



PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

BUILDING STRONG®

**APPLICATION FOR PERMIT
Surfer's Point Promenade
Revetment Repair Project**

Public Notice/Application No.: SPL-2016-00029-LM

Project: Surfer's Point Emergency Revetment

Comment Period: September 14, 2016 through October 14, 2016

Project Manager: Lisa Mangione; 805-585-2150; Lisa.Mangione@usace.army.mil

Applicant

Brad Starr
City of Ventura
501 Poli Street, Room 120
Ventura, California 93002

Contact

Betsy Cooper
City of Ventura
501 Poli Street, Room 120
Ventura, California

Location

Pacific Ocean at "Surfer's Point" the city and county of Ventura, CA (at: 34.27403 N, 119.29888 W).

Activity

Placement of 260 linear feet of 1.5- to 3-ton angular rock revetment and 160 linear feet of cobble in association with the Surfer's Point Emergency Revetment Repair project (see attached permit application, including drawings). For more information see Additional Information section below.

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Lisa Mangione

Alternatively, comments can be sent electronically to: Lisa.Mangione@usace.army.mil

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- The applicant has certified the proposed activity would comply with and would be conducted in a manner consistent with the approved State Coastal Zone Management Program. For those projects in or affecting the coastal zone, the Federal Coastal Zone Management Act requires that prior to issuing the Corps authorization for the project, the applicant must obtain concurrence from the California Coastal Commission the project is consistent with the State's Coastal Zone Management Plan. The District Engineer hereby requests the California Coastal Commission's concurrence or non-concurrence.

Essential Fish Habitat- The Corps of Engineers preliminary determination indicates the proposed activity may adversely affect EFH. Pursuant to Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Los Angeles District will request initiation of EFH consultation with the National Marine Fisheries Service for the proposed project. Compliance with the MSA requires that the EFH consultation be completed prior to permit issuance.

Cultural Resources- The latest version of the National Register of Historic Places has been consulted and this site is not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources. The project area has been subject to past disturbance from cobble placement and is in an active surf zone. For these reasons the likelihood the proposed action would affect any previously unknown cultural resources is extremely low.

Endangered Species- Preliminary determinations indicate the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Critical habitat for the threatened western snowy plover (*Charadrius nivosus nivosus*) is designated along Buenaventura State Beach, approximately 2,000 feet to the east, and critical habitat for the endangered tidewater goby (*Eucyclogobius newberryi*) is designated in the Ventura River estuary approximately 2,000 feet to the west. The project area is a cobble-dominated beach/surf zone that does not provide suitable habitat for either species. Furthermore, the distance from the project site to areas of suitable habitat for the goby and plover would preclude any indirect effects to either species. Therefore, the Corps has determined the proposed action would not affect any federally listed threatened or endangered species and formal consultation under Section 7 of the Endangered Species Act is not required.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special

aquatic site to fulfill its basic purpose). The basic project purpose of the proposed project is erosion control, which does not require placement of fill in any special aquatic site. No special aquatic sites exist at the project site and the project would not impact any such sites.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to provide multi-year protection of existing utility infrastructure and public facilities (promenade and restrooms) along approximately 425 feet of City property at Surfer's Point, where wave action during storm surges in December 2015 exposed the facilities to potential erosion damages.

Additional Project Information

Baseline information- The project site is adjacent to the parking lot at Seaside Park, also known as Surfer's Point. The western portion of the project area above the high tide line is owned by the California 31st Agricultural District (operator of the Ventura County Fairgrounds) and has been subject to erosion during storm surges. The eastern portion of the project is owned by the City of Ventura. The City of Ventura is also a trustee of the intertidal land below high tide along the entire project limits. The project area is a cobble-dominated surf zone, which has been prone to beach erosion in the past. Continued erosion threatens to damage City facilities including an existing bike and pedestrian promenade, paved parking area, public bathrooms, and sewer lift station.

A managed retreat project was implemented in 2013 between the project area and the Ventura River estuary to the west. That project addressed beach erosion by relocating a portion of a parking lot and bike path that were threatened by ongoing erosion. The project site was not included in the managed retreat plan due to the extent of existing infrastructure that would have to be removed or relocated.

An experimental cobble nourishment project was implemented at the project site in 2000, and this project provided approximately 10 years of protection to the promenade and other public facilities. In 2012 the project site had eroded up to the promenade, and there was an immediate drop of 4 to 5 feet from the promenade surface to the beach surface. In 2013 the Corps issued a 5-year permit to the City to authorize ongoing 'beach nourishment' with cobble material and sand placement along an 800-foot section of beach at this location to increase the beach surface area and protect the existing public facilities. Under the 5-year permit, the City placed cobble material and sand at the site in February 2014, with additional sand placement in May 2014.

Beach erosion in subsequent months and storm surges in December 2015 resulted in severe erosion at the project site. The erosion scarp at Surfer's Point reached the edge of the promenade, threatening the promenade structure and other public facilities. The Corps granted emergency authorization under Regional General Permit No. 63 (RGP63) to allow the City to install angular rock revetment at the site to provide immediate protection against anticipated El Niño winter storms. The Corps permit authorized the placement of rock revetment as a temporary measure to alleviate the emergency situation, and required the City to apply for authorization of the structure through standard permitting procedures after the emergency was abated.

Under RGP 63, the City's contractor placed 1.5- to 3-ton angular rock on geotextile fabric at a 2:1 slope along approximately 260 linear feet of shoreline, and installed cobble ranging from 4 to 18 inches in diameter at a 4:1 slope on each side of the angular rock revetment. The cobble extended approximately 75 feet west and 85 feet east of the angular rock revetment. Approximately 1,200

cubic yards of angular rock and 800 cubic yards of rounded cobble was used. The total project length is approximately 420 feet. Work was initiated on February 3, 2016 and completed on March 4, 2016. Please see the attached project diagrams and photographs.

Following installation of the revetment, on March 2, 2016 the City added cobble outside the scope and limits of the emergency authorization but within the limits of their 5-year beach nourishment permit. An additional 100 cubic yards of cobble was placed over the larger rock revetment, to fill in voids and provide a smoother surface. In addition, between 400 and 800 cubic yards of cobble was placed approximately 200 linear feet west of the cobble that was placed as part of the emergency action. On May 23, 2016 the City placed 1,000 cubic yards of clean sand over the cobble that was previously placed at the Surfer's Point beach nourishment project location.

Project description – The City has requested Corps authorization to allow the revetment and cobble placement project described above, which was authorized under RGP 63 in December 2015, to remain in place. Please see the project description in the 'baseline information' section above, and the attached project diagrams and photographs. The Corps is evaluating the City's proposed project and the project alternatives listed below to identify the Least Environmentally Damaging Practicable Alternative (LEDPA). Each alternative will be evaluated in terms of its relative impacts on waters of the United States and other environmental factors, and its 'practicability,' i.e. its availability and capability of being done, taking into account cost, existing technology, and logistics, in light of the overall project purpose [40 CFR 230.1(a)(2)].

Standard Individual Permit Processing

The Corps' standard permitting procedures require preparation of an alternatives analysis in accordance with the U.S. Environmental Protection Agency's 404(b)(1) Guidelines (40 CFR Part 230). Under the 404(b)(1) Guidelines, the Corps can only permit the identified LEDPA. The City solicited the input of agency and public stakeholders in developing a range of project alternatives to meet the overall project purpose. The project alternatives listed below are currently being considered for inclusion in the Corps' 404(b)(1) alternatives analysis. The City will describe the conceptual design features of these alternatives in a preliminary alternatives analysis document that the Corps will use to compare each alternative's environmental impacts and practicability, and identify the LEDPA.

No Federal Action Alternatives: These alternatives would not require issuance of a(nother) Corps permit.

- a. No Project
- b. Cobble Placement Under Existing Individual Permit
- c. Vertical Sheet Pile Wall (Waters of the United States Avoidance Alternative)
- d. Managed Retreat (Waters of the United States Avoidance Alternative)

Project Design Alternatives

- a. Rock revetment with cobble transitions (City's proposed project/currently constructed condition)
- b. Alternative Rock Revetment Geometry with Cobble Transitions
- c. Reinforced Concrete Vertical Wall with Scour Protection
- d. Low-Profile Groins or Anchor Rocks with Cobble and Beach Nourishment
- e. Cobble and Beach Nourishment
- f. Managed Retreat with Cobble and Beach Nourishment

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed

mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: The proposed action is intended to protect existing infrastructure adjacent to Surfer's Point Beach. Complete avoidance would only be possible with the installation of a seawall or by removing or relocating existing infrastructure. These alternatives would be considered in the Corps' alternatives analysis.

Minimization: Adverse project effects were minimized through limitations on the volume of material placed along the beach. RGP 63 requires that any work conducted under the RGP must be the minimum necessary to alleviate the immediate emergency. Cobble material was limited to 4- to 18 inches in diameter and consisted of rounded, site-compatible material.

Compensation: Compensatory mitigation is not anticipated to be required given the site conditions and nature of the activity. The project would not result in any permanent loss of waters of the U.S. or any special aquatic site.

Proposed Special Conditions

The following list is comprised of proposed Permit Special Conditions, which are required of similar types of projects:

- 1) The permittee shall implement standard best management practices to ensure that toxic materials, silt, debris, or excessive eroded materials do not enter waters of the U.S.
- 2) No maintenance, storage, or fueling of heavy tracked equipment or vehicles will occur within 500 feet of the high tide line of waters of the U.S.

For additional information please call Lisa Mangione of my staff at 805-585-2150 or via e-mail at Lisa.Mangione@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

**DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY**



August 11, 2016

Lisa Mangione
Regulatory Division
U.S. Army Corps of Engineers
2151 Alessandro Drive, Suite 110
Ventura, CA 93001

Re: Permit Number SPL-2016-00029 (Regional General Permit No. 63); Promenade Emergency Revetment Repair Project; Permit Application

Dear Ms. Mangione,

Please find the attached permit application for permanent retention of the work performed under Emergency Permit No. SPL-2016-00029. In accordance with Special Condition No. 3 of the permit, the City is preparing an alternatives analysis for compliance with EPA's 404 (b)(1) and Coastal Commission Guidelines.

If you have any questions or need any additional information, please contact me at 805-654-7848 or e-mail me at bcooper@cityofventura.net.

Sincerely,

A handwritten signature in blue ink that reads "Betsy Cooper".

Betsy Cooper
Senior Civil Engineer

Enc: Application for Department of the Army Permit, dated 8/11/16

Cc: Brad Starr, Principal Civil Engineer

**U.S. ARMY CORPS OF ENGINEERS
APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT**

33 CFR 325. The proponent agency is CECW-CO-R.

**Form Approved -
OMB No. 0710-0003
Expires: 30-SEPTEMBER-2015**

Public reporting for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of the collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE
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(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME First - Brad Middle - Last - Starr Company - City of San Buenaventura E-mail Address - bstarr@ci.ventura.ca.us	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required) First - Middle - Last - Company - E-mail Address -
6. APPLICANT'S ADDRESS: Address- 501 Poli Street, Room 120 City - Ventura State - CA Zip - 93002 Country - USA	9. AGENT'S ADDRESS: Address- City - State - Zip - Country -
7. APPLICANT'S PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax 805-658-4778 805-641-2775	10. AGENTS PHONE NOS. w/AREA CODE a. Residence b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, _____ to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

SIGNATURE OF APPLICANT DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Promenade Emergency Revetment Repair Project	
13. NAME OF WATERBODY, IF KNOWN (if applicable) Pacific Ocean	14. PROJECT STREET ADDRESS (if applicable) Address Surfer's Point Beach
15. LOCATION OF PROJECT Latitude: +N 34.274167 Longitude: +W -119.299444	City - Ventura State- CA Zip- 93001
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) State Tax Parcel ID 73-0-231-040 Municipality City of Ventura Section - Township - Range -	

17. DIRECTIONS TO THE SITE

From HWY 101 (coming from the south of Ventura) - exit California Street. Take a left on California Street, right on Harbor Blvd, left on Figueroa Street to end, right on Shoreline Drive. Project site is located on the south side of Shoreline Dr (south of the Ventura County Fairgrounds).

18. Nature of Activity (Description of project, include all features)

As part of Regional General Permit No. 63 (File No. SPL-2016-00029), the City hired a contractor to place 1.5 to 3 ton angular rock revetment on geotextile fabric at a 2:1 slope along 260 linear feet of the shoreline and to place cobble, ranging from 4 to 18 inches, on each side of the angular rock revetment. The cobble was non-manufactured stone shaped by natural river processes (round, oblate and spherical shaped) and extended approximately 73 feet west and 85 feet east of the angular rock revetment area. The work commenced on February 3, 2016 and was completed on March 8, 2016.

This application is for permanent approval of this emergency work. An Alternatives Analysis is currently being prepared as required by Special Condition 3.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

Severe erosion occurred along the beach at Surfer's Point and the Promenade. The loss of sand and beach was threatening the promenade, the bike path and other City public improvements along an 800-foot stretch of beach. High surf that hit the coast on December 11, 2015 caused additional significant erosion. The recession at Surfer's Point reached the point where the erosion scarp was very close to the promenade.

The purpose of the emergency work was to prevent further undermining of the promenade structure and to put the improvements in place as soon as possible to help mitigate damage during the anticipated El Nino winter storms. The overall project purpose is to restore the pre-project level of erosion protection for the City's existing infrastructure and facilities within the project limits.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

The angular rock and cobble materials were placed for erosion control.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
1200 cyds of 1.5 to 3 ton angular rock	800 cyds of 4-18" rounded cobble	

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres
or
Linear Feet 418 linear feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

The placement of the larger angular rock was limited to 260 linear-foot section of an 800-foot stretch of beach that is eroding. River cobble, that occurs naturally in the area, was placed on each side of the large rock section, to provide additional protection. An alternatives analysis is currently being prepared to analyze the impacts of these improvement in addition to other potential improvements.

24. Is Any Portion of the Work Already Complete? Yes No IF YES, DESCRIBE THE COMPLETED WORK

Refer to No. 18. Improvements were installed in February 2016 under Army Corps Regional General Permit No. 63 (File No. SPL-2016-00029).

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- 10 W. Harbor Blvd (State of California - Ventura County Fairgrounds)

City - Ventura State - CA Zip - 93001

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
Coastal Commission	Emergency Permit	G-4-15-0045	December 17, 2015	December 18, 2015	
Army Corps	RPG No. 63	SPL-2016-00029	January 14, 2016	January 27, 2016	

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.


SIGNATURE OF APPLICANT

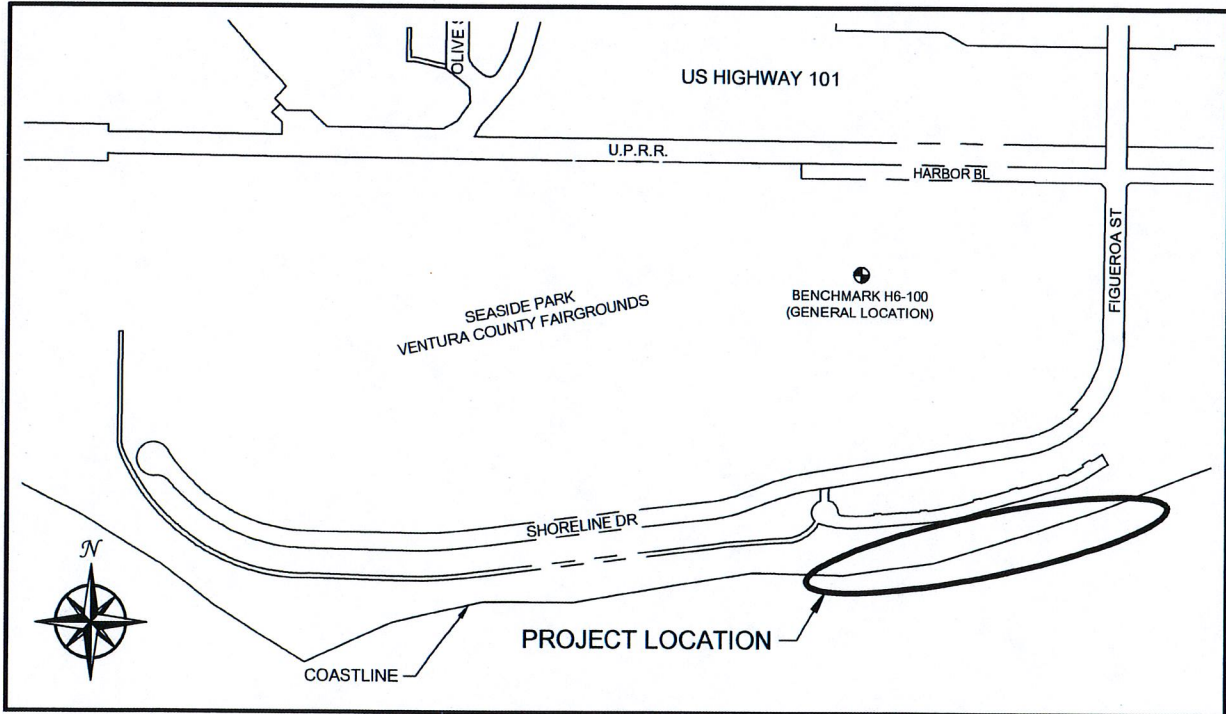
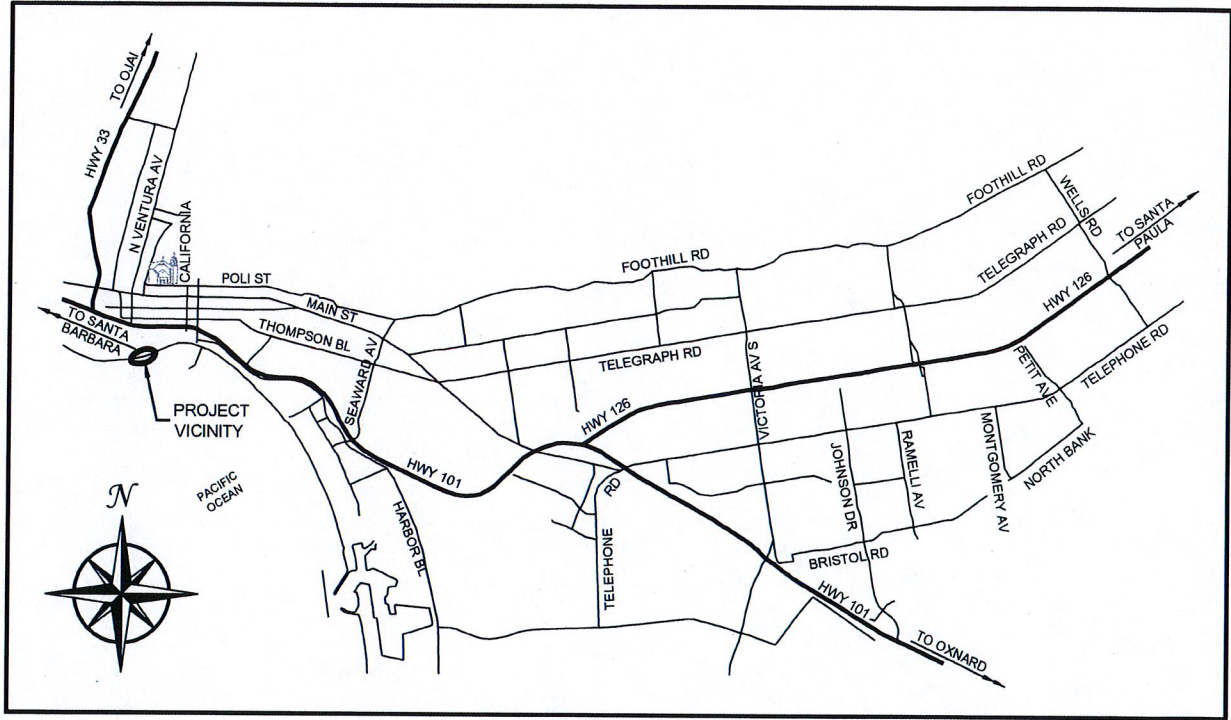
8-11-16
DATE

SIGNATURE OF AGENT

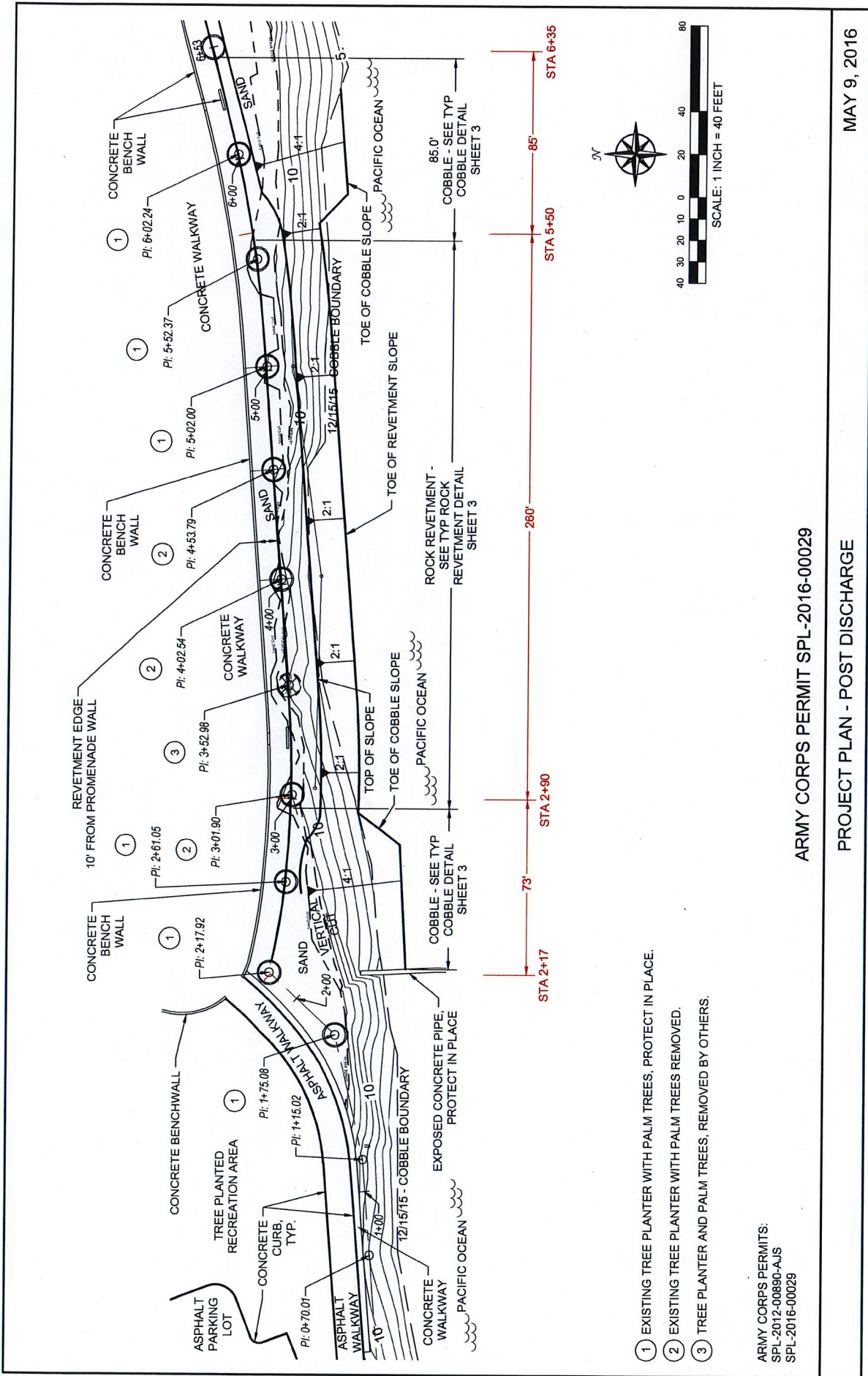
DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



PROMENADE EMERGENCY REVETMENT REPAIR PROJECT
VICINITY MAP



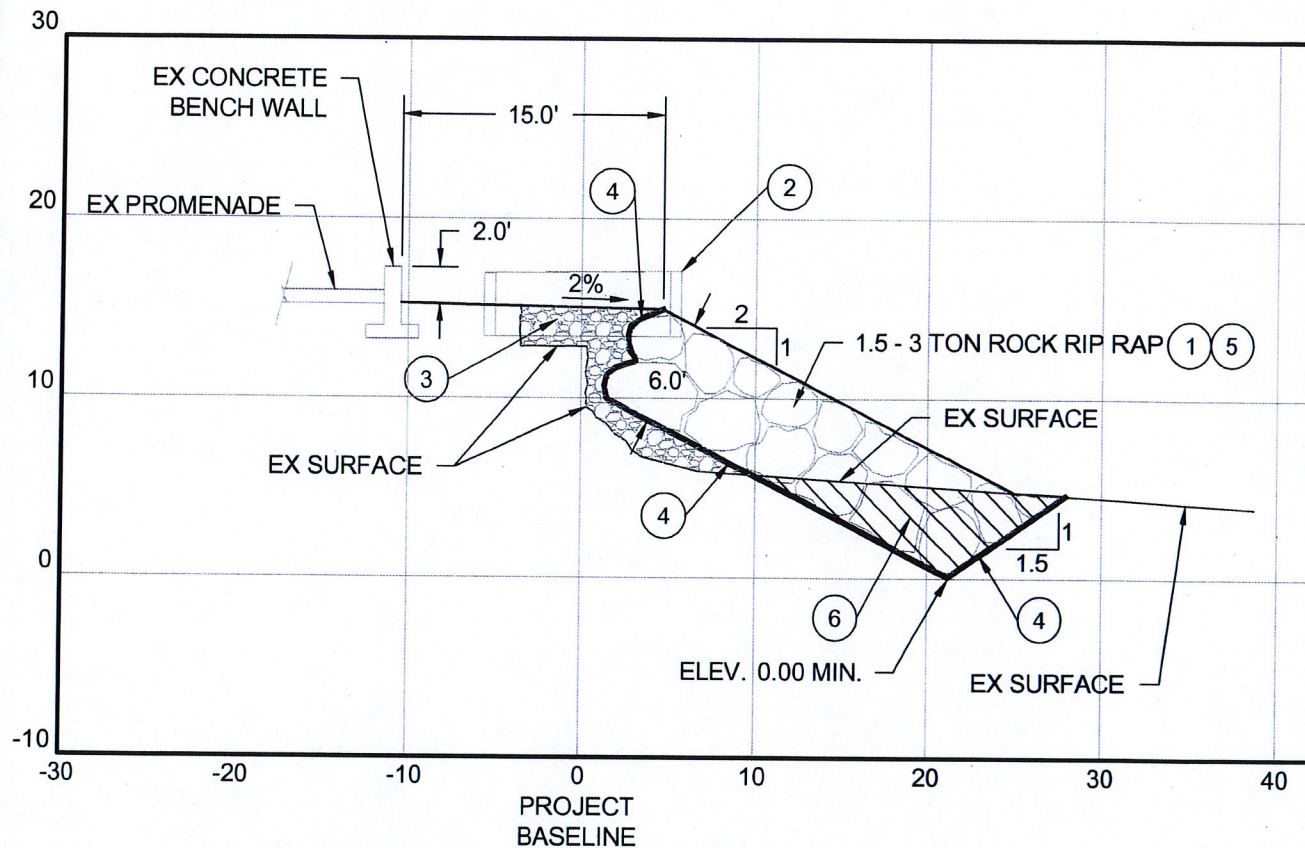
- ① EXISTING TREE PLANTER WITH PALM TREES, PROTECT IN PLACE.
- ② EXISTING TREE PLANTER WITH PALM TREES REMOVED.
- ③ TREE PLANTER AND PALM TREES, REMOVED BY OTHERS.

ARMY CORPS PERMITS:
 SPL-2012-00890-AJS
 SPL-2016-00029

ARMY CORPS PERMIT SPL-2016-00029

PROJECT PLAN - POST DISCHARGE

MAY 9, 2016



ROCK REVETMENT CONSTRUCTION NOTES

- ①. ROCK USED FOR THE 2:1 SLOPE REVETMENT SHALL BE ANGULAR IN SHAPE MEETING THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS.
- ②. REMOVE PLANTERS AND PALM TREES WHERE NOTED. PALM TREES SHALL BE CUT AT THE BASE. ROOT SYSTEM TO REMAIN.
- ③. ADD COBBLE/SAND AS NEEDED TO CREATE A SMOOTH AND EVEN SURFACE ON SLOPE FOR FABRIC AND BETWEEN BENCH WALL AND TOP OF SLOPE.
- ④. PLACE MIRAFI 700X GEOTECH FABRIC ALONG SLOPED AREA TO RECEIVE ROCK REVETMENT. SECURE ENDS OF FABRIC IN PLACE.
- ⑤. PLACE ROCK IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. THE LARGER 3-TON ROCK SHALL BE PLACED IN A "KEYED-IN" FOOTING TRENCH TO ESTABLISH THE TOE. THE "KEY-IN" TRENCH SHALL IDEALLY BE TO A DEPTH MATCHING THE HEIGHT OF THE STONE BEING PLACED, BUT NO LESS THAN 12 INCHES. THE HEAVIER ROCK SHALL BE PLACED AT THE LOWER LEVELS OF THE SLOPE WITH THE LIGHTER ROCK AT THE UPPER LEVELS.
- ⑥. EXCAVATE HATCHED AREA. TEMPORARILY PLACE EXCAVATED MATERIAL AT TOE. USE EXCAVATED MATERIAL AS BACKFILL OVER LOWER SECTION.

PROMENADE EMERGENCY REVETMENT REPAIR PROJECT
 MODIFIED TYPICAL REVETMENT DETAIL AND MATERIAL NOTES

ATTACHMENT C



December 2015 (Pre Discharge): Looking east from approximately Station 2+70.



December 2015 (Pre Discharge): Looking west from approximately Station 4+60.



1.5 to 3 ton rock being placed along the center portion of the project limits by excavator. (2016)



March 2016 (Post Discharge): Looking east from approximately Station 3+00.