

**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: Rancho Costera Development
Certification Number R9-2013-0044
WDID: 9000002561

Reg. Meas. ID: 389330
Place ID: 792053
Party ID: 538899
Person ID: 538900

APPLICANT: Rancho Costera LLC
8383 Wilshire Blvd, Suite 700
Beverly Hills, California 92011

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"/> Waiver of Waste Discharge Requirements
<input checked="" type="checkbox"/> Enrollment in SWRCB GWDR Order No. 2003-017-DWQ	<input type="checkbox"/> Enrollment in Isolated Waters Order No. 2004-004-DWQ

PROJECT DESCRIPTION

An application dated February 14, 2013 was submitted by Rancho Costera, LLC (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Rancho Costera Development Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on December 12, 2013. 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-2011-00654-RJV).

The Project is located within the City of Carlsbad, San Diego County, California. The Project center reading is located at latitude 33.154°N and longitude -117.304°W. The Applicant has paid all required fees for this Certification in the amount of \$13,263.00. On December 20, 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 develop a planned community, which will include a variety of land uses, including residential, commercial, community facilities and open space. The proposed residential land use areas will include 672 dwelling units in five single-family residential neighborhoods and two multifamily neighborhoods. In addition to the residential component,

the proposed Project provides an 11.5 net-acre Village Center which will accommodate commercial uses and a portion of the Project's 5.0-acre community facilities. The Project also provides a public park site on 13.9 acres and 1.0-net acre of centralized community recreation for the surrounding neighborhoods. The Project provides approximately 87.7 acres of open space which meander through the canyons and steep slopes of the site and provide a wildlife corridor situated in the central and eastern portions of the site.

The Project will convert approximately 52.1 acres of pervious ground cover to impervious surfaces. Runoff leaving the developed Project area would be significantly greater in volume, velocity, peak flow rate, and duration than pre-development runoff from the same area without mitigation. Project post construction BMPs will include the installation of eight bio-retention areas, including unlined bio-retention areas and fully-lined flow-through planter bio-retention areas. All graded areas will be improved or landscaped immediately after grading to minimize erosion. These BMPs will be designed, constructed, and maintained to meet City of Carlsbad's *Standard Urban Storm Water Management Plan* Low Impact Development (LID) Capture Volume and hydro-modification treatment requirements.

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 requires that construction and post-construction discharges from the Project will not cause on-site or off-site 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 0.31 acre (911 linear feet) of waters of the United States and/or State, including 0.15 acre of wetland waters and 0.16 acre of non-wetland waters. Project construction will temporarily impact 0.21 acre (494 linear feet) of waters of the United States and/or State, including 0.06 acre of wetland waters and 0.15 acre of non-wetland waters. 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 0.31 acre of jurisdictional waters will be achieved through the establishment of 1.37 acres of waters of the United States and/or State. Mitigation for discharges of fill material to waters of the United States and/or State will be completed by the Applicant at the Rancho Costera Project site located in the Los Monos hydrologic sub-area (HSA 904.31) at a minimum compensation ratio of 3:1 (area mitigated:area impacted) for impacts to streambed habitat and 5.5:1 for riparian habitat impacts.

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 *Robertson Ranch West Village Wetlands Habitat Mitigation Plan* (Mitigation Plan), dated February 18, 2014. 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 1 through 5 of this Certification.

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- 1. Definitions**
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- 3. Project Site Plans**
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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. R9-2013-0044 (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/gowdr401regulated_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.)
- 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 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 Agua Hedionda Creek or its tributaries;
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, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity*, (General Construction Storm Water Permit) 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 waters of Agua Hedionda Creek and Agua Hedionda Lagoon. 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 onsite or off-site erosion or damage to properties or stream habitats.
- B. Storm Drain Inlets.** All storm drain inlet structures within the Project boundaries must be stamped or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.
- C. Post-Construction BMP Design.** The Project must be designed to comply with the most current Standard Storm Water Mitigation and Hydromodification Plans for City of Carlsbad. Post-construction BMPs are described in the *Preliminary Storm Water Management Plan for Rancho Costera, Planning Areas 1-11, 13, and 23 A-C Vesting Tentative Map CT 13-03* (SWMP).
- 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 SWMP, dated August 11, 2013, prepared on behalf of the Applicant by O'Day Consultants; or any subsequent version of the SWMP approved by the City of Carlsbad.

E. **Post-Construction BMP Maintenance.** The post construction BMPs must be designed, constructed, and maintained in accordance with the most recent California Storm Water Quality Association (CASQA)¹ 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 unnamed tributaries within the Agua Hedionda 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:

¹ California Storm Water Quality Association (*California Storm Water BMP Handbook, New Development and Redevelopment 2003*), available on-line at: <http://www.cabmphandbooks.org/> [Accessed on January 15, 2012]

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Permanent Impacts						
Streambed	0.16	842	0.54 Establishment ¹	3:1	850	1:1
Vegetated non-wetland (Riparian)	0.15	69	0.83 Establishment ²	5.5:1	365	5:1
Temporary Impacts³						
Streambed and Riparian	0.15	480	0.15	1:1	480	1:1
Vegetated non-wetland (Riparian)	0.06	14	0.06	1:1	14	1:1

1. Streambed establishment within the Rancho Costera mitigation area.
2. Riparian establishment within the Rancho Costera mitigation area.
3. All areas of temporary impacts must be restored to pre-project contours and re-vegetated with native species.

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 as achieved once it has met the ecological success performance standards contained in the Mitigation Plan (Section 9, Table 11) to the satisfaction of the San Diego Water Board.

E. Compensatory Mitigation Site Design. The compensatory mitigation site(s) shall be designed, to the maximum extent practicable, 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, dated February 18, 2014. 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 60 days from the start of Project construction, 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 12 months of the issuance of this Certification**, 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:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
- E. **Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing status of BMP implementation 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. The monitoring period for each Annual Project Monitoring 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 recurrence of the noncompliance.

F. 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"; and
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.

G. 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. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17"; and

10. A survey report documenting boundaries of the compensatory mitigation site(s).

H. **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.

I. **Electronic and Paper Media Documents.** The Applicant must submit all reports and information under required under this Certification in electronic format via e-mail to SanDiego@waterboards.ca.gov. Documents over 50 megabytes (MB) 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. R9-2013-0044: PIN 792053
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 submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2013-0044: PIN 792053.

J. **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.

- K. **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 City of Carlsbad 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 December 12, 2012 for the Final Environmental Impact Report (FEIR) titled *Roberston Ranch West Village (Rancho Costera)* (State Clearing House Number 2004051039). 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 section 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

Alan Monji, Environmental Scientist
Telephone: 619-521-3968
Email: Alan.Monji@waterboards.ca.gov

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Rancho Costera Development** (Certification No. R9-2013-0044) 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. R9-2013-0044 issued on December 8, 2014.



DAVID W. GIBSON
Executive Officer
San Diego Water Board

8 Dec. 2014
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.

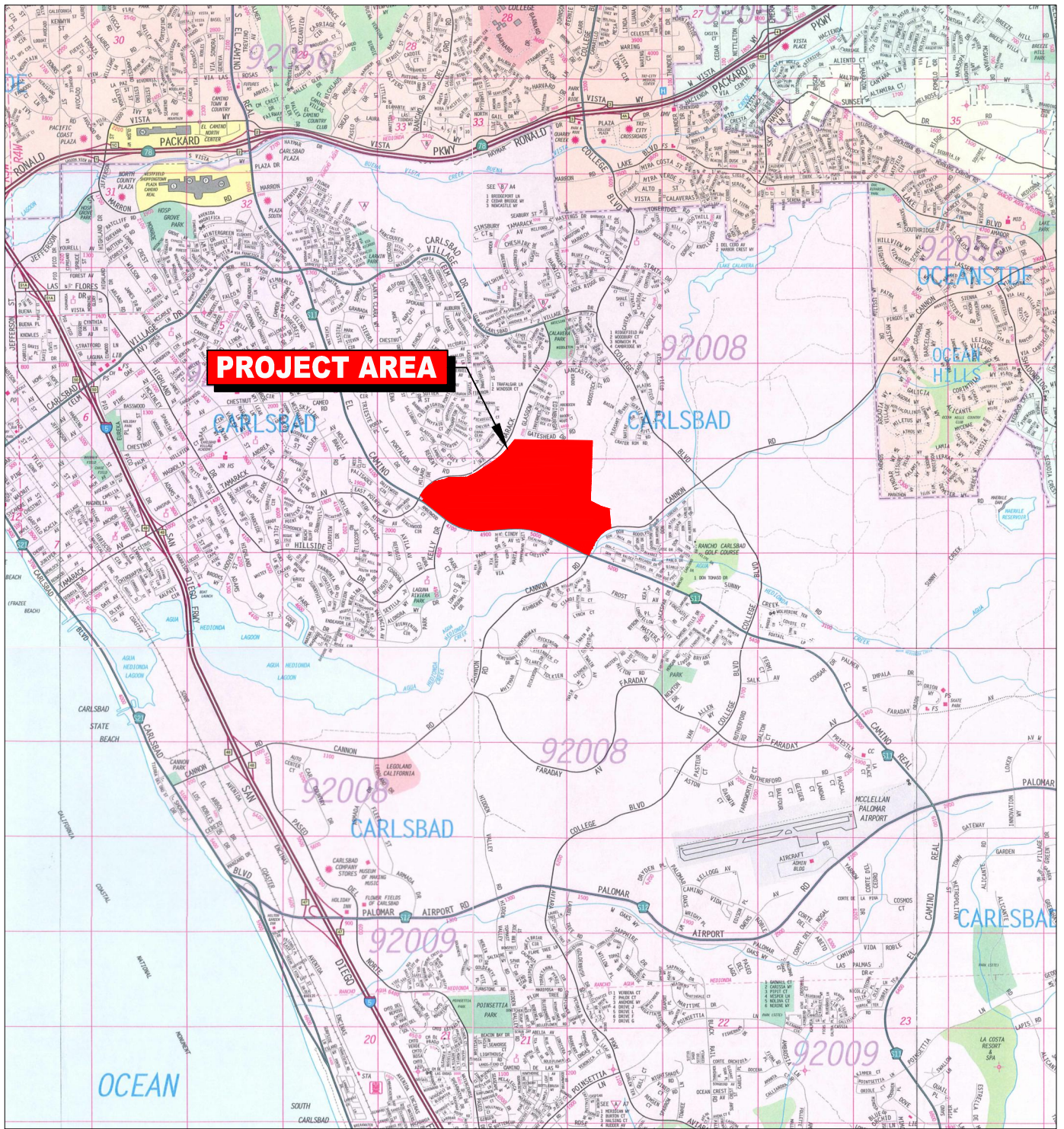
Water quality objectives and other appropriate requirements of state law – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other appropriate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

Rancho Costera LLC
Rancho Costera Development
Certification No. R9-2013-0044

ATTACHMENT 2

PROJECT LOCATION MAP

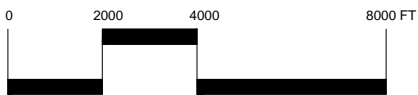
1. Planning Systems, Figure 1, Location Map



SOURCE: The Thomas Guide, San Diego County, 2005



NORTH



SCALE: - 1" = 4000'

September 2, 2013



LAND USE/COASTAL PLANNING
LANDSCAPE ARCHITECTURE
POLICY AND PROCESSING
ENVIRONMENTAL MITIGATION

1530 FARADAY AVENUE, SUITE 100, CARLSBAD, CA 92008
(760) 931-0760 FAX (760) 931-5744

FIGURE 1 Location Map

Robertson Ranch West Village - Rancho Costera
Carlsbad, California

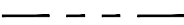
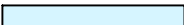




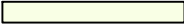
Rancho Costera LLC
Rancho Costera Development
Certification No. R9-2013-0044

ATTACHMENT 3

PROJECT SITE PLANS

1. Planning Systems, Figure 2, Corps Jurisdictional Impacts Map
2. O'Day Consultants, Grading Plans (9 sheets)

LEGEND

-  PROJECT BOUNDARY
-  CORPS NON-WETLAND WATERS
-  CORPS WETLANDS
-  PRIOR CONVERTED CROPLANDS
-  PERMANENT CORPS IMPACTS
-  TEMPORARY CORPS IMPACTS
-  OPEN SPACE AREA

PERMANENT IMPACTS TO CORPS JURISDICTION

Drainage	Wetland Waters	Non-Wetland Waters	Total Impacts (acres)	Linear Impacts (feet)
A	0.145 ac.	-	0.145 ac.	69
A2	-	0.03 ac.	0.03 ac.	234
B1	0.004 ac.	0.10 ac.	0.104 ac.	403
B2	-	0.03 ac.	0.03 ac.	205
TOTAL	0.15 ac.	0.16 ac.	0.31 ac.	911

TEMPORARY IMPACTS TO CORPS JURISDICTION

Drainage	Wetland Waters	Non-Wetland Waters	Total Impacts (acres)	Linear Impacts (feet)
A	0.06 ac.	-	0.06 ac.	14
A2	-	0.13 ac.	0.13 ac.	373
B1	0.003 ac.	0.02 ac.	0.023 ac.	107
B2	-	-	-	-
TOTAL	0.06 ac.	0.15 ac.	0.21 ac.	494

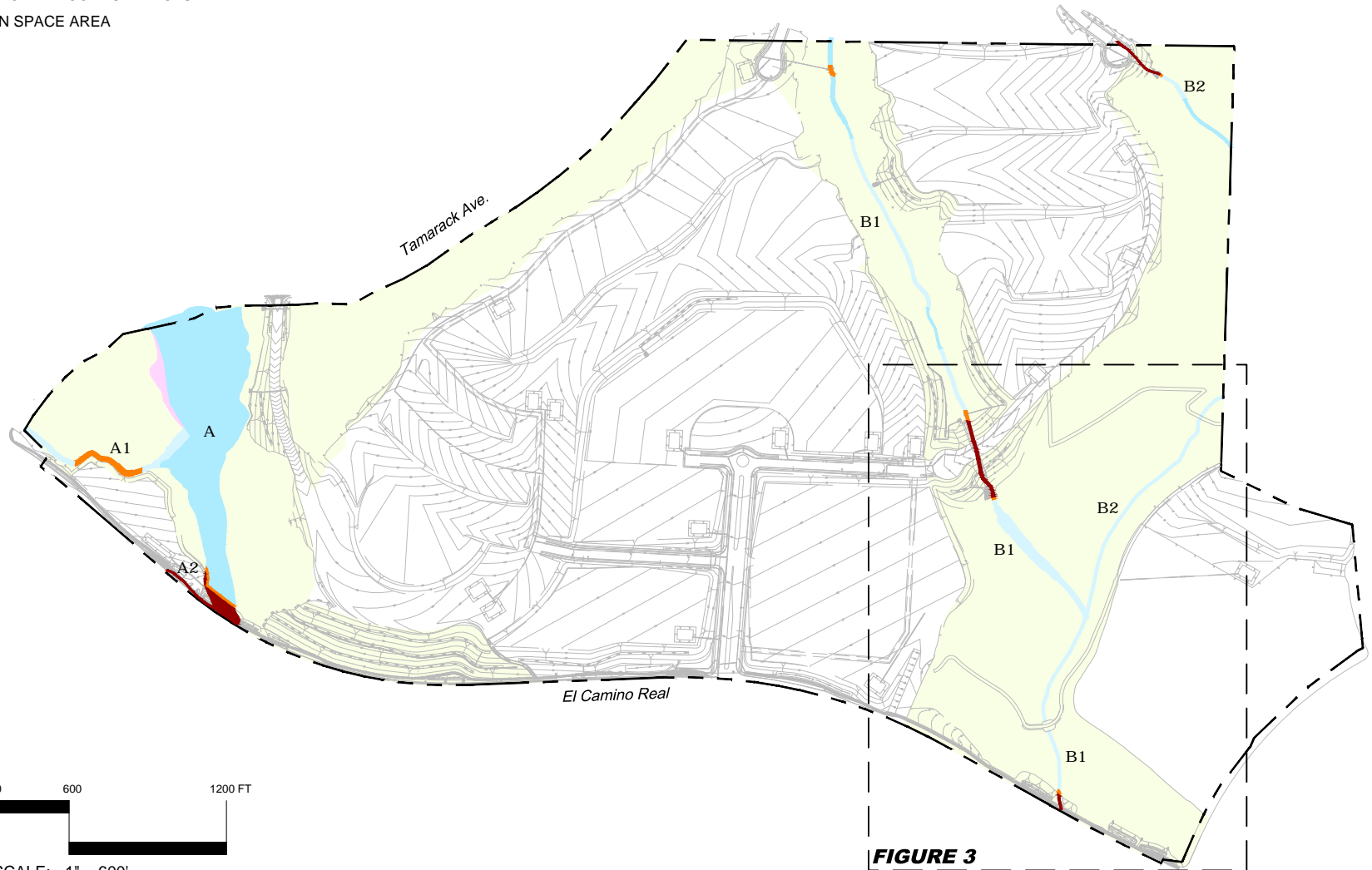
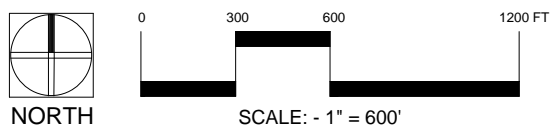


FIGURE 3

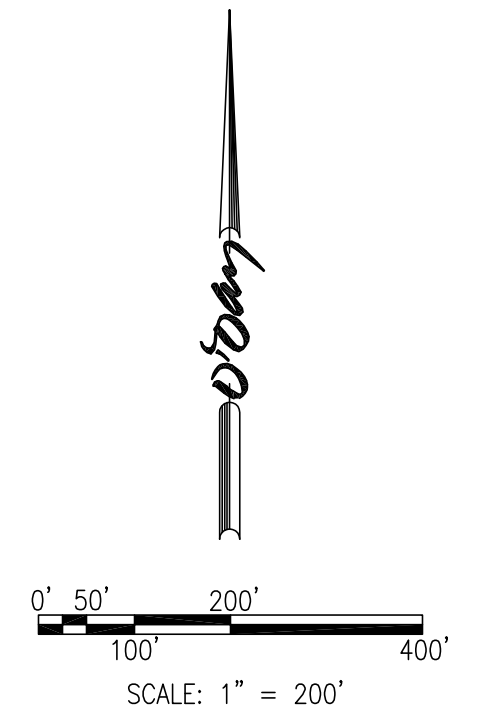
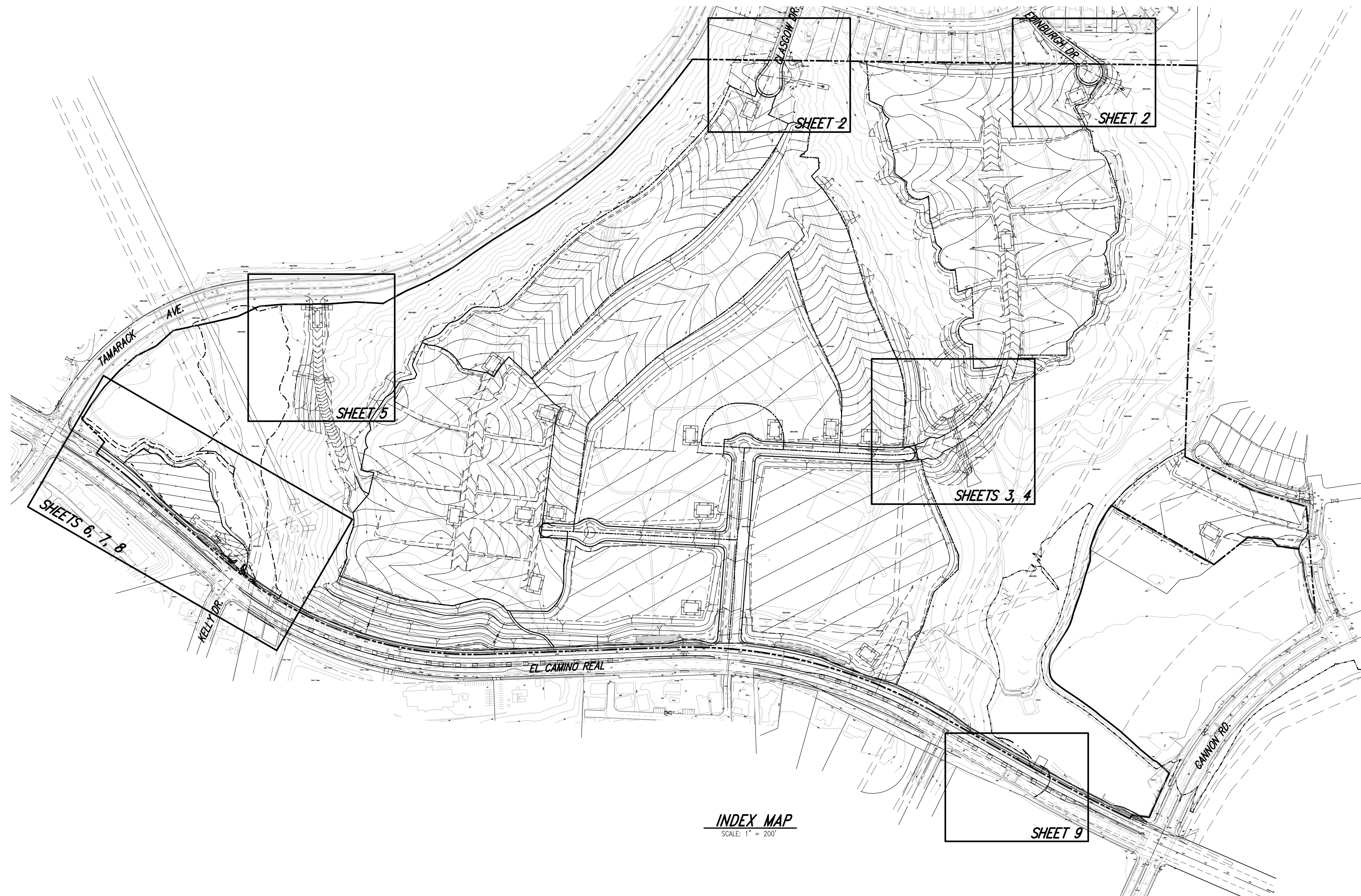


January 6, 2013

PLANNING SYSTEMS  LAND USE/COASTAL PLANNING
LANDSCAPE ARCHITECTURE
POLICY AND PROCESSION
ENVIRONMENTAL MITIGATION

1530 FARADAY AVENUE, SUITE 100, CARLSBAD, CA 92008
(760) 931-0700 FAX (760) 931-5744

FIGURE 2
Corps Jurisdictional Impacts Map
Robertson Ranch West Village - Rancho Costera
Carlsbad, California



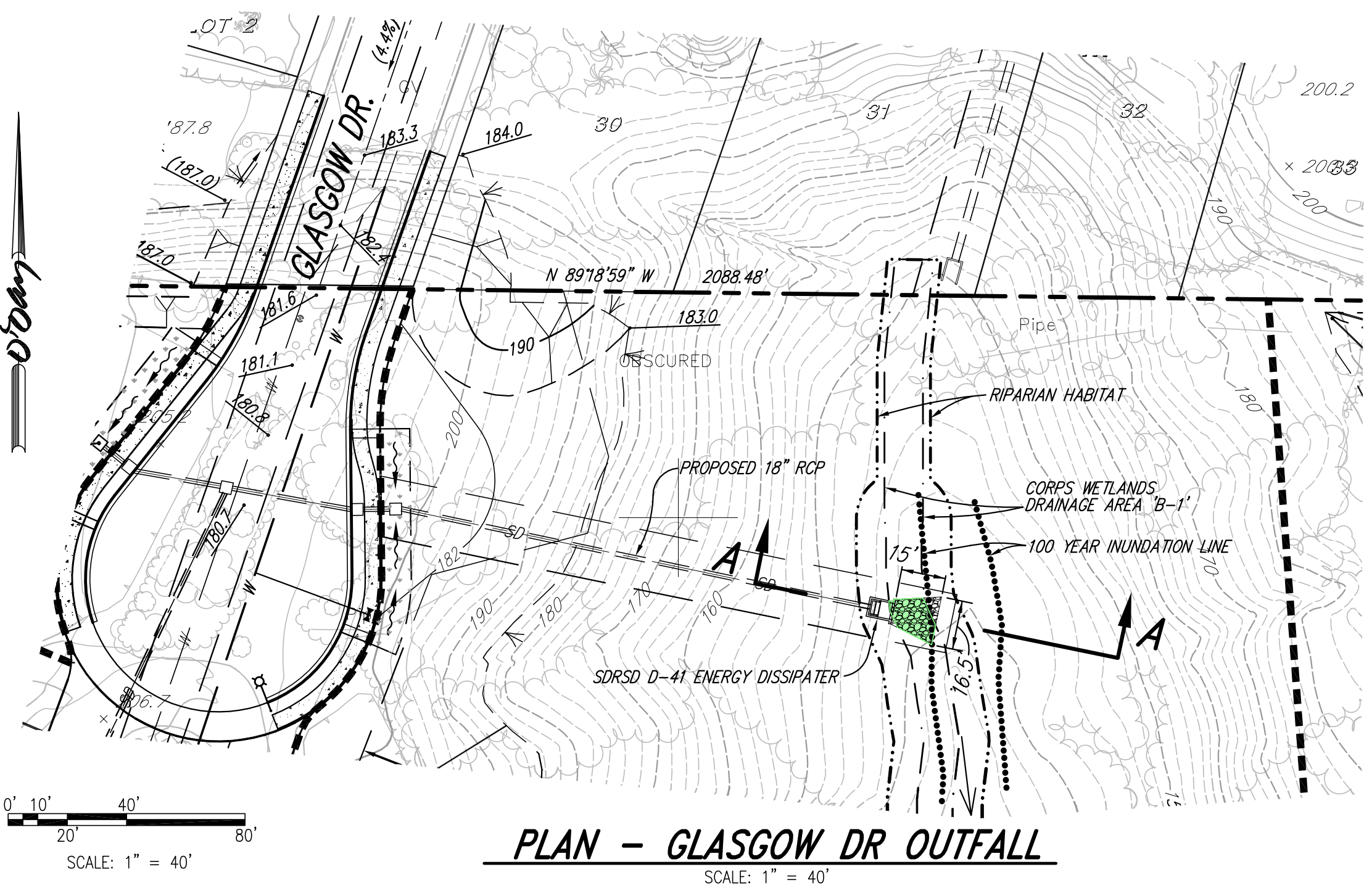
INDEX MAP
SCALE: 1" = 200'

**RANCHO COSTERA
STORM DRAIN OUTFALL SECTIONS**

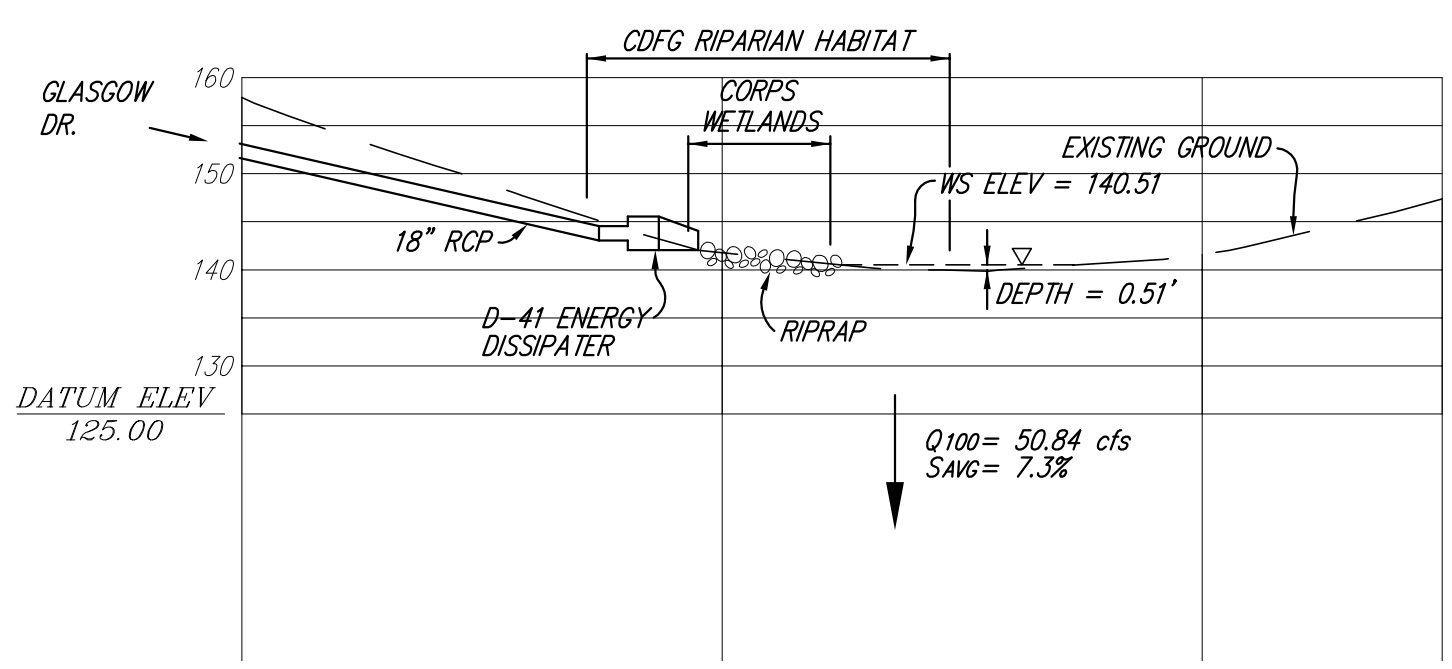
UPDATED: JAN. 21, 2013
 UPDATED: JAN. 2, 2013
 DATE OF PREPARATION: AUG. 2, 2012

O'Day
 CONSULTANTS
 2710 Loker Ave. Suite 100
 Carlsbad, California 92010
 760-931-7700
 Fax: 760-931-8680
 Oday@odayconsultants.com

DESIGNED BY: J.T.	DATE: AUG 2012
DRAWN BY: J.S.	SCALE:
PROJECT MGR.: G.O.	JOB NO.: 101307
ENGINEER OF WORK	
GEORGE O'DAY	
DATE:	RCE: 32014



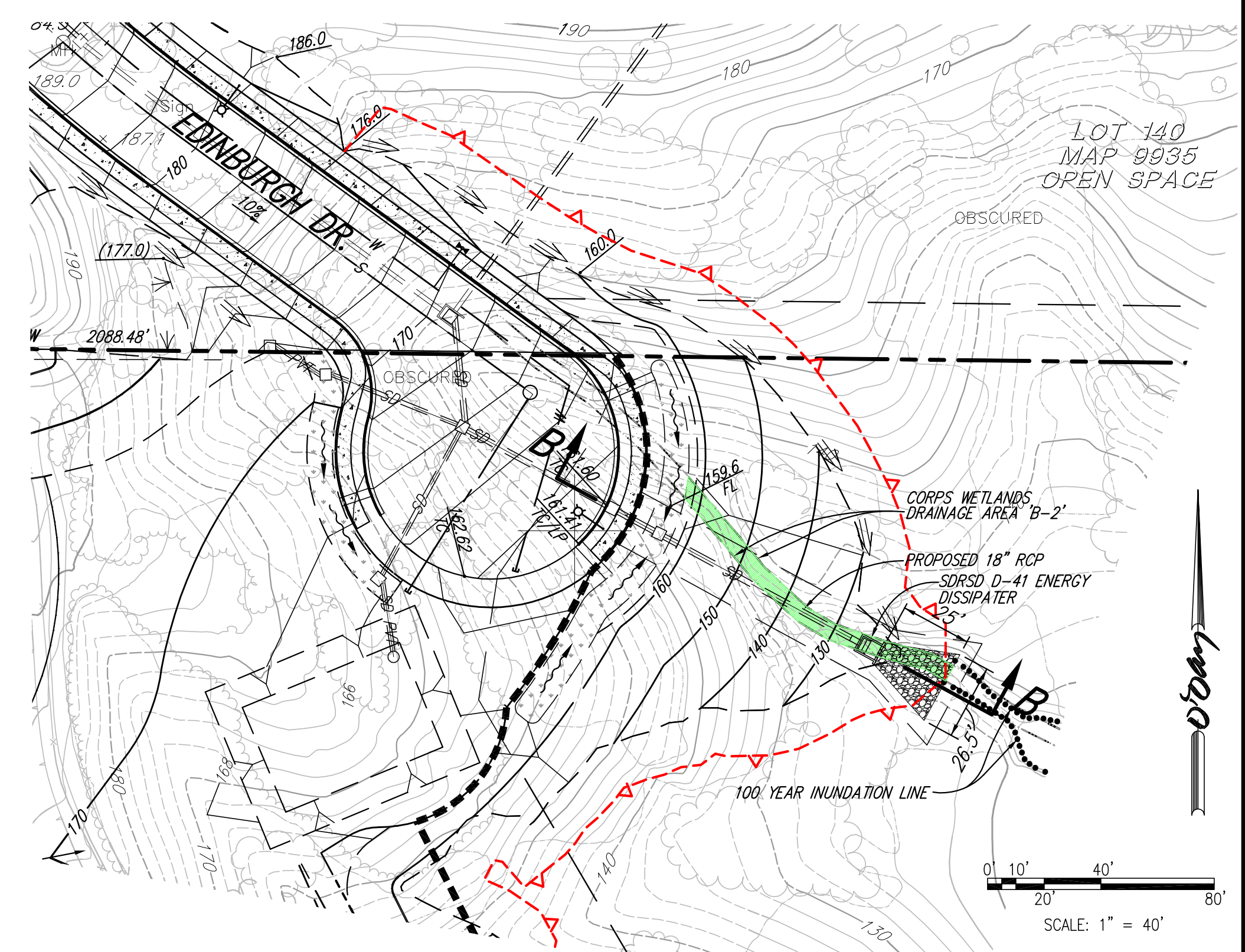
PLAN - GLASGOW DR OUTFALL



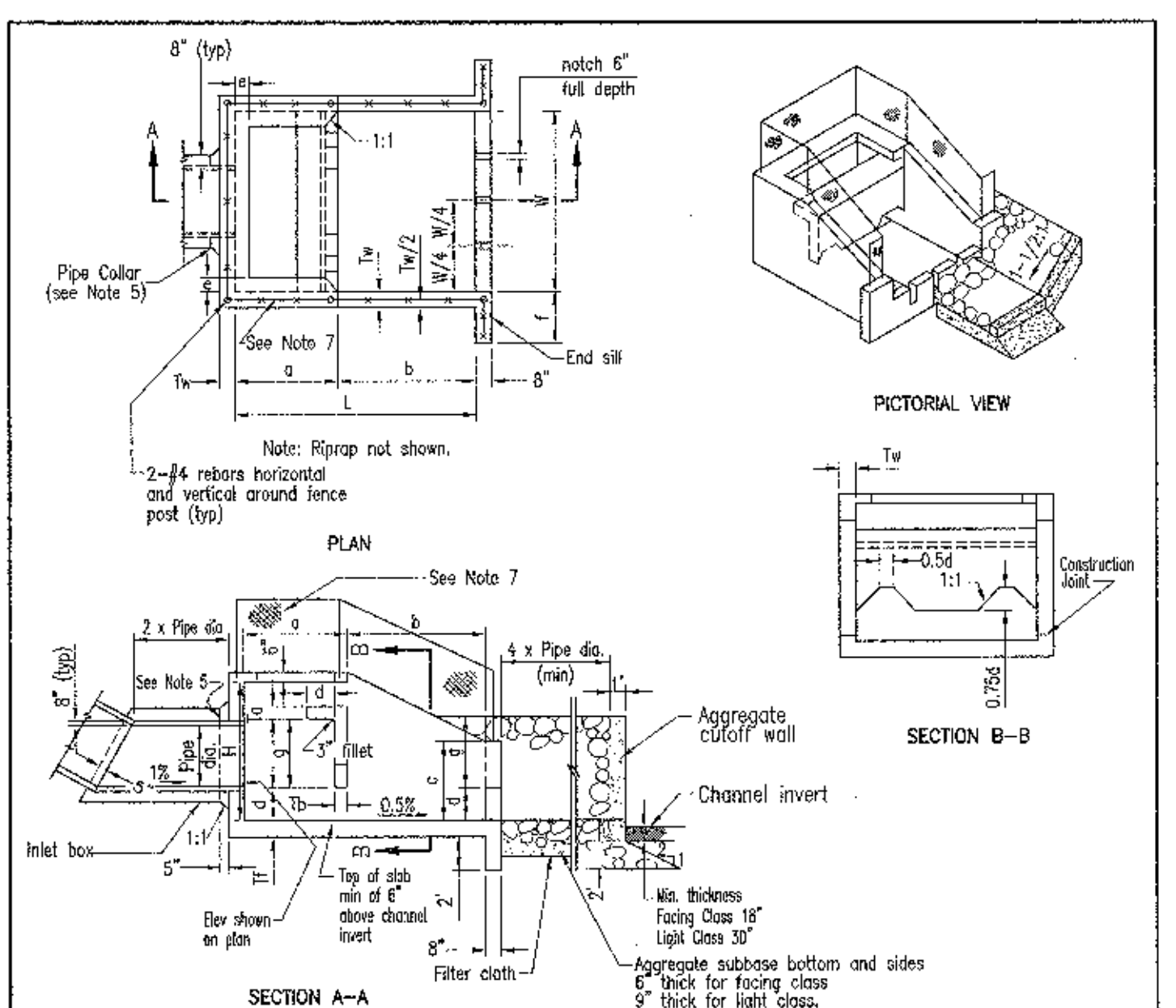
SECTION A-A

- LEGEND
- TOP/TOE OF SLOPE
 - 100-YEAR INUNDATION LINE
 - CORPUS WETLANDS
 - RIPARIAN HABITAT
 - HMP HARDLINE
 - LIMIT OF OVEREXCAVATION
 - QUANTIFIED IMPACTS TO CORPUS WETLANDS

- GLASGOW DRIVE OUTFALL:
- 10.9 CY AGGREGATE SUBBASE / CUTOFF WALL (SEE DETAIL D-41 BELOW)
 - 13.2 CY UNROUTED RIP-RAP
- EDINBURGH DRIVE OUTFALL:
- 35 LF 18" RCP STORM DRAIN PIPE
 - 290 CY NATIVE FILL
 - 1 EA ENERGY DISSIPATER PER SDRSD D-41
 - 12.3 CY AGGREGATE SUBBASE / CUTOFF WALL (SEE DETAIL D-41 BELOW)
 - 18.8 CY UNROUTED RIP-RAP



PLAN - EDINBURGH DR OUTFALL



- NOTES
- Design: Equivalent Fluid Pressure (Earth Loading) = 60 pcf
Maximum Outlet velocity = 35 fps
 - Concrete shall be 3600-3250.
 - Reinforcing shall conform to ASTM designation A615 and may be grade 40 or 60. Reinforcing shall be placed with 2" clear concrete cover unless noted otherwise. Splices shall not be permitted except as indicated on the plans.
 - For pipe grades not exceeding 20%, inlet box may be omitted.
 - If inlet box is omitted, construct pipe collar as shown.
 - Unless noted otherwise, all reinforcing bar bands shall be fabricated with standard hooks.
 - Five foot high chain link fencing, embed post 18" deep in walls and encase with class B mortar.
 - In Sandy and Silty soil:
 - a) Riprap and aggregate base cutoff wall required at the end of rock apron.
 - b) Filter cloth (Polyfilter X or equivalent) shall be installed on native soil base, minimum of 1 ft. overlaps at joints.
 - Rip rap and subbase classification shall be as shown on plans.
- FOR DIMENSIONS, SEE D-41B.

Revision	By	Approved	Date
ORIGINAL	Kiercheval	JZ	7/27/12
Add Metric	T. Stanton		02/03
Reformatting	T. Stanton		04/06
Edited	T. Stanton		02/09
Checked	D.S. T. Regala		02/11

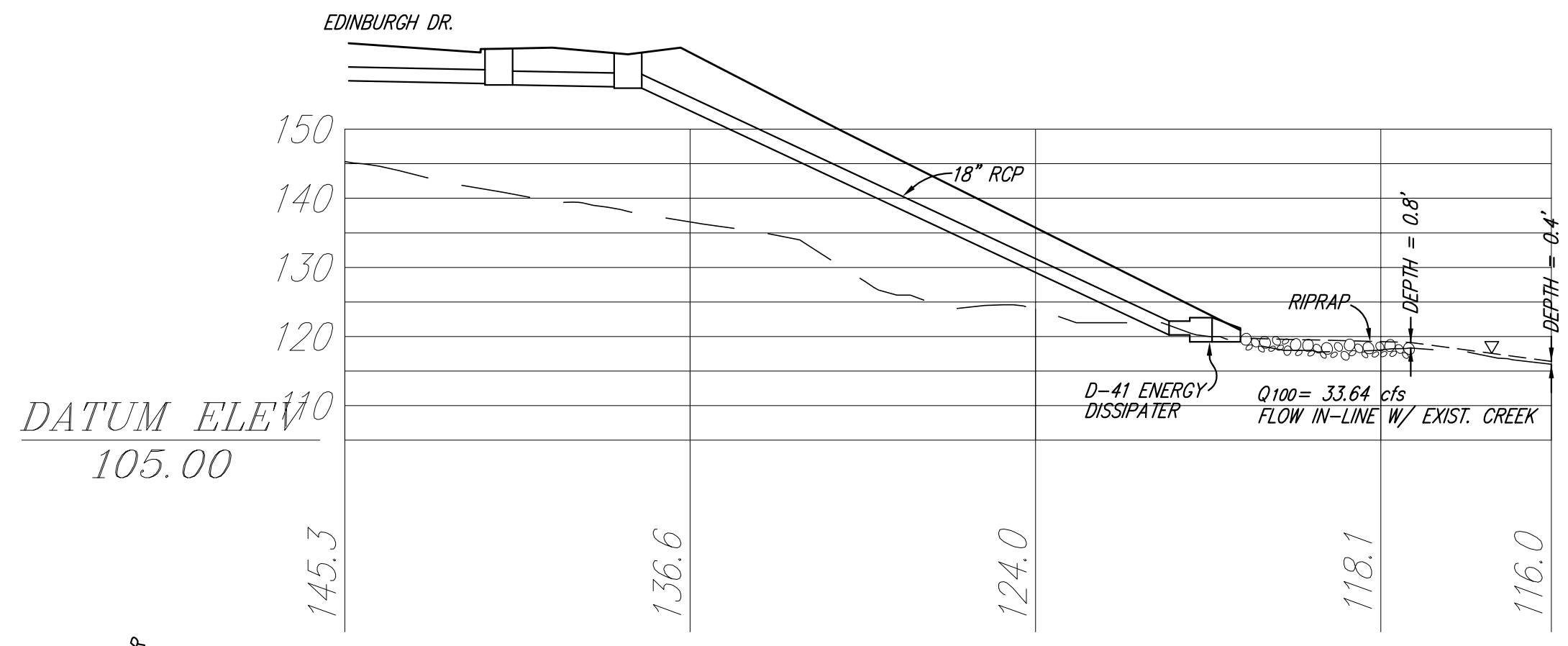
SAN DIEGO REGIONAL STANDARD DRAWING
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
CONCRETE ENERGY DISSIPATER
DRAWING NUMBER D-41A

CONCRETE ENERGY DISSIPATER DIMENSION TABLE
(SEE D-41A FOR STRUCTURE DETAILS)

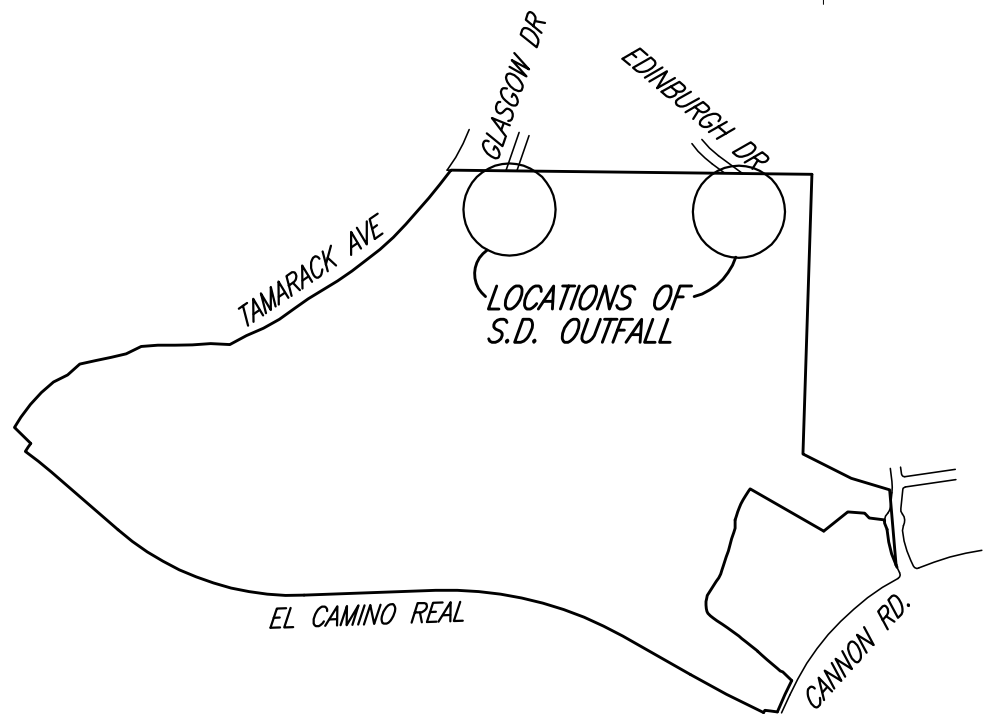
Pipe Dia (in)	18	24	30	36	42	48	54	60	72
Area (sq ft)	1.77	3.14	4.91	7.07	9.82	12.57	15.96	19.63	28.27
Max. Q (cfs)	21	38	59	85	115	151	191	236	339
W	5'-0"	6'-9"	8'	9'-3"	10'-0"	11'-0"	12'	14'-3"	16'-0"
H	4'-3"	5'-3"	6'-3"	7'-3"	8'	9'	9'-9"	10'-9"	12'-3"
L	7'-4"	9'	10'-0"	12'-4"	14'	15'-8"	17'-4"	19'	22'
a	3'-3"	3'-11"	4'-7"	5'-3"	6'	6'-9"	7'-4"	8'	9'-3"
b	4'-1"	5'-1"	6'-1"	7'-1"	8'	8'-11"	10'	11'	12'-9"
c	2'-4"	2'-10"	3'-4"	3'-10"	4'-5"	4'-11"	5'-5"	5'-11"	6'-11"
d	0'-11"	1'-2"	1'-4"	1'-7"	1'-9"	2'	2'-2"	2'-5"	2'-9"
e	0'-6"	0'-8"	0'-8"	0'-8"	0'-10"	0'-10"	1'	1'	1'-3"
f	1'-6"	2'	2'-6"	3'	3'	3'	3'	3'	3'
g	2'-1"	2'-6"	3'	3'-6"	3'-11"	4'-5"	4'-11"	5'-4"	6'-2"
T1	8'		10'		12'				
T2	7'		9 1/2"		10 1/2"				
T3	7'		9 1/2"		10 1/2"				
T4	7'				8'				

Revision	By	Approved	Date
ORIGINAL	Kiercheval	JZ	7/27/12
Add Metric	T. Stanton		02/03
Reformatting	T. Stanton		04/06
Edited	T. Stanton		02/09
Checked	D.S. T. Regala		02/11

SAN DIEGO REGIONAL STANDARD DRAWING
RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
CONCRETE ENERGY DISSIPATER
DRAWING NUMBER D-41B



SECTION B-B



SITE MAP

RANCHO COSTERA
STORM DRAIN OUTFALL SECTIONS
GLASGOW DR & EDINBURGH DR

UPDATED: JAN. 21, 2013
UPDATED: JAN. 2, 2013
DATE OF PREPARATION: AUG. 2, 2012

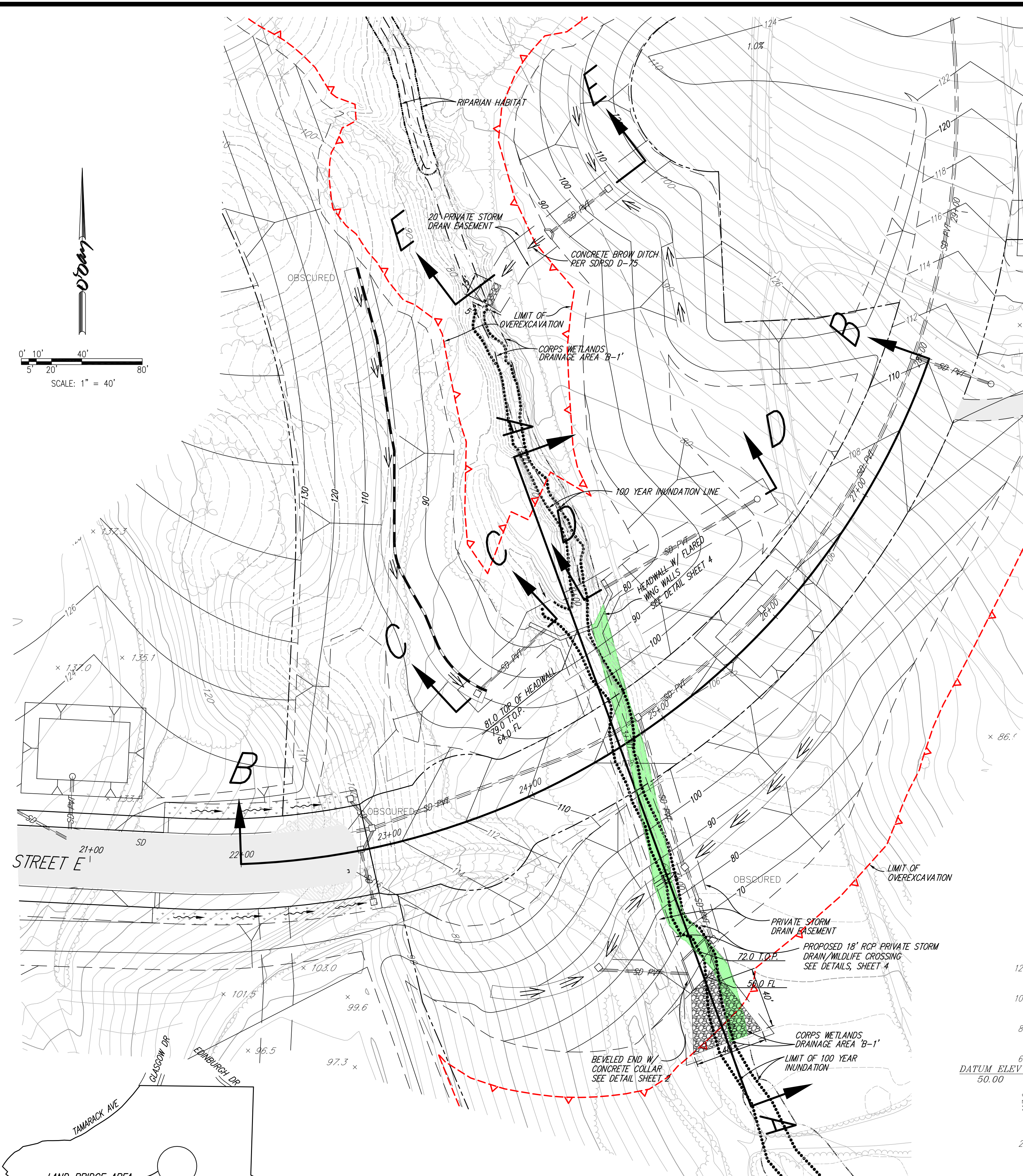
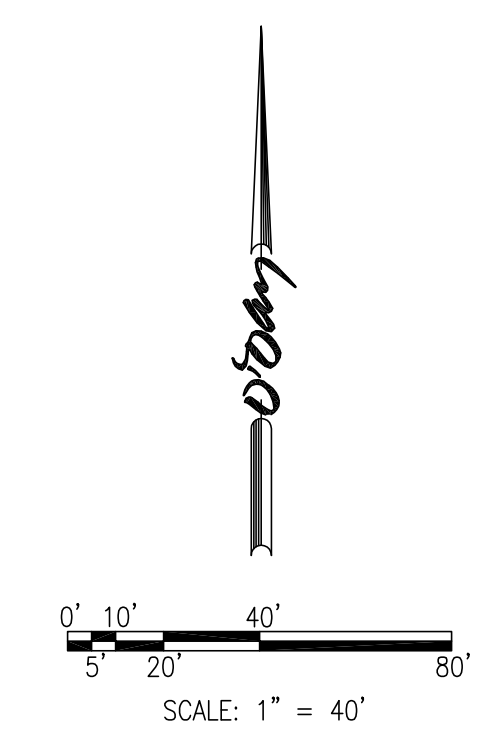
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760-931-8680
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Planning
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DESIGNED BY: J.T. DATE: AUG 2012
DRAWN BY: J.S. SCALE:
PROJECT MGR.: G.O. JOB NO.: 101307

ENGINEER OF WORK
DATE: 3/2014
RCE: 32014



PLAN - LAND BRIDGE AREA
SCALE: 1" = 40'

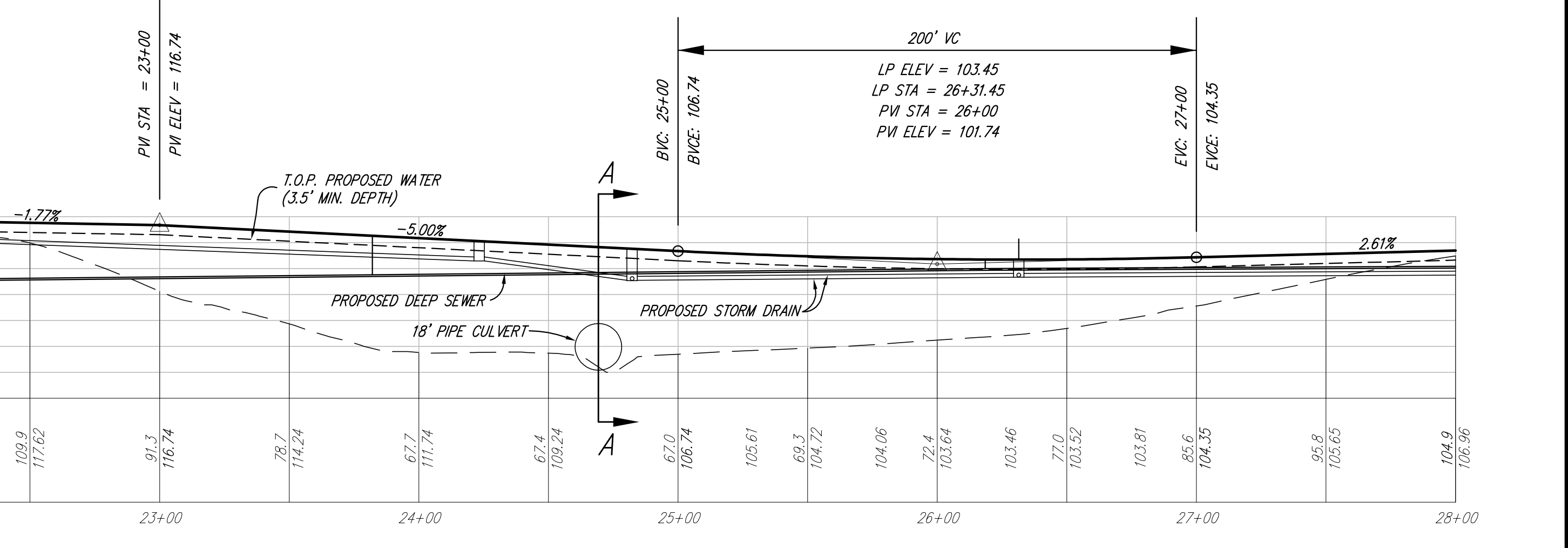
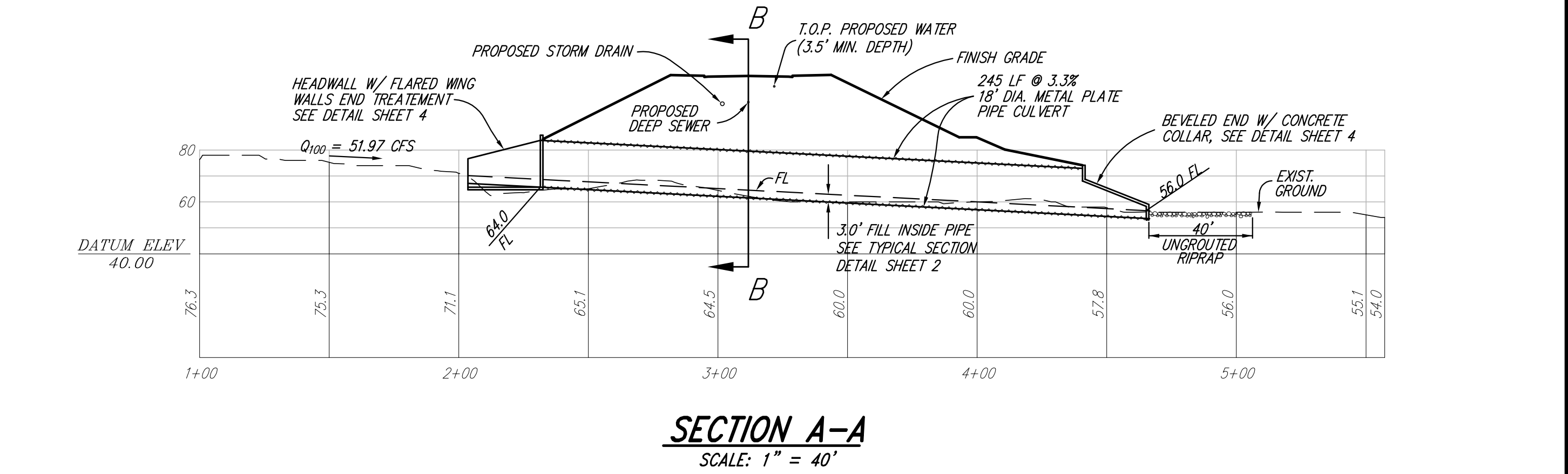
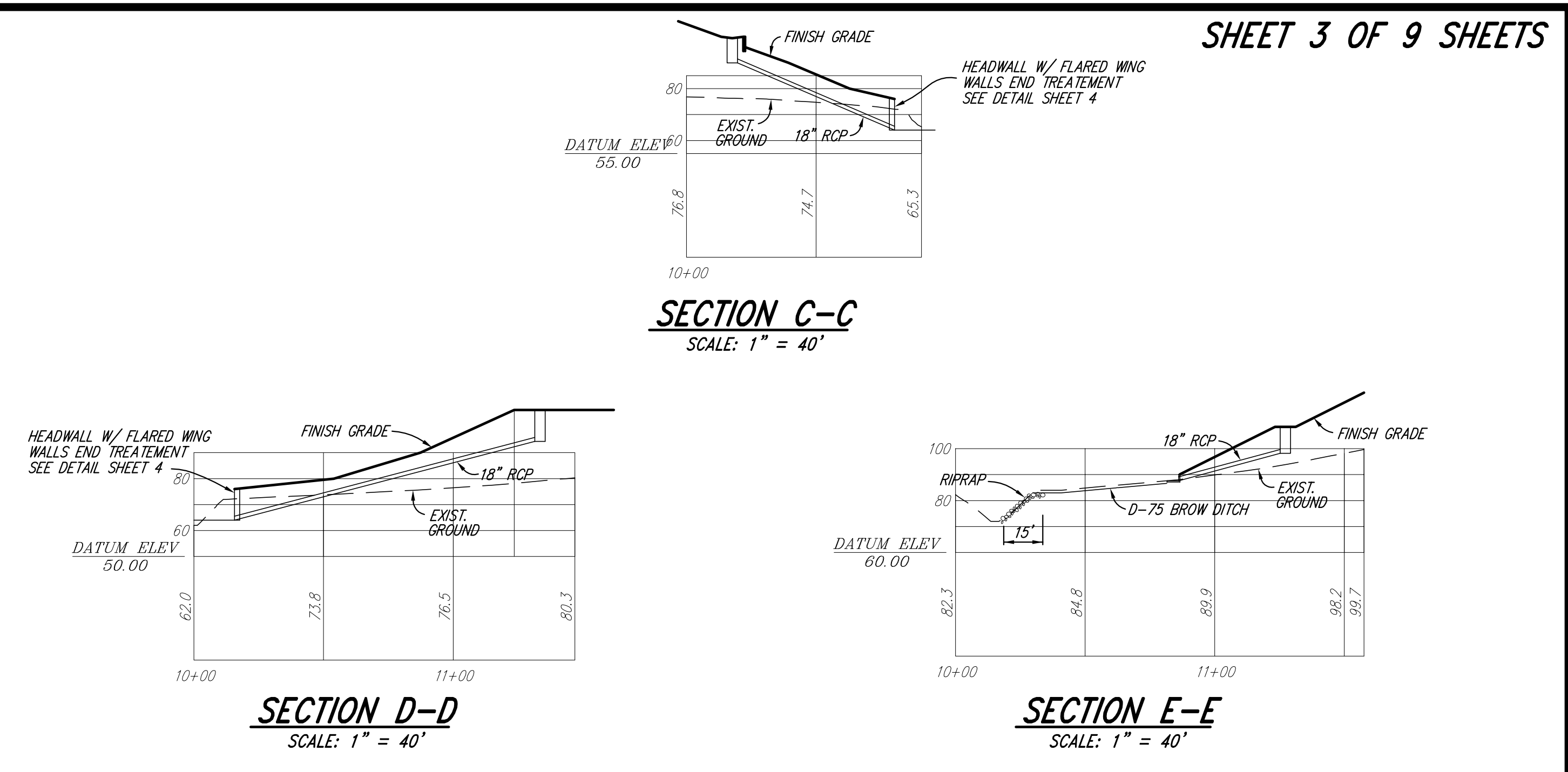
- LEGEND**
- TOP/TOE OF SLOPE
 - 100-YEAR INUNDATION LINE
 - CORPS WETLANDS
 - RIPARIAN HABITAT
 - HMP HARDLINE
 - LIMIT OF OVEREXCAVATION
 - QUANTIFIED IMPACTS TO CORPS' WETLANDS

- LAND BRIDGE CULVERT:**
- 245 LF ~ 18" DIAMETER METAL PLATE PIPE CULVERT
 - 1,532 CY NATIVE FILL ABOVE CULVERT TO FINISHED GRADE
 - 27 CY EROSION RESISTANT FILL INSIDE PIPE
 - 99 CY UNROUTED RIP-RAP
 - 15 LF CONCRETE HEADWALL WITH WING-WALLS*
 - 32 LF CONCRETE BEVELED END TREATMENT*



SITE MAP
NOT TO SCALE

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SECTION B-B
SCALE: 1" = 40'

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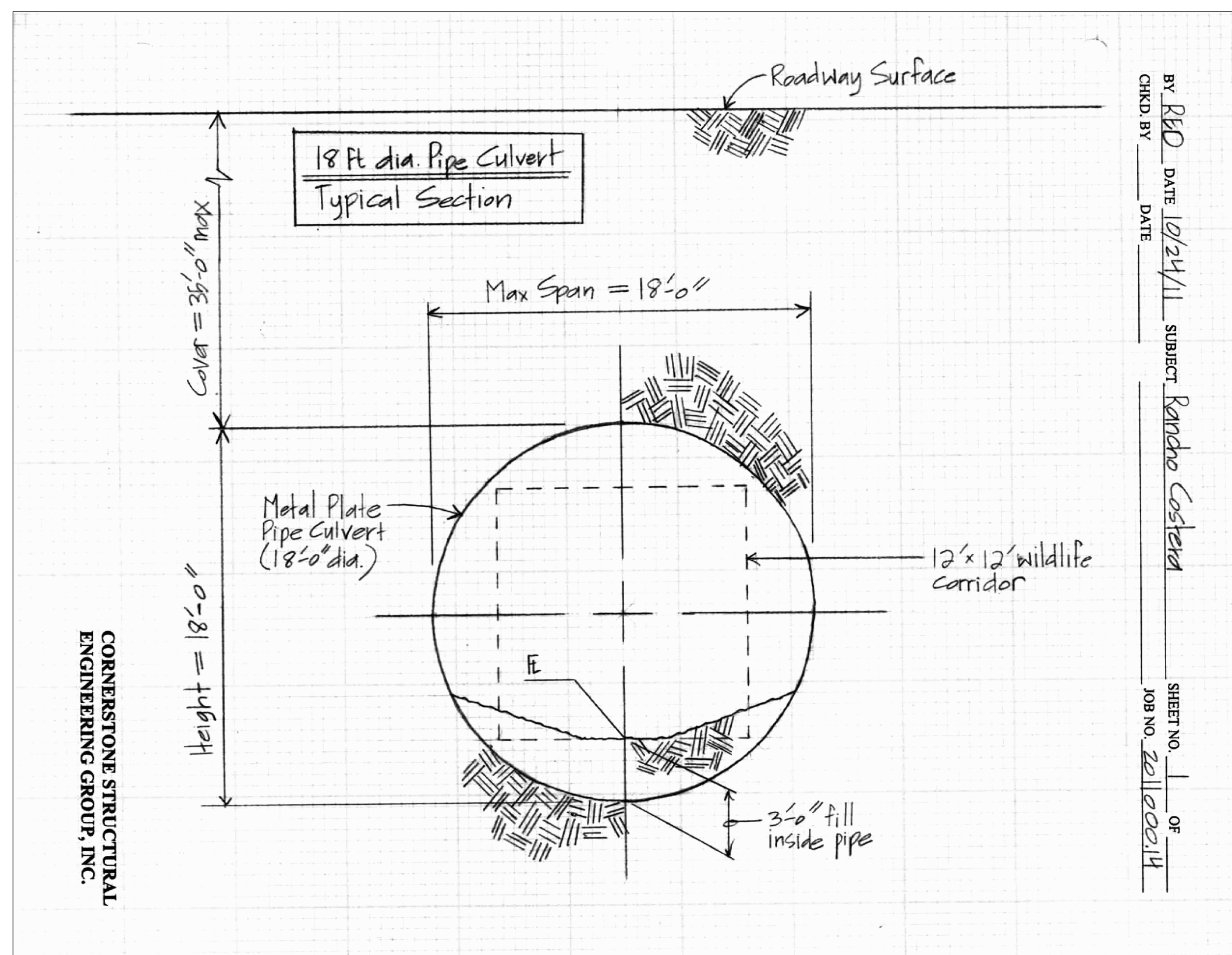
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DRAWN BY: J.S.	SCALE: 1" = 40'
PROJECT MGR.: G.O.	JOB NO.: 101307
ENGINEER OF WORK	
DATE: _____	
GEORGE O'DAY	RCE: 32014

**RANCHO COSTERA
STORM DRAIN OUTFALL SECTIONS
LAND BRIDGE AREA**

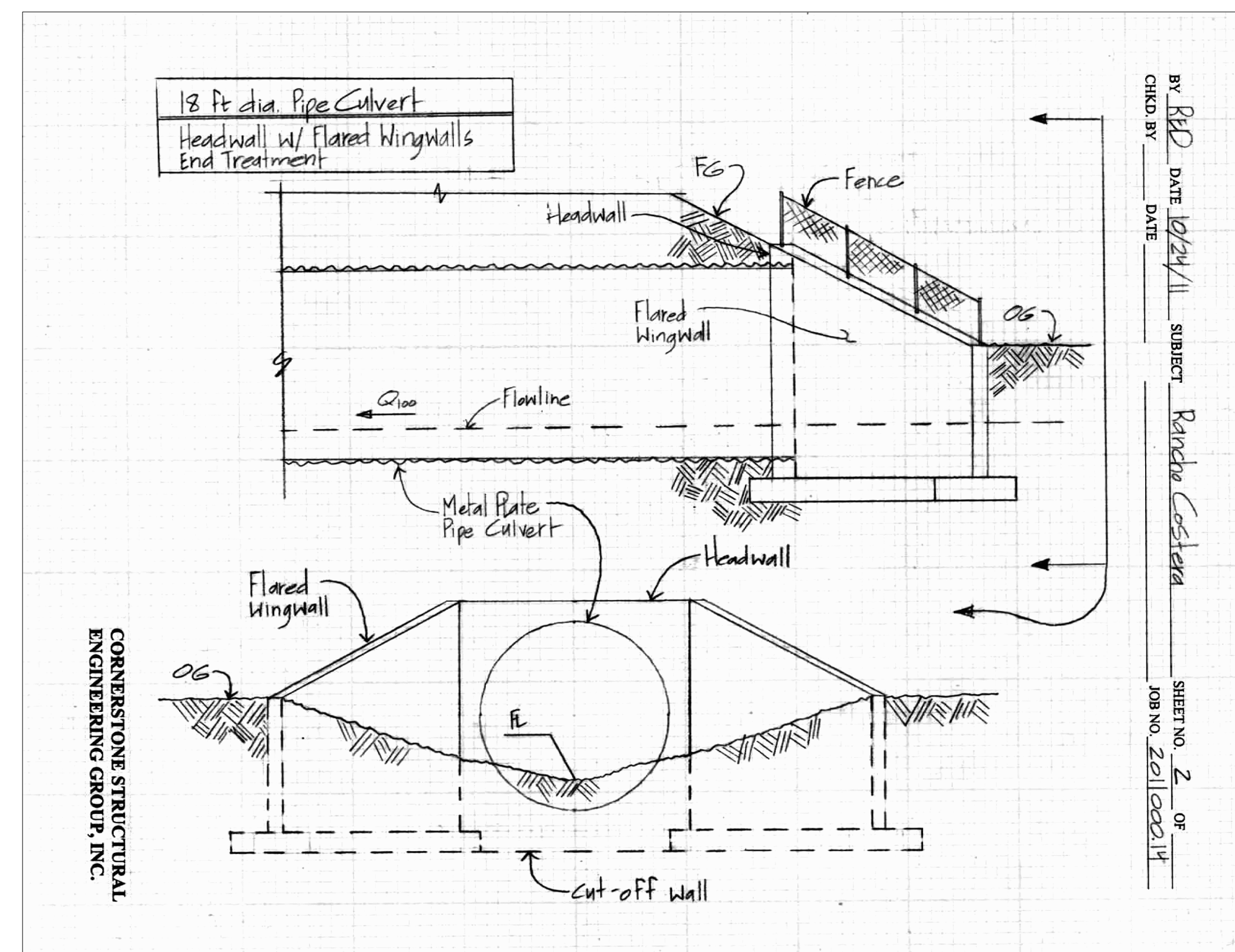
* BY SEPARATE DESIGN



TYPICAL SECTION
N.T.S.

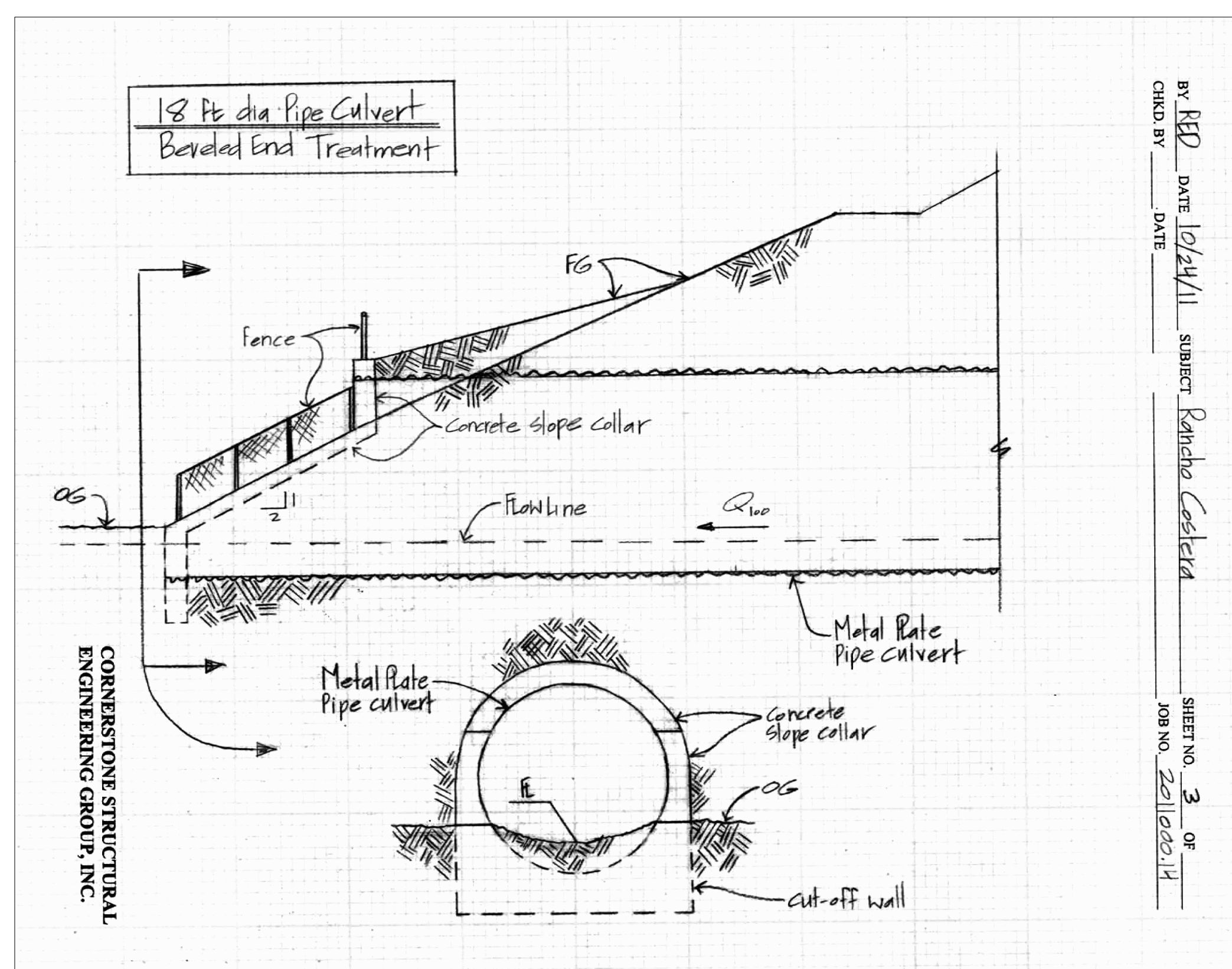
BY: RJD DATE: 10/24/11 SUBJECT: Rancho Costera
 CHD BY: DATE: SHEET NO. 1 OF 9
 JOB NO. 201100014

- NOTES:
 1) 3 FEET OF FILL INSIDE 18 FOOT PIPE AT LAND BRIDGE ANIMAL CROSSING REQUIRES A SOIL MIX TO RESIST EROSION.
 2) FLOWLINE OF ANIMAL CROSSING WILL BE SET AT EXISTING SOIL GRADE (Q100 VELOCITIES = 6.3 FEET/SECOND).



**HEADWALL W/ WING WALLS
END TREATMENT**
N.T.S.

BY: RJD DATE: 10/24/11 SUBJECT: Rancho Costera
 CHD BY: DATE: SHEET NO. 2 OF 9
 JOB NO. 201100014



BEVELED END TREATMENT
N.T.S.

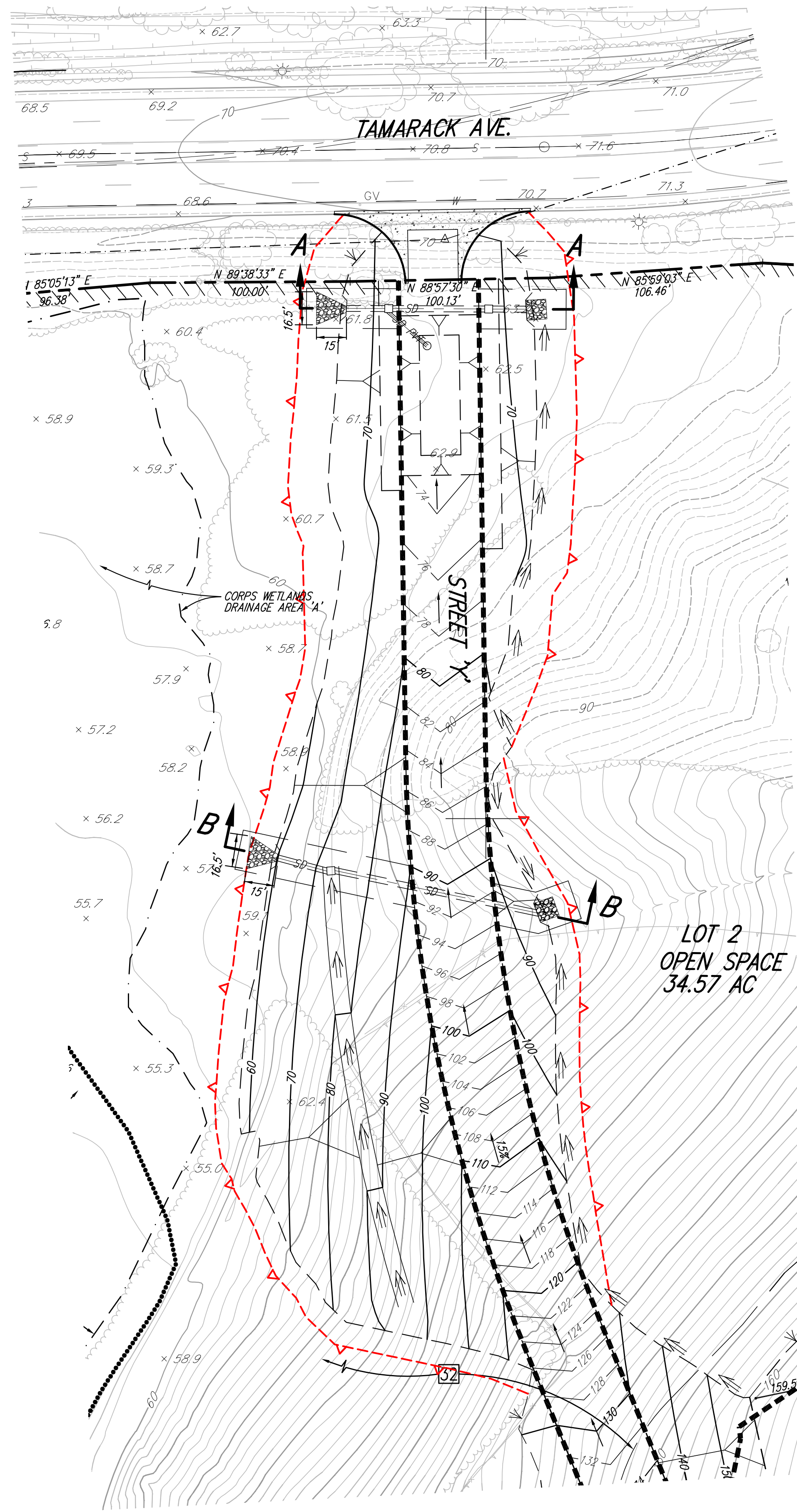
BY: RJD DATE: 10/24/11 SUBJECT: Rancho Costera
 CHD BY: DATE: SHEET NO. 3 OF 9
 JOB NO. 201100014

DETAILS
18 FT DIA. PIPE CULVERT
 PROVIDED BY CORNERSTONE STRUCTURAL
 ENGINEERING GROUP, INC. DATED 10/24/2011

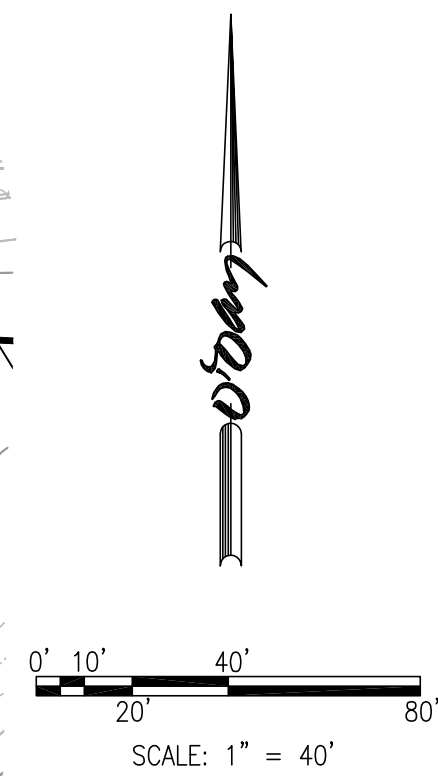
RANCHO COSTERA
STORM DRAIN OUTFALL SECTIONS
LAND BRIDGE AREA

UPDATED: JAN. 21, 2013
 UPDATED: JAN. 2, 2013
 DATE OF PREPARATION: AUG. 2, 2012

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	ENGINEER OF WORK DATE: GEORGE O'DAY RCE: 32014

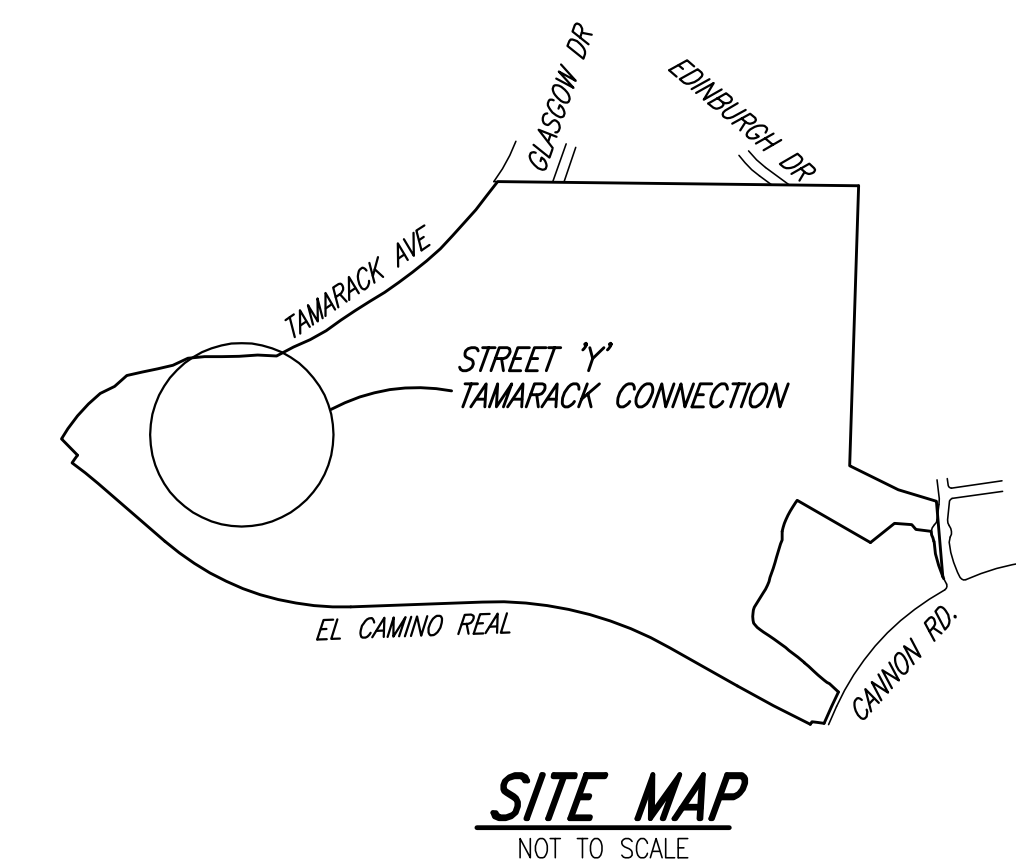
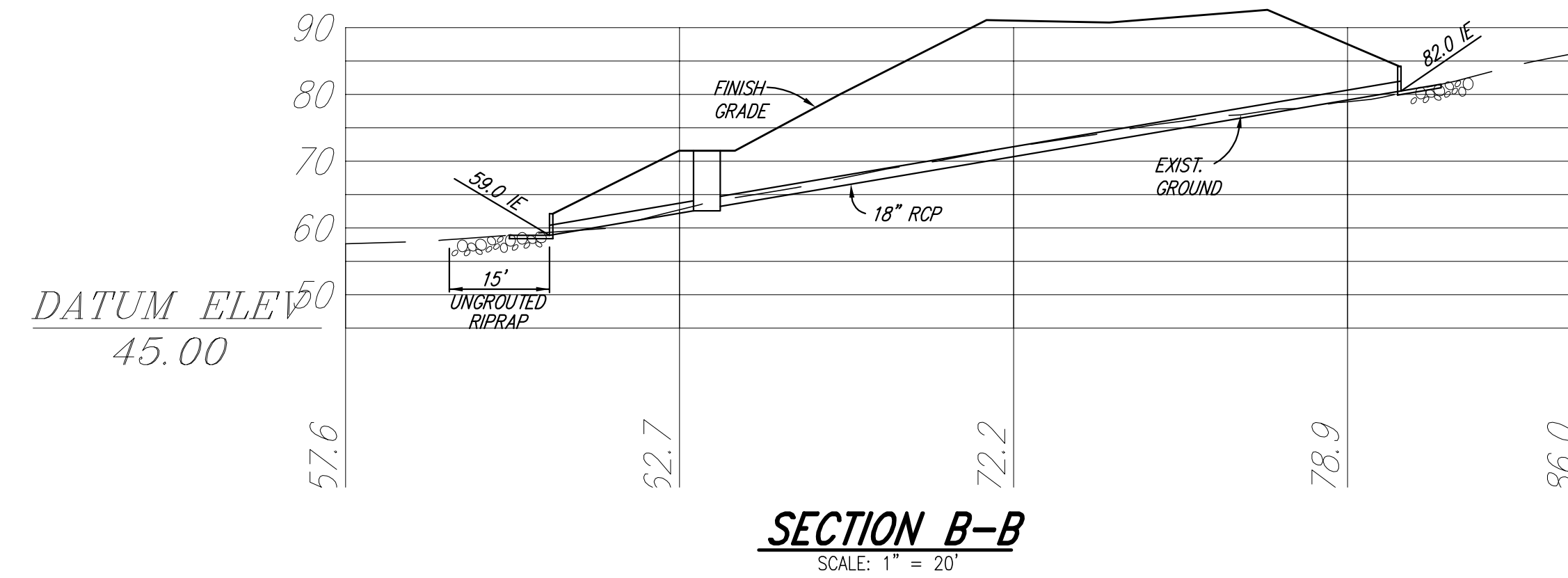
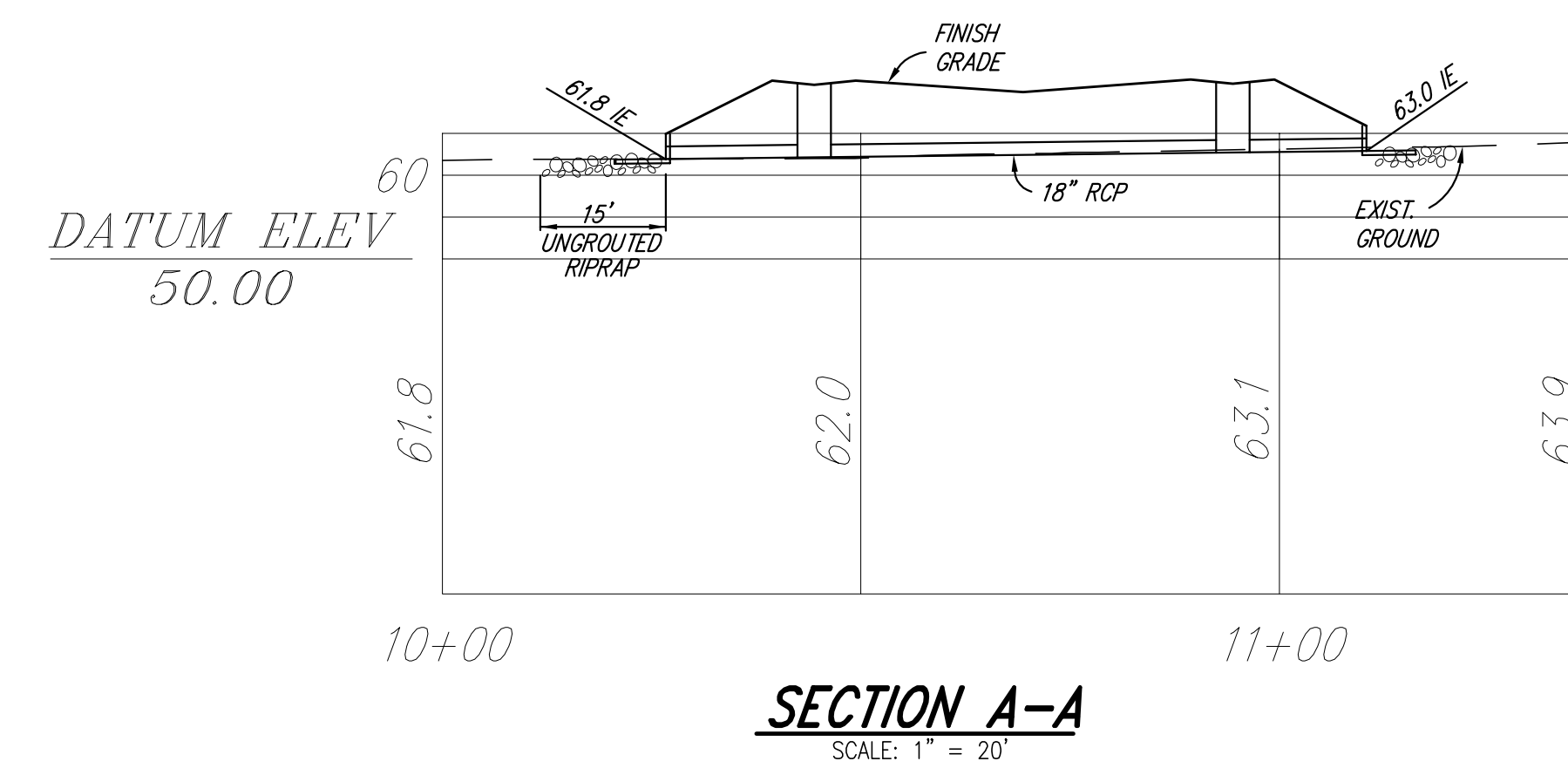


PLAN - STREET Y
SCALE: 1" = 40'



LOT 2
OPEN SPACE
34.57 AC

- LEGEND**
- TOP/TOE OF SLOPE
 - 100-YEAR INUNDATION LINE
 - CORPS WETLANDS
 - RIPARIAN HABITAT
 - HMP HARDLINE
 - LIMIT OF OVEREXCAVATION

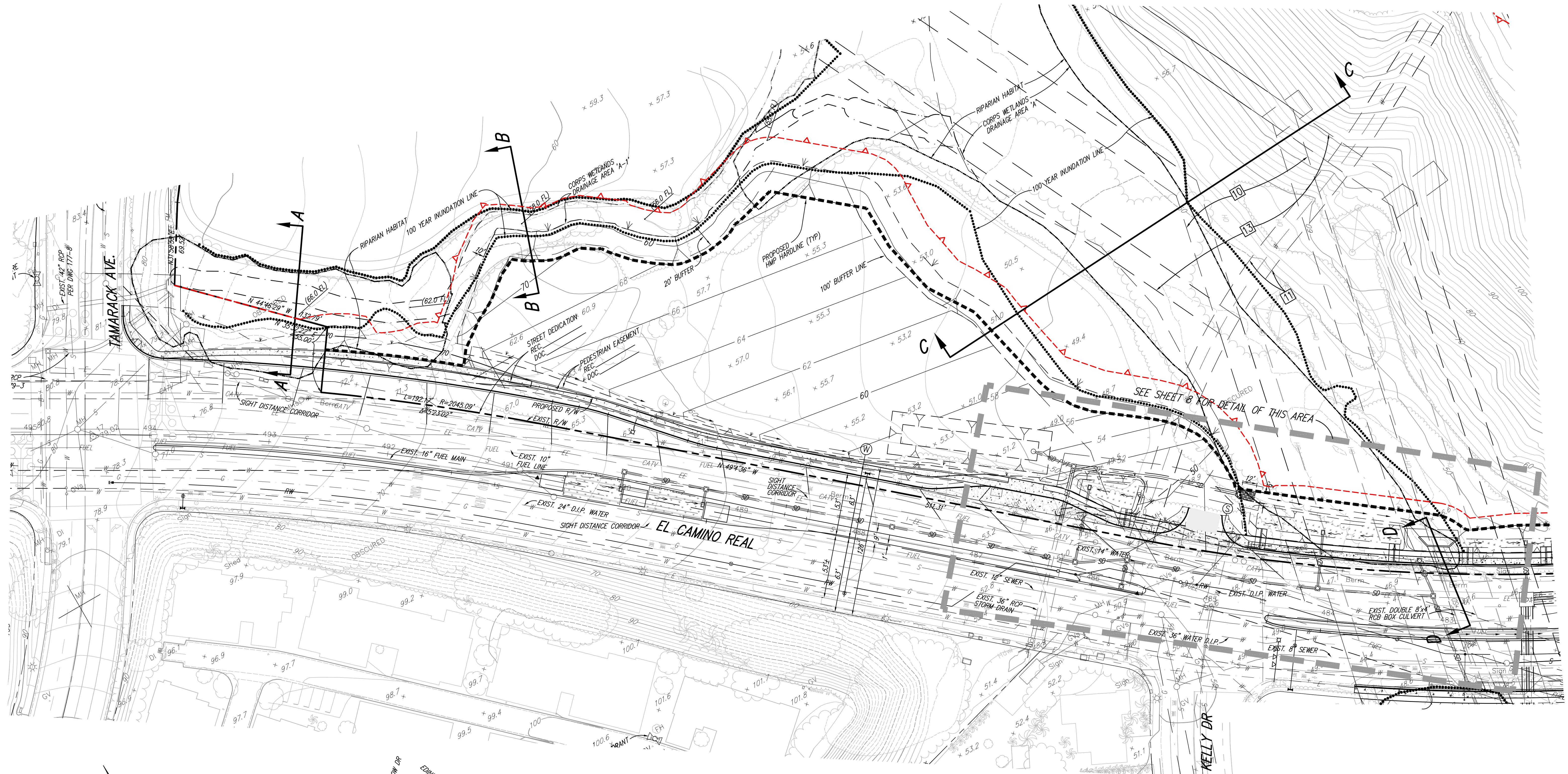


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DESIGNED BY: J.T.	DATE: AUG 2012
DRAWN BY: J.S.	SCALE:
PROJECT MGR.: G.O.	JOB NO.: 101307
ENGINEER OF WORK	
DATE:	
GEORGE O'DAY	RCE: 32014

RANCHO COSTERA
STORM DRAIN OUTFALL SECTIONS
TAMARACK CONNECTION UNDERCROSSINGS
STREET Y

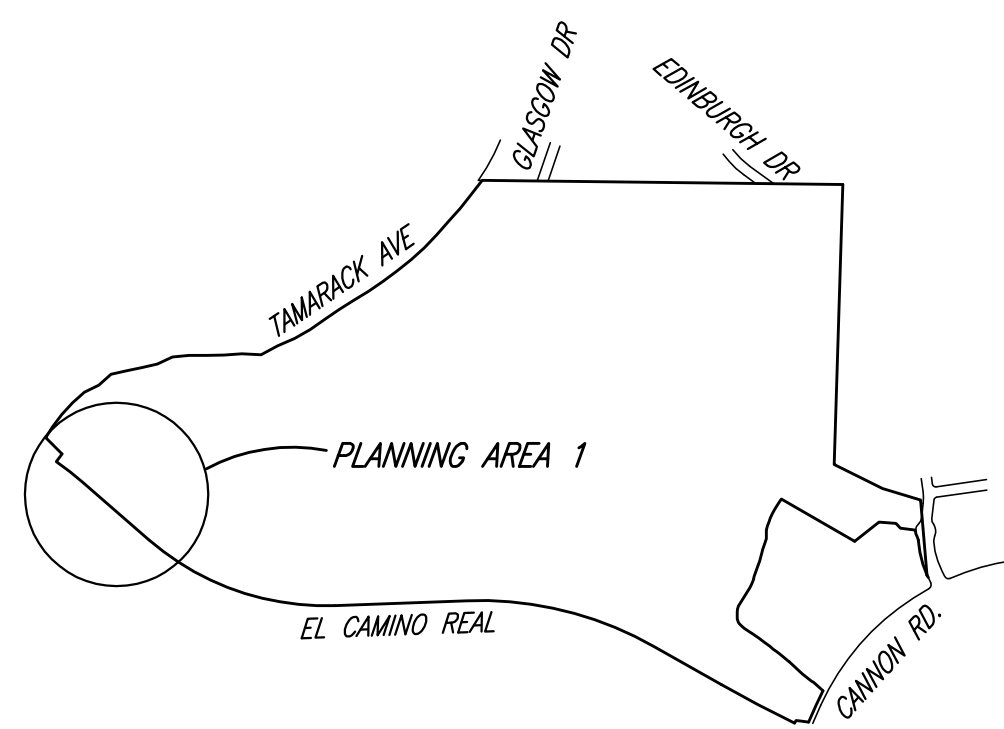
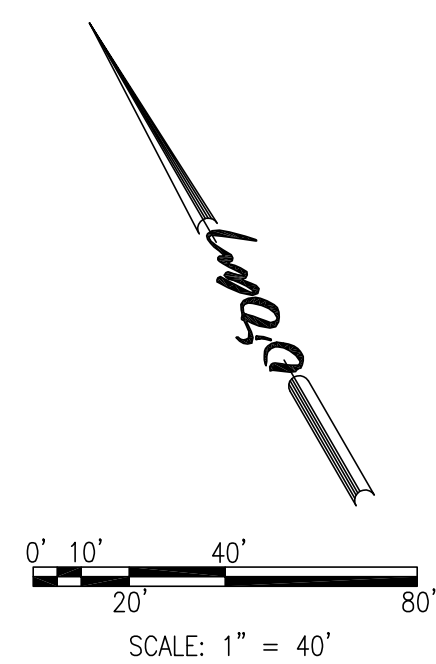


PLAN - PLANNING AREA 1

SCALE: 1" = 40'

LEGEND

- TOP/TOE OF SLOPE
- 100-YEAR INUNDATION LINE
- CORPUS WETLANDS
- RIPARIAN HABITAT
- HMP HARDLINE
- LIMIT OF OVEREXCAVATION/LIMIT OF WORK



SITE MAP
NOT TO SCALE

RANCHO COSTERA
STORM DRAIN OUTFALL SECTIONS
PLANNING AREA 1

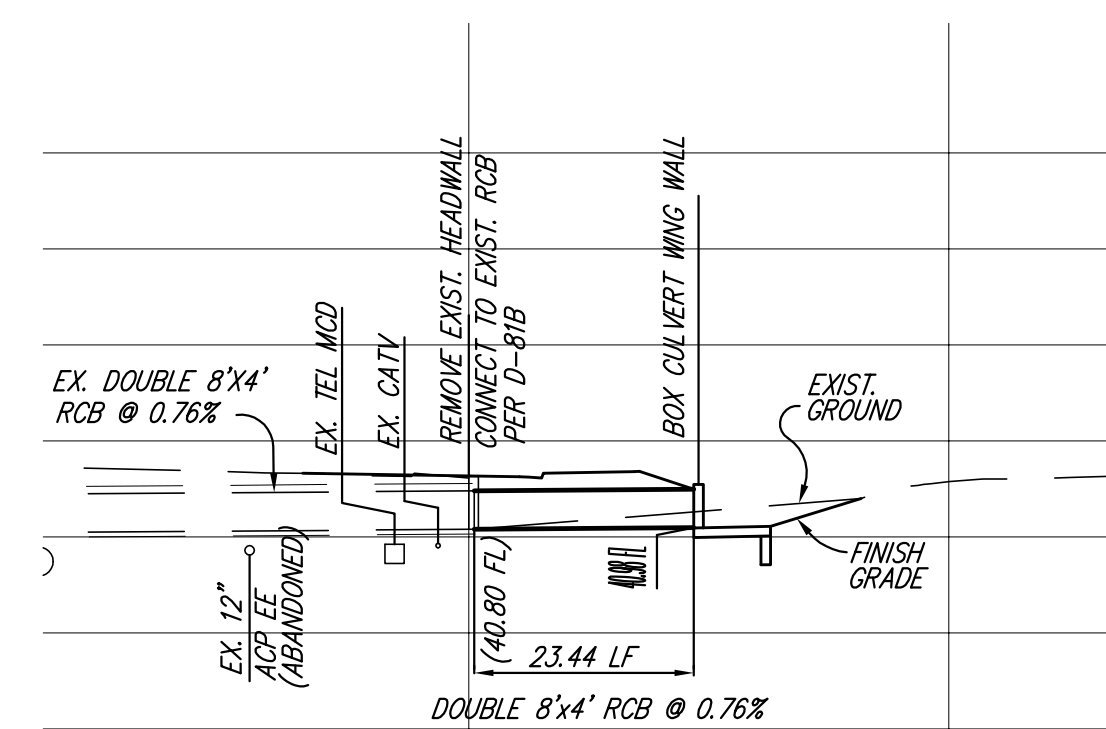
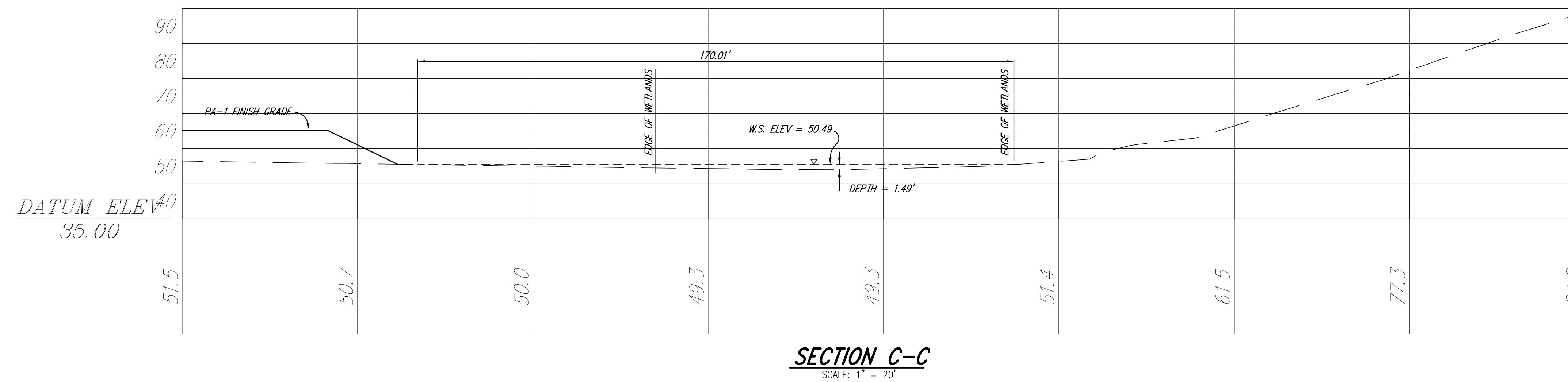
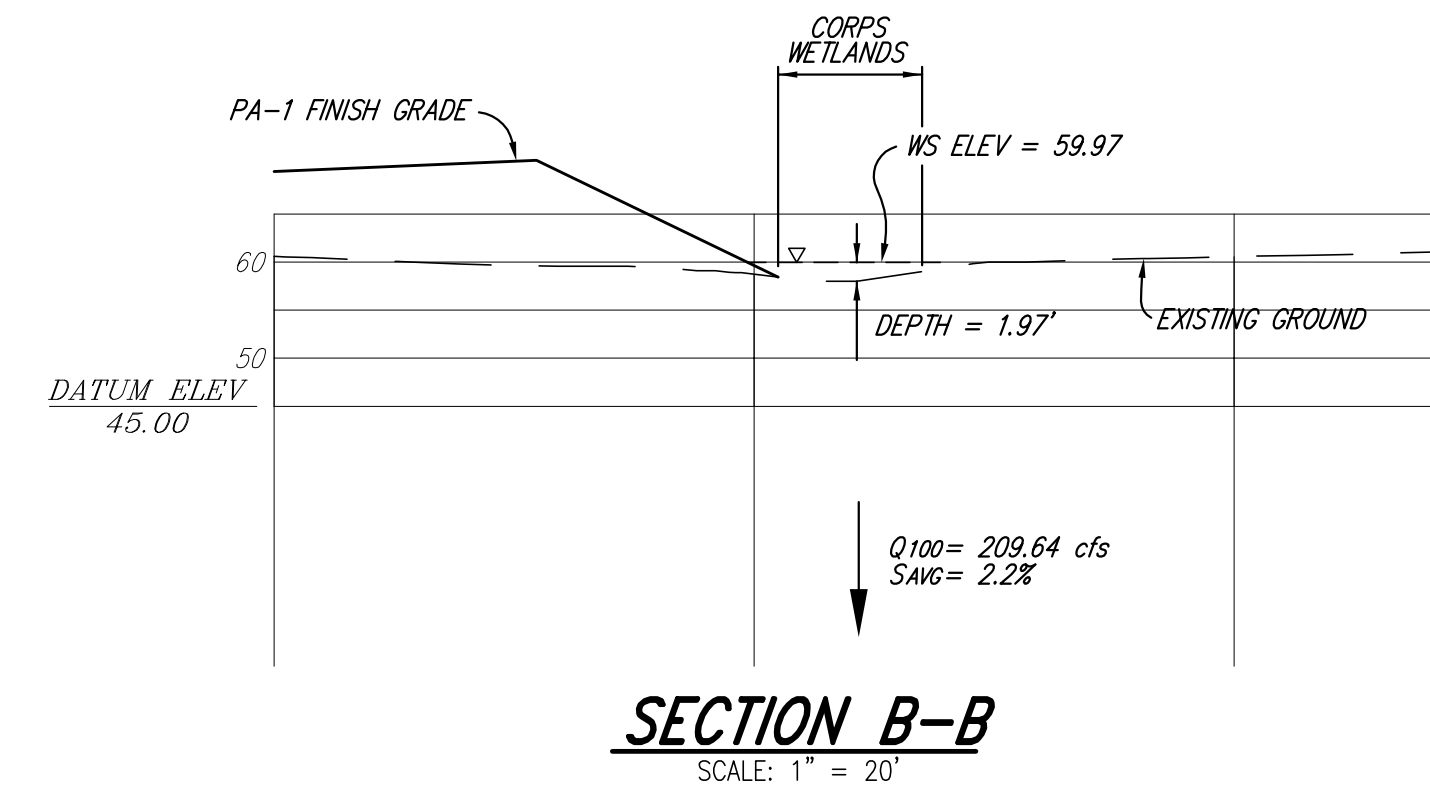
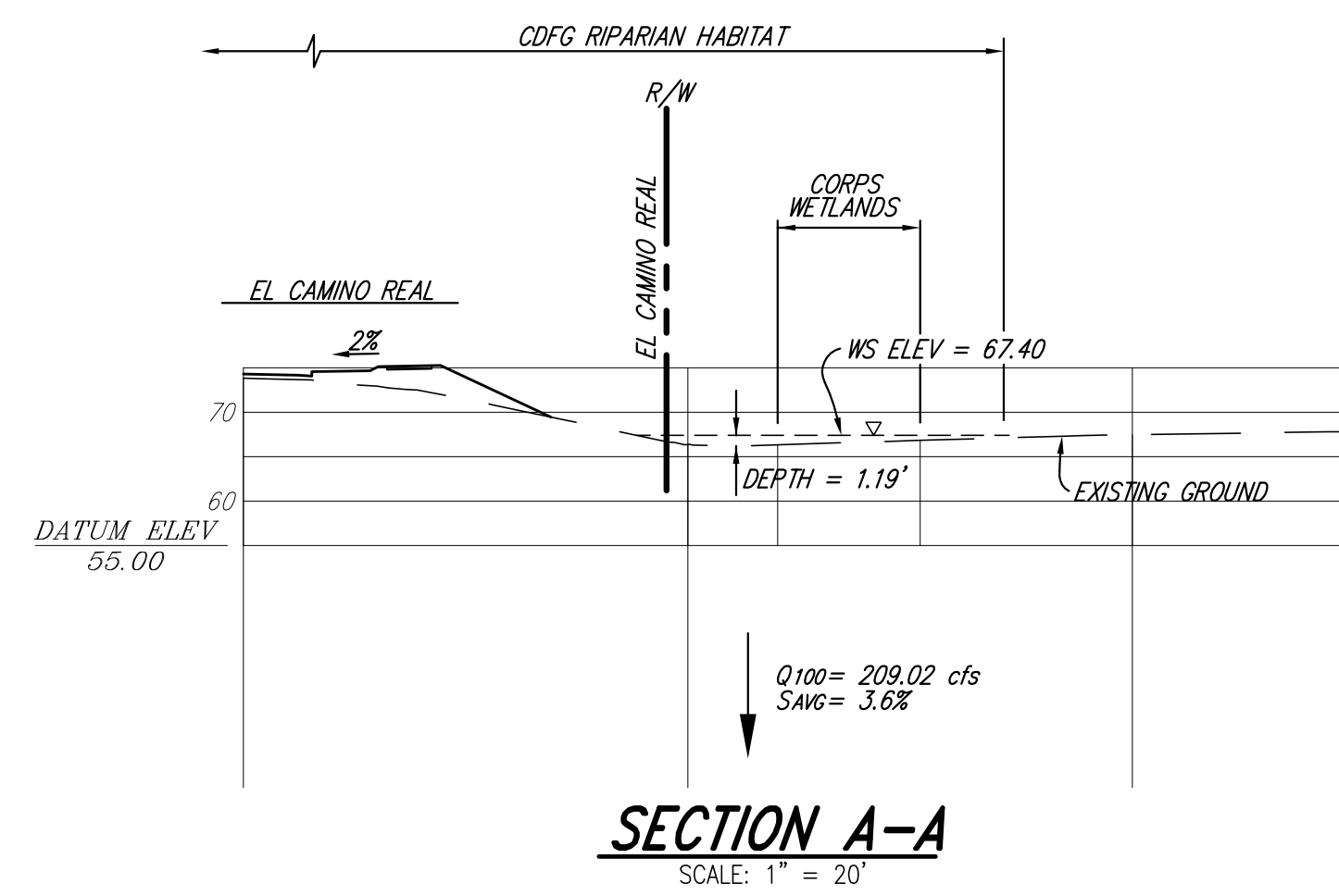
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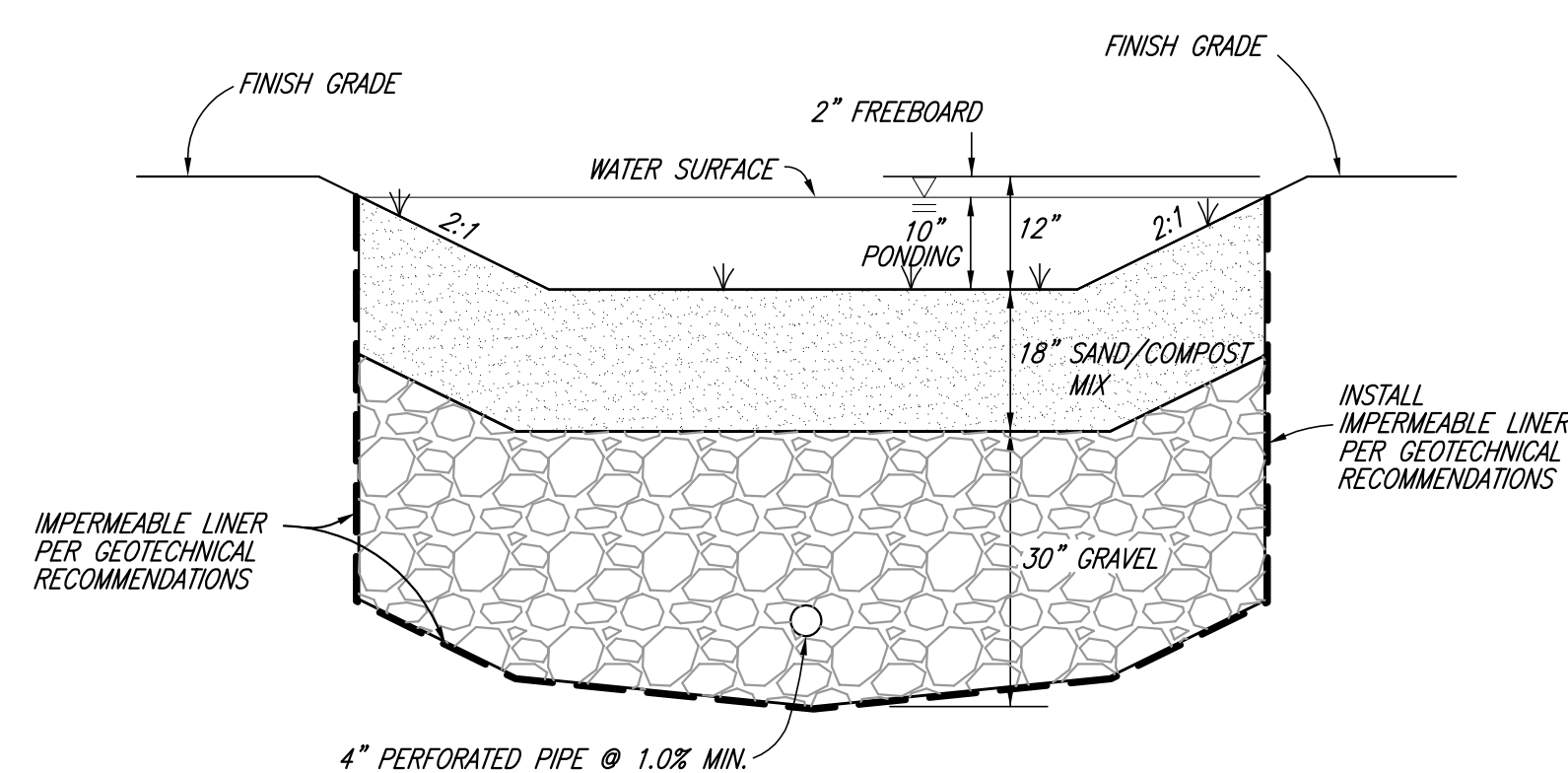
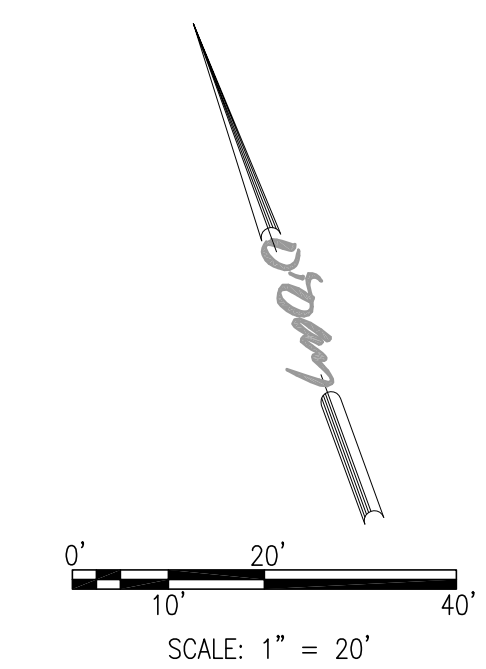
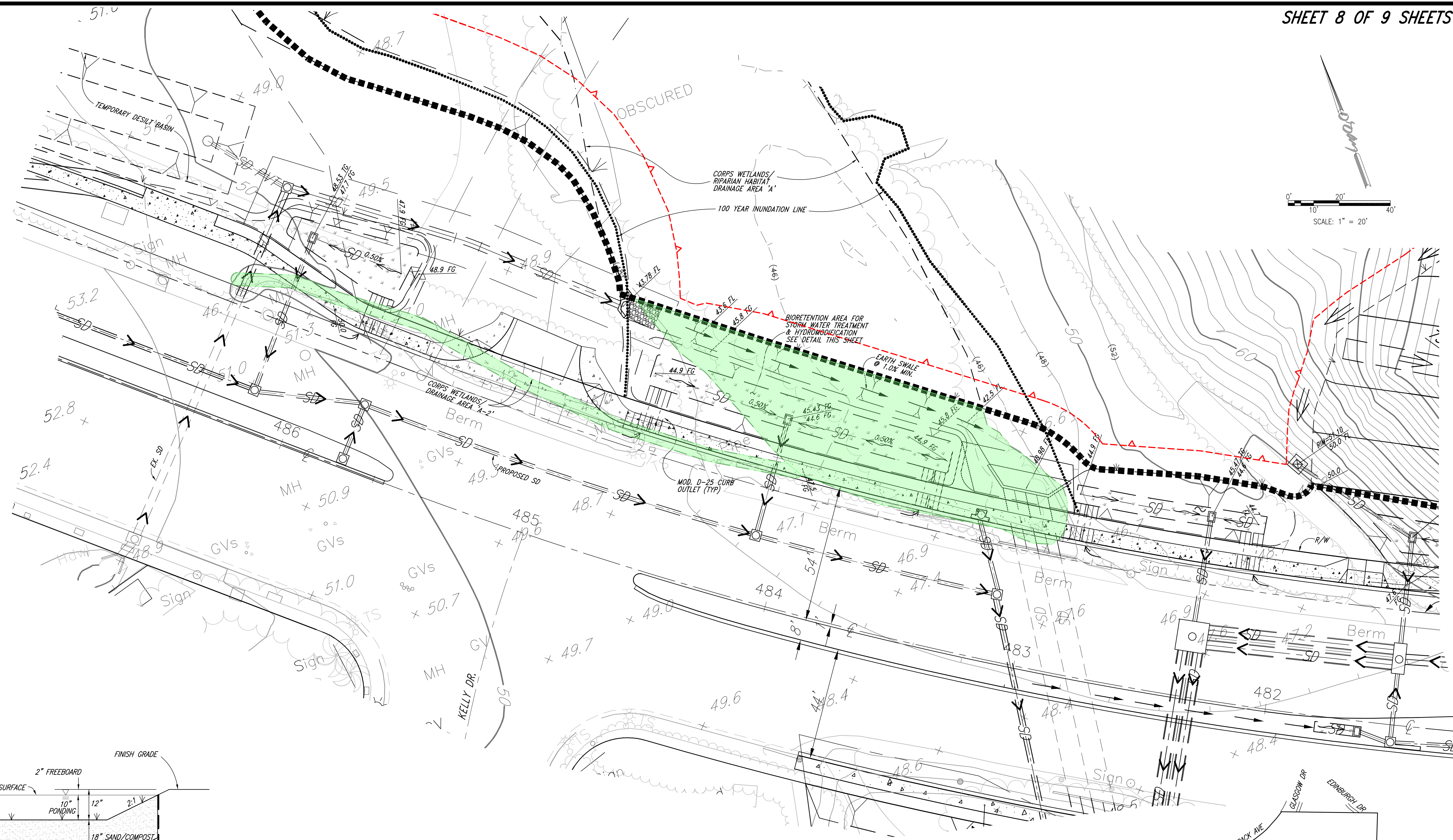
DESIGNED BY: J.T.	DATE: AUG 2012
DRAWN BY: J.S.	SCALE:
PROJECT MGR.: G.O.	JOB NO.: 101307
ENGINEER OF WORK	
GEORGE O'DAY	
DATE:	RCE: 32014



**RANCHO COSTERA
STORM DRAIN OUTFALL SECTIONS
PLANNING AREA 1**

UPDATED: JAN. 21, 2013
UPDATED: JAN. 2, 2013
DATE OF PREPARATION: AUG. 2, 2012

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	ENGINEER OF WORK DATE: GEORGE O'DAY RCE: 32014



DETAIL - BIORETENTION AREA FULLY LINED FLOW-THROUGH PLANTER
NOT TO SCALE

- NOTE:
- SOIL MIX AND GRAVEL SHALL HAVE 40% POROSITY AND SHALL BE VERIFIED BY GEOTECHNICAL ENGINEER. 5" PER HOUR INFILTRATION RATE.
 - SEE SECTION 4 OF CITY OF CARLSBAD STANDARD URBAN STORM WATER MANAGEMENT PLAN (SUSMP) DATED 1/14/2011, FOR ADDITIONAL BIORETENTION SPECIFICATIONS.
 - CONSTRUCT CHECK DAMS AS NEEDED

- LEGEND**
- TOP TOE OF SLOPE
 - 100-YEAR INUNDATION LINE
 - CORPS WETLANDS
 - RIPARIAN HABITAT
 - HMP HARDLINE
 - LIMIT OF OVEREXCAVATION/LIMIT OF WORK
 - QUANTIFIED IMPACTS TO CORPS WETLANDS

EL CAMINO REAL NORTH WIDENING IMPACTS TO DRAINAGE 'A' AND 'A-2':

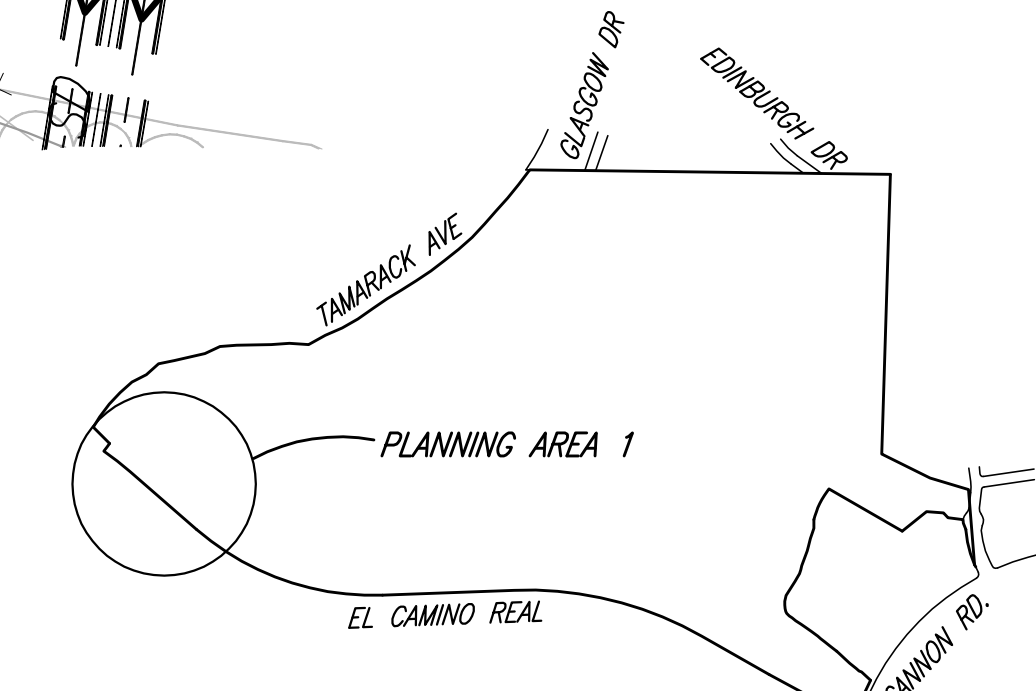
DRAINAGE 'A' CULVERT CROSSING UNDER ECR EAST OF KELLY DRIVE:

- 23 LF DOUBLE 8'X4' REINFORCED CONCRETE BOX
- 13 CY BOX CULVERT WING WALL, TYPE 'A' PER SDRSD D-79A
- 264 CY NATIVE FILL

DRAINAGE 'A-2' RIP-RAP THAT CROSSES INTO DRAINAGE 'A' CORPS WETLANDS FROM RE-ROUTED DRAINAGE 'A-2' STORM DRAIN SYSTEM:

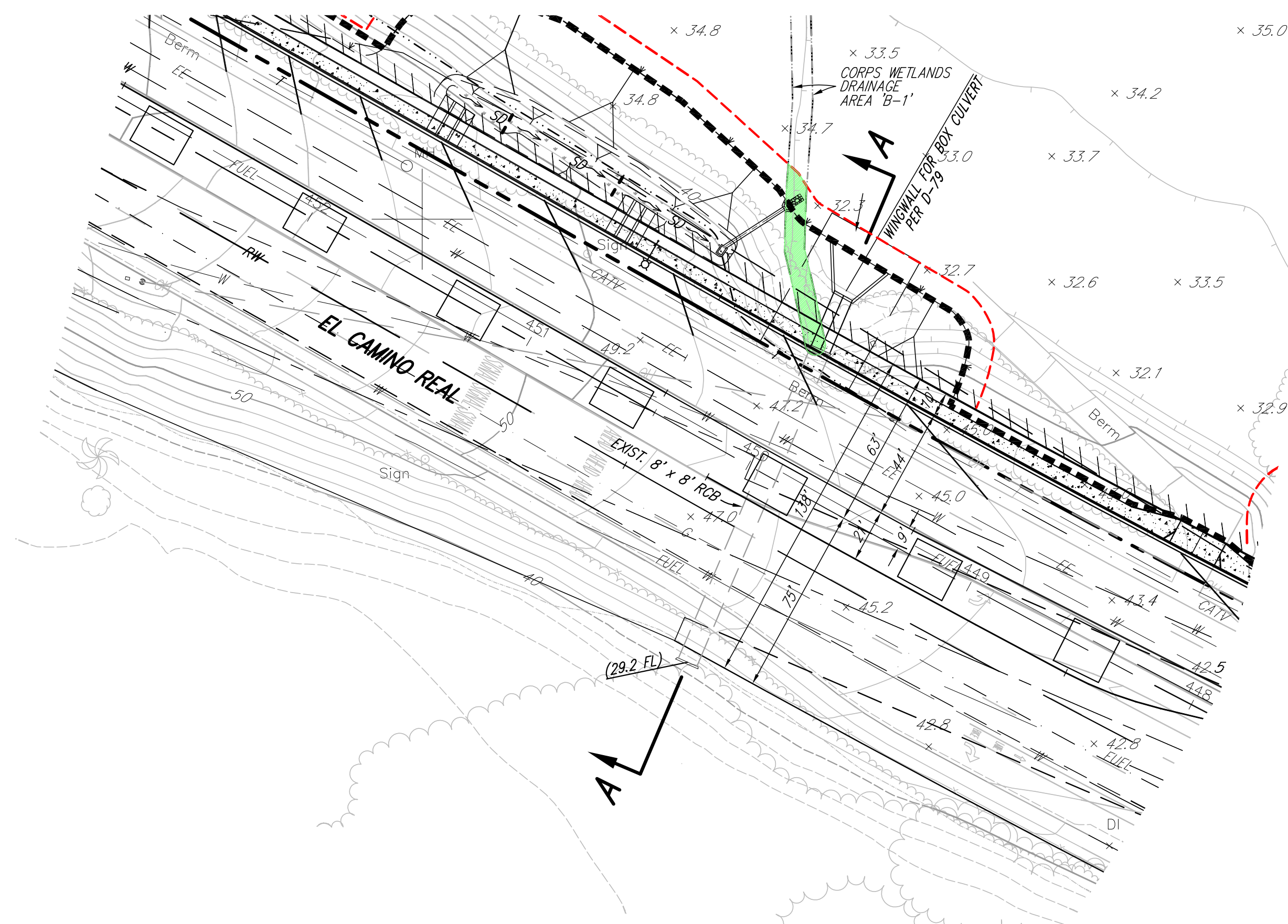
- 1.6 CY UNGROUTED RIP-RAP

PLAN - EL CAMINO REAL
SCALE: 1" = 20'



UPDATED: JAN. 21, 2013
UPDATED: JAN. 2, 2013
DATE OF PREPARATION: AUG. 2, 2012

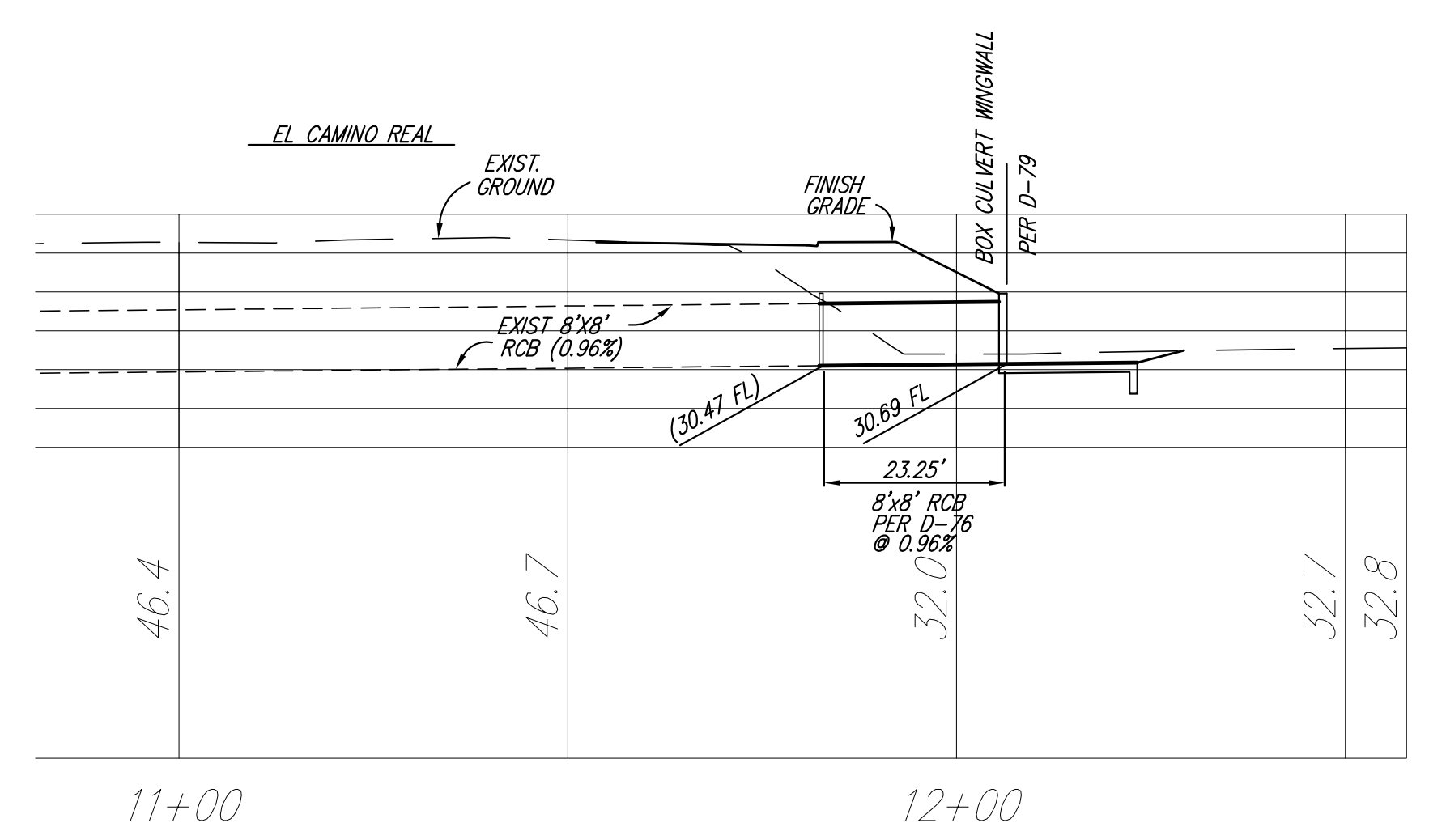
 2710 Loker Ave. Suite 100 Carlsbad, California 92010 760-931-7700 Fax: 760-931-8680 Oday@odayconsultants.com	DESIGNED BY: J.T.	DATE: AUG 2012
	DRAWN BY: J.S.	SCALE:
	PROJECT MGR.: G.O.	JOB NO.: 101307
	ENGINEER OF WORK	
		DATE:
GEORGE O'DAY		RCE: 32014



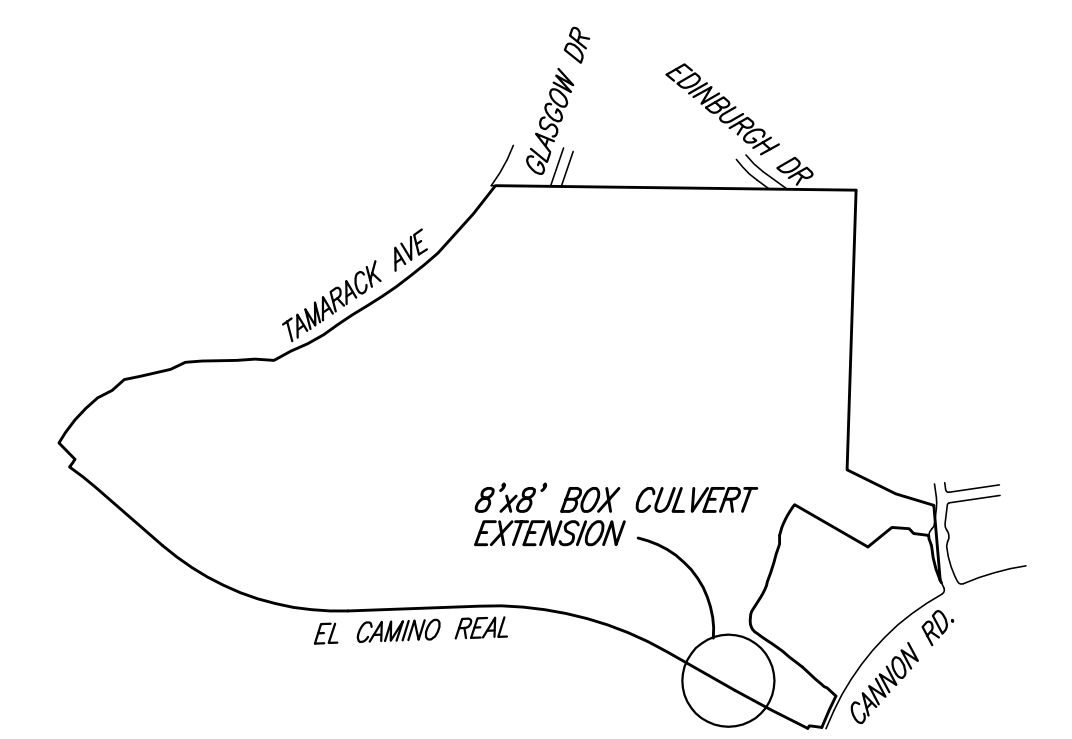
PLAN - 8'x8' CULVERT EXTENSION
SCALE: 1" = 40'

- LEGEND**
- TOP/TOE OF SLOPE
 - 100-YEAR INUNDATION LINE
 - CORPUS WETLANDS
 - RIPARIAN HABITAT
 - HMP HARDLINE
 - LIMIT OF WORK
 - QUANTIFIED IMPACTS TO CORPUS WETLANDS

EL CAMINO REAL NORTH WIDENING AT CANNON ROAD:
 • 0.7 CY UNGROUTED RIP-RAP
 • 0.63 CY WING-TYPE HEADWALL PER SDRSD D-34
 • 136 CY NATIVE FILL



SECTION A-A
SCALE: 1" = 20'



SITE MAP
NOT TO SCALE

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 UPDATED: JAN. 2, 2013
 DATE OF PREPARATION: AUG. 2, 2012

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	DRAWN BY: J.S.	SCALE:
PROJECT MGR.: G.O.	JOB NO.: 101307	
ENGINEER OF WORK		DATE:
GEORGE O'DAY		RCE: 32014

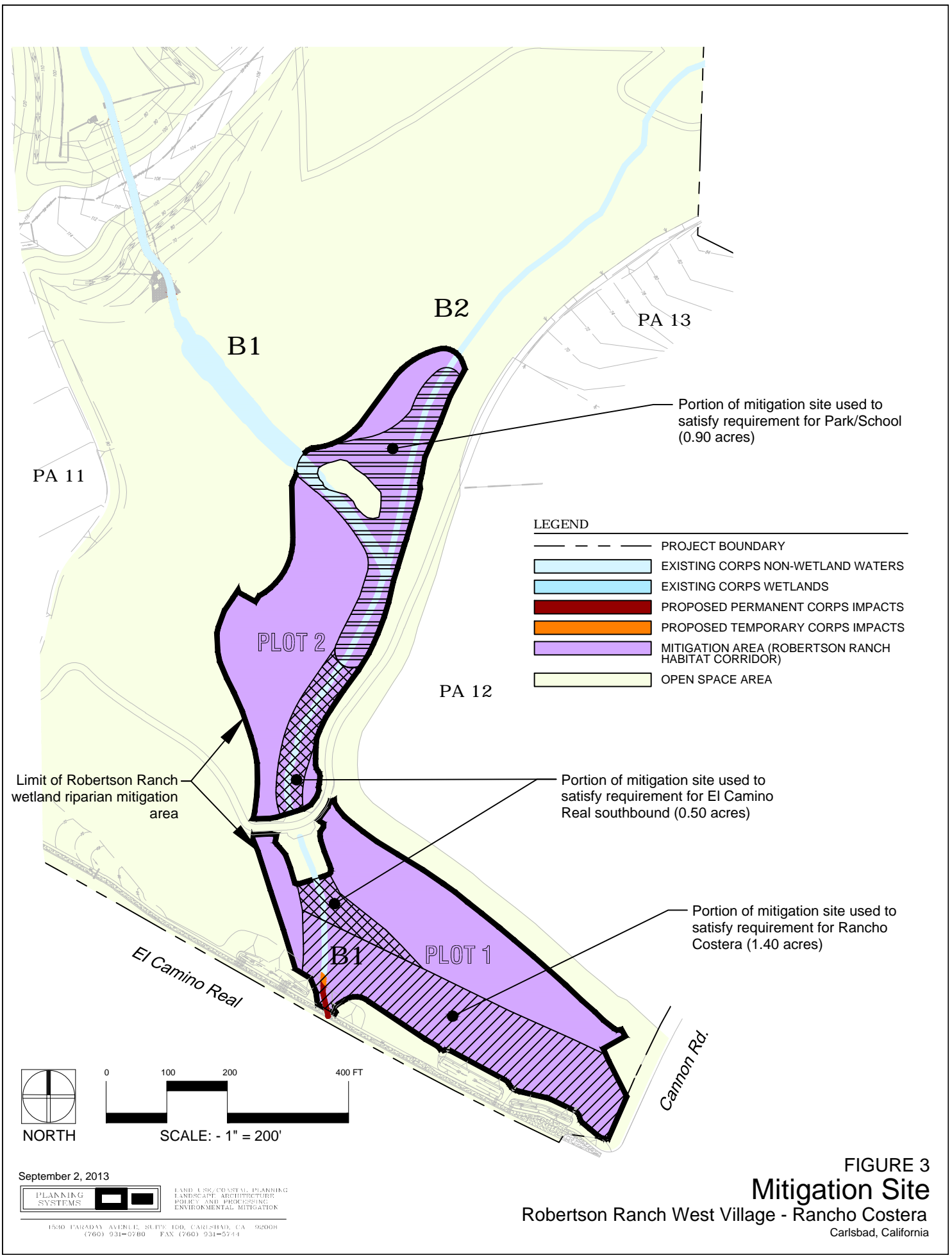
**RANCHO COSTERA
 STORM DRAIN OUTFALL SECTIONS
 EL CAMINO REAL CULVERT EXTENSION**

Rancho Costera LLC
Rancho Costera Development
Certification No. R9-2013-0044

ATTACHMENT 4

RESTORATION DESIGN PLANS

1. Planning Systems, Figure 3, Mitigation Site
2. Planning Systems, Figure 5, Proposed Wetland Regrading Revegetation Plan
3. Planning Systems, Figure 6, Proposed Plot 1 Channel Realignment
4. Planning Systems, Figure 7, Proposed Plot 1 Channel Realignment - Sections



LEGEND

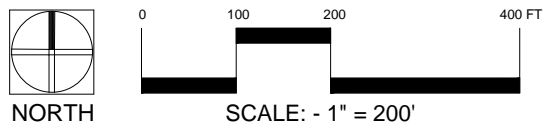
--- --	PROJECT BOUNDARY
Light Blue	EXISTING CORPS NON-WETLAND WATERS
Dark Blue	EXISTING CORPS WETLANDS
Red	PROPOSED PERMANENT CORPS IMPACTS
Orange	PROPOSED TEMPORARY CORPS IMPACTS
Purple	MITIGATION AREA (ROBERTSON RANCH HABITAT CORRIDOR)
Light Green	OPEN SPACE AREA

Portion of mitigation site used to satisfy requirement for Park/School (0.90 acres)

Limit of Robertson Ranch wetland riparian mitigation area

Portion of mitigation site used to satisfy requirement for El Camino Real southbound (0.50 acres)

Portion of mitigation site used to satisfy requirement for Rancho Costera (1.40 acres)



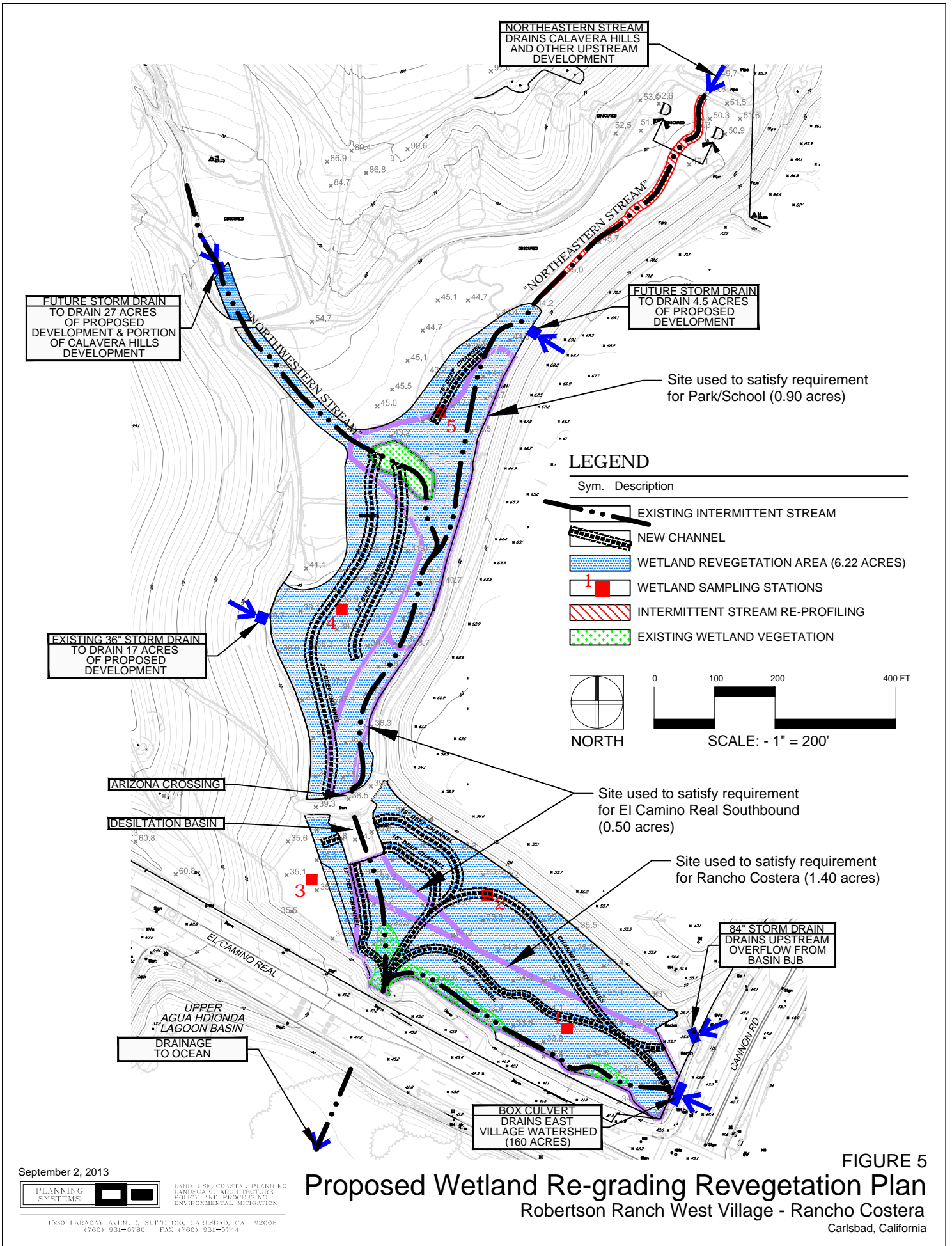
September 2, 2013

PLANNING SYSTEMS

LAND USE, COASTAL, PLANNING, LANDSCAPE ARCHITECTURE, POLICY, AND PROCESSING, ENVIRONMENTAL MITIGATION

1530 PARADAY AVENUE, SUITE 100, CARLSBAD, CA 92008
 (760) 931-0780 FAX (760) 931-0714

FIGURE 3
Mitigation Site
 Robertson Ranch West Village - Rancho Costera
 Carlsbad, California



FUTURE STORM DRAIN TO DRAIN 27 ACRES OF PROPOSED DEVELOPMENT & PORTION OF CALAVERA HILLS DEVELOPMENT

NORTHEASTERN STREAM DRAINS CALAVERA HILLS AND OTHER UPSTREAM DEVELOPMENT

FUTURE STORM DRAIN TO DRAIN 4.5 ACRES OF PROPOSED DEVELOPMENT

Site used to satisfy requirement for Park/School (0.90 acres)

LEGEND

- | Sym. | Description |
|------|--|
| | EXISTING INTERMITTENT STREAM |
| | NEW CHANNEL |
| | WETLAND REVEGETATION AREA (6.22 ACRES) |
| | WETLAND SAMPLING STATIONS |
| | INTERMITTENT STREAM RE-PROFILING |
| | EXISTING WETLAND VEGETATION |

NORTH

0 100 200 400 FT

SCALE: - 1" = 200'

EXISTING 36" STORM DRAIN TO DRAIN 17 ACRES OF PROPOSED DEVELOPMENT

ARIZONA CROSSING

DESILTATION BASIN

Site used to satisfy requirement for El Camino Real Southbound (0.50 acres)

Site used to satisfy requirement for Rancho Costera (1.40 acres)

84" STORM DRAIN DRAINS UPSTREAM OVERFLOW FROM BASIN BJB

UPPER AGUA HDIONDA LAGOON BASIN DRAINAGE TO OCEAN

BOX CULVERT DRAINS EAST VILLAGE WATERSHED (160 ACRES)

September 2, 2013

PLANNING SYSTEMS LAND & SEA COASTAL PLANNING LANDSCAPE ARCHITECTURE POLICY AND PROGRAMMING ENVIRONMENTAL MITIGATION

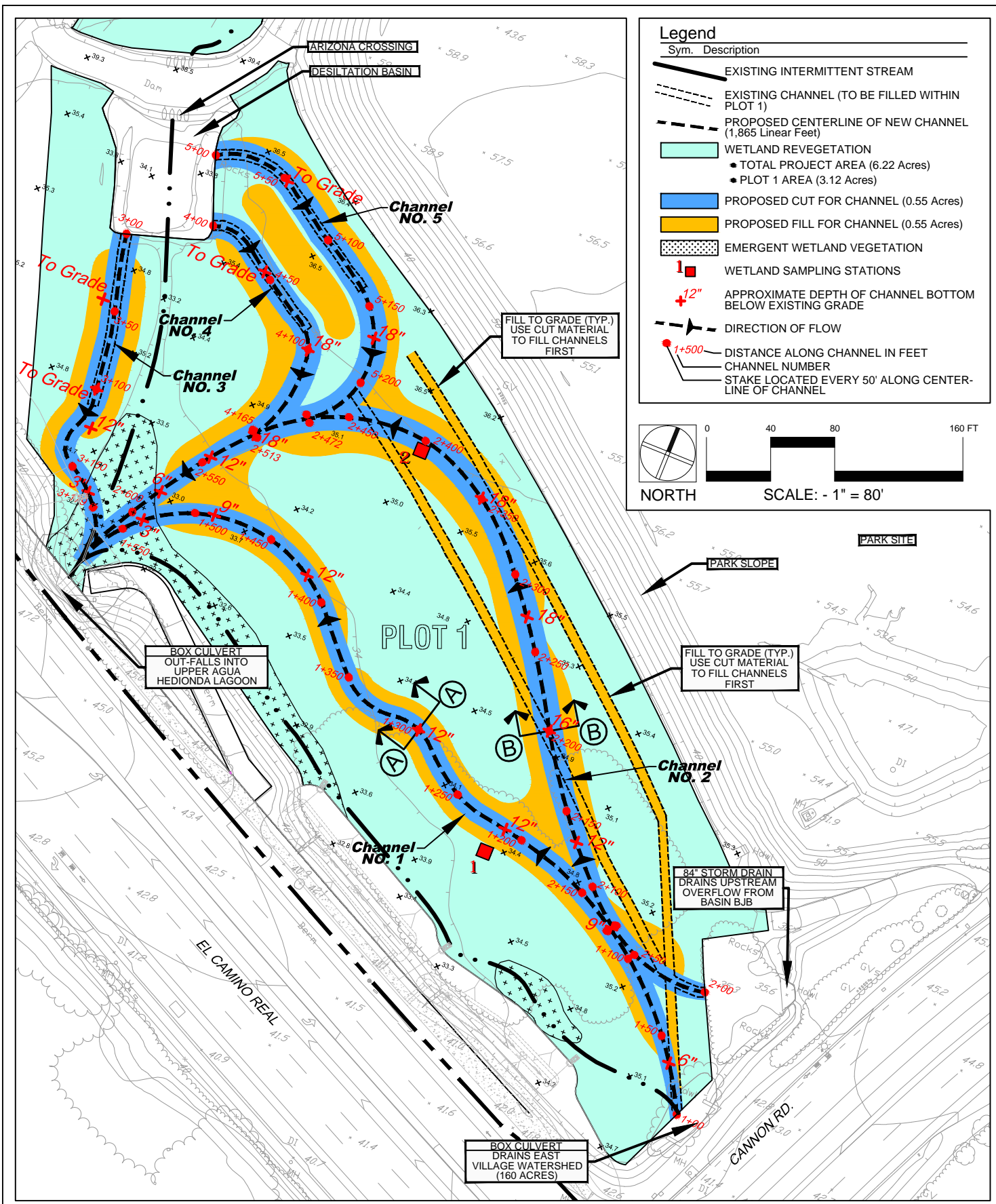
1530 PARADAY AVENUE, SUITE 100, CARLSBAD, CA 92008 (760) 931-0780 FAX (760) 931-0714

Proposed Wetland Re-grading Revegetation Plan

Robertson Ranch West Village - Rancho Costera

Carlsbad, California

FIGURE 5



Legend

Sym.	Description
	EXISTING INTERMITTENT STREAM
	EXISTING CHANNEL (TO BE FILLED WITHIN PLOT 1)
	PROPOSED CENTERLINE OF NEW CHANNEL (1,865 Linear Feet)
	WETLAND REVEGETATION
	TOTAL PROJECT AREA (6.22 Acres)
	PLOT 1 AREA (3.12 Acres)
	PROPOSED CUT FOR CHANNEL (0.55 Acres)
	PROPOSED FILL FOR CHANNEL (0.55 Acres)
	EMERGENT WETLAND VEGETATION
	WETLAND SAMPLING STATIONS
	APPROXIMATE DEPTH OF CHANNEL BOTTOM BELOW EXISTING GRADE
	DIRECTION OF FLOW
	DISTANCE ALONG CHANNEL IN FEET
	CHANNEL NUMBER
	STAKE LOCATED EVERY 50' ALONG CENTER-LINE OF CHANNEL

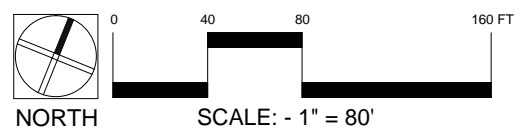
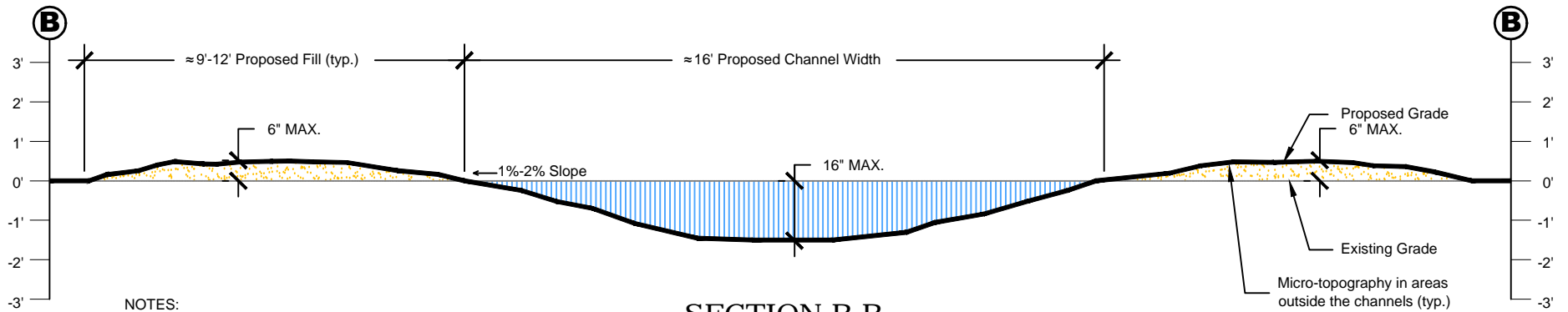
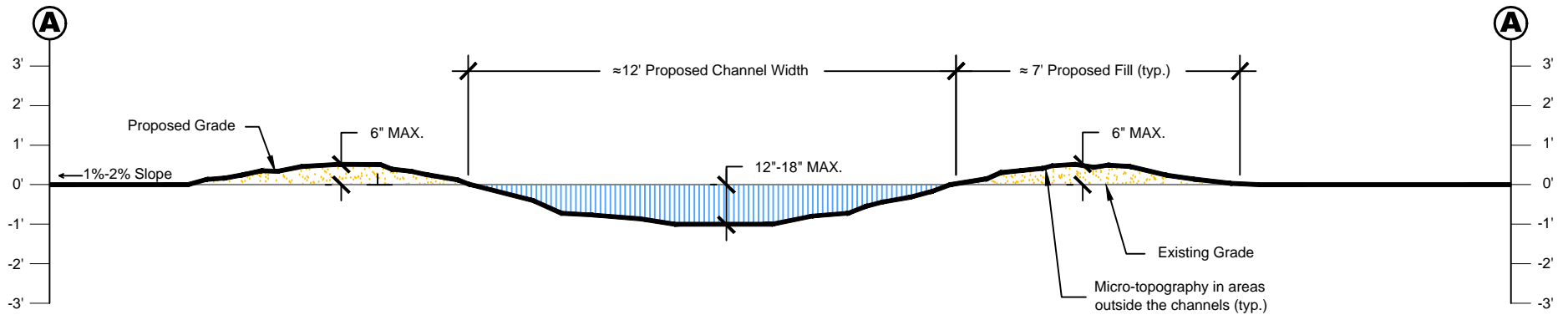


FIGURE 6
Proposed Plot 1 Channel Realignment
 Robertson Ranch West Village - Rancho Costera
 Carlsbad, California



NOTES:

1. CHANNELS SHALL BE EXCAVATED NO DEEPER THAN 18" TO 24".
2. EXCAVATED MATERIAL SHALL BE PLACED 6" MAXIMUM DEPTH FROM EXISTING ELEVATION TO NEW ELEVATION.

September 2, 2013



LAND USE/COASTAL PLANNING
LANDSCAPE ARCHITECTURE
POLICY AND PROGRAMMING
ENVIRONMENTAL MITIGATION

1520 FAIRWAY AVENUE, SUITE 100, CARLSBAD, CA 92008
(760) 934-0780 FAX (760) 934-2744

FIGURE 7
Proposed Plot 1 Channel Realignment - Sections
Robertson Ranch West Village - Rancho Costera
Carlsbad, California

Rancho Costera LLC
Rancho Costera Development
Certification No. R9-2013-0044

ATTACHMENT 5

CEQA MITIGATION REQUIREMENTS

1. Mitigation and Monitoring Reporting Program, Robertson Ranch Master Plan, Table pages 1, 27-55, and 69-71

Mitigation Monitoring and Reporting Program

For the

Robertson Ranch Master Plan
Final Program Environmental Impact Report
(EIR 03-03)

Volume IC

City of Carlsbad
Planning Department
1635 Faraday Avenue
Carlsbad, CA 92008

April 2006

EIR - B

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B1	<p>The primary mitigation for impacts to HMP Species under the HMP is the conservation and management of habitat for the species in the preserve system. The HMP also states, "In addition, in compliance with the Endangered Species Act requirements that the impacts of incidental take be minimized and mitigated to the maximum extent practicable, measures to avoid and reduce impacts will apply citywide on a project level basis."</p> <p>This measure requires that the development configuration depicted on the Master Tentative Map for the East and West Villages include a minimum of 70% total of the on-site coastal sage scrub for preservation. A conservation easement shall be established for the proposed open space conservation areas.</p> <p>As a condition of project approval, the applicant must comply with the requirements of all regulatory agencies having jurisdiction over the project and any mitigation requirements of the environmental documents for the project. Pursuant to Government Code Section 65871 and Carlsbad Municipal Code Title 20, Chapter 20.04, Section 20.04.140, the applicant shall grant a conservation easement for the conservation, protection, and management of fish, wildlife, native plants and the habitat necessary for biologically sustainable populations of certain species thereof, in accordance with the City's adopted Habitat Management Plan.</p> <p>As such, prior to recordation of the final map or prior to issuance of a grading permit, whichever occurs first, the project applicant shall take the following actions to the satisfaction of the City of Carlsbad Planning Director in relation to the open space lot(s). The Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Game) shall review and approve the conservation entity, Property Analysis Record, and conservation easement:</p> <ol style="list-style-type: none"> Select a conservation entity, subject to approval by the City, that possesses the necessary qualifications to hold title to the open space lot(s) and manage it for conservation purposes. Prepare a Property Analysis Record (PAR) or other method acceptable to the City for estimating the costs of management and monitoring of the open space lot(s) in 	City Planning - Department - Director in consultation with the Wildlife Agencies.	Prior to recordation of the final map or prior to issuance of a grading permit, whichever occurs first.	Once, upon completion.	<p>Verification: East Village (PAs 23D & E)</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village (PA 23C)</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village (PAs 23A & B)</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Biological Resources

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<p>perpetually.</p> <p>c. Based on the results of the PAR, provide a non-wasting endowment or other financial mechanism acceptable to the Planning Director and Wildlife Agencies, to the selected conservation entity in an amount sufficient for management and monitoring of the open space lot(s) in perpetuity.</p> <p>d. The PAR analysis for the open space preserve shall account for all of the monitoring and management items identified for all Catsbad covered species, including the monitoring strategy identified in MHCP Volume III (sec EIR Appendix A.3).</p> <p>e. Prior to issuance of a grading permit or recordation of the first final map for each Phase, provide evidence of transfer of fee title or easement over the open space lot(s) (for each respective Phase) to the selected conservation entity.</p> <p>Timing of Open Space Dedication: East Village - PA 23D and 23E. An open space and/or conservation easement shall be recorded over PA 23D and PA 23E with the first final map (master final map) for the East</p>		Prior to recordation of	Easement <input type="checkbox"/> P.A.R. <input type="checkbox"/> Monitoring and Management Plan <input type="checkbox"/> Endowment <input type="checkbox"/> Revegetation Plan West Village <input type="checkbox"/> Select conservation entity <input type="checkbox"/> Record Conservation Easement <input type="checkbox"/> P.A.R. <input type="checkbox"/> Monitoring and Management Plan <input type="checkbox"/> Endowment <input type="checkbox"/> Revegetation Plan	Verification: East Village

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<p>Village. At that time, title to the land and/or beneficiary of the easement shall be transferred to the conservation entity or other management body acceptable to the City of Carlsbad. The developer shall continue to hold maintenance responsibility for restored or revegetated areas within these planning areas until the success criteria for the restored or revegetated areas has been met, and maintenance responsibility has been transferred. An easement for an area of coastal sage scrub restoration located within the habitat corridor on the West Village (which is the responsibility of the East Village developer) shall also be provided with the first final map (master final map) for the East Village.</p> <p>West Village - PA 23C. An open space and/or conservation easement shall be recorded over PA 23C with the first final map for the West Village. The timing of this dedication is required with the West Village due to the coastal sage scrub restoration program that will be implemented upon the expiration of the Parkway Nursery lease, within PA 23C. At that time, title to the land and/or beneficiary of the easement shall be transferred to the conservation entity or other management body acceptable to the City of Carlsbad. The developer shall continue to hold maintenance responsibility for restored or revegetated areas within these planning areas until the success criteria for the restored or revegetated areas has been met, and maintenance responsibility has been transferred.</p> <p>West Village - PAs 23A and 23B. An open space and/or conservation easement shall be recorded over PA 23A and PA 23B with the first final map (master final map) for the West Village. At that time, title to the land and/or beneficiary of the easement shall be transferred to the conservation entity or other management body acceptable to the City of Carlsbad. The developer shall continue to hold maintenance responsibility for restored or revegetated areas within these planning areas until the success criteria for the restored or revegetated areas has been met, and maintenance responsibility has been transferred.</p>		<p>the final map or prior to issuance of a grading permit for the East Village.</p> <p>Prior to recordation of the final map or prior to issuance of a grading permit for the East Village.</p> <p>Prior to recordation of the final map or prior to issuance of a grading permit for the West Village.</p>		<p>(PAs 23D & E)</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village (PA 23C)</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village (PAs 23A & B)</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B1	<p>B-2 Development and preservation areas shall be as shown on the exhibit labeled "HMP Hardline Map" dated September 15, 2004 (as shown on Figure 3-6 of this EIR) (see Appendix C of this MMRP). No fuel modification is permitted within the "hardline" open space areas depicted on Figure 3-7 (fuel modification is limited to those areas shown on Figures 5.10-1 and 5.10-2 only).</p> <p>A coastal sage scrub restoration program shall be implemented as shown on Figure 5.5-6. Restoration is proposed under two separate restoration plans as follows:</p> <p>All slopes within the wildlife corridor (East and West Villages) that are graded as part of the proposed project shall be restored with coastal sage scrub vegetation. The restoration program shall be subject to a five-year maintenance and monitoring program, with a requirement to meet agency-approved success criteria. This restoration program shall be approved by the Wildlife Agencies prior to the commencement of any clearing or grading associated with implementation of the proposed project (East and West Villages). The restoration program shall include site preparation guidelines, implementation monitoring, performance standards, long-term maintenance and monitoring methodology, and contingency measures with a commitment to funding. Such measure shall also be applicable to the ten (10) acres of additional coastal sage scrub restoration Calavera Hills II LLC will implement within the preserve areas of the project.</p>	City Planning Department	Upon the expiration of the Parkway Lease (expires in August 2006 and will not be renewed).	Once, upon completion.	<p>Verification: East Village (PA 23D & E)</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village (PA 23C)</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village (PA 23A & B)</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP in Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<p>The revegetation of Area A (in Table A, as Appendix D to this MMRP) will be the responsibility of the developer of the East Village and will be initiated prior to any clearing or grading of existing coastal sage scrub for the Robertson Ranch development.</p>	<p>City Planning Department in consultation with Biological Monitor</p>	<p>Prior to any clearing or grading/ removal of coastal sage scrub habitat.</p>	<p>Once, upon completion.</p>	<p>Verification: East Village Date _____ Init. _____ Name _____</p>
	<p>The revegetation of Area B (in Table A, as provided in Appendix D to this MMRP) shall occur once grading to an approximate 5:1 slope gradient has been completed. This grading will be initiated upon expiration of the Parkway Nursery lease and vacation of the property by the Nursery operation.</p>	<p>City Planning Department</p>	<p>Prior to approval of the first Final Map for Robertson Ranch.</p>	<p>Once, upon completion.</p>	<p>Verification: West Village Date _____ Init. _____ Name _____</p>
	<p><u>West Village - PA 23C.</u> A separate restoration plan shall be prepared and implemented for the portions of the project site within the habitat corridor currently subject to agricultural activity and the Parkway Nursery lease. The restoration program shall be subject to a five-year maintenance and monitoring program, with a requirement to meet agency-approved success criteria. This restoration program shall be approved by the Wildlife</p>				

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<p>Agencies prior to the commencement of any clearing or grading associated with implementation of the proposed West. The restoration program shall include site preparation guidelines, implementation monitoring, performance standards, long-term maintenance and monitoring methodology, and contingency measures with a commitment to funding. However, this component of the restoration plan will be less extensive than that identified above (restored slopes and 10-acre restoration area), consisting primarily of hydroseeding, and with limited plantings, with the goal to re-introduce native vegetation into these areas. This program will be implemented upon the expiration of the Parkway Lease (which expires in August 2006 and which will not be renewed).</p> <p>Upon the expiration of the Parkway Nursery lease, the entire habitat corridor along the SDG&E easement will be subject to a conservation easement and managed as open space, except for those specific activities SDG&E undertakes within its utility easement consistent with SDG&E's operation and maintenance requirements. Management of the corridor is anticipated to be performed by an independent private or public conservation entity experienced in management of biological resource areas. The amount of funds required to manage and ensure long-term biological integrity of the habitat corridor will be determined by a property analysis record (PAR) based on the specific requirements and potential for urban stress on the corridor. Standard protocol for funding of such corridors dictates that a non-wasting account (endowment) be set up by the owner of each portion of the property (East Village, West Village) for their respective portion of corridor to be managed.</p> <p>The re-introduction of coastal sage scrub vegetation to Area C (in Table A, as provided in Appendix D to this MMRP) will commence upon completion of grading within the corridor.</p>	City Planning Department	Prior to approval of the first Final Map for Robertson Ranch.	Once, upon completion.	<p>Verification: West Village</p> <p>Date _____ Init.</p> <p>Name _____</p> <p>Verification:</p>
	The Future West Village Revegetation (re-introduction of coastal sage scrub at PA3/EI	City Planning	Prior to	Once, upon	

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	Camino Real) shall occur at the time that grading for the future residential street between PA8/11 and PA10 in the West Village is completed.	Department	approval of Final Maps for West Village.	completion.	West Village Date _____ Init. _____ Name _____
B-3	<p>Prior to the recordation of a final map or issuance of a grading permit, whichever occurs first, the applicant shall contribute an in-lieu Mitigation Fee (Category F) consistent with Section E.6 of the City's Habitat Management Plan and City Council Resolution No. 2000-223 as follows:</p> <ul style="list-style-type: none"> • Non-Native Vegetation Mitigation Fee: East Village = 0.76 acre; West Village = 0.52 acre • Eucalyptus Woodland Mitigation Fee: East Village = 0.52 acre; West Village = 1.88 acre • Agricultural Lands Mitigation Fee: East Village = 0.00 acre; West Village = 8.47 acre • Agricultural Lands Mitigation Fee: East Village = 84.50 acre; West Village = 135.50 acre 	City Planning Department	Prior to the recordation of a final map or issuance of a grading permit, whichever occurs first.	Once, upon contribution.	Verification: East Village Date _____ Init. _____ Name _____ Verification: West Village Date _____ Init. _____ Name _____

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMIRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B-4	<p>To avoid impacts to adjacent open space habitats during construction all impacted open space interfaces will require construction fencing, which clearly delineates the edge of the approved limits of grading and clearing and environmentally sensitive areas beyond. This fencing shall be maintained for the duration of construction activity. Implementation of this measure shall be verified by the project Biological Monitor and reported to the City of Carlsbad Planning Department concurrent with construction.</p> <ul style="list-style-type: none"> The project applicant shall temporarily fence (with silt barriers) the limits of project impacts (including construction staging areas and access routes) to prevent additional habitat impacts and prevent the spread of silt from the construction zone into adjacent habitats to be avoided. Fencing shall be installed in a manner that does not impact habitats to be avoided. The applicant shall submit to the Service for approval, at least seven days prior to initiating project impacts, the final plans and photographs for initial clearing and grubbing of habitat and project construction. These final plans shall include photographs that show the fenced limits of impact and all areas (including riparian/wetland or CSS) to be impacted or avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the Service. Any upland habitat impacts that occur beyond the approved fenced shall be mitigated at a minimum 5:1 ratio. Temporary construction fencing shall be removed upon project completion. 	Project Biological Monitor and City Planning Department	Installation prior to clearing, grubbing, and grading.	<p>Periodic inspection during construction of East Village.</p> <p><input type="checkbox"/> Fencing</p> <p><input type="checkbox"/> Plans/photos to USFWS</p>	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B1	<p>B-5 A Wildlife Agency-approved biological monitor shall be present to monitor clearing, grading, and construction activities in the vicinity of biological open space areas. The biological monitor shall have the authority to stop construction and require additional precautions or conservation measures to protect the proposed open space preserve areas, including the wildlife movement corridor, as necessary. Implementation of this measure shall be verified by the City of Carlsbad Planning Department prior to and concurrent with construction.</p>	City Planning Department	Hire qualified biological monitor prior to clearing, grading, and grubbing.	Periodic inspection during clearing, grading, and construction activities in the vicinity of biological open space areas.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p>
B2	<p>B-6 If construction of a trailhead is proposed within the "penhandle" (PA-295), the following criteria shall apply. The trailhead shall: 1) be designed for no more than ten cars; 2) be located at least 100 feet from riparian/wetland vegetation; 3) be located at least 500 feet away from the wetland mitigation area; 4) be fenced and gated and posted with usage restrictions; 5) be unpaved with no lighting; and 6) constructed of a temporary design which could be relocated. The detention basin will not be maintained, vegetated in the detention basin shall be maximized, and the inlet shall be cleaned or needed. Mitigation for impacts associated with the parking lot shall occur on site. The creek crossing shall impact less than 0.25 acre of land and would entail a bridge that spans the 100-year flood level. Although the trailhead is proposed as a separate City project, the impact shall be mitigated by the Robertson Ranch East Village property owner as follows: 1) restore an existing dirt trail within the penhandle area to coastal sage scrub (as shown on the June 10, 2004 exhibit) and 2) create 12,000 square feet of wetland habitat in the penhandle area.</p>	City Planning Department	Prior to issuance of grading permits.	Once-upon completion.	<p>Name _____</p> <p>Verification _____</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B3	<p>B-7 This measure requires that "no net loss" of wetlands will occur with development of the proposed project. The development configuration of the Master Tentative Map for the East Village shall include the proposed on-site restoration area, unless prior to this time some offsetting mitigation credit is given by the Wildlife Agencies for biological enhancement within the West Village. A minimum of 0.22 acre of coastal and valley freshwater marsh and 0.61 acre of southern willow scrub shall be provided. (Refer to EIR Table 5.5-7 provided in Appendix E of this MMRP).</p> <p>A 100-foot buffer from wetland vegetation shall be provided where feasible. Any proposed reductions in buffer widths for a specific site shall require sufficient information to determine that a buffer of lesser width will protect the identified resources. Such information shall include, but is not limited to, the size and type of the development and/or proposed mitigation (such as planting of vegetation or the construction of fencing) that will also achieve the purposes of the buffer. The California Department of Fish and Game, and the U.S. Fish and Wildlife Service staff shall be consulted in such buffer determinations.</p>	<p>City Planning Department - Planning Director</p> <p>City Planning Department - Planning Director</p>	<p>Prior to approval of Master Tentative Map for the East Village.</p> <p>Upon review of development proposals for PA1, 2, 20, and 22.</p>	<p>Once, upon completion.</p> <p><input type="checkbox"/> PA20 <input type="checkbox"/> PA22</p> <p><input type="checkbox"/> PA1 <input type="checkbox"/> PA2</p>	<p>Verification: East Village only</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MM&P Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<p>Notwithstanding that all wetlands and riparian impacts (0.83 ac.) are a result of the West Village development; the mitigation site is located within the boundaries of the East Village (within the parcel, adjacent to the existing Calavera Hills mitigation project), or within the on-site habitat corridor in a location approved by the Resource agencies. As proposed, the restoration areas on the project site (PA 23E) contains sufficient area so as to exceed normal mitigation requirements. EIR Figure 5.5-7 depicts the location of future on-site wetlands/riparian restoration areas. (This figure is provided in Appendix F of this MMRP). Also, prior to approval of a grading permit for the West Village, the Planning Director shall confirm that a wetlands/riparian restoration plan has been prepared and approved by the California Department of Fish and Game and the U.S. Army Corps of Engineers. Further, enhancement or restoration within the Drainage A riparian corridor (between PA 1 and PA 2) can also constitute mitigation credit for wetlands impacts.</p>	City Planning - Planning Director	Prior to approval of a Master Tentative Map for the West Village.	Once, upon completion.	<p>Verification: West Village only</p> <p>Date _____ init. _____</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B-8	<p>This measure requires, per the HMP, no clearing of occupied gnatcatcher habitat or construction that will result in direct impacts to sage scrub or which occurs within 300 feet of occupied sage scrub shall take place between February 15 and August 31 unless authorized by the Wildlife Agencies after consultation. Since the project's focused gnatcatcher surveys were conducted in 2001, updated protocol-level surveys shall be performed no longer than one year before the initiation of project construction for the East Village, and subsequently, no longer than one year before the initiation of project construction for the West Village, to provide an accurate mapping of current occupied habitat. Surveys for loggerhead shrike shall also be conducted concurrently with gnatcatcher surveys.</p>	<p>City Planning/ Department/ Wildlife Agencies</p>	<p>Prior to the first grading permit and during construction. Updated protocol surveys within one year prior to initiation of project construction.</p>	<p>Periodic inspection during grading or construction near California gnatcatcher nests.</p>	<p>Verification: East Village Date _____ Init. _____ Name _____ Verification: West Village Date _____ Init. _____ Name _____</p>
	<p>If clearing and construction cannot be restricted to outside of the breeding season appropriate conservation measures shall be implemented, subject to the approval of the Wildlife Agencies, to ensure that no impact to this species occurs. Avoidance of noise-related impacts to occupied habitat can be assured through implementation of noise reduction methods (e.g., a noise barrier or wall) to reduce noise within occupied habitat to a level below 60 dBA and/or as allowed by the Wildlife Agencies. Implementation of this measure shall be verified by the City of Carlsbad Planning Department concurrent with construction.</p>	<p>Wildlife Agencies</p>	<p>Approval for clearing, grubbing, or grading if proposed between February 15 and August 31.</p>	<p>Prior to issuance of grading permit.</p>	<p>Verification: East Village Date _____ Init. _____ Name _____ Verification: West Village Date _____ Init. _____ Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B-9	<p>This measure requires that if sensitive nesting birds (e.g., least Bell's vireo or southwestern willow flycatcher) are located outside of the project footprint, but within 300 feet of the proposed work area, noise reduction measures (e.g., noise barrier/wall) shall be implemented to prevent noise impacts within occupied habitat during the breeding season (April 15 through July 31) subject to the approval of the Wildlife Agencies. Focused surveys for the vireo and flycatcher were conducted in 2001. If work is proposed within 300 feet of suitable habitat during the breeding season, updated surveys are required to ensure that current occupied habitat is identified and appropriate noise reduction measures are implemented as necessary. Noise reduction measures will need to meet the minimum standard of reducing noise levels to below 60 dBA within occupied habitat, unless otherwise agreed upon by the Wildlife Agencies. If construction within 300 feet of riparian scrub or woodland habitat is not proposed during the breeding season, updated surveys are not required. Implementation of this measure shall be verified by the City of Carlsbad Planning Department.</p>	City Planning Department/ Wildlife Agencies	If work is proposed within 300 feet of suitable habitat during the breeding season (April 15-August 31).	Periodic inspection during grading or construction.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B-10	<p>This measure requires, per the HMP, that protocol surveys for burrowing owl shall be conducted in all Standards Areas and any areas outside of the Focus Planning Areas that contain suitable habitat. Winter surveys were conducted in 2005 and pre-grading surveys shall be conducted prior to any construction. The surveys will serve to identify owl burrow locations for the purposes of avoidance (where practicable) or passive relocation. Specifically, if burrowing owls are identified on-site, the following HMP mitigation measures will be implemented:</p> <ul style="list-style-type: none"> Development shall avoid direct impacts to the nest site to the maximum extent practicable. If impacts are unavoidable, any impacted individuals shall be relocated to a conserved area of suitable size and characteristics, using passive or active methodologies approved by the Wildlife Agencies. <p>Implementation of this measure shall be verified by the City of Carlsbad Planning Department.</p>	City Planning Department	Surveys to be completed prior to grading or construction.	Once, upon completion.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B7	<p>B-11 Prior to the issuance of a grading permit for the East Village, and subsequently the West Village, a biological survey shall be conducted of the project area (if grading is proposed during the breeding season). If active raptor and/or migratory bird nests are observed during the construction phase of both the East Village and subsequently the West Village, a buffer area of adequate width (typically 500 feet), as determined by the monitoring biologist, shall be established between the construction activities and the nest so that nesting activities are not interrupted. To avoid potential impacts, trees shall be removed outside of the breeding season of local raptor species (trees shall be removed between September through January). Noise attenuation and buffer (if required) shall remain in place until the construction activities are completed or the nest is no longer active. Implementation of this measure shall be verified by the City of Carlsbad Planning Department.</p>	Planning Department	<p>Prior to issuance of grading permits for East and West Villages.</p> <p>Trees shall be removed September through January.</p>	Once, upon completion.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
88	<p>B-12 This measure requires avoidance and/or mitigation of impacts associated with roadways (within Linkage B); additional measures (e.g., fencing, lighting restrictions) shall be required to encourage the continued use of the corridor and use of the two under crossings. It shall be noted that only the first of these criteria (i.e., the fencing) is a direct responsibility of the Robertson Ranch project relative to the College Boulevard undercrossing. The wildlife undercrossing design shall be shown on the Master Tentative Map. The required measures are described below:</p> <ul style="list-style-type: none"> Where roads cross the corridor (Linkage B) a substantial fence shall be erected to funnel wildlife toward appropriate underpasses. (Note: wildlife undercrossing locations shown in Appendix C of this MMRP). These fences shall be buried at least one foot underground so animals cannot readily dig underneath. As stated previously, fencing is not proposed along El Camino Real, where it will occur on one side of the road only and could trap wildlife on the roadway. The ultimate design and specific location of the fencing will be decided in coordination with the Wildlife Agencies. Also, natural vegetative cover shall be established and maintained at either end of the wildlife underpasses. Concrete V-ditches shall be eliminated to allow for natural stream flows, and any water drainage area in the base of each culvert shall be as narrow as possible and placed to the side, rather than the center. 	City Planning and Engineering Departments	At the time specific plans for the proposed undercrossings are prepared and submitted to the City for review, and shown on the Master Tentative Map.	Once, upon completion.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>College Boulevard Undercrossing <input type="checkbox"/> Fencing</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Street "2" Undercrossing (PA11 to PA10) <input type="checkbox"/> Fencing <input type="checkbox"/> Sound wall <input type="checkbox"/> Light <input type="checkbox"/> Vegetation</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMMP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<ul style="list-style-type: none"> • Installation of a 6-foot-high (measured from the ground up) wing fencing on both sides of the culvert. The fencing shall have mesh that is smaller than 10 centimeters by 15 centimeters. • Noise within the culverts shall not exceed 60 dBA Leq. This could be accomplished by the use of sound walls. • No artificial light shall stray within the culvert openings. • Use of skylight openings within the underpass (on any new underpass) to allow for vegetation cover within the underpass. • All undercrossings shall be surrounded by native vegetation. <p>Implementation of this measure shall be verified by the City of Carlsbad Planning and Engineering Departments at the time specific plans for the proposed undercrossings are prepared and submitted to the City for review. The proposed wildlife corridor design shall be reviewed by a qualified biologist.</p>				

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B9	<p>This measure requires that prior to approval of future building permits, each development shall be inspected by the City's Parks and Planning Departments to determine that the lighting restrictions established by the "Agreement" with the Wildlife Agencies will avoid excess illumination of open space areas through repositioning, redirecting (shielding, down-casting), and/or the use of low sodium lighting. The sports park lighting, and any periphery lighting (including low-sodium lights) adjacent to the wildlife habitat corridor shall be designed so that there is no measurable (shall not exceed 3 footcandles) light spillover into the habitat corridor, and a small passive use area will be included in the park's design at the top of slope to buffer the wildlife corridor. In areas where spillover exceeding 3 footcandles cannot be avoided, trees shall be located near the light standards to filter the light spillover into the open space. The following measures shall be implemented:</p> <ul style="list-style-type: none"> • Maximum light spillover shall not exceed 3 footcandles • Use of full cut-off lighting fixtures • Limit hours of operation to 10:00 p.m. (park use) • Additional trees shall be planted between the open space and residential areas and the future sports field light standards. <p>The Wildlife Agencies will provide further review of the lighting analysis prepared for the Robertson Ranch Master Plan Program EIR and the proposed lighting plan to ensure that light spillover has been appropriately attenuated.</p>	<p>City Planning and Parks Department in consultation with Wildlife Agencies</p> <p>City Planning Department</p>	<p>Prior to approval of park development plans.</p> <ul style="list-style-type: none"> • Trees to be planted in conjunction with grading for corridor adjacent to park site. • Additional trees to be planted on park site in conjunction with park development, as needed. <p>Include in conditions of approval for residential and commercial development areas that lights shall be shielded to prevent light spillover.</p>	<p>Once, upon completion.</p>	<p>Verification: West Village <input type="checkbox"/> PA12</p> <p>Date _____ init.</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B9	<p>To ensure continued use of Linkage B and all areas of biological open space by a variety of HMP species, efforts to reduce detrimental edge effects shall be undertaken. Any linear vegetation feature has an increased amount of edge relative to a large vegetation patch. If this increased amount of edge is bordered by development or disturbed habitat the potential for detrimental edge effects is high. To combat these effects the following measures are required:</p> <ul style="list-style-type: none"> Residents whose lots back onto the Linkage lands, shall be apprised through the developments CC&R's of the sensitivity of the adjacent lands via signage and informed of penalties for illegal intrusion (via uncontrolled access points or expansion of landscaping, etc.), and/or illegal dumping (materials into biological open space). Fencing shall be installed to deter open access to the biological open space where the open space lies adjacent to residential development, ancillary facilities, or a roadway. Fencing shall also preclude (to the extent feasible) access of the open space by domestic pets. Access points to the biological open space shall be carefully controlled to reduce habitat degradation. 	City Planning Department	<p>Prior to approval of CC&R's.</p> <p>Prior to recordation of final map.</p>	<p>Once, upon completion of CC&R's.</p> <p>Once, upon completion.</p>	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMPP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B-15	<p>Two noxious plant species: giant cane (<i>Arundo donax</i>) and pampas grass (<i>Cortaderia jubata</i>) shall be eliminated from all areas of the property to be retained in open space. If identified, additional significant noxious plant species currently growing within Linkage B shall be flagged by a trained biologist and carefully removed (if such a removal can practically be achieved) so that seeds are not dispersed.</p> <p>In addition, the use of invasive exotic plants within landscaping areas adjacent to the proposed open space areas shall be prohibited through the application of Covenants, Conditions, and Restrictions (CC&R's). The list of invasives shall be those identified on List A and List B of the California Exotic Plant Council's List of Exotic Plants of Greatest Ecological Concern in California, as of October, 1999, and updated if applicable. Implementation of this measure shall be verified by the City of Carlsbad Planning Department during review of proposed landscape plans.</p>	<p>Project Biologist</p> <p>City Planning Department</p> <p>City Planning Department</p>	<p>Removal of invasive species shall be in conjunction with revegetation plans.</p> <p>Include list of exotic species in CC&R's.</p> <p>Review proposed landscape plans.</p>	<p>During implementation of revegetation plans.</p> <p>Incorporate into draft CC&R's prior to approval of final map. Submit recorded CC&R's prior to issuance of a building permit.</p> <p>Once, upon review of landscape plans.</p>	<p>Verification: East Village</p> <p>Date _____ Init.</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init.</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MWIRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B1	<p>8-16 The project's open space shall be included within (contribute to) the Carlsbad Habitat Management Plan preserve areas. Management of the designated open space shall be undertaken by a professional management entity (e.g., Center for Natural Lands Management) with experience in managing biological open space in the Southern California region. An area specific management plan shall be developed and a non-wasting endowment or other financial guarantee shall be established (based upon a Property Analysis Record) by the developer to fund the management of the preserve except where other management funds become available. The designated management entity will ensure compliance with the HMP conditions of coverage for HMP species through implementation of the approved area specific management plan. Specifically, suitable riparian habitat for least Bell's vireo and yellow-breasted chat and suitable upland habitats for California gnatcatcher and southern California rufous-crowned sparrow within the open space will be managed to meet the conditions of coverage for these species, if present.</p> <p>In order to provide for the cost of the long-term maintenance and biological monitoring program for the preserve, a long-term management program shall be defined and funded. The criteria for trail development (e.g., fencing, signage) shall be included in the management program. The property owner/on-site environmental manager will initially propose a scope of work for the long-term management program. The scope of work shall then be subject to review by the City and Wildlife Agencies. Based upon the scope of work and associated costs agreed to by the developer or their successors and the City, a funding mechanism for the long-term maintenance can be a non-wasting endowment or other financial guarantee acceptable to the City. The long-term maintenance program shall be a separate agreement between the City and the property owner.</p>	Wildlife Agencies and City Planning Department.	<p>PA 23D & E: Prior to approval of the first final map or grading permit for the East Village.</p> <p>PA 23C: Prior to approval of the first final map for the Robertson Ranch Master Plan, or issuance of a grading permit for the habitat corridor.</p> <p>PA 23A & B: Prior to approval of the first final map or grading permit for the West Village.</p>	Once, upon completion.	<p>Verification: East Village (PA 23D & E)</p> <p>Date _____ Init.</p> <p>Name _____</p> <p>Verification: West Village (PA23C)</p> <p>Date _____ Init.</p> <p>Name _____</p> <p>Verification: West Village (PA23A & B)</p> <p>Date _____ Init.</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMPP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
84. B9	<p>B-17 A monitoring biologist approved by the Service shall be on site during initial clearing and grubbing of habitat, which should occur outside of the gnatcatcher breeding season, or as allowed pursuant to Mitigation Measure B-8.</p> <p>The monitoring biologist shall perform a minimum of three focused surveys, on separate days, to determine the presence of gnatcatchers in the project impact footprint outside the gnatcatcher breeding season. Surveys shall begin a maximum of seven days prior to performing vegetation clearing/grubbing and one survey shall be conducted the day immediately prior to the initiation of remaining work. If any gnatcatchers are found within the project impact footprint, the biologist shall direct construction personnel to begin vegetation clearing/grubbing in an area away from the gnatcatchers. In addition, the biologist shall walk ahead of clearing/grubbing equipment to flush birds towards areas of CSS to be avoided. It shall be the responsibility of the biologist to ensure that gnatcatchers shall not be injured or killed by vegetation clearing/grubbing.</p> <p>The biologist shall also record the number and location of gnatcatchers disturbed by vegetation clearing/grubbing. The applicant shall notify the Service at least seven days prior to vegetation clearing/grubbing to allow the Service to coordinate with the biologist on bird flushing activities.</p>	City Planning Department and U.S. Fish and Wildlife Service	Hire biological monitor prior to issuance of grading permit. Monitor present during initial clearing and grubbing of habitat. Surveys no more than seven days prior to performing vegetation clearing/grubbing and one survey the day before the initiation of remaining work.	Ongoing throughout clearing and grubbing.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B4, B9	<p>B-18 For subsequent construction work performed during the gnatcatcher breeding season, a monitoring biologist shall be on site during significant noise-generating project construction activities (e.g., including but not necessarily limited to grading, drilling, blasting, etc.) within 300 feet of preserved habitat to ensure compliance with all conservation measures. The biologist shall be knowledgeable of upland biology and ecology. The applicant shall submit the biologist's name, address, telephone number, and work schedule on the project to the Service at least 30 days prior to initiating project impacts. The biologist shall perform the following duties:</p> <ul style="list-style-type: none"> The project biologist shall determine the presence of gnatcatchers, nest building activities, egg incubation activities, or brood rearing activities within 300 feet of the project impact limits within the gnatcatcher breeding season. The applicant shall notify the Service within 24 hours of locating any gnatcatchers. If a nest is found in or within 300 feet of initial vegetation clearing/grubbing or project construction, work shall be postponed within 500 feet of the nest. The applicant shall contact the Service to discuss: <ol style="list-style-type: none"> the best approach to avoid/minimize impacts to nesting birds (e.g., sound walls), and a nest monitoring program. The surveys shall begin a maximum of seven days, prior to vegetation clearing/grubbing or project construction and one survey shall be conducted the day immediately prior to the initiation of work; work may be initiated subject to implementation of the avoidance and/or minimization measures and nest monitoring program approved by the Service. Nest success or failure shall be established by regular and frequent trips to the site, as determined by the biologist and through a schedule approved by the Service. The biologist shall determine whether bird activity is being disrupted. If the biologist determines that bird activity is being disrupted, the applicant shall stop work and coordinate with the Service to review the avoidance/minimization approach. Coordination between the applicant and Service to review the avoidance/minimization approach shall occur within 48 hours. Upon agreement as to the necessary revisions to the avoidance/minimization approach, work may resume subject to the revisions and continued nest monitoring. Nest monitoring shall continue until fledglings have dispersed or the nest has been determined to be a failure, as approved by the Service; inspect the fencing and erosion control measures within or up-slope of all restoration 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 	City Planning Department and U.S. Fish and Wildlife Service	At least 30 days prior to commencement of construction.	Ongoing, throughout construction process.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<p>immediately;</p> <ul style="list-style-type: none"> 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 shall include: 1) the purpose for resource protection; 2) a description of the gnatcatcher and its habits; 3) the conservation measures given in the draft subsequent EIR that shall be implemented during project construction, 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 as outlined in measure 8; 5) the protocol to resolve conflicts that may arise at any time during the construction process; and, 6) the general provisions of the Endangered Species Act, the need to adhere to the provisions of the Endangered Species Act, the penalties associated with violating the Endangered Species Act; Halt work, if necessary and confer with the Service to ensure the proper implementation of species and habitat protection measures. The biologist shall report any violation to the Service within 24 hours of its occurrence; Submit weekly letter reports (including photographs of impact areas) to the Service during clearing of habitat and/or project construction within 300 feet of avoided habitat. The weekly reports shall document that authorized impacts were not exceeded, work did not occur within the 300-foot setback except as approved by the Service, and general compliance with all conditions. The reports shall also outline the duration of gnatcatcher monitoring, the location of construction activities, the type of construction which occurred, and equipment used. These reports shall specify numbers, locations, and sex of gnatcatchers (if present), observed gnatcatcher behavior (especially in relation to construction activities), and remedial measures employed to avoid, minimize, and mitigate impacts to gnatcatchers. Raw field notes shall be available upon request by the Service; and, The biological monitor shall submit a final report to the Service within 60 days of project completion that includes: as-built construction drawings with an overlay of habitat that was impacted and avoided, photographs of habitat areas that were to be avoided, and other relevant summary information documenting that authorized impacts were not exceeded and that general compliance with all mitigation measures in the EIR was achieved. 				

Mitigation Monitoring and Reporting Program

Impact Number (Impact Provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B9	<p>The applicant shall ensure that the following conditions are implemented during project construction:</p> <ul style="list-style-type: none"> Employees shall strictly limit their activities, vehicles, equipment and construction materials to the fenced project footprint; To avoid attracting predators of the gnatcatcher, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site; Pets of project personnel shall not be allowed on the project site; Disposal or temporary placement of excess fill, brush or other debris shall not be allowed in waters of the United States or their banks; All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall occur in designated areas outside of waters of the United States within the fenced project impact limits and in such a manner as to prevent any runoff from entering waters of the United States, and shall be shown on the construction plans. Fueling of equipment shall take place within existing paved areas greater than 100 feet from waters of the United States. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. "No-fueling zones" shall be designated on construction plans; Night lighting, if any, of construction staging areas shall be of the lowest illumination necessary for human safety, selectively placed, shielded, and directed away from natural habitats. The project applicant shall temporarily fence (with silt barriers) the limits of project impacts (including construction staging areas and access routes) to prevent additional habitat impacts and prevent the spread of silt from the construction zone into adjacent habitats to be avoided. Fencing shall be installed in a manner that does not impact habitats to be avoided. The applicant shall submit to the Service for approval, at least seven days prior to initiating project impacts, the final plans and photographs for initial clearing and grubbing of habitat and project construction. These final plans shall include photographs that show the fenced limits of impact and all areas (including riparian/wetland or CSS) to be impacted or avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the Service. Any upland habitat impacts that occur 	City Engineering and Planning Departments	Notification by developers at commencement of construction.	Ongoing, throughout construction.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
	<p>beyond the approved fenced shall be mitigated at a minimum 5:1 ratio. Temporary construction fencing shall be removed upon project completion.</p> <ul style="list-style-type: none"> • Landscaping shall not use plants that require intensive irrigation, fertilizers, or pesticides adjacent to preserve areas and water runoff from landscaped areas shall be directed away from the biological conservation easement area and contained and/or treated within the development footprint, where feasible. The applicant shall submit a draft list of species to be included in the landscaping to the Service for approval at least 30 days prior to initiating project impacts. The applicant shall submit to the Service the final list of species to be included in the landscaping within 30 days of receiving approval of the draft species list. • The San Diego County Invasive Ornamental Plant Guide shall be used in developing the landscape plan for the proposed project. • Restrictions on the use of invasive plant species shall be included in the project CC&R's. • Coyote Roller devices shall be installed on fences that interface with the perimeter of proposed open space preserve areas, to the extent feasible. 				

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Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B10	<p>The following vernal pool management actions shall be incorporated into the preserve management of PA 23E:</p> <ul style="list-style-type: none"> Fencing around the vernal pool areas shall be installed to prevent potential impacts from foot traffic and to prevent collection of any flowering plants or tadpoles, particularly in light of the pools' location immediately down slope from an offsite residential, landscaped area. Pool hydrology is likely to be effected by summer runoff from the off-site, upslope development. Changes in drainage patterns and the possible addition of fertilizer or herbicide runoff from the upslope landscaping may transform pools into more permanent wetlands or transform the vegetative components of the pools by favoring invasive species. The preserve manager shall work closely with the adjacent Calavera Hills homeowners association and their landscape maintenance contractor to avoid application of excess drainage, herbicides and pesticides upslope from the existing vernal pools. Exotic plant invasion shall be prevented through the use of selective weeding, appropriate herbicide application, or designed grazing. 	City Planning Department	Include in Open Space Management Plan.	Once, upon completion.	<p>Verification: East Village</p> <p>Date _____ init.</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ init.</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B11	<p>B-21 East Village. Additional focused surveys for the <i>Brodiaea filifolia</i> shall be conducted within the clay soil regions of the East Village (clay soils are located only in locations south of Cannon Road) prior to grading only if winter into spring 2005-2006 rainfall exceeds 10 inches. If rainfall exceeds 10 inches in the season prior to grading, and if a new <i>Brodiaea filifolia</i> survey is necessary, and if <i>Brodiaea filifolia</i> is found, per HMP narrow endemic conservation standards (HMP, pages D-89 and D-90) it would be subject to required preservation of 80% of any newly discovered population. If precipitation is less than 10 inches, the results of the 2003 surveys shall be considered the best available assessment of this species presence/absence status on-site and no further action related to this species is necessary.</p> <p>West Village. If sufficient precipitation (greater than 10 inches) occurs prior to grading of the West Village, surveys should be conducted to provide an opportunity to identify <i>Brodiaea filifolia</i> under peak emergence conditions. Surveys for the West Village should not necessarily be conducted immediately prior to ground disturbance. The survey timing should be dictated by optimal emergence conditions. If precipitation of greater than 10 inches does not occur prior to grading for the West Village, then the results of the 2003 surveys shall be utilized to assess impacts to this species.</p>	City Planning Department	If precipitation greater than 10" occurs prior to grading.	Once, upon completion.	Verification: East Village Date _____ Init. _____ Name _____ Verification: West Village Date _____ Init. _____ Name _____
B4, B5, B6, B7, B9	<p>B-22 The project shall comply with all applicable conditions of coverage for Carlsbad HMP covered sensitive animal species observed on the project site, as identified in the MHCP Volume II, including: a) Cooper's hawk b) Least Bell's vireo c) Yellow-breasted chat</p>	City Planning Department in consultation with Wildlife Agencies.	Include in Open Space Management Plan.	Once, upon approval of plan.	Verification: Date _____ Init. _____ Name _____

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
B9	<p>B-23 Proposed trails specifically allowed within the proposed Master Plan open space planning areas shall be managed by the City of Carlsbad or by a conservation management entity with familiarity with the specific Recreation and Public Access measures identified in MHCP Volume I. The Robertson Ranch Open Space management program shall be consistent with these measures, including provision of litter control, limiting use during the breeding season, discouraging trespass off of the trail, prohibiting equestrian uses on the trail, erosion control, provision of signage, lighting restrictions, limitations on biking, and establishment of patrols to monitor.</p>	<p>City Planning Department in consultation with Wildlife Agencies.</p>	<p>include in Open Space Management Plan.</p>	<p>Once, upon approval of plan.</p>	<p>Verification: East Village Date _____ Init. _____ Name _____ Verification: West Village Date _____ Init. _____ Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
Hydrology/Water Quality					
H1	<p>This measure requires that consistent with the Local Facilities Management Plan (LFMP), drainage facilities shall be provided concurrent with future development of the East Village. Prior to approval of grading permits for development within the East Village, the City Engineer must approve the necessary onsite and offsite storm drain facilities as required by the Master Drainage and Storm Water Quality Management Plan, LFMP and Drainage Study. The required storm drain facilities include but are not limited to:</p> <ul style="list-style-type: none"> • 84-inch RCP from BJB detention basin • Proposed onsite drainage plan (Figure 5.14-4) 	City of Carlsbad Engineering Department - City Engineer	Prior to approval of grading permits for development within the East Village.	Once, upon completion.	<p>Verification: East Village only</p> <p>Date _____ Init. _____</p> <p>Name _____</p>
H2	<p>This measure requires that consistent with the Local Facilities Management Plan (LFMP) and Drainage Study, drainage facilities shall be provided concurrent with future development of the West Village. Prior to approval of grading permits for development within the West Village, the City Engineer must approve the necessary onsite and offsite storm drain facilities as required by the Master Drainage and Storm Water Quality Management Plan, LFMP and Drainage Study. The required storm drain facilities include but are not limited to:</p> <ul style="list-style-type: none"> • Facility BF8 • Facility BF1 • Detention basins in Planning Areas 1, 2, 7, and 11 • Facility BFA • Proposed onsite drainage plan (Figure 5.12-6) 	City of Carlsbad Engineering Department - City Engineer	Prior to approval of grading permits for development within the West Village.	Once, upon completion.	<p>Verification: West Village only</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
WQ1	<p>WQ-1 This measure requires that erosion, siltation, and emission of construction related pollutants shall be controlled through compliance with the City of Carlsbad Standard Urban Storm Water Mitigation Plan, Stormwater Management Plan (SWMP) required under the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WFO) (section 67.871), General Construction Stormwater Permit (Order No. 99-08, NPDES CA3000002) and the General Municipal Stormwater Permit (Order No. 2001-01, NPDES CA30108758). In compliance with the General Construction Stormwater Permit, a SWPPP shall be prepared and approved prior to issuance of any grading permits. The owner/developer shall be responsible for monitoring and maintaining the BMPs identified below on a weekly basis. In addition, prior to approval of the grading permit for the respective village, the City Engineer must determine that project plans have incorporated temporary desilting basins of adequate number and size in the East Village and permanent detention basins of adequate number and size in the West Village.</p> <p>Some of the BMPs that shall be used during construction include, but are not limited to:</p> <ul style="list-style-type: none"> • Silt fence, fiber rolls, or gravel bag berms • Check dams • Street Sweeping and vacuuming • Storm drain inlet protection • Stabilized construction entrance/exit • Vehicle and equipment maintenance, cleaning, and fueling • Hydraseed, soil binders, or straw mulch • Material delivery and storage • Stockpile management • Spill prevention and control • Waste management for solid, liquid, hazardous and sanitary waste, contaminated soil • Concrete waste management 	City of Carlsbad Engineering Department - City Engineer	Prior to issuance of any grading permits.	Once, upon completion.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Mitigation Monitoring and Reporting Program

Impact Number (Impact provided in MMRP Appendix A)	Mitigation Measure	Responsible Monitoring Party	Required Time of Application	Monitoring Frequency	Shown on Plans/ Completion Date
WQ2	<p>WQ-2 This measure requires that pollutants be controlled through compliance with the City of Carlsbad Standard Urban Storm Water Mitigation Plan, Stormwater Management Plan (SWMP) required under the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance (WPO) [section 67.871], and the General Municipal Stormwater Permit (Order No. 2001-01, NPDES CAS0108758). Prior to approval of grading permits for development within the East Village, the City Engineer must determine that the proposed project has incorporated the post-development water quality pollution control measures identified below into project design to the maximum extent practicable.</p> <ul style="list-style-type: none"> • Installation of the vegetated swale located south of Cannon Road • Site Design BMPs • Source Control BMPs • Structural Treatment Control BMPs <p>Proposed BMPs include:</p> <ul style="list-style-type: none"> - Street Sweeping - Inlet Basin Labeling - Storm Drain Inlet Baskets with Hydrocarbon Absorption - Vortex Separator(s) - Vegetative Drainage Course - Existing Detention Basin 8JB - Dog Waste Bag Dispensers - HOA shall provide information to homeowners and residents regarding the requirements of pet waste disposal. 	City of Carlsbad Engineering Department - City Engineer	Prior to approval of grading permits for development within the East Village.	Once, upon completion.	<p>Verification: East Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p> <p>Verification: West Village</p> <p>Date _____ Init. _____</p> <p>Name _____</p>

Source: BRG Consulting, Inc., 2006

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