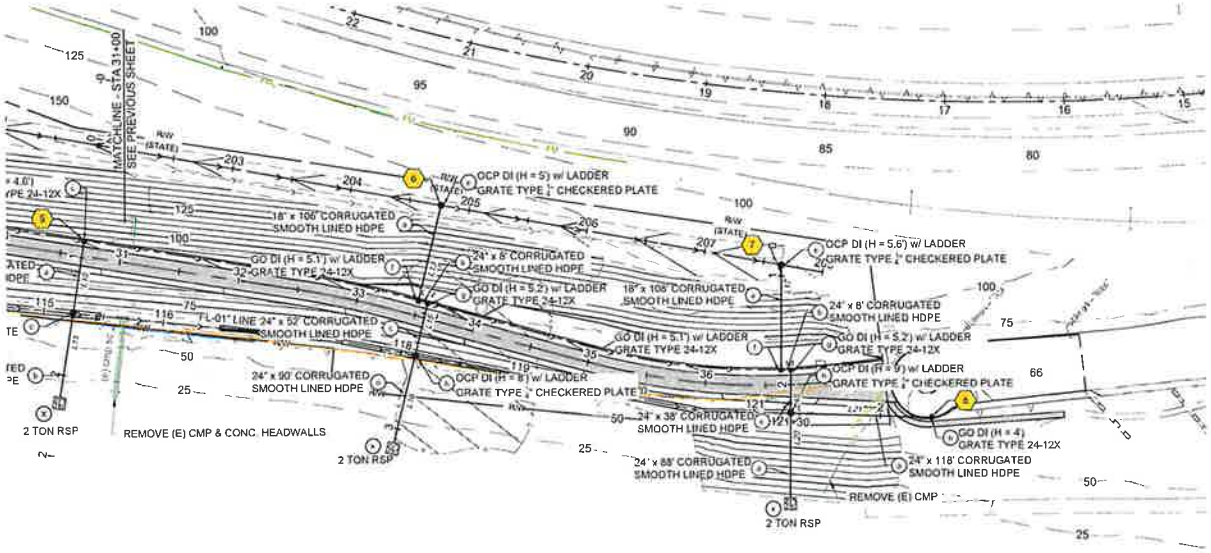

NORTH

DRAINAGE - 02

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

PREPARED Matt Roberts, Project Manager

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING, INC.
302 E. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y
UPRR PROJECT NO

04/23/21 DATE | D-02 SHT. NO.

SANTA BARBARA SUB
MP 380.48
UPRR MILE POST

NOTES

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3. SOIL REINFORCEMENT, WHERE IT WILL BE PLACED, IS NOT SHOWN ON THE DRAINAGE PROFILES
4. PIPES IN PROFILE VIEW ARE EXTENDED TO CENTER OF STRUCTURE & LENGTHS OF PIPES ARE ROUNDED UP TO NEAREST 2' FOR MEASUREMENT. PIPES WILL BE TRIMMED PER STANDARD PLANS.
5. PIPE ELBOWS ARE USED WHERE STORM DRAIN CHANGES VERTICAL ANGLE AND ARE INCLUDED IN THE LENGTH.
6. JOINT RESTRAINERS ARE (SEE CALTRANS STD PLANS FOR DETAIL)
   6.1. TYPE A - AT MID-POINT OF PIPE
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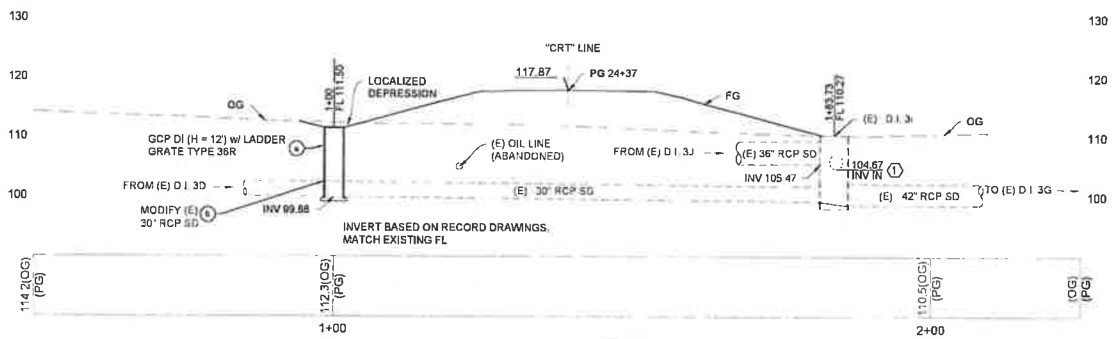
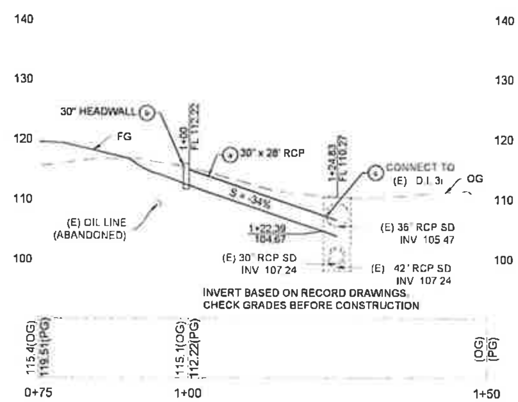


DRAINAGE SYSTEM ② PROFILE



DRAINAGE SYSTEM ① PROFILE

DRAINAGE - 03

SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SD | Drawn HS | Chk'd SD

BENGAL ENGINEERING INC.
300 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y UPRR PROJECT NO.	
04/23/21 DATE	D-03 SHT. DES.
SANTA BARBARA SUB MP 363.49 UPRR MILE POST	

NOTES:

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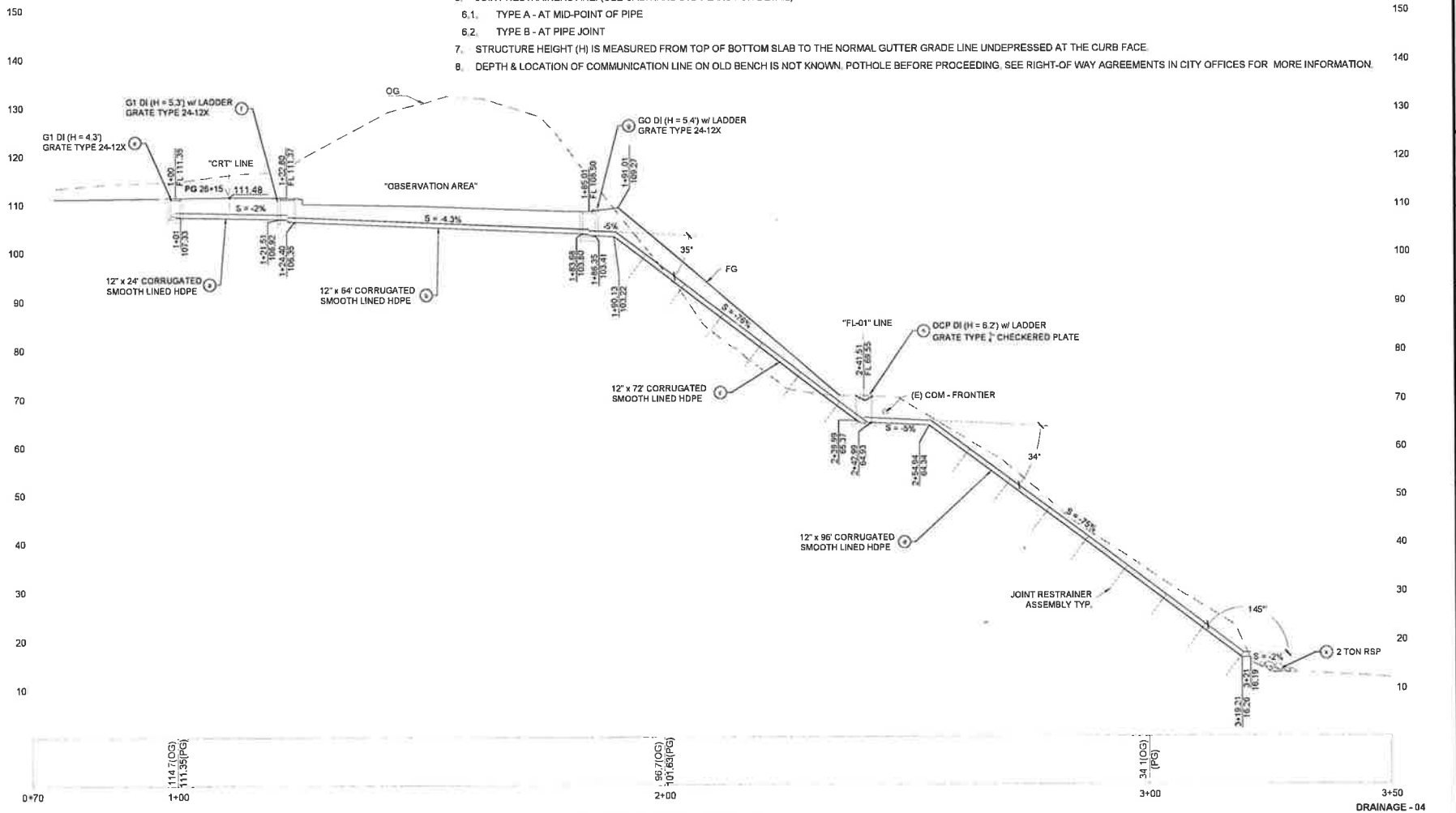

DRAINAGE SYSTEM (3) PROFILE

DRAINAGE - 04

SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design: SO
Drawn: HS
Chk'd: SO

BENGAL ENGINEERING, INC. 302 E. Haley Ave., C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y
UDBS PROJECT NO.

04/23/21 | D-04
DATE | SHT. DES.

SANTA BARBARA SUB
MP 380.49
LAMBERT'S POST

33 of 119

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

NOTES

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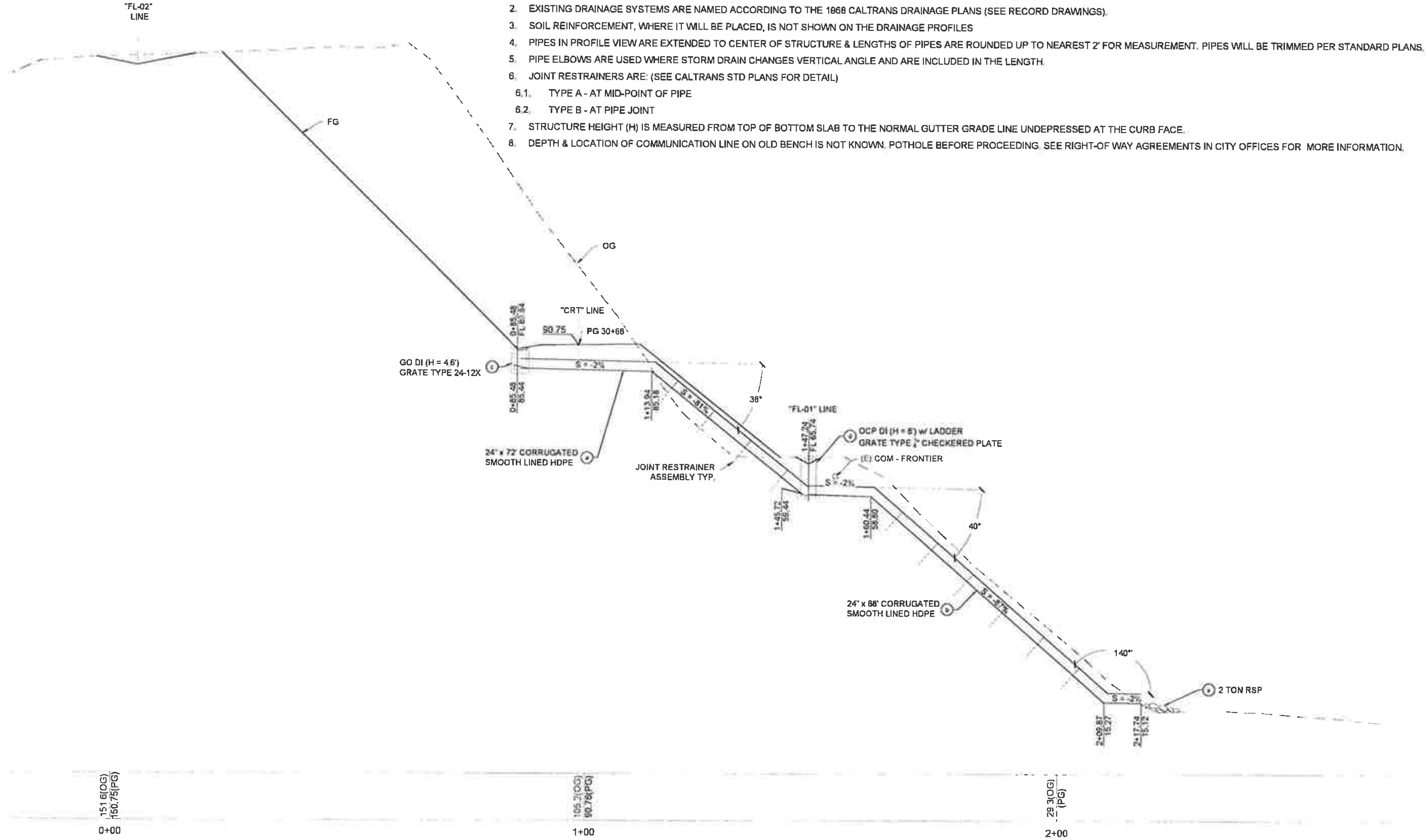

DRAINAGE SYSTEM (5) PROFILE

DRAINAGE - 05

SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y
UPRR PROJECT NO

04/23/21	D-05
DATE	SHT. DES

SANTA BARBARA SUB
MP 380.48
UPRR MILE POST

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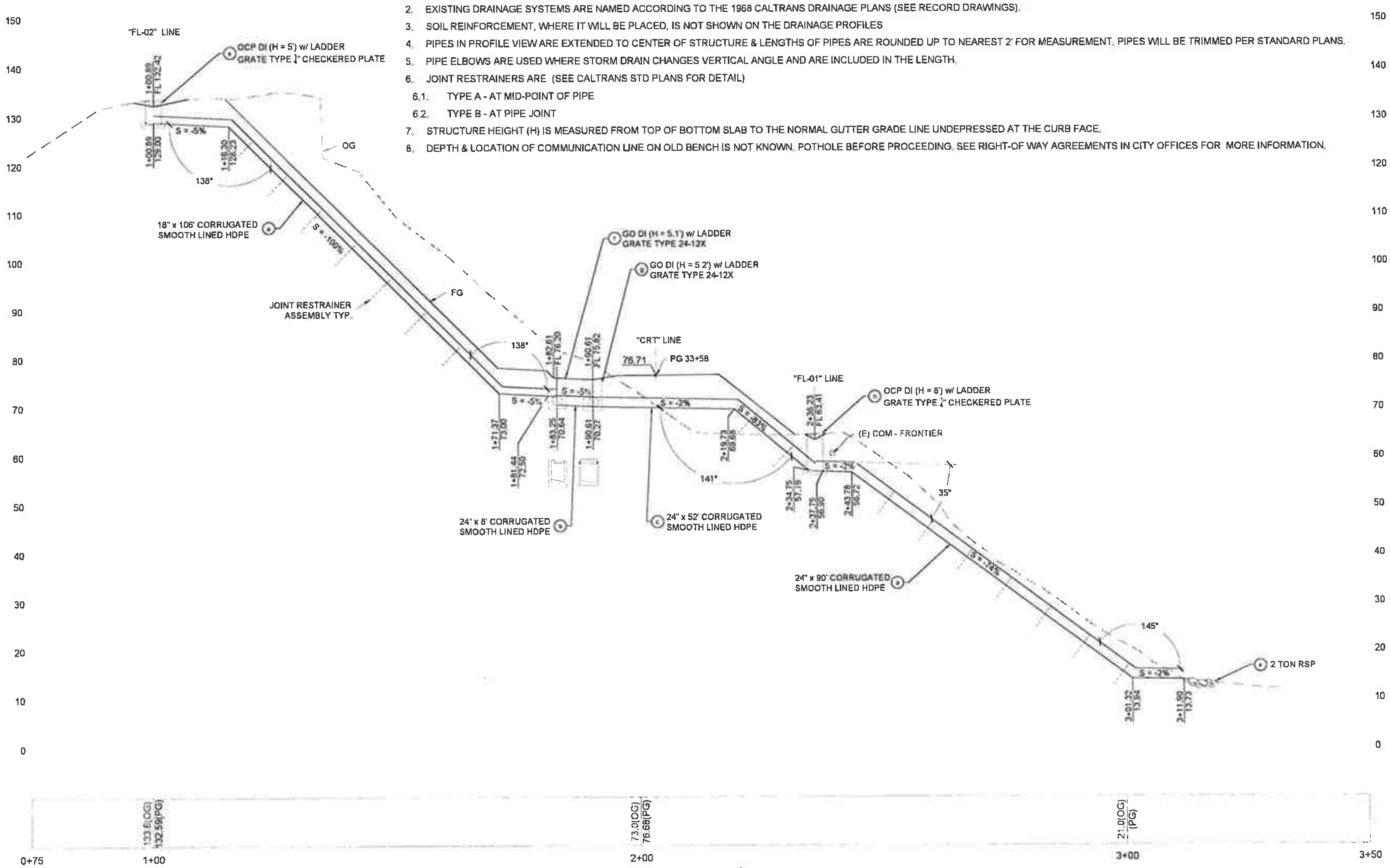

DRAINAGE SYSTEM (6) PROFILE

DRAINAGE - 06

SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y
UPRR PROJECT NO

04/23/21	D-06
DATE	SHT DES

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2

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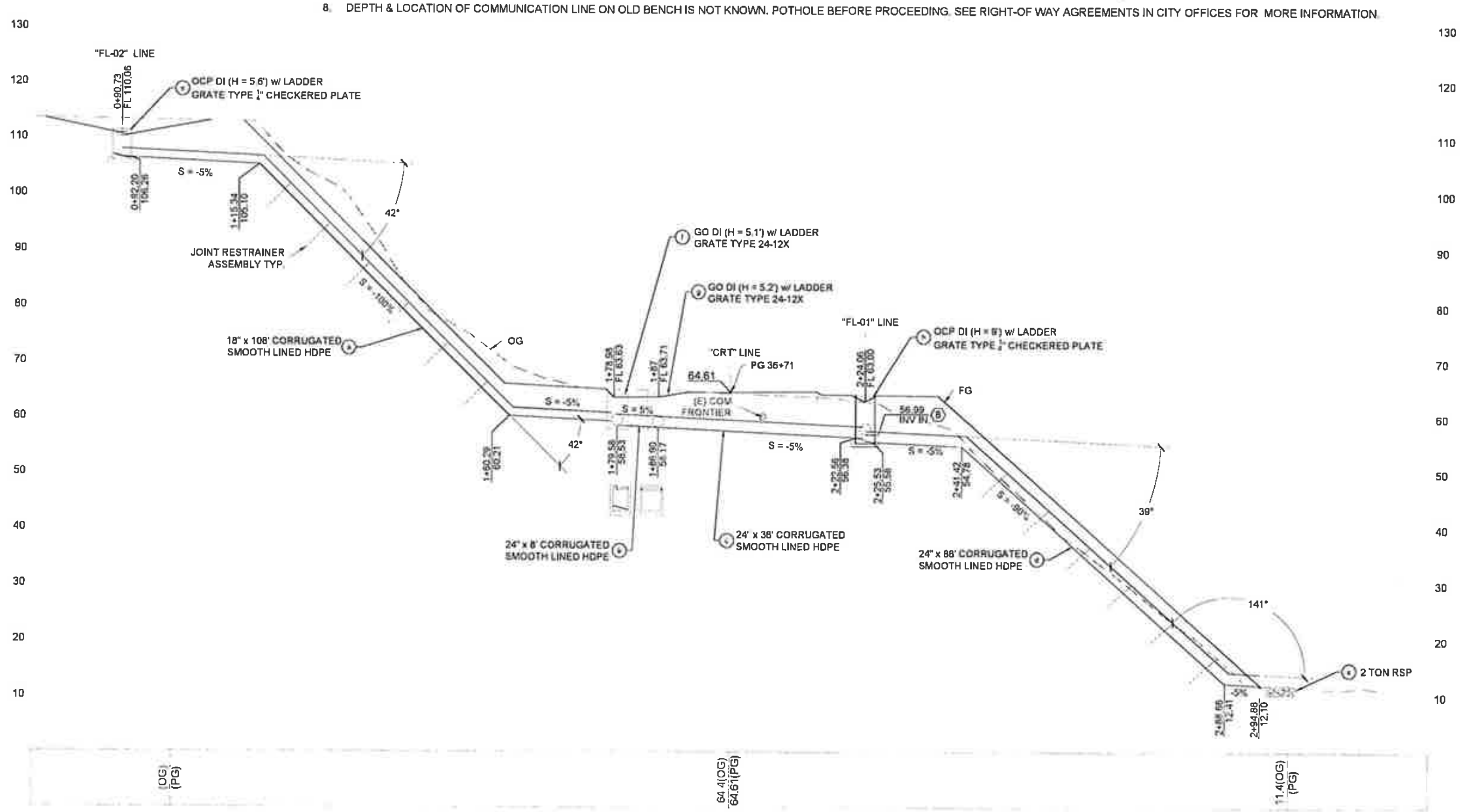

DRAINAGE SYSTEM (7) PROFILE

DRAINAGE - 07

SCALE 1"=10' H&V

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
380 S. Hope Ave. C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y	
04/23/21	D-07
MP 380.48	

NOTES

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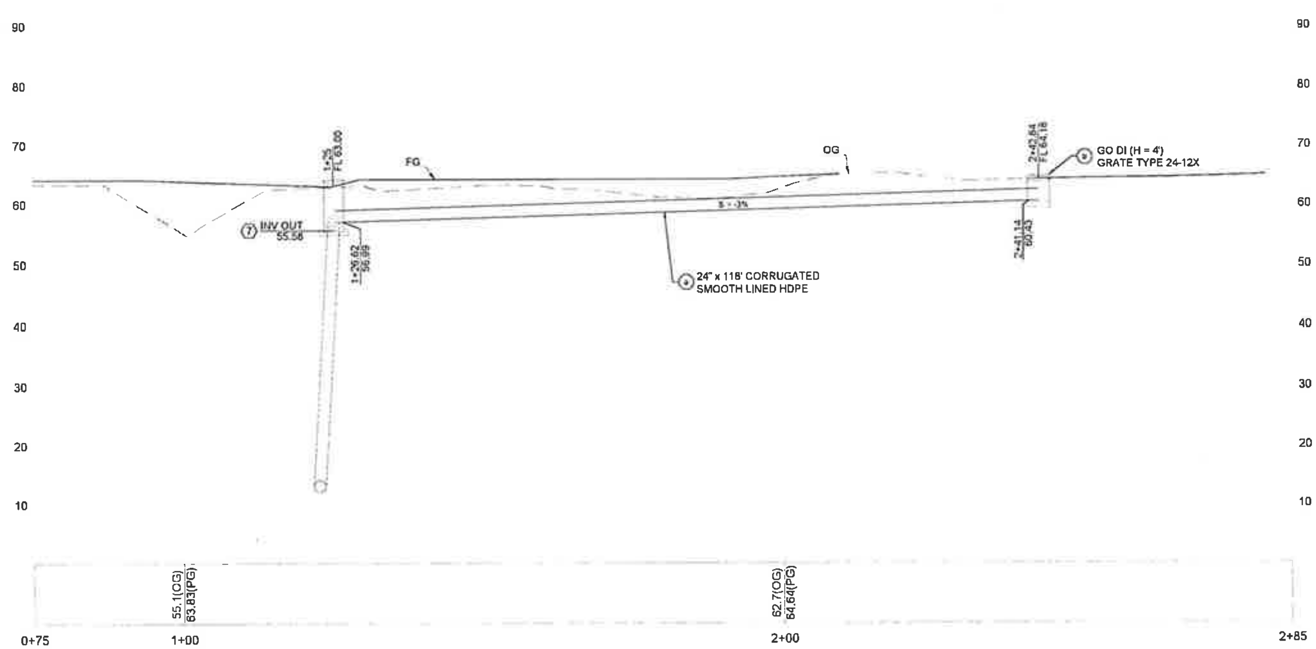


DRAINAGE SYSTEM 8 PROFILE

DRAINAGE - 08

SCALE 1"=10' H&V

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design SD
Drawn HS
Chk'd SD

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE PLANS

441148Y
UPRR PROJECT NO.

04/23/21 | D-08
DATE | SHT. DES.

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

DRAINAGE SYSTEM 1

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L2	1+00.00	1964097.82	6114406.25	22.39'	S61° 06' 40.08"W	1+22.39	1964087.00	6114386.64

DRAINAGE SYSTEM 2

START STATION	START NORTHING	START EASTING
1+00	1964049.15	6114461.32

DRAINAGE SYSTEM 3

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	22.80'	N64° 33' 17.79"W	1+22.80	1963910.46	6114337.81
L4	1+22.80	1963910.46	6114337.81	63.81'	S47° 55' 48.31"W	1+86.61	1963867.71	6114290.45
L5	1+86.61	1963867.71	6114290.45	54.90'	S47° 55' 19.65"W	2+41.51	1963830.92	6114249.70
L6	2+41.51	1963830.92	6114249.70	79.49'	S47° 55' 32.67"W	3+21.00	1963777.66	6114190.70

DRAINAGE SYSTEM 5

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L10	0+85.49	1963526.74	6114567.62	61.75'	S55° 26' 47.78"W	1+47.24	1963491.72	6114516.76
L11	1+47.24	1963491.72	6114516.76	71.49'	S55° 27' 27.65"W	2+18.74	1963451.18	6114457.87

DRAINAGE SYTEM 6

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L13	1+00.89	1963330.72	6114763.58	81.72'	S60° 11' 37.43"W	1+82.61	1963290.10	6114722.67
L14	1+82.61	1963290.10	6114722.67	8.00'	S28° 09' 33.87"E	1+90.61	1963283.04	6114726.45
L15	1+90.61	1963283.04	6114726.45	45.61'	S60° 10' 21.97"W	2+36.23	1963260.36	6114686.88
L16	2+36.23	1963260.36	6114686.88	75.44'	S60° 12' 09.30"W	3+11.67	1963222.87	6114621.41

DRAINAGE SYSTEM 7

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L17	0+90.73	1963089.91	6114952.72	88.27'	S46° 51' 36.95"W	1+79.00	1963029.55	6114888.30
L18	1+79.00	1963029.55	6114888.30	8.00'	S45° 23' 07.82"E	1+87.00	1963023.93	6114894.00
L19	1+87.00	1963023.93	6114894.00	37.06'	S46° 44' 07.18"W	2+24.06	1962998.53	6114867.01
L20	2+24.06	1962998.53	6114867.01	70.64'	S46° 55' 24.64"W	2+94.70	1962950.28	6114815.41

DRAINAGE SYSTEM 8

SEGMENT ID	START STATION	START NORTHING	START EASTING	LENGTH	DIRECTION/ DELTA	END STATION	END NORTHING	END EASTING
L21	1+25.00	1962998.53	6114867.02	117.84'	S41° 37' 48.49"E	2+42.84	1962910.45	6114945.30

DRAINAGE - 09

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Matt Roberts, Project Manager

Design SD
Drawn HS
Chk'd SD

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE LAYOUT

441148Y
UPRR PROJECT NO.
04/23/21 DATE
D-09 SHT. DES.
SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

DRAINAGE QUANTITIES

DRAINAGE SYSTEM NUMBER	DRAINAGE PLAN SHEET #	DRAINAGE UNIT	MODIFY EXISTING 30" RCP SD TYPE GCP CAL TRANS STD PLANS D75B (EA)	CONNECT TO EXISTING JUNCTION STRUCTURE (EA)	2 TON ROCK SLOPE PROTECTION 10FTX10FT PAD (TONS)	30" RCP (LF)	CORRUGATED SMOOTH LINER HDPE CALTRANS STD PLANS D87B 12" (LF)	18" (LF)	24" (LF)	PLASTIC PIPE JOINT RESTRAINER ASSEMBLY CALTRANS STD PLANS D87B SEE NOTE 6 ON PROFILES 12" (EA)	18" (EA)	24" (EA)	PIPE ELBOW (N)	STRUCTURE CONCRETE	STRUCTURE CONCRETE, DRAINAGE INLET (EA)	MISCELLANEOUS METAL (FRAME & GRATE) (EA)	HEIGHT OF INLET (N) (LF)	DESCRIPTION & (CALTRANS STD PLANS SHEET #)	DRAINAGE UNIT	DRAINAGE PLAN SHEET #	DRAINAGE SYSTEM NUMBER
1	D-1	a				28															a	D-1	1
		b												1						30" SINGLE HEADWALL (D89)	b		
		c		1																	c		
2	D-1	a														1	1	12		TYPE GCP (D75B) w/ LADDER, GRATE TYPE 36R (D77B)	a	D-1	2
		b	1																		b		
3	D-1	a					24														a	D-1	3
		b					64														b		
		c *					72			6			1								c *		
		d *					96			8			2								d *		
		e														1	1	4.3		TYPE G1 (D72B), GRATE TYPE 24-12X (D77B)	e		
		f														1	1	5.3		TYPE G1 (D72B) w/ LADDER, GRATE TYPE 24-12X (D77B)	f		
		g														1	1	5.4		TYPE GO (D72E) w/ LADDER, GRATE TYPE 24-12X (D77B)	g		
		h														1	1	6.2		TYPE OCP (D75B) w/ LADDER, GRATE TYPE OCP STEEL COVER (D75B)	h		
		x			18																x		
4	not used																						4
5	D-1	a *							72			4	1								a *	D-1	5
		b *							88			6	2								b *		
		c														1	1	4.6		TYPE GO (D72E), GRATE TYPE 24-12X (D77B)	c		
		d														1	1	8		TYPE OCP (D75B) w/ LADDER, GRATE TYPE OCP STEEL COVER (D75B)	d		
		x			18																x		
6	D-2	a *						106			7		2								a *	D-2	6
		b							8												b		
		c *							52			2	1								c *		
		d *							90			7	2								d *		
		e														1	1	5		TYPE OCP (D75B) w/ LADDER, GRATE TYPE OCP STEEL COVER (D75B)	e		
		f														1	1	5.1		TYPE GO (D72E) w/ LADDER, GRATE TYPE 24-12X (D77B)	f		
		g														1	1	5.2		TYPE GO (D72E) w/ LADDER, GRATE TYPE 24-12X (D77B)	g		
		h														1	1	8		TYPE OCP (D75B) w/ LADDER, GRATE TYPE OCP STEEL COVER (D75B)	h		
		x			18																x		
7	D-2	a *						108			6		2								a *	D-2	7
		b							8												b		
		c							38												c		
		d *							88			6	2								d *		
		e														1	1	5.6		TYPE OCP (D75B) w/ LADDER, GRATE TYPE OCP STEEL COVER (D75B)	e		
		f														1	1	5.1		TYPE GO (D72E) w/ LADDER, GRATE TYPE 24-12X (D77B)	f		
		g														1	1	5.2		TYPE GO (D72E) w/ LADDER, GRATE TYPE 24-12X (D77B)	g		
		h														1	1	9		TYPE OCP (D75B) w/ LADDER, GRATE TYPE OCP STEEL COVER (D75B)	h		
		x			18																x		
8	D-2	a							118												a	D-2	8
		b														1	1	4		TYPE GO (D72E), GRATE TYPE 24-12X (D77B)	b		
TOTALS			1	1	72	28	256	214	562	14	13	25		1	16	16							

*ELBOW USED & INCLUDED IN LENGTH

DRAINAGE QUANTITIES ARE ROUNED UP TO NEAREST 2'

(N) = NOT A SEPARATE BID ITEM

THE CITY OF CARPINTERIA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design — SO
Drawn — SO
Check —

BENGAL ENGINEERING

350 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
DRAINAGE QUANTITIES

441148Y
UPRR PROJECT NO.

04/23/21 | D-10
DATE | SHT. NO.

SANTA BARBARA Sub
MP 310.48
UPRR MILE POST

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2

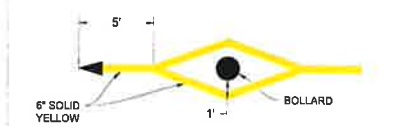
I:\projects_active projects\rincon trail\production drawings\civil-drawings.dwg BY: Michael Banach

LEGEND

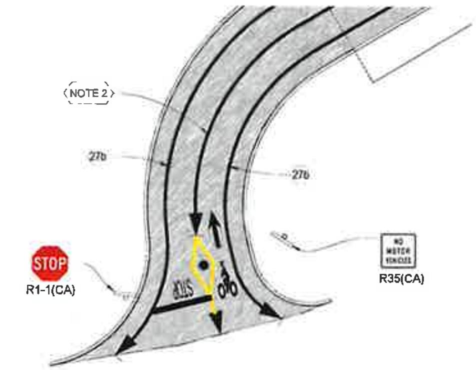
- BEGIN / END TRAFFIC STRIPE DETAIL
- CHANGE OF TRAFFIC STRIPE DETAIL
- TRAFFIC STRIPE DETAIL NUMBER
- CHANNELIZER

NOTES

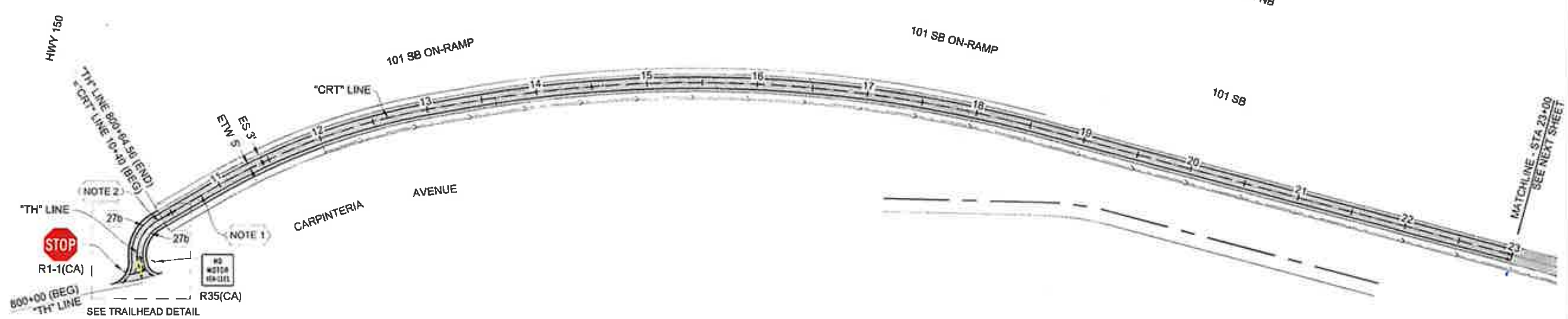
A. THIS PLAN IS FOR THE LAYOUT OF SIGNS AND STRIPING ONLY.
1. 6" YELLOW RETROREFLECTIVE DASHED - 3' SEGMENT - 9'GAP (MUTCD FIGURE 9C-2).
2. 6" YELLOW RETROREFLECTIVE SOLID.
3. 36" CHANNELIZER CAL TRANS A73SC. MIN. OF 2' FROM EDGE OF SHOULDER. RETROREFLECTIVE SHEETING ON BOTH SIDES.
4. LOCATIONS OF SIGNS ARE APPROXIMATE AND MAY BE MOVED IN FIELD TO ACCOMMODATE OBSTRUCTION.
5. ALL POST-MOUNTED SIGNS MUST BE PLACED MIN. OF 2' FROM EDGE OF SHOULDER.



TRAIL BEGIN & END PAVEMENT MARKING DETAILS
NOT TO SCALE



TRAILHEAD DETAIL
SCALE: 1" = 10'



PAVEMENT DELINEATION PLAN
SCALE 1" = 50'

NORTH

PAVEMENT DELINEATIONS - 1
SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

PAVEMENT DELINEATIONS

441148Y
UPRR PROJECT NO.

04/23/21 DATE | PD-1 SHT. DES.

SANTA BARBARA SUB MP 360.48
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

LEGEND

- BEGIN / END TRAFFIC STRIPE DETAIL
- CHANGE OF TRAFFIC STRIPE DETAIL
- (#) TRAFFIC STRIPE DETAIL NUMBER
- CHANNELIZER

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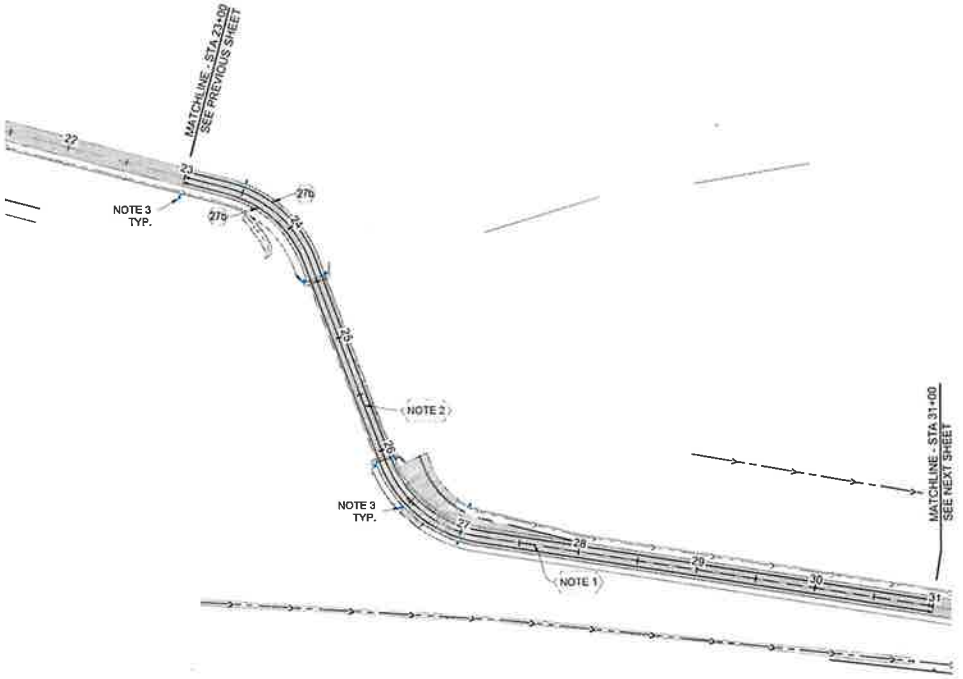

PAVEMENT DELINEATION PLAN
SCALE: 1" = 50'

NORTH

PAVEMENT DELINEATIONS - 2
SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Approved Matt Roberts Project Manager

Design
Drawn
Check

BENGAL ENGINEERING INC.
305 S. Hope Ave. C-110,Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
PAVEMENT DELINEATIONS

441148Y
LPSR PROJECT NO.

04/23/21
DATE

PD-2
SHT. NO.

SANTA BARBARA SUS.
MP 380.49
LPSR MILE POST

41 of 119

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2

LEGEND

- BEGIN / END TRAFFIC STRIPE DETAIL
- CHANGE OF TRAFFIC STRIPE DETAIL
- ⟨#⟩ TRAFFIC STRIPE DETAIL NUMBER
- CHANNELIZER

NOTES

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2. 6" YELLOW RETROREFLECTIVE SOLID.
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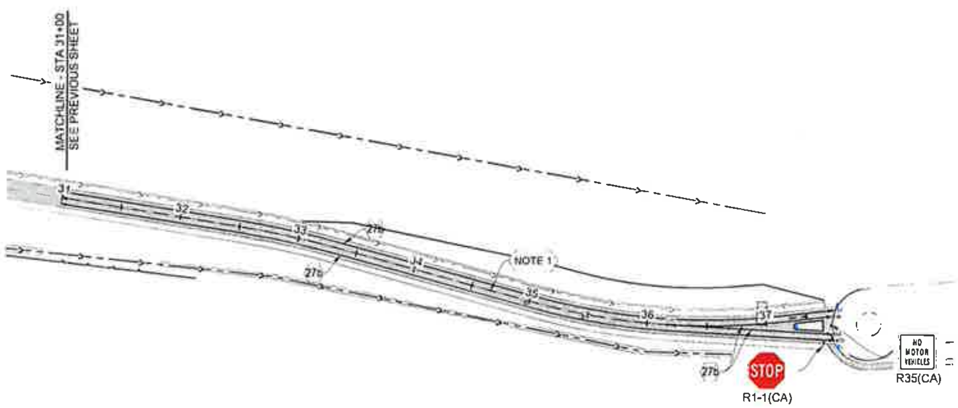


PAVEMENT DELINEATION PLAN
SCALE 1" = 50'

STRIPING QUANTITIES

SHEET NUMBER	DETAIL NO OR PAVEMENT MARKING	ALIGNMENT NAME	STATION LIMITS BEGIN	STATION LIMITS END	LOCATION	TRAFFIC STRIPE (RETROREFLECTIVE) 6 inch SOLID WHITE LF	6 inch SOLID YELLOW LF	6 Inch DASHED YELLOW (3' SEGMENT + 9' GAP) LF
PD-1	CUSTOM	TH	800+17	800+65	CL		48	
PD-1	CUSTOM	CRT	10+40	10+50	CL		10	
PD-1	CUSTOM	CRT	10+50	23+00	CL			1250
PD-1	27B	TH	800+00	800+65	LT	65		
PD-1	27B	CRT	10+40	23+00	LT	1260		
PD-1	27B	TH	800+00	800+65	RT	65		
PD-1	27B	CRT	10+40	23+00	RT	1260		
PD-2	27B	CRT	23+00	31+00	LT	800		
PD-2	27B	CRT	23+00	31+00	RT	800		
PD-2	CUSTOM	CRT	23+00	26+50	CL		350	
PD-2	CUSTOM	CRT	26+50	31+00	CL			450
PD-3	27B	CRT	31+00	37+57	LT	657		
PD-3	27B	CRT	31+00	37+55	RT	655		
PD-3	CUSTOM	CRT	31+00	36+20	CL			520
PD-3	27B	CRT	36+20	37+55	LT	135		
PD-3	27B	CRT	36+20	37+53	RT	133		
TOTALS								
UNROUNDED						5830	408	2220

(N)-Not a Pay Item
*Striping Quantity includes length for two parallel lines

SIGN & OBJECT MARKER QUANTITIES

SHEET NUMBER	LOCATION	DESCRIPTION	ROADSIDE SIGN - POST: SIGN POST EA	R1-1 EA	R35 EA	OBJECT MARKER: 36" TALL CHANNELIZER CALTRANS A73C EA
PD-1	RIGHT OF CRT STA. 10+00	NO MOTOR VEHICLES	1		1	
PD-1	LEFT OF CRT STA: 10+00	BIKE PATH STOP 18"X18"	1	1		
PD-2	LEFT OF CRT STA. 23+00	CHANNELIZER				1
PD-2	RIGHT OF CRT STA: 23+00	CHANNELIZER				1
PD-2	LEFT OF CRT STA. 23+50	CHANNELIZER				1
PD-2	LEFT OF CRT STA. 24+00	CHANNELIZER				1
PD-2	LEFT OF CRT STA: 24+46	CHANNELIZER				1
PD-2	RIGHT OF CRT STA: 24+46	CHANNELIZER				1
PD-2	RIGHT OF CRT STA: 25+10	CHANNELIZER				1
PD-2	LEFT OF CRT STA. 25+10	CHANNELIZER				1
PD-2	LEFT OF CRT STA. 25+50	CHANNELIZER				1
PD-2	LEFT OF CRT STA. 26+59	CHANNELIZER				1
PD-2	LEFT OF CRT STA: 27+00	CHANNELIZER				1
PD-3	RIGHT OF CRT STA: 37+25	CHANNELIZER				1
PD-3	RIGHT OF CRT STA: 37+58	CHANNELIZER				1
PD-3	LEFT OF CRT STA. 37+60	CHANNELIZER				1
PD-3	RIGHT OF CRT STA. 37+55	NO MOTOR VEHICLES	1		1	
PD-3	RIGHT OF CRT STA. 37+39	BIKE PATH STOP 18"X18"	1	1		

PAVEMENT MARKING QUANTITIES

SHEET NUMBER	BIKE SYMBOL & ARROW WHITE THERMOPLASTIC QTY (N)	SF	AHEAD MARKING WHITE THERMOPLASTIC QTY (N)	SF	STOP MARKING WHITE THERMOPLASTIC QTY (N)	SF	STOP LIMIT LINE WHITE THERMOPLASTIC SF
PD-1							13
PD-1	1	10.5					
PD-1			1	31			
PD-1					1	5	
PD-1					1	5	
PD-3					1	5	
PD-3			1	31			
PD-3					1	5	
PD-3	1	10.5					
PD-3							5
PD-3							
TOTALS							
UNROUNDED		21		62		20	18

NORTH

PAVEMENT DELINEATIONS - 3

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC.
360 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

PAVEMENT DELINEATIONS

441148Y
UPRR PROJECT NO.

04/23/21 DATE | PD-3 SHT. DES.

SANTA BARBARA SUB MP 380.49 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

GENERAL UTILITY NOTES

1. 10-INCH OIL PIPELINE (FORMALLY VENOCO–NOW CHEVRON) - BELIEVED TO BE "ABANDONED".

LOCATION / ALIGNMENT

- THIS LINE GENERALLY FOLLOWS THE CALTRANS RIGHT-OF-WAY (OUTSIDE OF STATE RIGHT OF WAY), TRAVELING FROM FWY 150, TOWARD THE "WAVE OVERHEAD" WHERE IT DESCENDS TO THE UPRR, THEN TRAVELS EASTWARD.

DEPTH

- DEPTH OF PIPELINE IS UNKNOWN.

PROJECT WILL

- EXCAVATE NEAR/OVER THIS PIPELINE IN LOCATIONS.
- EXCAVATIONS MAY EXPOSE OR "CUT" THIS LINE.
- DESIGNERS HAVE BEEN TOLD THAT THIS LINE IS "FULL OF WATER"

REFERENCE INFORMATION:

- CALTRANS RECORD DRAWINGS FOR CONSTRUCTION ON STATE HIGHWAY, CONTRACT 07-260704, PROJECT 0700000490, PAGE 205/757 (SHEET U-16).
- VENOCO RECORD DRAWING S2656-A-101 "PAREDON PROJECT: EXISTING 10-INCH PIPELINE ALIGNMENT". THIS DRAWING IS PAGE C-23 OF THE "PROPOSED FINAL EIR".
- BENGAL HAS ATTEMPTED TO FIND MORE DATA, BUT WITH THE BANKRUPTCY OF VENOCO WE WERE UNABLE TO REACH STAFF FROM BEACON WEST WITH BETTER INFORMATION.

2. 6-INCH WATER PIPELINE: LATERAL 27-R-F: CARPINTERIA VALLEY WATER DISTRICT: "ABANDONED".

LOCATION / ALIGNMENT

- THIS LINE ONCE CROSSED HWY 150 FROM CARPINTERIA AVE TO CAMINO CARRETA, EAST OF HWY 150

DEPTH

- UNKNOWN.

PROJECT WILL

- EXCAVATE THROUGH THE LOCATION OF OLD WATERLINE.

REFERENCE INFORMATION

- CVWD ATLAS MAPS PROVIDED IN APRIL, 2016, NAME THIS AS "ABANDONED LINE, LATERAL 27-R-F."
- PIPELINE IS SHOWN AS "ABANDONED" ON THE DRAWINGS FOR THE CONSTRUCTION ON STATE HIGHWAY, CONTRACT 07-260704, PROJECT 0700000490, PAGE 205/757 (SHEET U-16).

3. 4-INCH PRESSURE SEWER: CARPINTERIA SANITARY DISTRICT (CSD) "SEPTIC TO SEWER CONVERSION PROJECT"

LOCATION / ALIGNMENT

- THIS LINE CONNECTS A GRAVITY SEWER, DRAINING WEST FROM THE INTERSECTION OF HWY 150/CARPINTERIA AVE., WITH A PRESSURE SEWER LINE FROM A PUMPING PLANT IN RINCON COUNTY PARK. THE LINE GENERALLY FOLLOWS THE SOUTHBOUND SIDE OF THE FREEWAY, AND I LOCATED ABOUT 5-FEET BEHIND THE DIKE / EDGE OF SHOULDER.

DEPTH

- THE PIPELINE IS SHOWN TO GENERALLY BE ABOUT 8-FEET DEEP, EXCEPT AT "WAVE OVERHEAD", WHERE IT BECOMES SHALLOWER TO CROSS UPRR. RECORD DRAWINGS SHOW AS-BUILT DEPTHS WHICH VARY GREATLY.

PROJECT WILL

- CROSS THIS PIPELINE IN VARIOUS LOCATIONS.

REFERENCE INFORMATION

- PIPELINE IS SHOWN ON CSD DRAWINGS 15-1-5 THROUGH 15-1-7: DESIGNED BY PENFIELD AND SMITH FOR THE "SEPTIC TO SEWER CONVERSION PROJECT".

4. FRONTIER COMMUNICATION LINE (ON OLD RAILROAD BENCH–LEADING TO RINCON PARK)

LOCATION / ALIGNMENT

- BECAUSE OF THE LIMITED DATA PROVIDED ON THE ATLAS DRAWINGS WE ARE UNSURE OF THE LOCATION OF THIS LINE.
- ACCORDING TO THE ATLAS MAPS, A FRONTIER FACILITY NAMED "CRPRCAXF" LINE FOLLOWS THE AT&T LINE FROM CARPINTERIA AVE, CROSS COUNTRY TO THE UPRR, WHERE IT FOLLOWS THE ACTIVE UPRR CORRIDOR TO THE EAST.
- BUT IN JANUARY, 2019 FRONTIER MARKED A FIBER OPTIC LINE ON THE OLD RAILROAD BENCH, LEADING TO RINCON COUNTY PARK, WE COULD SEE BOTH THE CONDUIT AND THE MANHOLES ALONG THE OLD BENCH, BUT WE ARE UNSURE IF THE EXISTING FRONTIER FACILITY WHICH TRAVELS WESTWARD FROM RINCON PARK IS THE SAME LINE AS "CRPRCAXF" SHOWN ON THE ATLAS MAPS.

DEPTH

- ALONG THE OLD RAILROAD BENCH, THE LINE IS VISIBLE AT SOME LOCATIONS AT THESE LOCATIONS IT APPEARS TO BE ABOUT 4-FEET DEEP.

PROJECT WILL:

- CONSTRUCT EMBANKMENTS ON TOP OF IT.
- CONSTRUCT NUMEROUS STORM DRAINS UNDER THIS LINE.
- CONSTRUCT A SOIL RETAINING STRUCTURE BELOW IT AT ABOUT STATION 31+00.
- CONSTRUCT A SLOPE BELOW IT AT ABOUT STATION 36+50.

DESIGNERS NOTE:

- THE LANDMASS AROUND THIS EXISTING FACILITY IS FAILING IN SOME LOCATIONS. THIS IS THE REASON DESIGNERS PROPOSE TO BUILD THE RETAINING WALLS AND SLOPE REPAIRS TO SUPPORT THE RINCON TRAIL. THIS SLOPE INSTABILITY IS LIKELY ONE REASON THE RAILROAD WAS MOVED IN THE 1960'S.
- THE OLD "WOOD SUPPORT STRUCTURE" WHICH WAS BUILT TO SUPPORT THIS FACILITY APPEARS TO BE FAILING AT ABOUT STATION 31+00.
- THE CONDUIT IS VISIBLE IN SOME LOCATIONS BECAUSE THE LANDMASS BELOW IT HAS SLID AWAY.
- AFTER THE RINCON TRAIL IS CONSTRUCTED, ACCESS TO THIS FACILITY WILL BE MORE DIFFICULT.
- PERHAPS FRONTIER WOULD LIKE TO RELOCATE A PORTION OF THIS LINE TO FOLLOW THE RINCON TRAIL.

REFERENCE INFORMATION

- "FRONTIER UG UTILITY ATLAS MAP" (NOT MUCH DETAIL SHOWN) PROVIDED TO BENGAL IN 2017 & 2019.

5. AT&T / PACIFIC BELL: IN UPRR CORRIDOR

LOCATION / ALIGNMENT

- THIS LINE CONNECTS CROSS-COUNTRY FROM A POINT ON CARPINTERIA AVE, EAST OF HWY 150, ACROSS PRIVATE PROPERTY AND THEN DOWN THE CUT SLOPE TO THE RAILROAD CORRIDOR WHERE THIS LINE THEN FOLLOWS THE RAILROAD TRACKS ON THE "FREEWAY SIDE" TO THE EAST.

DEPTH

- UNKNOWN.

PROJECT WILL:

- HAVE NO EFFECT ON THIS FACILITY. EARTHWORK AND BRIDGE WORK WILL MUCH HIGHER ON SLOPE. NO CONSTRUCTION TRAFFIC WILL CROSS THIS LINE.

REFERENCE INFORMATION

- AT&T RECORD DRAWINGS WT 129DN0687 AND 689.

6. MCI & SPRINT FIBER SYSTEMS: IN UPRR CORRIDOR

LOCATION / ALIGNMENT

- THIS LINE FOLLOWS THE RAILROAD TRACKS ON THE "OCEAN SIDE".

DEPTH

- UNKNOWN.

PROJECT WILL:

- HAVE NO EFFECT ON THIS FACILITY. EARTHWORK AND BRIDGE WORK WILL MUCH HIGHER ON SLOPE. NO CONSTRUCTION TRAFFIC WILL CROSS THIS LINE.

REFERENCE INFORMATION

- THESE LINES ARE SHOWN ON THE 2010 DRAWINGS FOR THE CONSTRUCTION ON STATE HIGHWAY, CONTRACT 07-260704, PROJECT 0700000490, PAGE 205/757 (SHEET U-16). LINES ARE SHOWN NEAR THE WAVE OVERHEAD. THE LOCATIONS SHOWN ARE APPROXIMATE MATCHES TO THE FIELD MARKERS WE LOCATED FURTHER WEST.
- IN 2017 SPRINT PROVIDED A SKETCH.
- 2019 SPRINT RECORD DRAWING NTWRK416 EXCERPT FROM FIBER OPTIC ROUTE RECORD DRAWING

UTILITY CONFLICT PLAN
GENERAL NOTES

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SD
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC.
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
UTILITY CONFLICT PLANS

441148Y
UPRR PROJECT NO.
04/23/21 DATE
UC-NOTES
SANTA BARBARA SUB MP 380.48 UPRR MILE POST

NOTES

A. THIS PLAN SHOWS THE APPROXIMATE LOCATION OF EXISTING UTILITIES WITHIN THE FOOTPRINT OF THE PROJECT ONLY.
B. THE UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND OBSERVATIONS IN THE FIELD FROM 2016 - 2019.
C. CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES PER SPECIAL PROVISIONS.
D. SEE SPECIAL PROVISIONS FOR CONTRACT TIME ALLOWANCES FOR UTILITY WORK PREFORMED BY OTHERS.
E. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES TO PROVIDE ACCESS FOR RELOCATED UTILITY LINES.
F. EXISTING DRAINAGE SYSTEMS ARE GIVEN IDENTIFICATION FROM CAL TRANS 1968 DRAINAGE PLANS
G. CARPINTERIA SANITARY DISTRICT TO BE NOTIFIED WHEN EXCAVATION ACTIVITIES ARE OCCURRING BETWEEN STATION 21+00 - 24+00. PH: (805) 684-7214.

PROJECT IMPACTED UTILITIES:

1. 10" OIL PIPELINE - CHEVRON - ABANDONED
2. 6" WATER PIPELINE - CVWD - ABANDONED
3. 4" HDPE SEWER FORCE MAIN - CSD
4. COMMUNICATION LINE - FRONTIER

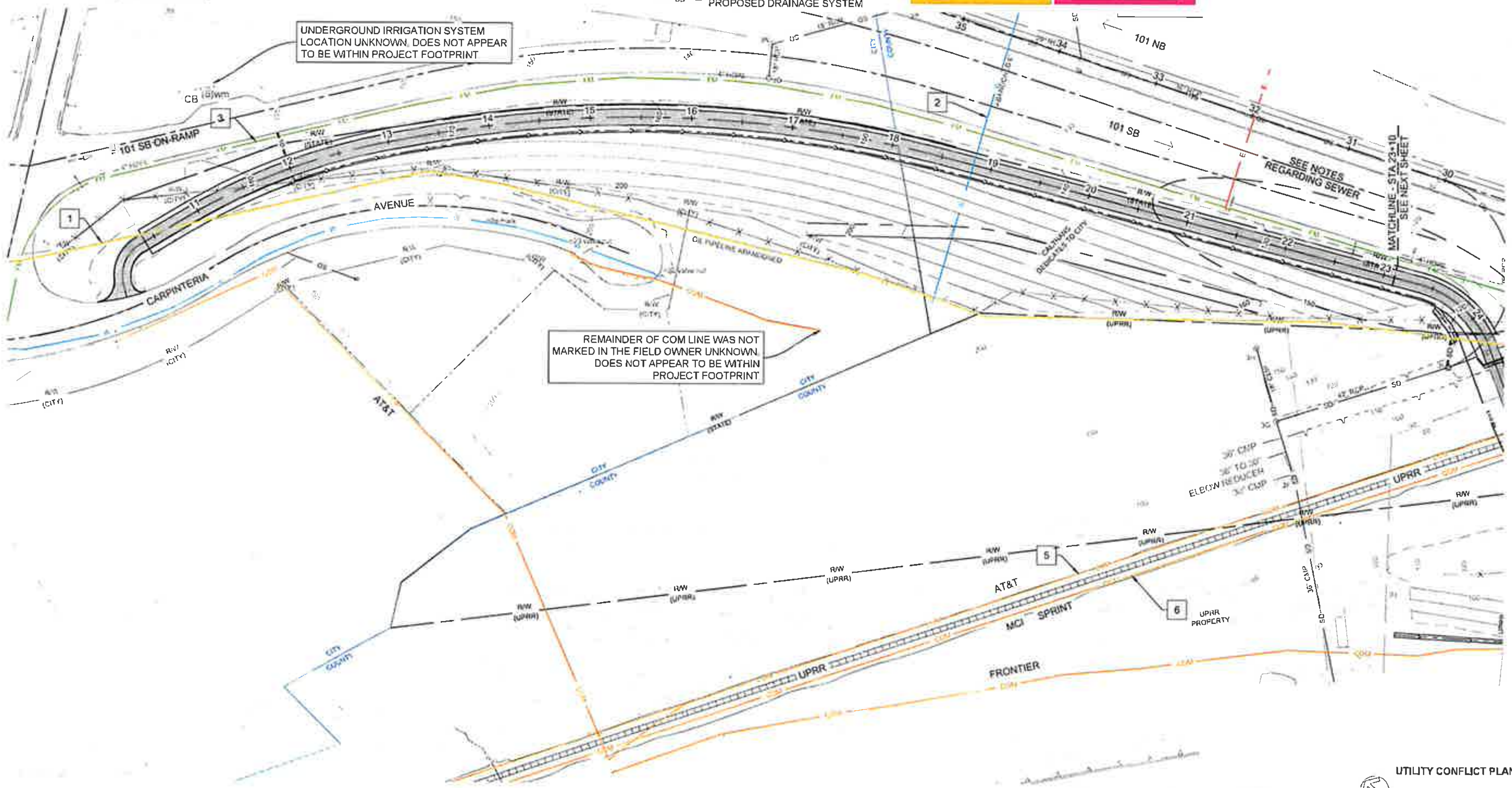
UTILITIES UNDER BRIDGE NOT AFFECTED:

5. COMMUNICATION LINE - AT&T / PAC BELL
6. COMMUNICATION LINE - SPRINT
7. COMMUNICATION LINE - MCI

LEGEND

— SD — PROPOSED DRAINAGE SYSTEM

APWA Utility Color Code	
Red = Electric	Blue = Potable Water Lines
Yellow = Gas-Oil-Steam	Green = Sewer Lines
Orange = Communication and TV	Purple = Reclaimed Water Lines



UTILITY CONFLICT PLAN - 1

NORTH

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

UTILITY CONFLICT PLANS

441148Y
UPRR PROJECT NO.

04/23/21	UC-1
DATE	SHT. SEQ.

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

NOTES

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E. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES TO PROVIDE ACCESS FOR RELOCATED UTILITY LINES.
F. EXISTING DRAINAGE SYSTEMS ARE GIVEN IDENTIFICATION FROM CAL TRANS 1968 DRAINAGE PLANS
G. CARPINTERIA SANITARY DISTRICT TO BE NOTIFIED WHEN EXCAVATION ACTIVITIES ARE OCCURRING BETWEEN STATION 21+00 - 24+00. PH. (805) 684-7214.

PROJECT IMPACTED UTILITIES:

1. 10" OIL PIPELINE - CHEVRON - ABANDONED
2. 6" WATER PIPELINE - CVWD - ABANDONED
3. 4" HDPE SEWER FORCE MAIN - CSD
4. COMMUNICATION LINE - FRONTIER

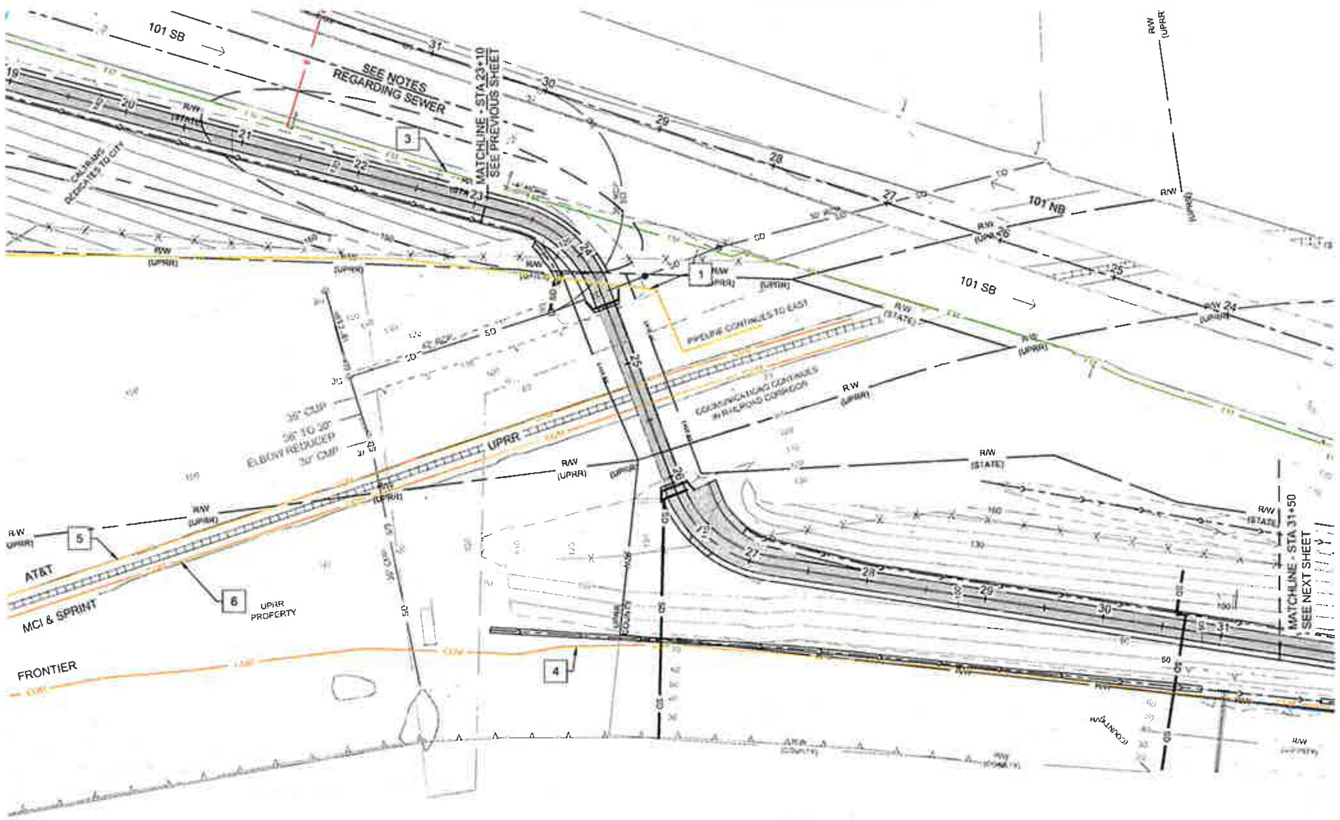
UTILITIES UNDER BRIDGE NOT AFFECTED:

5. COMMUNICATION LINE - AT&T / PAC BELL
6. COMMUNICATION LINE - SPRINT
7. COMMUNICATION LINE - MCI

LEGEND

— SD — PROPOSED DRAINAGE SYSTEM

APWA Utility Color Code	
Red = Electric	Blue = Potable Water Lines
Yellow = Gas-Oil-Steam	Green = Sewer Lines
Orange = Communication and TV	Purple = Reclaimed Water Lines



UTILITY CONFLICT PLAN - 2

NORTH

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
UTILITY CONFLICT PLANS

441148Y UPRR PROJECT NO.
04/23/21 DATE
UC-2 SHT. DES.
SANTA BARBARA SUB MP 380.49 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

NOTES

A. THIS PLAN SHOWS THE APPROXIMATE LOCATION OF EXISTING UTILITIES WITHIN THE FOOTPRINT OF THE PROJECT ONLY.
B. THE UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND OBSERVATIONS IN THE FIELD FROM 2016 - 2019.
C. CONTRACTOR SHALL COORDINATE WITH ALL UTILITIES PER SPECIAL PROVISIONS.
D. SEE SPECIAL PROVISIONS FOR CONTRACT TIME ALLOWANCES FOR UTILITY WORK PREFORMED BY OTHERS.
E. CONTRACTOR TO COORDINATE WITH UTILITY COMPANIES TO PROVIDE ACCESS FOR RELOCATED UTILITY LINES.
F. EXISTING DRAINAGE SYSTEMS ARE GIVEN IDENTIFICATION FROM CAL TRANS 1968 DRAINAGE PLANS
G. CARPINTERIA SANITARY DISTRICT TO BE NOTIFIED WHEN EXCAVATION ACTIVITIES ARE OCCURRING BETWEEN STATION 21+00 - 24+00. PH (805) 684-7214.

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LEGEND

— SD — PROPOSED DRAINAGE SYSTEM

APWA Utility Color Code	
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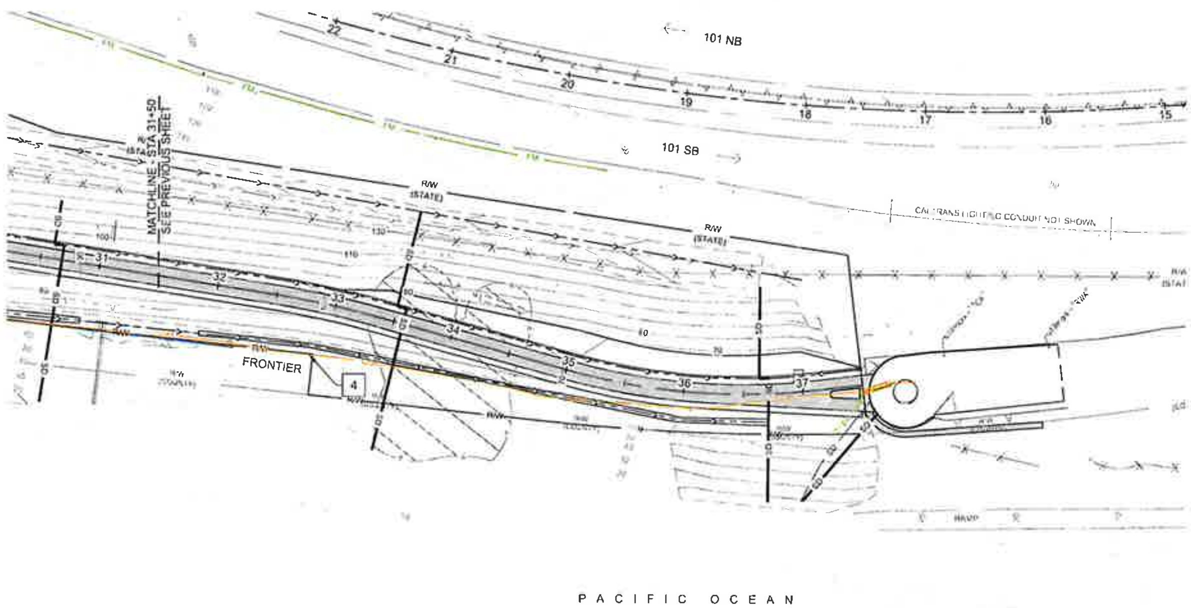


NORTH

UTILITY CONFLICT PLAN - 3

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
Approved Matt Roberts, Project Manager
Design SO
Drawn HS
Chk'd SO
BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

UTILITY CONFLICT PLANS

441148Y UPRR PROJECT NO.
04/23/21 DATE
UC-3 SHT. DES.
SANTA BARBARA SUB. MP 385.45 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

Contractor's Concrete Placement Plan
The Contractor shall submit a concrete placement plans for approval by the the Engineer at least 14 Calendar days before each proposed pour. Work may not proceed until this plan is approved.
The key components of the include description/provisions/sequencing for each of the following

- Construction of two components of the cross section the (generally) 16-foot-wide trail, and (generally) 6.5-foot-wide concrete ditch. Note the ditch concrete is tinted–the trail is "grey".
- Proposed cure time to accommodated construction of these 2 components
- Method for concrete formwork / slip forming
- Placement of square dowel bars in baskets (for transverse joints) and plate dowels (for longitudinal joints)
- Method for Concrete placement
- Saw cutting of the control joints
- Application of curing compound
- Provisions to protect concrete already in place from damage/cracking from subsequent loaded concrete trucks
- Approach to replace portions of concrete which may be accidentally damaged, so that the replaced concrete closely matches the texture, joints, finish and color of the adjacent "original" concrete which was not damage.

Engineer's Notes to the Contractor

- The Contractor's attention is directed to note the narrow work access which will be available from the "based subgrade" during placement of the concrete trail / ditches.
- Because of the limited thickness of the concrete pavement, loaded concrete trucks shall not drive over previously placed concrete. If the Contractor can provide appropriate measures to protect the previously-placed concrete from damage from UNLOADED trucks, such may be included in the concrete placement plan for consideration by the Engineer
- The Engineer envisions that these narrow corridors, which exist on a sloping profile, will affect the maneuverability / access of concrete trucks on the "based subgrade".
- Along the 101 Freeway / Carpinteria Ave. segment, The Contractor may wish to consider using boom pumps for some portions of the trail.
- On the "Ocean side" of the railroad, Note that access for concrete deliveries is isolated; no parallel roads exists.
- At the time of the design, Engineers envisioned the paving could be constructed either by slip-forming of by fixed forms, either method is acceptable.
- Engineer's envisioned that slip-forming would be the preferred method for paving.
- The contractor may wish to pour alternating components of the trail, perhaps alternating "the trail", then "the ditch", paving. Such is acceptable, providing the Contractor maintains a uniform finish and grade .

Ditch Plate Dowels
The longitudinal joint between the edge of pavement and the ditch are reinforced with Diamond-Shaped Plate Dowels similar to PNA-Brand Diamond Dowels, as approved by the Engineer .
These shall have the following properties:

- 4.5 inch x4.5 inch x $\frac{1}{4}$ inches-thick
- Hot-dipped galvanized or epoxy coated
- Spaced to match sawcuts as shown

Square Dowels supported by "Baskets"
The transverse joints are reinforced with dowels are similar to PNA-Brand Square Dowel Basket, shown on Drawing SDB-1

- 1/2 -inch square x 9-inches long
- Hot-dipped galvanized or epoxy coated
- Spaced to match sawcuts as shown
- Note some baskets on the ocean side of bridge are "long" to accommodate the wider pavement here.
- Note some baskets at the east end where the trail forks are "short". Both sides of the fork are considered in one length of basket.

Concrete Mix / Finish
The concrete mix specifications and color are defined in the special provisions

Saw Cutting

- Placed at the spacing shown on the plans
- Completed within 4 hours of concrete placement
- Cut 2-inches deep

Concrete shall be treated with curing compound or cure-control measures (tarps, rugs, visqueen) as defined in the special provisions. Curing compounds shall be appropriate for "colored concrete" when used on the such surfaces.

Second Concrete Pour–path wear surface

Concrete placement for the wear surface shall start "at the bridge" and proceed away from bridge toward either trailhead
The concrete pour for the "trail" shall not occur sooner than 7 calendar days after the ditch pour
No concrete trucks shall drive on the previously-constructed ditch.
Prior to concrete placement Contractor shall place sturdy survey reference stakes along the trail to allow dowel basket to be quickly and accurately placed at the intervals shown. These stakes also identify the center of the basket to the sawcutting personal so they may accurately sawcut the joint after the basket is covered with concrete.

the sliding Square dowels are Similar to PNA-Brand Square Dowels, as approved by the Engineer, and shall have the following properties:

- Dowels measure $\frac{1}{2}$ x $\frac{1}{2}$ inch x 18-inches long.
- Dowels are hot-dipped galvanized
- Dowels are inside dowel clips supported by baskets.
- Vertical placement of dowels: dowels are place inn the middle–mid-height of the slab
- Are spaced along the basket at 24-inch on centers (Transverse to the centerline of the trail)

Sawcuts shall be completed within 4 hours of concrete placement.
Sawcuts are 2-inches deep.

Contractor shall have spare concrete sawing equipment on stand-by during cutting procedures.

PAVEMENT JOINT DETAILS - 1

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design: SQ | Drawn: HS | Chk'd: SQ

BENGAL ENGINEERING, INC.
368 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
PAVEMENT JOINT DETAILS

441148Y
LPRR PROJECT NO

04/23/21 | PJD 1
DATE | SHT. NO.

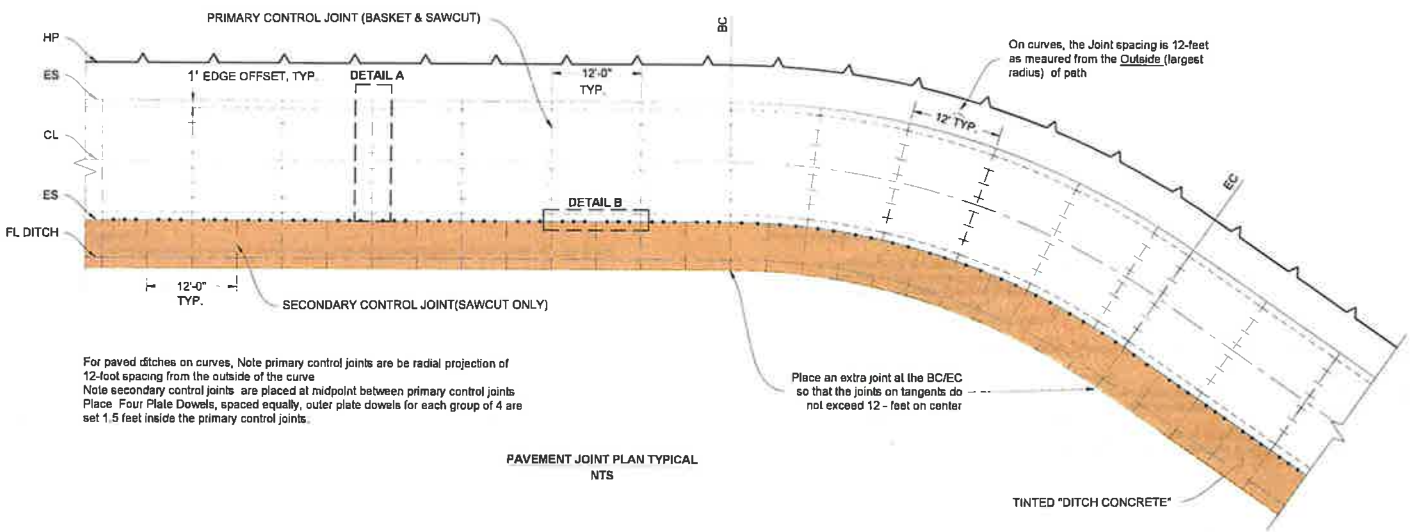
SANTA BARBARA SUB
MP 260.48
LPRR MILE POST

47 of 119

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2

NOTES

SEE TYPICAL SECTIONS NOTES FOR PAVEMENT THICKNESS



For paved ditches on curves, Note primary control joints are be radial projection of 12-foot spacing from the outside of the curve
Note secondary control joints are placed at midpoint between primary control joints
Place Four Plate Dowels, spaced equally, outer plate dowels for each group of 4 are set 1.5 feet inside the primary control joints.

PAVEMENT JOINT PLAN TYPICAL
NTS

PAVEMENT JOINT REINFORCEMENT SUMMARY OF QUANTITIES

AREA	SQUARE DOWEL BASKETS	PLATE DOWELS
	(EA)	(EA)
FWY SIDE	123	590
OCEAN SIDE	102	570
TOTALS	225	1160
TOTALS ROUNDED FOR BID	280	1200

PAVEMENT JOINT DETAILS - 2

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

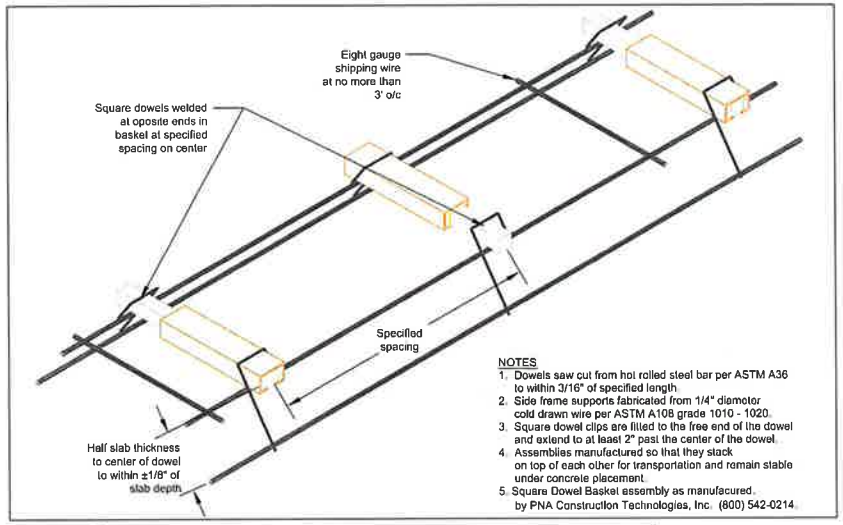
Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
PAVEMENT JOINT DETAILS

441148Y UPRR PROJECT NO.
04/23/21 DATE
PJD 2 SHT. DES.
SANTA BARBARA SUB MP 380.48 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

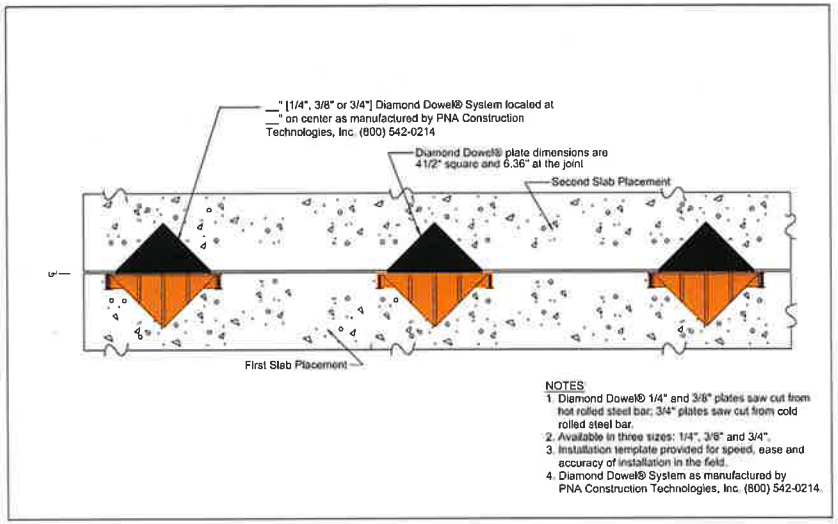


NOTES
1. Dowels saw cut from hot rolled steel bar per ASTM A36 to within 3/16" of specified length.
2. Side frame supports fabricated from 1/4" diameter cold drawn wire per ASTM A108 grade 1010 - 1020.
3. Square dowel clips are filled to the free end of the dowel and extend to at least 2" past the center of the dowel.
4. Assemblies manufactured so that they stack on top of each other for transportation and remain stable under concrete placement.
5. Square Dowel Basket assembly as manufactured by PNA Construction Technologies, Inc. (800) 542-0214.

SHEET#					
SDB-1	PNA Square Dowel Basket Isometric				
DATE August 2007	SCALE NTS	JOB #	DRAWN BY	APPROVED	

PNA CONSTRUCTION TECHNOLOGIES
www.pna-inc.com
Nine Dunwoody Park Suite 111 (800) 542-0214
Atlanta, GA 30338 fax (770) 455-6803

DETAIL A



NOTES
1. Diamond Dowel® 1/4" and 3/8" plates saw cut from hot rolled steel bar; 3/4" plates saw cut from cold rolled steel bar.
2. Available in three sizes: 1/4", 3/8" and 3/4".
3. Installation template provided for speed, ease and accuracy of installation in the field.
4. Diamond Dowel® System as manufactured by PNA Construction Technologies, Inc. (800) 542-0214.

SHEET#					
DD-3	Diamond Dowel® System Plan View				
DATE August 2007	SCALE 1" = 6"	JOB #	DRAWN BY	APPROVED	

PNA CONSTRUCTION TECHNOLOGIES
www.pna-inc.com
Nine Dunwoody Park Suite 111 (800) 542-0214
Atlanta GA 30338 fax (770) 455-6803

DETAIL B

PAVEMENT JOINT DETAILS

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design — SO
Drawn — HS
Chk'd — SO

BENGAL ENGINEERING, INC.
302 S. Hope Ave. C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
PAVEMENT JOINT DETAILS

441148Y
UPRR PROJECT NO

04/23/21 | PJD 3
DATE | CNT. SEQ.

SANTA BARBARA SUB
MP 280.49
UPRR MILE POST

49 of 119

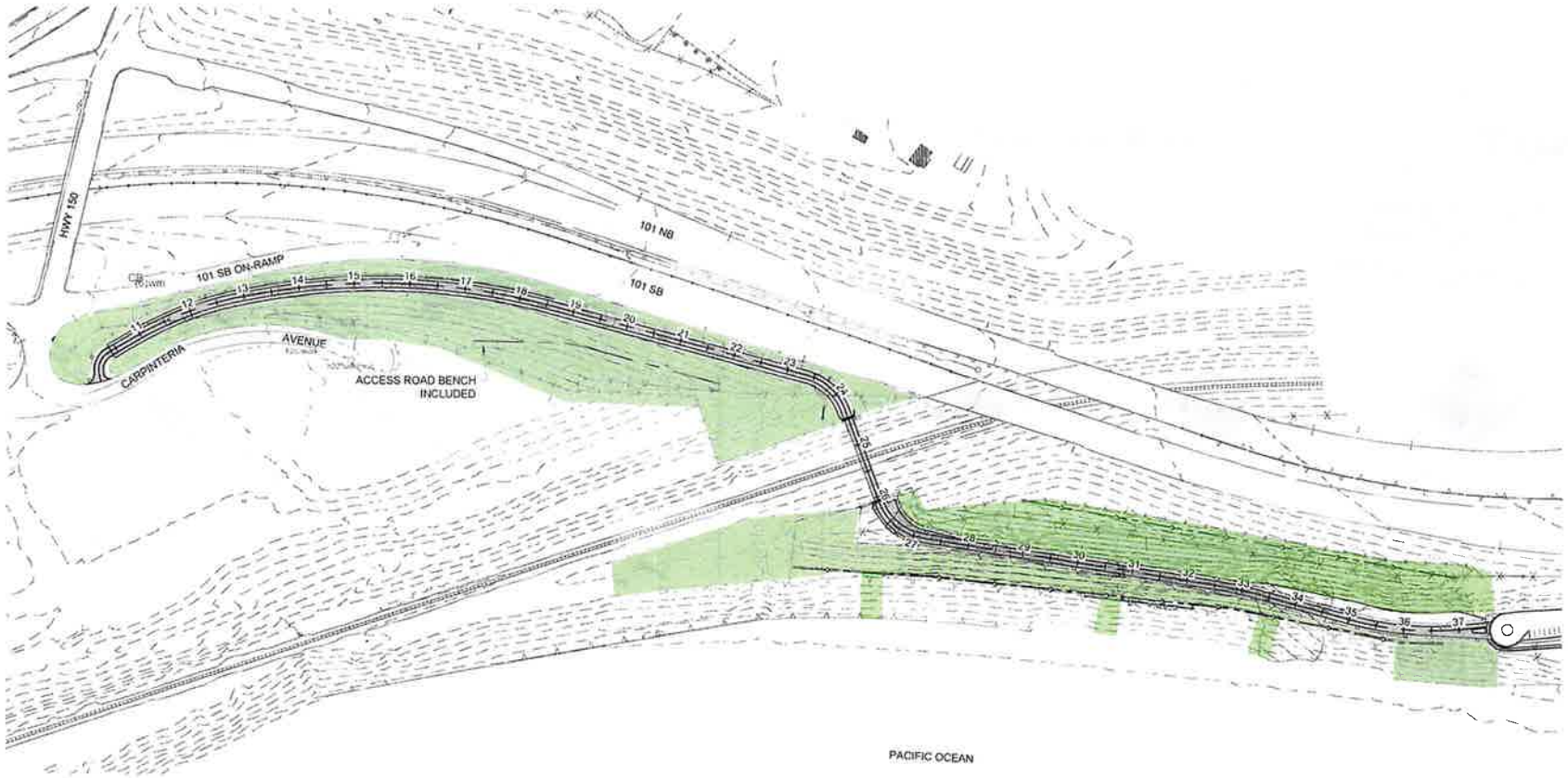
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2

NOTES

1. THESE PLANS ARE FOR BONDED FIBER MATRIX QUANTITIES ONLY
2. DOWNDRAIN AREAS ARE NOT SHOWN ALLOWANCE FOR .5AC AT THE DOWNDRAINS ARE INCLUDED IN BONDED FIBER MATRIX AREA

LEGEND

BONDED FIBER MATRIX AREA
TOTAL APPROX. 9 ACRES



NORTH

QUANTITIES - 1
BONDED FIBER MATRIX
SCALE 1"=100'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
QUANTITIES

441148Y
UPRR PROJECT NO.

04/23/21 | Q-1
DATE | SHT. NO.

SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

50 of 119

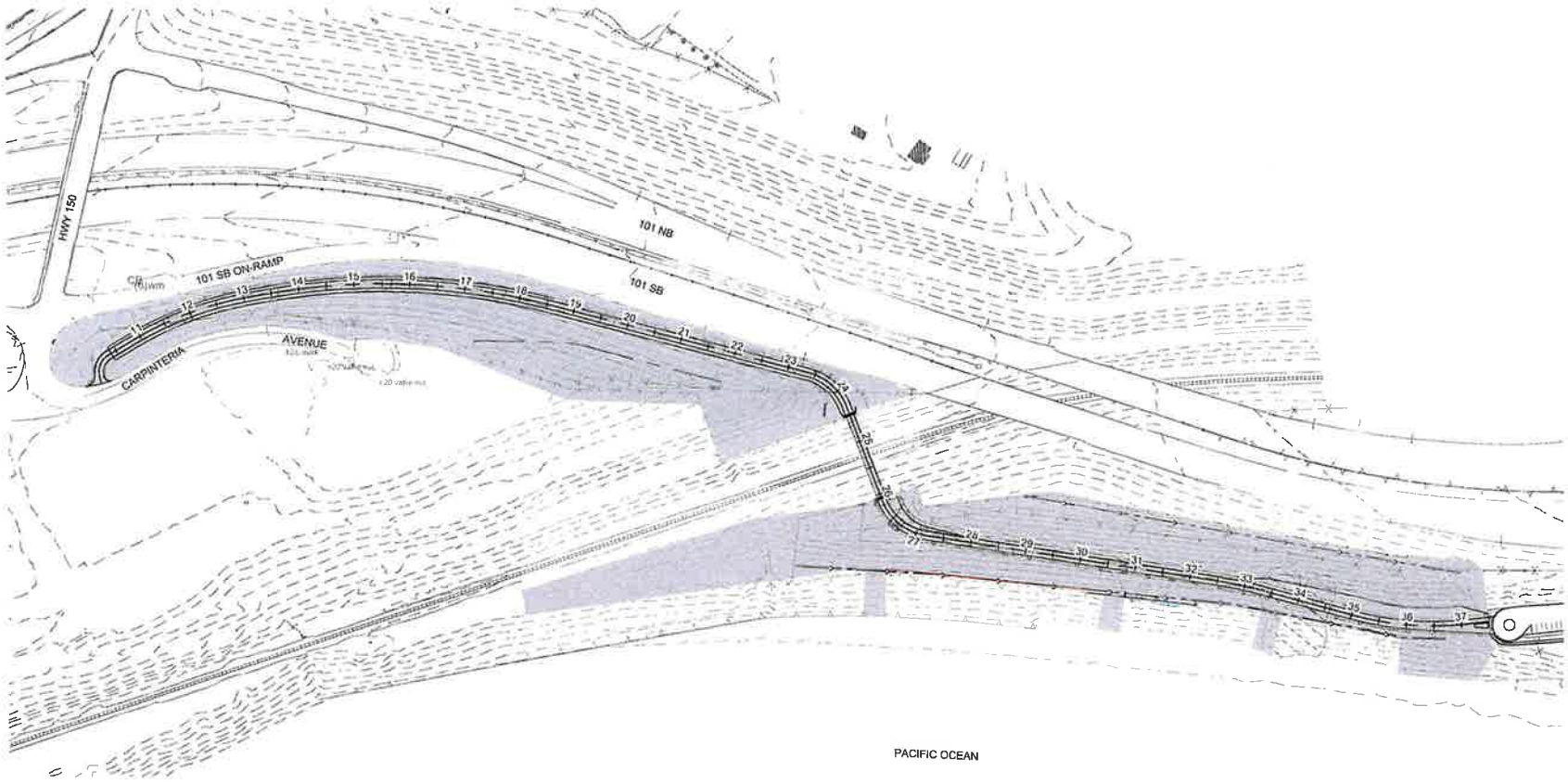
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

NOTES

1. THESE PLANS SHOW APPROXIMATE LIMITS OF CLEARING AND GRUBBING.
2. CONTRACTOR TO MAKE THEIR OWN ESTIMATE AND BID ACCORDINGLY.

LEGEND

CLEARING & GRUBBING
TOTAL: APPROX. 10.5 ACRES
PLAN VIEW AREA



QUANTITIES - 2
CLEARING & GRUBBING
SCALE 1"=100'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SD
Detail HS
Check SD

BENGAL ENGINEERING, INC.
380 S. Hope Ave, C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
QUANTITIES

441148Y
UPRR PROJECT NO.

04/23/21 DATE | Q-2 SHT. DES.

SANTA BARBARA SUB.
MP 380.49
UPRR MILE POST

51 of 119

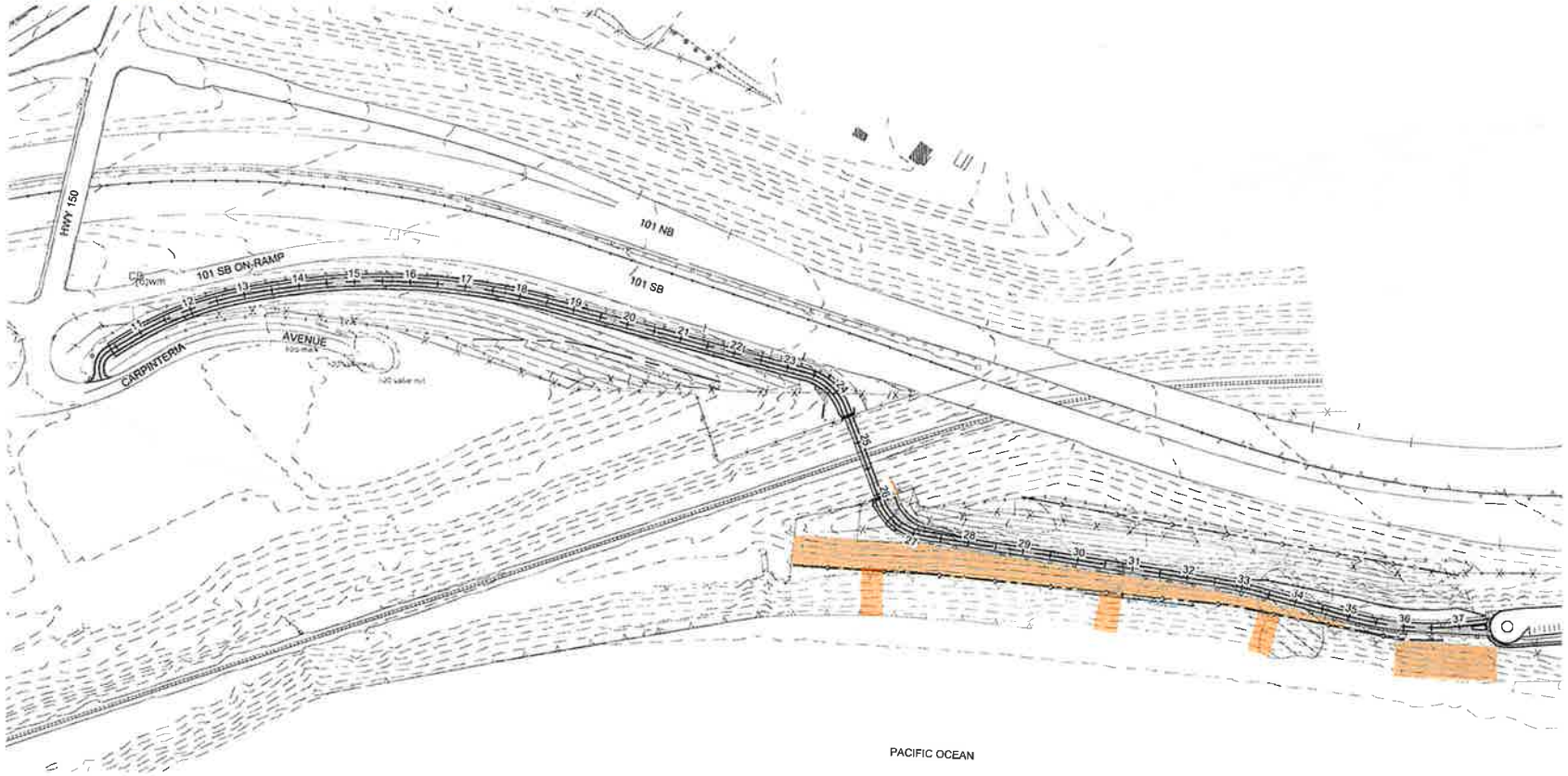
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2

NOTES

1. THESE PLANS ARE FOR EROSION CONTROL QUANTITIES ONLY

LEGEND

ROLLED EROSION CONTROL
TOTAL APPROX. 76,500 SF
SLOPE SURFACE AREA



NORTH

QUANTITIES - 3
EROSION CONTROL
SCALE 1"=100'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design
Drawn
Chk'd
SO
HB
SO

BENGAL
360 S. Hope Ave, C-110,Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
QUANTITIES

441148Y
UPRR PROJECT. NO.
04/23/21 | Q-3
DATE | SHT. DES
SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2

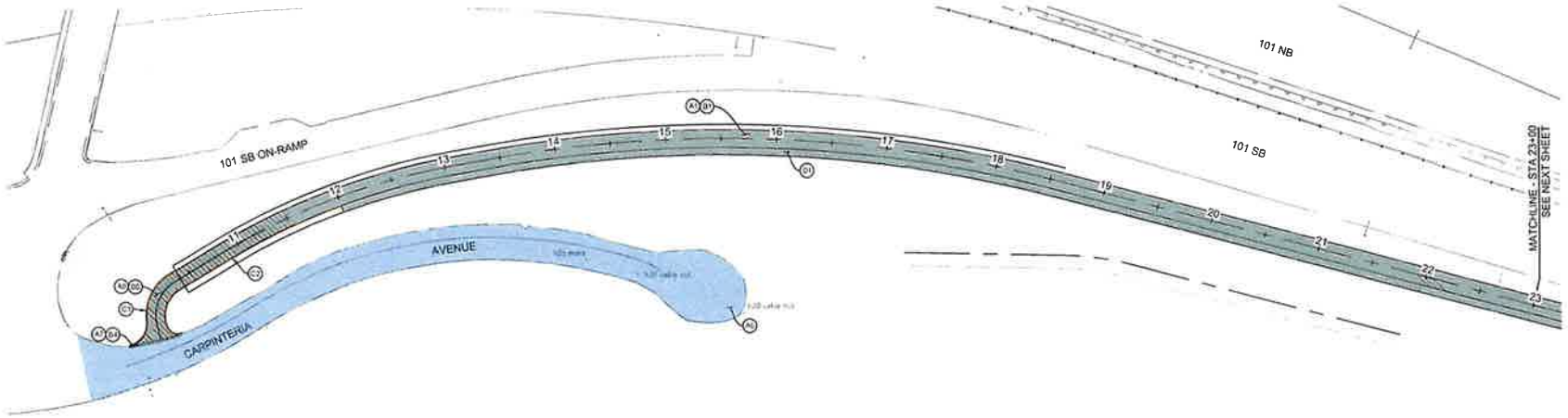
I:\plans\Q_active projects\rincon trail\production drawings\sht - quantities 2.dwg BY: Michael Barbach

NOTES

1. THESE PLANS ARE FOR QUANTITIES ONLY
2. CIRCLED TEXT CORRESPONDS TO SUMMARY TABLE ON LAST QUANTITIES SHEET

LEGEND

	SOIL CEMENT		DITCH CONCRETE
	TOP SOIL		HMA PAVING
	BASE		TRAIL CONCRETE
	SLURRY SEAL		GRAVEL
			CURB



NORTH

QUANTITIES - 4

SCALE 1"=50' H

THE CITY OF CARPINTERIA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design: SO
Design Review: HS
Chk'd: SO

BENGAL ENGINEERING INC.
360 S. Hope Ave., C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

QUANTITIES

441148Y
LHMA PROJECT NO.

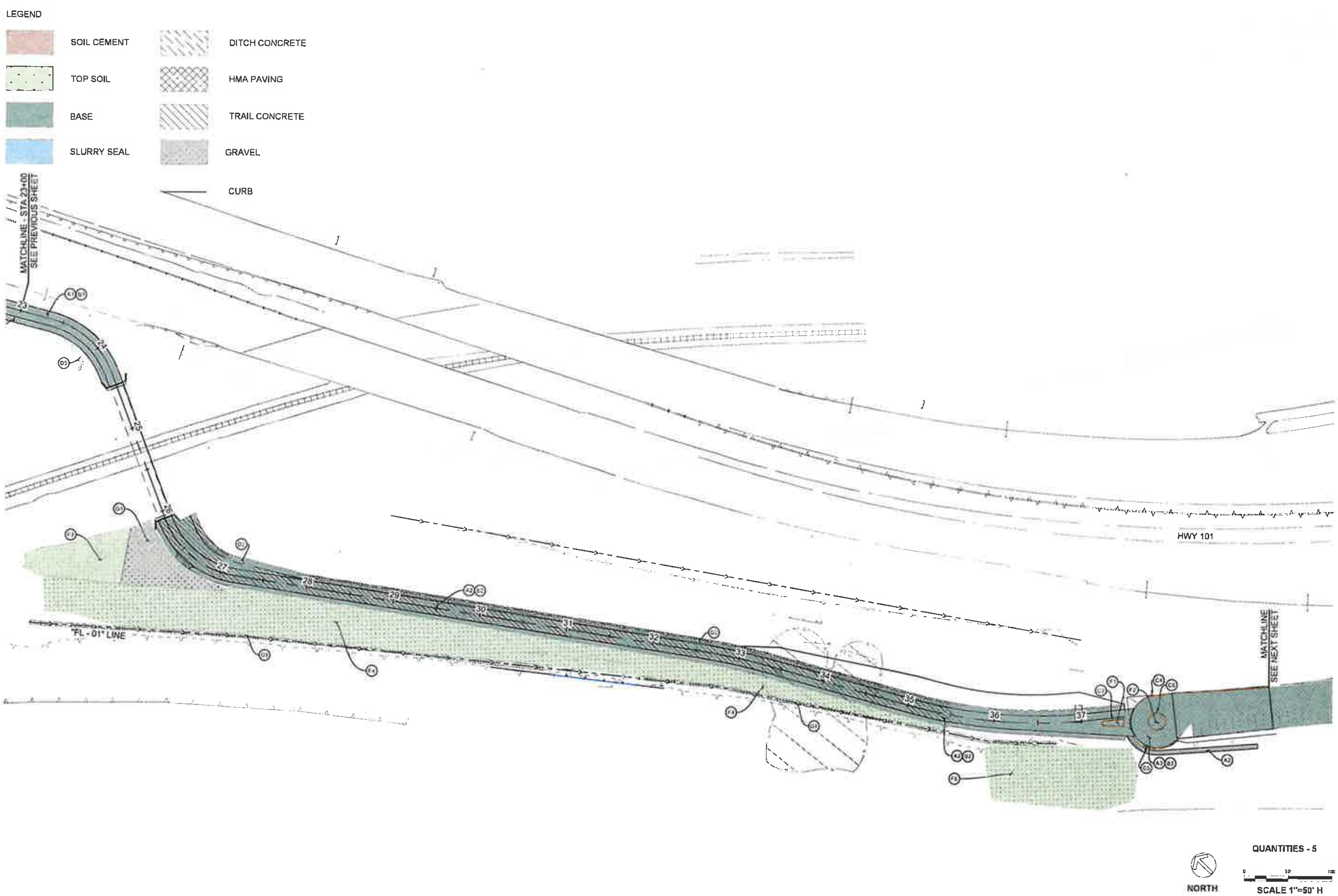
04/23/21 DATE | Q-4 SHT. NO.

SANTA BARBARA SUB
MP 380.49
LHMA MILE POST

53 of 119

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2



THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC
360 S. Hope Ave. C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

QUANTITIES

441148Y
UPRR PROJECT NO

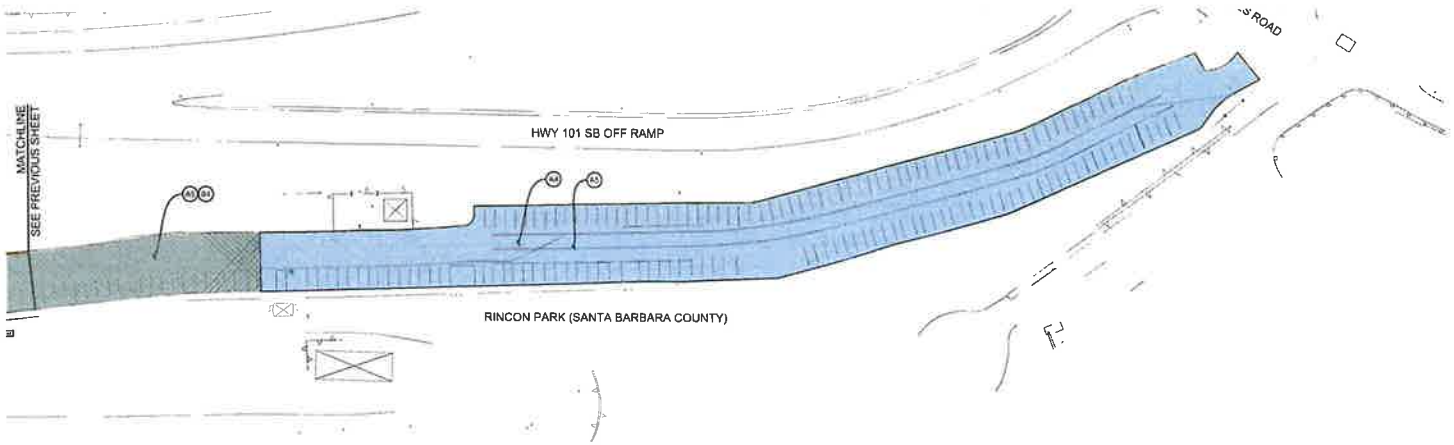
04/23/21 DATE | Q-5 SHT. DES

SANTA BARBARA SUB MP 380.49 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

LEGEND

SOIL CEMENT	DITCH CONCRETE
TOP SOIL	HMA PAVING
BASE	TRAIL CONCRETE
SLURRY SEAL	GRAVEL
	CURB



NORTH

QUANTITIES - 5

SCALE 1"=50' H

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design: SD
Drawn: HS
Chk'd: SD

BENGAL ENGINEERING
360 S. Hope Ave. C-110, Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL

QUANTITIES

441148Y
URBS PROJECT NO

04/23/21 DATE | Q-5 SHT. NO.

SANTA BARBARA SUB
MP 380.48
URBS MILE POST

55 of 119

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

BASE & PAVING SUMMARY OF QUANTITIES

AREA	DESCRIPTION	CLASS TWO AGGREGATE BASE AREA (N) (SF)	CLASS TWO AGGREGATE BASE THICKNESS (N) (FT)	CLASS TWO AGGREGATE BASE VOLUME (CY)	JOINTED PLAIN CONCRETE PAVEMENT AREA (N) (SF)	JOINTED PLAIN CONCRETE PAVEMENT THICKNESS (N) (FT)	JOINTED PLAIN CONCRETE PAVEMENT VOLUME (CY)	HOT MIXED ASPHALT AREA (N) (SF)	HOT MIXED ASPHALT THICKNESS (N) (FT)	HOT MIXED ASPHALT VOLUME (N) (CF)	HOT MIXED ASPHALT TONNAGE 135 LBS/CF (TONS)	TYPE TWO SLURRY SEAL AREA (SY)	TYPE TWO SLURRY SEAL APPLICATION RATE (LBS/SY)	TYPE TWO SLURRY SEAL SLURRY SEAL (TONS)	PAVEMENT REMOVAL AREA (SF)
A0	Western Trailhead Paving				1,160	0.42	18.0								
A1	Trail Paving - Fwy				22,530	0.42	350.5								
A2	Trail Paving - Ocean				21,630	0.42	336.5								
A3	Parking Lot @ Trailhead Paving							7,600	0.40	3,040	205				7600
A4	Parking Lot Paving							35,000	0.40	14,000	945				35000
A5	Parking Lot Slurry Seal											7444	15	56	
A6	Carpinteria Ave. Slurry Seal											21800	15	164	
A7	Miscellaneous Paving							100	0.40	40	3				
B0	Western Trailhead Base	1,160	0.50	21.5											
B1	Trail & Ditch Base - Fwy	30,100	0.50	557.4											
B2	Trail & Ditch Base - Ocean	34,330	0.50	635.7											
B3	Parking Lot Round About Base	7,930	0.50	146.9											
B4	Miscellaneous Base	100	0.50	1.9											
TOTALS	(Unrounded)	73,620		1363	45,320		705	42,700		17,080	1,153	29,244		219	42,600
TOTALS	(Rounded for Bid 10% and sig. digit)	81,000		1500	49,900		780	47,000		18,800	1,300	32,200		240	46,900

(N)="Not a Pay Item": for information only

CURB & DITCH SUMMARY OF QUANTITIES

AREA	DESCRIPTION	CURB – CALTRANS TYPE A1-6 LENGTH (N) (LF)	CURB – CALTRANS TYPE A1-6 CY PER LF (N) (CY)	CURB – CALTRANS TYPE A1-6 VOLUME (CY)	DITCH – CONCRETE DITCH ALONG TRAIL AREA (N) (SF)	DITCH – CONCRETE DITCH ALONG TRAIL THICKNESS (N) (FT)	DITCH – CONCRETE DITCH ALONG TRAIL VOLUME (CY)	DITCH – AIR BLOWN MORTAR ALONG FL-01 AREA (N) (SF)	DITCH – AIR BLOWN MORTAR ALONG FL-01 THICKNESS (N) (FT)	DITCH – AIR BLOWN MORTAR ALONG FL-01 VOLUME (CY)
C1	Minor Concrete - Curb @ Lt. West Trailhead	86	0.02585	2.22						
C2	Minor Concrete - Curb @ Rt. West Trailhead and Rt. CRT	220	0.02585	5.69						
C3	Minor Concrete - Curb @ Planter East Trailhead	64	0.02585	1.65						
C4	Minor Concrete - Curb @ Rincon Park Parking - North Side	160	0.02585	4.14						
C5	Minor Concrete - Curb @ Rincon Park Parking - South Side	55	0.02585	1.42						
C6	Minor Concrete - Curb @ Rincon Park Roundabout	63	0.02585	1.63						
D1	Minor Concrete - "CRT" Line Ditch Right Side				7,570	0.42	117.8			
D2	Minor Concrete - "CRT" Line Ditch Left Side				6,870	0.42	106.9			
D3	Minor Concrete - "FL - 01" Line Ditch							672	0.33	8.2
D4	Minor Concrete - "FL - 01" Line Ditch							543	0.33	6.6
D5	Minor Concrete - "CRT" Line Ditch Drainage System 1							605	0.33	7.4
TOTALS	(Unrounded)			16.8			224.6			22.2
TOTALS	(Rounded for Bid 10% and sig. digit)			20			250			24

(N)="Not a Pay Item": for information only
SEE SPECIAL PROVISIONS REGARDING TINTED CONCRETE

LANDSCAPING SUMMARY OF QUANTITIES

AREA	DESCRIPTION	LANDSCAPED AREAS – TOP SOIL AREA (N) (SF)	LANDSCAPED AREAS – TOP SOIL THICKNESS (N) (FT)	LANDSCAPED AREAS – TOP SOIL VOLUME (CY)	OBSERVATION AREA SURFACING – 3/4" CALIFORNIA GOLD GRAVEL MIX AREA (N) (SF)	OBSERVATION AREA SURFACING – 3/4" CALIFORNIA GOLD GRAVEL MIX THICKNESS (N) (FT)	OBSERVATION AREA SURFACING – 3/4" CALIFORNIA GOLD GRAVEL MIX VOLUME (CY)
F1	Top Soil (Planted Median East Trailhead)	240	1	8.9			
F2	Top Soil (Planted Median in Round About)	280	1	10.4			
F3	Top Soil (Slope West of Observation Area)	2900	0.5	53.7			
F4	Top Soil (Slope Reinforcement)	10100	2	748.1			
F5	Top Soil (Slope Reinforcement)	50800	2	3763.0			
F6	Top Soil (Buttress Fill)	16300	2	1207.4			
G1	Gravel (Observation Area)				4500	0.3	50.0
TOTALS	(Unrounded)	80,620		5,791	4,500		50
TOTALS	(Rounded for Bid 15% and sig. digit)	92,700		6,660	5,200		60

(N)="Not a Pay Item" for information only

QUANTITIES - 7

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

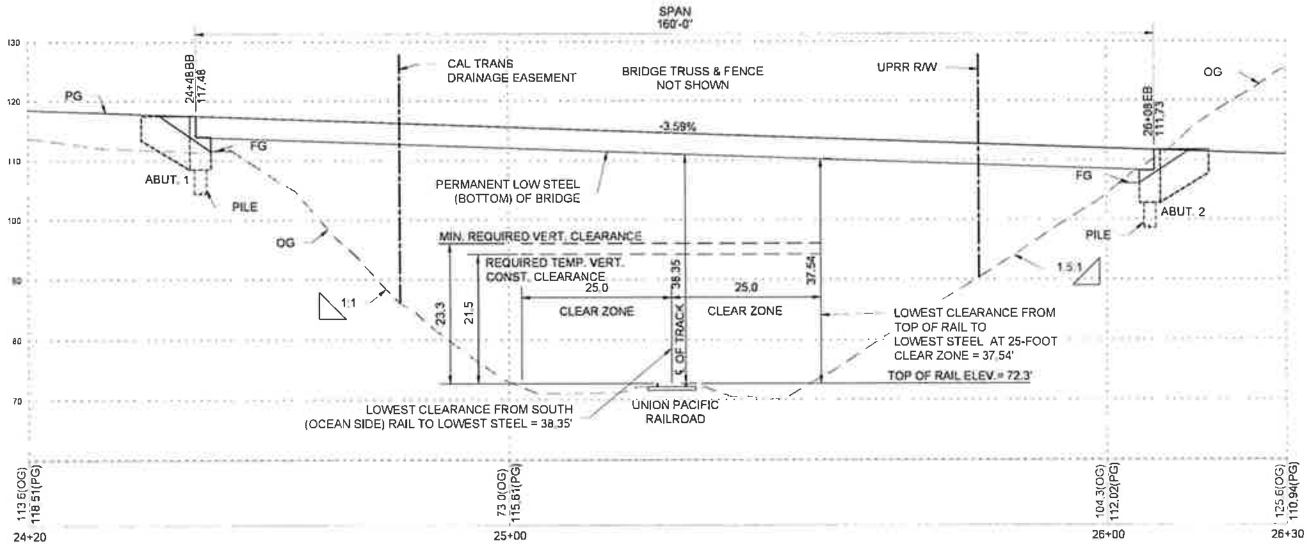
Design SO
Drawn HS
Chk'd SO

BENGAL ENGINEERING INC.
360 S. Hope Ave, C-110 Santa Barbara, CA 93105

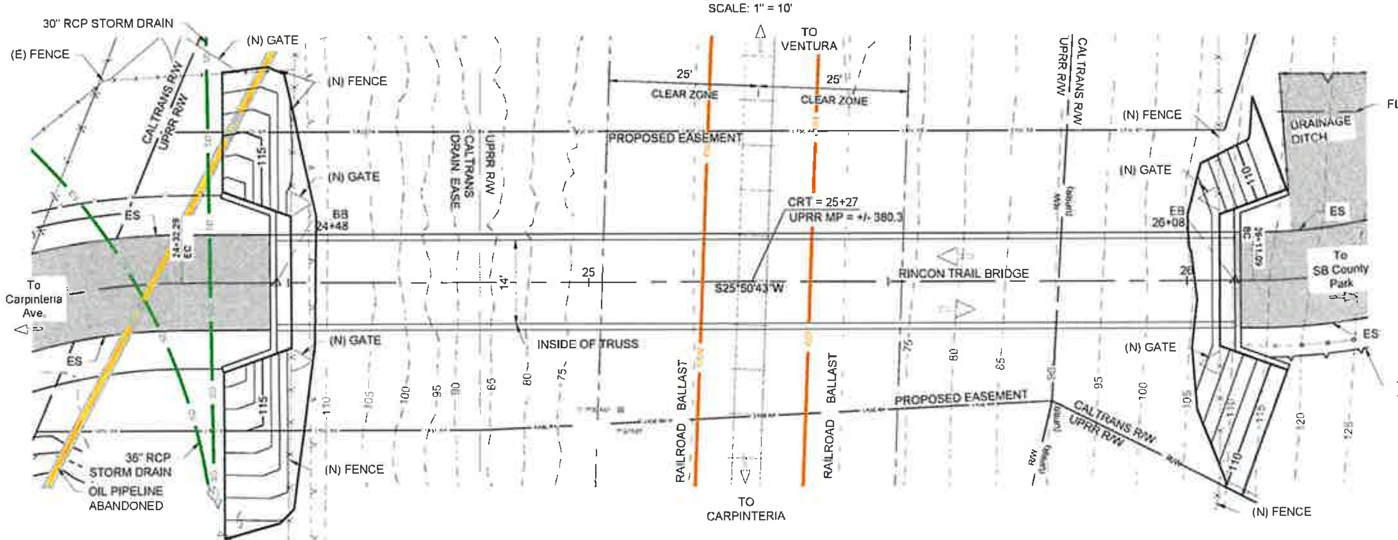
CARPINTERIA RINCON MULTI USE TRAIL
SUMMARY OF QUANTITIES

441148Y
UPRR PROJECT NO.
04/23/21 DATE | Q-7 SHT. DES.
SANTA BARBARA SUB MP 380.49
UPRR MILE POST

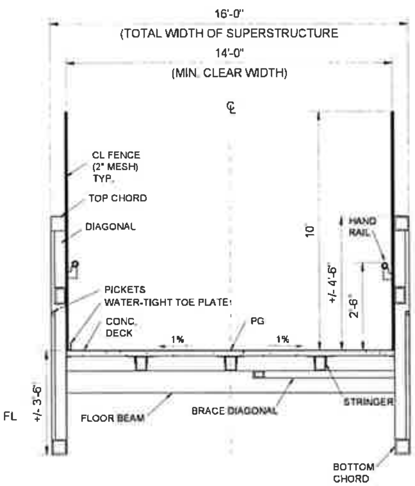
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES



ELEVATION
SCALE: 1" = 10'



BRIDGE PLAN
SCALE: 1"= 10'



TYPICAL SECTION - MIDDLE SPAN
No Scale

PROJECT INFORMATION
1. MILE POST 380.3 SANTA BARBARA SUB, CARPINTERIA, CA
2. LATITUDE 34°22'48.18"N LONGITUDE 119°28'57.20"W

INDEX TO BRIDGE PLANS

BR-1 BRIDGE GENERAL PLAN
SCALE 1"=10'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved: Matt Roberts, Project Manager

Design SD
Drawn HS
Check MDW

BENGAL ENGINEERING INC
380 S. Hope Ave, C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
BRIDGE PLANS

441148Y	UPRR PROJECT NO.
04/23/21 (DATE)	BR-1 (SHT. DES.)
SANTA BARBARA SUB MP 380.48	UPRR MILE POST

STRUCTURE DESIGN CRITERIA

STRUCTURE IS DESIGNED PER AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2ND EDITION, 2015

CONSTRUCTION METHODS

OVERVIEW:
THIS IS A PREFABRICATED STEEL BRIDGE, WITH A CAST-IN-PLACE CONCRETE DECK. THE BRIDGE IS SUPPORTED BY A DEEP FOUNDATION SYSTEM USING CAST-IN-DRILL HOLE (CIDH) CONCRETE PILES.

DETAILS OF CONSTRUCTION METHODS,

THE BRIDGE WILL BE BUILT USING THE FOLLOWING CONSTRUCTION SEQUENCE

BRIDGE FOUNDATION:

A) **PILES:** CAST-IN-DRILL HOLE (CIDH). THESE ABUTMENT PILES WILL BE BUILT BY DRILLING TO AN ELEVATION SHOWN IN "BRIDGE FOUNDATION PLAN".

AFTER THE HOLE IS COMPLETE BAR REINFORCING STEEL WILL BE PLACED INSIDE THE HOLE USING CENTRALIZERS TO POSITION THE STEEL IN THE HOLE. FINALLY, CONCRETE WILL BE PLACED "FROM THE BOTTOM-UP", USING CONCRETE TREMIES.

B) **REINFORCED CONCRETE ABUTMENTS / WING WALLS:**
REINFORCED CONCRETE ABUTMENTS WILL BE CONSTRUCTED ON TOP OF THE CIDH PILES. THE ABUTMENTS / WINGWALLS WILL BE BUILT IN-PLACE USING STANDARD PLYWOOD FORMWORK. THE ABUTMENTS INCLUDE BOLTS TO TIE THE BRIDGE SUPERSTRUCTURE TO THE ABUTMENT.

BRIDGE SUPERSTRUCTURE:
THE BRIDGE SUPERSTRUCTURE IS A SHOP-BUILT STEEL TRUSS SYSTEM. THE STEEL USED IN THE BRIDGE SHALL BE COR-TEN STEEL WHICH WILL BE PAINTED LIGHT SKY BLUE, CONTRACTOR TO PROVIDE A SAMPLE/PAINT CHIP FOR APPROVAL. THE BRIDGE WILL BE FABRICATED BY A PREQUALIFIED SUPPLIER WITH SHOP-CERTIFIED PROCEDURES.

BRIDGE DECK:
AFTER THE PREFABRICATED STEEL SUPERSTRUCTURE IS BOLTED TO THE BRIDGE ABUTMENTS, THE CONTRACTOR WILL PLACE DECK REINFORCEMENT, SUPPORTED ON THE FACTORY-BUILT "DECK PAN" BY CHAIRS OR DOBIES. BRIDGE DECK REINFORCEMENT IS BY BRIDGE FABRICATOR. NO FALSEWORK WILL BE NEEDED TO SUPPORT THIS DECK FROM BELOW. NEXT THE DECK CONCRETE WILL BE PLACED USING A BOOM PUMP. THIS DECK WILL BE FINISHED LIKELY USING HAND METHODS (COMPARED TO MECHANIZED "BIDWELL" FINISHING).

BR-2 STRUCTURE CRITERIA & CONSTRUCTION METHODS

THE CITY OF CARPINTERIA
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Approved Matt Roberts, Project Manager

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CARPINTERIA RINCON MULTI USE TRAIL
BRIDGE PLANS

441148Y
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04/23/21 DATE
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SANTA BARBARA SUB
MP 380.49
UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2

GENERAL NOTES:

1. THE PROPOSED GRADE SEPARATION PROJECT SHALL NOT INCREASE THE QUANTITY AND/OR CHARACTERISTICS OF THE DRAINAGE IN THE RAILROAD'S DITCHES AND/OR DRAINAGE STRUCTURES.
2. THE ELEVATION OF THE EXISTING TOP-OF-RAIL PROFILE SHALL BE VERIFIED BEFORE BEGINNING CONSTRUCTION. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE RAILROAD PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR MUST SUBMIT A PROPOSED METHOD OF EROSION AND SEDIMENT CONTROL AND HAVE THE METHOD APPROVED BY THE RAILROAD.
4. ALL SHORING SYSTEMS THAT IMPACT THE RAILROAD'S OPERATIONS AND/OR SUPPORTS THE RAILROAD'S EMBANKMENT SHALL BE DESIGNED AND CONSTRUCTED PER CURRENT RAILROAD GUIDELINES FOR TEMPORARY SHORING.
5. ALL DEMOLITIONS WITHIN THE RAILROAD'S RIGHT-OF-WAY AND/OR DEMOLITION THAT MAY IMPACT THE RAILROAD'S TRACKS OR OPERATIONS SHALL BE IN COMPLIANCE WITH THE RAILROAD'S DEMOLITION GUIDELINES.
6. ERECTION OVER THE RAILROAD'S RIGHT-OF-WAY SHALL BE DESIGNED TO CAUSE NO INTERRUPTION TO THE RAILROAD'S OPERATION, ENABLING THE TRACK(S) TO REMAIN OPEN TO TRAFFIC PER THE RAILROAD'S REQUIREMENTS.
7. RAILROAD REQUIREMENTS DO NOT ALLOW WORK WITHIN 50 FEET OF TRACK CENTERLINE WHEN A TRAIN PASSES THE WORK SITE AND ALL PERSONNEL MUST CLEAR THE AREA WITHIN 25 FEET OF THE TRACK CENTERLINE AND SECURE ALL EQUIPMENT.
8. FALSE-WORK CLEARANCES SHALL COMPLY WITH MINIMUM CONSTRUCTION CLEARANCES.
9. ALL PERMANENT CLEARANCES SHALL BE VERIFIED BEFORE PROJECT CLOSING.
10. FOR RAILROAD COORDINATION PLEASE REFER TO THE RAILROAD MINIMUM REQUIREMENTS AS PART OF SPECIAL PROVISIONS.

BR-3 GENERAL UPRR NOTES

FOUNDATION PLAN
SCALE 1"= 10'-0"

NOTES

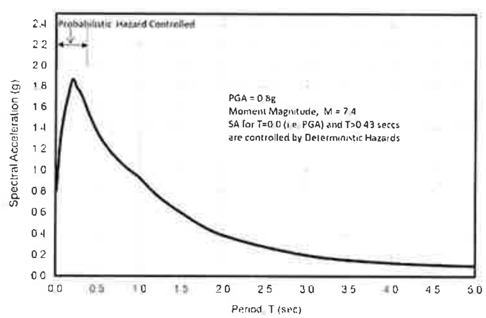
1. VERIFY AND PROTECT ALL UPRR COMMUNICATION & SIGNAL LINES AND OTHER UTILITIES IN AREA

CALTRANS STANDARD PLANS, 2018

A3 - A-C	ACRONYMS AND ABBREVIATIONS
A10 - A-D	LINES AND SYMBOLS
A62-A	EXCAVATION AND BACKFILL - MISCELLANEOUS DETAILS
A62-C	LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL-BRIDGE
RSP B0-1	BRIDGE DETAILS
B2-3	24" CAST-IN-DRILLED-HOLE CONCRETE PILE

LOAD RESISTANCE FACTOR DESIGN NOTES

Design	AASHTO LRFD Specifications, Eighth Edition with California Amendments (AASHTO-CA BDS-8)
Seismic Design:	Caltrans Seismic Design Criteria (SDC) Version 2.0, April 2019
Live Loading	H 10 Design, Pedestrian Loading = 90 PSF
Seismic Loading	Site Specific Acceleration Response Spectra Curve
Piles	See "Pile Data" table on "BRIDGE FOUNDATION PLAN" sheet
Reinforced Concrete:	f_y = 60,000 psi
	f_c = 4,000 psi (Unless otherwise shown or specified)
Structural Steel	ASTM A709 Grade 50
Steel Pipe Piles:	ASTM A252, Grade 3



ACCELERATION RESPONSE SPECTRA

PILE DATA TABLE

LOCATION	PILE TYPE	NOMINAL RESISTANCE (KIPS)		DESIGN TIP ELEVATION (FT)	SPECIFIED TIP ELEVATION (FT)
		COMPRESION	TENSION		
ABUT 1	24" CIDH	250	0	70 (a) 80 (b)	70
ABUT 2	24" CIDH	250	0	64 (a) 75 (b)	64

Notes

1. Design tip elevations are controlled by (a) Compression (static), (b) Lateral Load, respectively.
2. The Specified Tip Elevation shall not be raised above the design tip elevations for lateral, and tolerable settlement.
3. For the specified pile tip elevations, support settlement due to the total vertical load based on the service limit state I load combination is estimated to be less than one (1) inch for both abutments.

POINT TABLE

POINT #	NORTHING	EASTING
1	1964060.35	6114410.27
2	1964055.28	6114420.74
3	1964050.20	6114431.21
4	1963917.70	6114341.18
5	1963912.63	6114351.65
6	1963907.56	6114362.12

BR-4 BRIDGE FOUNDATION PLAN
SCALE 1"=10'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION
Approved: Matt Roberts, Project Manager
Design SO
Drawn HS
Chk'd MDW
BENGAL ENGINEERING INC.
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CARPINTERIA RINCON MULTI USE TRAIL
BRIDGE PLANS

441148Y UPRR PROJECT NO.
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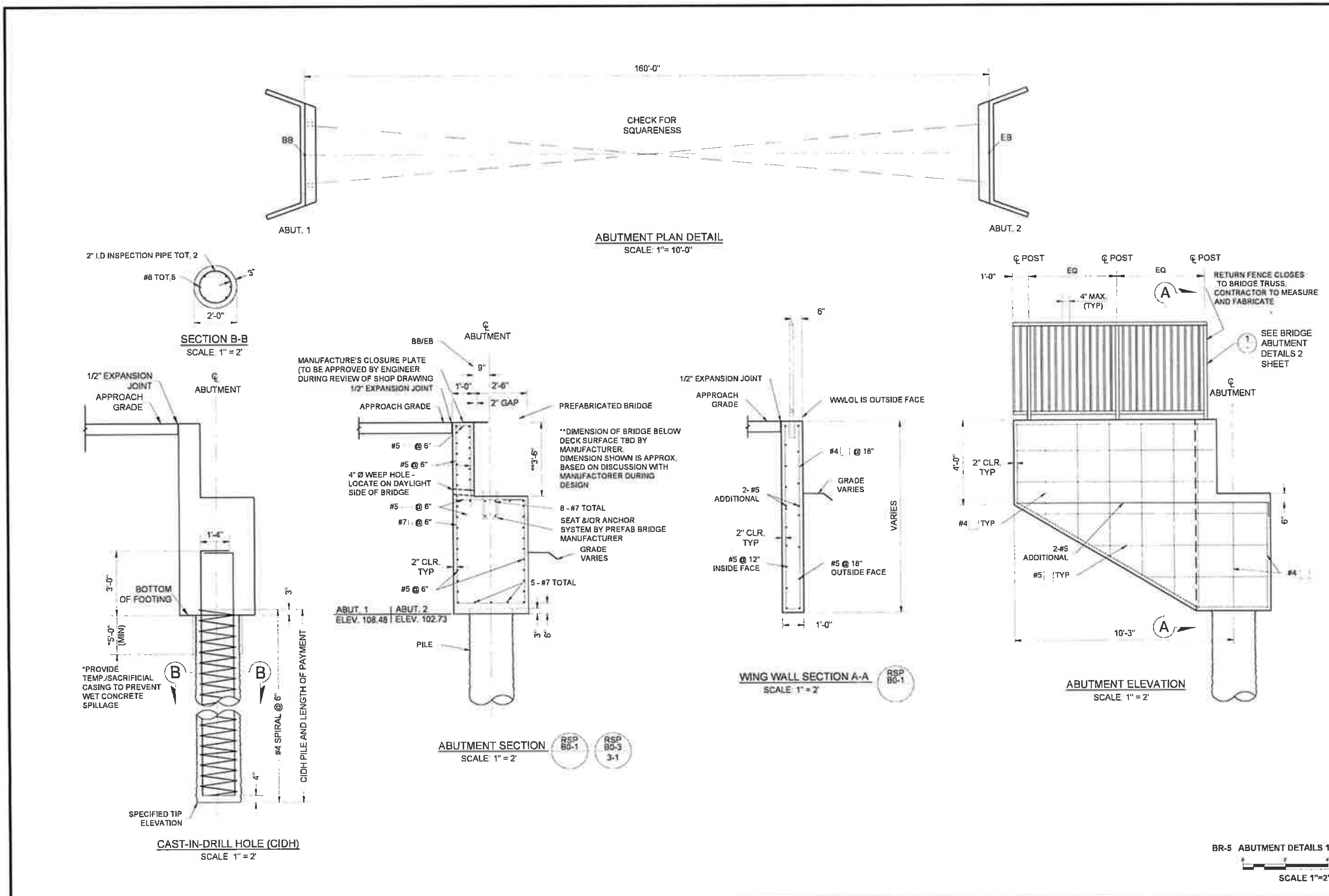

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Approved Matt Roberts, Project Manager

Design SO
Drawn HS
Chk'd MOVI

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CARPINTERIA RINCON MULTI USE TRAIL
BRIDGE PLANS

441148Y
UPRR PROJECT NO

04/23/21	BR-5
DATE	SHT DES

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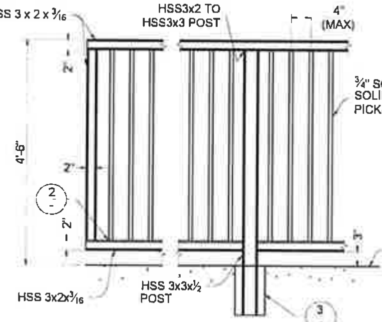
0 1 2

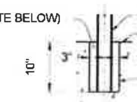
NOTE

CONTRACTOR TO FIELD MEASURE WING WALL WITH BRIDGE IN PLACE AND PREPARE SHOP DRAWINGS FOR FABRICATION OF ABUTMENT RAILING FOR APPROVAL BY THE ENGINEER



1 ABUTMENT RAILING DETAIL

2 PICKET DETAIL



3 CONNECTION DETAIL

NOTE
USE CEMENTITIOUS GROUT
WITH 1/2" MAXIMUM PEA GRAVEL.
28-DAY COM. STRENGTH = 4000 PSI

ABUTMENT RAILING DETAILS
SCALE: 1" = 2'

BR-6 ABUTMENT DETAILS 2
SCALE 1"=2'

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441148Y
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BR-6 SHT DES
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MP 383.45
UPRR MILE POST

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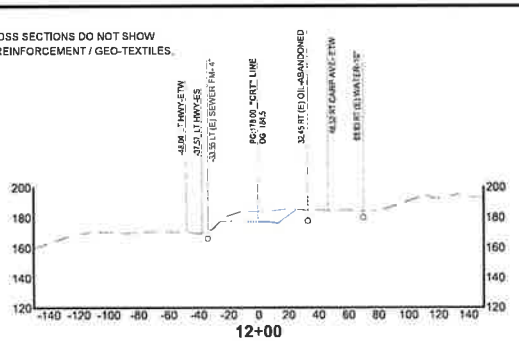
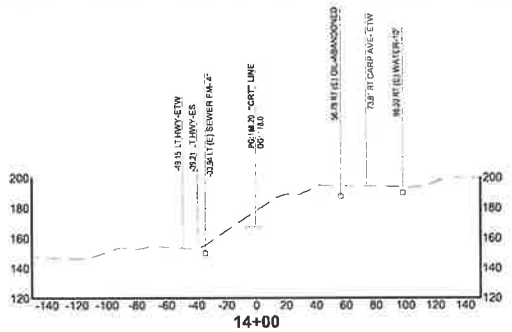
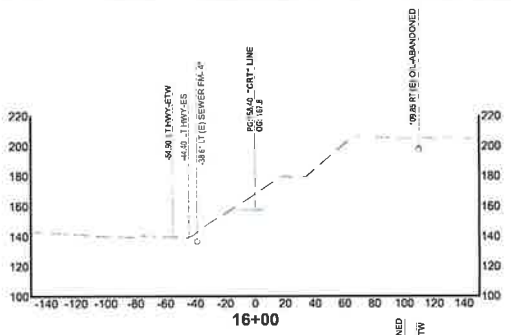
0 1 2

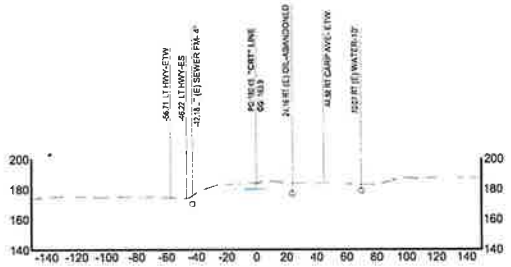
NOTES:

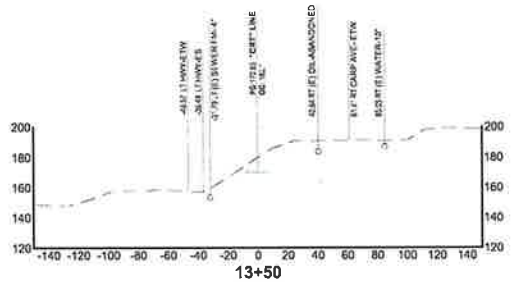
1. THESE CROSS SECTIONS DO NOT SHOW THE SLOPE REINFORCEMENT / GEO-TEXTILES.

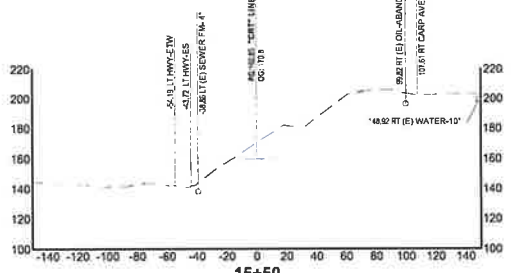


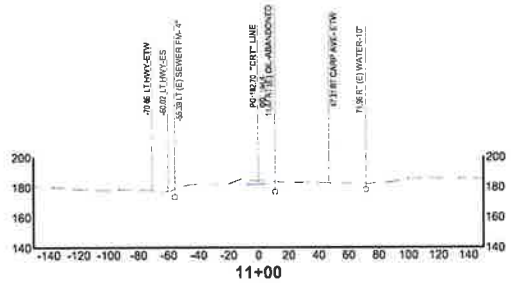


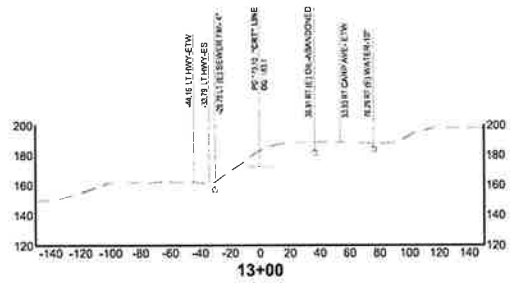


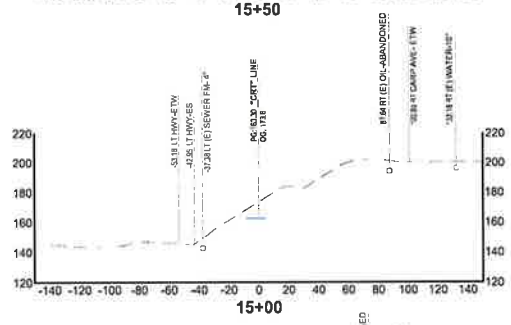


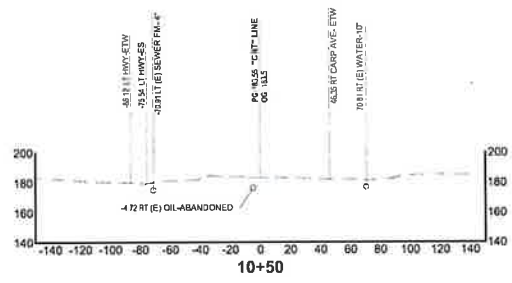


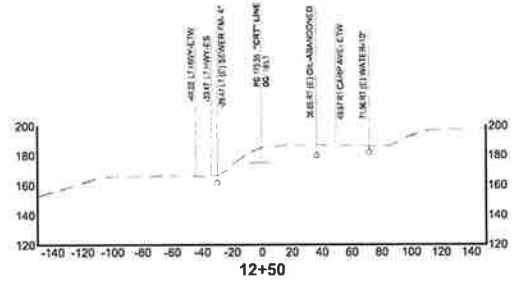


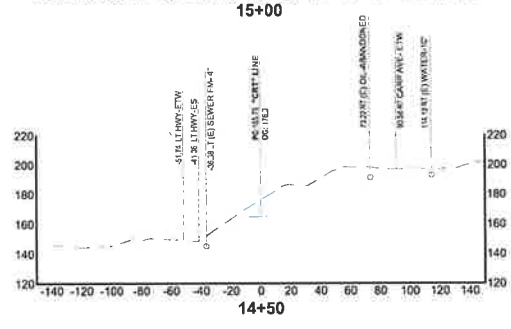












TRAIL CROSS SECTIONS -1

SCALE 1"=40'

The City of CARPINTERIA

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Ask your Matt Roberts, Project Manager

Design — SO
Drawn — HS
Chk'd — SO

BENGAL ENGINEERING, INC.
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CARPINTERIA RINCON MULTI USE TRAIL

TRAIL CROSS SECTIONS

441148Y
UPRR PROJECT NO

04/23/21 — DATE
CS-1 — SHT. NO.

SANTA BARBARA SUB.
MP 393.49
UPRR MILE POST

63 of 119

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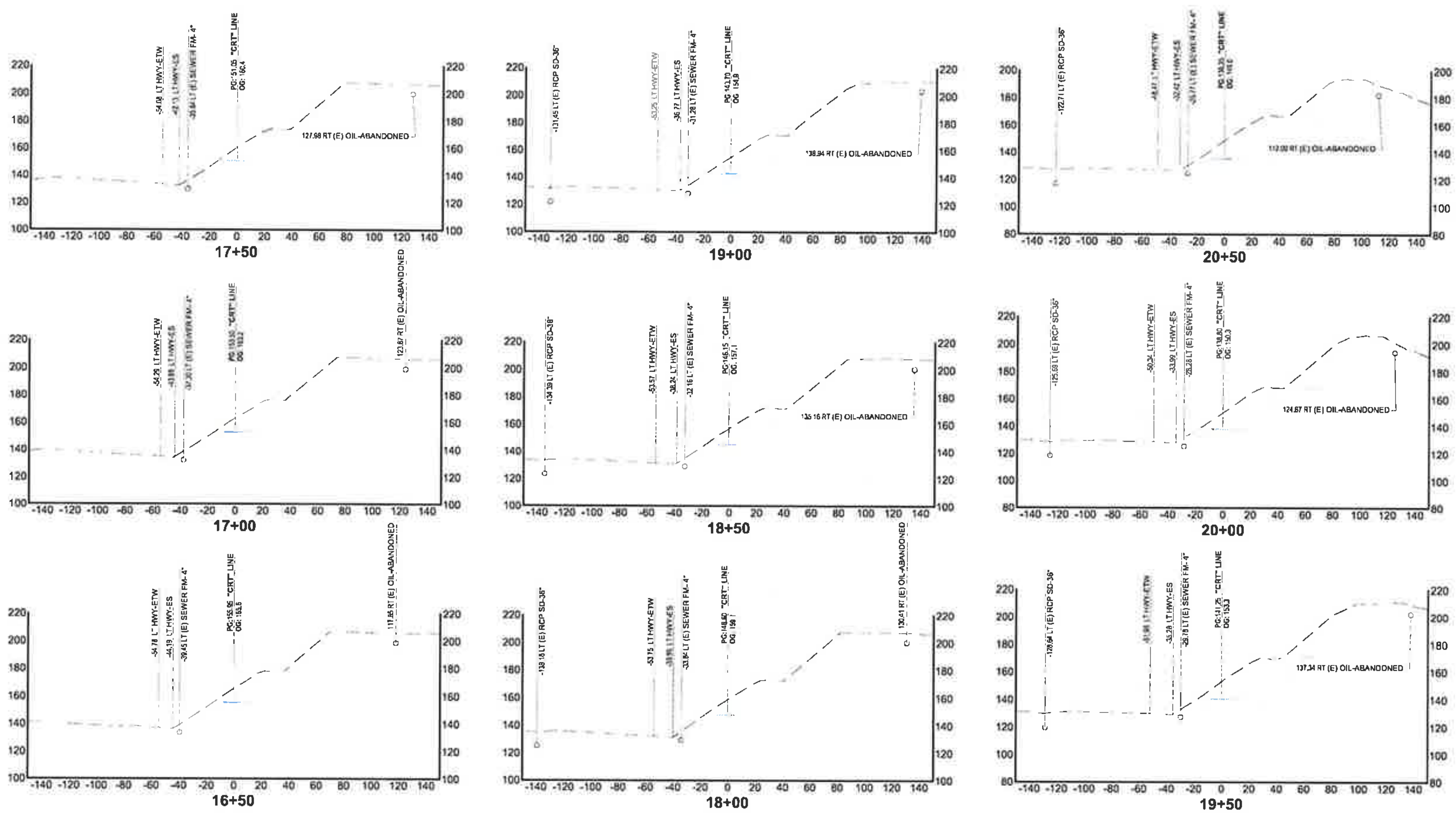

TRAIL CROSS SECTIONS -2

SCALE 1"=40'

CARPINTERIA RINCON MULTI USE TRAIL

TRAIL CROSS SECTIONS

THE CITY OF CARPINTERIA

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Approved: Matt Roberts, Project Manager

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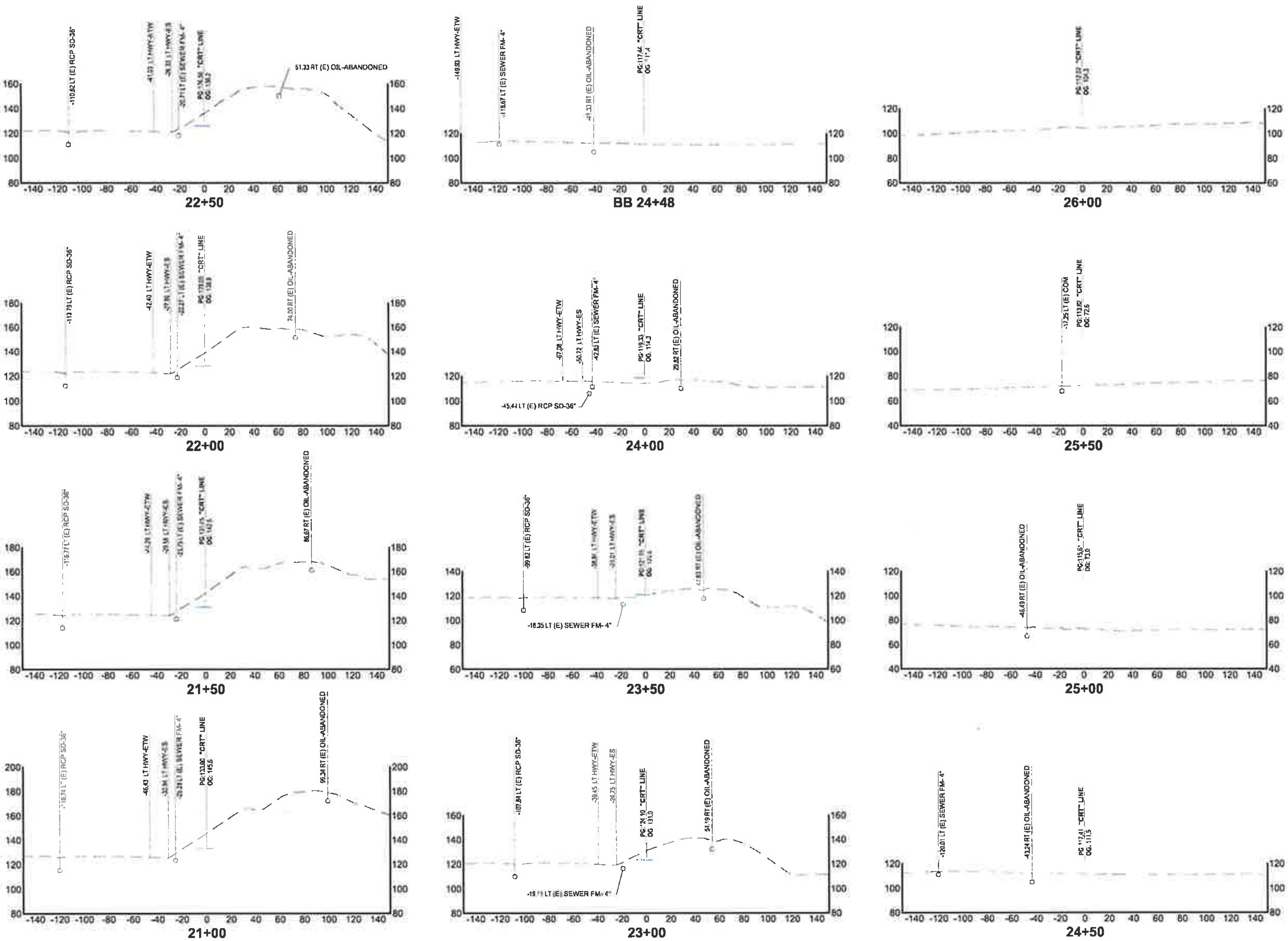

TRAIL CROSS SECTIONS -3

SCALE 1"=40'

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CARPINTERIA RINCON MULTI USE TRAIL
TRAIL CROSS SECTIONS

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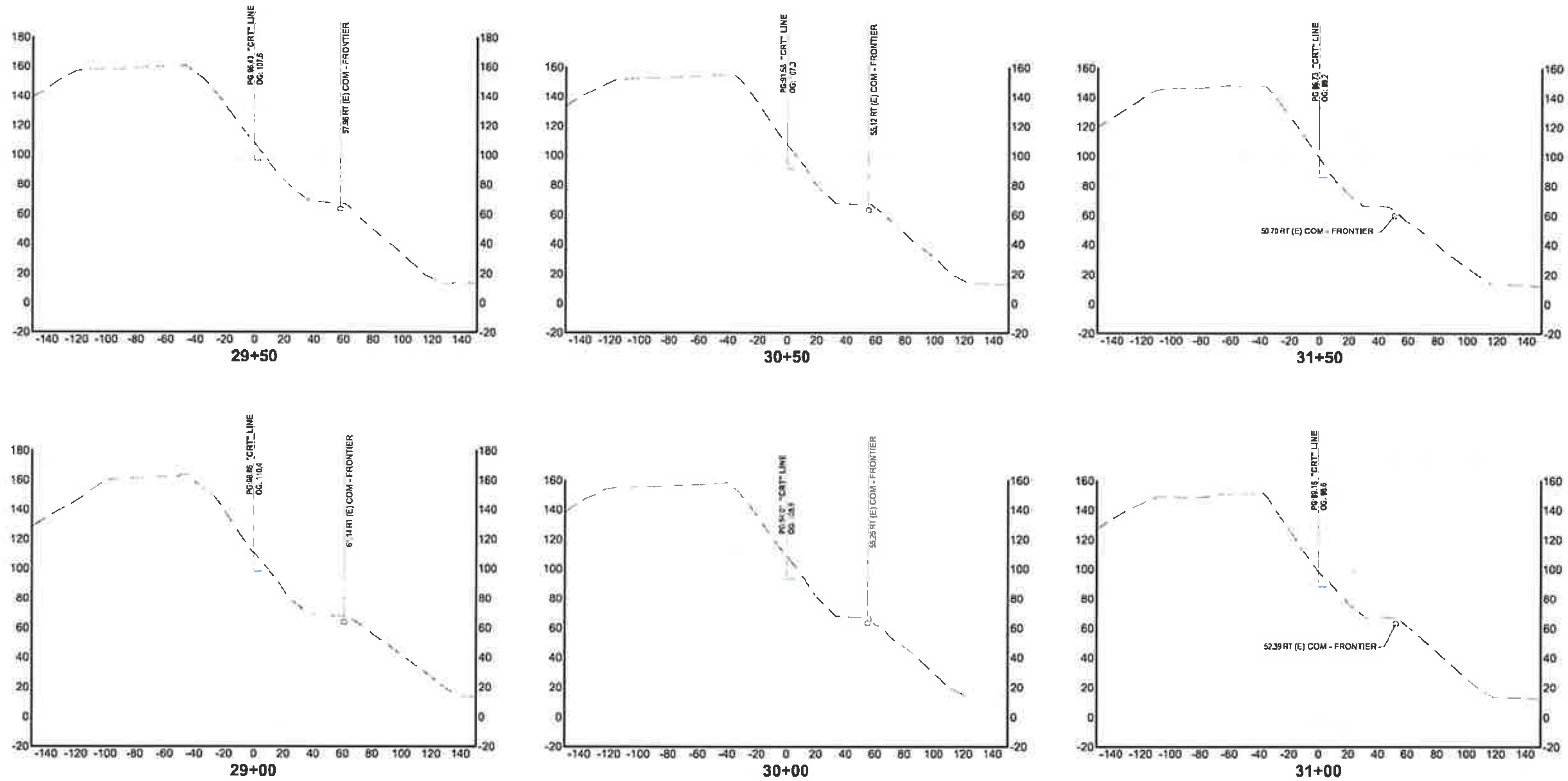

TRAIL CROSS SECTIONS -5

SCALE 1"=40'

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Design: SO
Drawn: HB
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CARPINTERIA RINCON MULTI USE TRAIL

TRAIL CROSS SECTIONS

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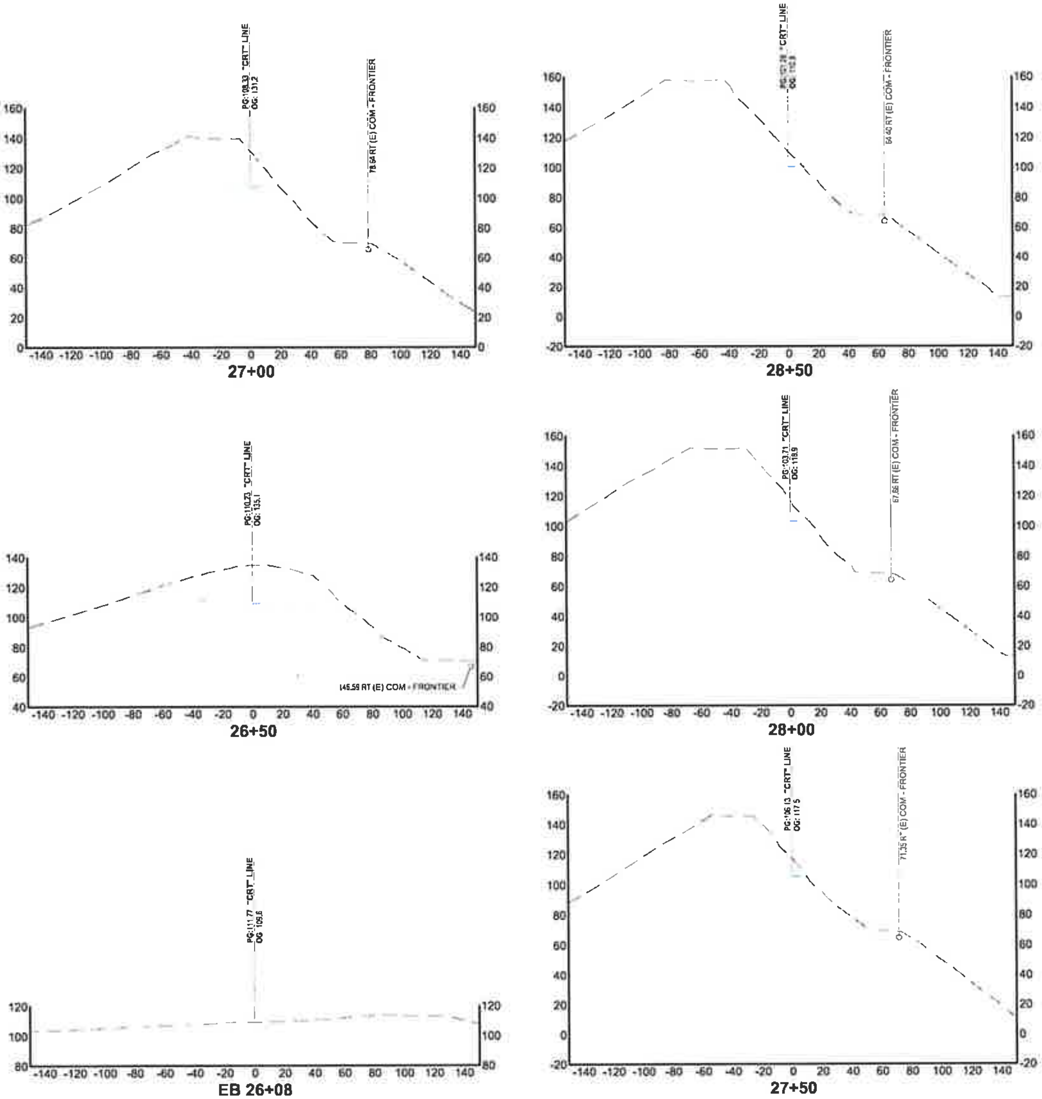

TRAIL CROSS SECTIONS -4

SCALE 1"=40'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved
Matt Roberts, Project Manager

Design SO
Drawn HS
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CARPINTERIA RINCON MULTI USE TRAIL
TRAIL CROSS SECTIONS

441148Y
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04/23/21	CS-4
DATE	SHT. DES.

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MP 390.48
UPRR MILE POST

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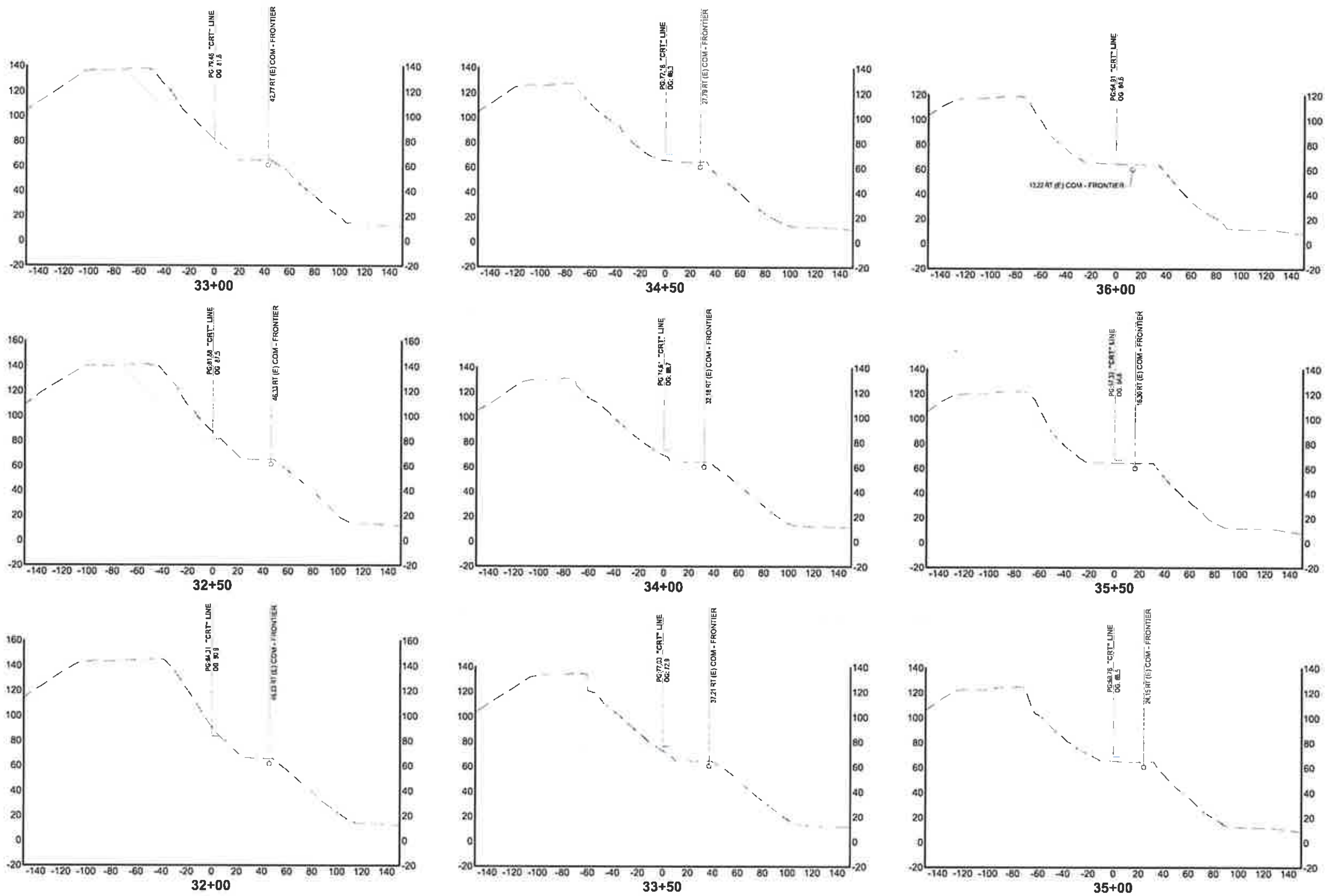

TRAIL CROSS SECTIONS -6

SCALE 1"=40'

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PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

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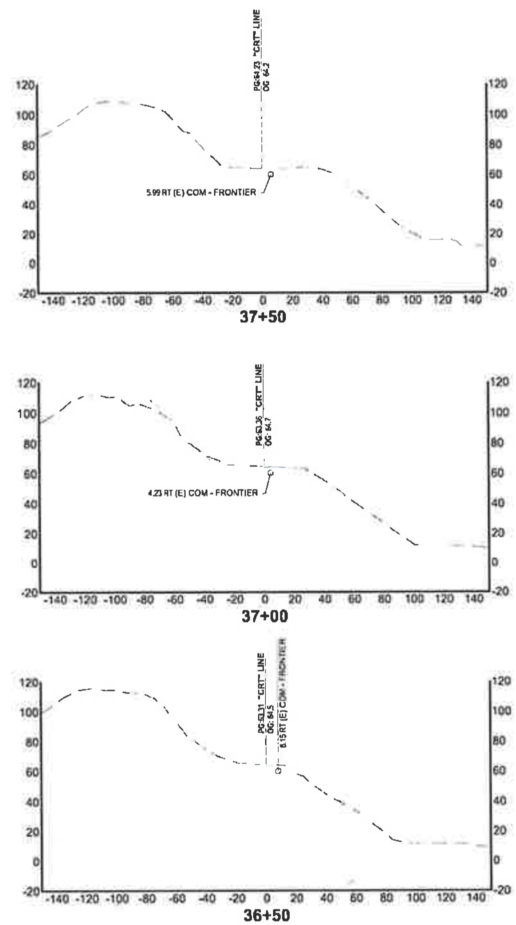

TRAIL CROSS SECTIONS -7

SCALE 1"=40'

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TRAIL CROSS SECTIONS

441148Y

04/23/21 | CS-7

MP 380.48

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

FREEWAY SIDE

EARTHWORK VOLUME [STA: 10+40 to 24+48]							
STATION	FILL AREA (SF)	CUT AREA (SF)	FILL VOLUME (CY)	CUT VOLUME (CY)	CUM. FILL VOL (CY)	CUM. CUT VOL (CY)	NET VOL (CY)
10+40.00	3.05	46.37	0.00	0.00	0.00	0.00	0
10+50.00	1.87	51.53	0.83	18.13	0.83	18.13	17
10+75.00	0.42	57.27	1.11	50.37	2.03	68.50	66
11+00.00	0.00	73.72	0.20	60.96	2.23	129.46	127
11+25.00	0.00	151.06	0.00	105.15	2.23	234.61	232
11+50.00	0.00	181.87	0.00	160.45	2.23	395.06	393
11+75.00	0.00	231.67	0.00	197.47	2.23	592.53	590
11+86.52	0.00	260.57	0.00	196.73	2.23	789.26	787
12+00.00	0.00	277.46	0.00	34.67	2.23	823.92	822
12+20.00	0.00	321.48	0.00	221.01	2.23	1044.94	1043
12+25.00	0.00	328.82	0.00	60.21	2.23	1105.15	1103
12+50.00	0.00	353.78	0.00	313.25	2.23	1418.40	1416
12+75.00	0.00	382.37	0.00	341.15	2.23	1759.55	1757
13+00.00	0.00	443.10	0.00	380.70	2.23	2140.25	2138
13+04.64	0.00	454.20	0.00	77.07	2.23	2217.32	2215
13+25.00	0.00	500.60	0.00	360.03	2.23	2577.35	2575
13+34.27	0.00	518.15	0.00	174.94	2.23	2752.28	2750
13+50.00	0.00	550.97	0.00	311.37	2.23	3063.65	3061
13+75.00	0.00	616.93	0.00	534.03	2.23	3597.68	3595
14+00.00	0.00	660.71	0.00	583.57	2.23	4181.25	4179
14+25.00	0.00	703.76	0.00	622.73	2.23	4803.97	4802
14+50.00	0.00	726.83	0.00	652.53	2.23	5456.50	5454
14+75.00	0.00	738.51	0.00	667.90	2.23	6124.40	6122
15+00.00	0.00	766.31	0.00	685.17	2.23	6809.57	6807

EARTHWORK VOLUME [STA: 10+40 to 24+48]							
STATION	FILL AREA (SF)	CUT AREA (SF)	FILL VOLUME (CY)	CUT VOLUME (CY)	CUM. FILL VOL (CY)	CUM. CUT VOL (CY)	NET VOL (CY)
15+25.00	0.00	834.66	0.00	727.51	2.23	7537.08	7535
15+50.00	0.00	878.77	0.00	775.79	2.23	8312.87	8311
15+75.00	0.00	927.42	0.00	816.27	2.23	9129.14	9127
15+97.48	0.00	935.20	0.00	756.58	2.23	9885.73	9883
16+00.00	0.00	936.68	0.00	87.42	2.23	9973.15	9971
16+25.00	0.00	862.38	0.00	857.03	2.23	10830.18	10828
16+50.00	0.00	974.48	0.00	873.38	2.23	11703.56	11701
16+75.00	0.00	1000.78	0.00	889.72	2.23	12593.28	12591
17+00.00	0.00	1041.98	0.00	919.28	2.23	13512.57	13510
17+25.00	0.00	1005.15	0.00	920.46	2.23	14433.03	14431
17+50.00	0.00	1049.41	0.00	922.35	2.23	15355.38	15353
17+75.00	0.00	1137.57	0.00	979.83	2.23	16335.21	16333
18+00.00	0.00	1241.94	0.00	1063.98	2.23	17399.18	17397
18+25.00	0.00	1352.23	0.00	1159.59	2.23	18558.77	18555
18+50.00	0.00	1472.09	0.00	1255.64	2.23	19814.42	19812
18+60.68	0.00	1534.81	0.00	594.91	2.23	20409.33	20407
18+75.00	0.00	1638.55	0.00	841.35	2.23	21250.68	21248
19+00.00	0.00	1818.65	0.00	1600.56	2.23	22851.24	22849
19+25.00	0.00	1913.56	0.00	1727.89	2.24	24579.13	24577
19+50.00	0.00	1999.56	0.00	1811.66	2.24	26390.78	26389
19+75.00	0.00	2049.02	0.00	1874.35	2.24	28265.14	28263
20+00.00	0.00	1994.69	0.00	1872.09	2.24	30137.23	30135
20+25.00	0.00	1887.42	0.00	1797.27	2.24	31934.50	31932
20+50.00	0.00	1880.44	0.00	1651.79	2.24	33586.28	33584

EARTHWORK VOLUME [STA: 10+40 to 24+48]							
STATION	FILL AREA (SF)	CUT AREA (SF)	FILL VOLUME (CY)	CUT VOLUME (CY)	CUM. FILL VOL (CY)	CUM. CUT VOL (CY)	NET VOL (CY)
20+75.00	0.01	1477.54	0.00	1462.03	2.24	35048.31	35046
21+00.00	0.00	1343.87	0.00	1306.21	2.25	36354.52	36352
21+25.00	0.00	1208.74	0.00	1180.84	2.25	37535.36	37533
21+50.00	0.00	1082.77	0.00	1059.96	2.25	38595.31	38593
21+75.00	0.01	970.33	0.00	950.51	2.25	39545.82	39544
22+00.00	0.00	800.64	0.00	866.19	2.25	40412.01	40410
22+25.00	0.00	911.99	0.00	839.18	2.25	41251.19	41249
22+50.00	0.00	857.37	0.00	818.15	2.25	42070.33	42068
22+75.00	0.00	827.88	0.00	687.66	2.25	42758.00	42756
23+00.00	0.00	0.00	0.00	290.73	2.25	43048.73	43046
23+25.00	15.78	138.36	7.30	63.13	9.56	43111.86	43102
23+37.15	16.93	68.40	7.36	46.06	16.92	43157.91	43141
23+50.00	33.66	24.40	13.49	19.99	30.40	43177.91	43148
23+75.00	105.69	12.10	68.66	14.59	99.06	43192.50	43093
23+84.72	124.66	11.78	43.14	3.38	142.20	43195.87	43054
24+00.00	161.69	10.47	83.61	4.81	225.81	43200.68	42975
24+25.00	253.04	0.00	191.48	3.64	417.28	43204.32	42787
24+32.29	237.76	0.00	71.64	0.00	488.93	43204.32	42715
24+40.00	161.54	0.00	64.90	0.00	553.83	43204.32	42650
24+47.50	129.87	0.00	40.47	0.00	594.30	43204.32	42610
24+48.50	127.30	0.00	2.38	0.00	598.68	43204.32	42606

Surface Properties - Vol (TH West) 02 18 21

Information | Definition | Analysis | Statistics

Statistics	Value
⊞ General	
⊞ TIN	
⊟ Volume	
Base Surface	EG (2018)
Comparison Surface	Trail Head (North) Surface - (Datum)
Cut Factor	1.00
Fill Factor	1.00
Cut volume (adjusted)	40.28 Cu. Yd.
Fill volume (adjusted)	18.97 Cu. Yd.
Net volume (adjusted)	21.31 Cu. Yd. <Cut>
Cut volume (unadjusted)	40.28 Cu. Yd.
Fill volume (unadjusted)	18.97 Cu. Yd.
Net volume (unadjusted)	21.31 Cu. Yd. <Cut>

TRAILHEAD (WEST)

CUT - 40 CY
FILL - 19 CY

Surface Properties - Vol (ocean) 02 18 21

Information | Definition | Analysis | Statistics

Statistics	Value
⊞ General	
⊞ TIN	
⊟ Volume	
Base Surface	EG (2018)
Comparison Surface	_datum (ocean) 02 18 21
Cut Factor	1.00
Fill Factor	1.00
Cut volume (adjusted)	52762.33 Cu. Yd.
Fill volume (adjusted)	9879.26 Cu. Yd.
Net volume (adjusted)	42883.07 Cu. Yd. <Cut>
Cut volume (unadjusted)	52762.33 Cu. Yd.
Fill volume (unadjusted)	9879.26 Cu. Yd.
Net volume (unadjusted)	42883.07 Cu. Yd. <Cut>

OCEAN SIDE

CUT - 52,800 CY
FILL - 9,900 CY

EARTHWORK TOTALS		
	CUT (CY)	FILL (CY)
FREEWAY SIDE	43,200	600
TRAILHEAD (WEST)	40	19
OCEAN SIDE	52,800	9,900
TOTALS	96,040	10,519

TRAIL CROSS SECTIONS -8

SCALE 1"=40'

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION

Approved Matt Roberts, Project Manager

Design SG
Drawn HS
Chk'd SG

BENGAL ENGINEERING INC
360 S. Hope Ave., C-110 Santa Barbara, CA 93105

CARPINTERIA RINCON MULTI USE TRAIL
TRAIL CROSS SECTIONS

441148Y
UPRR PROJECT NO.
04/23/21 DATE
CS-8 SHT. DES.
SANTA BARBARA SUB MP 380.48 UPRR MILE POST

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

GENERAL NOTES: SURVEY DATUMS INFORMATION

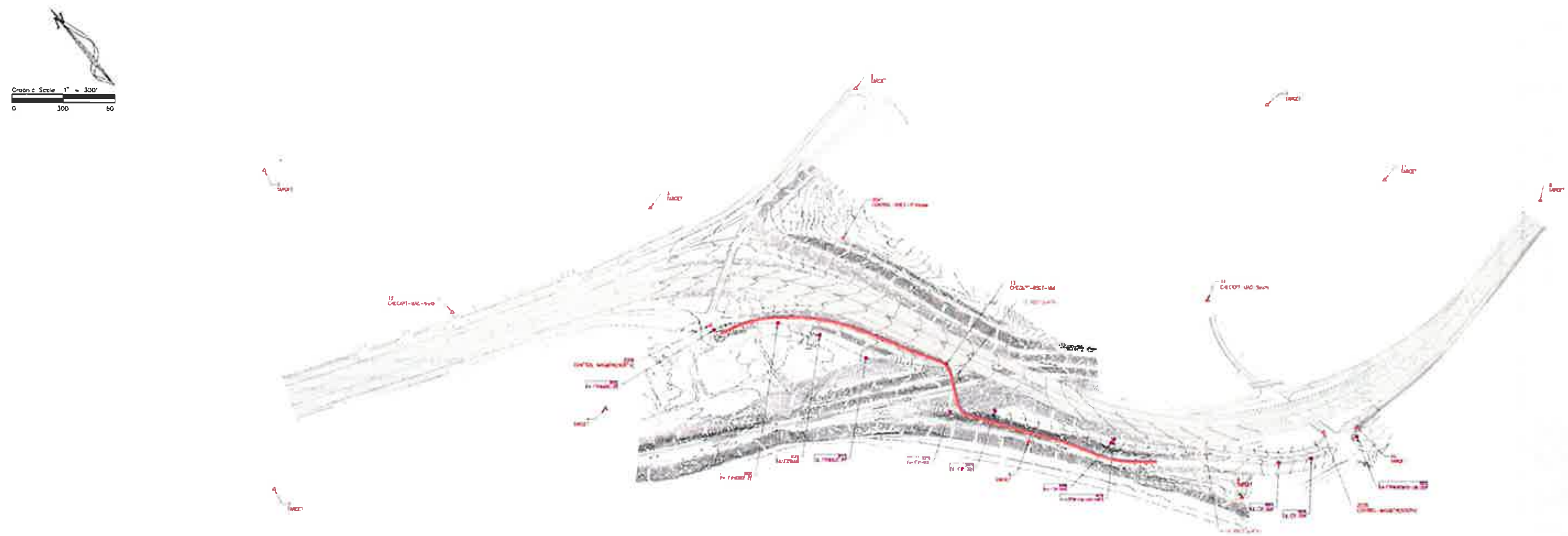
1. The horizontal datum for this map is based on ground control positions as contained in digital files for the 2007 aerial mapping by Golden State Aerial Surveying. Photography dated 12.12.2007. The datum is unknown but appears to be or proximate to NAD83. Epoch is unknown.
2. The vertical datum for this map is based on ground control orthometric heights as contained in digital files for the 2007 aerial mapping by Golden State Aerial Surveying. Photography dated 2007.07.07. The datum is unknown but appears to be or proximate to NAVD88.
3. Grid coordinates for aerial mapping appear to be or proximate to California State Plane Coordinate System Zone 5.
4. Survey units appear to be US Survey feet.
5. Surveying for location of monuments and other ground control were performed by REESE Water & Land Surveying Services in August & September, 2017, using both static and RTK GNSS methods. Orthometric heights for surveyed points were derived by applying a high-precision geoid model to surveyed ellipsoid heights.
6. The local survey benchmarks are points #2005 & #2006 from 2007 mapping as listed.
7. The basis of bearings is the line between points #2005 and #2006 as shown: N40°15'49"W 3633.72ft.

GENERAL NOTES: RIGHT OF WAY INFORMATION

1. Data for right of way, easements, or other title lines shown are derived from compiled record information tied to surveyed positions of found monumentation.
2. A Condition of Title Report, No. 5026900-5688306, dated 2018.05.10, by First American Title Insurance Co. has been used as the basis for the easement and other title information shown hereon.
3. Sources of information for title lines include, but are not limited to: Santa Barbara County deeds, State Highway Map Books, State Highway Monumentation Map Books; Santa Barbara County Assessor Information; California Department of Transportation right of way maps; Union Pacific Right of Way and Track Maps.
4. No attempt to resolve gaps, gores, hiatuses, or other misalignment of record information has been made to establish a lotline or boundary that does not appear of record. This mapping shall not be construed as an establishment of record information per California B&P Code sec 8700 et seq.
5. To resolve any particular deed or map line, a survey and map shall be performed according to provisions in the Professional Land Surveyors Act, B&P sec. 8700 et seq.

SURVEY CONTROL

THE CITY OF CARPINTERIA
PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION
Approved Matt Roberts, Project Manager
Design SD
Drawn MB
Check SD
BENGAL ENGINEERING & SURVEY, INC. 300 S. Hope Ave. C-110 Santa Barbara, CA 93105
CARPINTERIA RINCON MULTI USE TRAIL
441148Y UPRR PROJECT NO
04/23/21 DATE | SC-01 SHT. DES.
SANTA BARBARA SUB MP 380.48 UPRR MILE POST
71 of 119
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES



GENERAL NOTES

SURVEY DATUMS INFORMATION

1. The horizontal datum for this map is based on ground control positions as contained in digital files for the 2007 aerial mapping by Golden State Aerial Surveying, Photogrammetry dated 12.12.2007.
The datum is unknown but appears to be NAD83. Epoch is unknown
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The datum is unknown but appears to be NAVD88.
3. Grid coordinates for aerial mapping appear to be California State Plane Coordinate System Zone 5.
4. Survey units appear to be US Survey feet.
5. Surveying for location of monuments and other ground control were performed by REESE Water & Land Surveying Services in August & September, 2017, using both static and RTK GNSS methods. Orthometric heights for surveyed points were derived by applying a high-precision geoid model to surveyed ellipsoid heights.
6. The local survey benchmarks are points #2005 & #2006 from 2007 mapping as listed.
7. The basis of bearings is the line between points #2005 and #2006 as shown: [illegible] 2633.72ft.
8. The proposed location for the 10' wide paved portion of the multi-use trail has been shown for information only. Its alignment is subject to change

SURVEYOR'S STATEMENT

This map was prepared by me and is based on a field survey performed by me in August & September, 2017, at the request of Bengal Engineering, Inc.
This map delineates the horizontal and vertical locations of visible features, natural and man-made, within the areas shown for the purpose of site planning and engineering study. No warranty as to the size, type and location of non-visible features, natural and man made, that may exist, is expressed or implied.
Utility agencies should be contacted prior to any excavation.

DIGITAL DATA

These data may have been delivered as a courtesy to the client or other third parties in digital form. Delivery of the electronic file does not constitute the delivery of our professional services.
The most recent signed and sealed paper print represents the delivery of professional services and must be referred to for correct information. REESE Water & Land Surveying Services (RWLSS) shall not be responsible for modifications to, or products derived from, the electronic files which are not approved, signed and sealed by RWLSS.
Unconsented or unauthorized use by any individual or entity for any purposes whatsoever shall not incur any liability on the part of RWLSS.

Robert J. Reese, LS6208 — 2019.11.12 (date)

COORDINATE DATA: CONTROL POINTS

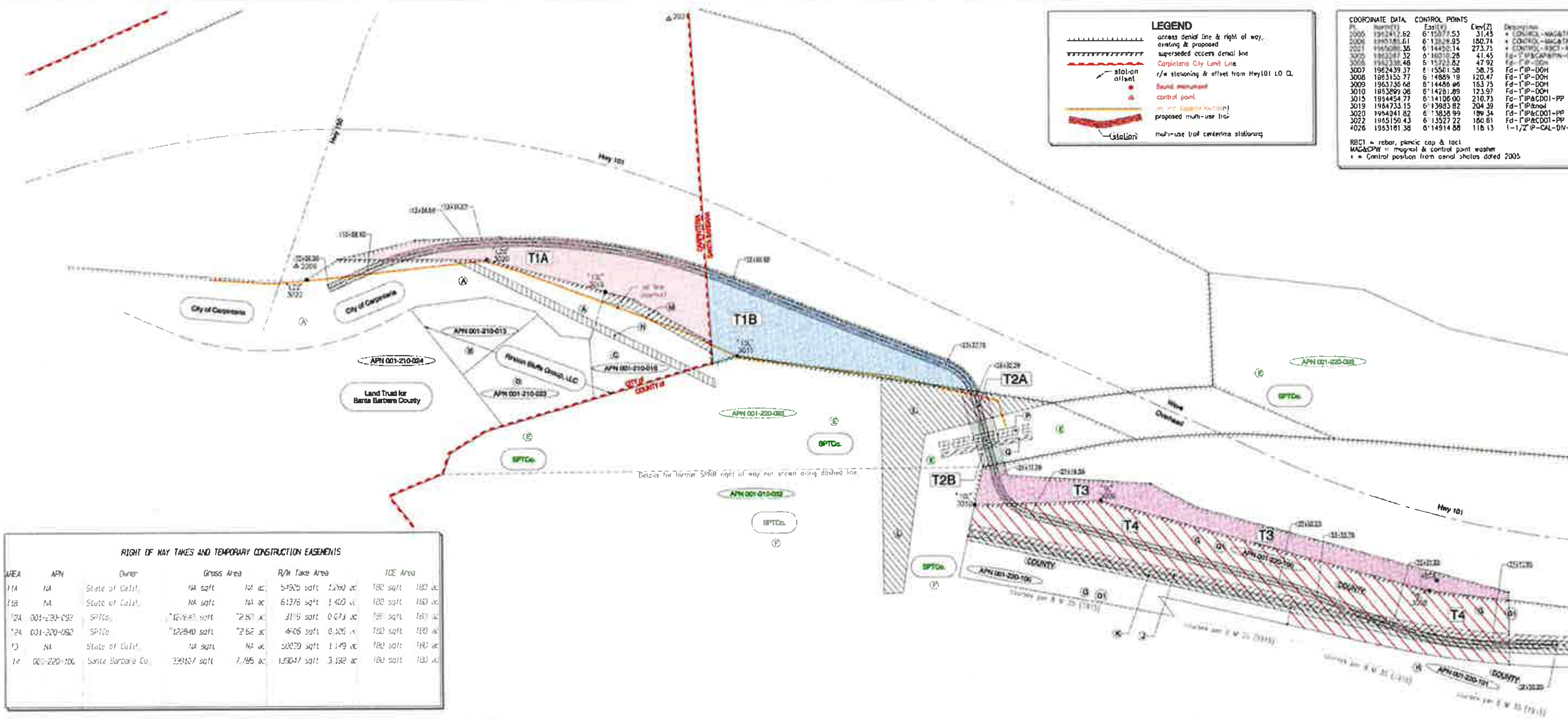
Pt	North(Y)	East(X)	Elev(Z)	Description
1	1966078.10	6110960.57	131.90	TARGET
2	1967548.22	6112108.71	157.37	TARGET
3	1965938.02	6113698.56	183.15	TARGET
4	1965202.96	6112747.30	172.19	TARGET
5	1963473.75	6114525.74	67.27	TARGET
6	1965710.00	6115069.26	201.33	TARGET
7	1964099.12	6116849.30	97.56	TARGET
8	1962646.17	6117717.38	30.21	TARGET
9	1962420.88	6115266.00	64.05	TARGET
10	1962309.82	6116048.86	33.23	TARGET
11	1963321.35	6117099.48	260.24	TARGET
12	1966207.62	6112417.71	166.95	CHECKPT-MAG-North
13	1964127.86	6114445.37	116.78	CHECKPT-RBCT-Mid
14	1963436.61	6115852.05	69.45	CHECKPT-MAG-South
15	1964036.46	6114449.47	112.33	RBCT(+RTK)
2005	1962412.62	6115877.53	31.48	CONTROL-MAG&PN(SOUTH)
2006	1965185.61	6113528.95	180.74	CONTROL-MAG&PN(NORTH)
2021	1965080.38	6114450.14	273.75	CONTROL-RBCT-RTKbase
3005	1962267.32	6116010.28	41.45	Fd-1"IP&CAP&PIN-CAL-DOH
3006	1962338.48	6115723.82	47.92	Fd-1"IP-DOH
3007	1962439.37	6115561.58	58.76	Fd-1"IP-DOH
3008	1963155.77	6114889.19	120.47	Fd-1"IP-DOH
3009	1963736.68	6114486.96	163.75	Fd-1"IP-DOH
3010	1963895.08	6114281.89	123.97	Fd-1"IP-DOH
3015	1964454.77	6114106.00	210.73	Fd-1"IP&CDOT-PP
3019	1964733.15	6113983.82	204.39	Fd-1"IP&nail
3020	1964941.82	6113838.99	189.34	Fd-1"IP&CDOT-PP
3022	1965150.43	6113527.22	180.61	Fd-1"IP&CDOT-PP
4026	1963161.38	6114914.88	115.13	1-1/2"IP-CAL-DIV-HWYS

TARGET = aerial target point
RBCT = rebar, plastic cap & tack
MAG&CPW = magnet & control point washer

RINCON MULTI-USE TRAIL PROJECT
SURVEY CONTROL LAYOUT

In the
County of Santa Barbara
California

revisions	sheet title: SURVEY CONTROL LAYOUT project: RINCON MULTI-USE TRAIL PROJECT In the County of Santa Barbara, California	client: BENGAL 380 Hope Ave, Suite C-110 Santa Barbara, CA 93105 tel 805.563.0788	REESE Water & Land SURVEYING SERVICES	drawn by: rjr checked by: rjr Job No. 1801 plot date 2019.11.12	file name 1801-control.pro scale 1" = 300' sheet 1 of 1



LEGEND

access denial line & right of way, existing & proposed
superseded access denial line
Carpinteria City Limit Line
station / offset — r/w stationing & offset from Hwy101 LO CL
found monument
control point
proposed multi-use trail
(station) — multi-use trail centerline stationing

COORDINATE DATA, CONTROL POINTS

Pt.	North(Y)	East(X)	Elev(Z)	Description
2005	1962412.62	6'15077.53	31.43	* CONTROL-MAG&TIN(SOUTH)
2006	1965181.61	6'12828.95	150.74	* CONTROL-MAG&TIN(NORTH)
2021	1965080.36	6'14450.14	273.75	* CONTROL-RBC1-RTABase
3002	1963287.32	6'16010.28	41.45	Fd-1"IP&CAP&PIN-CAL-DOH
3005	1963338.48	6'15723.82	47.92	Fd-1"IP-DOH
3007	1962439.37	6'15501.58	58.75	Fd-1"IP-DOH
3008	1963150.77	6'14889.19	120.47	Fd-1"IP-DOH
3009	1963736.68	6'14486.46	163.75	Fd-1"IP-DOH
3010	1953899.06	6'14281.89	123.97	Fd-1"IP-DOH
3015	1954454.77	6'14105.00	210.73	Fd-1"IP&CD01-PP
3019	1964733.15	6'13983.82	204.39	Fd-1"IP&nail
3020	1954241.82	6'13838.99	189.34	Fd-1"IP&CD01-PP
3022	1965150.43	6'13527.22	160.61	Fd-1"IP&CD01-PP
4026	1963181.38	6'14914.88	118.13	1-1/2"IP-CAL-DIV-HWYS

RBC1 = rebar, plastic cap & tool
MAG&CPW = magnail & control point washer
* = Control position from aerial photos dated 2005

RIGHT OF WAY TAKES AND TEMPORARY CONSTRUCTION EASEMENTS

AREA	APN	Owner	Gross Area		R/W Take Area		TCE Area	
T1A	NA	State of Calif.	NA sqft	NA ac	54905 sqft	1.260 ac	180 sqft	180 ac
T1B	NA	State of Calif.	NA sqft	NA ac	61376 sqft	1.409 ac	180 sqft	180 ac
T2A	001-220-092	SPTCo.	122840 sqft	2.82 ac	3115 sqft	0.071 ac	180 sqft	180 ac
T2A	001-220-092	SPTCo.	122840 sqft	2.82 ac	4606 sqft	0.105 ac	180 sqft	180 ac
T3	NA	State of Calif.	NA sqft	NA ac	50039 sqft	1.149 ac	180 sqft	180 ac
T4	001-220-100	Santa Barbara Co.	339107 sqft	7.785 ac	139047 sqft	3.192 ac	180 sqft	180 ac

RIGHT OF WAY AND PARCEL INFORMATION

ITEM	APN	GRANTOR	GRANTEE	DOC	DATE	REMARKS
A	(none)	State	County	75-00170-174	1973 02 15	Relinquishment & later transfer to City of Carpinteria
B	001-210-013	Ferry, Tre.	RBG, LLC	2007-021691	2007 03 26	not affected by trail
C	001-210-015	Ferry, Tre.	RBG, LLC	2007-021691	2007 03 26	not affected by trail
D	001-210-023	Ferry, Tre.	RBG, LLC	2007-021691	2007 03 26	not affected by trail
E	001-220-092	State	SPTCo	2627 OR 2419	1976 09 23	rr row realignment; has access denial lines
F	001-010-032	various	SPDMCo	various	various	original railroad grant to DML
G	001-220-100	State	County	2557 OR 157	1975 03 20	formerly apn 001-220-048
G1	001-220-100	County	LAFCO	2014-037185	2014 08 14	LAFCO certif. of completion for annexation of Rincon Beach Park into Carpinteria Sanitary District
H	001-220-100	unknown	County	unknown	unknown	formerly apn 001-220-048 assessor maps shown as extending to high tide line per DA B pg 36 of maps
J	001-220-101	State	SPTCo	2627 OR 2416	1976 09 23	20' wide access road
	001-220-100	State	reserv.	2552 OR 1310	1975 02 19	20' wide access road reservation (re-rec 2557 OR 157)
K	01-220-100&101	State	PT&T Co	2552 OR 1307	1975 02 19	20' wide underground cable easement
L	001-220-092	SPTCo	State	2627 OR 2420	1976 09 23	drainage easement
M	001-210-015	FERRI et al	Chevron	1980-009932	1980 01 09	20' wide oil/gas/water/pipeline/ingress/egress easement
N	001-210-015	FERRI et al	reserv.	2250 OR 689	1968 10 31	15' wide residual road reservation (also 2180 OR 77)
P	001-220-092	SPTCo	AT&T	2003-375745	2006 12 21	16.5' wide fiber optic line easement (judgment)
Q	001-220-092	SPTCo	MCI	1997-029296	1997 05 23	10' wide fiber optic line easement

MCI = MCI Telecom
AT&T = AT&T Corp. AT&T Communications
SPTCo = Southern Pacific Transportation Co
SPBRCo = Southern Pacific Branch Railway Co
State = State of California, through Dir. Transportation
County = County of Santa Barbara
RBG LLC = Rincon Bluffs Group, LLC

GENERAL NOTES: SURVEY DATUMS INFORMATION

1. The horizontal datum for this map is based on ground control positions as contained in digital files for the 2007 aerial mapping by Golden State Aerial Surveying. Photography dated 12.12.2007. The datum is unknown but appears to be NAD83. Epoch is unknown.
2. The vertical datum for this map is based on ground control orthometric heights as contained in digital files for the 2007 aerial imaging by Golden State Aerial Surveying. Photography dated 2007.07.07. The datum is unknown but appears to be NAVD88.
3. Grid coordinates for aerial mapping appear to be California State Plane Coordinate System Zone 5.
4. Survey units appear to be US Survey feet.
5. Surveying for location of monuments and other ground control were performed by REESE Water & Land Surveying Services in August & September, 2017, using both static and RTK GNSS methods. Orthometric heights for surveyed points were derived by applying a high-precision geoid model to surveyed ellipsoid heights.
6. The local survey benchmarks are points #2005 & #2006 from 2007 mapping as listed.
7. The basis of bearings is the line between points #2005 and #2006 as shown: N40°15'43"W 3633.72ft
8. The proposed location for the 16' wide paved portion of the multi-use trail has been shown for information only. Its alignment is subject to change.

GENERAL NOTES: RIGHT OF WAY INFORMATION

9. Data for right of way, easements, or other title lines shown are derived from compiled record information tied to surveyed positions of found monumentation.
10. A Condition of Title Report, No. 5026900-5686306, dated 2018.05.10, by First American Title Insurance Co. has been used as the basis for the easement and other title information shown hereon.
11. Sources of information for title lines include, but are not limited to: Santa Barbara County deeds, State Highway Map Books, State Highway Monumentation Map Books, Santa Barbara County Assessor information, California Department of Transportation right of way maps, Union Pacific Right of Way and Track Maps.
12. No attempt to resolve gaps, gores, hiatuses, or other misalignment of record information has been made to establish a lotline or boundary that does not appear of record. This mapping shall not be construed as an establishment of record information per California B&P Code sec.8700 et seq.
13. To resolve any particular deed or map line, a survey and map shall be performed according to provisions in the Professional Land Surveyors Act, B&P sec. 8700 et seq.

SURVEYOR'S STATEMENT

This map was prepared by me and is based on a field survey performed by me from September, 2017, to July, 2018, at the request of Bengal Engineering, Inc.
This map delineates the horizontal and vertical locations of visible features, natural and man-made, within the areas shown for the purpose of site planning and engineering study. No warranty as to the size, type and location of non-visible features, natural and man made, that may exist, is expressed or implied.
Utility agencies should be contacted prior to any excavation.

DIGITAL DATA

These data may have been delivered as a courtesy to the client or other third parties in digital form. Delivery of the electronic file does not constitute the delivery of our professional services.
The most recent signed and sealed paper print represents the delivery of professional services and must be referred to for correct information. REESE Water & Land Surveying Services (RWLSS) shall not be responsible for modifications to, or products derived from, the electronic files which are not approved, signed and sealed by RWLSS.
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Robert J. Reese, LS6208 — 2019 03 02 (date)

Graphic Scale 1" = 100'

RIGHT OF WAY MAP
Rincon Multi-Use Trail
In the County of Santa Barbara California

revisions	2018.07.12 – added [illegible]; 2018.10.21 – added right of way takes; 2018.12.14 – revise K location; 2019.01.11 – revise takes, trail alignment; 2019.01.24 – revise T2, [illegible]; 2019.01.29 – revise T2A & T23; 2019.03.01 – revise T2B; 2019.03.02 – revise shading, add T1A & T1B
sheet title	RIGHT OF WAY MAP – EXISTING AND PROPOSED between Carpinteria Avenue & Rincon Beach County Park
project	CARPINTERIA MULTI-USE TRAIL
client	BENGAL — 380 S. Hope Avenue, Suite C-110, Santa Barbara, CA 93105, tel 805.563.0788
	REESE Water & Land SURVEYING SERVICES
drawn by	rjr
checked by	rjr
job no.	1801
plot date	2019.03.02
file name	1801-row-proposed.pro
scale	1" = 100'
sheet	1 of 1

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO	TOTAL SHEETS
05	SB	101	0.33 to 0.65	1	4

Ed Pongracz-Bartha
CERTIFIED ENGINEERING GEOLOGIST
DATE
PLANS APPROVAL DATE

DESIGN CONSULTANT:
BENGAL ENGINEERING
360 S. HOPE AVE., SUITE C-110
SANTA BARBARA CA 93105
(805) 563-5788

CITY OF CARPINTERIA: Matthew Roberts; Parks and Rec Director

RINCON MULTI-USE TRAIL

PROJECT GEOLOGIST: Ed Pongracz-Bartha, CEG 2370

CALCULATED/ DESIGNED BY

CHECKED BY

DATE REVISED

REVISED BY

GEOLOGIC MAP
PLATE A

GEOTECHNICAL REPORT - JANUARY 11, 2019

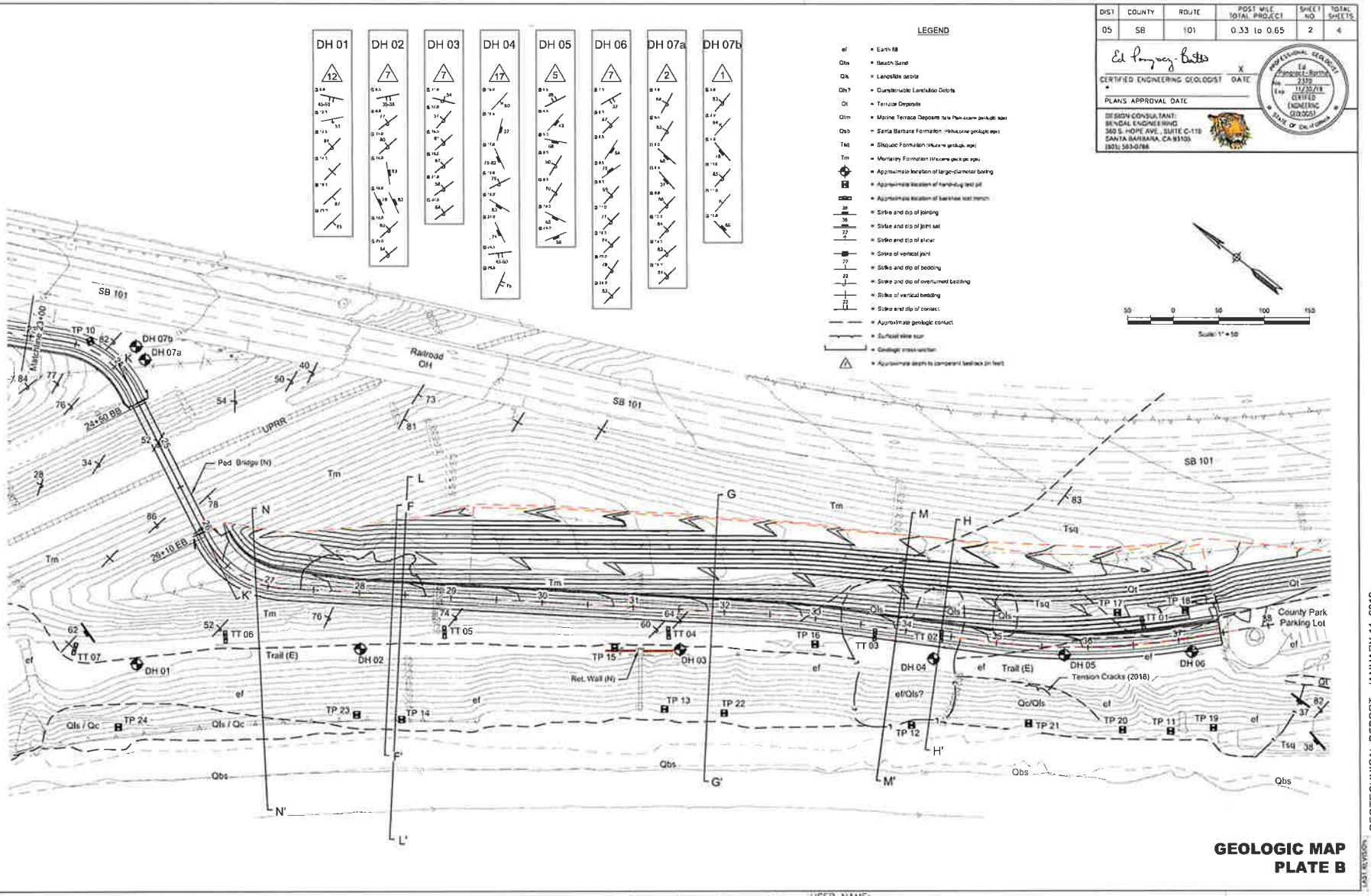
LAST REVISION

ORIGINAL SCALE IS IN INCHES 0 1 2 3

USER NAME

DWG FILE:

CU EA



DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	0.33 to 0.65	2	4

Ed Pongracz-Bartha
CERTIFIED ENGINEERING GEOLOGIST — DATE

PLANS APPROVAL DATE

DESIGN CONSULTANT:
BENGAL ENGINEERING
360 S. HOPE AVE., SUITE C-110
SANTA BARBARA, CA 93105
(805) 563-0788

Ed Pongracz-Bartha
No. 2370
Exp. 11/30/19
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

CALCULATED/ DESIGNED BY
CHECKED BY
DATE
DATE REVISED
REVISED BY

PROJECT GEOLOGIST
Ed Pongracz-Bartha, CEG 2370

CITY OF CARPINTERIA: Matthew Roberts, Parks and Rec Director

RINCON MULTI-USE TRAIL

GEOLOGIC MAP
PLATE B

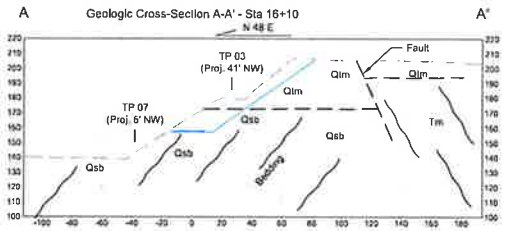
LAST REVISION — GEOTECHNICAL REPORT - JANUARY 11, 2019

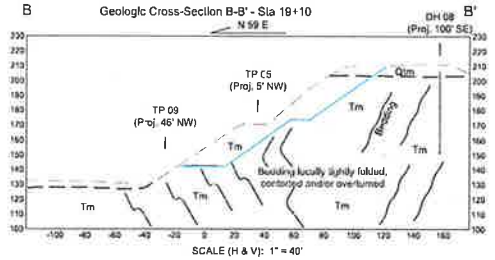
ORIGINAL SCALE IS IN INCHES 0 1 2 3

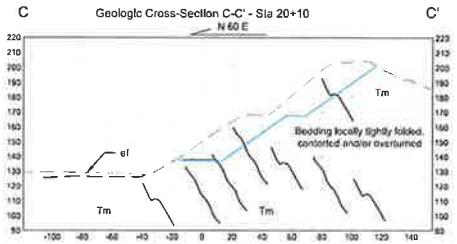
USER NAME:
DWG FILE:

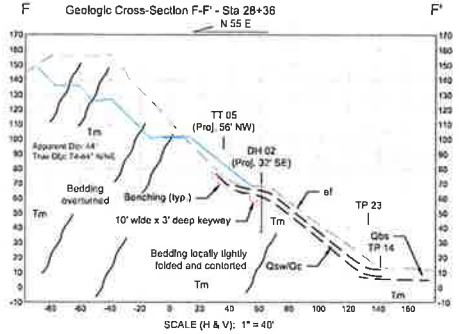
CU

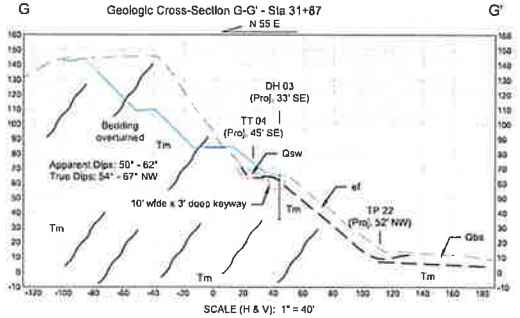
EA

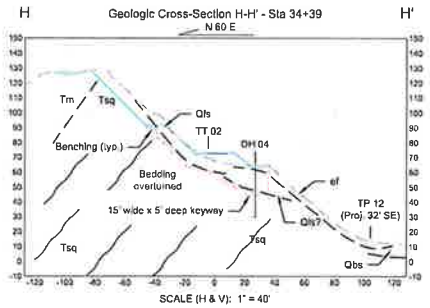


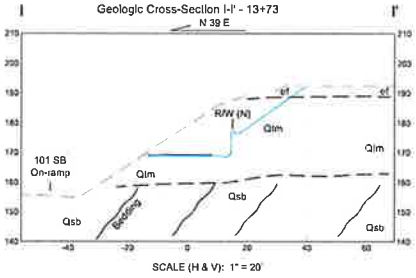


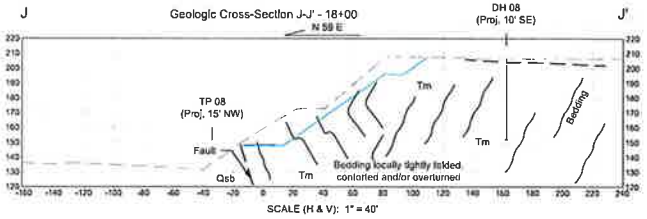












NOTES

1. Not all benching (typ.) shown.
2. All compacted fill to be placed atop firm bedrock.
3. Keyway bottom elevations and benching to be determined/approved in field by qualified geotechnical personnel.

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO	TOTAL SHEETS
05	SB	101	0.33 to 0.65	3	4

Ed Pongracz-Bartha — X — DATE

CERTIFIED ENGINEERING GEOLOGIST

PLANS APPROVAL DATE

Ed Pongracz-Bartha, No. 2370, Exp. 11/30/19, CERTIFIED ENGINEERING GEOLOGIST, STATE OF CALIFORNIA

DESIGN CONSULTANT:
BENGAL ENGINEERING
360 S. HOPE AVE., SUITE C-110
SANTA BARBARA, CA 93105
(805) 563-0788

CITY OF CARPINTERIA: Matthew Roberts; Parks and Rec Director

RINCON MULTI-USE TRAIL

PROJECT GEOLOGIST: Ed Pongracz-Bartha, CEG 2370

CALCULATED/DESIGNED BY: CHECKED BY

DATE: DATE REVISED: REVISED BY:

GEOLOGIC CROSS-SECTIONS
PLATE C

GEOTECHNICAL REPORT - JANUARY 11, 2019

LAST REVISION

ORIGINAL SCALE IS IN INCHES: 0 1 2 3

USER NAME: DWG FILE

CU EA

DIST	COUNTY	ROUTE	POST MILE TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
05	SB	101	0.33 to 0.65	4	4

CERTIFIED ENGINEERING GEOLOGIST — DATE

PLANS APPROVAL DATE

DESIGN CONSULTANT:
BENGAL ENGINEERING
330 S. HOPE AVE., SUITE C-113
SANTA BARBARA, CA 93105
(805) 563-0788

CITY OF CARPINTERIA: Matthew Roberts, Parks and Rec Director

RINCON MULTI-USE TRAIL

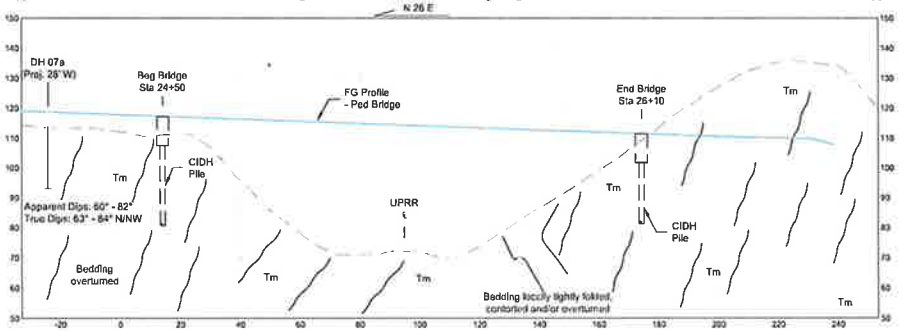
PROJECT GEOLOGIST: Ed Pongracz-Bartha, CEG 2370

CALCULATED/DESIGNED BY | DATE | DATE REVISED

CHECKED BY | REVISED BY

K — Geologic Cross-Section K-K' - Profile along Bridge CL — K'

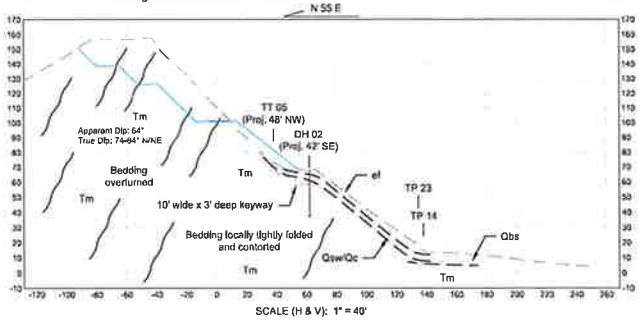
N 26 E



SCALE (H & V): 1" = 20'

L — Geologic Cross-Section L-L' - Sta 28+46 — L'

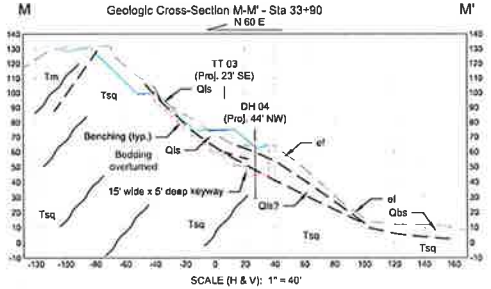
N 55 E



SCALE (H & V): 1" = 40'

M — Geologic Cross-Section M-M' - Sta 33+90 — M'

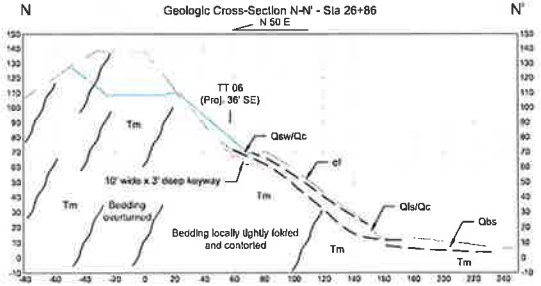
N 60 E



SCALE (H & V): 1" = 40'

N — Geologic Cross-Section N-N' - Sta 26+86 — N'

N 50 E



SCALE (H & V): 1" = 40'

NOTES:

1. Not all benching (typ.) shown
2. All compacted fill to be placed atop firm bedrock.
3. Keyway bottom elevations and benching to be determined/approved in field by qualified geotechnical personnel.

GEOLOGIC CROSS-SECTIONS
PLATE D

GEOTECHNICAL REPORT - JANUARY 11, 2019

LAST REVISION:

ORIGINAL SCALE IS IN INCHES: 0 1 2 3

USER NAME:
DWG FILE

CU | EA

Bengal Engineering
360 South Hope Avenue, Suite C-110
Santa Barbara, CA 93105
Telephone: 805-563-0788

BORING NUMBER DH 01

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/12/18 **COMPLETED** 3/12/18
GROUND ELEVATION 71 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR RC Drilling
GROUND WATER LEVELS:
DRILLING METHOD Track-Mounted Limited Access
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
70	0	AU			**Earth Fill (ef)** Fine-grained Silty Sand / Sandy Silt (ML) with abundant angular shale fragments - light brown, dry, slightly compact to locally loose, scattered roots and rootlets							R-Val
	5	MC				10	60					
65					8.0' - contact (exit): N25W, 45-50SW; ef contact exits boring							
	10	MC			**Colluvium and/or Landslide Debris (Qc/Qls)** Sandy Silt (ML) matrix with scattered to abundant shale/siltstone fragments - light gray, dry, loose, abundant rootlets	12	65	53	50	3		ATT
60					12.0' - base of colluvium / landslide debris: N50W, 51SW; slightly irregular and wavy, no clay gouge present							
	15	MC			**Bedrock: Monterey Formation (Tm)** Laminated siliceous siltstone and shale - dark gray to black, moderately hard, slabby, fractured and jointed, moderately to slightly weathered (rock weathers to light tan to cream colored), prone to sloughing and caving along bedding and jointing 12.5' - bedding: N85W, 84N (overturned); abundant rootlets and caliche 14.0' - bedding: N85W, vertical; pervasively fractured with rootlets and caliche 14.5' - 1/2" thick and discontinuous light brown silt parallel to bedding 18.0' - bedding: N80W, 87S Slight sloughing below 18' along bedding and jointing. 20.0' - bedding: N82W, 85S	18						
55	20	MC				13	68					
50	25	AU				19		NP	NP	NP		ATT
45	30	MC				18	69					
40					Groundwater and/or seepage not encountered. Boring backfilled with native materials. Bottom of borehole at 31.0 feet.							
	35											
35												
	40											

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Bengal Engineering
360 South Hope Avenue, Suite C-110
Santa Barbara, CA 93105
Telephone: 805-563-0788

BORING NUMBER DH 02

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/12/18 **COMPLETED** 3/12/18
GROUND ELEVATION 68.5 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR RC Drilling
GROUND WATER LEVELS:
DRILLING METHOD Track-Mounted Limited Access
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Earth Fill (ef)** Fine-grained Silty Sand / Sandy Silt (ML) with abundant angular shale fragments - light brown, dry, slightly compact to locally loose, scattered roots and rootlets							
65	5	MC			**Colluvium (Qc)** Sandy Silt (ML) matrix with rock fragments - light brown to light gray, slightly moist, medium stiff, scattered roots; includes several rock clasts dipping downslope 5.0' - Qc/bedrock contact on uphill side of boring 6.5' - contact: N49W, 35-38SW	16	65	56	54	2		ATT
60	10	MC			**Bedrock: Monterey Formation (Tm)** Laminated siliceous siltstone and shale - dark gray to black, moderately hard, slabby, fractured and jointed, moderately to slightly weathered (rock weathers to light tan to cream colored) 8.0' - bedding: N76W, 77NE (overturned) 10.0' - occasional weathered seam (light gray silt) along bedding, abundant rootlets	24	76					
		AU				23		54	49	5		ATT
55	15				14.0' - bedding: N79W, 80NE (overturned) 14.0' - joint: N43E, 83SE; rootlet-lined							
50	20	MC			18.0' - 1/2" diameter root along fracture, rock very tight 18.0' - joint: N27E, 78SE; smooth and slightly wavy with rootlets 18.0' - joint: N27E, 83SE; caliche-lined 19.0' - bedding: N80W, 80NE (overturned)	30	56					DS
45	25				24.0' - 1/2" diameter root along tight fracture 25.0' - bedding: N77W, 84NE							
40	30	MC			Groundwater and/or seepage not encountered. Boring backfilled with native materials.	21	71					
					Bottom of borehole at 31.0 feet.							
35	35											
30	40											

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Telephone: 805-563-0788

BORING NUMBER DH 03

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION 65 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR RC Drilling
GROUND WATER LEVELS:
DRILLING METHOD Track-Mounted Limited Access
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Earth Fill (ef)** Silty Sand - mottled light yellowish-brown and light brownish-gray, moist, loose to medium compact; abundant tabular rock fragments to 6" in dimension; abrupt, downslope contact with bedrock. 0 - 2.0' - fill depth of east side of boring 0 - 7.0' - fill depth of west side of boring							R-Val
60	5	AU										
		MC				7	79					
55	10	MC			**Bedrock: Monterey Formation (Tm)** Siltstone - brownish gray, moderately hard, few very fine-grained sandstone beds; locally siliceous; intensely fractured to 10'-12' below grade; bedding is locally well developed, continuous and undulatory bedding: N23W, 54NE	13	66				45	
					bedding: N23W, 54NE (overturned) bedding: N88W, 57NE bedding: N88W, 57N (overturned)							
50	15				bedding: N79W, 81NE bedding: N79W, 81NE (overturned)							
45	20	MC			bedding: N78W, 67NE bedding: N78W, 67NE (overturned) bedding: N74W, 58NE (overturned) 22.0' - medium gray in color; some caliche stringers along tight fractures and bedding	14	73	55	46	9		ATT
40	25				bedding: N75W, 64NE bedding: N75W, 64NE (overturned)							
35	30	MC			Groundwater and/or seepage not encountered. Boring backfilled with native cuttings. 31.0' - end of boring - no groundwater Bottom of borehole at 31.0 feet.	28	67					
30	35											
	40											

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Santa Barbara, CA 93105
Telephone: 805-563-0788

BORING NUMBER DH 04

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION 64.4 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR RC Drilling
GROUND WATER LEVELS:
DRILLING METHOD Track-Mounted Limited Access
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Earth Fill (ef)** Fine-grained Silty Sand / Sandy Silt (ML) with abundant angular shale fragments - light brown, dry, slightly compact to locally loose, scattered roots and rootlets							
60	5	AU			**Questionable Landslide-affected rock (Qls?) or Creep-affected Bedrock: Sisquoc Formation (Tsq)** Mudstone/Siltstone - light brownish yellow to light yellowish brown to light brownish gray, slightly moist, slightliy hard, weakly indurated, highly fractured, scattered roots, limonite weathering along fractures, discontinuous bedding structure, locally powdery 6.0' - open fractures, discontinuous bedding and powdery (dry)	9						
		MC				10	99					DS
55	10	MC			9.0' - massive with rootlets, powdery	9	105					
50	15				14.0' - light olive siltstone with abundant gypsum; discontinuous and asymetric open fractures to 1"-3" across with roots 15.0' - N85W, 60S; shear fabric with little to no matrix 16.5' - joint: N66E, 32SE; gypsum-lined 17.0' - fracture zone: N27E, 75-82NW; base of fracture zone with open voids and rootlets (no clay), rock improves below							
45	20	AU			**Bedrock: Sisquoc Formation (Tsw)** Mudstone/Siltstone - brownish gray to blue-gray to dark gray, slightly moist to moist, moderately hard, tight, locally jointed, slightly weathered, massive to vaguely bedded 18.0' - bedding (?): N65W, 75NE; gypsum-lined 18.0' - joint: N07W, 83W; oxidized 21.0' - joint: N26E, 74NW; gypsum-lined	18		50	35	15		ATT
		MC				18	89					DS
40	25	AU			24.0' - contact (enter): N45W, 76SE; irregular, wavy and slightly gradational contact between oxidized bedrock (above) and blue-gray, unoxidized siltstone below	19						
35	30	MC			29.5' - contact (exit): N76E, 76SE; moderately hard and tight blue-gray unoxidized siltstone to very fine-grained sandstone below	12	95					
30	35				Groundwater and/or seepage not encountered. Boring backfilled with native cuttings.							
					Bottom of borehole at 35.0 feet.							
25	40											

Bengal Engineering
360 South Hope Avenue, Suite C-110
Santa Barbara, CA 93105
Telephone: 805-563-0788

BORING NUMBER DH 05

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/14/18 **COMPLETED** 3/14/18
GROUND ELEVATION 64 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR RC Drilling
GROUND WATER LEVELS:
DRILLING METHOD Track-Mounted Limited Access
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Earth Fill (ef)** Fine-grained Silty Sand / Sandy Silt (ML) with abundant angular shale fragments - light brown, dry, slightly compact to locally loose, scattered roots and rootlets							
60	5	MC			**Colluvium (Qc)** Silt (ML) to Silt with fine-grained sand and scattered rock fragments and widely scattered gravel/cobbles - light brown to light yellow brown, slightly moist, medium stiff to stiff, mottled, occasional charcoal fragment 3.0' - 4"-6' thick paleosol in colluvium sequence 3.5' - N65W, 28NE; soil exits boring 4.0' - sub-horizontal and slightly wavy contact with bedrock	12	91	47	46	1		ATT
55	10	MC			**Bedrock: Sisquoc Formation (Tsq)** Mudstone/Siltstone - light brown to light yellowish brown to olive/brownish gray to dark olive gray (unoxidized), slightly moist to moist, moderately hard grading to hard, tight, locally jointed, slightly weathered, massive to bedded 4.5' - joint: N86W, 42S; gypsum-lined 5.0' - joint: N28W, 68SW; root-lined and slightly oxidized 6.0' - tight below 9.0' - bedding: N84E, 60N (overturned); gypsul-lined with rootlets 9.5' - bedding: N85E, 70N (overturned)	16	88					DS
50	15											
45	20	AU			18.0' - 19.0' - gradational transition to gray mud/siltstone - moderately hard, moist, very tight 19.0' - joint: N12W, 65SW; gypsum-lined	23		46	39	7		ATT
		MC										
40	25				23.0' - joint: N60W, 58SW							
35	30	MC			Groundwater and/or seepage not encountered. Boring backfilled with native cuttings.							
					Bottom of borehole at 31.0 feet.							
30	35											
25	40											

Bengal Engineering
360 South Hope Avenue, Suite C-110
Santa Barbara, CA 93105
Telephone: 805-563-0788

BORING NUMBER DH 06

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/14/18 **COMPLETED** 3/14/18
GROUND ELEVATION 64 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR RC Drilling
GROUND WATER LEVELS:
DRILLING METHOD Track-Mounted Limited Access
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Earth Fill (ef)** 0-1.5' - Fine-grained Sand - light tan, slightly moist, slightly dense; occasional asphalt fragment							
		AU				13						
60					1.5' - 1"-2" thick weak soil developed atop older fill							
	5	MC			Fine-grained Sandy Silt (ML) with scattered gravel and rock fragments - mottled light brown, very slightly moist	19	91					
					6.33' - fill/Qns contact							
55					**Natural Soil (Qns)** Sandy Silt (ML) - brown, slightly moist to moist, medium stiff, caliche stringers along basal contact 7.0' - contact: N68W, 32SW; thin (1"-3") and discontinuous light brown to tan fine-grained sand (aeolian?) layer atop bedrock							
	10	MC				8	105					
50					**Bedrock: Sisquoc Formation (Tsq)** Mudstone/Siltstone - light brown to light yellowish brown to olive/brownish gray to dark olive gray (unoxidized), slightly moist to moist, moderately hard grading to hard, tight, locally jointed, slightly weathered, massive to bedded 8.0' - bedding: N84W, 67N (overturned) 8.5' - joints: N86E, 54S; N73W, 75NE 9.0' - bedding: N88W, 59N (overturned) 11.0' - bedding: N84W, 77N (overturned); well-bedded 11.0' - highly fractured interval with roots; tighter below 12.0' 16.0' - bedding: N84E, 74N (overturned)							
	15											
45												
	20	MC			20.0' - bedding: N86E, 79N; gray laminated siltstone							
40					23.0' - bedding: N85W, 83N; gray to brownish gray beds or concretions of fractured dolomite (?) 23.0' - 1/8" thick brown and moist clay seams along tight fractures and jointing, discontinuous 24.0' - siltstone - olive gray to dark olive gray, slightly moist to moist, hard, tight, unoxidized							
	25											
35												
	30	MC			Groundwater and/or seepage not encountered. Boring backfilled with native cuttings.							UC
					Bottom of borehole at 31.0 feet.							
30	35											
25	40											

Bengal Engineering
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Santa Barbara, CA 93105
Telephone: 805-563-0788

BORING NUMBER DH 07a

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 8/16/18 **COMPLETED** 8/16/18
GROUND ELEVATION 114 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR Tri-Valley Drilling
GROUND WATER LEVELS:
DRILLING METHOD Bucket Auger
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0	GB			**Earth Fill (ef)** Fine-grained Sandy Silt with scattered small shale fragments - light brown to light grayish brown, dry, loose to slightly compact 6" thick layer of pea gravel, continous around boring							
110	5	MC			**Bedrock: Monterey Formation (Tm)** Diatomaceous Shale/Siltstone and Siliceous Shale - light tan to grayish brown, moist to slightly moist, slightly hard to very hard (well-cemented), well-bedded; continuous coring required to advance boring from 6' to bottom of borehole, slight to moderate hydrocarbon odor 4.0' - bedding: N81E, 84N (overturned); caliche-lined 5.5' - bedding: N83E, 83N (overturned) 6.0' - joint: N03E, 68W	16	78					
105	10	GB			6.5' - joint: N11W, 37W 8.0' - continued coring with 18"-24" cemented and hard blocks in cuttings 9.0' - bedding: N84W, 86N (overturned) 10.0' - bedding: N86W, 84N (overturned)	14						
100	15				13.0' - bedding: N78W, 83N (overturned) 16.0' - bedding: N81W, 84N (overturned)							
95	20	GB MC			Groundwater and/or seepage not encountered. Boring backfilled to surface with 2-sack concrete slurry. Bottom of borehole at 21.0 feet.	20						
90	25											
85	30											
80	35											
75	40											

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BORING NUMBER DH 07b

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 8/16/18 **COMPLETED** 8/16/18
GROUND ELEVATION 115 ft NAVD88 **HOLE SIZE** 24" inches
DRILLING CONTRACTOR Tri-Valley Drilling
GROUND WATER LEVELS:
DRILLING METHOD Bucket Auger
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Earth Fill (ef)** Fine-grained Sandy Silt with scattered small shale fragments - light brown to light grayish brown, dry, loose to slightly compact							
		MC			**Bedrock: Monterey Formation (Tm)** Diatomaceous Shale/Siltstone - light tan to light grayish brown, moist to slightly moist, slightly to moderately hard, well-bedded; slight to moderate hydrocarbon odor 3.0' - bedding: N88W, 83N (overturned) 3.5' - shear (bedding parallel): N86W, 84N; 1" thick sheared light tan to olive green plastic clay gouge 4.0' - joint: N11E, 78NW	19	66					
110	5	MC										
105	10	MC			10.0' - bedding: N87W, 85N (overturned) 11.0' - shear (bedding parallel): 1"-2" thick gouge zone with occasional caliche nodule 12.0' - joint: N08E, 86E	18	86					
100	15	MC			Groundwater and/or seepage not encountered. Boring backfilled to surface with 2-sack concrete slurry.	19	94					
					Bottom of borehole at 16.0 feet.							
95	20											
90	25											
85	30											
80	35											
	40											

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BORING NUMBER DH 08

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NUMBER
DATE STARTED 8/17/18 **COMPLETED** 8/17/18
DRILLING CONTRACTOR Tri-Valley Drilling
DRILLING METHOD Bucket Auger
LOGGED BY E. Pongracz **CHECKED BY**
NOTES

PROJECT NAME Rincon Multi-Use Trail
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
GROUND ELEVATION 206.5 ft NAVD88 **HOLE SIZE** 24" inches
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING ---
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
205	0	GB			**Earth Fill (ef)** Fine-grained Silty Sand to Sandy Silt with scattered rock fragments - mottled light brown, slightly moist, moderately compact, scattered roots	5						
		MC	1-2		**Marine Terrace Deposits (Qtm)** Fine-grained Sand with some to trace silt - light reddish brown to light orange brown gradding to light golden brown / light tan, moist, moderately dense grading to dense	5						
200	10	MC	1-2		8.0' - wavy, sub-horizontal contact with gravelly to cobbly sand, scattered rootlets, minor sloughing 9.0' - 9.5' - sharp, irregular and wavy contact with highly weathered and very moist bedrock	25	80	67	43	24		DS, ATT
195		GB			**Bedrock: Monterey Formation (Tm)**							
		MC	1-1		Diatomaceous Shale/Siltstone to Phosphatic/Organic Shale - light brown to light gray to light brownish gray to light rust orange, moist to very moist, very stiff to sllightly hard to moderately hard, laminated and well-bedded, moderately grading to slightly weathered (upper 2' highly weathered)	17	83					DS, ATT
190	20	MC	1-2		12.0' - bedding: N72W, 81NE (overturned) 13.0' - 4"-5" long, 1/2"-3/4" wide open and discontinuous fracture on SE side of borehole 18.0' - bedding ?: N55W, 82SW 18.0' - joint: N37E, 75NW; clayey silt-lined, slightly wavy, slightly polished 24.0' - joint set: N34E, 71NW; 6" spacing 24.0' - bedding: N35W, 82NE (overturned) 26.0' - bedding: N64W, 78NE (overturned) 26.0' - joint: N22E, 78NW; slightly polished	38	77	56	42	14		
185												
180	30	MC	5-8		29.5' - bedding: N42W, 78NE (overturned) 32.0' - bedding: N50W, 80NE (overturned) 34.0' - joint set: N62W, 74SW; 2" spacing 34.0' - joint set: N39E, 72NW; 4" spacing	38	71					DS
175												
170		GB										
	40	GB			37.5' - shear: E-W, 71S; siliceous shale on footwall, phosphatic shale of hanging wall	22						
165		MC	6-13		38.0' - shear (bedding parallel): N42W, 68NE; 2"-3" thick oxidized, weathered and sheared, offset by shear at 37.5' 38.5' - bedding: N40W, 78NE (overturned) 40.0' - bedding: N41W, 81NE (overturned) Laminated phosphatic shale with abundant small phosphate nodules - off-white to light gray, scattered gypsum-lined and tight fractures							
160	50	MC	4-9			32	84					
155												
150	60				Groundwater and/or seepage not encountered. Boring backfilled with native materials. Bottom of borehole at 55.0 feet.							

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TEST PIT NUMBER TP 01

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NUMBER
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
EXCAVATION CONTRACTOR Mike's Excavating Service
EXCAVATION METHOD Hand-Dug Test Pit
LOGGED BY G. Masterman **CHECKED BY**
NOTES

PROJECT NAME Carp Rincon Trail Bikeway
PROJECT LOCATION Carpinteria, SB County, CA
GROUND ELEVATION 185 ft **TEST PIT SIZE** 24 x 36 inches
GROUND WATER LEVELS:
AT TIME OF EXCAVATION ---
AT END OF EXCAVATION ---
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
185.0	0.0	GB 1			**Earth Fill (ef)** Silty Gravel (GP) - yellowish brown, very dense, slightly moist, medium to coarse-grained, with gravel to 1", pieces of plastic, asphalt and paper		16						SHEAR MAX
					some clay binder								
					dark brown to whitish brown; with numerous sandstone and shale fragments								
182.5	2.5				Silty Sand (SM) - dark brown, very dense, slightly moist, fine- to medium-grained sand, with whitish tan lenses. Switched to augers								
		MC 2					19	74					
180.0	5.0				**Terrace Deposits (Qtm)** Sand (SP) - light reddish tan, dense, slightly moist, fine-grained								
		MC 3					3	110					
177.5	7.5												

No water, no caving
Bottom of test pit at 7.5 feet.

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TEST PIT NUMBER TP 02

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 186 ft **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY G. Masterman **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Silty Gravel (GM) - dark brown to reddish brown, medium dense, slightly moist, gravel to 1/2", organic rich in upper 0.5'.								
185.0		MC 1			**Terrace Deposits (Qtm)** Sand (SP) to Silty Sand (SM) - dark brown to reddish tan, dense, slightly moist, fine- to medium-grained, occasional 1" gravel		3	107					SHEAR
	2.5				tree roots to 1.5" dia., porous								
182.5		MC 2			Switched to hand auger at 3' below grade		2	108					SHEAR
	5.0												
180.0		MC 3					4	107					
	7.5				reddish brown								
177.5													
	10.0	MC 4					3	103					

No water, no caving
Bottom of test pit at 10.5 feet.

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TEST PIT NUMBER TP 03

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 180 ft **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY G. Masterman **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
180.0	0.0				**Terrace Deposits (Qtm)** Sand (SP) - reddish brown, dense, slightly moist, fine- to medium-grained								
							5	105					
177.5	2.5	MC 1											SHEAR
175.0	5.0	MC 2					1	101					

No water, no caving
Bottom of test pit at 6.0 feet.

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TEST PIT NUMBER TP 04

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NUMBER
DATE STARTED 4/23/13 **COMPLETED** 4/24/13
EXCAVATION CONTRACTOR Mike's Excavating Service
EXCAVATION METHOD Hand-Dug Test Pit
LOGGED BY E. Pongracz **CHECKED BY**
NOTES

PROJECT NAME Carp Rincon Trail Bikeway
PROJECT LOCATION Carpinteria, SB County, CA
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
GROUND WATER LEVELS:
AT TIME OF EXCAVATION ---
AT END OF EXCAVATION —
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Gravelly Silt (ML) - brown, slightly moist, medium dense, abundant roots, slighlty wavy and horizontal contact with underlying bedrock and terrace sands.								
	2.5				*Fault (presumably the Carpinteria Fault) places Monterey Formation bedrock (Tm) in contact with Terrace Sands (Qt). Fault: N62W/82S; 1/8" to 1/2" thick brown clay gouge w/ slickensided surface on Tm bedrock, fault places Tm in contact with sandy terrace deposits (Qt) bedding: N752W/60S								
	5.0				Bottom of test pit at 5.0 feet.								

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TEST PIT NUMBER TP 05

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 164 ft **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY G. Masterman **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
164	0				**Earth Fill (ef)** Silty Gravel (GM) - dark brown to black, medium dense to dense, moist, numerous roots, angular gravels from 1/2" to 1"								
163	1				**Bedrock: Monterey Formation (Tm)** Siliceous Shale - dark gray to black, moderately hard, slabby, tightly fractured, slightly weathered, shear surface on south side of test pit								
162	2												
161	3	MC 1					27	67	54	48	6		ATT, SHEAR

Bottom of test pit at 3.0 feet.

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TEST PIT NUMBER TP 06

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/24/13 **COMPLETED** 4/24/13
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Earth Fill (ef)** Silt (ML) with some Sand and scattered rock fragments - light brown, slightly dense, slightly moist, abundant roots								
	1												
	2	MC 1			**Bedrock: Monterey Formation (Tm)** Siliceous Shale and Chert - dark gray to black, moderately hard, slabby, tightly fractured		14	73					

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 2.5 feet.

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TEST PIT NUMBER TP 07

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/24/13 **COMPLETED** 4/24/13
GROUND ELEVATION 140 ft **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
140	0				**Slopewash (Qsw)** Sandy Silt / Silty Sand (SM) with scattered rock fragments - light brown, slightly dense, slightly moist, scattered roots								
					Bedrock: Santa Barbara Formation (Qsb) Sand to Silty Sand with cemented zones and scattered concretions - light yellowish brown, very dense to moderately hard, moist, fossiliferous (broken shell hash)								
139	1												
138	2	MC 1					11	98					
137	3												
		MC 2					13	99					SHEAR

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 3.5 feet.

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TEST PIT NUMBER TP 08

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/24/13 **COMPLETED** 4/24/13
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Slopewash (Qsw)** Sandy Silt (ML) with scattered rock fragments - light brown, slightly dense, slightly moist, scattered roots								
	1				**Fault Zone (Sheared bedrock)** Test pit excavated on supposed Carpinteria fault trace Complex zone of shearing/faulting which brings into contact Monterey (Tm) and Santa Barbara (Qsb) formations. Tm thrust up and over Qsb. Shear: N50W/16SW; base of 3" thick, brown sheared clay								
	2												
	3												

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 3.0 feet.

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TEST PIT NUMBER TP 09

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/24/13 **COMPLETED** 4/24/13
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0				**Slopewash (Qsw)** Sandy Silt (ML) with scattered rock fragements - light brown, soft to loose, slightly moist, scattered roots, downhill sloping contact.								
	1				**Bedrock: Monterey Formation (Tm)** Siliceous Shale and Diatmoceous Shale - gray to light brown, slightly to moderately hard, well-bedded, tightly fractured, slightly weathered								
	2	MC 1			bedding: N65W/Vert		14	99					

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 2.5 feet.

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TEST PIT NUMBER TP 10

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/24/13 **COMPLETED** 4/24/13
GROUND ELEVATION 117 ft **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
117	0				**Earth Fill (ef)** Sandy, Clayey Silt (ML) with scattered rock fragments - light brown, medium stiff, moist, mottled, few roots								
116	1				**Bedrock: Monterey Formation (Tm)** Siliceous Shale and Shale - gray to light brown, slightly to moderately hard, well-bedded, tightly fractured, moderately weathered and highly fractured to 2.5' below grade								
115	2												
114	3	GB 2 MC 1			bedding: N85W/82N (overturned)		16 16	80					SHEAR CHEM

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 3.5 feet.

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TEST PIT NUMBER TP 11

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/25/13 **COMPLETED** 4/25/13
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef) or Landslide Debris (Qls)** Silt with some Sand and trace cley with abundant rock fragments and cobbles - brown, stiff, dry to slightly moist, scattered roots, mottled.								
	2.5				@4' - Layer of mixed seaweed and large rock fragments								
	5.0				**Beach Sand (Qbs)** Fine- to medium-grainded Sand with scattered cobbles - light brown to tan, loose to slightly dense, dry, prone to caving								

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 6.0 feet.

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TEST PIT NUMBER TP 12

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/25/13 **COMPLETED** 4/25/13
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION --
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0	GB 1			**Earth Fill (ef)** Silt with some Sand (ML) with scattered shale fragments, stiff, slightly moist, porous with scattered roots, few bits of trash								
	2.5	MC 2					18	87					SHEAR
		MC 3					17	90					
	5.0				@4'-8" - Brown Clayey Silt (ML) with scattered small angular to rounded rock fragments, moist, occasional shell fragments (weakly developed soil ?) **Beach Sand (Qbs)** Fine- to medium-grainded Sand with scattered cobbles - light brown to tan, loose to slightly dense, dry, prone to caving								

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 6.0 feet.

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TEST PIT NUMBER TP 13

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/25/13 **COMPLETED** 4/25/13
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION —
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION —
NOTES
AFTER EXCAVATION —

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Silt with some Sand (ML) with abundant shale fragments - light brown, soft and loose, dry, prone to sloughing and caving								
	2.5												
	5.0				@7' begin to hand auger								
	7.5				**Beach Sand (Qbs)** Fine- to medium-grainded Sand with scattered cobbles - light brown to tan, loose to slightly dense, dry, prone to caving @~8' hand auger refusal on small rounded cobble. Probable contact with Qbs								

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 8.0 feet.

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TEST PIT NUMBER TP 14

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/25/13 **COMPLETED** 4/25/13
GROUND ELEVATION **TEST PIT SIZE** 24 x 36 inches
EXCAVATION CONTRACTOR Mike's Excavating Service
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Silt with some Sand (ML) with scattered to abundant shale fragments, stiff, slightly moist, porous with scattered roots, few bits of trash								
	2.5	MC 1					14	83					SHEAR
	5.0				@ 6' - begin to hand auger								
	7.5				**Beach Sand (Qbs)** Fine- to medium-grainded Sand with scattered cobbles - light brown to tan, loose to slightly dense, dry, prone to caving Unable to advance auger due to cobble(s).								

Test pit backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of test pit at 8.8 feet

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TEST PIT NUMBER TP 15

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Fine-grained Silty Sand / Sandy Silt (ML) with abundant angular shale fragments - light brown, dry to slightly moist, slightly compact to locally loose, scattered roots and rootlets							
	2.5	MC				10	84					
		GB				4		NP	NP	NP		ATT
		MC			4.0' - 18" diameter, slightly corroded metal conduit on uphill (north) side of test pit	5	81					
	5.0				6.0' - test pit excavation halted due to caving Bottom of test pit at 6.0 feet.							
	7.5											
	10.0											

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TEST PIT NUMBER TP 16

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Fine-grained Silty Sand / Sandy Silt (ML) with abundant angular shale fragments - light brown, dry to slightly moist, slightly compact to locally loose, scattered roots and rootlets Refusal at 1.0' below grade. Bottom of test pit at 1.0 feet.							
	2.5											
	5.0											
	7.5											
	10.0											

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TEST PIT NUMBER TP 17

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Slopewash (Qsw)** Sand with silt (SW/SM) - light brown, slightly moist, loose							
	2.5	MC			**Terrace Deposits (Qt)** Fine- to medium-grained Sand with occasional gravel - light yellow, slightly moist, very dense and locally slightly cemented; medium-bedded and laminated	15	98				72	
		MC				10	95					DS
					4.5' - test pit refusal on large cobbles							
	5.0				Bottom of test pit at 4.5 feet.							
	7.5											
	10.0											

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TEST PIT NUMBER TP 18

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Terrace Deposits (Qt)** Fine- to medium-grained Sand to Gravelly Sand - light brown to light reddish brown, slightly moist, dense to very dense							
	2.5	MC				4	110					
					Bottom of test pit at 4.0 feet.							
	5.0											
	7.5											
	10.0											

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TEST PIT NUMBER TP 19

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Silt to Sandy Silt (ML) matrix with shale fragments - light brown to light brownish yellow, dry to slightly moist, slightly compact, scattered roots and rootlets, occasional asphalt concrete fragments							
	2.5				**Natural Soil (Qns) / Colluvium (Qc)** Fine-grained Sandy Silt (ML) to Clayey Silt with occasional small weathered rock fragment - medium brown, slightly moist, medium stiff, locally slightly porous, scattered rootlets, occasional caliche stringer							
	5.0				**Beach Sand (Qbs)** Fine- to medium-grained Sand with scattered cobbles - light brown to tan, loose to slightly dense, dry, prone to caving							
	7.5				Cobbles and small boulders along sub-horizontal contact with bedrock							
					Bedrock: Sisquoc Formation (Tsq) Siltstone - gray, moist, moderately hard, tight, slightly weathered							
					Bottom of test pit at 9.0 feet.							
	10.0											

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TEST PIT NUMBER TP 20

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Sandy Silt (ML) matrix with shale fragments - light brown, slightly moist, slightly compact, scattered roots; grades to dark brown Clayey Silt with rock fragments							
	2.5											
	5.0				**Beach Sand (Qbs)** Cobbly fine- to medium-grained Sand - light brown to tan, loose to slightly dense, dry, prone to caving							
	7.5				Bottom of test pit at 7.0 feet.							
	10.0											

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TEST PIT NUMBER TP 21

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Silt to Sandy Silt (ML) matrix with shale fragments - light brown to light brownish yellow, dry to slightly moist, slightly compact, scattered roots, occasional asphalt concrete fragment							
	2.5	MC				10	87	37	26	11		ATT
	5.0				**Landslide Debris (Qls)** 4.5' - 7.5' - Highly fractured and brecciated siltstone fragments with little to no matrix - light yellow brown, dry, scattered roots, massive 7.5' - Qls becomes matrix-supported (light to medium brown clayey silt with scattered small rock fragments)							
	7.5	MC				15	86	44	28	16		DS, ATT
	10.0				**Beach Sand (Qbs)** Cobbly fine- to medium-grained Sand - light brown to tan, loose to slightly dense, dry, prone to caving							

Bottom of test pit at 10.0 feet.

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TEST PIT NUMBER TP 22

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Silt to Sandy Silt (ML) matrix with shale fragments - light brown to light brownish yellow, dry to slightly moist, slightly compact, scattered roots and rootlets, occasional asphalt concrete fragments							
	2.5	GB				10						
		MC				9	66					
	5.0				Hand-auger from 5' below grade.							
	7.5				**Beach Sand (Qbs)** Fine- to medium-grained Sand grading to Cobbly Sand - light brown to tan, loose to slightly dense, dry, prone to caving							
		MC				0	103					DS
		GB				2					2	
		GB			**Bedrock: Monterey Formation (Tm)** Siltstone - gray, moist, moderately hard, hydrocarbon odor	13						
	10.0	MC				33	79					

Bottom of test pit at 10.5 feet.

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TEST PIT NUMBER TP 23

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Earth Fill (ef)** Silt to Sandy Silt (ML) matrix with shale fragments - light brown to light brownish yellow, dry to slightly moist, slightly compact, scattered roots and rootlets							
	2.5											
	5.0				Hand-augered from 5' below grade.							
					Beach Sand (Qbs) Fine- to medium-grained Sand grading to Cobbly Sand - light tan, dry, loose							
	7.5				**Colluvium (Qc)** Silty Sand to Sandy Silt (SM/ML) matrix with scattered to abundant shale fragments - light brown to light brownish yellow, dry to slightly moist, porous with caliche							
	10.0				**Beach Sand (Qbs)** Fine- to medium-grained Sand grading to Cobbly Sand - light tan, dry, loose							

Bottom of test pit at 10.0 feet.

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TEST PIT NUMBER TP 24

CLIENT City of Carpinteria, Parks and Recreation Dept.
PROJECT NAME Rincon Multi-Use Trail
PROJECT NUMBER
PROJECT LOCATION Carpinteria, Santa Barbara County, CA
DATE STARTED 3/13/18 **COMPLETED** 3/13/18
GROUND ELEVATION **TEST PIT SIZE** 24" x 36" inches
EXCAVATION CONTRACTOR Juan's Landscaping
GROUND WATER LEVELS:
EXCAVATION METHOD Hand-Dug Test Pit
AT TIME OF EXCAVATION ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF EXCAVATION ---
NOTES
AFTER EXCAVATION ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Landslide Debris/Colluvium (Qls/Qc) or Mudflow Deposits** Silt with fine-grained Sand to Clayey Silt (ML) matrix with scattered to abundant weathered shale and tabular shale fragments - light brown to light orange brown, slightly moist, medium stiff to stiff, matrix-supported, massive with no internal structure							
	2.5				*Test pit excavated below a 5'-7' high near vertical cut exposing Qls/Qc							
	5.0											
	7.5											
	10.0				**Beach Sand (Qbs)** Cobbly fine- to medium-grained Sand - light brown to tan, dry, loose to slightly dense, prone to caving							

Bottom of test pit at 10.0 feet.

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BORING NUMBER TT 01

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 67 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Slopewash (Qsw)** Sandy Silt (ML) to Silty Sand (SM) - light brown to brown, loose, moist, abundant roots and rootlets, 30°-40° downhill sloping contact								
65.0	2.5				**Terrace Deposit (Qt) ?** Silty Sand (SM) to Sand w/ Silt (SP) grading to cobble/boulder with sand matrix interval - pale yellow to brownish yellow, dense, moist, few scattered roots, boulders to 24" diameter								
62.5	5.0												

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 6.0 feet.

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BORING NUMBER TT 02

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 66 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Colluvium / Landslide Debris (Qcol/Qls)** Heterogenous mix of silt with some clay (matrix) and scattered to abundant rock fragments - light brown to brown, loose to slightly stiff, slightly moist, abundant AC fragments in upper 2'								
65.0	2.5												
62.5		MC 1					17	79	46	29	17		ATT, SHEAR
	5.0												
60.0													
	7.5				@8' - diffuse and gradational downhill-sloping contact with weathered and highly fractured mudstone								
57.5					**Bedrock: Sisquoc Formation (Tsq)** Mudstone - light brownish gray, slightly hard, weakly indurated, highly fractured and moderately weathered to 11' below grade, scattered roots, limonite weathering along fractures, massive								
		MC 2					10	108					
	10.0	MC 3					11	107					SHEAR
55.0		GB 4					33						CHEM
	12.5												

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 13.0 feet.

Bengal Engineering
250 Big Sur Drive
Goleta CA 93117
Telephone: (805) 685-6511

BORING NUMBER TT 03

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 67 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING --
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING --
NOTES
AFTER DRILLING --

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Colluvium / Landslide Debris (Qcol/Qls)** Clast-supported mix of light grayish brown mudstone fragments in brown silty matrix - contains zones of light brown silt/clayey silt infill, dry to slightly moist, abundant roots and rootlets								
65.0	2.5												
62.5	5.0												
60.0	7.5												
57.5	10.0				@11' - ~16° dip on sharp slide contact, 2"-3" thick zone of brown clayey silt (ML) matrix with scattered, small highly weathered mudstone fragments, moist, few roots **Bedrock: Sisquoc Formation (Tsq)** Mudstone - light brownish gray, slightly hard, limonite weathering along fractures, massive and weakly indurated								
55.0	12.5												

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 13.5 feet.

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BORING NUMBER TT 04

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 68 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Slopewash (Qsw)** Silty with minor clay and scattered rock fragments - light brown, loose, porous, abundant roots, contains few bits of trash								
67.5													
	2.5				@2.5' - steeply sloping and sharp contact with Tm bedrock								
65.0					**Bedrock: Monterey Formation (Tm)** Diatomaceous Shale - light brown, slightly to moderately hard, moist, thinly bedded, upper 2.5' highly weathered and fractured with abundant roots (better below)								
	5.0				bedding: N84W/60N (overturned)								
62.5		GB 1			bedding: N86W/64N (overturned)		15						CHEM

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 7.0 feet.

Bengal Engineering
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Telephone: (805) 685-6511

BORING NUMBER TT 05

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 70 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
70.0	0.0				**Slopewash (Qsw)** Abundant shale fragments in light brown silty matrix - dry, loose, scattered trash and debris, wedge thickens towards base of slope, abundant roots								
67.5	2.5				**Bedrock: Monterey Formation (Tm)** Shale and Diatomaceous Shale - brown to light brown, slightly to moderately hard, moist, thinly bedded								
65.0	5.0				bedding: E-W/74N (overturned)								

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 7.0 feet.

Bengal Engineering
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BORING NUMBER TT 06

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 72 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Slopewash (Qsw)** Abundant shale fragments in light brown silty matrix - dry, loose, prone to caving, wedge thickens towards base of slope, abundant roots								
70.0	2.5												
67.5	5.0				**Bedrock: Monterey Formation (Tm)** Shale and Diatomaceous Shale - brown to light brown, slightly to moderately hard, moist, thinly bedded, highly fractured with abundant rootlets bedding: N85W/52N (overturned)								
65.0	7.5												

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 8.0 feet.

Bengal Engineering
250 Big Sur Drive
Goleta CA 93117
Telephone: (805) 685-6511

BORING NUMBER TT 07

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 74 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
	0.0				**Slopewash (Qsw)** Abundant shale fragments in light brown silty matrix - dry, loose, prone to caving, wedge thickens towards base of slope, abundant roots								
72.5	2.5												
70.0					**Bedrock: Monterey Formation (Tm)** Laminated siliceous siltstone and shale - dark gray to black, moderately hard, slabby, fractured and jointed, moderately to slightly weathered (rock weathers to light tan to cream colored) bedding: N85W/Vert joint set: N18E/62NW (~4" spacing)								
	5.0												
67.5		GB 1					18						CHEM

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 6.5 feet.

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BORING NUMBER TT 08

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 75 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
75.0	0.0				**Earth Fill (ef)** Silt to Clayey Silt (ML) with scattered to abundant rock fragments - light brown, stiff, moist, mottled, scattered roots								
72.5	2.5												
70.0	5.0				**Bedrock: Monterey Formation (Tm)** Laminated siliceous siltstone and shale - dark gray to black, moderately hard, slabby, fractured and jointed, slightly weathered bedding: N65W/53NE (overturned) bedding: N82W/71N (overturned)								

Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 6.5 feet.

Bengal Engineering
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Telephone: (805) 685-6511

BORING NUMBER TT 09

CLIENT City of Carpinteria, Parks and Recreation Dept
PROJECT NAME Carp Rincon Trail Bikeway
PROJECT NUMBER
PROJECT LOCATION Carpinteria, SB County, CA
DATE STARTED 4/23/13 **COMPLETED** 4/23/13
GROUND ELEVATION 75 ft **HOLE SIZE** 30 x 96 inches
DRILLING CONTRACTOR Mac Brown Excavating
GROUND WATER LEVELS:
DRILLING METHOD Backhoe Test Pit
AT TIME OF DRILLING ---
LOGGED BY E. Pongracz **CHECKED BY**
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

ELEV (ft)	DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	GRAPHIC LOG	MATERIAL DESCRIPTION	UNDRAINED SHR STRENGTH (tsf)	MOISTURE CONTENT (%)	DRY UNIT WT. (pcf)	ATTERBERG LIMITS: LIQUID LIMIT	ATTERBERG LIMITS: PLASTIC LIMIT	ATTERBERG LIMITS: PLASTICITY INDEX	FINES CONTENT (%)	OTHER TESTS
75.0	0.0				**Earth Fill (ef)** Silt to Clayey Silt (ML) with scattered to abundant rock fragments - light brown, stiff, moist, mottled, scattered roots								
72.5	2.5												
70.0	5.0				**Natural Soil (Qns)** Clayey Silt with scattered rock fragments - brown, slightly moist to moist, scattered roots **Colluvium (Qcol)** Brecciated Tm in brown, clayey silt (ML) matrix - varies from clast- to maxtrix-supported								
67.5	7.5				@8' - irregular, gently S dipping contact with Tm **Bedrock: Monterey Formation (Tm)** Laminated siliceous siltstone and shale - dark gray to black, moderately hard, slabby, fractured and jointed, slightly weathered bedding: N77E/74NW (overturned) bedding: N78E/69NW (overturned)								
65.0	10.0												

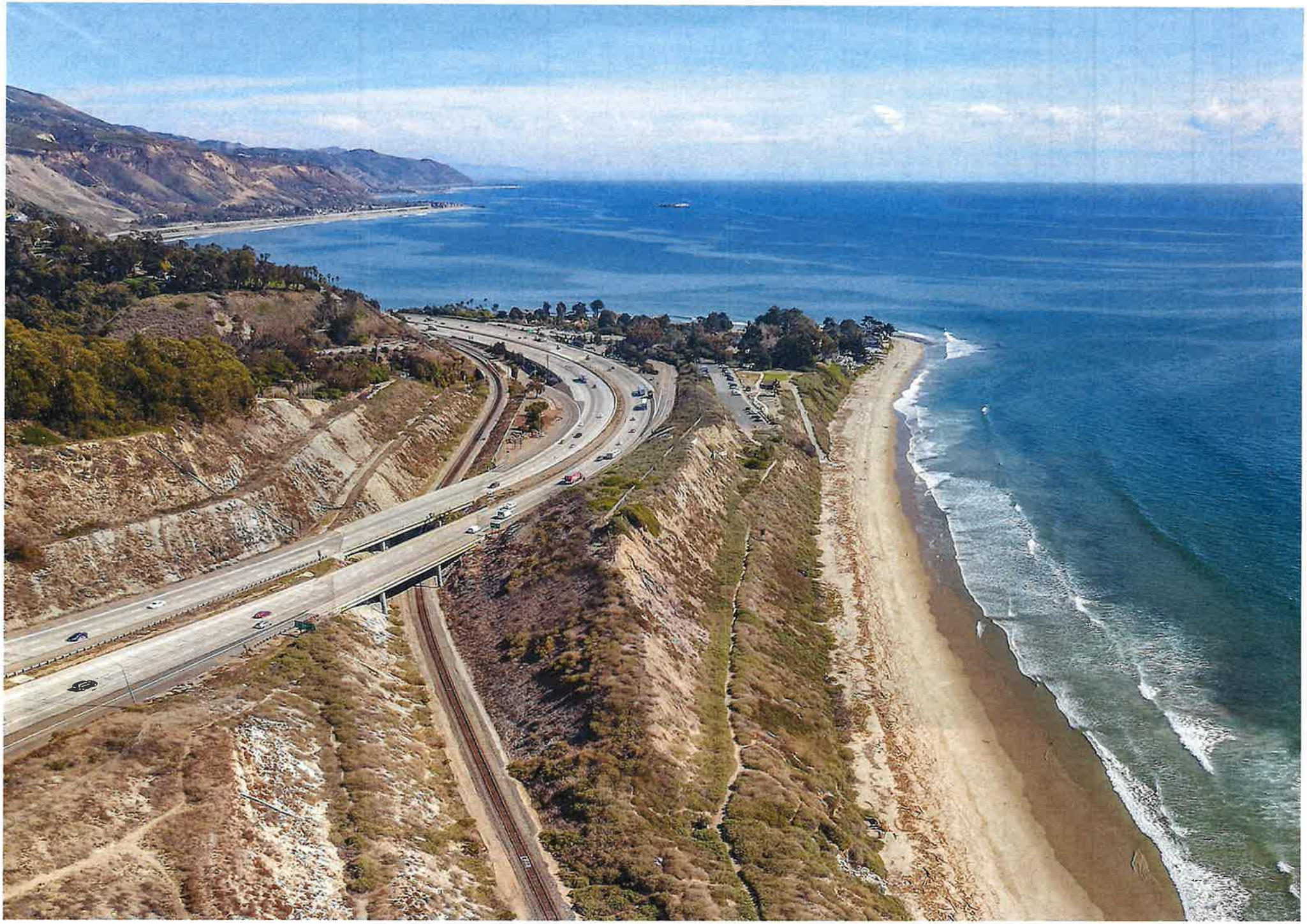
Test trench backfilled with native materials. Groundwater and/or seepage was not encountered.
Bottom of borehole at 10.0 feet.

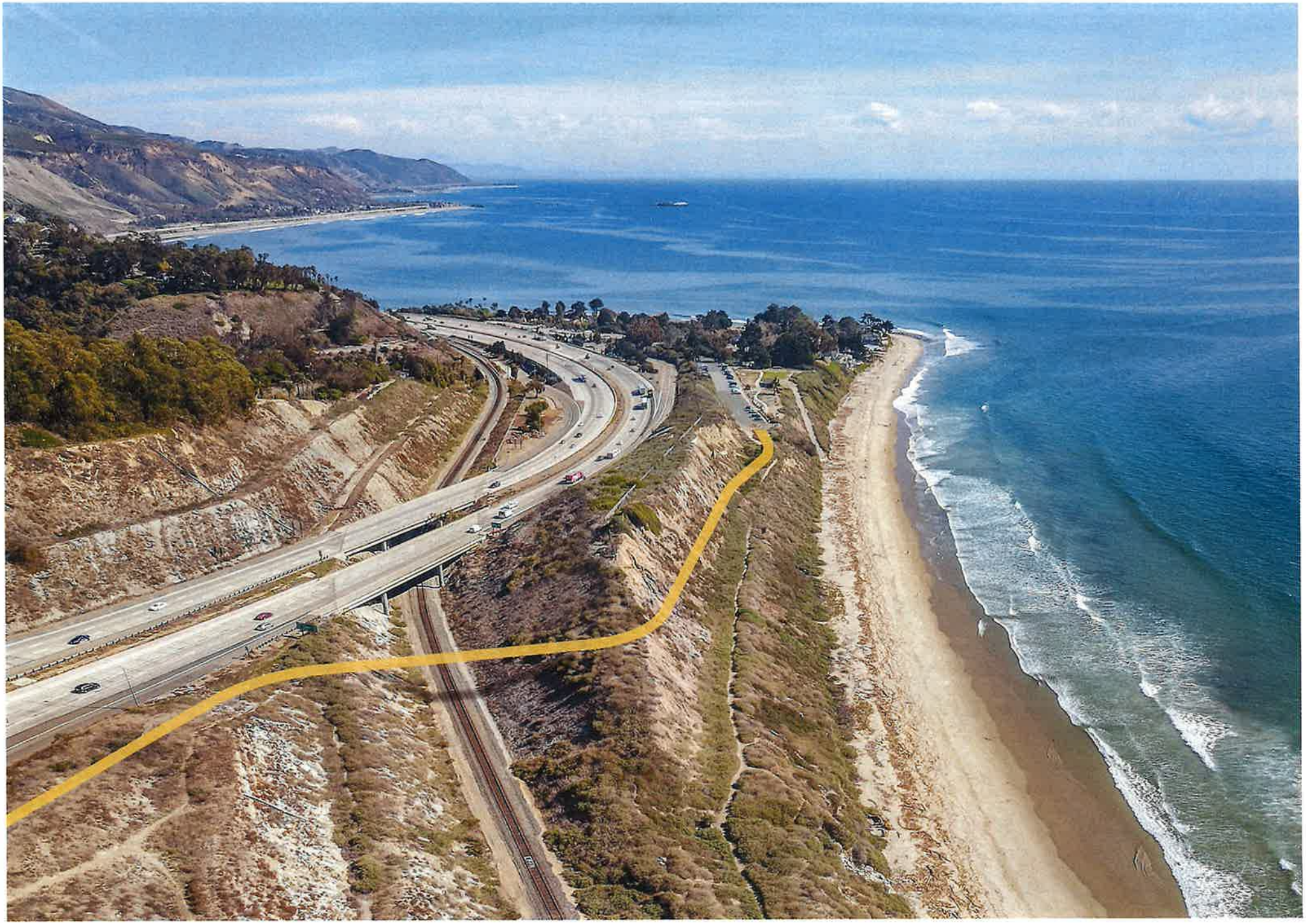
Exhibit B

Project Exhibits

Rincon Trail
Project 19-2015-CUP/CDP
October 28, 2021 Preliminary ARB Review

RINCON MULTI-USE TRAIL PLAN VIEW





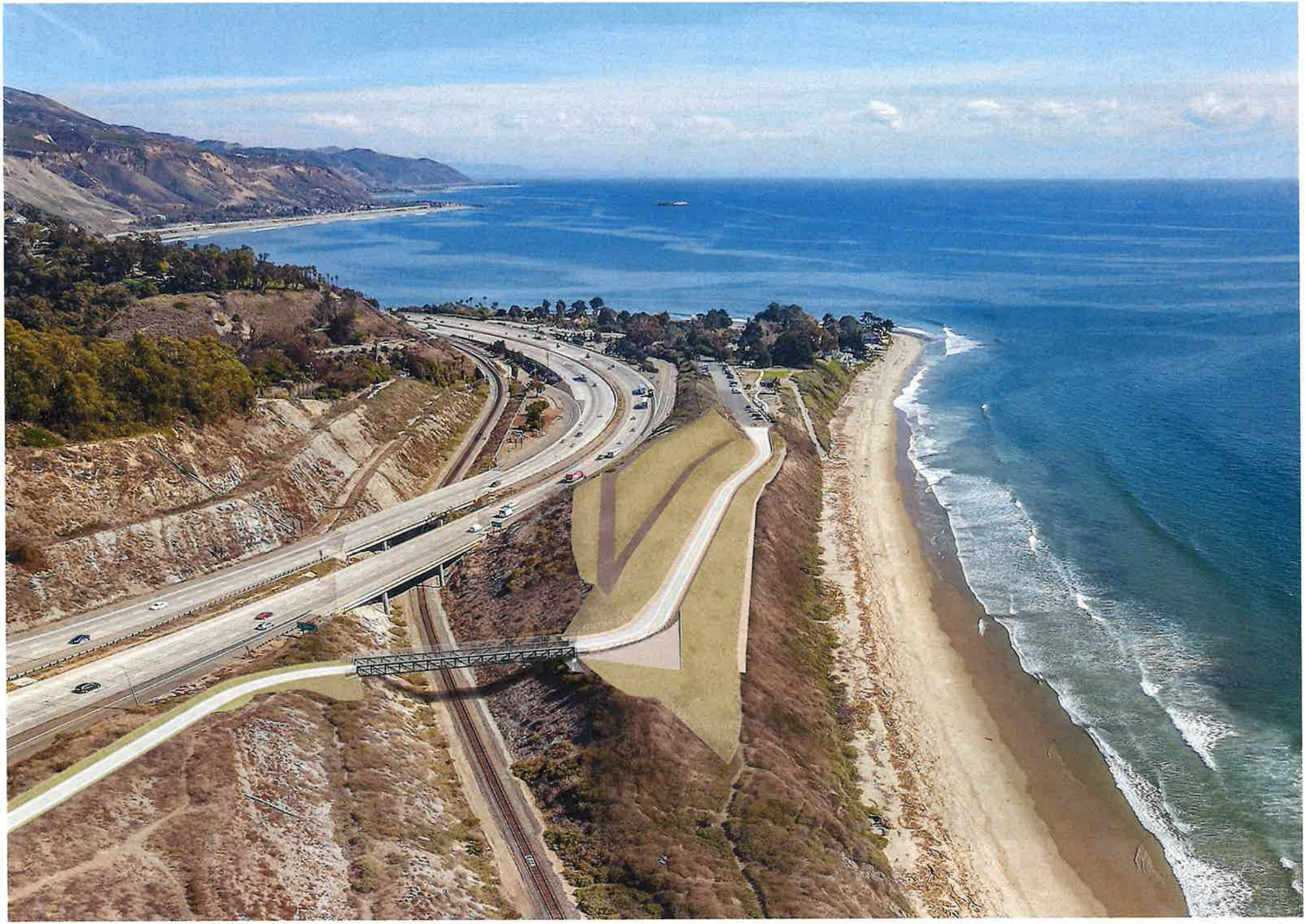


Exhibit C

Project Description Narrative

Rincon Trail
Project 19-2015-CUP/CDP
October 28, 2021 Preliminary ARB Review

2.4 Project Background and Purpose

2.4.1 Background

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), U.S. 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 for 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.

A Mitigated Negative Declaration (MND) was prepared for a proposed Carpinteria Rincon Trail in 2015. The 2015 MND analyzed a multi-use (shared-use) trail extending from the eastern terminus of Carpinteria Avenue to Rincon Beach County Park, 12-feet in width and approximately 4,000 feet in length. The design of the proposed trail analyzed in the 2015 MND would have necessitated approximately 1,000 feet of retaining wall, with a maximum height of 14 feet. 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. Further investigation into the original design revealed that its constructability as originally designed was questionable due to unstable geologic conditions and critical US Highway 101 storm drain infrastructure in the vicinity of the original trail alignment's long switchback turn within the UPRR alignment. Further study also suggested that the entire trail alignment could not be designed to achieve an Americans with Disabilities Act of 1990 (ADA) compliant slope. Therefore, a Subsequent MND was prepared in 2019, which analyzed a simplification of the originally proposed design, including elimination of the 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 Draft Subsequent MND was circulated for public comment, and a hearing was held by the Carpinteria Planning Commission to consider certification of the document. The Planning Commission voted to certify the Subsequent MND, and that decision was appealed to the City Council. Although the appeal of the Planning Commission's certification of the Subsequent MND was never heard by the City Council, the City Council decided to move forward with the preparation of this Focused EIR as the appropriate CEQA environmental review document in order to allow for a more in-depth analysis of key issue areas identified during consideration of the Subsequent MND.

Access between the City of Carpinteria and Rincon Beach County Park has primarily been provided by U.S. Highway 101, though the distance between the two destinations is less than one mile. The use of U.S. Highway 101 requires a bicyclist or pedestrian to travel along the highway shoulder. Many bicyclists and pedestrians use the railroad corridor as an alternative route, as evidenced by the unsanctioned trails that are present along the bluff face and along the railroad tracks connecting the City of Carpinteria with Rincon Beach County Park. Use of the unsanctioned trails in and along 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 unincorporated 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. Completion of

the trail will also fill in a long-standing gap in the statewide California Coastal Trail. The trail further is a requirement of the Conditional Use Permit and Coastal Development Permit No. 09-1522-CUP/CDP granted to the California Department of Transportation (Caltrans) to construct the Linden Avenue and Casitas Pass Road Interchanges and Via Real Extension Project in order to promote regional alternative transportation objectives and to enhance recreation opportunities within the coastal zone and access to coastal resources. Regional vicinity and project site location are presented in Figures 2-1 and 2-2.

2.4.2 Purpose and Need

2.4.2.1 Purpose Statement

The fundamental purpose of the Carpinteria Rincon Trail is to establish a scenic, coastal trail offering a non-motorized ADA accessible recreational and alternative transportation trail option between the Carpinteria Bluffs and Rincon Beach County Park, consistent with the intent of the California Coastal Trail and as required by the California Department of Transportation's conditions of approval for the Linden Avenue and Casitas Pass Road Interchanges project (Conditional Use Permit and Coastal Development Permit No. 09-1522-CUP/CDP). In addition, the Carpinteria Rincon Trail shall be designed to achieve the purposes and objectives described further below.

2.4.2.2 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. The continuous rail tracks that the Union Pacific Railroad (UPRR) recently installed are quieter than previous segmented rail track; thereby increasing safety hazards as rapidly approaching trains may not be audible. The geography of the area also constrains visual line of sight along the rail corridor such that it can be difficult to see oncoming trains far in advance. Despite these 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. Soaring recreationalists (such as parasailers and paragliders) also fly over and sometimes land on, or utilize the rail corridor to return to the launch point located on the bluff promontory above the railroad corridor. From 2015 to 2019, the Federal Railroad Administration Office of Safety records indicate that there were 25 rail incidents in Santa Barbara County, including 18 deaths and 7 injuries (FRA 2020). According to a grand jury report on rail incidents within Santa Barbara County, one railway fatality occurred within Carpinteria in the period from 2015 through 2018 (Santa Barbara County Grand Jury 2019).

2.4.2.3 Local Environmental 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 east 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 and subsequently deeded to the City of Carpinteria 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 2009). 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.

2.4.2.4 Recreational Opportunities

The City of Carpinteria is a popular year-round tourist attraction, with close to two million visitors a year (City of Carpinteria 2009). 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 2009).

Just east of the City of Carpinteria, Rincon Beach County Park exists and offers picnic areas, beach access, and parking areas for beach-goers and cyclists using the regional coastal bike path that connects to the City of Ventura. Rincon Beach County Park is operated by the County of Santa Barbara. Visitors to the City of Carpinteria, including campers at the State Beach, often travel to the Rincon Beach County Park for recreational activities and to view the world-famous Rincon surf break. The ocean bluffs along the eastern portion of the City and extending into the Rincon Beach County Park area also produce updrafts from ocean related winds, which create soaring opportunities generally above the top of the ocean bluffs alignment for paragliders and other soaring recreationalists. 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 would close a gap in the California Coastal Trail at a critical location. The function of the Carpinteria Rincon Trail as the local segment of the California Coastal Trail means the proposal must also align with the goals established for the California Coastal Trail. Some of the introductory information in the Senate Bill 908 Report (Completing the California Coastal Trail) is informative, and includes the stated goals for the trail, importantly the following:

1. Provide a continuous trail as close to the ocean as possible, with connections to the shoreline at appropriate intervals and sufficient transportation access to encourage public use.
5. Design the CA Coastal Trail to provide a valuable experience for the user by protecting the natural environmental and cultural resources while providing public access to beaches, scenic vistas, wildlife viewing areas, recreational or interpretive facilities, and other points of interest.

6. Create linkages to other trail systems and to units of the State Park system, and use the Coastal Trail system to increase accessibility to coastal resources from urban population centers.

   (Source: http://californiacoastaltrail.info/cms/pages/trail/done.html)

The proposed Carpinteria Rincon Trail 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 and on to Padaro Lane, 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 2-3, Existing Trail Network, presents the proposed Carpinteria Rincon Trail segment in the context of the Carpinteria Coastal Vista Trail.

2.4.3 Objectives

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

- Improve pedestrian and bicyclist safety, as well as vehicular safety, by significantly reducing unsafe and/or illegal use of the railway corridor and the U.S. Highway 101 shoulder.
- Enhance regional mobility for cyclists and pedestrians, while enhancing support of regional initiatives to promote alternative transportation modes between Carpinteria, Santa Barbara County and Ventura County, by providing a continuous bike and pedestrian path connecting Santa Barbara County to Ventura County.
- Reduce air pollution from vehicle-related air quality emissions and traffic congestion on local and regional transportation systems by promoting pedestrian and bicycle access to coastal resources and recreation opportunities via a scenic multi-use trail, as an alternative to use of motorized vehicles to access and experience such coastal resources.
- Improve the local coastal bluff environment through improved water quality of surface water runoff through stabilization of bluff slope faces that are currently eroding into the Pacific Ocean, and enhancement of sensitive coastal bluff scrub habitats in the project area. Also, avoid deposits of petroleum fuels or lubricants associated with typical motor vehicle use for transportation in close proximity to the ocean, preventing such pollutants from stormwater runoff entering the adjacent marine environment.
- Complete a critical missing link in the California Coastal Trail consistent with the goals of Senate Bill 908, including provision of a continuous trail as close to the ocean as possible, with connections to the shoreline at appropriate intervals and sufficient access to encourage public use. The California Coastal Trail is intended to offer scenic coastal vistas, wildlife viewing areas, recreational or interpretive facilities, and other points of interest, and is recognized in regions throughout the state as a key resource or opportunity for these coastal-oriented experiences.
- Provide a coastal-oriented pathway that supports the broadest use by the public through a design that complies with standards established via the Americans with Disabilities Act (ADA).
- Provide new scenic coastal access and coastal tourism opportunities in the City of Carpinteria, Santa Barbara County, and Ventura County.

2.5 Location

The project is located on lands within the jurisdiction of the City of Carpinteria and the County of Santa Barbara (Figure 2-1). Carpinteria is a quaint seaside town located about 12 miles east of Santa Barbara near the intersection of Highway 150 and U.S. 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 trail would begin near the eastern terminus of Carpinteria Avenue, and would proceed eastward along the existing benched slope adjacent to U.S. 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.

The proposed trail 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 along a benched slope on the ocean-facing side of the bluff. The benched slope would be graded to be in compliance with ADA pathway slope requirements, and to provide long-term stability for the trail in accordance with engineering safety standards. Figure 2-2 illustrates the overall alignment of the proposed Carpinteria Rincon Trail. The proposed route is grade and horizontally separated from the U.S. Highway 101 freeway and the railroad corridor.

2.6 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.

U.S. 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 to the western end of the trail on Carpinteria Avenue, with the Rincon Beach County Park and Rincon Point residential community located adjacent the eastern terminus of the trail. Surrounding land uses are shown in Figure 2-2. Figure 2-2 also illustrates jurisdictional boundaries for the City of Carpinteria, County of Santa Barbara, Ventura County, and Caltrans right-of-way relative to the trail alignment.

The majority of the proposed trail route is located along and above U.S. Highway 101, and the alignment is completely within terrain that has been previously modified for transportation projects, which are now represented by old terraced road and rail cuts. Most of the area's natural landforms have been mechanically manipulated over the years as a result of road, highway and railroad construction activities dating back to at least the late 1800s. 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 U.S. Highway 101. The trail would cross the UPRR tracks in an area that

consists of engineered slopes cut during construction of the current 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 late 1960's. This informal trail is mostly 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. The top of the bluff formation in this area was also used for the previous alignment of State Route 2 (precursor to the current U.S. Highway 101 alignment) and abandoned in the 1960s. Remnants of the abandoned road alignment are still visible along the top of the bluff formation and overhang the existing informal trail. A few abandoned and current underground utilities and infrastructure exist in or nearby the proposed route, including but not limited to fiber optic lines, a sewer main, and storm drain infrastructure.

2.7 Project Description

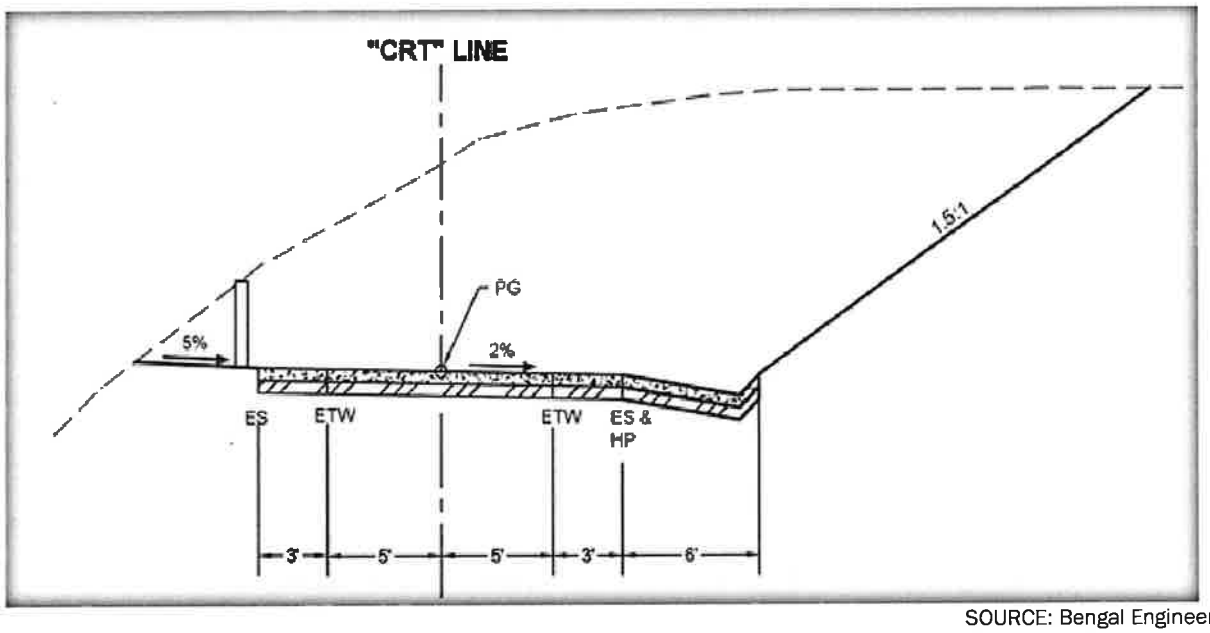
The proposed project consists of a 16-foot wide (10-foot wide path with a 3-foot wide paved shoulder along both sides) and approximately 2,800-foot long shared-use trail that would provide safe access for bicyclists and pedestrians traveling from Carpinteria Avenue in the City of Carpinteria to Rincon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

The initial approximately 850 feet of the trail alignment (starting from the eastern Carpinteria Avenue terminus and heading east) is within the City of Carpinteria jurisdiction. The remaining approximately 1,950 feet of the trail alignment, including the bridge crossing over the railroad corridor, is located within the County of Santa Barbara.

The Rincon Trail is planned to function as the local section of the California Coastal Trail, connecting on the south end to the recently completed bicycle and pedestrian path constructed with the Caltrans HOV project from Carpinteria to the Mobil Pier in Ventura County. On the north, the Rincon Trail would currently connect with Carpinteria Avenue, which provides continuous bicycle and pedestrian travel from the eastern to western end of Carpinteria City limits. From Carpinteria Avenue an alternate route exists for cyclists and pedestrians south along Linden Avenue to 4th Street eastward through Carpinteria State Beach, and connecting with the Carpinteria Bluffs Trail, which is nearly continuous to the location of the Rincon Trail western trail head. The City is in the process of acquiring an easement over two parcels that would complete the Carpinteria Bluffs Trail from the Carpinteria State Beach to the Rincon Trail. In the near term, the City will also be completing additional trail and public parking improvements in conjunction with the recent acquisition of the Rincon Bluffs Preserve property, which is located immediately adjacent to the western terminus of the proposed Rincon Trail. The Rincon Bluffs Preserve improvements will serve to further enhance public recreational and alternative transit options in the area.

A cross-section illustrating the proposed trail configuration is provided below (following page). 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 pass other trail users or navigate when opposite direction travelers are present). The paved 3-foot shoulder also improves access for emergency service and maintenance vehicles.

A safety fence is also illustrated (on the left) to prevent users from encountering the slope below the trail. The proposed fencing would be approximately 3.5 feet in height and consisting either of 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 6-foot wide swale would also be provided along the path where cut slopes are present to capture and convey stormwater, as shown in Illustration 2-1.



SOURCE: Bengal Engineering

Illustration 2-1 Rincon Trail Cross Section - Widths of Components

Legend for Illustration 2-1:

CRT Center of Route Travel

ETW Edge of Travel Way

ES Edge of Shoulder

HP High Point (of drain swale adjacent to path)

PG Path Guide

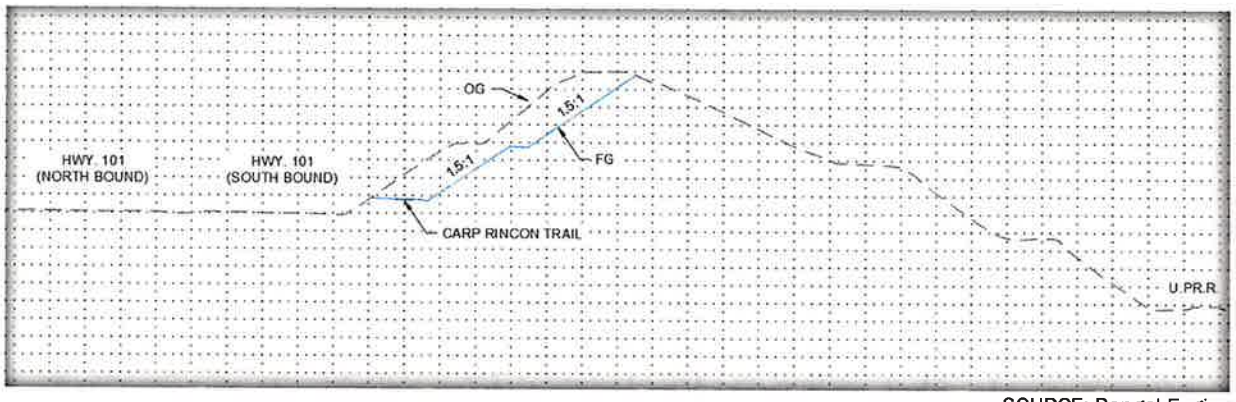
2.7.1 Earthwork

The trail design has been engineered to incorporate pathway travel slopes that are consistent with ADA standards. The design also avoids an area with deep landslides, south and west of the crossing point over the UPRR alignment, which were identified in geotechnical testing. The majority of project earthwork will occur on existing engineered slopes that were constructed as part of past road, highway and railroad projects; these manufactured slope faces in many instances are steeper than natural conditions, leading to increased erosion potential, which the project intends to correct though re-contouring to reduce slope angles. Construction of the proposed path design would involve a total of 107,386 cubic yards of cut, a total of 14,860 cubic yards of fill, and the export of a total of 92,526 cubic yards of earth material. The re-contouring of existing engineered topography along the path alignment to achieve more stable conditions is described in more detail below.

2.7.1.1 Pathway Slope Profiles Adjacent to U.S. 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 corridor) 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

existing hill/ridge as it remains from previous earthwork modification in this section of the alignment. Illustration 2-2 presents the existing versus proposed slope profile for earthwork modifications above and below the trail.



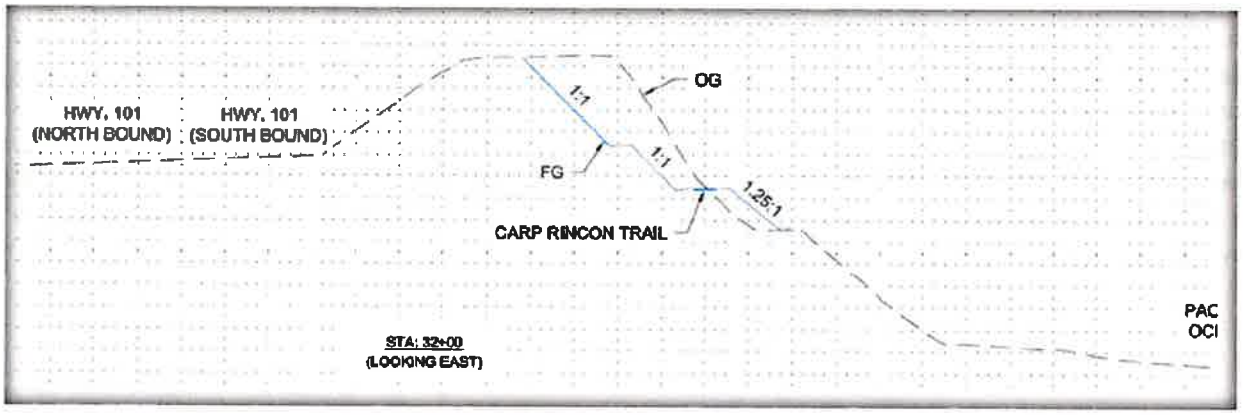
SOURCE: Bengal Engineering

Illustration 2-2 Pathway Grading Profile Adjacent to U.S. Highway 101

Note in Illustration 2-2 that the proposed cut-slopes are similar in profile to those created during the U.S. 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 U.S. Highway 101.

2.7.1.2 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. Illustration 2-3 presents an example of the existing versus proposed slope profile for earthwork modifications above and below the trail.



SOURCE: Bengal Engineering

Illustration 2-3 Pathway Grading Profile South of UPRR Alignment

Note in Illustration 2-3 that the proposed cut-slopes are less-steep than those constructed for the railroad alignment in this area (illustrated as "OG" above) in order to provide an adequate margin of safety for the long-term stability of the slopes. 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.

2.7.2 Bridge Detail

The bridge 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 2-4 provides an example of a similar scale pre-fabricated steel bike path bridge. Note the bridge for the Carpinteria 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 2-4 Representative Steel Framed Bike Path Bridge

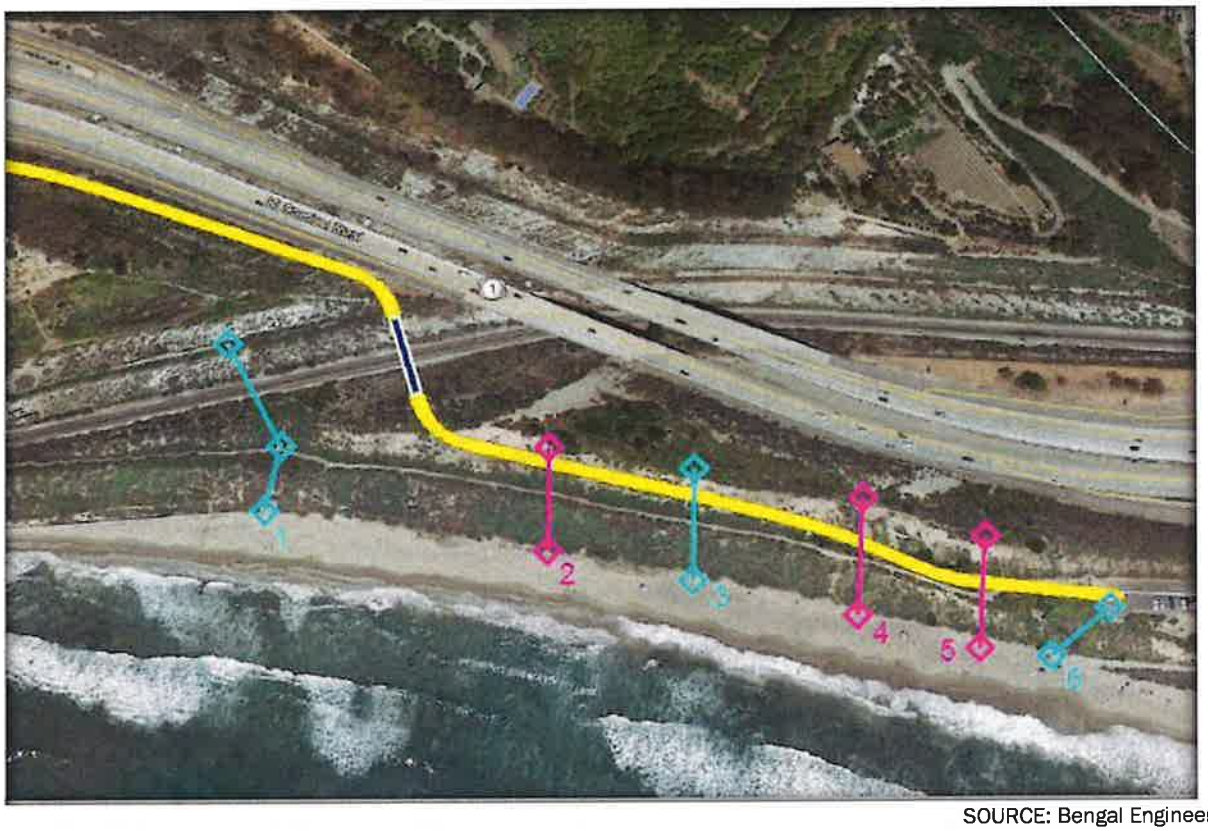
The approximate location of the Carpinteria Rincon Trail bridge over the UPRR alignment (the magenta colored line) is shown in Illustration 2-5. The relative elevation of the bridge can be compared to the U.S. Highway 101 bridge over the UPRR corridor (just above the elevation of the pictured train).

SOURCE: Bengal Engineering

Illustration 2-5 Approximate Profile and Location for Rincon Trail Bridge

2.7.3 Drainage

The proposed trail project includes an integrated storm drainage system to ensure stormwater runoff from the recontoured bluff face and the trail surface is conveyed to the ocean 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 an existing surface drainage swale now serving U.S. 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 2-6. 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 U.S. Highway 101.



SOURCE: Bengal Engineering

Illustration 2-6 Major Storm Drainage Components of the Project

On the south side of the UPRR alignment, a concrete drainage swale would also carry surface runoff from the recontoured bluff face and 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 stormwater from the trail to the beach elevation, for the trail segment south of the UPRR alignment (refer to Illustration 2-6). Drains No. 3 and No. 6 (shown in light blue in Illustration 2-6) are existing and would be re-used, including rehabilitation of existing piping; drains No. 2, No. 4, and No. 5 (shown in magenta in Illustration 2-6) 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 aboveground portions.

The majority of the length of the proposed trail is outside of the City of Carpinteria's and Santa Barbara County's respective 2013 Statewide Phase II Small Municipal Separate Storm Sewer (MS4) General Permit (2013 General Permit) boundaries, and thus the majority of the project is exempt from the Post Construction Requirements (PCRs) of the 2013 General Permit. Because the project is not regulated by the 2013 General Permit and PCRs therein, the project may not fully avoid potential water quality impacts unless it achieves compliance with active construction and post-construction requirements of the Statewide Construction General Permit (CGP). The proposed Rincon Trail drainage facilities are focused on the efficient collection and delivery of stormwater runoff from the trail surface to the ocean, no stormwater treatment components are included.

2.7.4 Trail/Path Features

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 and maintenance vehicle access to the project area. The bridge over the UPRR alignment would provide safe crossing for trail users over the railway and reduce the risk of accidents or fatalities associated with unsanctioned rail crossings. Additionally, the project would feature native plantings designed to transition to natural communities and restored native plant areas along the trail alignment. 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*).

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, approximately 42 inches in height. 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.

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. The southern shoulder of Carpinteria Avenue, from SR 150 to the existing cul-de-sac terminus, provides parking for approximately 24 vehicles, and would be a short walk from the proposed western trail head. Signage would be installed to delineate parking and direct users toward the trail. Visitors traveling both northbound and southbound on U.S. 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 U.S. Highway 101 to the east. Exit 83 for Bates Road off of Highway 101 provides access to Rincon Point Road. 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 public parking lot within the eastern portion of the newly acquired Rincon Bluffs Preserve (a separate, future project in the same vicinity) would also serve both the open space preserve and the Rincon Trail once completed.

A sign providing a map of the trail and trail rules (including on-leash requirements for dogs) 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.

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. Restrooms are also contemplated as part of the future improvements to the Rincon Bluffs Preserve.

2.7.5 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, virtually the entire trail length would be located on abandoned road or railway cuts or existing terraces that have been disturbed previously rather than on natural landforms and slopes.

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 two 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 is 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 on site 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 2022 and reach completion by March 2024, for a total construction window of approximately two years. The trail would be constructed using common earthwork equipment such as a 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 trail would take approximately one to three weeks and would require use of medium-sized tractors and trucks.

The proposed bridge structure would be fabricated off site. 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 and planting of the new slope faces 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.

2.7.6 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 maintenance needs would be accommodated by existing City of Carpinteria or County of Santa Barbara work crews on their respective portions of the trail.

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 on-leash 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. Trash and recycling cans, and dog waste bag dispensers are currently available in Rincon Beach County Park and would serve trail users.

2.7.7 Acquisition of Right-of-Ways

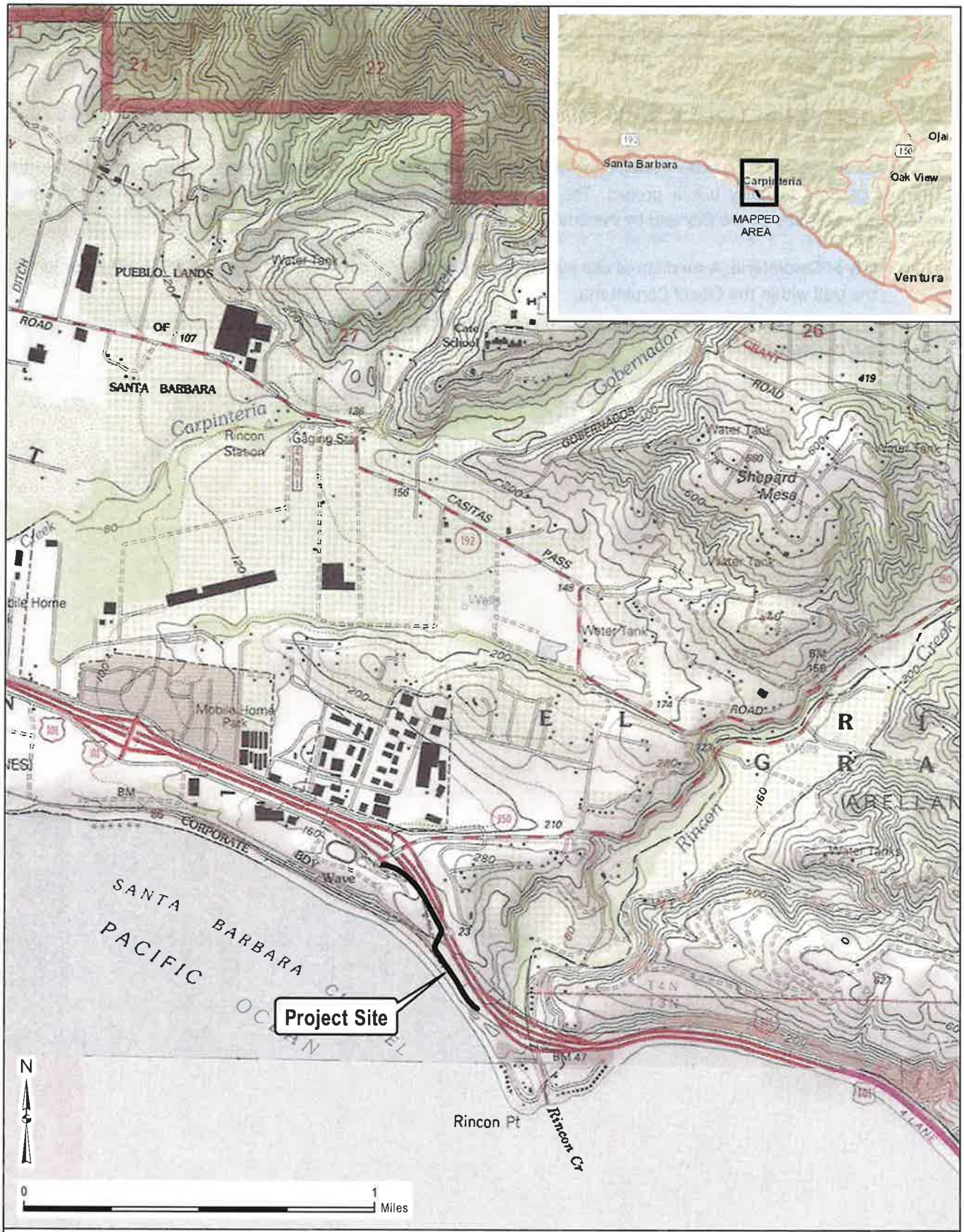
The proposed trail route crosses several parcels of land owned by public agencies. The trail parking lot location on Carpinteria Avenue is owned by the City of Carpinteria; trail implementation would require no easements for this portion. Heading east, the next portion of the trail, which courses down a hill parallel to the highway, is owned by the State of California as part of the U.S. Highway 101 right-of-way. For this portion of the route Caltrans will transfer in fee title these two parcels to accommodate placement of the trail and bridge structure on this property.[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 encroachment permit and approval from the California Public Utilities Commission (CPUC) are in process for construction and maintenance of the bridge structure within the UPRR parcels. 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.

[1] The process for transferring ownership interest in real property from Caltrans to another public entity typically entails several months, and is subject to approval by the California Transportation Commission. Transfer of the two parcels would be completed prior to any construction commencing on the trail and in compliance with CEQA.

2.8 Discretionary Actions

A discretionary action is an action taken by an agency that calls for the exercise of judgment in deciding whether to approve or how to carry out a project. The proposed project would require consideration of the following discretionary actions by the City and by the County:

- City of Carpinteria: A conditional use permit (CUP) and coastal development permit (CDP) for the portion of the trail within the City of Carpinteria.
- County of Santa Barbara: A development plan permit (DVP), CUP and CDP for the portion of the trail within the County of Santa Barbara.



SOURCE: USGS 1:24,000 Topological Survey

FIGURE 2-1

Regional Location

Carpinteria Rincon Trail EIR

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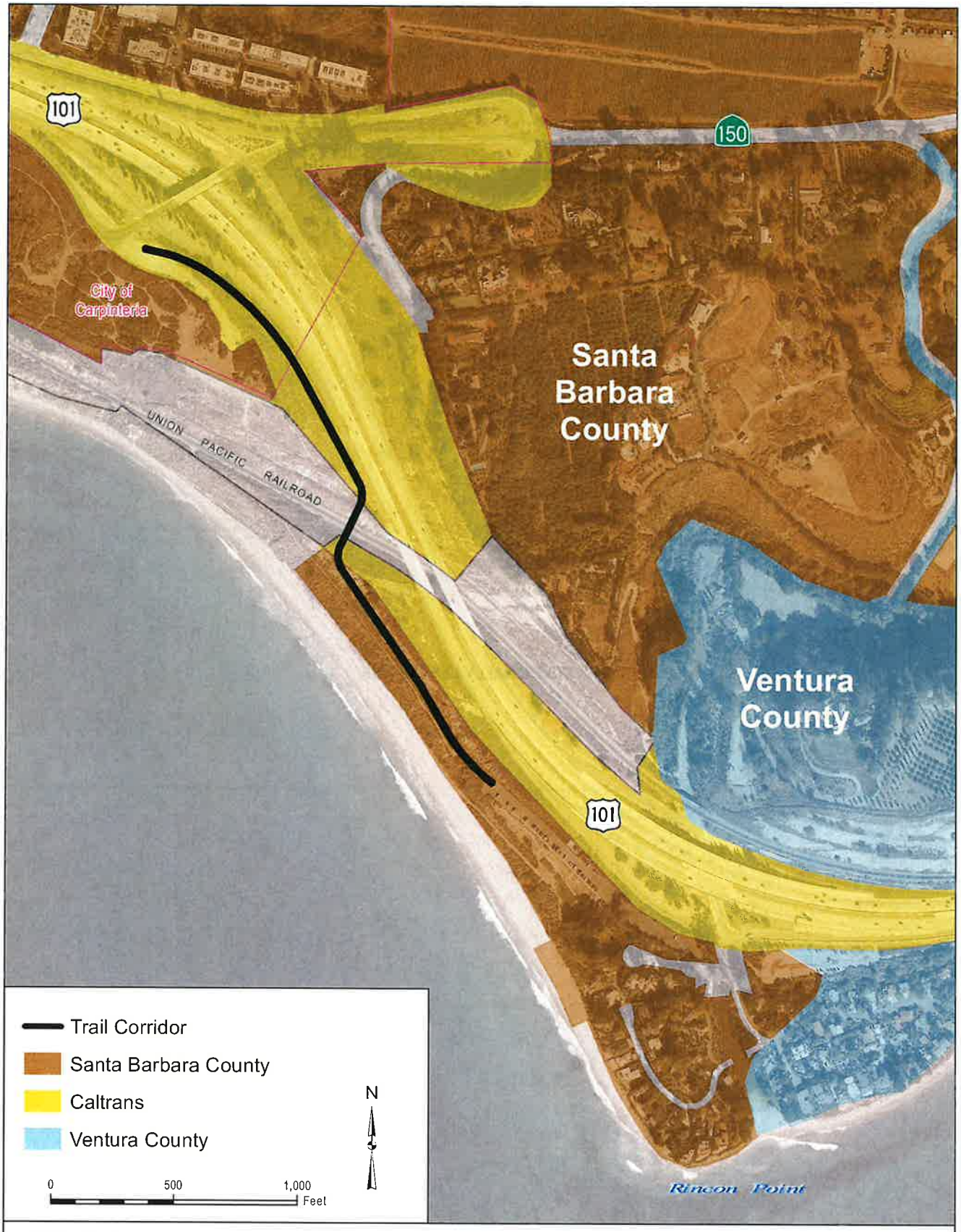

AERIAL SOURCE: CIRGIS 2017

FIGURE 2-2

Project Vicinity

Carpinteria Rincon Trail EIR

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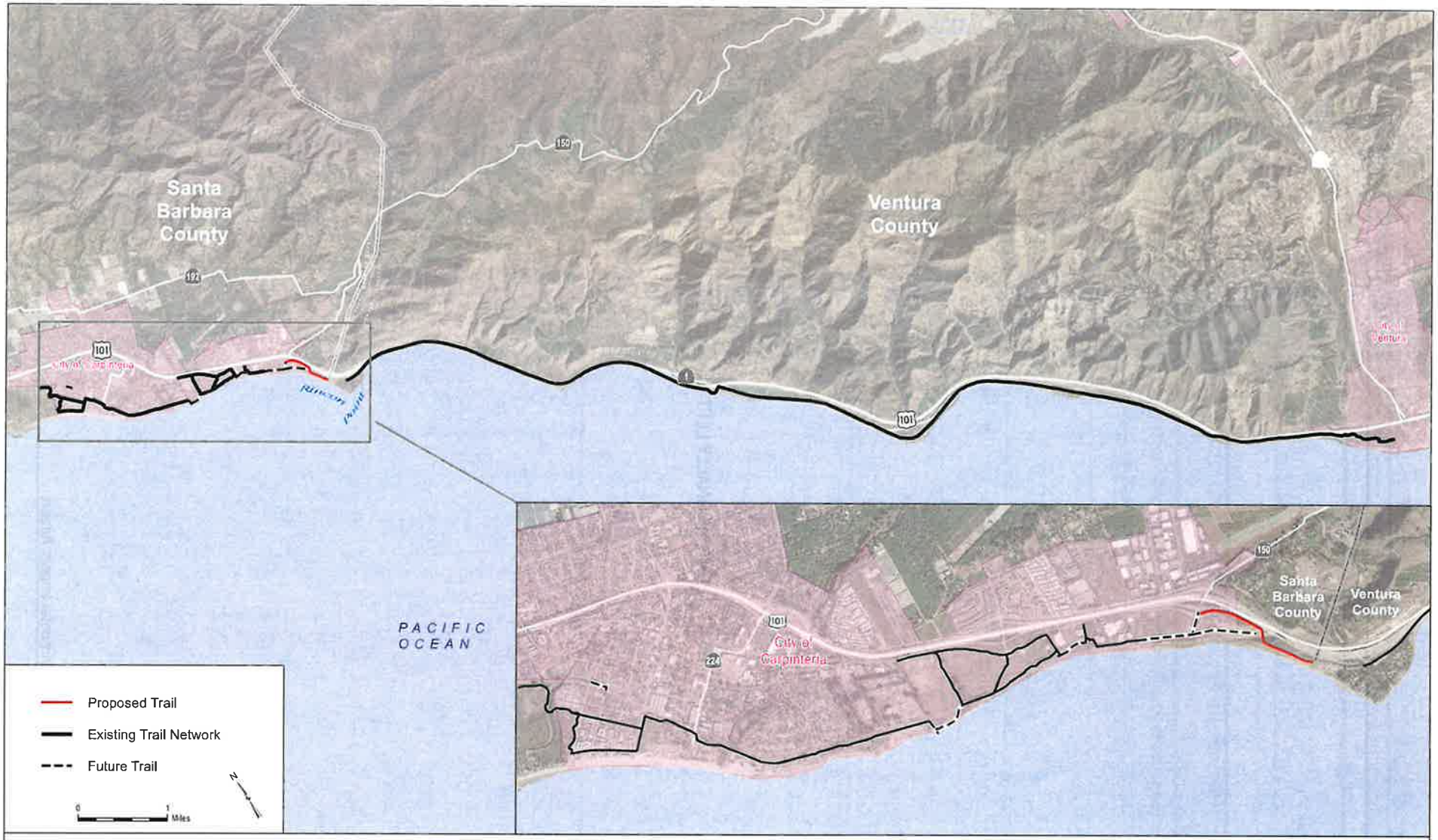

AERIAL SOURCE: ESRI World Imagery

FIGURE 2-3

Existing Trail Network

Carpinteria Rincon Trail EIR

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AERIAL SOURCE: CIRGIS 2017
ENGINEERING SOURCE: Dudek 2010

FIGURE 2-4
Site Plan
Carpinteria Rincon Trail EIR

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