

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

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Clean Water Act Section 401 Water Quality Certification
and Waste Discharge Requirements
for Discharge of Dredged and/or Fill Materials

**PROJECT: State Route 11 and the
Otay Mesa East Port of Entry
Certification Number R9-2013-0182**

**APPLICANT: California Department of Transportation
District 11
4050 Taylor Street
MS 333
San Diego, CA 92110**

Reg. Meas. ID: 394061 Place ID: 801231 Party ID: 7222 Person ID: 544309 WDID: 9 000002674

ACTION:

<input type="checkbox"/> Order for Low Impact Certification	<input type="checkbox"/> Order for Denial of Certification
<input checked="" type="checkbox"/> Order for Technically-conditioned Certification	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004-DWQ
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	

PROJECT DESCRIPTION

An application dated November 19, 2013 was submitted by the California Department of Transportation, District 11 (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. section 1341) for the proposed State Route 11, the Otay Mesa East Port of Entry, the California Vehicle Enforcement Facility, and Restoration of the Lonestar East Mitigation Site Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on April 28, 2014. The Applicant proposes to discharge dredged or fill material to waters of the United States and/or State associated with construction activity at the Project site. The Applicant has also applied for a Clean Water Act section 404 permit from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2006-486-SAS, Nationwide Permit No. 14).

The Project is located within the City of San Diego and unincorporated community of Otay Mesa within the County of San Diego, California. The project is south of Otay Mesa Road and crosses over Enrico Fermi Drive and Alta Road. The Project center reading is located at latitude 32.567458° and longitude -116.919094°. The Applicant has paid all required fees for this Certification in the amount of \$55,174.00. On an annual basis, the Applicant shall also pay

all active discharge fees and post discharge monitoring fees, as appropriate¹. On November 27, 2013, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to construct State Route 11 (SR-11) as a 2.1-mile, four-lane toll highway, with two lanes in each direction plus auxiliary lanes and connectors. SR-11 would extend east from the vicinity of Harvest Road (at the future SR-905/SR-125 Interchange) for approximately 1.5 miles, before curving to the southeast near Alta Road and continuing for approximately 0.6 mile to connect with the proposed Port of Entry/Commercial Vehicle Enforcement Facility (POE/CVEF) site. SR-11 will cross four existing or planned local surface streets: Sanyo Avenue, Enrico Fermi Drive, Alta Road, and Siempre Viva Road. The project will be constructed in phases commensurate with available construction funding. Restoration of the Lonestar East Mitigation Site and its upstream buffer is planned during the fall of 2015. Construction of State Route 11 between La Media Road and Enrico Fermi Drive and the State Route 905 connectors is currently underway.

The proposed 17.9 acre site for the California Vehicle Enforcement Facility would be located east of SR-11 along the northern Port of Entry boundary. The proposed Otay Mesa East Port of Entry would accommodate northbound and southbound commercial and passenger traffic, as well as buses, pedestrians and bicycles. The Port of Entry site would be accessed from the north by SR-11.

The Project will convert approximately 25 pervious acres to impervious surfaces. Runoff leaving the developed Project area will be significantly greater in volume, velocity, peak flow rate, and duration than pre-development runoff from the same area without mitigation. Post-construction best management practices (BMPs) to manage and control the effects of these runoff increases will consist of biofiltration swales, detention basins, and gross solids removal devices. These BMPs will be designed, constructed, and maintained to meet State Water Resources Control Board Water Quality Order No. 2012-0011-DWQ, NPDES No. CAS000003, *Statewide Storm Water Permit and Waste Discharge Requirements for State of California Department of Transportation*.

The Project application includes a description of the design objective, operation, and degree of treatment expected to be attained from equipment, facilities, or activities (including construction and post-construction BMPs) to treat waste and reduce runoff or other effluents which may be discharged. Compliance with the Certification conditions will help ensure that construction and post-construction discharges from the Project will not cause on-site or off-site

¹ The Applicant shall pay an annual active discharge fee each fiscal year or portion of a fiscal year during which discharges occur until the regional board or the State Board issues a Notice of Completion of Discharges Letter to the discharger. Dischargers shall pay an annual post-discharge monitoring fee each fiscal year or portion of a fiscal year commencing with the first fiscal year following the fiscal year in which the regional board or State Board issued a Notice of Completion of Discharges Letter to the discharger, but continued water quality monitoring or compensatory mitigation monitoring is required. Dischargers shall pay the annual post-discharge monitoring fee each fiscal year until the regional board or the State Board issues a Notice of Project Complete Letter to the discharger. Additional information regarding fees can be found electronically at the following location: http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/dredgefillcalculator.xlsx

downstream erosion, damage to downstream properties, or otherwise damage stream habitats in violation of water quality standards in the *Water Quality Control Plan for the San Diego Basin (9)* (Basin Plan).

Project construction will permanently impact 0.22 acre (4,492 linear feet) of ephemeral stream waters of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

The Applicant reports that compensatory mitigation for the permanent loss of 0.22 acre of jurisdictional waters will be achieved through the rehabilitation of 3.31 acres of waters of the United States and/or State. All waters of the United States and/or State receiving temporary discharges of fill material will be restored upon removal of the fill. Mitigation for discharges of fill material to waters of the United States and/or State will be completed by the Applicant at Lonestar East Mitigation Site located in the Otay Valley hydrologic area (HS 910.20) at a minimum compensation ratio of 15:1 (area mitigated:area impacted).

An upland habitat buffer of 4.63 acres, adjacent to the riparian area, will be enhanced by removing non-native invasive plants and planting and seeding with native species. A second buffer will be located in Johnson Canyon Creek (currently owned by the County of San Diego Department of Parks and Recreation), immediately upstream of the mitigation area (0.76 acre, 1,142 linear feet). Non-native, invasive plants will be removed from this reach of Johnson Canyon Creek.

Detailed written specifications and work descriptions for the compensatory mitigation project including, but not limited to, the geographic boundaries of the project, timing, sequence, monitoring, maintenance, ecological success performance standards and provisions for long-term management and protection of the mitigation areas are described in the *Lonestar East Final Wetland Mitigation Plan* (Mitigation Plan), dated October 2013. San Diego Water Board acceptance of the Mitigation Plan applies only to the Project described in this Certification and must not be construed as approval for other current or future projects that are planning to use additional acreage at the site for mitigation. The Mitigation Plan is incorporated in this Certification by reference as if set forth herein. The Mitigation Plan provides for implementation of compensatory mitigation which offsets adverse water quality impacts attributed to the Project in a manner that protects and restores the abundance, types and conditions of aquatic resources and supports their beneficial uses. Implementation of the Mitigation Plan will reduce significant environmental impacts to resources within the San Diego Water Board's purview to a less than significant level. Based on all of these considerations, the Mitigation Plan will adequately compensate for the loss of beneficial uses and habitat within waters of the United States and/or State attributable to the Project.

Additional Project details are provided in Attachments 2 through 5 of this Certification.

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Attachments:

1. Definitions
2. Project and Mitigation Location Maps
3. Project Site Plans
4. Mitigation Figures and Plans
5. CEQA Mitigation Monitoring and Reporting Program

I. STANDARD CONDITIONS

Pursuant to section 3860 of title 23 of the California Code of Regulations, the following three standard conditions apply to all water quality certification actions:

- A. This Certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to section 13330 of the Water Code and chapter 28, article 6 (commencing with title 23, section 3867), of the California Code of Regulations.
- B. This Certification action is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility and requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent Certification application was filed pursuant to California Code of Regulations title 23, section 3855 subdivision (b), and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
- C. This Certification action is conditioned upon total payment of any fee required under title 23, chapter 28 (commencing with section 3830) of California Code of Regulations and owed by the applicant.

II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. R9-2013-0182 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.
- B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.
- C. **General Waste Discharge Requirements.** The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/go_wdr401regulated_projects.pdf.
- D. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality

certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.

- E. **Project Conformance with Water Quality Control Plans or Policies.** Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 U.S.C §1313). The Basin Plan is accessible at:

http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml

- F. **Project Modification.** The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water Board for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.

- G. **Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.

- H. **Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:

1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and
4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.

- I. **Enforcement Notification.** In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.
- J. **Certification Actions.** This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:
1. Violation of any term or condition of this Certification;
 2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of the unnamed tributaries to the Tijuana River;
 3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;
 4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
- The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.
- K. **Duty to Provide Information.** The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.
- L. **Property Rights.** This Certification does not convey any property rights of any sort, or any exclusive privilege.
- M. **Petitions.** Any person aggrieved by this action of the San Diego Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Approvals to Commence Construction.** The Applicant shall not commence Project construction until all necessary federal, State, and local approvals are obtained.
- B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and BMP implementation and maintenance measures.
- C. **Spill Containment Materials.** The Applicant must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.
- D. **General Construction Storm Water Permit.** Prior to start of Project construction, the Applicant must comply with State Water Resources Control Board Water Quality Order No. 2012-0011-DWQ, NPDES No. CAS000003, *Statewide Storm Water Permit and Waste Discharge Requirements for State of California Department of Transportation* and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.
- E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.
- F. **Waste Management.** Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.
- G. **Downstream Erosion.** Discharges of concentrated flow during construction or after Project completion must not cause downstream erosion or damage to properties or stream habitat.

- H. **Construction Equipment.** All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.
- I. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.
- J. **Surface Water Diversion.** All surface waters, including ponded waters, must be diverted away from areas of active grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of the receiving water quality objectives. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
- K. **Re-vegetation and Stabilization.** All areas that have 14 or more days of inactivity must be stabilized within 14 days of the last activity. The Applicant shall implement and maintain BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be re-vegetated with native species appropriate for the area. The re-vegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be accessed at <http://www.cal-ipc.org/ip/inventory/>.
- L. **Hazardous Materials.** Except as authorized by this Certification, substances hazardous to aquatic life including, but not limited to, petroleum products, unused cement/concrete, asphalt, and coating materials, must be prevented from contaminating the soil and/or entering waters of the United States and/or State. BMPs must be implemented to prevent such discharges during each Project activity involving hazardous materials.
- M. **Vegetation Removal.** Removal of vegetation must occur by hand, mechanically, or through application of United States Environmental Protection Agency (USEPA) approved herbicides deployed using applicable BMPs to minimize adverse effects to beneficial uses of waters of the United States and/or State. Discharges related to the application of aquatic pesticides within waters of the United States must be done in compliance with State Water Resources Control Board Water Quality Order No. 2004-0009-DWQ, the *Statewide General National Pollution Discharge Elimination System*

Permit for the Discharge of Aquatic Weed Control in Waters of the United States, and any subsequent reissuance as applicable.

- N. **Limits of Disturbance.** The Applicant shall clearly define the limits of Project disturbance to waters of the United States and/or State using highly visible markers such as flag markers, construction fencing, or silt barriers prior to commencement of Project construction activities within those areas.
- O. **On-site Qualified Biologist.** The Applicant shall designate an on-site qualified biologist to monitor Project construction activities within or adjacent to waters of the United States and/or State to ensure compliance with the Certification requirements. The biologist shall be given the authority to stop all work on-site if a violation of this Certification occurs or has the potential to occur. Records and field notes of the biologist's activities shall be kept on-site and made available for review upon request by the San Diego Water Board.
- P. **Beneficial Use Protection.** The Applicant must take all necessary measures to protect the beneficial uses of the unnamed tributaries to the Tijuana River. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VII.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.

IV. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Post-Construction Discharges.** The Applicant shall not allow post-construction discharges from the Project site to cause or contribute to on-site or off-site erosion or damage to properties or stream habitats.
- B. **Storm Drain Inlets.** All storm drain inlet structures within the Project boundaries that are pedestrian-accessible must be stamped, stenciled, signed, or another equivalent visual notification method, with appropriate language prohibiting non-storm water discharges in English and Spanish.
- C. **Post-Construction BMP Design.** The Project must be designed to comply with the most current Standard Storm Water Mitigation and Hydromodification Plans for the City and County of San Diego. Post-construction BMPs are described in the *Caltrans Long Form – Storm Water Data Report (SWDR)*.
- D. **Post-Construction BMP Implementation.** All post-construction BMPs must be constructed, functional, and implemented prior to completion of Project construction, occupancy, and/or planned use, and maintained in perpetuity. The post construction BMPs must include those described in the SWDR, dated November 1, 2010, prepared by the Applicant; or any subsequent version of the SWDR that meets the requirements of State Water Resources Control Board Water Quality Order No. 2012-0011-DWQ,

NPDES No. CAS000003, *Statewide Storm Water Permit and Waste Discharge Requirements for State of California Department of Transportation.*

E. Post-Construction BMP Maintenance. The post construction BMPs must be designed, constructed, and maintained in accordance with the most recent Caltrans guidance. The Applicant shall:

1. No less than two times per year, assess the performance of the BMPs to ensure protection of the receiving waters and identify any necessary corrective measures;
2. Perform inspections of BMPs, at the beginning of the wet season no later than October 1 and the end of the wet season no later than April 1, for standing water, slope stability, sediment accumulation, trash and debris, and presence of burrows;
3. Regularly perform preventative maintenance of BMPs, including removal of accumulated trash and debris, as needed to ensure proper functioning of the BMPs;
4. Identify and promptly repair damage to BMPs; and
5. Maintain a log documenting all BMP inspections and maintenance activities. The log shall be made available to the San Diego Water Board upon request.

V. PROJECT IMPACTS AND COMPENSATORY MITIGATION

A. Project Impact Avoidance and Minimization. The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable.

B. Project Impacts and Compensatory Mitigation. Unavoidable Project impacts to the unnamed tributaries to the Tijuana River within the Tijuana Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear feet)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear feet)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Permanent Impacts						
Streambed	0.22	4,492	3.31 Rehabilitation ¹	15.0:1	5,162 Rehabilitation	1.1:1

1. Riparian rehabilitation at Lonestar East mitigation site.

- C. **Compensatory Mitigation Plan Implementation.** The Applicant must fully and completely implement the Mitigation Plan; any deviations from, or revisions to, the Mitigation Plan must be pre-approved by the San Diego Water Board.
- D. **Performance Standards.** Compensatory mitigation required under this Certification shall be considered achieved once it has met the ecological success performance standards contained in the Mitigation Plan (Section VII.A., pages 23-24) to the satisfaction of the San Diego Water Board.
- E. **Compensatory Mitigation Site Design.** The compensatory mitigation site(s) shall be designed to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context support long-term sustainability in conformance with the following conditions:
1. Most of the channels through the mitigation sites shall be characterized by equilibrium conditions, with no evidence of severe aggradation or degradation;
 2. As viewed along cross-sections, the channel and buffer area(s) shall have a variety of slopes, or elevations, that are characterized by different moisture gradients. Each sub-slope shall contain physical patch types or features that contribute to irregularity in height, edges, or surface and to complex topography overall; and
 3. The mitigation sites shall have a well-developed plant community characterized by a high degree of horizontal and vertical interspersion among plant zones and layers.
- F. **Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.
- G. **Long Term Management and Maintenance.** The compensatory mitigation site(s), must be managed, protected, and maintained, in perpetuity, in conformance with the long term management plan and the final ecological success performance standards identified in the Mitigation Plan. The aquatic habitats, riparian areas, buffers and uplands that comprise the mitigation site(s) must be protected in perpetuity from land-use and maintenance activities that may threaten water quality or beneficial uses within the mitigation area(s) in a manner consistent with the following requirements:
1. Any maintenance activities on the mitigation site(s) that do not contribute to the success of the mitigation site(s) and enhancement of beneficial uses and ecological functions and services are prohibited;
 2. Maintenance activities must be limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species, and remedial

measures deemed necessary for the success of the compensatory mitigation project;

3. The Mitigation site(s) must be maintained, in perpetuity, free of perennial exotic plant species including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the mitigation site(s); and
4. If at any time a catastrophic natural event (e.g., fire, flood) causes damage(s) to the mitigation site(s) or other deficiencies in the compensatory mitigation project, the Applicant must take prompt and appropriate action to repair the damage(s) including replanting the affected area(s) and address any other deficiencies. The San Diego Water Board may require additional monitoring by the Applicant to assess how the compensatory mitigation site(s) or project is responding to a catastrophic natural event.

H. **Timing of Mitigation Site Construction.** The construction of proposed mitigation must be concurrent with project grading and completed no later than 9 months following the start of Project construction. Delays in implementing mitigation must be compensated for by an increased mitigation implementation of 10% of the cumulative compensatory mitigation for each month of delay.

I. **Mitigation Site(s) Preservation Mechanism.** **Within 90 days from the start of the issuance of this Certification**, the Applicant must provide the San Diego Water Board a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. **Within 90 days of the start of Project construction**, the Applicant must submit proof of a completed final preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. The conservation easement, deed restriction, or other legal limitation on the mitigation properties must be adequate to demonstrate that the sites will be maintained without future development or encroachment on the sites which could otherwise reduce the functions and values of the sites for the variety of beneficial uses of waters of the United States and/ or State that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the sites. The preservation mechanism must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.

VI. MONITORING AND REPORTING REQUIREMENTS

A. **Representative Monitoring.** Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.

- B. **Monitoring Reports.** Monitoring results shall be reported to the San Diego Water Board at the intervals specified in section VI of this Certification.
- C. **Monitoring and Reporting Revisions.** The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
- D. **Records of Monitoring Information.** Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- E. **California Rapid Assessment Method. California Rapid Assessment Method (CRAM)²** monitoring must be performed to assess the current and potential ecological conditions (ecological integrity) of the impact site and proposed compensatory mitigation site(s). These conditions reflect the overall level of ecological function of an aquatic resource. Prior to initiating Project construction, the Applicant shall develop a monitoring plan to implement California Rapid Assessment Method (CRAM) monitoring. The Applicant must conduct a quantitative function-based assessment of the health of streambed habitat to establish pre-project baseline conditions, set CRAM success criteria, and assess the mitigation site(s) progress towards meeting the success criteria. CRAM monitoring must be conducted prior to the start of Project construction authorized under this Certification and annually following construction completion for a period of 5 years. The annual CRAM monitoring results shall be submitted with the Annual Project Progress Report. An evaluation, interpretation, and tabulation of all CRAM assessment data shall be submitted with the Final Project Completion Report.
- F. **Geographic Information System Data.** The Applicant must submit Geographic Information System (GIS) shape files of the Project impact sites within 30 days of the start of project construction and GIS shape files of the Project mitigation sites within 30 days of mitigation installation. All impact and mitigation site shape files must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.

² The most recent versions of the California Rapid Assessment Method (CRAM) for Wetlands and additional information regarding CRAM can be accessed at <http://www.cramwetlands.org/>.

G. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing status of BMP implementation, updates to the Storm Water Data Reports, and compliance with all requirements of this Certification to the San Diego Water Board prior to **March 1** of each year following the issuance of this Certification, until the Project has reached completion. Annual Project Progress Reports must be submitted even if Project construction has not begun. The monitoring period for each Annual Project Progress Report shall be January 1st through December 31st of each year. The report must include the following information:

1. The names, qualifications, and affiliations of the persons contributing to the report;
2. The status, progress, and anticipated schedule for completion of Project construction activities including the installation and operational status of best management practices project features for erosion and storm water quality treatment;
3. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and
4. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

H. **Final Project Completion Report.** The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project**. The final report must include the following information:

1. Date of construction initiation;
2. Date of construction completion;
3. BMP installation and operational status for the Project;
4. As-built drawings of the Project, no bigger than 11"X17";
5. Photo documentation of implemented post-construction BMPs and all areas of permanent and temporary impacts, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf. In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced; and
6. An evaluation, interpretation, and tabulation of all California Rapid Assessment Method (CRAM) assessment data collected throughout the term of Project

construction in accordance with section VI.E of this Certification.

- I. **Annual Compensatory Mitigation Monitoring Report.** The Applicant must submit compensatory mitigation monitoring reports, annually, by **March 1** of each year containing sufficient information to demonstrate how the compensatory mitigation project is progressing towards accomplishing its objectives and meeting its performance standards. The monitoring period for each Annual Compensatory Mitigation Monitoring Report shall be January 1st through December 31st of each year. Mitigation monitoring reports must be submitted annually, for a period of not less than five years, sufficient to demonstrate that the compensatory mitigation project has accomplished its objectives and met ecological success performance standards contained in the Mitigation Plan. Following Project implementation the San Diego Water Board may reduce or waive compensatory mitigation monitoring requirements upon a determination that performance standards have been achieved. Conversely the San Diego Water Board may extend the monitoring period beyond five years upon a determination that the performance standards have not been met or the compensatory mitigation project is not on track to meet them.

The monitoring reports must include, but not be limited to, the following information:

1. Names, qualifications, and affiliations of the persons contributing to the report;
2. An evaluation, interpretation, and tabulation of the parameters being monitored, including the results of the Mitigation Plan monitoring program, and all quantitative and qualitative data collected in the field;
3. A description of the following mitigation site(s) characteristics:
 - a. Detritus cover;
 - b. General topographic complexity;
 - c. General upstream and downstream habitat and hydrologic connectivity; and
 - d. Source of hydrology.
4. Monitoring data interpretations and conclusions as to how the compensatory mitigation project(s) is progressing towards meeting performance standards and whether the performance standards have been met;
5. A description of the progress toward implementing a plan to manage the compensatory mitigation project after performance standards have been achieved to ensure the long term sustainability of the resource in perpetuity, including a discussion of long term financing mechanisms, the party responsible for long term management, and a timetable for future steps;
6. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;

7. Stream photo documentation, including all areas of permanent and temporary impact, prior to and after mitigation site construction. Photo documentation must be conducted in accordance with guidelines posted at http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf. In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced;
 8. A qualitative comparison to adjacent preserved streambed areas;
 9. The results of the California Rapid Assessment Method (CRAM) monitoring required under section VI.E of this Certification;
 10. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17"; and
 11. A survey report documenting boundaries of the compensatory mitigation site(s).
- J. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.
- K. **Electronic Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board
San Diego Region
Attn: 401 Certification No. R9-2013-0182:PIN 801231
2375 Northside Drive, Suite 100
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF) format, and converted to text searchable format using Optical Character Recognition (OCR). All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2013-0182:PIN 801231.

- L. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:
1. For a corporation, by a responsible corporate officer of at least the level of vice president.

2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
4. A duly authorized representative may sign applications, reports, or information if:
 - a. The authorization is made in writing by a person described above.
 - b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c. The written authorization is submitted to the San Diego Water Board Executive Officer.

If such authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the Project, a new authorization satisfying the above requirements must be submitted to the San Diego Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative.

- M. **Document Certification Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be certified as follows:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

VII. NOTIFICATION REQUIREMENTS

- A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

- B. Hazardous Substance Discharge.** Except for a discharge which is in compliance with this Certification, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego, in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Applicant is in violation of a Basin Plan prohibition.
- C. Oil or Petroleum Product Discharge.** Except for a discharge which is in compliance with this Certification, any person who without regard to intent or negligence, causes or permits any oil or petroleum product to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) such person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State oil spill contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.1). This requirement does not require reporting of any discharge of less than 42 gallons unless the discharge is also required to be reported pursuant to Clean Water Act section 311, or the discharge is in violation of a Basin Plan prohibition.
- D. Anticipated Noncompliance.** The Applicant shall give advance notice to the San Diego Water Board of any planned changes in the Project or the Compensatory Mitigation project which may result in noncompliance with Certification conditions or requirements.
- E. Transfers.** This Certification is not transferable in its entirety or in part to any person or organization except after notice to the San Diego Water Board in accordance with the following terms:
- 1. Transfer of Property Ownership:** The Applicant must notify the San Diego Water Board of any change in ownership of the Project area. Notification of change in ownership must include, but not be limited to, a statement that the Applicant has provided the purchaser with a copy of the Section 401 Water Quality Certification and that the purchaser understands and accepts the certification requirements and the obligation to implement them or be subject to liability for failure to do so; the seller and purchaser must sign and date the notification and provide such notification to the San Diego Water Board **within 10 days of the transfer of ownership.**

2. **Transfer of Mitigation Responsibility:** Any notification of transfer of responsibilities to satisfy the mitigation requirements set forth in this Certification must include a signed statement from an authorized representative of the new party (transferee) demonstrating acceptance and understanding of the responsibility to comply with and fully satisfy the mitigation conditions and agreement that failure to comply with the mitigation conditions and associated requirements may subject the transferee to enforcement by the San Diego Water Board under Water Code section 13385, subdivision (a). Notification of transfer of responsibilities meeting the above conditions must be provided to the San Diego Water Board **within 10 days of the transfer date.**
3. **Transfer of Post-Construction BMP Maintenance Responsibility:** The Applicant assumes responsibility for the inspection and maintenance of all post-construction structural BMPs until such responsibility is legally transferred to another entity. At the time maintenance responsibility for post-construction BMPs is legally transferred the Applicant must submit to the San Diego Water Board a copy of such documentation and must provide the transferee with a copy of a long-term BMP maintenance plan that complies with manufacturer specifications. The Applicant must provide such notification to the San Diego Water Board within **10 days** of the transfer of BMP maintenance responsibility.

Upon properly noticed transfers of responsibility, the transferee assumes responsibility for compliance with this Certification and references in this Certification to the Applicant will be interpreted to refer to the transferee as appropriate. Transfer of responsibility does not necessarily relieve the Applicant of this Certification in the event that a transferee fails to comply.

- F. **Discharge Commencement.** The Applicant must notify the San Diego Water Board in writing **at least 5 days prior to** the start of Project construction.

VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The California Department of Transportation is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated May 17, 2012 for the Final Tier II Environmental Impact Report/Environmental Impact Statement (FEIR) titled *State Route 11 and the Otay Mesa East Port of Entry* (State Clearing House Number 2008111038). The Lead Agency has determined the Project will have a significant effect on the environment and mitigation measures were made a condition of the Project.
- B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's FEIR and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.

- C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.
- D. The Lead Agency has adopted a mitigation monitoring and reporting program pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097 to ensure that mitigation measures and revisions to the Project identified in the FEIR are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is included and incorporated by reference in Attachment 5 to this Certification. The Applicant shall implement the Lead Agency's MMRP described in the FEIR, as it pertains to resources within the San Diego Water Board's purview. The San Diego Water Board has imposed additional MMRP requirements as specified in sections V and VI of this Certification.
- E. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision (i).

IX. SAN DIEGO WATER BOARD CONTACT PERSON


Mike Porter, Engineering Geologist
Telephone: 619-521-3967
Email: mike.porter@waterboards.ca.gov

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **State Route 11 and the Otay Mesa East Port of Entry and Restoration of the Lonestar East Mitigation Site Project** (Certification No. R9-2013-0182) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

Except insofar as may be modified by any preceding conditions, all Certification actions are contingent on (a) the discharge being limited to, and all proposed mitigation being completed in strict compliance with, the applicants' Project description and/or the description in this Certification, and (b) compliance with all applicable requirements of the Basin Plan.

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2013-0182 issued on April 20, 2015.



DAVID W. GIBSON
Executive Officer
San Diego Water Board

20 April 2015
Date

ATTACHMENT 1

DEFINITIONS

Activity - when used in reference to a permit means any action, undertaking, or project including, but not limited to, construction, operation, maintenance, repair, modification, and restoration which may result in any discharge to waters of the state.

Buffer - means an upland, wetland, and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, marine, and estuarine systems from disturbances associated with adjacent land uses.

California Rapid Assessment Method (CRAM) - is a wetland assessment method intended to provide a rapid, scientifically-defensible and repeatable assessment methodology to monitor status and trends in the conditions of wetlands for applications throughout the state. It can also be used to assess the performance of compensatory mitigation projects and restoration projects. CRAM provides an assessment of overall ecological condition in terms of four attributes: landscape context and buffer, hydrology, physical structure and biotic structure. CRAM also includes an assessment of key stressors that may be affecting wetland condition and a "field to PC" data management tool (eCRAM) to ensure consistency and quality of data produced with the method.

Compensatory Mitigation Project - means compensatory mitigation implemented by the Applicant as a requirement of this Certification (i.e., applicant -responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Discharge of dredged material – means any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States and/or State.

Discharge of fill material – means the addition of fill material into waters of the United States and/or State.

Dredged material – means material that is excavated or dredged from waters of the United States and/or State.

Ecological Success Performance Standards – means observable or measurable physical (including hydrological), chemical, and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Enhancement – means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment – means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist. Creation results in a gain in aquatic resource area.

Fill material – means any material used for the primary purpose of replacing an aquatic area with dry land or of changing the bottom elevation of a water body.

Isolated wetland – means a wetland with no surface water connection to other aquatic resources.

Mitigation Bank – means a site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing mitigation for impacts authorized by this Certification.

Preservation - means the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/ historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/ historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration - means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source within waters of the United States and/or State.

Uplands - means non-wetland areas that lack any field-based indicators of wetlands or other aquatic conditions. Uplands are generally well-drained and occur above (i.e., up-slope) from nearby aquatic areas. Wetlands can, however, be entirely surrounded by uplands. For example, some natural seeps and constructed stock ponds lack aboveground hydrological connection to other aquatic areas. In the watershed context, uplands comprise the landscape matrix in which aquatic areas form. They are the primary sources of sediment, surface runoff, and associated chemicals that are deposited in aquatic areas or transported through them.

Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate requirement of state law.

San Diego Association of Governments
State Route 11, Otay Mesa POE,
Lonestar East Mitigation
Certification No. R9-2013-0182

ATTACHMENT 2

PROJECT and MITIGATION LOCATION MAPS

Figure 1 – Regional Location Map

Figure 2 – Project Vicinity Map

Figure 3 – INDEX OF PLANS – shows BEGIN WORK and END WORK

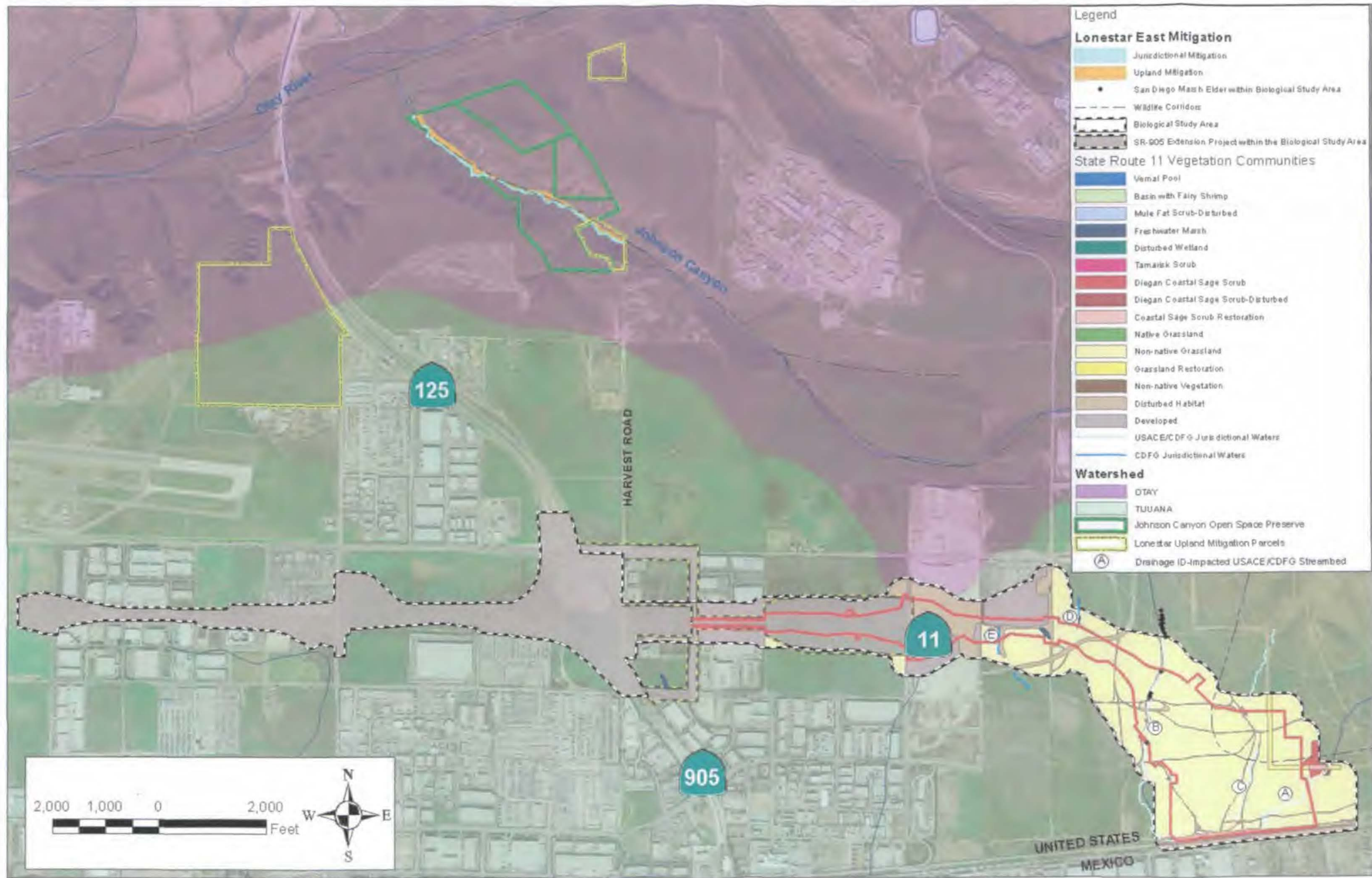


Figure 2. Project Vicinity Map.

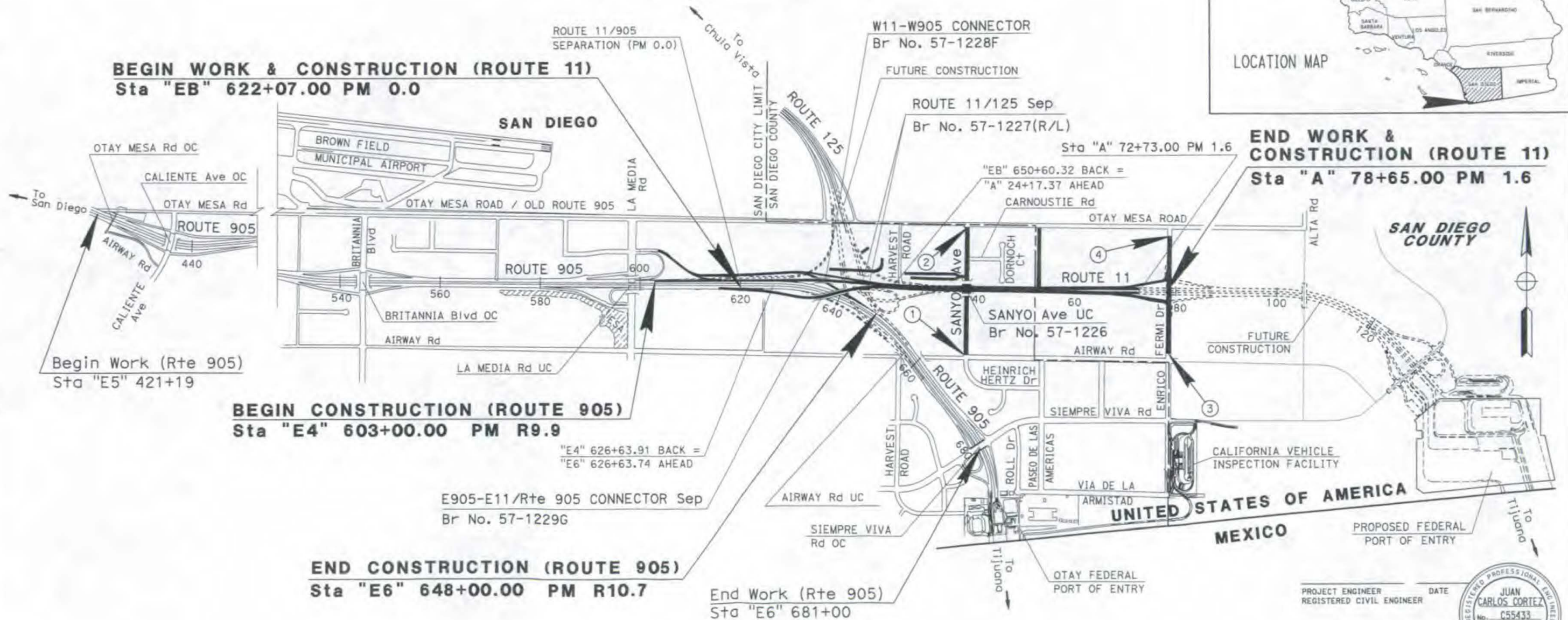
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

IN SAN DIEGO COUNTY IN AND NEAR SAN DIEGO
ON ROUTE 11 FROM ROUTE 11/905 SEPARATION TO
ENRICO FERMI DRIVE AND ON ROUTE 905 FROM
0.1 MILE EAST OF LA MEDIA ROAD UNDERCROSSING
TO 0.2 MILE WEST OF AIRWAY ROAD UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7	1	XXX



BEGIN WORK & CONSTRUCTION (ROUTE 11)
Sta "EB" 622+07.00 PM 0.0

Begin Work (Rte 905)
Sta "E5" 421+19

BEGIN CONSTRUCTION (ROUTE 905)
Sta "E4" 603+00.00 PM R9.9

"E4" 626+63.91 BACK =
"E6" 626+63.74 AHEAD

E905-E11/Rte 905 CONNECTOR Sep
Br No. 57-1229G

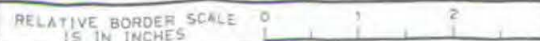
END CONSTRUCTION (ROUTE 905)
Sta "E6" 648+00.00 PM R10.7

End Work (Rte 905)
Sta "E6" 681+00

END WORK & CONSTRUCTION (ROUTE 11)
Sta "A" 78+65.00 PM 1.6

- ① Limit of Work (Sanyo Ave) Sta 295+27.50
- ② Limit of Work (Sanyo Ave) Sta 321+74.30
- ③ Limit of Work (Enrico Fermi Dr) Sta 16+68.99
- ④ Limit of Work (Enrico Fermi Dr) Sta 43+39.68

NO SCALE



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DGN FILE => 1100020519tbl001.dgn

UNIT 2781 PROJECT NUMBER & PHASE 11000205191

CONTRACT No.	11-056324
PROJECT ID	1100020519

PROJECT ENGINEER DATE
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



PROJECT MANAGER
JACQUELINE APPLETON-DEANE

DESIGN ENGINEER
MICHAEL J. WEBSTER

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

San Diego Association of Governments
State Route 11, Otay Mesa POE,
Lonestar East Mitigation
Certification No. R9-2013-0182

ATTACHMENT 3
PROJECT SITE PLANS

Figure 3.20-1 – USACE Jurisdictional Areas/Impact

DRAINAGE PLAN D-1

DRAINAGE PLAN D-2

DRAINAGE PLAN D-3

DRAINAGE PLAN D-4

DRAINAGE PLAN D-5

DRAINAGE PLAN D-6

DRAINAGE PLAN D-7

DRAINAGE PLAN D-8

DRAINAGE PLAN D-9

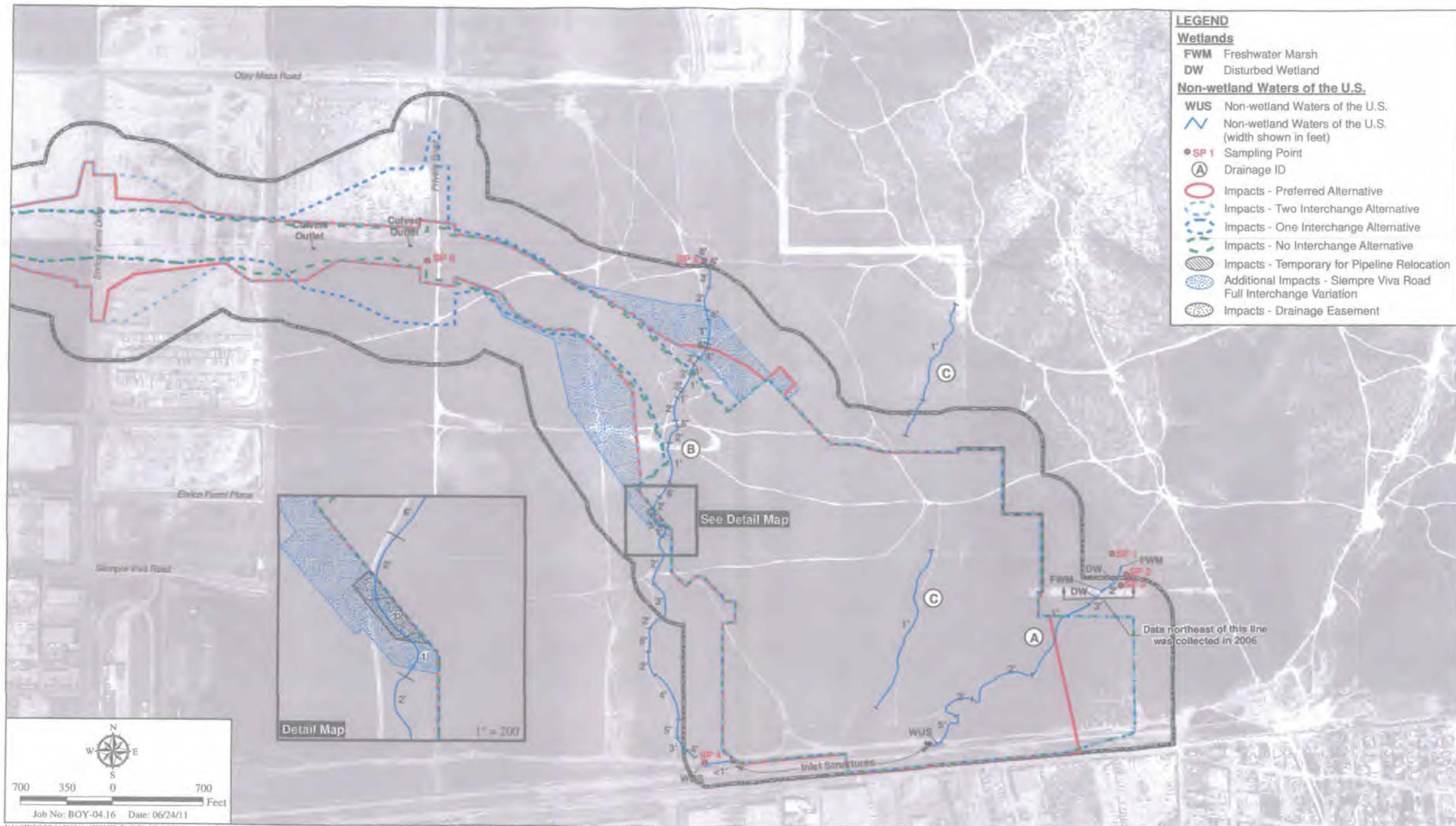
DRAINAGE PLAN D-10

DRAINAGE PLAN D-11

PLANTING PLAN PP-1

PLANTING PLAN PP-2

PLANTING PLAN PP-3



USACE Jurisdictional Areas/Impacts

STATE ROUTE 11 AND OTAY MESA EAST PORT OF ENTRY - TIER II EIR/EIS

Figure 3.20-1

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7		

REGISTERED CIVIL ENGINEER	DATE
FARDAD BEHBOODY	
No. C-61478	
Exp. 06-30-13	
CIVIL	

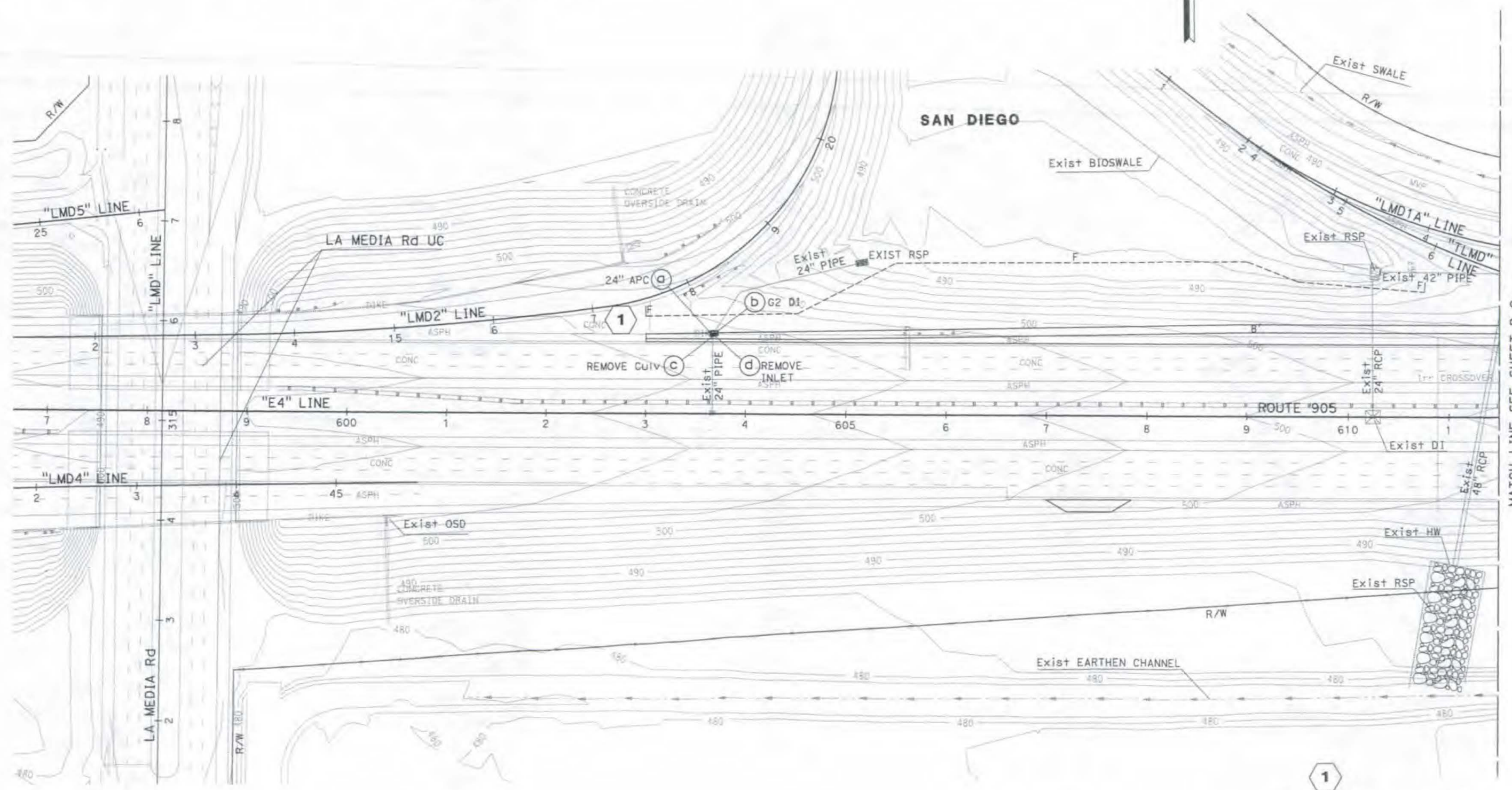
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:
 1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

- LEGEND:**
- XX DRAINAGE SYSTEM NUMBER
 - (XX) DRAINAGE UNIT
 - ROCK SLOPE PROTECTION
 - FLOW LINE

- ABBREVIATIONS**
- BIOSWALE ----- BIOFILTRATION SWALE



MATCH LINE SEE SHEET D-2

1

DRAINAGE PLAN D-1

SCALE: 1" = 50'

APPROVED FOR DRAINAGE WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans
DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
 CALCULATED/DESIGNED BY: FARDAD BEHBOODY
 CHECKED BY: MICHAEL OREIRO
 REVISED BY: FARDAD BEHBOODY
 DATE REVISED:

USERNAME => s113539
 DGN FILE => 11000205191.dgn



UNIT 2781

PROJECT NUMBER & PHASE

11000205191

DATE PLOTTED => 13-MAY-2013
 TIME PLOTTED => 15:12

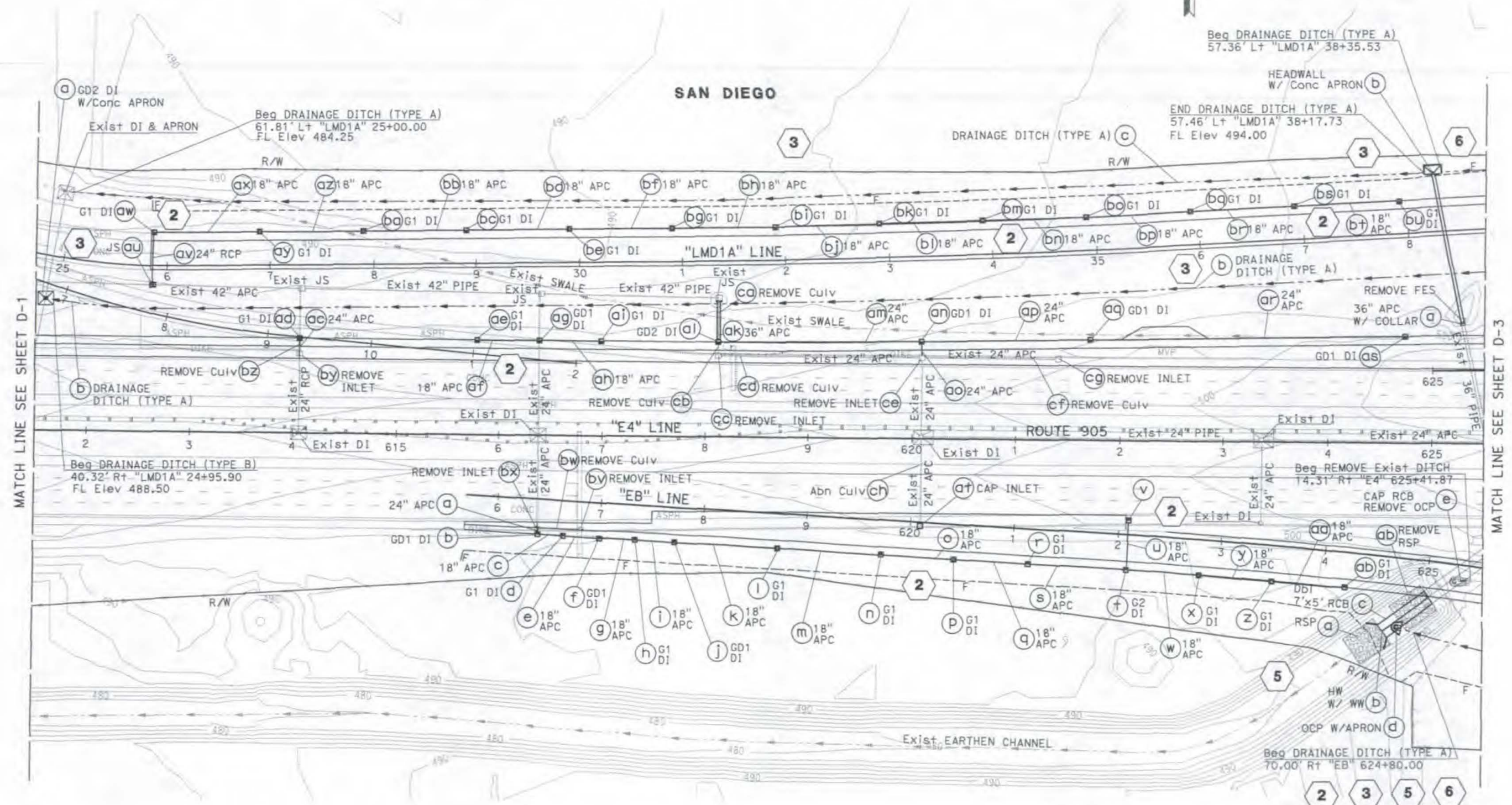
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7		

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



MATCH LINE SEE SHEET D-1

MATCH LINE SEE SHEET D-3

2 3 5 6

DRAINAGE PLAN D-2

SCALE: 1" = 50'

APPROVED FOR DRAINAGE WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
 CHECKED BY:
 DESIGNED BY:
 CALCULATED BY:
 FARDAD BEHBOODY
 MICHAEL OREIRO
 REVISIONS: REVISOR: DATE REVISION: DATE REVISION:

LAST REVISION: DATE PLOTTED => 13-MAY-2013
 01-30-13 TIME PLOTTED => 15:12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7	

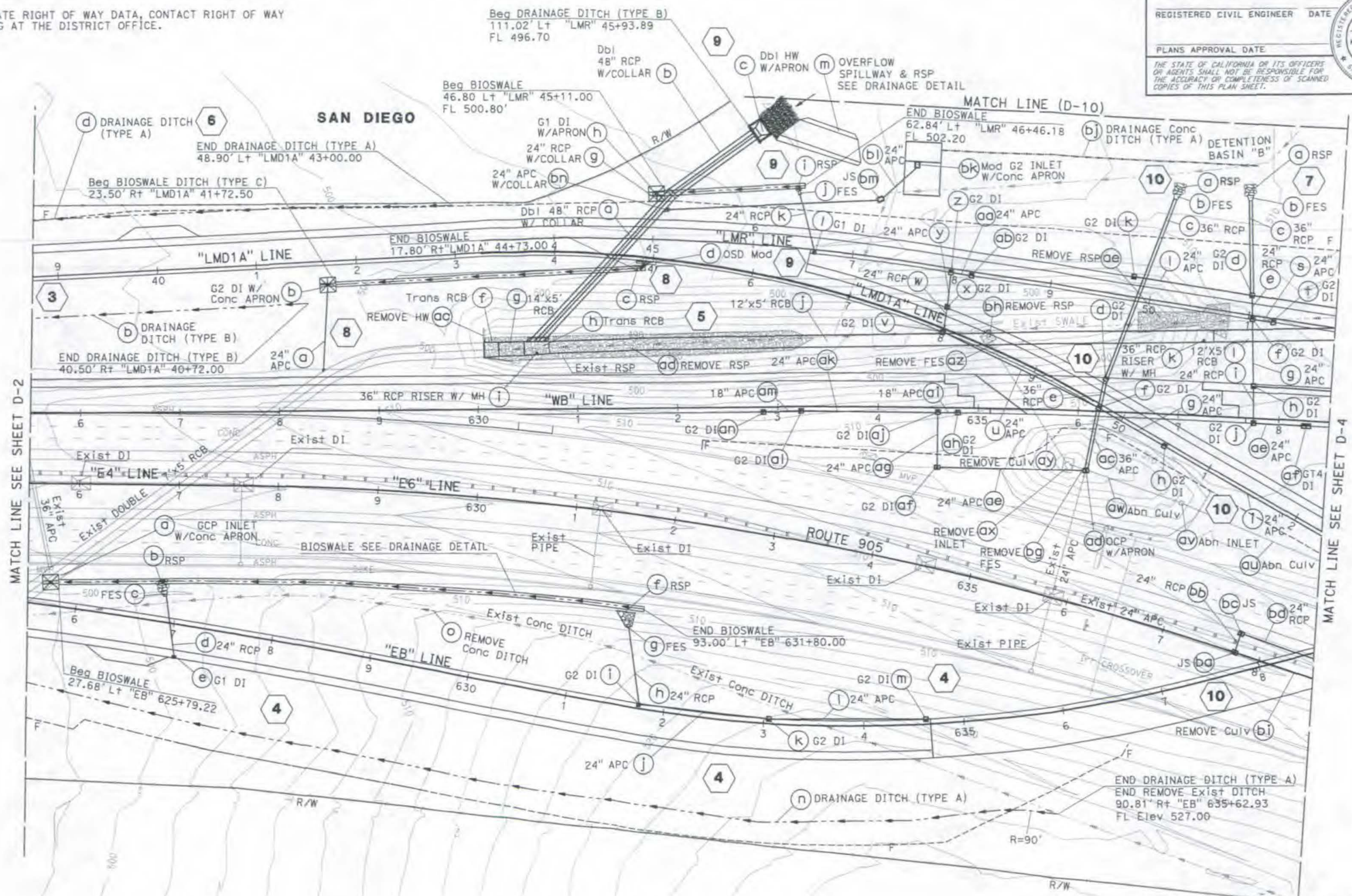
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	FARDAD BEHBOODY
No.	C-61478
Exp.	06-30-13
CIVIL	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTES:

1. FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



APPROVED FOR DRAINAGE WORK ONLY

3 4 5 6 7 8 9 10
DRAINAGE PLAN
D-3
 SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Et. Caltrans
 DESIGN
 FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
 CHECKED BY:
 CALCULATED-DESIGNED BY:
 FARDAD BEHBOODY
 MICHAEL OREIRO
 REVISIONS:
 REVISED BY:
 DATE REVISED:

DATE PLOTTED => 13-MAY-2013
 TIME PLOTTED => 15:12

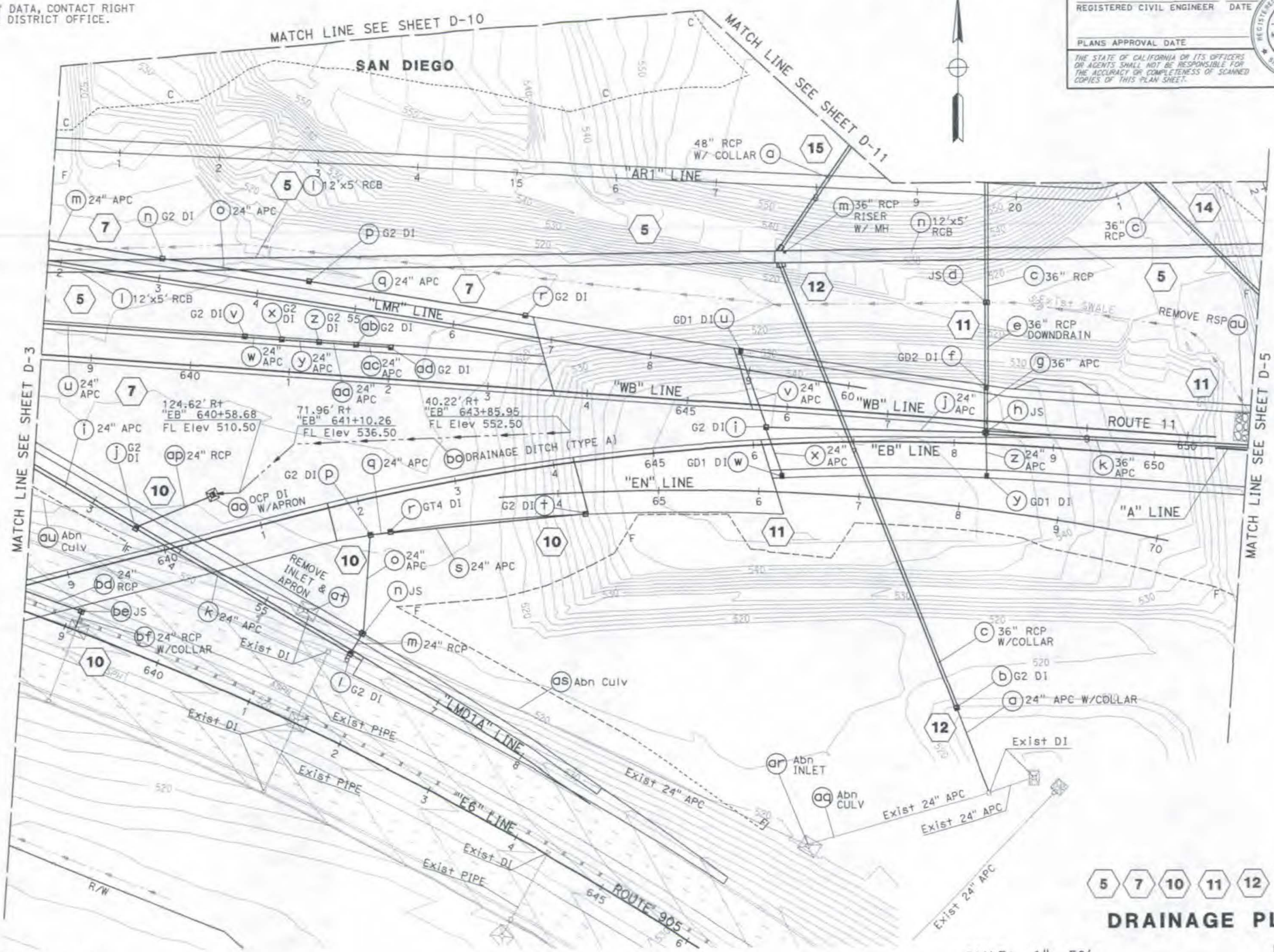
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7		

REGISTERED CIVIL ENGINEER	DATE
FARDAD BEHBOODY	
No. C-61478	
Exp. 06-30-13	
CIVIL	

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



5 7 10 11 12 14 15

DRAINAGE PLAN

D-4

SCALE: 1" = 50'

APPROVED FOR DRAINAGE WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans DESIGN

FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
CHECKED BY: MICHAEL J. WEBSTER
DESIGNED BY: MICHAEL OREIRO
REVISOR: FARDAD BEHBOODY

REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7		

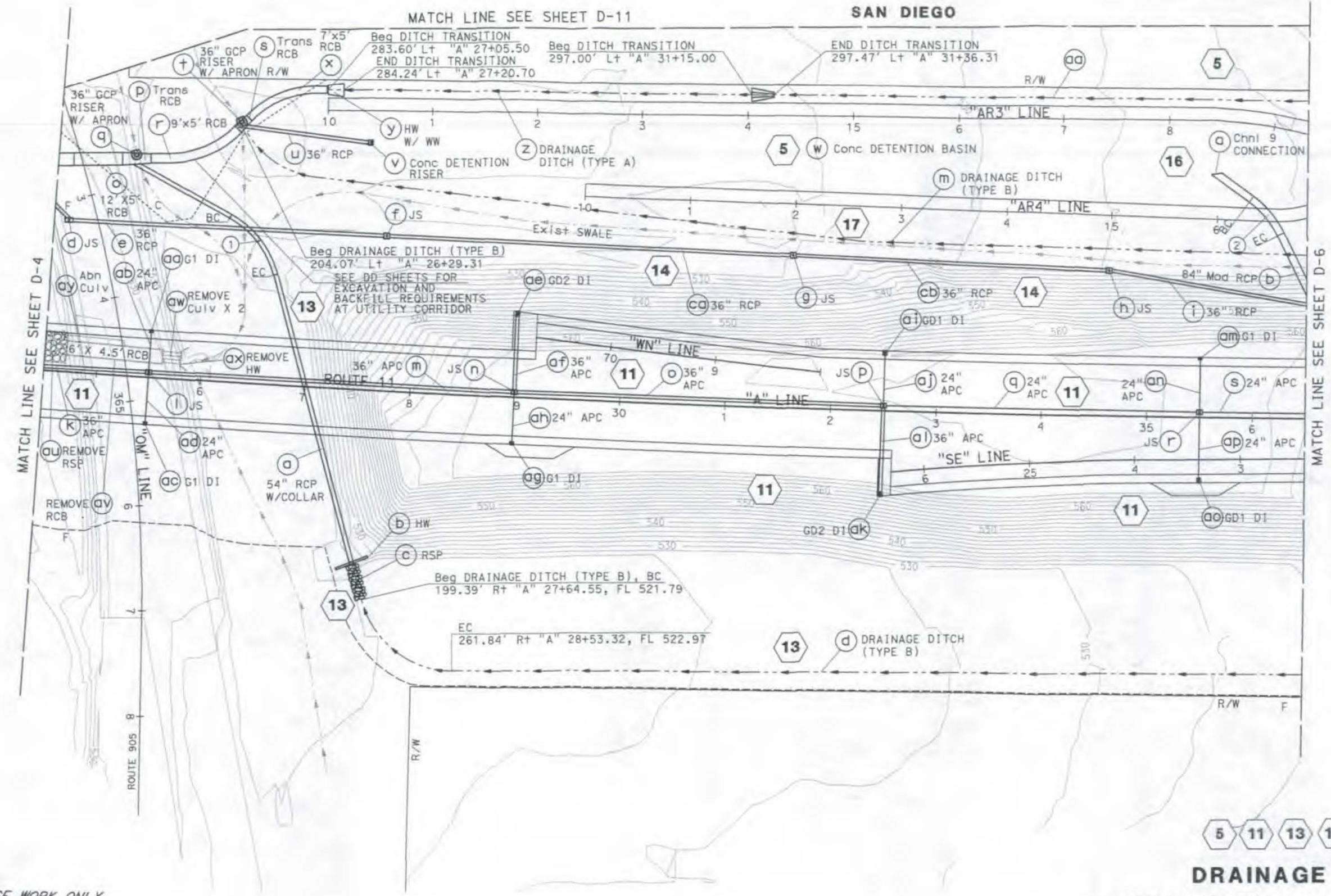
REGISTERED CIVIL ENGINEER	DATE
FARDAD BEHBOODY	
No. C-61478	
Exp. 06-30-13	
CIVIL	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA

No. (X)	R	Δ	T	L
1	90.00'	74°50'12"	68.86'	117.55'
2	90.00'	28°00'51"	22.45'	44.00'



5 11 13 14 16

DRAINAGE PLAN
D-5

SCALE: 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans DESIGN

FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
DESIGNED BY: MICHAEL OREIRO
CHECKED BY: FARDAD BEHBOODY
REVISOR: MICHAEL OREIRO
DATE REVISED: FARDAD BEHBOODY

APPROVED FOR DRAINAGE WORK ONLY

DATE PLOTTED => 13-MAY-2013
TIME PLOTTED => 15:12

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans
 DESIGN

FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
 CHECKED BY: MICHAEL OREIRO
 DESIGNED BY: FARDAD BEHBOODY
 REVISIONS: REVISED BY: DATE REVISED

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

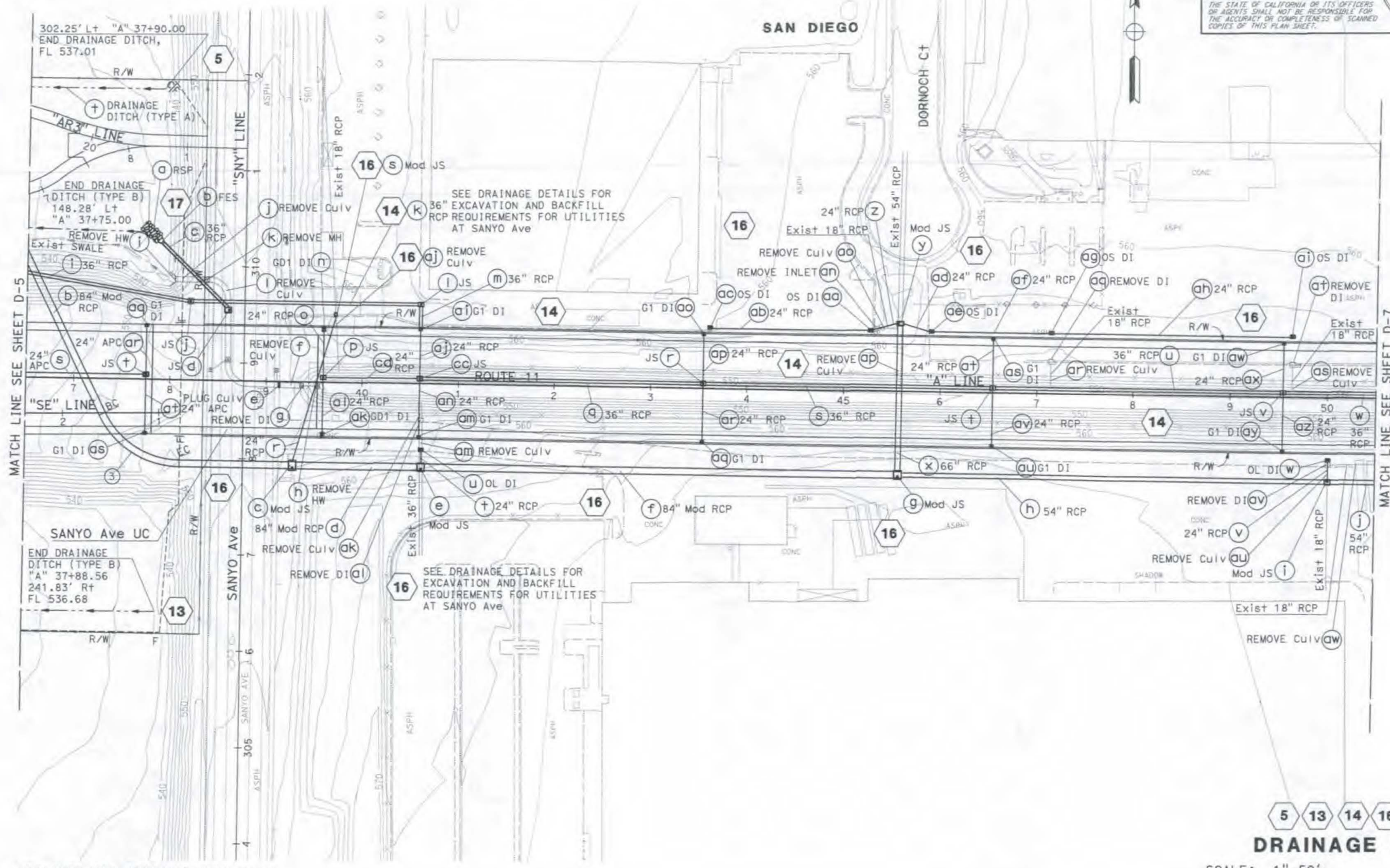
CURVE DATA

No. (X)	R	Δ	T	L
3	90.00'	63°34'23"	55.77'	99.86'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7		

REGISTERED CIVIL ENGINEER DATE
 FARDAD BEHBOODY
 No. C-61478
 Exp. 06-30-13
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



5 13 14 16 17
DRAINAGE PLAN
 SCALE: 1"=50'
 D-6

LAST REVISION DATE PLOTTED => 15-MAY-2013 01-30-13 TIME PLOTTED => 13:12

NOTE:

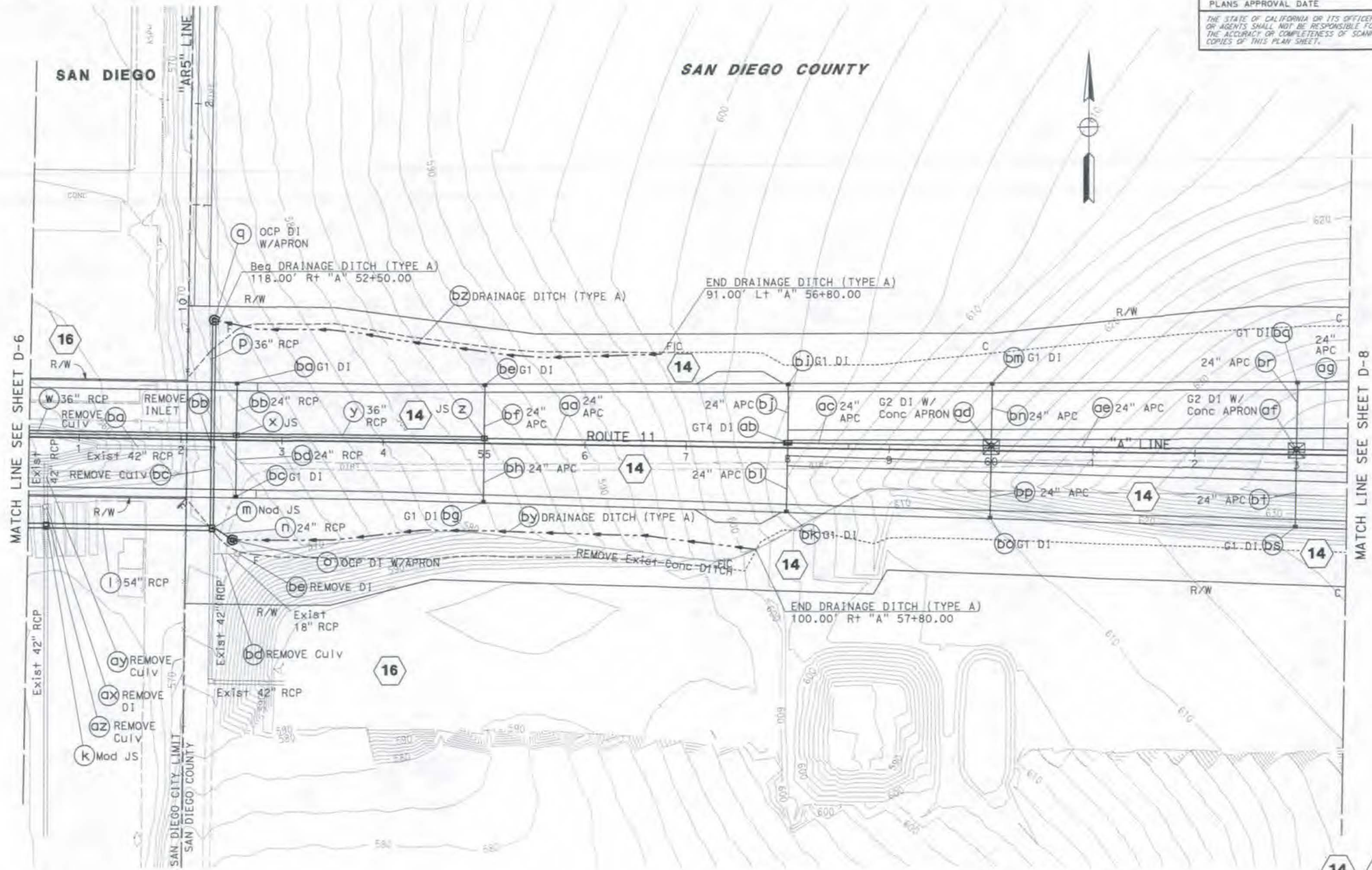
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

D1+	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7		

REGISTERED CIVIL ENGINEER DATE _____
 FARDAD BEHBOODY
 No. C-61478
 Exp. 06-30-13
 CIVIL
 STATE OF CALIFORNIA

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobans
DESIGN

FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
 CHECKED BY: MICHAEL OREIRO
 DESIGNED BY: FARDAD BEHBOODY
 REVISIONS: REVISED BY: DATE REVISIONS: DATE

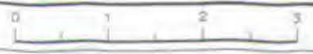
MATCH LINE SEE SHEET D-6

MATCH LINE SEE SHEET D-8

APPROVED FOR DRAINAGE WORK ONLY

DRAINAGE PLAN D-7

SCALE: 1" = 50'



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7	

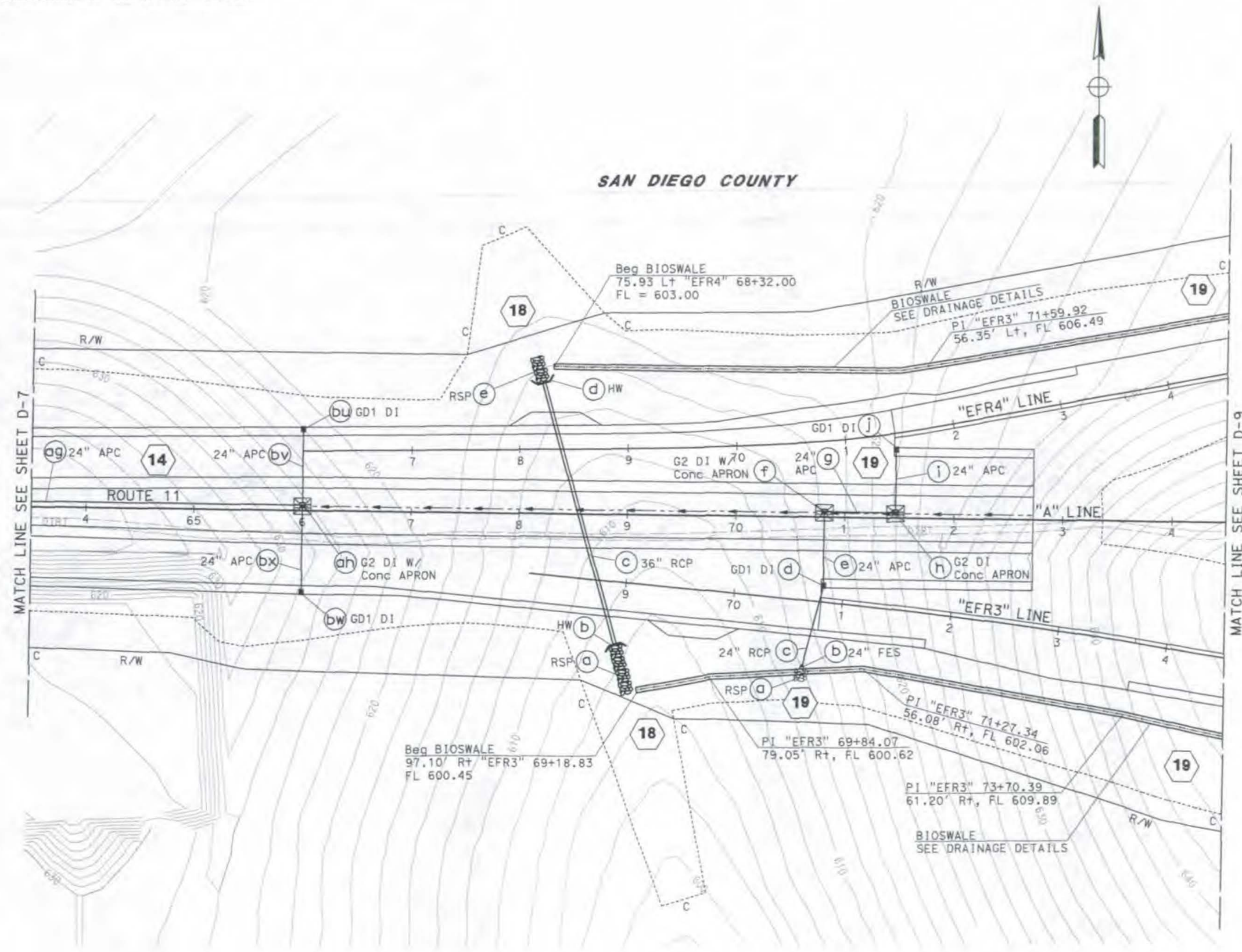
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	CHECKED BY	REVISOR	DATE
Caltrans		MICHAEL J. WEBSTER	MICHAEL OREIRO	MICHAEL OREIRO	
			FARDAD BEHBOODY	FARDAD BEHBOODY	



SAN DIEGO COUNTY



14 18 19

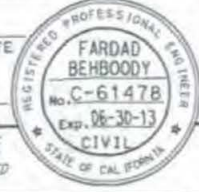
DRAINAGE PLAN

SCALE: 1"=50' **D-8**

APPROVED FOR DRAINAGE WORK ONLY

LAST REVISION DATE PLOTTED => 13-MAY-2013 01-30-13 TIME PLOTTED => 15:12

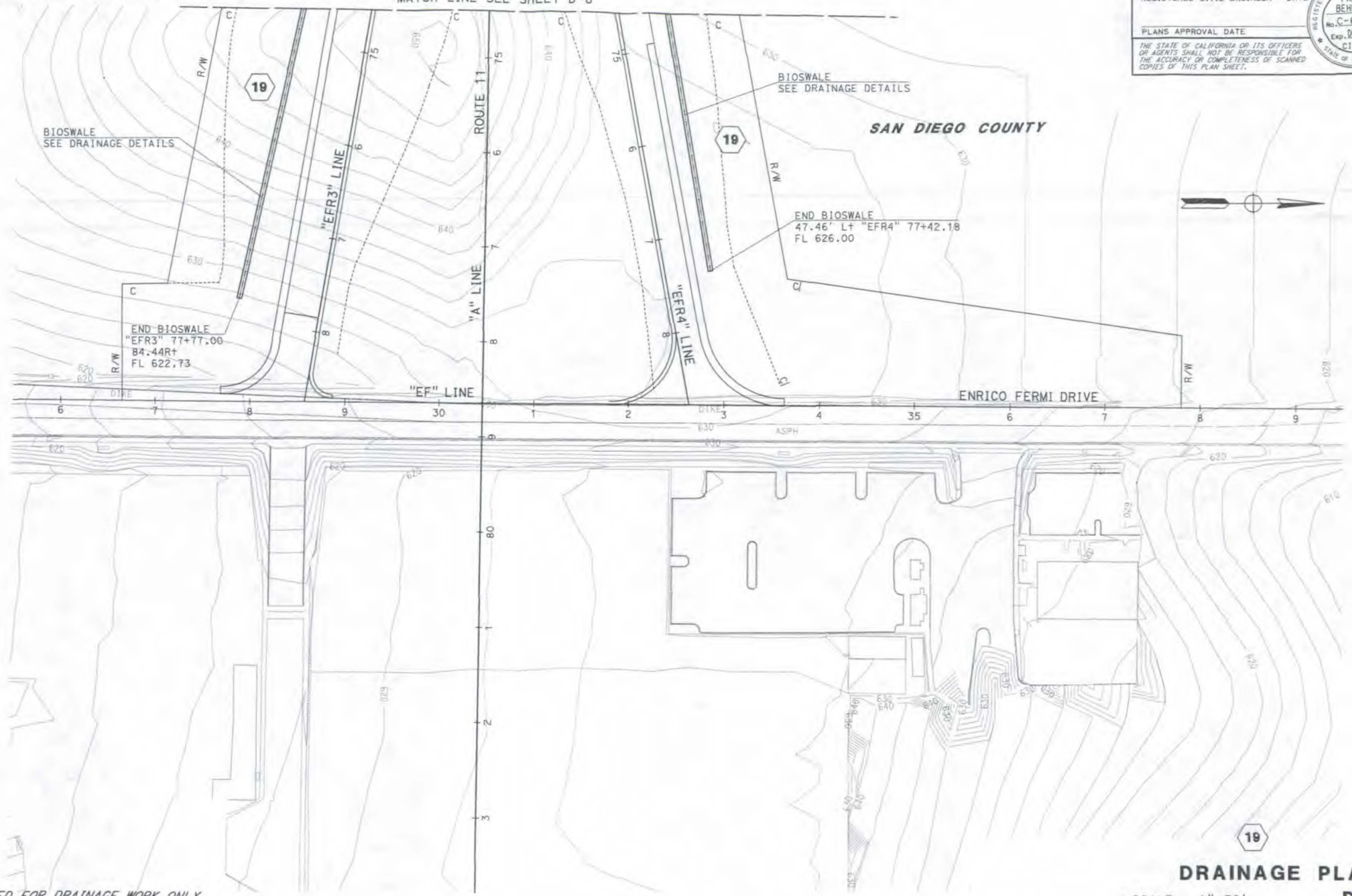
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL No. SHEETS
11	SD	11, 905	0.0/1.6, R9.9/R10.7	



REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

MATCH LINE SEE SHEET D-8



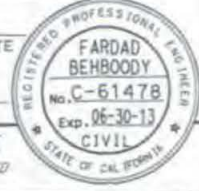
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY	REVISOR
St. Gobans		MICHAEL J. WEBSTER	MICHAEL OREIRO	FARDAD BEHBOODY	

APPROVED FOR DRAINAGE WORK ONLY

DRAINAGE PLAN
 SCALE: 1"=50'
D-9

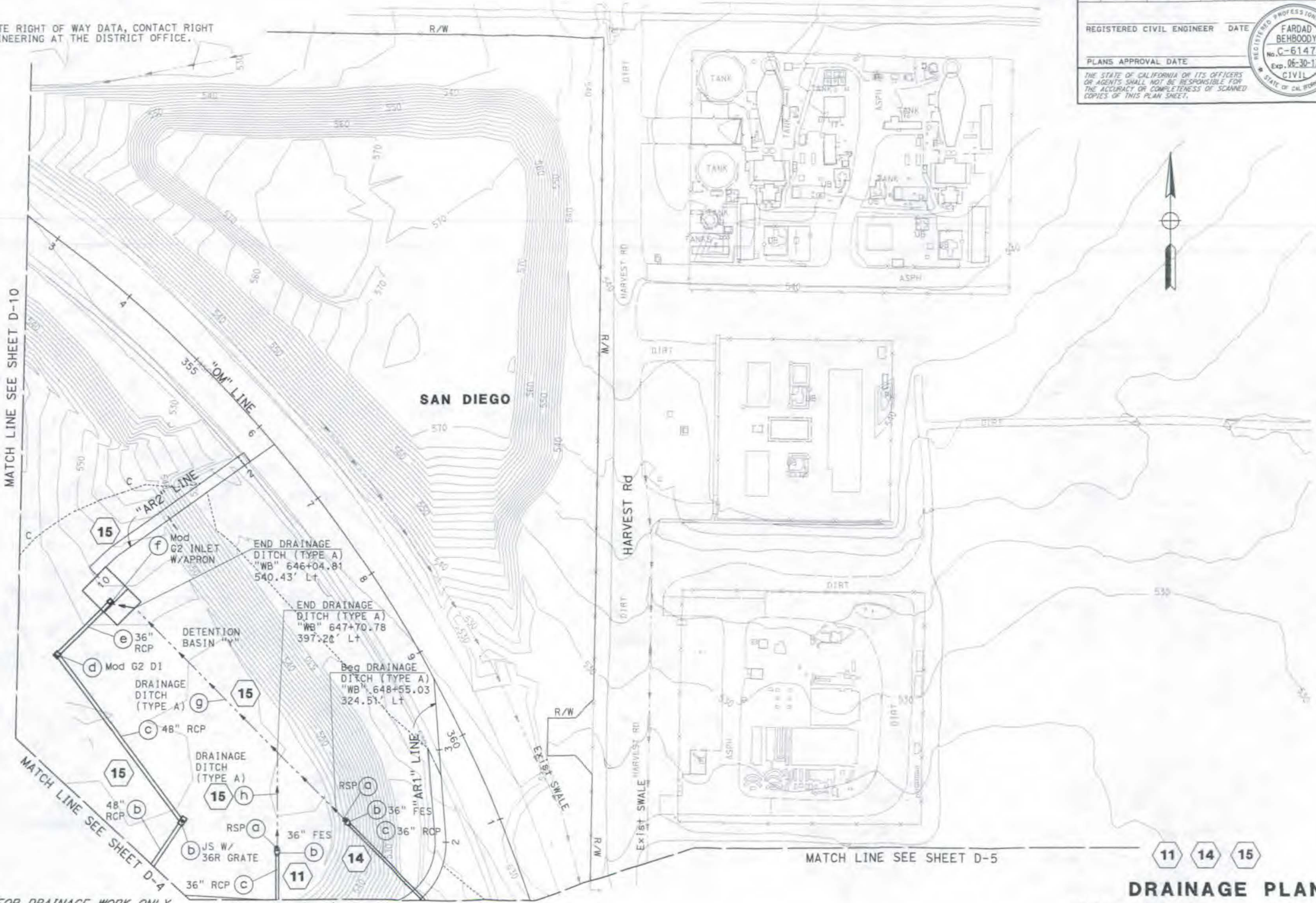
DATE PLOTTED => 13-MAY-2013
 TIME PLOTTED => 15:12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11, 905	0.0/1.6, 9.9/R10.7		



REGISTERED CIVIL ENGINEER DATE _____
 PLANS APPROVAL DATE _____
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
 FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN	FUNCTIONAL SUPERVISOR	CHECKED BY	DESIGNED BY	REVISOR
St. Gobans		MICHAEL J. WEBSTER	MICHAEL OREIRO	MICHAEL OREIRO	
			FARDAD BEHBOODY	FARDAD BEHBOODY	
					DATE REVISED

APPROVED FOR DRAINAGE WORK ONLY

11 14 15

DRAINAGE PLAN D-11

SCALE: 1" = 50'

LAST REVISION: DATE PLOTTED => 13-MAY-2013 TIME PLOTTED => 15:12

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11,905	0.0/1.6, R9.9/R10.7	XX	

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

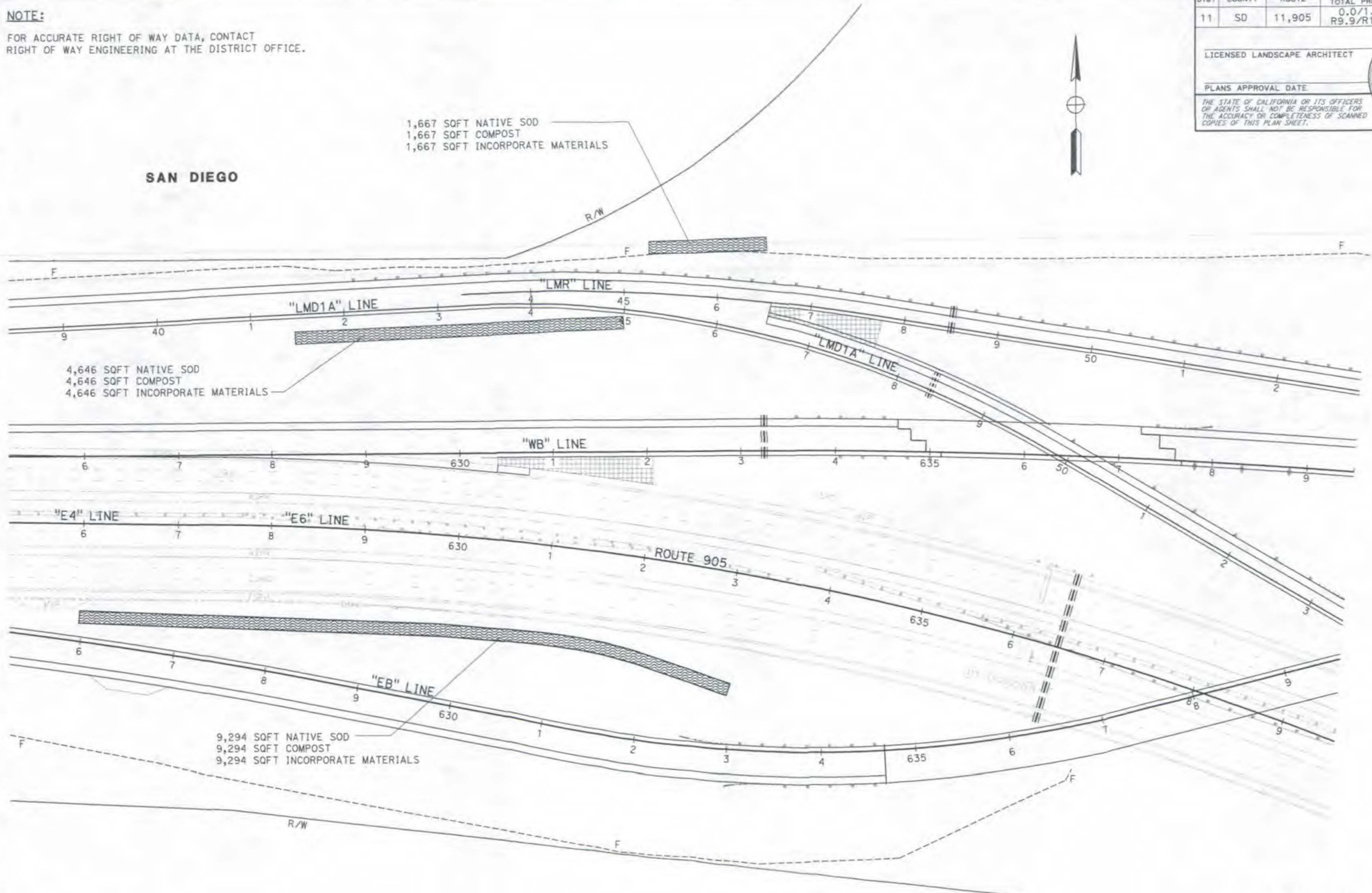


SAN DIEGO

1,667 SQFT NATIVE SOD
1,667 SQFT COMPOST
1,667 SQFT INCORPORATE MATERIALS

4,646 SQFT NATIVE SOD
4,646 SQFT COMPOST
4,646 SQFT INCORPORATE MATERIALS

9,294 SQFT NATIVE SOD
9,294 SQFT COMPOST
9,294 SQFT INCORPORATE MATERIALS



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Caltrans LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT
STEPHEN ALVAREZ

CALCULATED-DESIGNED BY
CHECKED BY

CRISTINA BLANCO-KRAUSS
STEPHEN ALVAREZ

REVISED BY
DATE REVISED

APPROVED FOR PLANTING WORK ONLY
PRELIMINARY FOR BIDDING PURPOSES ONLY

PLANTING PLAN
SCALE: 1" = 50' **PP-1**

LAST REVISION DATE PLOTTED => 13-MAY-2013 10-11-12 TIME PLOTTED => 15:13

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11,905	0.0/1.6, R9.9/R10.7	XX	

LICENSED LANDSCAPE ARCHITECT	
PLANS APPROVAL DATE	

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

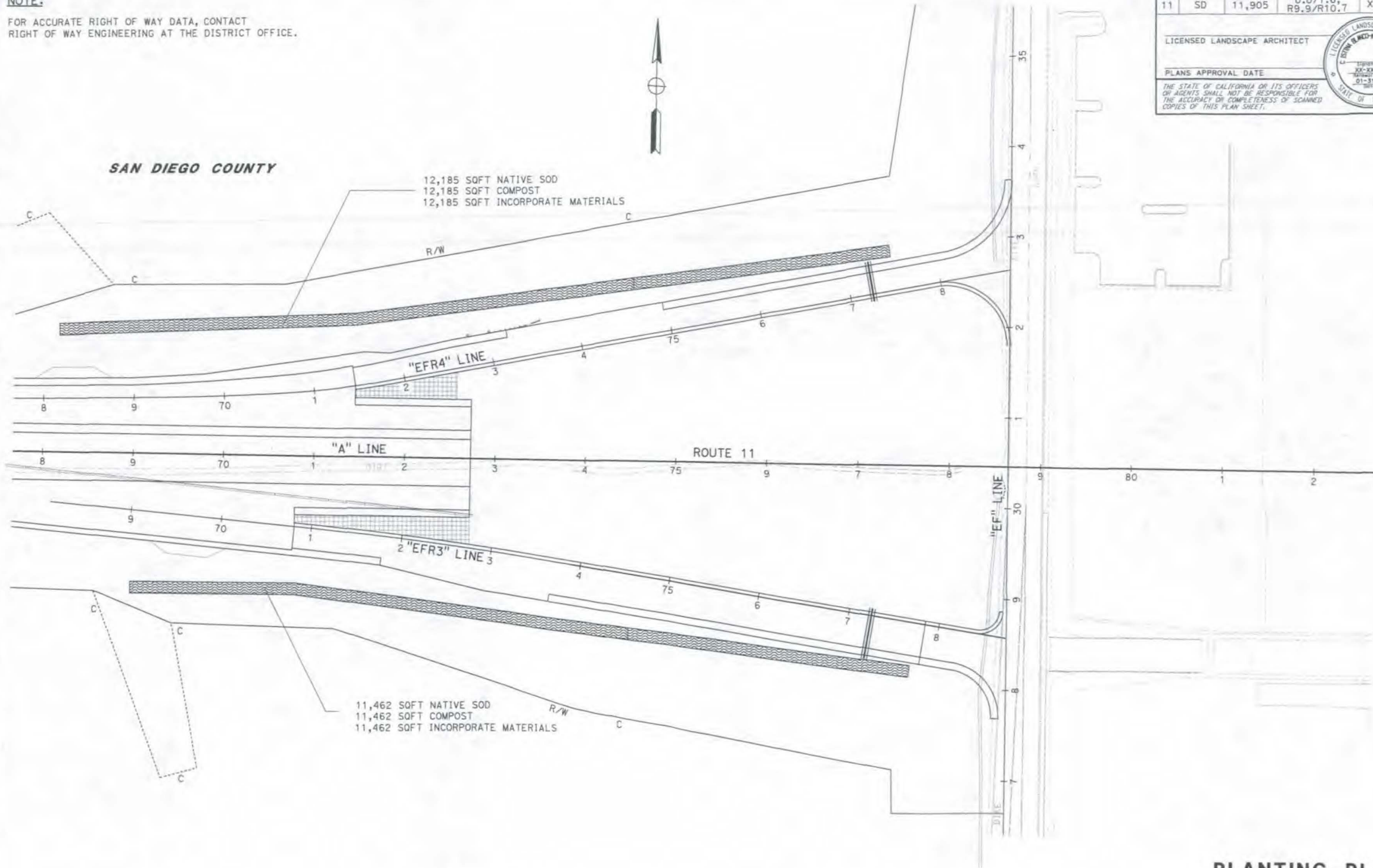
NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



SAN DIEGO COUNTY

12,185 SQFT NATIVE SOD
12,185 SQFT COMPOST
12,185 SQFT INCORPORATE MATERIALS

11,462 SQFT NATIVE SOD
11,462 SQFT COMPOST
11,462 SQFT INCORPORATE MATERIALS



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gibbons' LANDSCAPE ARCHITECTURE

SENIOR LANDSCAPE ARCHITECT
STEPHEN ALVAREZ

CALCULATED-DESIGNED BY
CHECKED BY

REVISOR BY
DATE REVISED

CRISTINA BLANCO-KRAUSS
STEPHEN ALVAREZ

APPROVED FOR PLANTING WORK ONLY
PRELIMINARY FOR BIDDING PURPOSES ONLY

PLANTING PLAN
SCALE: 1" = 50'
PP-2

DATE PLOTTED => 13-MAY-2013
TIME PLOTTED => 15:13

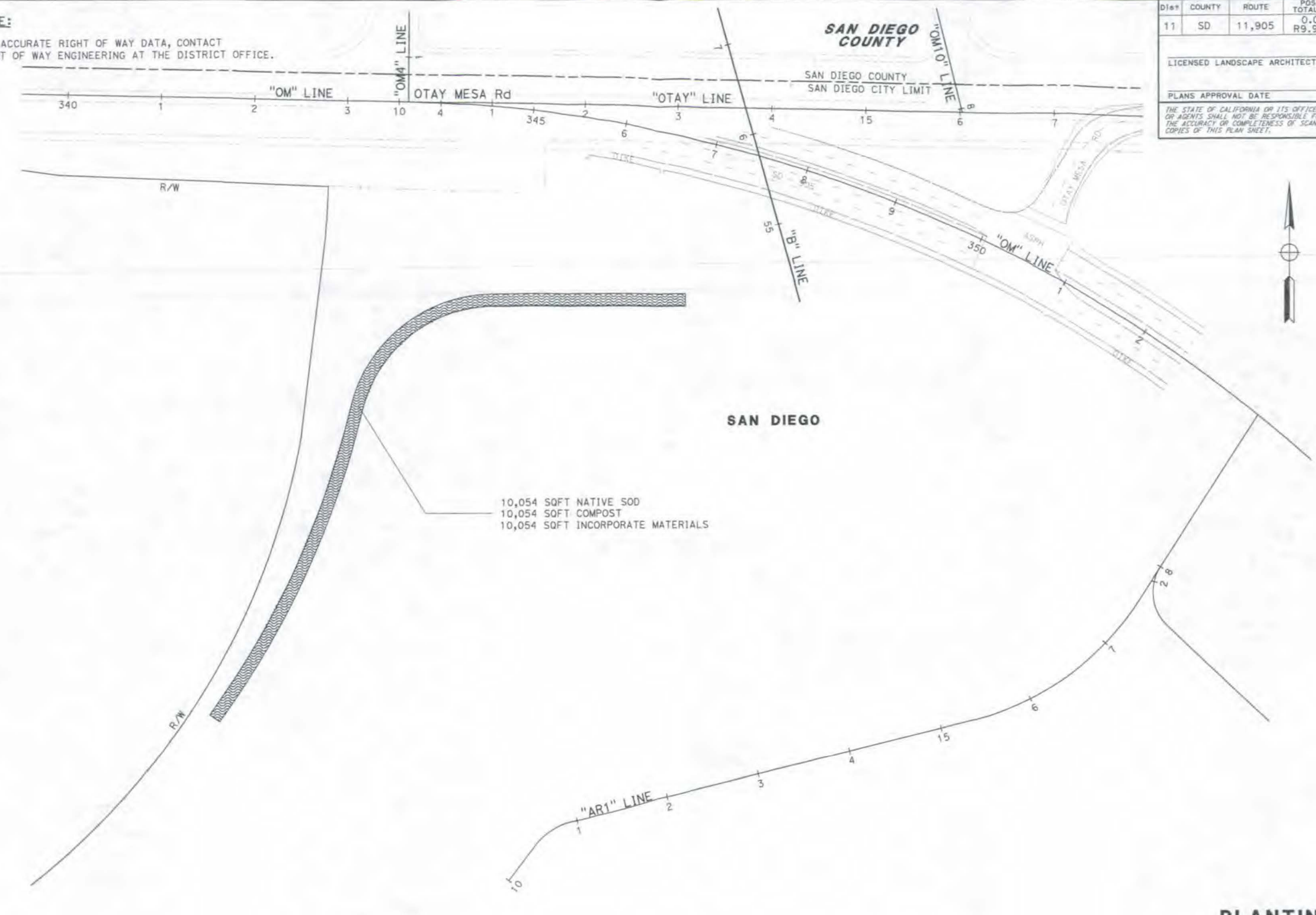
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	11,905	0.0/1.6 R9.9/R10.7	XX	

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
FOR ACCURATE RIGHT OF WAY DATA, CONTACT
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR LANDSCAPE ARCHITECT	CALCULATED-DESIGNED BY	REVISOR
St. Gobran's LANDSCAPE ARCHITECTURE	STEPHEN ALVAREZ	CHECKED BY	DATE
			REVISED BY
			DATE
			REVISOR
			DATE

APPROVED FOR PLANTING WORK ONLY
PRELIMINARY FOR BIDDING PURPOSES ONLY

PLANTING PLAN
SCALE: 1" = 50'
PP-3

DATE PLOTTED => 13-MAY-2013
TIME PLOTTED => 15:14

San Diego Association of Governments
State Route 11, Otay Mesa POE,
Lonestar East Mitigation
Certification No. R9-2013-0182

ATTACHMENT 4

MITIGATION FIGURES and PLANS

Untitled/Un-numbered Figure – Shows Lonestar East Jurisdictional Mitigation on aerial photo with lengths of upstream parcels

Figure 4. Aerial of the Lonestar East Mitigation Site

Un-numbered Figure – Title page: Project Plans for Construction Adjacent to STATE HIGHWAY in San Diego County Adjacent to Route 125 at the Terminus of Harvest Road

Un-numbered Figure - Plant Removal and Layout PR-1

Un-numbered Figure – Plant Removal and Layout PR-2

Un-numbered Figure - Plant Removal and Layout PR-3

Un-numbered Figure - Plant Removal and Layout PR-4

Un-numbered Figure - Plant Removal and Layout PR-4

Un-numbered Figure - Plant Removal and Layout PR-5

Un-numbered Figure – Planting Plan PP-1

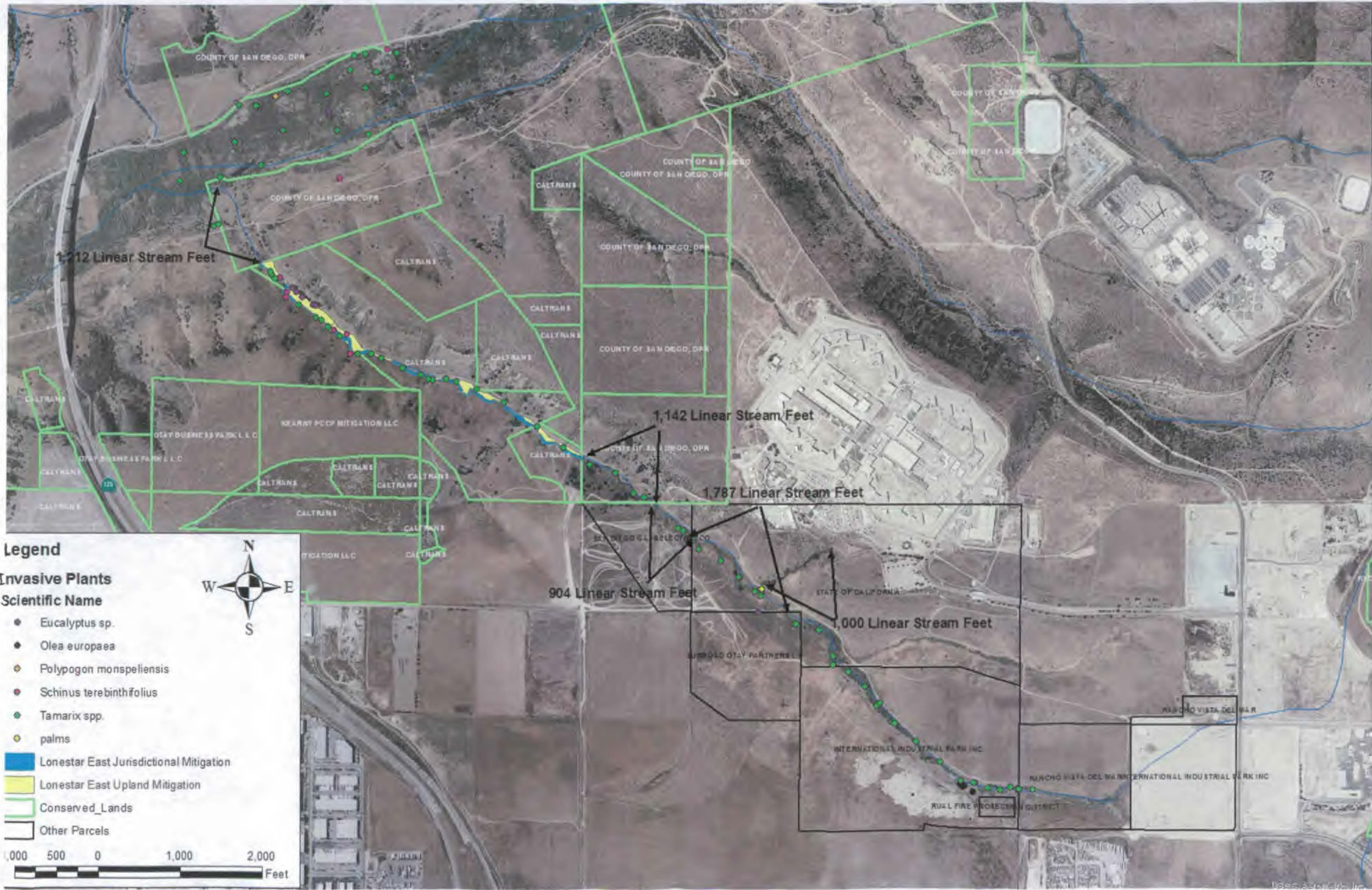
Un-numbered Figure – Planting Plan PP-2

Un-numbered Figure – Planting Plan PP-3

Un-numbered Figure – Planting Plan PP-4

Un-numbered Figure - Plant List PL-1

Un-numbered Figure - Plant List PL-2



Legend

Invasive Plants
Scientific Name

- Eucalyptus sp.
- Olea europaea
- Polypogon monspeliensis
- Schinus terebinthifolius
- Tamarix spp.
- palms

- Lonestar East Jurisdictional Mitigation
- Lonestar East Upland Mitigation
- Conserved_Lands
- Other Parcels



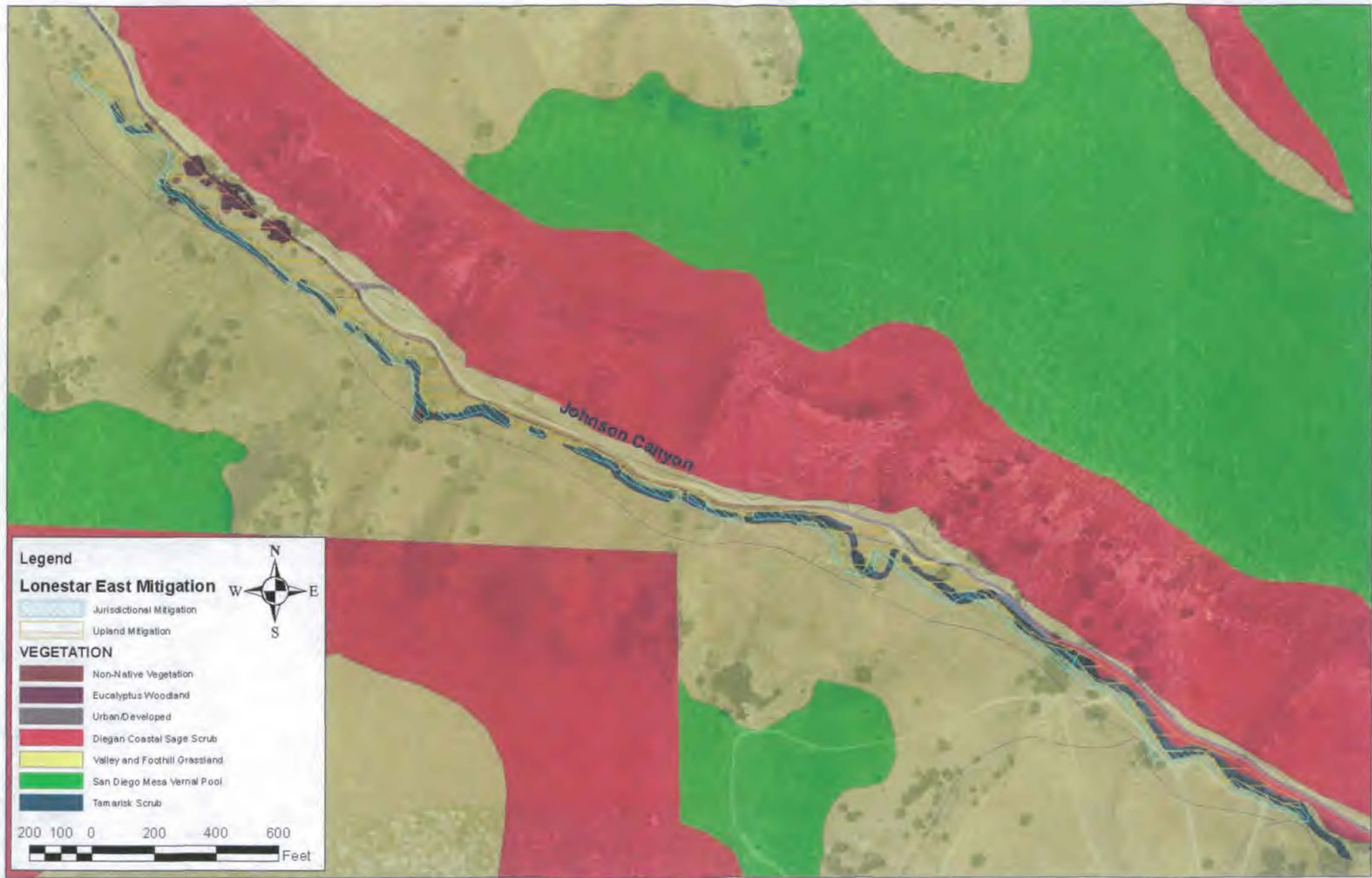


Figure 4. Aerial of the Lonestar East Mitigation Site.

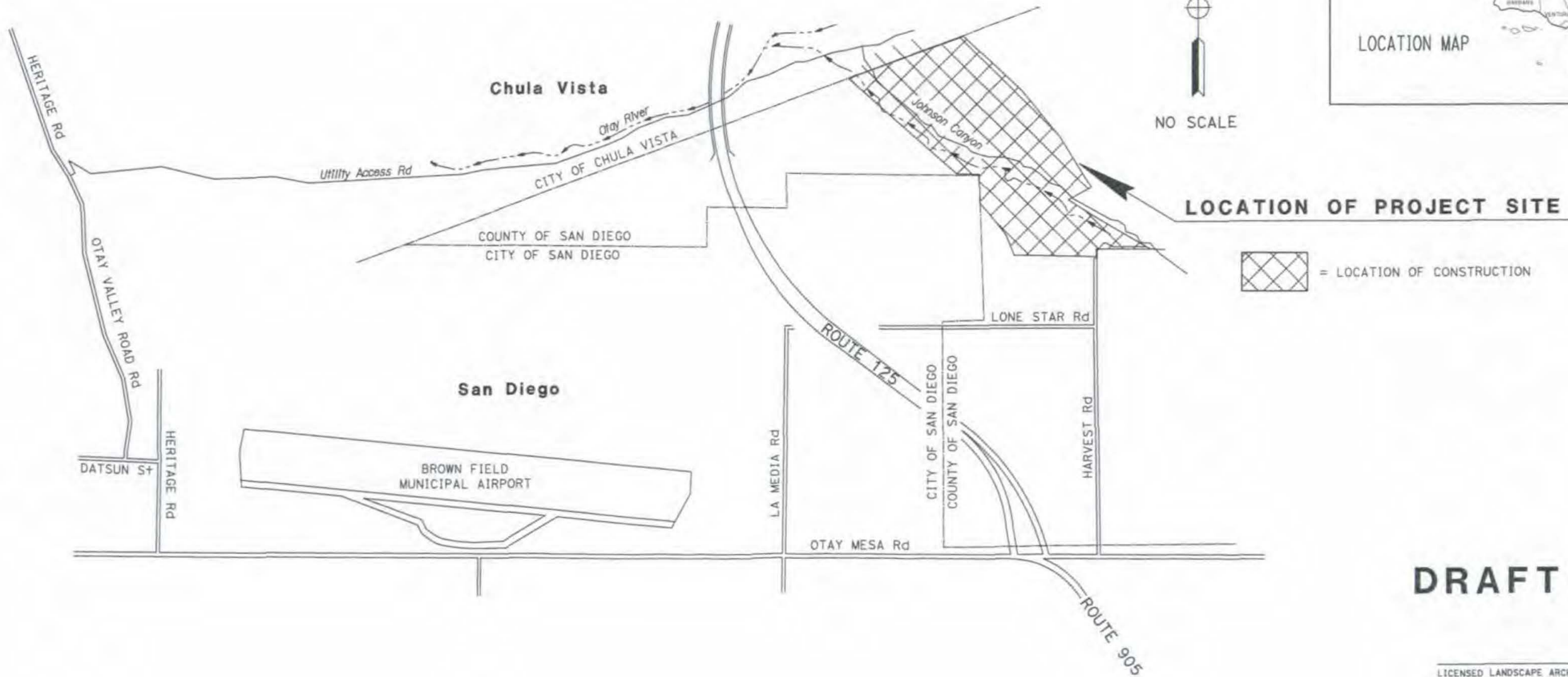
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ADJACENT TO
STATE HIGHWAY
IN SAN DIEGO COUNTY
ADJACENT TO ROUTE 125
AT THE TERMINUS OF HARVEST ROAD

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	125	3.3	1	22



INDEX OF PLANS

Sheet No.	Description
1	Title and Location Map
2-7	Erosion Control and Layout
8-12	Plant Removal
13	Plant List
14-18	Planting Plan
19-21	Details
22	Quantities



= LOCATION OF CONSTRUCTION

PROJECT MANAGER
MARK BAZA
 SENIOR ENVIRONMENTAL PLANNER
KIM T. SMITH

DRAFT

LICENSED LANDSCAPE ARCHITECT

 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

PROJECT EA	2E0501
UNIT 2730	PROJECT ID 110000752

SENIOR ENVIRONMENTAL PLANNER KIM T. SMITH	CHECKED BY MIKE CONNELLY	DESIGNED BY EDWARD THURSTON	REVISOR DATE

LEGEND

	DETHATCH
	PLANT REMOVAL
	ENVIRONMENTALLY SENSITIVE AREA (ESA)



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL No. SHEETS
11	SD	125	3.3	8 22

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE: 03-31-16

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

MATCH LINE SEE SHEET PR-2

PLANT REMOVAL PR-1

SCALE 1" = 50'

NOTE:
 SEE SHEET PR-1 FOR LEGEND.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	125	3.3	9	22

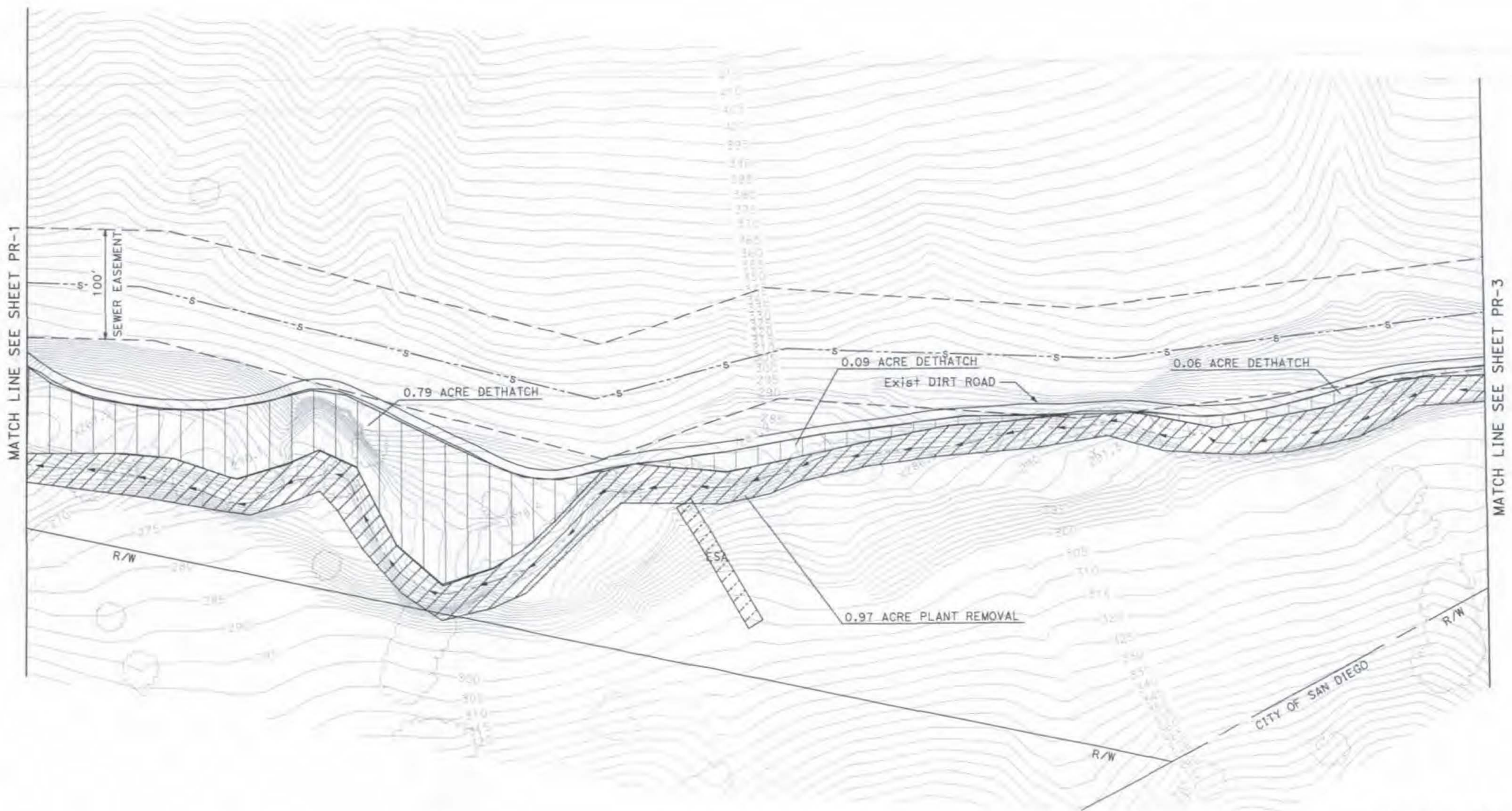
LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

03-31-16

STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



**PLANT REMOVAL
 PR-2**

SCALE 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	SENIOR ENVIRONMENTAL PLANNER	CALCULATED-DESIGNED BY	EDWARD THURSTON	REVISED BY			
Caltrans ENVIRONMENTAL	KIM T. SMITH	CHECKED BY	MIKE CONNELLY	DATE REVISED			

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE
1/8" = 10' INCHES

USERNAME => a119860
DGN FILE => 05E311R003.dgn

UNIT 2730 PROJECT ID 1100000752

**PLANT REMOVAL
PR-3**

SCALE 1" = 50'



NOTE:
SEE SHEET PR-1 FOR LEGEND.

DIST#	COUNTY	ROUTE	POST MILES	SHEET TOTAL
11	SD	125	3.3	10 / 22

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

02-21-14

EDWARD THURSTON

STATE OF CALIFORNIA

THE STATE OF CALIFORNIA, BY ITS OFFICERS, HAS REVIEWED THE ACCURACY OF THESE FIGURES AS SHOWN (COPIES OF THIS PLAN SHEET)

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gibbons ENVIRONMENTAL
 SENIOR ENVIRONMENTAL PLANNER
 KIM T. SMITH
 CALCULATED-DESIGNED BY
 CHECKED BY
 EDWARD THURSTON
 MIKE CONNELLY
 REVISED BY
 DATE REVISED

NOTE:
 SEE SHEET PR-1 FOR LEGEND.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	125	3.3	11	22

LICENSED LANDSCAPE ARCHITECT
 PLANS APPROVAL DATE
 03-31-16
 STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

**PLANT REMOVAL
 PR-4**

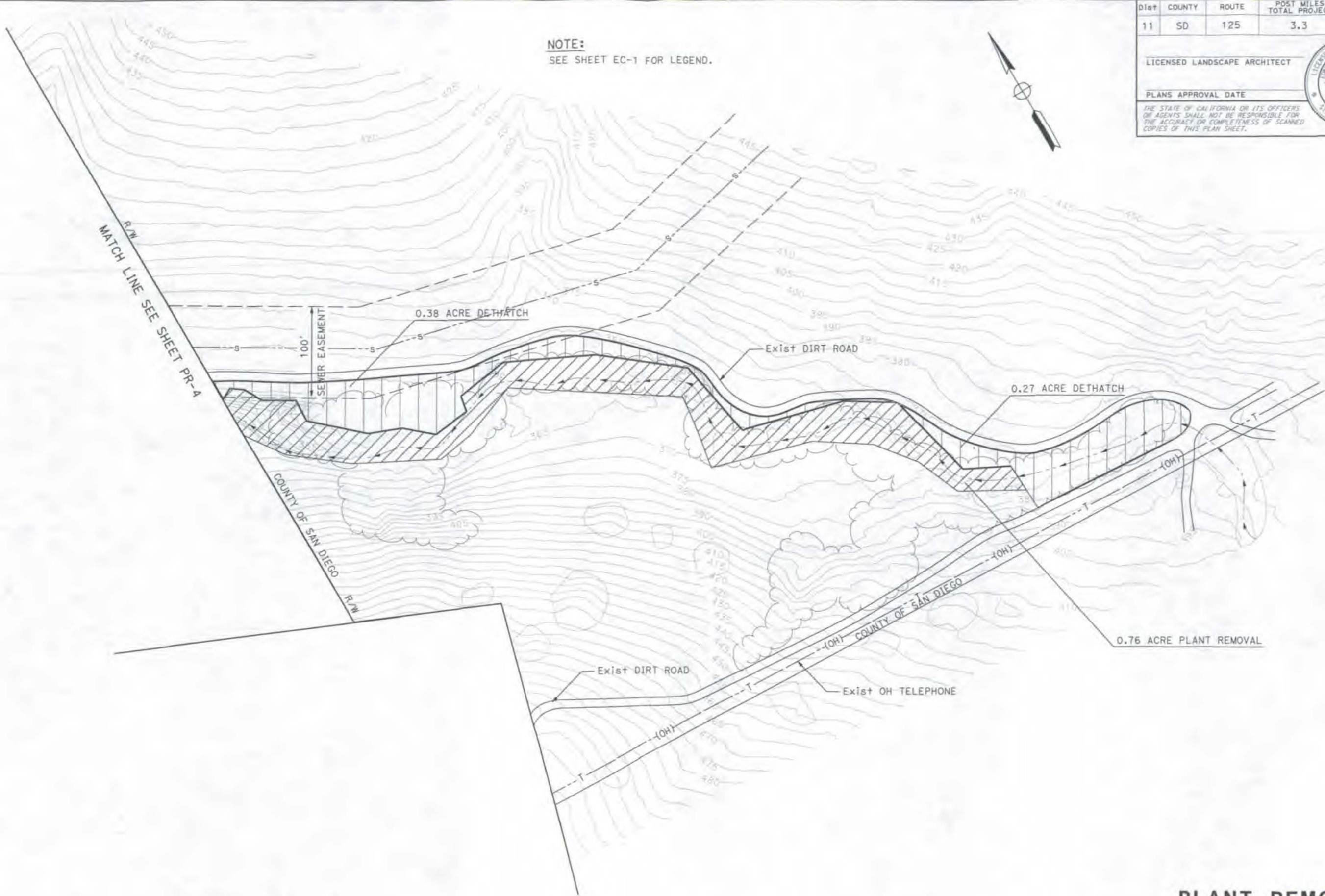
SCALE 1" = 50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans ENVIRONMENTAL
 SENIOR ENVIRONMENTAL PLANNER
 KIM T. SMITH
 CHECKED BY
 MICHELE CONNELLY
 DESIGNED BY
 EDWARD THURSTON
 REVISIONS BY
 DATE REVISIONS

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	125	3.3	12	22

LICENSED LANDSCAPE ARCHITECT
 PLANS APPROVAL DATE
 03-31-16
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

NOTE:
 SEE SHEET EC-1 FOR LEGEND.



**PLANT REMOVAL
 PR-5**

SCALE 1" = 50'

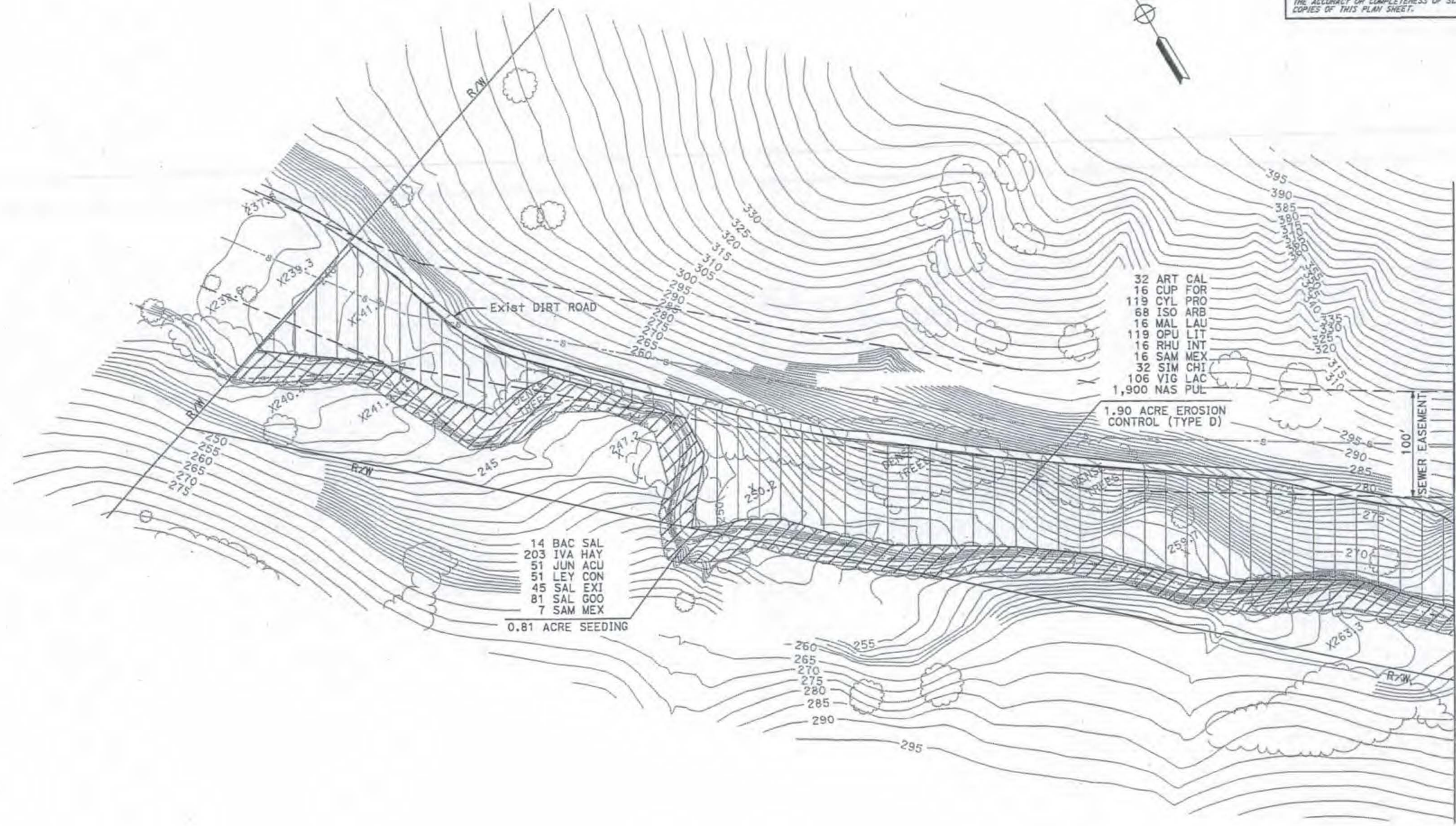
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL
Gilbrans
 SENIOR ENVIRONMENTAL PLANNER: KIM T. SMITH
 CALCULATED-DRAWN BY: EDWARD THURSTON
 CHECKED BY: MIKE CONNELLY
 REVISED BY: EDWARD THURSTON
 DATE REVISED: _____

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	125	3.1	9	16

LICENSED LANDSCAPE ARCHITECT
 EDWARD L. THURSTON
 03-31-12
 STATE OF CALIFORNIA

PLANS APPROVAL DATE: _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



- 14 BAC SAL
- 203 IVA HAY
- 51 JUN ACU
- 51 LEY CON
- 45 SAL EXI
- 81 SAL GOO
- 7 SAM MEX

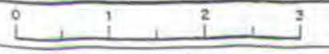
- 32 ART CAL
- 16 CUP FOR
- 119 CYL PRO
- 68 ISO ARB
- 16 MAL LAU
- 119 OPU LIT
- 16 RHU INT
- 16 SAM MEX
- 32 SIM CHI
- 106 VIG LAC
- 1,900 NAS PUL

PRELIMINARY DESIGN

PLANTING PLAN

PP-1

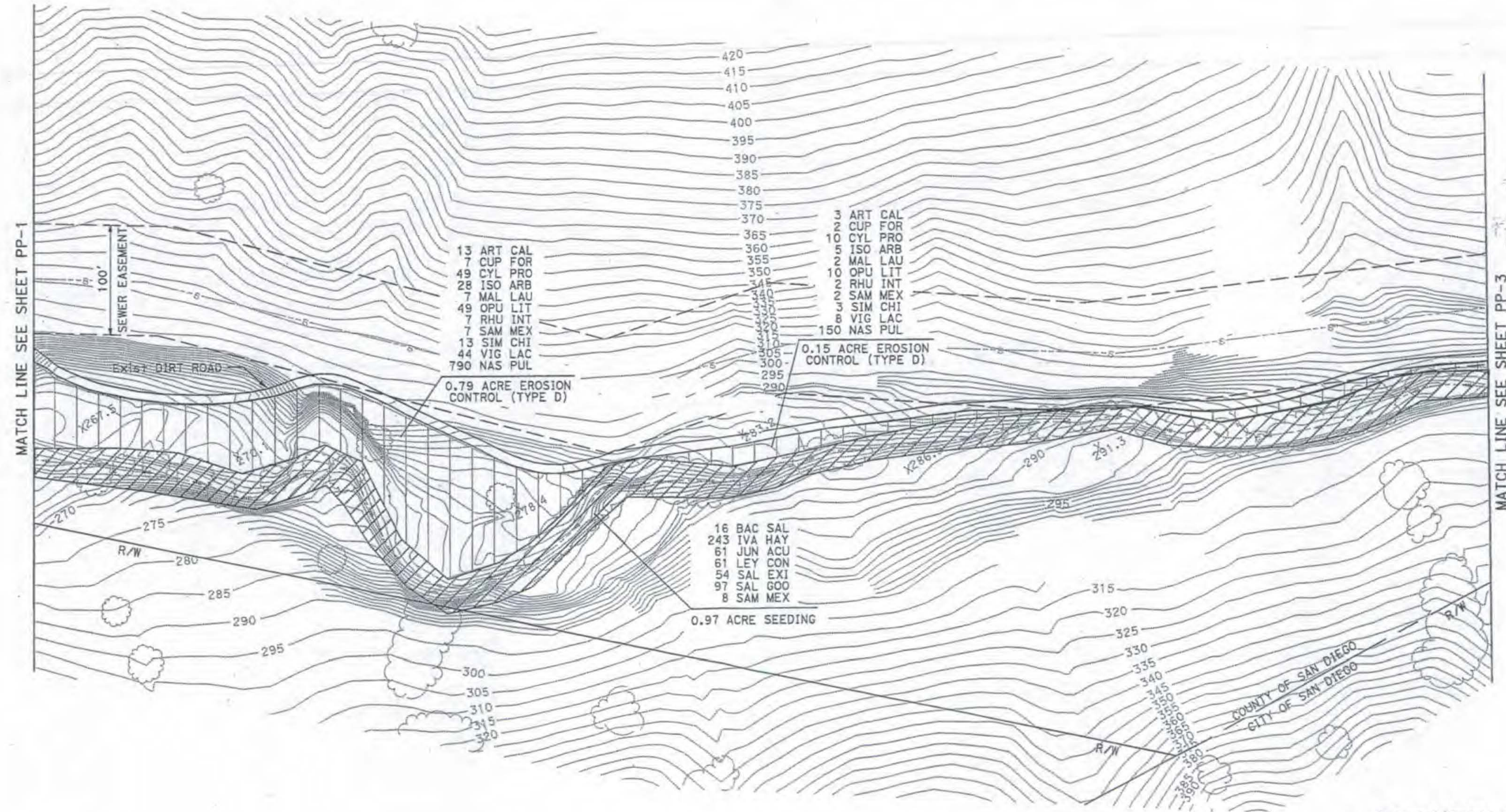
SCALE 1" = 50'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St-Gobran ENVIRONMENTAL
 SENIOR ENVIRONMENTAL PLANNER
 KIM T. SMITH
 CALCULATED-DESIGNED BY
 CHECKED BY
 EDWARD THURSTON
 MIKE CONNELLY
 REVISED BY
 DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	125	3.1	10	16

LICENSED LANDSCAPE ARCHITECT
 EDWARD L. THURSTON
 03-31-12
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



- 13 ART CAL
- 7 CUP FOR
- 49 CYL PRO
- 28 ISO ARB
- 7 MAL LAU
- 49 OPU LIT
- 7 RHU INT
- 7 SAM MEX
- 13 SIM CHI
- 44 VIG LAC
- 790 NAS PUL

- 3 ART CAL
- 2 CUP FOR
- 10 CYL PRO
- 5 ISO ARB
- 2 MAL LAU
- 10 OPU LIT
- 2 RHU INT
- 2 SAM MEX
- 3 SIM CHI
- 8 VIG LAC
- 150 NAS PUL

- 16 BAC SAL
- 243 IVA HAY
- 61 JUN ACU
- 61 LEY CON
- 54 SAL EXI
- 97 SAL GOO
- 8 SAM MEX

PRELIMINARY DESIGN

PLANTING PLAN PP-2

SCALE 1" = 50'

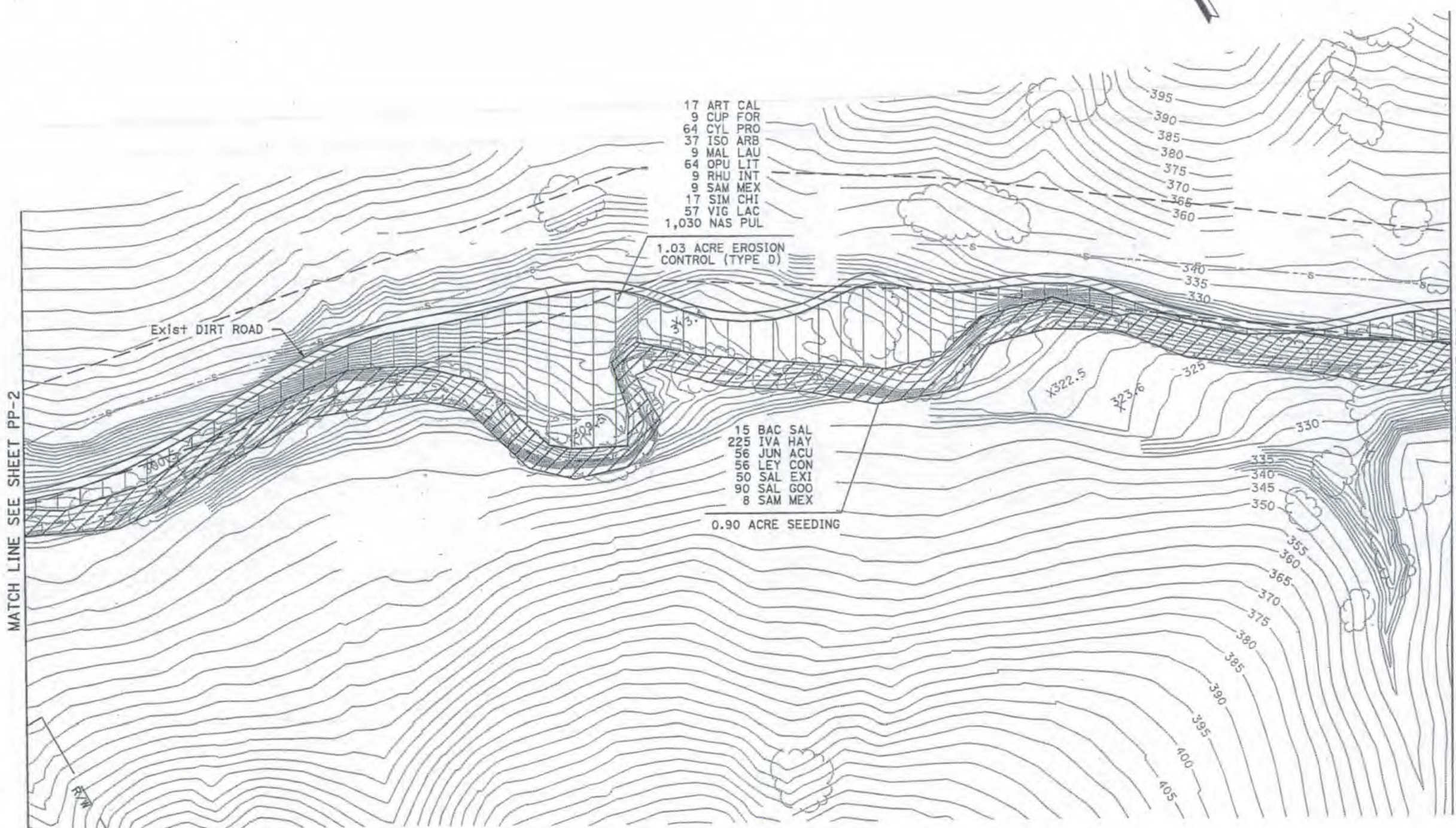
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobran's ENVIRONMENTAL
 SENIOR ENVIRONMENTAL PLANNER
 KIM T. SMITH
 CHECKED BY
 MICHAEL CONNELLY
 DESIGNED BY
 EDWARD THURSTON
 REVISIONS
 REVISION NO. DATE REVISION BY

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	125	3.1	11	16

LICENSED LANDSCAPE ARCHITECT
 EDWARD E. THURSTON
 LICENSE NO. 07-31-12
 EXPIRES 07-31-12
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

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PRELIMINARY DESIGN

PLANTING PLAN PP-3

SCALE 1" = 50'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
St. Gobran's ENVIRONMENTAL
 SENIOR ENVIRONMENTAL PLANNER
 KIM T. SMITH
 CALCULATED-DESIGNED BY
 CHECKED BY
 EDWARD THURSTON
 MIKE CONNELLY
 REVISED BY
 DATE REVISED

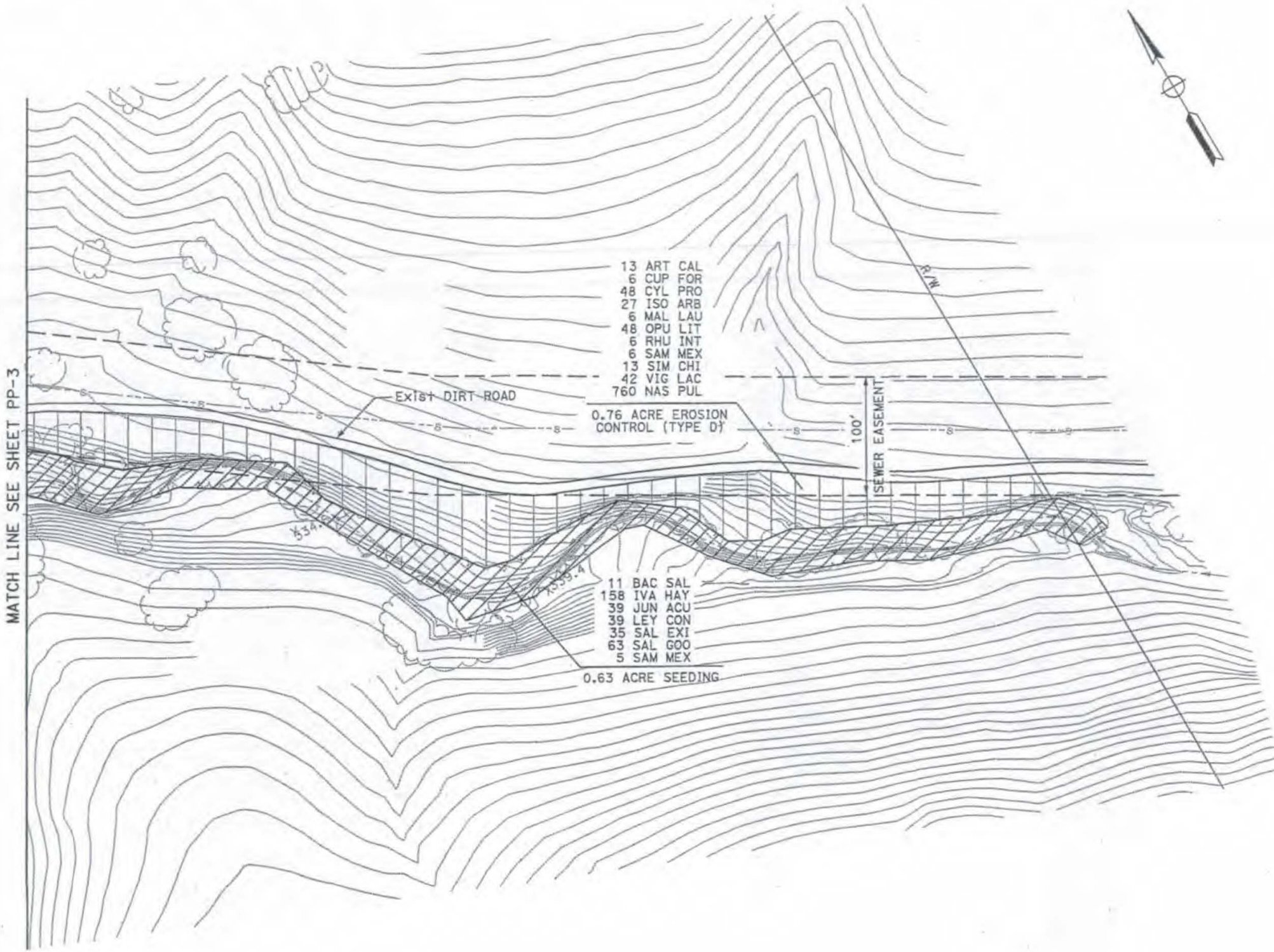
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	125	3.1	12	16

LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

02-31-12

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PRELIMINARY DESIGN

PLANTING PLAN PP-4

SCALE 1" = 50'

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	125	3.1	2	16



LICENSED LANDSCAPE ARCHITECT

PLANS APPROVAL DATE

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ABBREVIATIONS:

- | | |
|------------------------------|--------------------------------|
| AMEND — amendment | Max — maximum |
| B & B — balled and burlapped | Min — minimum |
| Dia — diameter | NCN — no common name |
| EA — each | No. — number |
| LB — pound | Pkt — packet |
| Oz — ounce | PLT ESTB — plant establishment |
| Ft — foot/feet | Pvmt — pavement |
| SQFT — square feet | R/W — right of way |
| SQYD — square yard | SF — state furnished |
| CF — cubic feet | TRVD — traveled |
| CY — cubic yard | |

PLANT LIST AND PLANTING SPECIFICATIONS

PLANT GROUP	PLANT No.	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QUANTITY EACH	HOLE SIZE (INCH)		BASIN TYPE	HUMATE (Oz) ①	SOIL AMEND (CF) ①	COMMERCIAL FERTILIZER ①		BASIN MULCH (CF)	STAKING	PLANTING LIMITS						REMARKS			
							DIO	DEPTH				PLANTING	PLT ESTB			MINIMUM DISTANCE (FT) FROM									
																TRVD WAY	PVMT	FENCE	WALL	PAVED DITCH	EARTH DITCH		ON CENTER (FT)		
A	1		ARTEMISIA CALIFORNICA	COASTAL SAGEBRUSH	No.1	78	12	18	1	1.0	0.05	1 Pkt	-	2.0	-	-	-	-	-	-	-	15	SHRUB ⑥		
	2		BACCHARIS SALICIFOLIA	MULE FAT	No.1	56	12	18	1	1.0	0.05	1 Pkt	-	-	-	-	-	-	-	-	-	-	15	SHRUB ⑥	
	3		CUPRESSUS FORBESII	TECATE CYPRESS	No.1	40	12	18	1	1.0	0.05	1 Pkt	-	2.0	-	-	-	-	-	-	-	-	25	TREE ⑥	
	4		CYLINDROPUNTIA PROLOFERA	COAST CHOLLA	No.1	290	12	18	1	1.0	0.05	1 Pkt	-	2.0	-	-	-	-	-	-	-	-	8	SHRUB ⑦	
	5		ISOMERIS ARBOREA	BLADDERPOD	No.1	165	12	18	1	1.0	0.05	1 Pkt	-	2.0	-	-	-	-	-	-	-	-	20	SHRUB ⑥	
	6		IVA HAYSIANA	SAN DIEGO MARSH ELDER	No.1	829	12	18	1	1.0	0.05	1 Pkt	-	-	-	-	-	-	-	-	-	-	-	-	PERENNIAL ⑥
	7		JUNCUS ACUTUS	SPINY RUSH	No.1	207	12	18	1	1.0	0.05	1 Pkt	-	-	-	-	-	-	-	-	-	-	-	-	PERENNIAL ⑥
	8		LEYMUS CONDENSATUS	GIANT WILDRYE	No.1	207	12	18	1	1.0	0.05	1 Pkt	-	-	-	-	-	-	-	-	-	-	-	-	PERENNIAL ⑥
	9		MALOSMA LAURINA	LAUREL SUMAC	No.1	40	12	18	1	1.0	0.05	1 Pkt	-	2.0	-	-	-	-	-	-	-	-	15	SHRUB ⑥	
	10		OPUNTIA LITTORALIS	COAST PRICKLY PEAR	No.1	290	12	18	1	1.0	0.05	1 Pkt	-	2.0	-	-	-	-	-	-	-	-	8	SHRUB ⑦	

APPLICABLE WHEN CIRCLED:

- ① - Quantities shown are "per plant" unless shown as SQFT or SQYD application rates
- 2 - Basin mulch is included with mulch quantities shown on Planting Plan
- ③ - Sufficient to receive root ball and amendments if required
- 4 - See Detail
- 5 - See Special Provisions

- ⑥ - Randomly mixed throughout entire designated area.
- ⑦ - Plant in groups of 25.
- ⑧ - The top of cutting shall be marked with a water based marker. The marked end shall not be planted in the ground.
- ⑨ - Randomly plant in groups of 10 throughout designated area.

NOTE:

Underlined portions of botanical name indicate abbreviations used on Planting Plans.

PRELIMINARY DESIGN PLANT LIST PL-1

San Diego Association of Governments
State Route 11, Otay Mesa POE,
Lonestar East Mitigation
Certification No. R9-2013-0182

ATTACHMENT 5

CEQA MITIGATION MONITORING AND REPORTING PROGRAM

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
VISUAL/AESTHETICS (cont.)						
Detention basins and bio-swales in landscaped areas should be planted with visually and functionally compatible native or ornamental ground cover as appropriate, and shaped to mimic natural ponds and/or vernal pools in the area where feasible. Final design of detention basins would be determined in consultation with Caltrans District 11 Landscape Architecture.	RE/ Contractor/ Design/ Hydraulics/ Landscape Architecture	Construction				
New power poles finishes would be treated to fit in with viewshed elements and reduce glare and reflection from the base steel finish with the concurrence of Caltrans District 11 Landscape Architecture.	RE/ Contractor/ Design/ Hydraulics/ Landscape Architecture	Construction				
CULTURAL RESOURCES						
Historical archaeological sites CA_SDI_10155H Locus A and portions of Locus B (as discussed in the 4th Supplemental HPSR), CA_SDI_11221H, and the historic component of CA_SDI_14210/H will be protected by the establishment of ESAs. ESAs will be depicted on all project plans and completely avoided by project activities. ESA fences will be installed prior to any construction activities.	RE/ Contractor/ Cultural Resources / Archaeological Monitor	Construction				
If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.	RE/ Contractor/ Cultural Resources / Archaeological Monitor	Construction				
If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner shall be contacted. Pursuant to PRC Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the District Environmental Branch so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.	RE/ Contractor / Cultural Resources / Archaeological Monitor	Construction				
HYDROLOGY AND FLOODPLAIN						
The appropriate drainage facilities such as inlets, pipes, channels/ditches, basins and cross drains would be utilized for the project.	Design/ Hydraulics	Design/Construction				
Final drainage facilities will be determined during the project design phase, as part of detailed hydrology/hydraulic reports to be prepared based on final project design. Specifically, such analyses encompass appropriate design, sizing, and location of proposed storm drain facilities, as well as continued consultation with applicable federal, state, and local agencies regarding issues including watershed development, storm drain design/capacity, and regulatory conformance.	Design/ Hydraulics	Design/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
WATER QUALITY						
<p>Caltrans District 11 will require the construction contractor to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), and any subsequent permit, as they relate to construction activities for the project. This will include submission of the Permit Registration Documents, including a Notice of intent (NOI), risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement to the State Water Resources Control Board (SWRCB) at least 14 days prior to the start of construction. The SWPPP will meet the requirements of the Construction General Permit and will identify potential pollutant sources associated with construction activities; identify non-storm water discharges; develop a water quality monitoring and sampling plan; and identify, implement, and maintain best management practices (BMPs) to reduce or eliminate pollutants associated with the construction site. The BMPs identified in the SWPPP will be implemented during project construction. A Notice of Termination (NOT) will be submitted to the SWRCB on the completion of construction and the stabilization of the site. SWRCB Resolution No. 2001-046 requiring sampling and analysis will also be implemented during project construction.</p>	RE/ Contractor	Construction				
<p>Caltrans District 11 will require the construction contractor to comply with the provisions of the General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay, Order No. R9-2008-0002, NPDES No. CAG919002, as they relate to discharge of non-storm-water dewatering wastes for the project.</p>	RE/ Contractor	Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
WATER QUALITY (cont.)						
Caltrans District 11 will require the construction contractor to follow the procedures outlined in the California Department of Transportation (Caltrans) Storm Water Quality Handbooks, Project Planning and Design Guide (July 2010 or subsequent issuance) for implementing Design Pollution Prevention and Treatment BMPs for the project. This will include coordination with the San Diego RWQCB with respect to the feasibility, maintenance, and monitoring of Treatment BMPs as set forth in Caltrans Statewide Storm Water Management Plan (SWMP, May 2003 or subsequent issuance). Caltrans District 11 will also require the construction contractor to comply with other provisions identified in the NPDES Permit, Statewide Storm Water Permit, and Waste Discharge Requirements for the State of California, Department of Transportation (Order No. 99-06-DWQ, NPDES No. CAS000003 or subsequent issuance).	RE/ Contractor	Construction				
GEOLOGY/SOILS/SEISMIC/ TOPOGRAPHY						
Potential impacts related to seismic ground acceleration could be addressed or avoided through efforts such as: (1) conformance with applicable seismic parameters from sources including Caltrans standards and the IBC/CBC (including seismic zone, subsurface profile types, seismic and near-source coefficients for acceleration and velocity, and the seismic source); (2) use of properly engineered fill; (3) appropriate foundation, footing, and pavement design; (4) use of properly reinforced concrete and masonry; and (5) appropriate structure and utility design.	Design	Design/ Construction				
Potential liquefaction and seismic settlement effects could be addressed or avoided through efforts such as: (1) conformance with applicable seismic parameters from sources including Caltrans standards and the IBC/CBC; (2) removal and re-compaction and/or replacement of materials susceptible to liquefaction or seismic settlement with engineered fill; (3) in-place soil and/or structural modifications such as compaction grouting, soil mixing, dynamic compaction, or driving piles below liquefiable layers; and (4) use of sub-drains in appropriate areas to avoid saturation of surficial materials.	Design	Design/ Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES						
<i>General</i>						
<p>Sensitive habitat within and adjacent to the footprint of the construction site shall be designated an ESA and depicted as such on project maps. Sensitive vegetation types (e.g., vernal pools and their associated watersheds) or plant locations (e.g., San Diego button celery) will be marked and protected during weeding operations by temporary fencing (e.g., orange plastic snow fencing) or another appropriate method to prevent encroachment or unnecessary disturbance to the sites. Prior to and during construction, barriers will be established in key areas to deter public entry into the sites. Additionally, fencing will be provided to restrict access to sensitive habitat.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>The project grading/construction limits (including construction staging areas and access routes) shall be clearly delineated with orange construction fencing and silt barriers to ensure that construction activity remains within the defined limits of work. Fencing will be installed in a manner that does not impact habitats to be avoided. The project proponents will submit to the USFWS and USACE for approval, at least 30 days prior to initiating project impacts, the final plans for initial clearing and grubbing of sensitive habitat and project construction. These final plans will include photographs that show the fenced limits of impact and all areas to be impacted or avoided.</p>	RE/ Contractor/ Qualified Biologist	Pre- construction/ Construction				
<p>A qualified biologist will be made available for both the pre-construction and construction phases of the proposed project work to review grading plans, address protection of sensitive biological resources, and monitor ongoing work. The biologist shall be familiar with the habitats, plants, and wildlife of Otay Mesa, and maintain communications with the RE, to ensure that issues relating to biological resources are appropriately and lawfully managed.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>A monitoring biologist approved by the USFWS and USACE will be on the project site during clearing and grubbing of habitat that occurs within 200 feet of the grading limits. The monitoring biologist will conduct weekly site visits during rough grading to ensure that the grading limits have been respected. The biologist will be knowledgeable of local wildlife and vegetation resources including the Quino checkerspot butterfly and vernal pool species. The biologist's name, address, telephone number, and work schedule on the project shall be submitted to the USFWS and USACE at least 7 days prior to initiating project impacts.</p>	RE/ Contractor/ Qualified Biologist	Pre-construction/ Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
General (cont.)						
Temporary stabilization will be undertaken in areas where grading has been completed, particularly cut and fill slopes. Techniques, such as hydroseeding, and the application of duff or bonded fiber matrix will be implemented to provide interim erosion control. For any erosion control seed mix, the seed vendor will furnish certification that the seed has been tested for purity by a certified seed laboratory.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
Before entering or leaving the construction site, equipment will be inspected for evidence of invasive species or seeds. Should any plants or seeds be detected, the equipment will be washed to ensure no invasive species will be brought into or removed from the site.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
Revegetation with native plant species shall occur as early as possible following grading (where applicable), and be accompanied with periodic monitoring and maintenance to ensure adequate coverage, and prevent erosion and siltation into adjacent biologically sensitive areas.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
All plants used in the landscaping areas will comply with Federal, State, and County laws requiring inspection for infestations. The vendor will provide certification of inspection from the County of San Diego Agriculture. The plants will also be inspected by the Project Landscape Inspector before accepting delivery.	RE/Contractor/ Qualified Biologist/ Landscape Inspector	Pre-construction/Construction				
A minimum 6-foot high fence would follow the length of the alignment on both sides to preclude human access into the adjacent habitat and prevent wildlife from traversing the freeway or POE.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
General (cont.)						
<p>The Construction Manager will keep the monitoring biologist up-to-date with current plans for each phase. A pre-construction meeting will be conducted with the monitoring biologist, vernal pool restoration biologist, and construction supervisors prior to all earthwork. The USFWS and the USACE will be invited to the pre-construction meeting with 14 days advance notice. The contractors will be informed that the fenced areas are "no-entry" areas for the duration of construction. Each employee (including temporary, contractors, and subcontractors) will participate in a training/awareness program that will be presented by the vernal pool restoration and monitoring biologist(s), prior to working on the proposed project. At a minimum, the program will include the following topics:</p> <ul style="list-style-type: none"> a) The purpose for resource protection; b) A description of Quino checkerspot butterfly, San Diego fairy shrimp, Riverside fairy shrimp, and their habitats; c) The conditions of the USACE permits and the conservation measures described in the USFWS Biological Opinion that should be implemented during project construction to conserve Quino checkerspot butterflies, San Diego fairy shrimp, and Riverside fairy shrimp including strictly limiting activities, vehicles, equipment, and construction materials to the fenced project footprint to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); d) Project features designed to reduce impacts to these species and promote their persistence/survival within the project area; e) The protocol to resolve conflicts that may arise at any time during the construction process; f) The general provisions of the Act, the need to adhere to the provisions of the Act, and the penalties associated with violating the Act; and g) A fact sheet that includes color photographs of the listed species, which will be shown to the employees. Following the education program, the fact sheet will be posted in the contractor and Resident Engineer's office, where they will remain through the duration of the project. The project proponents and the biologist(s) will be responsible for ensuring that employees are aware of the listed species. 	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
General (cont.)						
The changing of oil, refueling, dispensing of coolant, maintenance of equipment, staging, and other actions that could result in a release of a hazardous substance shall be restricted to designated areas that are a minimum of 100 feet from any Environmentally Sensitive Areas (ESAs) Such designated areas will be surrounded with berms, sandbags, or other barriers to further prevent the accidental spill of fuel, oil, or chemicals. Any accidental spills will be immediately contained, cleaned up, and properly disposed. NOTE: this measure would also mitigate for a wetland impact.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
Storage and staging areas will be placed as far from sensitive habitat as possible and kept free from trash and other waste. Staging areas for construction work will be located within previously disturbed sites and not adjacent or within sensitive habitat.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
Employees will strictly limit their activities, vehicles, equipment, and construction materials to within the fenced project footprint.	RE/ Contractor/ Qualified Biologist	Pre-construction/ Construction				
Construction dust impacts will be offset through implementation of the Caltrans Standard Specifications, including Section 7-1.01F Air Pollution Control, Section 10 Dust Control, Section 17 Watering, and Section 18 Dust Palliative. The project biologist will also periodically monitor the work area to ensure that construction-related activities do not generate excessive amounts of dust or cause other disturbances. Erosion control measures will be regularly checked by Caltrans inspectors, the biologist, and RE.	Caltrans Inspectors/ RE/Qualified Biologist	Construction				
The monitoring biologist will periodically monitor adjacent habitats for excessive amounts of dust and will recommend remedial measures to address dust control if necessary. The monitoring biologist will implement a contractor training program to ensure compliance with permit conditions. Any non-compliance issues will be reported to the USFWS and USACE within 24 hours.	RE/ Contractor/ Qualified Biologist	Pre-construction/ Construction				
During any nighttime construction, all project lighting (e.g., staging areas, equipment storage sites, roadway) will be directed onto the roadway or construction site and away from sensitive habitat. Light glare shields may also be used to reduce the extent of illumination into adjoining areas.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
<i>General (cont.)</i>						
<p>Runoff generated by the proposed project will be channeled to detention basins as a means of preventing contaminated discharge from potentially entering nearby, sensitive habitat. Best Management Practices (BMPs) to address erosion and excess sedimentation will be incorporated into the project plans. Measures that could be implemented include silt fencing, gravel bags, hay bales, fiber rolls, native plantings, retaining walls, or other slope stabilization techniques, and protection/velocity dissipation at drainage outlet points. Vegetation filters, such as swales or biostrips, may also be used to remove sediment and other contaminants from runoff prior to off-site flow.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>BMPs employed during construction will follow the applicable Caltrans guidelines and will be detailed in the project's Storm Water Management Plan (SWMP), Storm Water Pollution Prevention Plan (SWPPP), and Water Pollution Control Program (WPCP). Specific plans will be reviewed by a biologist and modified, if necessary, prior to implementation. The biologist will have the ability to suggest changes to reduce the probability of erosion and siltation or spills of chemicals or fuels that could potentially affect sensitive habitat areas, including (but not limited to) vernal pool basins and watersheds, and rare plant populations.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>Species identified on the California Invasive Plant Council's list of Exotic Pest Plants of Greatest Ecological Concern in California will not be incorporated into the planting scheme for locations within or directly adjacent to the SR-11 and Otay Mesa East Port of Entry Project. A biologist shall review the seed and plant palette for the planting area, as well as other sites along the alignment, before application in the field.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>Plants that require intensive irrigation, fertilizers, or pesticides should not be used in landscaping adjacent to preserve areas. Water runoff from landscaped areas should be directed away from the biological conservation easement areas and contained and/or treated within the development footprint.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
General (cont.)						
<p>Any planting stock to be brought onto the project site for landscape or habitat creation/restoration/enhancement will be first inspected by a qualified pest inspector to ensure it is free of pest species that could invade natural areas, including but not limited to, Argentine ants (<i>Iridomyrmex humil</i>), fire ants (<i>Solenopsis invicta</i>), and other insect pests. Any planting stock found to be infested with such pests will not be allowed on the project site or within 300 feet of natural habitats unless documentation is provided to the USFWS that these pests already occur in natural areas around the project site. The stock will be quarantined, treated, or disposed of according to best management principles by qualified experts in a manner that precludes invasions into natural habitats.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>Caltrans will ensure that all temporary irrigation will be for the shortest duration possible, and that no permanent irrigation will be used for landscape or habitat creation/restoration/enhancement.</p>	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>If work occurs beyond the fenced or demarcated limits of impact, all work will cease until the problem has been remedied to the satisfaction of the USFWS and USACE. Additional conservation shall be provided at a minimum 5:1 ratio for any habitat impacts that occur beyond the approved fence. Temporary construction fencing will be removed upon project completion.</p>	RE/ Contractor/ Qualified Biologist	Construction				
<p>The monitoring biologist shall submit a final report to the USFWS and USACE within 60 days of project completion that includes: as-built construction drawings with an overlay of pools that were impacted or preserved, photographs of the preserved pools, and other relevant information documenting that authorized impacts were not exceeded and that general compliance with the project as described in the Biological Opinion, including the conservation measures, was achieved.</p>	RE/ Contractor/ Qualified Biologist	Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
<i>General (cont.)</i>						
<p>FHWA and Caltrans will be responsible for recording a perpetual biological conservation easement or other conservation mechanism acceptable to the USFWS over the areas preserved, restored, and/or enhanced by the project within the Lonestar Ridge West conservation parcel and their two additional conservation parcels located within the greater Lonestar Ridge property. The conservation mechanism will specify that no easements or activities (e.g., fuel modification zones, public trails, drainage facilities, walls, maintenance access roads) that will result in soil disturbance and/or vegetation removal will be allowed within the biological conservation easement areas. Caltrans anticipates that they will not be able to place the conservation easements or other conservation mechanisms, or transfer management endowments for their Lonestar Ridge conservation parcels prior to initiating project impacts; however, annual reports will be provided on their status until the conservation mechanisms have been placed and the endowment funds have been transferred.</p>	Biology/ Stewardship	PA/ ED Pre-construction/Construction				
<p>Caltrans will implement a perpetual long-term management, maintenance and monitoring plan (e.g., Habitat Management Plan or County Resource Management Plan) for its biological conservation easement areas. The plan should include, but not be limited to, the following: method of protecting the resources in perpetuity (e.g., conservation easement); monitoring schedule; measures to prevent human and exotic species encroachment; funding mechanism; and contingency measures should problems occur. In addition the plan will include the proposed land manager's name, qualifications, business address, and contact information. Caltrans will also establish a non-wasting endowment in an amount approved by the USFWS and the USACE based on a Property Analysis Record (PAR; Center for Natural Lands Management ©1998) or similar cost estimation method to secure the ongoing funding for the perpetual long-term management, maintenance, and monitoring of the biological conservation easement area by an agency, non-profit organization, or other entity approved by the USFWS and the USACE. Caltrans will submit a draft plan including a description of perpetual management, maintenance, and monitoring actions and the PAR or other cost estimation results for the non-wasting endowment to the USFWS and the USACE for approval. Caltrans will then submit the final plan to the USFWS and the USACE and transfer the funds for the non-wasting endowment to a non-profit conservation entity within 60 days of receiving approval of the draft plan. It is anticipated that a plan will not be prepared prior to initiating project impacts; however, annual reports will be provided on their status until a final plan has been provided.</p>	Biology/ Stewardship	PA/ ED Pre-construction/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
General (cont.)						
<p>Caltrans will install permanent protective fencing along any interface with developed areas, and/or use other measures approved by the USFWS and the USACE, to deter human and pet incursion into the biological conservation easement areas. Fencing will have no gates (except to allow access for maintenance and monitoring of the biological conservation easement areas). Signage for the biological conservation easement areas will be posted and maintained at conspicuous locations. Plans for fencing and/or other preventative measures will be submitted to the USFWS and the USACE for approval at least 60 days prior to initiating project impacts. Fencing, as approved by the USFWS and the USACE, will be installed within 60 days of execution of the conservation easement.</p>	Biology/ Stewardship	PA/ ED Pre-construction/Construction				
Native Grassland						
<p>Proposed mitigation for the permanent impact to 0.2 acre of native grassland is through the enhancement with native grassland where non-native grassland presently occurs at a 2:1 ratio. Restoration of native grassland would occur through the dethatching of non-native grassland and subsequent planting of native grasses on the western Lonestar parcel. A mitigation plan for restoration of this community would be prepared that identifies the location for restoration, responsible parties, methods of implementation, maintenance and monitoring requirements, final success criteria, and contingency measures.</p>	Biology/ Stewardship	PA/ ED Pre-construction				
Non-Native Grassland						
<p>Proposed mitigation for permanent impacts of up to 199.4 acres of non-native grassland (i.e. if the Two Interchange Alternative with the Siempre Viva Road Full Interchange Variation is selected) is through preservation of non-native grassland at a 1:1 ratio. Since the grassland in the R/W is considered occupied by the burrowing owl, the mitigation land should also be burrowing owl habitat. Preservation of non-native grassland on the Lonestar parcels is proposed to satisfy this mitigation. It is acknowledged that the Lonestar parcels support approximately 170 acres of non-native grassland, and that additional grassland may be required if an alternative other than the Preferred Alternative is selected. In this event, Caltrans will consult with the resource agencies to devise an acceptable strategy to compensate for any shortage in the required mitigation.</p>	Biology/ Stewardship	PA/ ED Pre-construction				

Task and Brief Description	Responsible Branch/Staff	Timing/Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
Grassland Restoration						
Proposed mitigation for permanent impacts to 3.20 acres of grassland restoration is through enhancement of native grassland at a 1:1 ratio. A mitigation plan for restoration of this community would be prepared that identifies the location for restoration, responsible parties, methods of implementation, maintenance and monitoring requirements, final success criteria, and contingency measures.	Biology/ Stewardship	PA/ ED Pre-construction				
WETLANDS AND OTHER WATERS						
Sensitive habitat within and adjacent to the footprint of the construction site shall be designated an ESA and depicted as such on project maps. Sensitive vegetation types (e.g., vernal pools and their associated watersheds) or plant locations (e.g., San Diego button celery) will be marked and protected during weeding operations by temporary fencing (e.g., orange plastic snow fencing) or another appropriate method to prevent encroachment or unnecessary disturbance to the sites. Prior to and during construction, barriers will be established in key areas to deter public entry into the sites. Additionally, fencing will be provided to restrict access to sensitive habitat.	RE/Contractor/ Qualified Biologist	Pre-construction/Construction				
<p>The proposed mitigation ratio for mule fat scrub-disturbed is 2:1 and the proposed mitigation ratio for impacts to USACE non-wetland WUS/CDFG streambed is 1:1. Therefore, the proposed compensatory mitigation for the Preferred Alternative is 1.10 acres, the proposed compensatory mitigation for the Two Interchange Alternative is 1.11 acres, the proposed compensatory mitigation for the One Interchange Alternative is 1.12 acres, and the proposed compensatory mitigation for the No Interchange Alternative is 1.10 acres.</p> <p>Proposed compensatory mitigation is via the restoration and preservation of USACE non-wetland WUS/CDFG streambed at Johnson Canyon, a drainage that extends onto one of the Lonestar parcels and supports jurisdictional features. A jurisdictional delineation would be necessary to determine the extent of USACE/CDFG jurisdiction on the Lonestar parcel. Proposed compensatory mitigation would consist of removal of non-native vegetation (primarily tamarisk) and implementation of native vegetation planting and seeding for up to approximately 4,999 linear feet of Johnson Canyon.</p>	Biology/ Stewardship	PA/ ED Pre-construction				

Task and Brief Description	Responsible Branch/Staff	Timing/Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
PLANT SPECIES						
Salvaging and transplantation of sensitive plant species, including small-flowered morning glory, variegated dudleya and San Diego barrel cactus, and planting of seed or container stock of decumbent goldenbush at the Lonestar Ridge West parcel would be conducted to the maximum extent practicable. A qualified biologist or restoration ecologist would oversee any seed collection, plant removal, or transplantation to ensure proper management of the salvaged materials.	Biology	Pre-construction				
ANIMAL SPECIES						
All brushing, grading, and clearing of vegetation would take place outside of the bird breeding season (February 1 through August 31) to avoid impacting nesting birds and violating the MBTA. If construction activities occur during the breeding season, a pre-construction survey would be conducted to ensure that no nesting birds are present within the proposed work area. Should a nest site be located, then appropriate measures may include (but are not limited to) monitoring during grading and construction to ensure no impacts to the nest site, designating the location as an environmentally sensitive area, and delaying or restricting project activities until nesting and fledging is complete.	RE/ Contractor/ Biology	Pre-construction/Construction				
For burrowing owls, a pre-construction survey to identify active burrows within the R/W and 250 feet beyond the R/W (where potential burrows could be) would be conducted no more than 30 days prior to initiation of construction.	RE/ Contractor/ Biology	Pre-construction				
To minimize impacts to nesting burrowing owls, no disturbance would occur within 250 feet of any active burrow (including to any that occur outside the R/W) during the burrowing owl breeding season (February 1 through August 31) or until a qualified biologist determines that a burrow is no longer active.	RE/ Contractor/ Biology	Pre-construction				
For each active burrow to be directly impacted outside the burrowing owl breeding season, a qualified biologist would implement passive relocation measures (installation of one-way doors) in accordance with CDFG regulations. Once all owls have vacated the burrows (after approximately 48 hours), a qualified biologist would oversee the excavation and filling of the burrows.	RE/ Contractor/ Biology	Pre-construction				
THREATENED AND ENDANGERED SPECIES						
During construction of the proposed project, construction BMPs, installation of construction fencing, and monitoring construction limits would be conducted to avoid and/or minimize direct impacts to threatened and endangered species outside the proposed project impacts and R/W.	RE/Qualified Biologist	Pre-construction/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>Impacts to designated critical habitat for San Diego fairy shrimp will be mitigated by the enhancement and preservation of <i>primary constituent elements</i> within 155 acres of designated critical habitat within the Lonestar Ridge West conservation parcel. A total of 14 vernal pool basins (0.6 acre) will be enhanced and 111 vernal pool basins (3.6 acres) will be created/restored. These basins will be surrounded by approximately 27.3 acres of watershed (an average ratio of approximately 6.5 acres of watershed for every acre of vernal pool). No less than 4.2 acres of vernal pool basins will be created/restored with at least 27.3 acres of associated vernal pool watershed and upland that will be restored to support the vernal pool basins.</p>	Qualified Biologist	PA/ED Pre-construction/ Construction				
<p>Impacts to Quino checkerspot butterfly will be mitigated by the enhancement and preservation of habitat suitable for this species, including the establishment of a minimum of 17 focused planting areas that are dominated by Quino checkerspot butterfly host and nectar resource plants, within 87 acres of critical habitat on the Lonestar Ridge West conservation parcel. The goal of this conservation measure is to preserve or salvage stands of the native flora important to Quino checkerspot butterfly (host plants and adult nectar sources), seed the site with native host plants and nectar plants, and control nonnative plant species growth and reproduction so that non-native species do not out-compete native flora.</p>	Qualified Biologist	PA/ED Pre-construction/ Construction				
<p>A final restoration plan for the conservation site shall be submitted to the USFWS and USACE for approval, at least 60 days prior to initiating project impacts. Impacts will not occur on the project site until the USFWS and the USACE have approved the final restoration plan for the associated project. The final restoration plan will be based on the Lonestar Ridge West Habitat Restoration Plan (Caltrans 2011). In addition to the measures proposed in the draft plan, the final plan will include the following information:</p> <ul style="list-style-type: none"> a) Implementation of the final plan will be conducted under the direction of a biologist with at least 3 years of vernal pool restoration experience (i.e., a vernal pool restoration specialist); the biologist will be approved by the USFWS and the USACE; b) The restoration area contains extant vernal pools and the Lonestar Ridge East conservation parcels are <i>immediately adjacent</i> to the Caltrans SR-125 vernal pool restoration site. To avoid impacts to extant vernal pools, all measures required in the following row will be implemented at the restoration site and thus specified in the restoration plan; 	Qualified Biologist	PA/ED Pre-construction/ Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>c) The project's restoration/enhancement activities will commence the first summer-fall season prior to, or concurrently with, the start of vegetation clearing of the project site;</p> <p>d) All final specifications and topographic-based grading, planting, and watering plans will have 0.5-foot contours and show typical cross-sections for the vernal pools, watersheds, and surrounding uplands (including adjacent mima mounds) at the restoration/enhancement sites. The basis for this fine-scale resolution is the shallow depth (i.e., several inches) of the vernal pools that will be restored/enhanced. The grading plans will also show overflow pathways that hydrologically connected the restored pools in a way that mimics natural vernal pool complex topography/hydrology;</p> <p>e) A fine-scale, detailed hydraulic analysis that shows each extant vernal pools to be enhanced; proposed restored vernal pool and its watershed, and hydrologic connection between the pools, as well as the watershed of the extant vernal pools to be enhanced. The watersheds of the restored pools will not extend into the watersheds of the extant vernal pools to be enhanced;</p> <p>f) Discussion and a table on the exact activities that will occur at each restored or enhanced vernal pool. The discussion and table will also include the initial conditions of the pools and the as-built conditions including basin size, average depth, ponding duration, existing native and nonnative cover, and presence of listed species;</p> <p>g) All enhancement activities in the pools occupied by listed vernal pool species that require soil manipulation (e.g., removal/recontouring of tire ruts or road fills, recontouring of pool slopes) will be done by hand and/or small machinery (e.g., Bobcat) to reduce impacts to the existing pool resources. Soil manipulation will be limited to areas adjacent to the existing pool and will be the minimum area necessary to accomplish pool enhancement. Topsoil will only be salvaged from the portions of the pools subject to soil movement. The areas of existing habitat, which are to remain unaffected by enhancement activities, will be specified and protected by temporary barriers prior to implementation;</p>	<p>Qualified Biologist</p>	<p>PA/ED Pre-construction/ Construction</p>				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>h) A map depicting the locations of the control pools¹ within each reference site and a table detailing basin size, average depth, ponding duration, native cover, nonnative cover, and presence of listed species for each pool will be incorporated into the annual reports during the 5-year maintenance and monitoring period(s) for each project;</p> <p>i) As a last resort and after approval by the USFWS and the USACE, additional inoculum from off-site donor vernal pools in the Otay Mesa area may be used to supplement the inoculum collected at the project impact site. The final plan will identify any proposed donor pools and include documentation that they are free of versatile fairy shrimp (<i>Branchinecta lindahl</i>). A rough estimate of San Diego and/or Riverside fairy shrimp genetic similarity using mtDNA sequencing should be conducted before introducing inoculum collected off site into occupied pools. No more than 10 percent of the basin area of any additional, non-impacted donor pool will be used for collection of inoculum. Collection of inoculum from Agency-approved donor pools will be consistent with the conservation requirements in the following row;</p> <p>j) inoculum and planting will not be installed until the USFWS and the USACE approve the habitat restoration site grading through evidence of ponding noted below. All planting will be installed in a way that mimics natural plant distribution and not in rows. Inoculum will not be introduced into the restored or enhanced pools until after they have been demonstrated to retain water for the appropriate amount of time to support San Diego (i.e., at least 12-30 days) or Riverside fairy shrimp (i.e., 30-60 days) and have been surveyed for versatile fairy shrimp to the satisfaction of the USFWS and the USACE. If versatile fairy shrimp and San Diego and/or Riverside fairy shrimp are detected in the restored or enhanced pools, no additional action will be required. If versatile fairy shrimp are present but no San Diego and/or</p>	<p>Qualified Biologist</p>	<p>PA/ED Pre-construction/ Construction</p>				

¹ Caltrans will work together with the project proponents of the Otay Crossings and Otay Business Park projects addressed in the same Biological Opinion to identify a common set of control pools that will be used by all three restoration efforts in order to minimize any potential impacts from monitoring the control pools.

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>Riverside fairy shrimp are detected, off-site inoculum will not be introduced until measures approved by the USFWS and the USACE are implemented in attempt to remove the versatile fairy shrimp from the pools. Inoculum from the Lonestar Ridge Conservation Area may be allowed, subject to confirmation from the USFWS and the USACE. Inoculum will be placed in a manner that preserves, to the maximum extent possible, the orientation of the San Diego and Riverside fairy shrimp cysts within the surface layer of soil (e.g., collected inoculum will be shallowly distributed within the pond so that cysts have the potential to be brought into solution upon inundation). No inoculum collected off site will be placed in occupied pools unless it is determined through mtDNA sequencing that they are genetically similar;</p> <p>k) Plant palettes (species, size, and number/acre) and seed mix (species and pounds/acre) will be included in the restoration/enhancement plan. The plant palette will include native species specifically associated with the onsite habitat type(s). If native plant species (no cultivars) cannot be obtained within Otay Mesa, an alternate site will be used only upon approval by the USFWS and the USACE. The source and proof of local origin of all plant material and seed will be provided to the USFWS and the USACE;</p> <p>l) Native plants and animals will be established within the restored/enhanced pools, their watersheds and surrounding uplands. This establishment can be accomplished by redistributing topsoil containing seeds, spores, bulbs, eggs, and other propagules from affected pools and adjacent vernal pool and upland habitats; by the translocation of propagules of individual species from offsite habitats; and by the use of commercially available native plant species and/or any vernal pool inoculum or plant material from an offsite source approved by the USFWS and the USACE. Topsoil and plant materials from the native habitats to be affected on site will be applied to the watersheds of the enhanced and restored pools to the maximum extent practicable. Nonnative invasive weed control will be implemented within the restoration areas to protect and enhance habitat remaining on site;</p>	<p>Qualified Biologist</p>	<p>PA/ED Pre-construction/ Construction</p>				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>m) Any artificial watering of the restored/enhanced pool watersheds will be done in a manner that prevents water from entering into the pools. Any water to be used will be identified and documented to be free of contaminants that could affect the water quality of the pools and harm San Diego fairy shrimp. Upland plant species will need to demonstrate independence from artificial water sources for at least 2 years in order to meet the success criteria;</p> <p>n) All weeding within and immediately adjacent to the restored/enhanced pools will be performed by hand. No herbicide will be used within the restored/enhanced pools. Herbicide may be used in the uplands adjacent to pools only as approved by the USFWS and the USACE (e.g., using the "glove" method²). All workers conducting weed removal activities will be educated to distinguish between native and nonnative species so that local native plants are not inadvertently killed by weed removal activities;</p> <p>o) A final implementation schedule that indicates when all vernal pool impacts and vernal pool restoration/enhancement grading and planting will begin and end. Any temporal loss of vernal pools caused by delays in restoration will be offset by additional habitat preservation and/or restoration as determined in coordination with the USFWS and the USACE, unless the delays were caused by unforeseeable circumstances or were beyond the reasonable control of the project proponent;</p> <p>p) A minimum commitment to 5 years of monitoring of vernal pool and upland habitat restoration/enhancement areas post completed installation. The final success criteria methodology will include quantitative hydrological, vegetation transects, viable cyst, hatched San Diego fairy shrimp, and gravid female measurements; complete flora and fauna inventories; and photographic documentation. To minimize impacts to the soil surface of the vernal pool during restoration, enhancement, and monitoring activities, cobbles will be oriented within the restored vernal pools to serve as stepping stones;</p>	Qualified Biologist	PA/ED Pre-construction/ Construction				

² The "glove" method refers to using absorbent-type gloves that are soaked in herbicide, which is then applied to weed species by hand. When carefully done, this method allows for very effective weed control along the margins of the pools, with a low risk of affecting the native flora and fauna because the gloves allow for very accurate placement of the herbicide.

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>q) Restoration success, as determined by the final success criteria, for San Diego fairy shrimp and Riverside fairy shrimp will be determined by measuring the ponding of water and density of viable cysts, presence of hatched San Diego and Riverside fairy shrimp, and gravid females within the restored pools. Water measurements will be taken in the restored pools to determine the depth, duration and quality (e.g., pH, temperature, total dissolved solids, salinity) of ponding. Dry samples will be taken from a subset of restored and control pools known to support fairy shrimp in the fall of each year to determine the density of viable cysts in the soils. The sampling will consist of three core samples (approximately 1.5 - 2 cubic inches in volume) taken in the deepest portion of each sampled pool. The samples will be analyzed by a – USFWS-approved biologist to determine the genus and density of cysts collected. Wet samples will also be taken in the restored pools to estimate the number of hatched San Diego and Riverside fairy shrimp and gravid females. Final success criteria will be set such that the pools must pond for a period of time similarly to reference vernal pools during an average rainfall year and at an appropriate depth and quality to support San Diego and Riverside fairy shrimp. The average viable cyst, hatched fairy shrimp, and gravid female data from the restored pools must show that the populations are stable or increasing, relative to the control pools. If both the restored and control pool shrimp populations decline in any given year, then it will be assumed that there are other outside, seasonal effects driving the change, as opposed to specific factors at the restoration site. Otherwise, the restored pool population numbers should either be stable or show an increasing trend from reference pools for at least 3 wet seasons before a determination of success can be made. Vernal pools selected as reference or control pools for evaluating restoration success will be identified and described in the restoration plan as per Item (h) of this row. Alternate methods of determining success will only be used if approved by the USFWS and the USACE;</p> <ul style="list-style-type: none"> SR-11 and Port of Entry success criteria include the establishment of 1.30 acres and 0.22 acre of basin area that will support the San Diego fairy shrimp and Riverside fairy 	Qualified Biologist	PA/ED Pre-construction/ Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>shrimp, respectively. In addition, 54 pools will support San Diego button-celery.</p> <p>r) Monitoring and success criteria for vernal pool and upland restoration/enhancement areas for the Quino checkerspot butterfly will include; species richness and cover criteria for all 5 years of monitoring, zero percent cover for weed species categorized as High or Moderate in the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory (excluding common non-native grassland species present prior to restoration/enhancement), and relative cover of all other weed species is no more than 15 percent coverage for other nonnative invasive weed species for all 5 years of the 5-year monitoring period. Restored/created pools will have less than 1 percent absolute cover of exotic plant species. Container plant survival will be 70 percent of the initial plantings for the first 5 years. At the first and second anniversary of plant installation, all dead plants will be replaced unless their function has been replaced by natural recruitment. The method used for monitoring will be described and a map of proposed sampling locations will be included. Photo points will be used for qualitative monitoring and stratified-random sampling will be used for all quantitative surveys;</p> <p>s) A commitment by Caltrans agreeing that restoration/enhancement of the vernal pools and uplands will be deemed complete once the final success criteria are met and only after written sign-off by the USFWS and the USACE. Specifically, if a performance criterion is not met for any of the restored/enhanced vernal pools or upland habitat in any year, or if the final success criteria are not met, Caltrans will prepare an analysis of the cause(s) of failure and, if deemed necessary by the USFWS and the USACE, propose remedial actions for approval. If any of the restored/enhanced vernal pools or upland habitat have not met a performance criterion during the initial 5-year period, the maintenance and monitoring obligations will continue until the USFWS and the USACE deem the restoration/ enhancement successful, or contingency measures are implemented. Restoration/ enhancement will not be deemed successful until at least 1 year after any contingency measures related specifically to success</p>	Qualified Biologist	PA/ED Pre-construction/ Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>criteria are implemented, as determined by the USFWS and the USACE; and</p> <p>t) Annual reports will be submitted to the USFWS and the USACE by January 31 of each year. Those reports will assess both the attainment of yearly success criteria and progress toward the final success criteria. The reports will also summarize the project's compliance with the conservation measures committed to as part of the project, terms and conditions included in the Biological Opinion.</p>	Qualified Biologist	PA/ED Pre-construction/Construction				
<p>Restoration grading activities at the Lonestar Ridge East and West conservation parcels will be timed to avoid wet weather to minimize potential impacts (e.g., siltation) to the extant vernal pools unless the area to be graded is at an elevation below the pools. To achieve this goal, each project proponent will comply with the following measures, which also will be specified in the restoration plan:</p> <p>a) Grading will occur only when the soil is dry to the touch at the surface and 1 inch below. A visual check for color differences (i.e., darker soil indicating moisture) in the soil between the surface and 1 inch below indicates the soil is dry;</p> <p>b) After a rain of greater than 0.2 inch, grading will occur only after the soil surface has dried sufficiently as described above, and no sooner than 2 days (48 hours) after the rain event ends;</p> <p>c) Grading will commence only when no rain is forecast during the anticipated grading period;</p> <p>d) To prevent erosion and siltation from storm water runoff due to unexpected rains, Best Management Practices (i.e., silt fences) will be implemented as needed during grading;</p> <p>e) If rain occurs during grading, work will stop and resume only after soils are dry, as described above; and</p> <p>f) Grading will be done in a manner to prevent run-off from entering extant vernal pools.</p>	Qualified Biologist	PA/ED Pre-construction/Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>Caltrans will staff a restoration biologist with a minimum 3 years of previous experience with implementing successful upland and wetland restoration projects³ with an emphasis on coastal sage scrub, native perennial grassland, and vernal pool restoration. The restoration biologist must also have 5 years of local field experience with vernal pool vegetation, hydrology, and soils, as well as Quino checkerspot habitat. The restoration biologist will be responsible for implementation of the vernal pool and Quino checkerspot butterfly restoration work as well as overseeing compliance with protective measures for listed species on the restoration site and will be approved by the USFWS and the USACE. The project proponents will submit the restoration biologist's name, address, telephone number, and work schedule on the project to the USFWS and the USACE at least 30 days prior to initiating project impacts. The restoration biologist will perform the following duties:</p> <ul style="list-style-type: none"> a) Allow salvage of live plants and collection of inoculum for transplant to pools, watersheds, and surrounding uplands to be restored/enhanced as practicable and approved by the USFWS; b) Be on the restoration site during work and/or grading adjacent to vernal pools and unvegetated pools supporting listed vernal pool species to be preserved to ensure compliance with all conservation measures; c) Oversee installation of and inspect the fencing and erosion control measures within or up-slope of vernal pool restoration/enhancement and/or preservation areas a minimum of once per week and daily during all rain events to ensure that any breaks in the fence or erosion control measures are repaired immediately; d) Periodically monitor the work area to ensure that work activities do not generate excessive amounts of dust; e) Train all contractors and construction personnel on the biological resources associated with this project and ensure that training is implemented by construction personnel. At a minimum, training will include: 1) the purpose for resource protection; 2) a description of the listed vernal pool species, Quino checkerspot butterfly, and their habitat(s); 3 the conservation measures given in the 	Qualified Biologist	PA/ED Pre-construction/ Construction				

³ A successful restoration project is a restoration project that has achieved its success criteria and been accepted by the resource agencies after at least a 5-year monitoring period.

Task and Brief Description	Responsible Branch/Staff	Timing/ Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
THREATENED AND ENDANGERED SPECIES (cont.)						
<p>biological opinion that should be implemented during project construction to avoid and/or minimize impacts to listed species, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced project footprint to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); 4) environmentally responsible construction practices; 5) the protocol to resolve conflicts that may arise at any time during the construction process; and</p> <p>f) Halt work, if necessary, for any project activities that are not in compliance with the conservation measures committed to as part of the project and specified in this biological opinion. The restoration biologist will report any non-compliance issues to the USFWS and the USACE within 24 hours of its occurrence and confer with the USFWS and the USACE to ensure the proper implementation of species and habitat protection measures</p>	Qualified Biologist	PA/ED Pre-construction/ Construction				
INVASIVE PLANTS						
In compliance with EO 13112 on invasive species and subsequent guidance from the FHWA, the landscaping and erosion control included for the proposed project would not use species on the state's noxious weed list (USDA NRCS 2009) or species listed as invasive in the California Invasive Plant Inventory Database (California Invasive Plant Council 2006).	Biology	Pre-construction				
Inspection of construction areas would be made by a biological monitor for invasive species according to a prescribed schedule during construction. A typical schedule would involve weekly inspections after the first rains, and throughout the rainy season of the construction period. Outside the rainy season, inspection for invasive species would occur monthly.	Biology	Pre-Construction/Construction				
Precautions would be required to prevent the spread of invasive species into new areas, including the cleaning of construction equipment to help prevent the spread of invasive plant species material, and eradication strategies recommended by the biological monitor.	RE/ Contractor/ Biologist	Pre-construction/ Construction				

Task and Brief Description	Responsible Branch/Staff	Timing/Phase	Action Taken to Comply with Task	Task Completed	Remarks	Environmental Compliance
NATURAL COMMUNITIES (cont.)						
INVASIVE PLANTS (cont.)						
Upon completion of grading, all areas of temporary disturbance would be revegetated with native species or ornamental landscaping to limit colonization by invasive species. A qualified biologist would review the landscape concept plans to ensure that no invasive species (as listed on the state's noxious weed list or in the California Invasive Plant Inventory Database) are included. This list includes such species as pepper trees, pampas grass, fountain grass, ice plant, myoporum, black locust, capeweed, tree-of-heaven, periwinkle, sweet alyssum, English ivy, French broom, Scotch broom, and Spanish broom. A copy of the complete list can be obtained from Cal-IPC's web site at http://www.cal-ipc.org .	RE/ Contractor/ Biology	Construction				
Indirect Impacts During Construction						
The project grading/construction limits (including construction staging areas and access routes) shall be clearly delineated with orange construction fencing and silt barriers to ensure that construction activity remains within the defined limits of work. Fencing will be installed in a manner that does not impact habitats to be avoided.	RE/ Contractor/ Biology	Pre-construction/ Construction				
Pets shall be prohibited at the construction site.	RE/ Contractor	Construction				
A qualified biologist shall attend a pre-construction meeting and inspect the delineated areas prior to the initiation of vegetation clearing/grading and during regularly scheduled construction monitoring visits.	RE/ Contractor/ Biology	Pre-construction/ Construction				
The construction-related water quality measures listed in Section 3.12.4 would also serve to mitigate potential impacts related to discharge of silt and construction-related contaminants into adjacent natural communities.	RE/ Contractor	Pre-construction/ Construction				
Construction BMPs, installation of construction fencing, and monitoring construction limits would be conducted to avoid and/or minimize direct impacts to special status plant species outside the proposed project R/W.	RE/ Contractor/ Biology	Pre-construction/ Construction				

PROJECT PERSONNEL - CONTACT INFORMATION

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