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W26a-b

4-10-021 Filed: 6/16/15
4-14-1268 Filed: 3/11/15
4-10-021 180th Day: 12/13/15
4-14-1268 180th Day: 9/7/15
Staff: J. Blaugrund-V
Staff Report: 6/25/15
Hearing Date: 7/8/15

STAFF REPORT: REGULAR CALENDAR

Application Nos.:	**4-10-021 and 4-14-1268**
Applicant:	**California State Parks**
Location:	**Emma Wood State Beach, Ventura County**
Project description:	**Request for permanent authorization of 1,160 linear feet of existing as-built rock revetment, consisting of approximately 2,600 tons of armor stone, installed pursuant to Emergency Permit Numbers G-4-10-021 and G-4-14-0013, and removal of approximately six wood pilings located seaward of the rock revetment.**

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **approval** of the proposed development with **three (3) special conditions** regarding: (1) maintenance activities and future alterations, (2) conformance with the requirements of the resource agencies, and (3) assumption of risk, waiver of liability and indemnity.

The California Department of Parks and Recreation ("State Parks") is requesting permanent authorization of 1,160 linear feet of existing rock revetment that was previously installed at Emma Wood State Beach pursuant to Emergency Coastal Development Permits G-4-10-021 and G-4-14-0013. This existing revetment consists of 2,600 tons of 2-4 ton armor stone. The proposed project also includes the removal of approximately six wood pilings located seaward of the subject rock revetment.

Emma Wood State Beach is located in Ventura County, just north of the City of Ventura. Specifically, the subject project site is located seaward of Highway 101 and the Union Pacific Railroad, along the existing Emma Wood State Beach Campground access road, as depicted on Exhibit 1.

Coastal Act Section 30235 provides that shoreline protection devices shall be permitted when all of the following four criteria are met: (1) there is an existing structure, public beach area, or coastal dependent use; (2) the existing structure, public beach area, or coastal dependent use is in danger from erosion; (3) shoreline-altering construction is required to protect the existing threatened structure or public beach area, or to serve the coastal dependent use; and (4) the required protection is designed to eliminate or mitigate its adverse impacts on shoreline sand supply. The first three questions relate to whether the proposed shoreline protection device is necessary, while the fourth question applies to avoiding or mitigating any unavoidable impacts from it. In addition, even where all four criteria are satisfied, and thus, shoreline protection devices must be permitted, the other policies in Chapter 3 of the Coastal Act must still be applied, so the devices must be located, designed, and maintained in a manner that is consistent with those other policies to the extent possible.

The subject area of the Emma Wood State Park contains an access road and entry kiosk, which provides access to 67 self-contained RV campsites located further downcoast. The road existed prior to the effective date of the Coastal Act. The roadway area is narrow, very close to the ocean and has been exposed to coastal erosion. In 2010, and again in 2014, the road was subject to large waves which eroded the slope and removed support for the roadway which undermined and damaged the road surface. This resulted in narrowing the road width creating entry and passage conditions that were not safe for the public, particularly for large RV units. Given the road location and its exposure to coastal erosion, State Parks determined that shoreline protection is required in order to allow rebuilding and to protect the roadway. The proposed revetment is the only feasible alternative available in this location that can provide such protection. A portion of the proposed revetment installed pursuant to the subject emergency permits is located in areas where a revetment had previously existed; however, other portions of the proposed revetment are located in areas that were not previously protected by an existing rock revetment. The Commission finds that in both areas, the first three criteria are met in that there is existing development that is in danger from erosion and a shoreline protective device is necessary in order to protect this existing development.

The fourth criterion required by Section 30235 of the Coastal Act is that when new shoreline protective devices are allowed, such devices shall be designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Thus, when read in tandem with other applicable Coastal Act policies protecting coastal resources as cited in these findings, this 30235 evaluation is often conceptualized as a search for the least environmentally damaging feasible alternative that can serve to achieve the stated project goal of protecting the threatened structure, coastal-dependent use, or public beach.

In this case, all portions of the proposed rock revetment will be located immediately seaward of the existing access road on site. Commission staff worked with the applicant to evaluate all feasible alternatives, including relocating the proposed revetment further landward. The existing access road is located immediately adjacent to the Union Pacific Railroad and ocean; therefore, it is not possible to relocate either the existing road or the revetment further landward. Additionally, the beach at the subject site is, and historically has been, predominately comprised of cobble and rock. Thus, in this case, the Commission finds that further landward relocation of the proposed revetment would result in the loss of public

access opportunities and visitor serving recreational facilities and would not significantly reduce impacts to shoreline processes or sand supply. In order to ensure that the revetment will remain in the most landward location feasible, Special Condition One (1) requires the applicant to ensure that any rocks or other material that becomes dislodged from the revetment are removed from the marine environment. Additionally, Special Condition One (1) requires that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the approved shoreline protective structure shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device. Therefore, the revetment, as so conditioned, is the least damaging feasible alternative and that it has been designed to avoid or mitigate any impacts on shoreline sand supply.

The placement of a new, or repair of an existing shoreline protective device, as proposed by this project, serves to extend the period of time that the shoreline protective device will result in adverse impacts to shoreline sand supply and public access. In past permit actions the Commission has required that public access to and along shoreline be provided in conjunction with beachfront development projects, such as the proposed project. In this case, the subject rock revetment is protecting an existing access road, which is the only way to access a lower-cost public recreational facility (Emma Wood State Beach Campground). Furthermore, along the length of this access road, there are a number of informal accessways that extend from the subject access road to the beach. Thus, in this unique case, the formalization of these existing accessways, or the creation of new accessways would not greatly enhance recreational opportunities or public access at the project site.

The proposed rock revetment is located along the shoreline in Ventura County that has historically been subject to substantial damage as the result of storm and flood occurrences. Thus, in this case, the Commission finds that due to the possibility of tsunami, storm waves, surges, and erosion, Special Condition Three (3), requires that the applicant to assume these risks as a condition of approval.

Although the Commission has previously certified a Local Coastal Program for the County of Ventura, the project is proposed within an area where the Commission has retained jurisdiction over the issuance of coastal development permits. Thus, the standard of review for this project is the Chapter 3 policies of the Coastal Act.

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Exhibit 1 – Vicinity Map
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I. MOTIONS AND RESOLUTIONS

A. APPROVAL OF CDP 4-10-021

Motion:

*I move that the Commission **approve** Coastal Development Permit Application No. 4-10-021 pursuant to the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter Three of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or (2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

B. APPROVAL OF CDP 4-14-1268

Motion:

*I move that the Commission **approve** Coastal Development Permit Application No. 4-14-1268 pursuant to the staff recommendation.*

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter Three of the Coastal Act. Approval of the permit complies with the California Environmental Quality Act because either (1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or (2) there are no further

feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

This permit is granted subject to the following standard conditions:

1. **Notice of Receipt and Acknowledgment**. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

3. **Interpretation.** Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

Special Conditions One (1) through Three (3) shall apply to CDPs 4-10-021 and 4-14-1268.

1. Maintenance Activities and Future Alterations.

By acceptance of this permit, the applicant acknowledges and agrees to the following:

A. The permittee shall be responsible for removing or redepositing any debris, rock or material that becomes dislodged after completion of the approved shoreline protection as soon as possible after such displacement occurs. Any future repair and maintenance activities affecting the rock revetment shall require an amendment to this coastal development permit or a new coastal development permit.

B. No future repair or maintenance, enhancement, reinforcement, or any other activity affecting the shoreline protective structure approved pursuant to Coastal Development Permit No. 4-10-021 and 4-14-1268, as shown on Exhibits 4 and 5, shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device.

2. Conformance with the Requirements of the Resource Agencies.

The applicant shall comply with all permit requirements, and mitigation measures of the California Department of Fish and Game, State Water Quality Control Board, Regional Water Quality Control Board, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and the marine environment. Any change in the approved project which may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

3. Assumption of Risk, Waiver of Liability and Indemnity.

By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from flooding, erosion, tsunami, and sea-level rise; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

PRIOR TO ISSUANCE OF THE COASTAL DEVELOPMENT PERMIT, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION AND BACKGROUND

California State Parks ("State Parks") is requesting permanent authorization of 1,160 linear feet of existing as-built rock revetment placed immediately seaward of the Emma Wood State Beach Campground access road pursuant to two separate Emergency Coastal Development Permits (G-4-10-021 and G-4-14-0013). The subject revetment consists of 2,600 tons of 2-4 ton armor stone. Additionally, State Parks is also requesting authorization for the removal of approximately six wood pilings located seaward of the rock revetment.

As depicted on Exhibit 2, the rock revetment placed pursuant to Emergency Coastal Development Permit G-4-10-021 is near the park entrance kiosk. This portion of the proposed revetment is approximately 930 linear feet in length, and consists of 900 tons of 2-4 ton armor stone, that was added to a previously existing rock revetment.

The rock revetment placed pursuant to Emergency Coastal Development Permit G-4-14-0013 is located east of the revetment placed pursuant to Emergency Coastal Development Permit G-4-10-021, and is located on a portion of beach where a rock revetment did not previously exist. This portion of the proposed rock revetment is approximately 230 linear feet in length, and consists of 1,700 tons of 2-4 ton armor stone.

Specifically, G-4-10-021 was authorized by the Commission on March 17, 2010, and G-4-14-0013 was issued on April, 28, 2014. As described in further detail below in Section IV, Part B, issuance of the subject Emergency Coastal Development Permits, and permanent authorization of the existing revetment is necessary to protect existing upland public access and recreational facilities located at Emma Wood State Beach from being undermined by wave action and erosion.

Emma Wood State Beach is located in Ventura County, just north of the City of Ventura. Specifically, the subject project site is located seaward of Highway 101 and the Union Pacific Railroad, along the existing Emma Wood State Beach Campground access road, which provides access to 67 self-contained RV campsites.

Although the Commission has previously certified a Local Coastal Program for the County of Ventura, the project is proposed within an area where the Commission has retained jurisdiction over the issuance of coastal development permits. Thus, the standard of review for this project is the Chapter 3 policies of the Coastal Act.

B. HAZARDS AND SHORELINE PROCESSES

Section **30235** of the Coastal Act states:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.*

Section **30253** of the Coastal Act states in part that new development shall:

> *(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.*
>
> *(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.*

Coastal Act Section 30235 specifically provides that shoreline protective devices must be permitted if the following criteria are met: (1) the device is required to serve coastal-dependent uses or to protect existing structures or public beaches provided that these areas/structures are in

danger from erosion and (2) the device is designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Additionally, Section 30253 of the Coastal Act mandates that new development shall minimize risks to life and property in areas of high geologic and flood hazard.

The Ventura County coastal area, where the subject site is located, has historically been subject to flooding and damage resulting from wave action during storm conditions. In this case, State Parks previously indicated in the subject Emergency Coastal Development Permit applications that the previously existing rock revetment on site had reached the end of its expected life and was no longer adequate to ensure the protection of the campground access road from wave action. State Parks also previously indicated that portions of the subject access road that had no shoreline protective device were not adequately protected from wave and tidal action. As such, the applicant's engineers have found that additional rock revetment is necessary to protect the existing road and access to the Emma Wood State Beach Campground.

1. Impacts from Shoreline Armoring

Shoreline protective devices, by their very nature, tend to conflict with various Chapter 3 policies because shoreline structures can have a variety of adverse impacts on coastal resources, including adverse effects on sand supply, public access, coastal views, natural landforms, and overall shoreline beach dynamics on and off site, ultimately resulting in the loss of beach.

Shoreline protection devices also directly interfere with public access to tidelands by impeding the ambulatory nature of the mean high tide line (the boundary between public and private lands) during high tide and severe storm events, and potentially throughout the entire winter season. The impact of a shoreline protective device on public access is most evident on a beach where wave run-up and the mean high tide line are frequently observed in an extreme landward position during storm events and the winter season. As the shoreline retreats landward due to the natural process of erosion, the boundary between public and private land also retreats landward. Construction of rock revetments and seawalls to protect private property fixes a boundary on the beach and prevents any current or future migration of the shoreline and mean high tide line landward, thus eliminating the distance between the high water mark and low water mark. As the distance between the high water mark and low water mark becomes obsolete the seawall effectively eliminates lateral access opportunities along the beach as the entire area below the fixed high tideline is inundated. The ultimate result of a fixed tideline boundary (which would otherwise normally migrate and retreat landward, while maintaining a passable distance between the high water mark and low water mark overtime) is a reduction or elimination of the area of sandy beach available for public access and recreation.

Interference by shoreline protective devices can result in a number of adverse effects on the dynamic shoreline system and the public's beach ownership interests. First, changes in the shoreline profile, particularly changes in the slope of the profile which results from a reduced beach berm width, alter the usable area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area in which the public can pass on their own property. The second effect on access is

through a progressive loss of sand as shore material is not available to nourish the nearshore sand bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. This affects public access again through a loss of area between the mean high water line and the actual water. Third, shoreline protective devices such as revetments and bulkheads cumulatively affect shoreline sand supply and public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline and they reach a public beach. In addition, if a seasonal eroded beach condition occurs with greater frequency due to the placement of a shoreline protective device on the subject site, then the subject beach would also accrete at a slower rate. Fourth, if not sited landward in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate the wave's energy.

As a result of the potential impacts arising from shoreline protective device projects, it is critical to have an alternatives analysis based upon the technical and resource data specific to the site. The Coastal Act requires such projects to be sited and designed to protect views to and along the ocean and scenic coastal areas; to eliminate or mitigate adverse impacts on local shoreline sand supply; to avoid impediments to public access; to be compatible with the continuance of sensitive habitat and recreation areas; and to prevent impacts which would degrade sensitive habitats, parks, and recreation areas. Even where such devices must be approved, they must still satisfy these requirements to the maximum extent possible.

2. Sea Level Rise

In addition, sea level has been rising slightly for many years. As an example, in the Santa Monica Bay area, the historic rate of sea level rise, based on tide gauge records, has been 1.8 mm/yr. or about 7 inches per century[1]. Recent satellite measurements have detected global sea level rise from 1993 to present of 3 mm/yr or a significant increase above the historic trend observed from tide gauges. Recent observations of sea level along parts of the California coast have shown some anomalous trends, however; there is a growing body of evidence that there has been a slight increase in global temperature and that an accelerated rate of sea level rise can be expected to accompany this increase in temperature. Sea level rise is expected to increase significantly throughout the 21st century and some coastal experts have indicated that sea level rise of 3 to 5 ft. or more could occur by the year 2100[2]. Mean water level affects shoreline

[1] Lyles, S.D., L.E. Hickman and H.A. Debaugh (1988) *Sea Level Variations for the United States 1855 – 1986*. Rockville, MD: National Ocean Service.

[2] Cayan, D.R., M. Tyree, M. Dettinger, H. Hidalgo, T. Das, E. Maurer, P. Bromirski, N. Graham, and R.E. Flick, 2009. *Climate Change Scenarios and Sea Level Estimates for the California 2008 Climate Change Scenarios Assessment*, Draft Paper, CEC-500-2009-014-D, 62 pp, http://www.energy.ca.gov/2009publications/CEC-500-2009-014/CEC-500-2009-014-D.pdf.

erosion in several ways and an increase in the average sea level will exacerbate all these conditions.
On the California coast the effect of a rise in sea level will be the landward migration of the intersection of the ocean with the shore. On a relatively flat beach, with a slope of 40:1, a simple geometric model of the coast indicated that every centimeter of sea level rise will result in a 40 cm. landward movement of the ocean/beach interface. For fixed structures on the shoreline, such as a seawall, an increase in sea level will increase the inundation of the structure. More of the structure will be inundated or underwater than is inundated now and the portions of the structure that are now underwater part of the time will be underwater more frequently.

Accompanying this rise in sea level will be an increase in wave heights and wave energy. Along much of the California coast, the bottom depth controls the nearshore wave heights, with bigger waves occurring in deeper water. Since wave energy increases with the square of the wave height, a small increase in wave height can cause a significant increase in wave energy and wave damage. Combined with the physical increase in water elevation, a small rise in sea level can expose previously protected back shore development to increased wave action, and those areas that are already exposed to wave action will be exposed more frequently, with higher wave forces. Structures that are adequate for current storm conditions may not provide as much protection in the future.

3. Shoreline Protection on the Subject Site

Coastal Act Section 30235 acknowledges that seawalls, revetments, cliff retaining walls, groins and other such structural or "hard" methods designed to forestall erosion also alter natural landforms and natural shoreline processes. Nevertheless, Coastal Act Section 30235 provides that shoreline protection devices shall be permitted when all of the following four criteria are met: (1) there is an existing structure, public beach area, or coastal dependent use; (2) the existing structure, public beach area, or coastal dependent use is in danger from erosion; (3) shoreline-altering construction is required to protect the existing threatened structure or public beach area, or to serve the coastal dependent use; and (4) the required protection is designed to eliminate or mitigate its adverse impacts on shoreline sand supply. The first three questions relate to whether the proposed shoreline protection device is necessary, while the fourth question applies to avoiding or mitigating any unavoidable impacts from it. In addition, even where all four criteria are satisfied, and thus, shoreline protection devices must be permitted, the other policies in Chapter 3 of the Coastal Act do not become irrelevant, so the devices must be located, designed, and maintained in a manner that is consistent with those other policies to the extent possible.

In this case there is existing development on the site. As previously described, this area of the Emma Wood State Park contains an access road and entry kiosk, which provides access to 67 self-contained RV campsites located further downcoast. The entry roadway is part of the 1925 San Diego-San Francisco Highway that has been bypassed by Highway 101. As such, the road existed prior to the effective date of the Coastal Act. The roadway area is narrow, very close to the ocean and has been exposed to coastal erosion. In 2010, and again in 2014, the road was subject to large waves which eroded the slope and removed support for the roadway which

undermined and damaged the road surface. This resulted in narrowing the road width creating entry and passage conditions that were not safe for the public, particularly for large RV units. Given the road location and its exposure to coastal erosion, State Parks determined that shoreline protection is required in order to allow rebuilding and to protect the existing Emma Wood State Beach Campground access road, which is the only way to access the 67 campsites located at the State Beach. As discussed below, the proposed revetment is the only feasible alternative available in this location that can provide such protection. A portion of the proposed revetment installed pursuant to the subject emergency permits is located in areas where a revetment had previously existed; however, other portions of the proposed revetment are located in areas that were not previously protected by an existing rock revetment. The Commission finds that in both areas, the first three criteria are met in that there is existing development that is in danger from erosion and a shoreline protective device is necessary in order to protect this existing development.

The fourth criteria required by Section 30235 of the Coastal Act is that when new shoreline protective devices are allowed, such devices shall be designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Thus, when read in tandem with other applicable Coastal Act policies protecting coastal resources as cited in these findings, this 30235 evaluation is often conceptualized as a search for the least environmentally damaging feasible alternative that can serve to achieve the stated project goal of protecting the threatened structure, coastal-dependent use, or public beach.

In this case, the applicant has submitted an engineering and alternatives analysis which found that the "No Project" alternative, or failure to rebuild the previously existing revetment and build the new area of revetment, is not a feasible alternative because the wave caused erosion is such that the existing facilities would be damaged or lost. Managed retreat, or realignment of the subject access road landward, was also analyzed and found to be not a feasible alternative to the proposed project due to the location of the subject site and its proximity to public infrastructure, the Union Pacific Railroad, and Highway 101.

Moreover, in past permit actions, the Commission has found that adverse impacts to shoreline processes from shoreline protective devices are greater the more frequently that they are subject to wave action. As such, in past permit actions, the Commission has required that all new development on a beach, including shoreline protection devices, be located as far landward as possible in order to reduce adverse impacts to the sand supply and public access resulting from the development.

In this case, all portions of the proposed rock revetment will be located immediately seaward of the existing access road on site. Commission staff worked with the applicant to evaluate all feasible alternatives, including relocating the proposed revetment further landward. The existing access road is located immediately adjacent to the Union Pacific Railroad and ocean; therefore, it is not possible to relocate either the existing road or the revetment further landward. Additionally, the beach at the subject site is, and historically has been, predominately comprised of cobble and rock. Thus, in this case, the Commission finds that further landward relocation of the proposed revetment would result in the loss of public access opportunities and visitor serving recreational facilities and would not significantly

reduce impacts to shoreline processes or sand supply. In order to ensure that the revetment will remain in the most landward location feasible, **Special Condition One (1)** requires the applicant to ensure that any rocks or other material that becomes dislodged from the revetment are removed from the marine environment. Additionally, Special Condition One (1) requires that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the approved shoreline protective structure shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device. Therefore, the Commission finds that the proposed project, as so conditioned, is the least damaging feasible alternative and that it has been designed to avoid or mitigate any impacts on shoreline sand supply.

The Applicant's submitted coastal process analyses have indicated that the proposed revetment has been constructed to remain stable and to protect the subject road and campground facilities from wave and tidal action, consistent with Section 30253 of the Coastal Act. However, as mentioned above, the proposed development is located along the shoreline in Ventura County that has historically been subject to substantial damage as the result of storm and flood occurrences, most recently, and perhaps most dramatically, during the El Nino severe winter storm season. The El Nino storms recorded in 1982-1983 caused high tides of over 7 feet, which were combined with storm waves of up to 15 ft. These storms caused substantial damage to structures in Ventura County. The severity of the 1982-1983 El Nino storm events are often used to illustrate the extreme storm event potential of the California, and in particular, Ventura County's coast.

Thus, ample evidence exists that all beachfront areas in the Ventura County area are subject to an unusually high degree of risk due to storm waves and surges, high surf conditions, erosion, and flooding. The subject site, even after the completion of the proposed project, will continue to be subject to the high degree of risk posed by the hazards of oceanfront development in the future. The Coastal Act recognizes that development, such as the subject rock revetment, even as designed and constructed to incorporate the recommendations of the applicant's coastal engineer, may still involve the taking of some risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use the subject property.

Thus, in this case, the Commission finds that due to the possibility of tsunami, storm waves, surges, and erosion the applicant shall assume these risks as a condition of approval. Because this risk of harm cannot be completely eliminated, the Commission requires the applicant to waive any claim of liability against the Commission for damage to life or property which may occur as a result of the permitted development. The applicant's Assumption of Risk, Waiver of Liability and Indemnity, as required by **Special Condition Three (3),** will show that the applicant is aware of and appreciates the nature of the hazards which exist on the site, and that may adversely affect the stability or safety of the development it protects, and will effectuate the necessary assumption of those risks by the applicant.

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Sections 30235 and 30253.

C. PUBLIC ACCESS AND RECREATION

Coastal Act Section **30210** states:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Coastal Act Section **30211** states:

> *Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.*

Coastal Act Section **30212(a)** states:

> *(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or, (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.*

Coastal Act Section **30221** states:

> *Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area.*

Coastal Act Section 30210 and Coastal Act Section 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. Section 30212(a) of the Coastal Act provides that adequate public access to the sea be provided in new development projects. Additionally, Section 30221 of the Coastal Act protects oceanfront land for recreational uses.

In past permit actions, the Commission has often required that public access to and along the shoreline be provided in conjunction with beachfront development projects and has required design changes in other projects to reduce interference with access to and along the shoreline. The principal access impacts associated with such projects that have provided the nexus for these requirements in permits involving shoreline protection are the occupation of sand area by a structure and/or the potential for adverse effects from a shoreline protective device on shoreline sand supply and public access and recreation, in contradiction of Coastal Act policies 30210, 30212, 30220, and 30221.

Past Commission review of shoreline armoring projects in Ventura County has shown that individual and cumulative adverse effects to public access from such projects can include encroachment on lands subject to the public trust, thus physically excluding the public; interference with the natural shoreline processes necessary to maintain publicly-owned tidelands and other public beach areas; overcrowding or congestion of such tideland or beach areas; and visual or psychological interference with the public's access to and the ability to use public tideland areas. Similarly, the substantial repair or replacement of an existing shoreline protective device serves to extend the life of the device and in doing so extends the period of time that the shoreline protective device will result in adverse impacts to shoreline sand supply and public access.

The Commission has also routinely found in past permit actions that shoreline protective devices result in potential adverse effects on shoreline processes as wave energy reflected by those structures contributes to erosion and steepening of the shore profile, and ultimately, to the extent and availability of tidelands. For these reasons, the Commission must also consider whether a project will have indirect effects on public use of the shore.

The interference by a shoreline protective device, such as a rock revetment, has a number of adverse effects on the dynamic shoreline system and the public's beach ownership interests. First, changes in the shoreline profile, particularly changes in the slope of the profile, which result from reduced beach width, alter the usable area under public ownership. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines. This reduces the actual area of public property available for public use. The second effect on access is through a progressive loss of sand, as shore material is no longer available to nourish the bar. The lack of an effective bar can allow such high wave energy on the shoreline that materials may be lost far offshore where it is no longer available to nourish the beach. The effect that this has on the public is a loss of area between the mean high water line and the actual water. Third, shoreline protective devices such as revetments and bulkheads cumulatively affect public access by causing accelerated and increased erosion on adjacent public beaches. This effect may not become clear until such devices are constructed individually along a shoreline, eventually affecting the profile of a public beach. Fourth, if not sited as far landward as possible, in a location that ensures that the seawall is only acted upon during severe storm events, beach scour during the winter season will be accelerated because there is less beach area to dissipate wave energy. Finally, revetments and bulkheads interfere directly with public access by their occupation of beach area that will not only be unavailable during high tide and severe storm events but also potentially throughout the winter season.

Moreover, in past permit actions, the Commission has found that adverse impacts to shoreline processes from shoreline protective devices are greater the more frequently that they are subject to wave action. As such, in past permit actions, the Commission has required that all new development on a beach, including shoreline protection devices, be located as landward as possible in order to reduce adverse impacts to the sand supply and public access resulting from the development.

In this case, all portions of the proposed rock revetment will be located immediately seaward of existing development on site. The alternative of relocating the proposed revetment even further landward would only serve to reduce the capacity of the access road, which is the only way to access the public campground. Thus, in this case, the Commission finds that further landward relocation of the proposed rock revetment would result in the loss of public access and recreational facilities, including lower cost visitor accommodations and would not significantly reduce impacts to shoreline processes or sand supply.

The placement of a new, or repair of an existing shoreline protective device, as proposed by this project, serves to extend the period of time that the shoreline protective device will result in adverse impacts to shoreline sand supply and public access. As described above, in past permit actions the Commission has required that public access to and along shoreline be provided in conjunction with beachfront development projects, such as the proposed project. In this case, the subject rock revetment is protecting an existing access road, which is the only way to access a lower-cost public recreational facility (Emma Wood State Beach Campground). Furthermore, along the length of this access road, there are a number of informal accessways that extend from the subject access road to the beach. Thus, in this unique case, the formalization of these existing accessways, or the creation of new accessways would not greatly enhance recreational opportunities or public access at the project site.

In order to ensure that the revetment will remain in the most landward location feasible and that rocks lost from the revetment in the future do not adversely impact public access, **Special Condition One (1)** requires the applicant to ensure that any rocks or other material that becomes dislodged from the revetment are removed from the beach and marine environment. Additionally, Special Condition One (1) requires that no future repair or maintenance, enhancement, reinforcement, or any other activity affecting the approved shoreline protective structure shall be undertaken if such activity extends the seaward footprint of the subject shoreline protective device.

Therefore, for the reasons discussed above, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30210, 30211, 30212(a) and 30221 of the Coastal Act.

D. MARINE RESOURCES

Coastal Act Section **30230** states:

> *Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.*

Coastal Act Section **30231** states:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the*

protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Coastal Act Section **30240** states:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

Section 30230 requires that uses of the marine environment be carried out in a manner that will sustain the biological productivity of coastal waters for long-term commercial, recreational, scientific, and educational purposes. Section 30231 requires that the biological productivity and quality of coastal waters be maintained. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas shall be protected and that development within or adjacent to such areas must be designed to prevent impacts which could degrade those resources.

The applicant's biologist has submitted a biological report prepared for the site, which finds that no sensitive species have been determined to reside within the project area. Additionally, the survey indicates the project area is sparsely vegetated, and that the shoreline along the project area is largely comprised of rock and cobble. Thus, the proposed project is not expected to result in any adverse impacts to sensitive plant or animal species on site. However, to ensure that the applicant avoids adverse impacts to sensitive species that may be present at the project site, **Special Condition Two (2)** requires that the applicant complies with all permit requirements and mitigation measures of the California Department of Fish and Wildlife, State Lands Commission, U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service with respect to preservation and protection of water quality and marine environment. Any change in the approved project which may be required by the above-stated agencies shall be submitted to the Executive Director in order to determine if the proposed change shall require a permit amendment pursuant to the requirements of the Coastal Act and the California Code of Regulations.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30230, 30231, and 30240.

E. VISUAL RESOURCES

Coastal Act Section **30251** states:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

Coastal Act Section 30251 requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored.

The proposed revetment is located on a public beach directly adjacent to the Emma Wood State Beach Campground access road, as depicted on Exhibit 2. In such a location, it is necessary to assess any potential visual impacts that may result from the proposed project.

Currently, existing rock revetment and seawalls are located along portions of the subject access road; however bluewater views of the ocean from this access road are available along the project reach. The rock revetment installed pursuant to both of the subject Emergency Coastal Development Permits has been constructed either at the elevation, or lower than the elevation, of the access road so as to avoid impacts to bluewater views. Additionally, while constructing the portion of rock revetment approved pursuant to Emergency Coastal Development Permit G-4-14-0013, the applicant removed approximately six degraded wood pilings located near the surf zone of the project site, thereby enhancing the visual quality of the project area. Thus, the proposed project will not result in any new adverse impacts to public views of the ocean, and will restore and enhance visual quality in a visually degraded area.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Section 30251.

F. CALIFORNIA ENVIRONMENTAL QUALITY ACT

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse effect that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed in detail above, the proposed project, as conditioned, is consistent with the policies of the Coastal Act. Feasible mitigation measures which will minimize all adverse environmental effects have been required as special conditions. **Special Conditions One (1) through Three (3)** are required to assure the project's consistency with Section 13096 of the California Code of Regulations.

As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

APPENDIX A

Substantive File Documents:
Emma Wood State Beach Access Road Stabilization, dated January 2000, January 27, 2015, and June 12, 2015, by Skelly Engineering; Department of the Army Determination, dated August 16, 2011 and May 12, 2014; California State Lands Determination, dated January 20, 2012 and July 7, 2014; Biological Report, dated September 9, 2014; and Emergency Permit Numbers G-4-10-021 and G-4-14-0013.

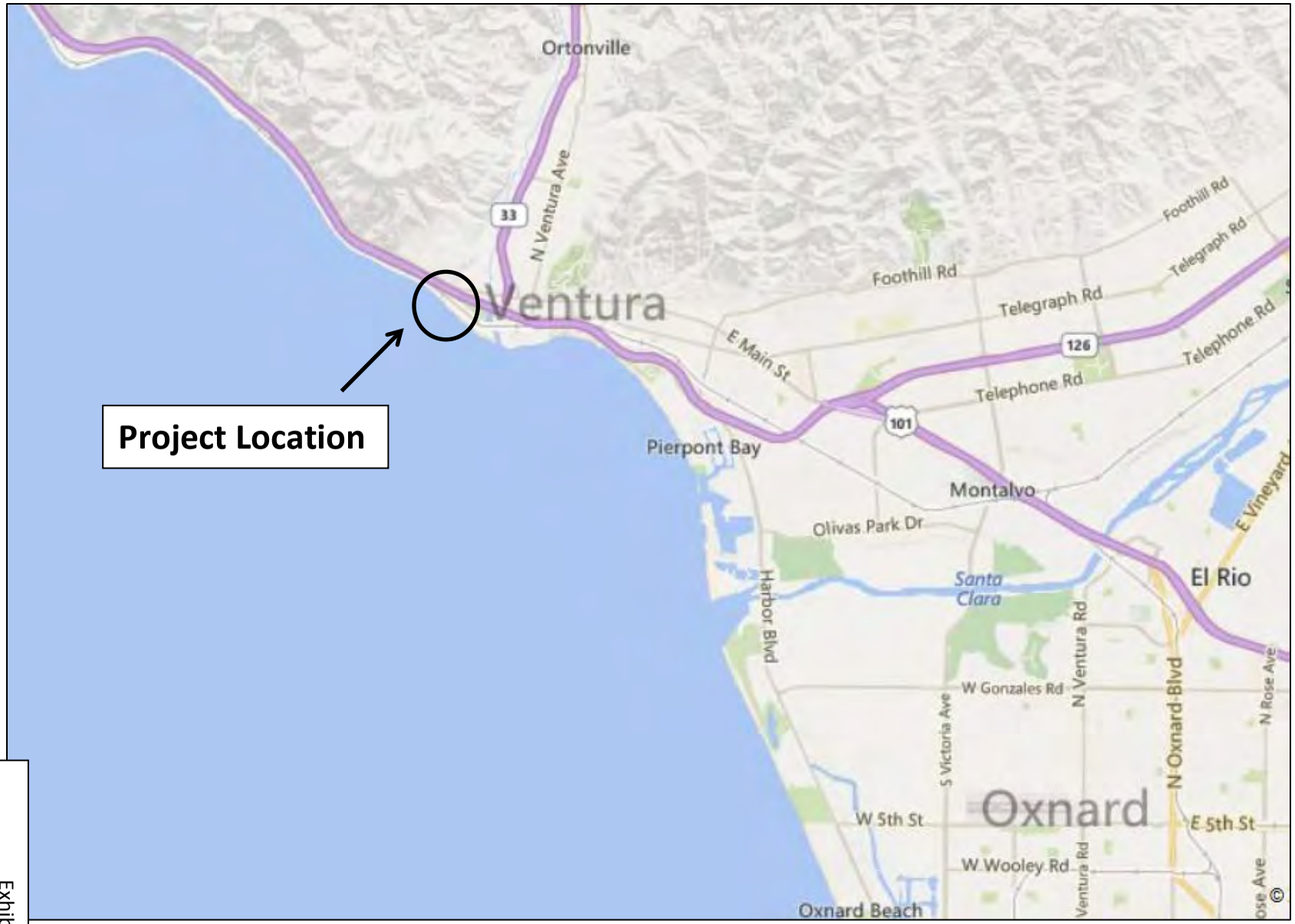


Exhibit 1
4-10-021 and 4-14-1268
Vicinity Map

Exhibit 2
4-10-021 and 4-14-1268
Aerial Photograph of 4-10-021
Project Area

Exhibit 3
4-10-021 and 4-14-1268
Aerial Photograph of
4-14-1268 Project Area

2010 STORM DAMAGE REPAIR AT NORTH BEACH
EMMAWOOD STATE BEACH

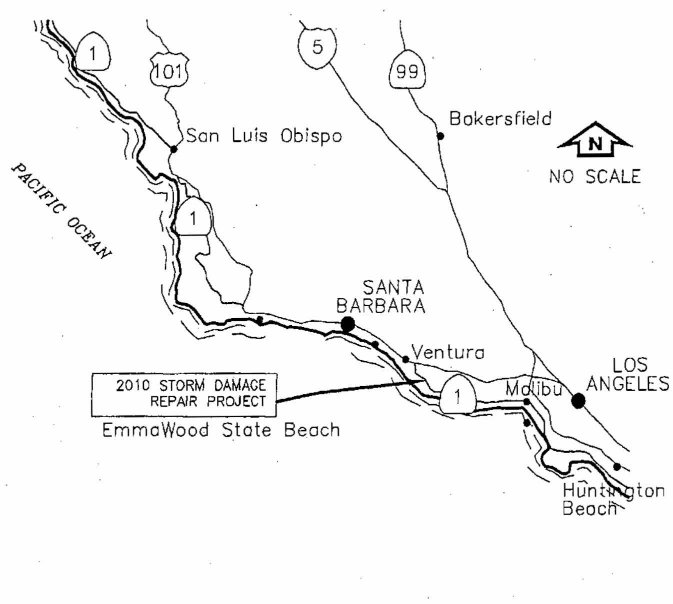
AT:

EMMAWOOD STATE BEACH
VENTURA COUNTY,
CALIFORNIA

FOR:

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
(805) 585-1850

PREPARED BY:
FRED SOLIS P.E.
CHANNEL COAST DISTRICT
911 San Pedro Street
VENTURA, CA 93001
(805) 585-1850



LOCATION MAP

1. CONTRACTOR SHALL CONDUCT ALL WORKS IN ACCORDANCE WITH THE LATEST SAFETY RULES OF VARIOUS AGENCIES (CAL-OSHA etc).
2. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO PRESENTING BIDS.
3. ALL DEBRIS THAT SHALL NOT BE REUSED SHALL BE LEGALLY DISPOSED AWAY FROM PARKS PROPERTY.
4. ALL WORK SHALL COMPLY WITH THE CURRENT EDITION OF THE FOLLOWING LISTED CODES AND ALL OTHERS HAVING JURISDISTION OVER THE WORK.
   HEALTH & SAFETY SECTION OF CALIFORNIA BUILDING CODE.
   CAL-OSHA
   2005 CALIFORNIA STATE PARKS 'ACCESSIBILITY GUIDELINES'
   STANDARD SPECS FOR PUBLIC WORKS CONSTN (SSPWCO
   STANDARD PLANS FOR PUBLIC WORKS CONSTN (SPPWC)
   STATE STANDARD PLANS FROM CALTRANS
   STATE STANDARD SPECS FROM CALTRANS
5. CONTRACTOR SHALL PLAN, SCHEDULE & COORDINATE HIS OPERATION WITH STATE PARKS PERSONNEL TO ENSURE PROPER COORDINATION WITH VARIOUS ACTIVITIES IN THE PARK. THE PARK IS OPEN TO PUBLIC DURING CONSTRUCTION.
6.
7.
8.

GENERAL NOTES

1 COVER SHEET
2 SITE PLAN
3 DETAILS

SHEET INDEX

APPROVALS

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	02-16-2010

REGISTERED PROFESSIONAL ENGINEER
ALFREDO M. SOLIS
NO. C-42683
EXP. 3-31-10
CIVIL
STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/DPR MOU - 8.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

REVIEWS	
1	DATE

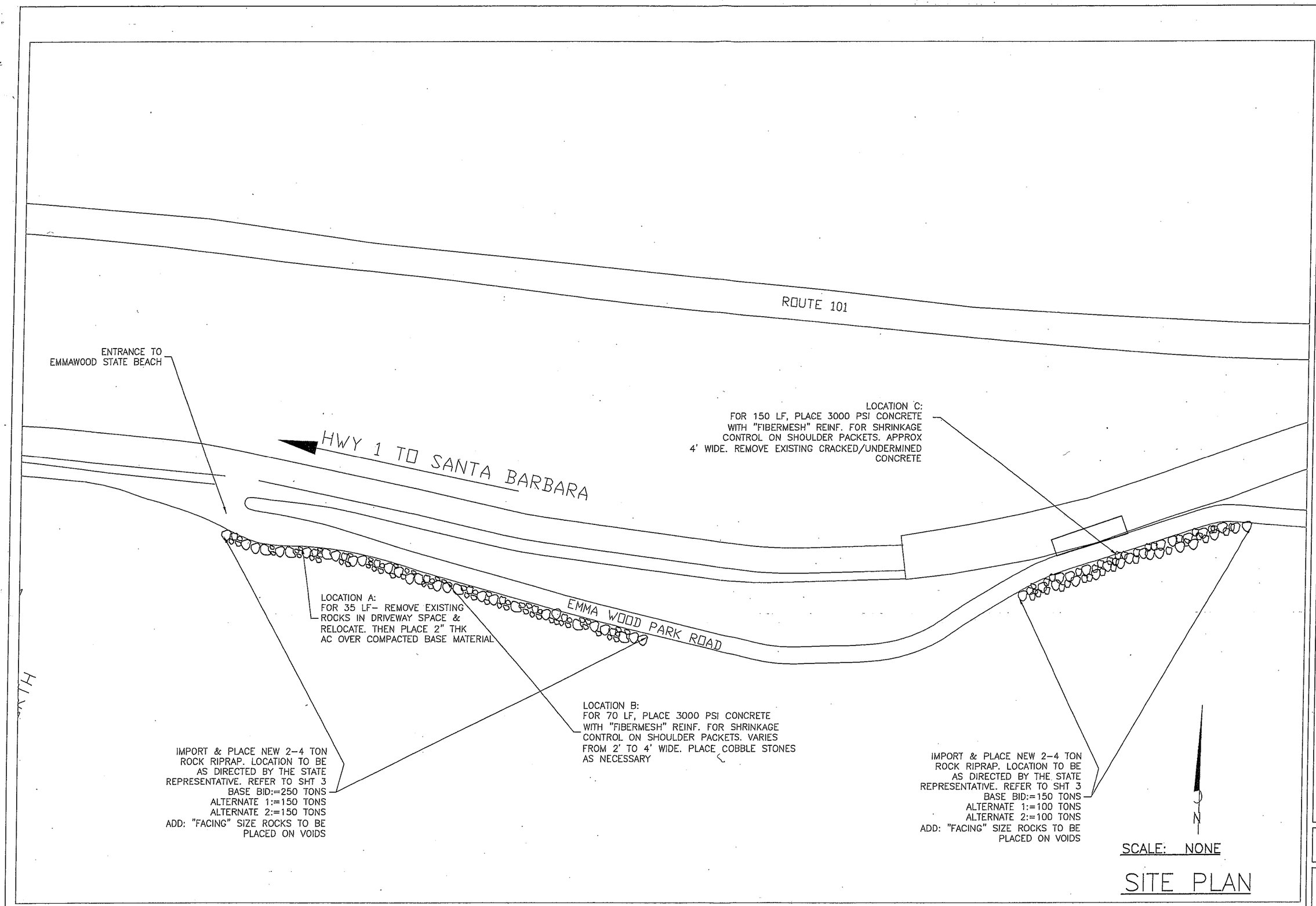
EMMAWOOD STATE BEACH
2010 STROM DAMAGE REPAIR
AT NORTH BEACH
TITLE SHEET

PROJECT NUMBER
000000

SHEET NO.
1

ATTACHMENT 2B

Exhibit 4
4-10-021 and 4-14-1268
4-10-021 Project Plans



SCALE: NONE

SITE PLAN

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	02-16-2010

REGISTERED PROFESSIONAL ENGINEER
ALFREDO R. SOLIS
NO. C-47983
EXP. 3-31-10
CIVIL
STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approvals subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/DPR MOU - 8.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

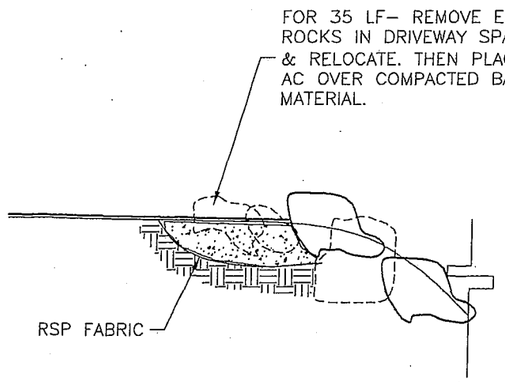
REVISIONS

	DATE
1	

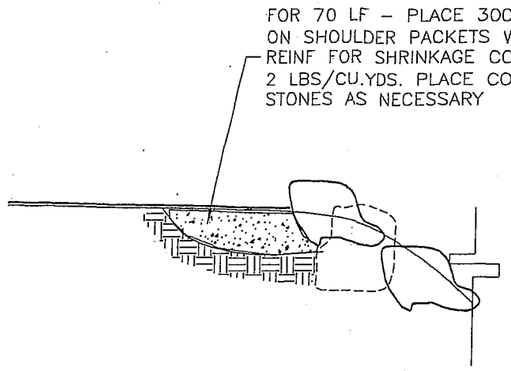
EMMAWOOD STATE BEACH
2010 STORM DAMAGE REPAIR
AT NORTH BEACH
SITE PLAN

PROJECT NUMBER

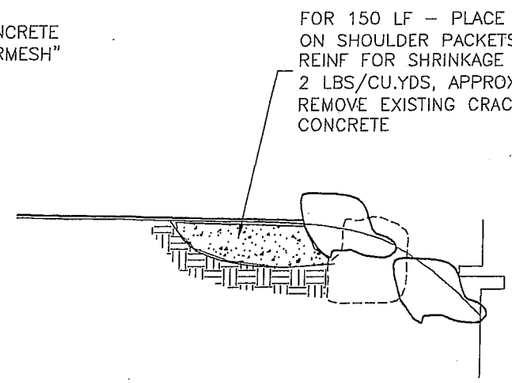
SHEET NO.
2
2 OF 3



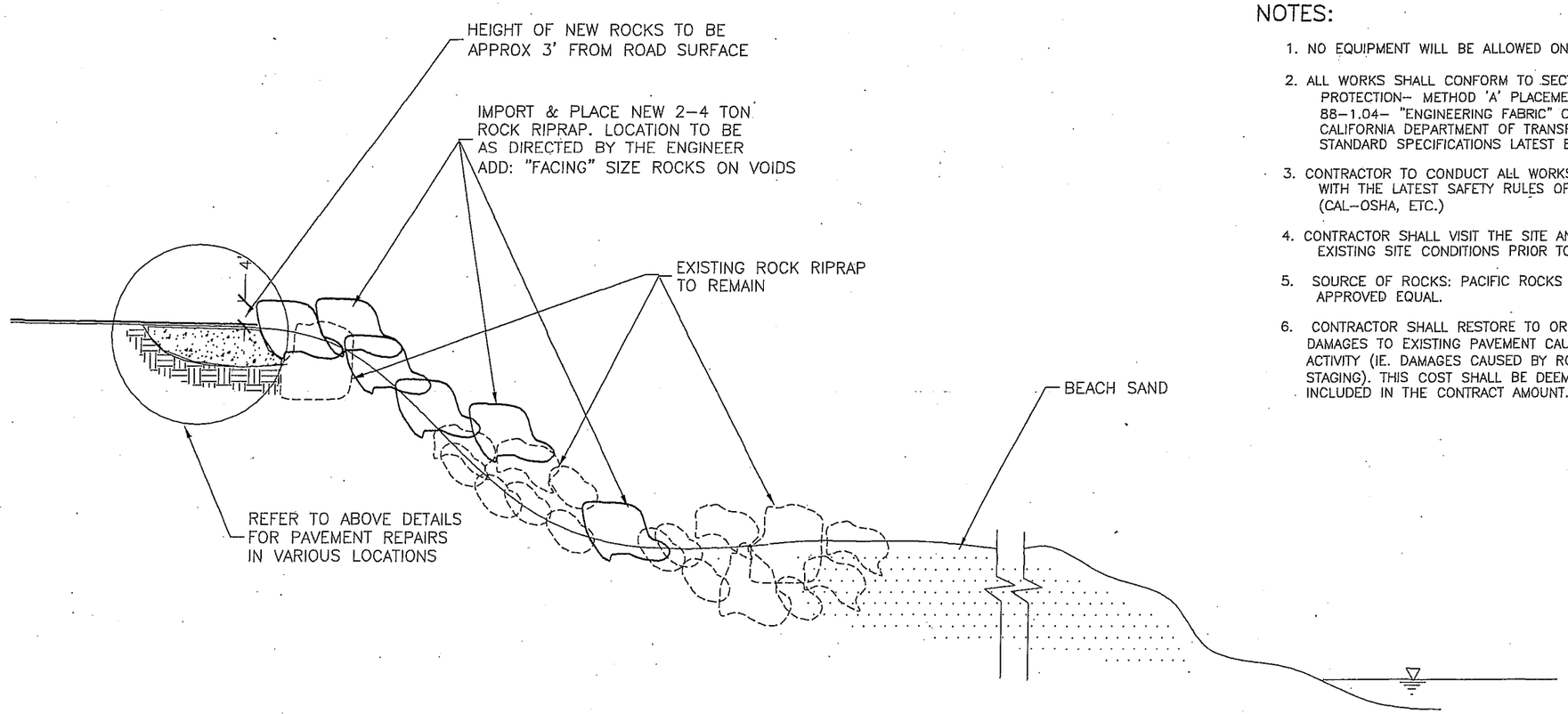
ROAD SECTION AT LOCATION A



ROAD SECTION AT LOCATION B



ROAD SECTION AT LOCATION C



TYPICAL CROSS–SECTION

NOTES:

1. NO EQUIPMENT WILL BE ALLOWED ON THE BEACH
2. ALL WORKS SHALL CONFORM TO SECTION 72– "SLOPE PROTECTION– METHOD 'A' PLACEMENT" AND SECTION 88–1.04– "ENGINEERING FABRIC" OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS LATEST EDITION.
3. CONTRACTOR TO CONDUCT ALL WORKS IN ACCORDANCE WITH THE LATEST SAFETY RULES OF VARIOUS AGENCIES (CAL–OSHA, ETC.)
4. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO PRESENTING BIDS.
5. SOURCE OF ROCKS: PACIFIC ROCKS INC. IN CAMARILLO OR APPROVED EQUAL.
6. CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITON ALL DAMAGES TO EXISTING PAVEMENT CAUSED BY CONTRACTOR'S ACTIVITY (IE. DAMAGES CAUSED BY ROCK DELIVERY AND STAGING). THIS COST SHALL BE DEEMED TO HAVE BEEN INCLUDED IN THE CONTRACT AMOUNT.

CALIFORNIA STATE PARKS SINCE 1864
CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	02-16-2010

REGISTERED PROFESSIONAL ENGINEER FRED SOLIS NO. C-42983 EXP. 3-31-06 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/OPR MOU - 8.01 ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

REVISIONS	
1	DATE

EMMAWOOD STATE BEACH
2010 STORM DAMAGE REPAIR
AT NORTH BEACH

PROJECT NUMBER

SHEET NO.
3
3 OF 3

2014 STORM DAMAGE REPAIR AT NORTH BEACH
EMMAWOOD STATE BEACH

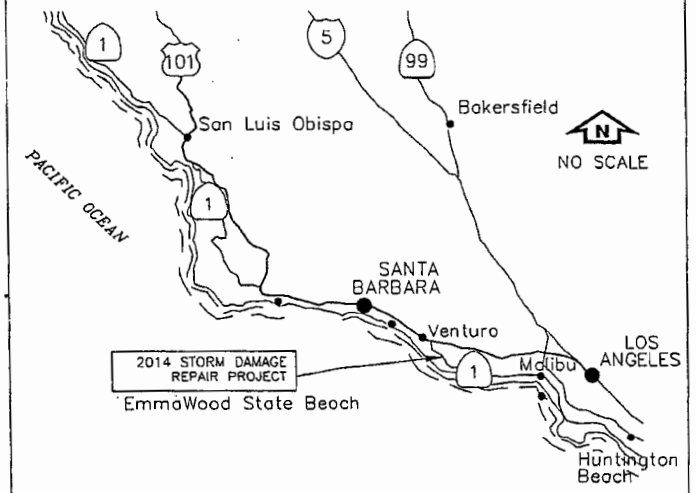
AT:

EMMAWOOD STATE BEACH
VENTURA COUNTY,
CALIFORNIA

FOR:

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
(805) 585-1850

PREPARED BY:
FRED SOLIS P.E.
CHANNEL COAST DISTRICT
911 San Pedro Street
VENTURA, CA 93001
(805) 585-1850



LOCATION MAP

1. CONTRACTOR SHALL CONDUCT ALL WORKS IN ACCORDANCE WITH THE LATEST SAFETY RULES OF VARIOUS AGENCIES (CAL-OSHA etc).
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   HEALTH & SAFETY SECTION OF CALIFORNIA BUILDING CODE.
   CAL-OSHA
   2005 CALIFORNIA STATE PARKS 'ACCESSIBILITY GUIDELINES'
   STANDARD SPECS FOR PUBLIC WORKS CONSTN (SSPWC0
   STANDARD PLANS FOR PUBLIC WORKS CONSTN (SPPWC)
   STATE STANDARD PLANS FROM CALTRANS
   STATE STANDARD SPECS FROM CALTRANS
5. CONTRACTOR SHALL PLAN, SCHEDULE & COORDINATE HIS OPERATION WITH STATE PARKS PERSONNEL TO ENSURE PROPER COORDINATION WITH VARIOUS ACTIVITIES IN THE PARK. THE PARK IS OPEN TO PUBLIC DURING CONSTRUCTION.
6.
7.
8.

GENERAL NOTES

1 COVER SHEET
2 SITE PLAN
3 DETAILS
4 COASTAL PROCESS INFORMATION
5 BOUNDARY INFORMATION

SHEET INDEX

APPROVALS

CALIFORNIA STATE PARKS SINCE 1864

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	04-07-2014

REGISTERED PROFESSIONAL ENGINEER — ALFREDO V. SOLIS — NO. C-42583 — CIVIL — STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Approved by: Date:

DSA/OPR MOU - 5.01 ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by: Date:

REVISIONS

⚠	DATE

EMMAWOOD STATE BEACH
2014 STROM DAMAGE REPAIR
AT NORTH BEACH
TITLE SHEET

PROJECT NUMBER
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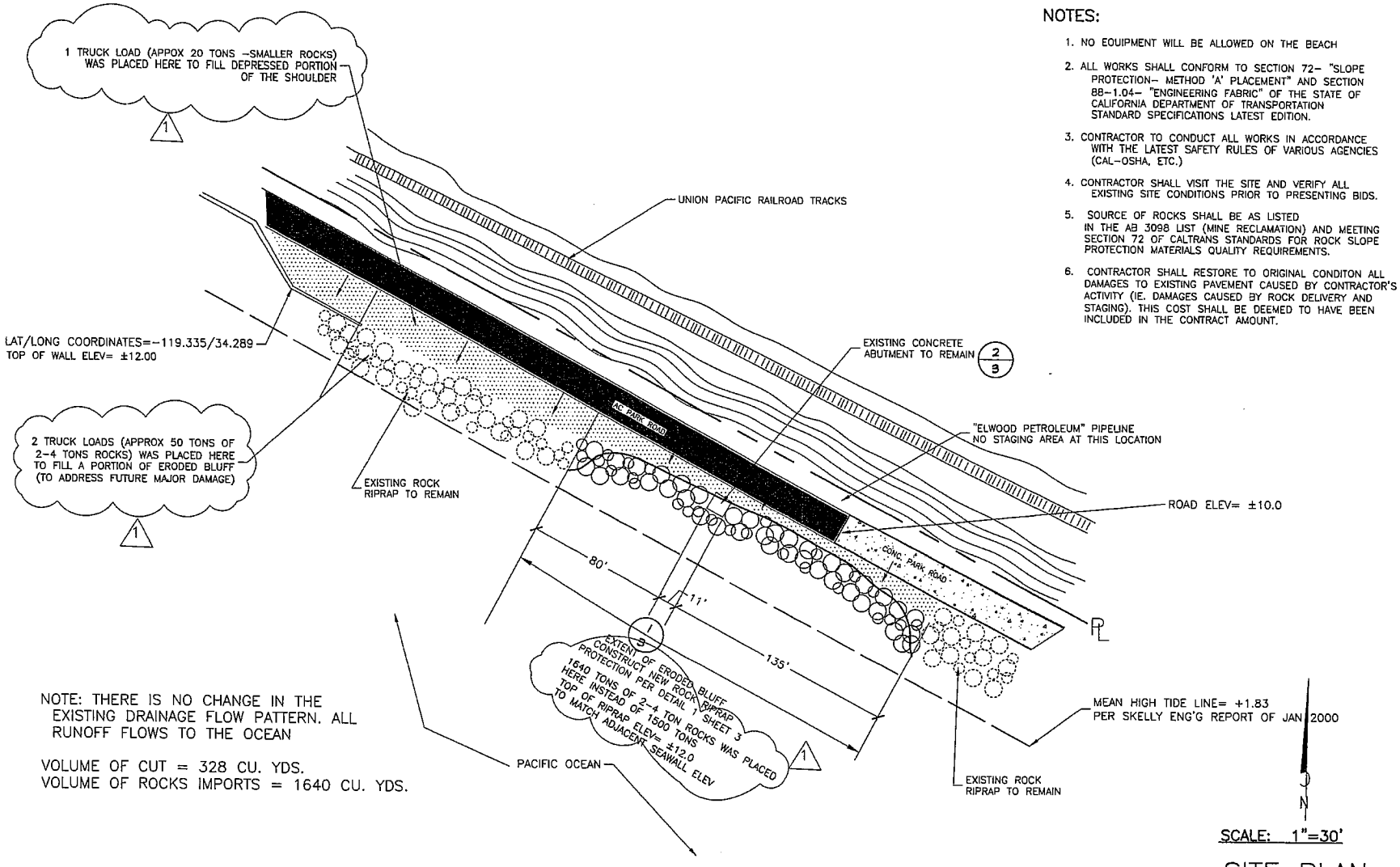
SHEET NO.
1
1 OF 5

Exhibit 5
4-10-021 and 4-14-1268
4-14-1268 Project Plans



NOTES:

1. NO EQUIPMENT WILL BE ALLOWED ON THE BEACH
2. ALL WORKS SHALL CONFORM TO SECTION 72– "SLOPE PROTECTION– METHOD 'A' PLACEMENT" AND SECTION 88–1.04– "ENGINEERING FABRIC" OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS LATEST EDITION.
3. CONTRACTOR TO CONDUCT ALL WORKS IN ACCORDANCE WITH THE LATEST SAFETY RULES OF VARIOUS AGENCIES (CAL–OSHA, ETC.)
4. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO PRESENTING BIDS.
5. SOURCE OF ROCKS SHALL BE AS LISTED IN THE AB 3098 LIST (MINE RECLAMATION) AND MEETING SECTION 72 OF CALTRANS STANDARDS FOR ROCK SLOPE PROTECTION MATERIALS QUALITY REQUIREMENTS.
6. CONTRACTOR SHALL RESTORE TO ORIGINAL CONDITON ALL DAMAGES TO EXISTING PAVEMENT CAUSED BY CONTRACTOR'S ACTIVITY (IE. DAMAGES CAUSED BY ROCK DELIVERY AND STAGING). THIS COST SHALL BE DEEMED TO HAVE BEEN INCLUDED IN THE CONTRACT AMOUNT.

NOTE: THERE IS NO CHANGE IN THE EXISTING DRAINAGE FLOW PATTERN. ALL RUNOFF FLOWS TO THE OCEAN

VOLUME OF CUT = 328 CU. YDS.
VOLUME OF ROCKS IMPORTS = 1640 CU. YDS.

SCALE: 1"=30'

SITE PLAN

"AS BUILT"

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	04-07-2014

REGISTERED PROFESSIONAL ENGINEER FREDERICO W. SOLIS NO. C-43563 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL-APPROVED

Approval of the plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/OPR MOU – ILOI ACCESSIBILITY REVIEW

CERTIFICATION #

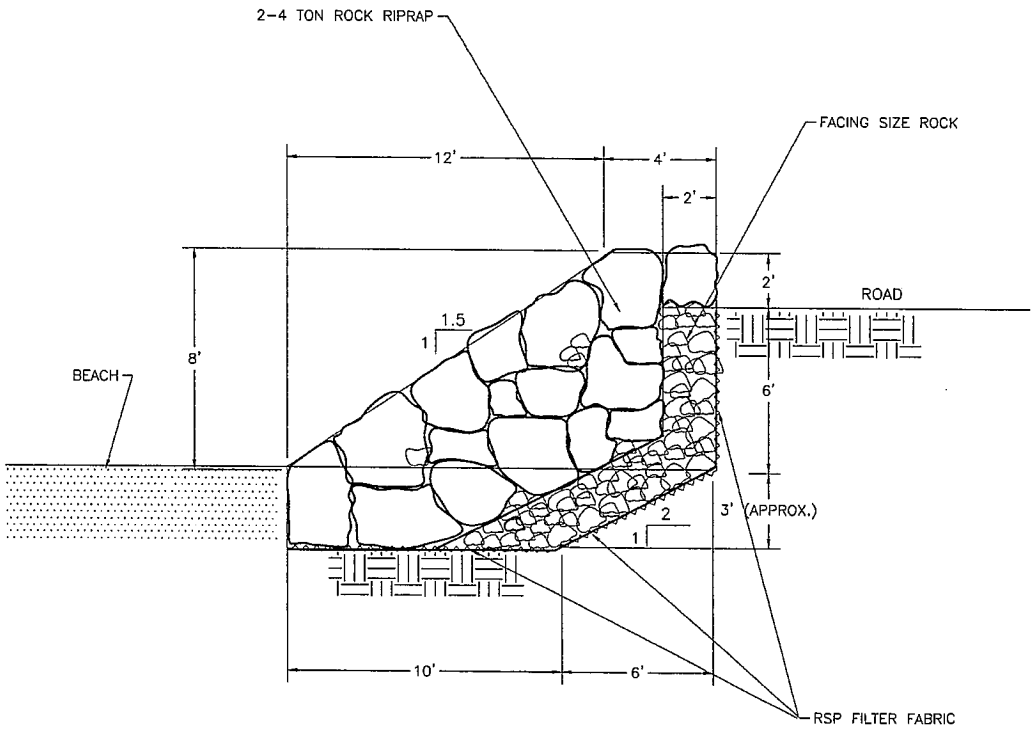
Reviewed by Date

REVISIONS	DATE
1 AS BUILT	

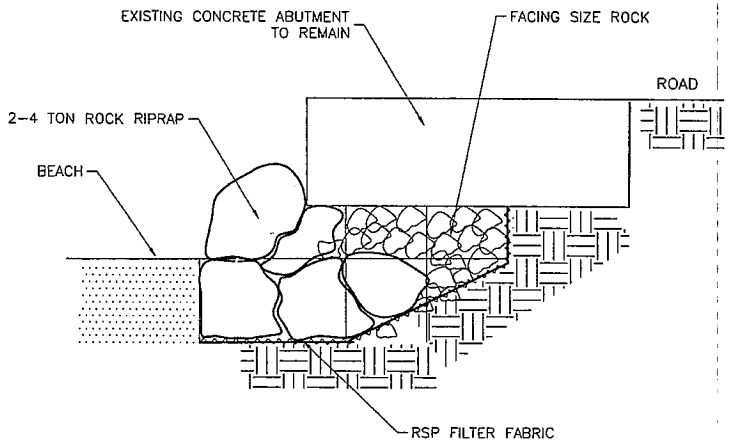
EMMAWOOD STATE BEACH
2014 STORM DAMAGE REPAIR
AT NORTH BEACH
SITE PLAN

PROJECT NUMBER

SHEET NO.
2
2 OF 5



1 TYPICAL CROSS-SECTION



2 DETAIL AT (E) ABUTMENT

CHANNEL COAST DISTRICT
911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	04-07-2014

REGISTERED PROFESSIONAL ENGINEER WILFREDO M. SOLIS No. C-42583 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission of deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by _____ Date _____

DSA/OPR MOU - 8.01 ACCESSIBILITY REVIEW

CERTIFICATION # _____

Reviewed by _____ Date _____

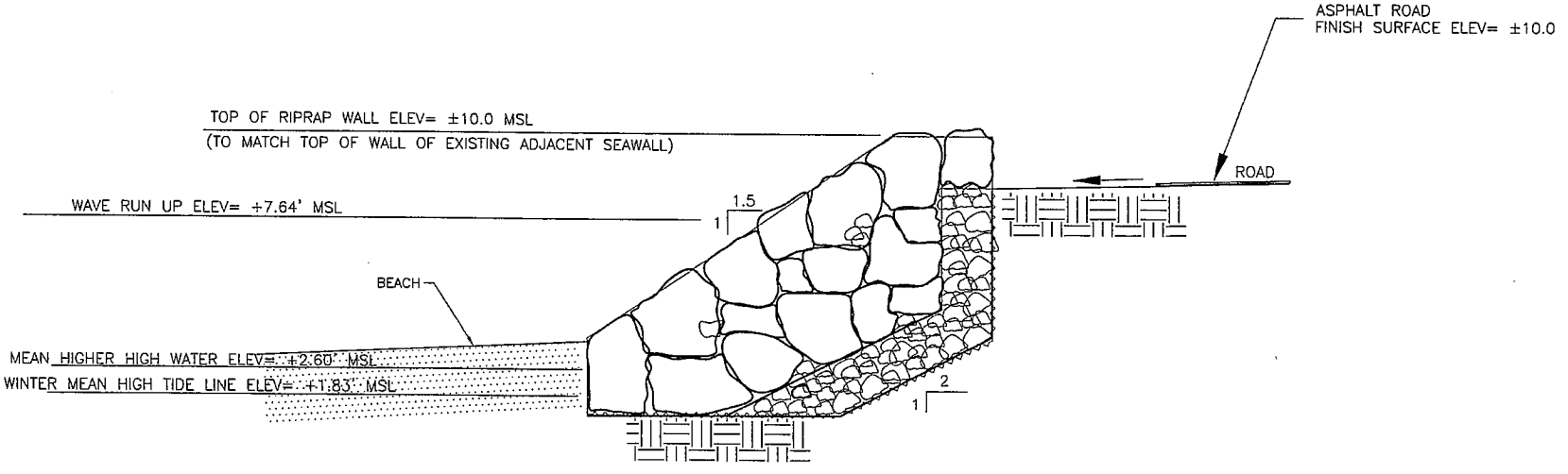
REVISIONS

	DATE

EMMAWOOD STATE BEACH
2014 STORM DAMAGE REPAIR
AT NORTH BEACH

PROJECT NUMBER

SHEET NO.
3
3 OF 5



EMMAWOOD STATE BEACH

COASTAL PROCESS INFORMATION
BASED ON SKELLY COASTAL ENGINEERING REPORT OF JANUARY 2000

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	04-07-2014

REGISTERED PROFESSIONAL ENGINEER FRED W. SOLIS NO. C-42583 CIVIL STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by _____ Date _____

DSA/DPR MOU - 801 ACCESSIBILITY REVIEW

CERTIFICATION # _____

Reviewed by _____ Date _____

REVISIONS

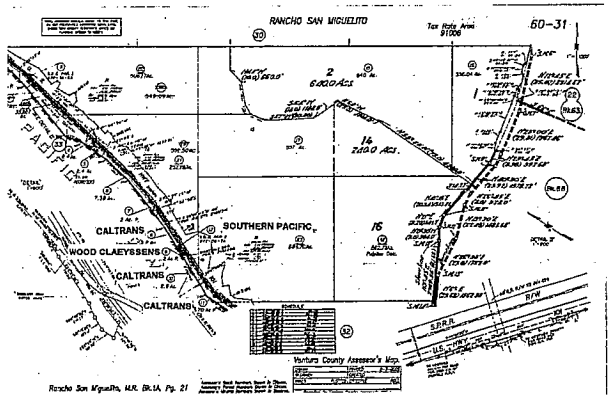
	DATE

EMMAWOOD STATE BEACH
2014 STORM DAMAGE REPAIR
AT NORTH BEACH

COASTAL PROCESS INFO.

PROJECT NUMBER

SHEET NO.
4
4 OF 5



CALIFORNIA STATE PARKS
SINCE 1864

CHANNEL COAST DISTRICT

911 SAN PEDRO STREET
VENTURA, CA 93001
PHONE (805) 585-1850

DESIGNED	FRED SOLIS
DRAWN	FRED SOLIS
CHECKED	XXXXX
DATE	04-07-2014

REGISTERED PROFESSIONAL ENGINEER
WINFIELD W. SCOTT
NO. C-42533
CIVIL
STATE OF CALIFORNIA

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Reviewed by Date

DSA/OPR MOU - II.01
ACCESSIBILITY REVIEW

CERTIFICATION #

Reviewed by Date

REVISIONS

	DATE
1	

EMMAWOOD STATE BEACH
2014 STORM DAMAGE REPAIR AT NORTH BEACH
BOUNDARY INFORMATION

PROJECT NUMBER

SHEET NO.
5
5 OF 5