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SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## California Regional Water Quality Control Board, San Diego Region

March 6, 2014

**In reply refer to:**  
**757527: amonji**

Sherri Howard  
City of Carlsbad  
1635 Faraday Ave  
Carlsbad, CA 92008

**Subject: Clean Water Act Section 401 Water Quality Certification No. 10C-093  
for the Romeria Street Drainage Improvement Project**

Ms. Howard:

Enclosed find Clean Water Act Section 401 Water Quality Certification No. **10C-093** (Certification) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board ) in response to the application submitted by the City of Carlsbad for the Romeria Street Drainage Improvement Project (Project). A description of the Project and Project location can be found in the Certification and site maps which are included as attachments to the Certification.

The City of Carlsbad is enrolled under State Water Resources Control Board Order No. 2003-017-DWQ as a condition of the Certification and is required to implement and comply with all terms and conditions of the Certification in order to ensure that water quality standards are met for the protection of wetlands and other aquatic resources. Failure to comply with this Certification may subject the City of Carlsbad to enforcement actions by the San Diego Water Board including administrative enforcement orders requiring the City of Carlsbad to cease and desist from violations or to clean up waste and abate existing or threatened conditions of pollution or nuisance; administrative civil liability in amounts of up to \$10,000 per day per violation; referral to the State Attorney General for injunctive relief; and, referral to the District Attorney for criminal prosecution.

Any petition for reconsideration of this Certification must be filed with the State Water Resources Control Board within 30 days of certification action pursuant to section 3867 of Title 23 of the California Code of Regulations (23 CCR). If no petition is received, it will be assumed that the City of Carlsbad has accepted and will comply with all terms and conditions of the Certification.

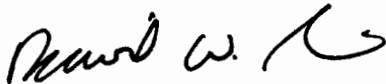
HENRY ABARBANEL, CHAIR | DAVID GIBSON, EXECUTIVE OFFICER

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In the subject line of any response, please include the reference number 757527:amonji. For questions or comments, please contact Alan Monji by phone at (619) 521-3968, or by email at [alan.monji@waterboards.ca.gov](mailto:alan.monji@waterboards.ca.gov).

Respectfully,



David W. Gibson,  
Executive Officer  
Regional Water Quality Control Board

DG:js:dtb:kkd:atm

Enclosures:

Clean Water Act Section 401 Water Quality Certification No. 10C-093 for the Romeria Street Drainage Improvement Project

cc:

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Tech Staff Info & Use	
File No.	10C-093
WDID	9 000002158
Reg. Measure ID	376192
Place ID	757527
Party ID	524808

**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: Romeria Street Drainage Improvement Project  
Certification Number 10C-093  
WDID: 9000002158**

Reg. Meas. ID: 376192  
Place ID: 757527  
Party ID: 524808

**APPLICANT: City of Carlsbad  
1635 Faraday Avenue  
Carlsbad, CA 92008-7314**

**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 October 5, 2010 was submitted by the City of Carlsbad (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Romeria Street Drainage Improvement Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on June 22, 2011. 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 Project is located within the City of Carlsbad, San Diego County, California near the intersection of La Costa Avenue and Romeria Street. The Project center reading is located at latitude 33.08542 and longitude -117.24514. The Applicant has paid all required fees for this Certification in the amount of \$3,087.00. On October 12, 2010, 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 Project is located within the Batiquitos hydrologic sub-area (HSA 904.51) and the mitigation site, located within the Lake Calavera Mitigation Parcel, is within the Los Monos hydrologic sub-area (HSA 904.31); both areas are within the Carlsbad Hydrologic Unit (HSA 904.00).

The Applicant proposes to remove and replace 360 linear feet of concrete channel, 226 feet of brow ditch, and a buffer of surrounding habitat. The buffer is located approximately 200 feet west of the concrete-lined channel and extends to the boundaries of the adjacent properties on the east side of the concrete-lined channel. The Applicant also proposes to repair a failed slope on the southern side of La Costa Avenue between Gibraltar and Romeria Streets. The Project is necessary to prevent further sloughing of the slope. Additionally, the Applicant will install an all-weather permanent maintenance access ramp and pad to replace the current access from Levante Street. The existing access road is 1,500 LF of unpaved dirt road that has been eroded by storm water run-off and naturally occurring seepage from the surrounding slopes. The City has used gravel bags to minimize the formation of rills in the existing road but it is still in constant need of maintenance. The new access road entrance will be at La Costa Avenue and will be constructed using "GravelPave" which allows water to percolate through the open surface of the road. The surface will be hydroseeded with vegetation that can tolerate vehicle traffic. The existing access road from Levante Street be abandoned and replanted with native vegetation.

The Project is an improvement over existing conditions because the concrete lined channel is cracked and missing sections, which allows storm water run-off and sediment to undermine downstream sections of the concrete channel and erode around the culvert pipe under La Costa Avenue. The replacement of the existing concrete lined channel and brow ditches are within the current footprint. The only new impact is the relocation of the maintenance access from Levante Street to La Costa Avenue. The relocation and improvement of the access road reduces the distance the maintenance crews will need to travel and provides a stable platform which greatly reduces the potential of a sediment source to San Marcos Creek. The existing maintenance road will be reseeded and allowed to re-vegetate, providing additional natural buffer around the concrete lined channel and Romeria Street drainage.

All BMPs will be designed, constructed, and maintained to meet the City of Carlsbad's Low Impact Development (LID) Capture Volume and hydromodification 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. The removal and replacement of existing concrete lined channel and brow ditches does not necessitate post construction Best Management Practices (BMPs). The Applicant proposes to abandon the current unstable dirt maintenance access road and replace it with a shorter more stable access road constructed with a pervious surface to minimize the runoff from the road. Compliance with the Certification conditions will help ensure that construction and post-construction discharges from the Project will not cause on-site or off-site 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 0.039 acre (360 linear feet) of disturbed wetland waters of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

The Applicant reports that compensatory mitigation for the permanent loss of 0.039 acre of jurisdictional waters will be achieved through the establishment of 0.058 acres of wetland (119 linear feet) waters of the United States and/or State. All waters of the United States and/or State receiving temporary discharges of fill material will be restored upon removal of the fill. The Applicant reports that mitigation for the temporary loss of 0.059 acre of wetland and streambed will be achieved through the restoration of 0.088 acres of waters of the United States and/or State and the enhancement of 0.07 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 onsite at the Romeria Street Project Area through restoration and offsite at Lake Calavera Mitigation Parcel through establishment, enhancement, and restoration at a minimum compensation ratio of 1.5:1 (area mitigated:area impacted) for permanent impacts and 2.7:1 for temporary impacts.

The Applicant currently owns and operates lands in the Lake Calavera Mitigation Parcel, a 266-acre property in the northern portion of the City of Carlsbad, which serves as a municipal mitigation bank for the Applicant's projects requiring mitigation. Management and monitoring for the Lake Calavera Mitigation Parcel is provided by Center for Lands Management (CNLM). A formal agreement shall permanently protect the site and ensure continued management and monitoring. As outlined in the *draft Mitigation and Monitoring Plan and Technical Specifications, Romeria Street Drainage Improvement Project (Mitigation Plan)*, dated September 2011, the Applicant shall file a preservation mechanism that will secure the lands in an equivalent manner as a conservation easement. This preservation mechanism must apply to all lands within the Lake Calavera Mitigation Parcel, not solely for those areas intended as mitigation for this specific project.

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 draft Mitigation Plan. 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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### **Attachments:**

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

## I. STANDARD CONDITIONS

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

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

## II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. 10C-093 (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](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 San Marcos 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.

### 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/weedlist.php>.
- 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. **Beneficial Use Protection.** The Applicant must take all necessary measures to protect the beneficial uses of waters of San Marcos Creek and its tributaries. 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.

#### 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 San Marcos Creek and its unnamed tributaries within the Carlsbad Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (area mitigated :area impacted)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
<b>Permanent Impacts</b>						
Wetland	0.039	360	0.058 Establishment <sup>1</sup>	119 <sup>1</sup>	1.5:1	1:3
<b>Temporary Impacts<sup>2</sup></b>						
Wetland	0.051	105	0.07 Enhancement <sup>3</sup> 0.088 Restoration <sup>4</sup>	98.6 Enhancement 75.7 Restoration	2.7:1	1:1.5
Streambed	0.008	160				

1. Wetland establishment off-site at Lake Calavera Mitigation Parcel.
2. The Applicant must restore all areas of temporary impacts to pre-project contours and re-vegetation with native species.
3. Streambed enhancement on-site at Romeria Street.
4. Riparian Restoration on-site at Romeria Street and off-site at Lake Calavera Mitigation Parcel.

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. Prior to the start of construction, an approved final Mitigation Plan shall be submitted to the San Diego Water Board.

- D. Performance Standards.** Compensatory mitigation required under this Certification shall be considered achieved once it has met the ecological success performance standards contained in the Mitigation Plan 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 interspersions among plant zones and layers.
- F. Temporary Project Impact Areas.** The Applicant must restore all areas of temporary impacts and all other areas of temporary disturbance which could result in a discharge or a threatened discharge of pollutants to waters of the United States and/or State. Restoration must include grading of disturbed areas to pre-project contours and re-vegetation with native species. The Applicant must implement all necessary BMPs to control erosion and runoff from areas associated with the Project.
- G. Long Term Management and Maintenance.** The compensatory mitigation site(s), must be managed, protected, and maintained, in perpetuity, in conformance with the long term management plan and the final ecological success performance standards identified in the Mitigation Plan. The aquatic habitats, riparian areas, buffers and uplands that comprise the mitigation site(s) must be protected in perpetuity from land-use and maintenance activities that may threaten water quality or beneficial uses within the mitigation area(s) in a manner consistent with the following requirements:
1. Any maintenance activities on the mitigation site(s) that do not contribute to the success of the mitigation site(s) and enhancement of beneficial uses and ecological functions and services are prohibited;
  2. Maintenance activities must be limited to the removal of trash and debris, removal of exotic plant species, replacement of dead native plant species, and remedial measures deemed necessary for the success of the compensatory mitigation project;

3. The Mitigation site(s) must be maintained, in perpetuity, free of perennial exotic plant species including, but not limited to, pampas grass, giant reed, tamarisk, sweet fennel, tree tobacco, castor bean, and pepper tree. Annual exotic plant species must not occupy more than 5 percent of the mitigation site(s); and
  4. If at any time a catastrophic natural event (e.g., fire, flood) causes damage(s) to the mitigation site(s) or other deficiencies in the compensatory mitigation project, the Applicant must take prompt and appropriate action to repair the damage(s) including replanting the affected area(s) and address any other deficiencies. The San Diego Water Board may require additional monitoring by the Applicant to assess how the compensatory mitigation site(s) or project is responding to a catastrophic natural event.
- H. **Timing of Mitigation Site Construction.** The construction of proposed mitigation must be concurrent with project grading and completed no later than 9 months following the start of Project construction. Delays in implementing mitigation must be compensated for by an increased mitigation implementation of 10% of the cumulative compensatory mitigation for each month of delay.
- I. **Mitigation Site(s) Preservation Mechanism.** Within 90 days from the start of 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 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 Monitoring 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 report must include the following information:
1. The names, qualifications, and affiliations of the persons contributing to the report;
  2. The status, progress, and anticipated schedule for completion of Project construction activities including the installation and operational status of best management practices project features for erosion and storm water quality treatment;
  3. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and
  4. A description of each incident of noncompliance during the annual monitoring period and its cause, the period of the noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.
- H. **Final Project Completion Report.** The Applicant must submit a Final Project Completion Report to the San Diego Water Board **within 30 days of completion of the Project.** The final report must include the following information:
1. Date of construction initiation;
  2. Date of construction completion;

3. BMP installation and operational status for the Project;
4. As-built drawings of the Project, no bigger than 11"X17";
5. Photo documentation of implemented post-construction BMPs. 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](http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/StreamPhotoDocSOP.pdf); and

In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced.

- I. **Annual Compensatory Mitigation Monitoring Report.** The Applicant must submit compensatory mitigation monitoring reports, annually, by **March 1** of each year containing sufficient information to demonstrate how the compensatory mitigation project is progressing towards accomplishing its objectives and meeting its performance standards. 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 characteristics:
  - a. Detritus cover;
  - b. General topographic complexity characteristics;
  - 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 project construction, and mitigation sites, including all areas of permanent and temporary impact, 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](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. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17"; and
  9. A survey report documenting boundaries of the compensatory mitigation site(s).
- J. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.
- K. **Electronic and Paper Media Documents.** The Applicant must submit all reports and information required under this Certification in both hardcopy (paper) and electronic format. The preferred electronic format for each report submission is one file in PDF format that is also Optical Character Recognition (OCR) capable. All paper and electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. 10C-093:PIN 757527.
- L. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:
1. For a corporation, by a responsible corporate officer of at least the level of vice president.
  2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
  3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
  4. A duly authorized representative may sign applications, reports, or information if:

- a. The authorization is made in writing by a person described above.
- b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
- c. The written authorization is submitted to the San Diego Water Board Executive Officer.

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

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

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

**N. Document Submittal Address.** The Applicant must submit reports required under this Certification, or other information required by the San Diego Water Board, to:

Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
Attn: 401 Certification No. 10C-093:PIN 757527  
2375 Northside Drive, Suite 100  
San Diego, California 92108

## 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 City of Carlsbad, 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 August 14, 2009 for their Mitigated Negative Declaration (MND) (State Clearing House Number 2009081050). 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 MND 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 City of Carlsbad 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 MND 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 MND, 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

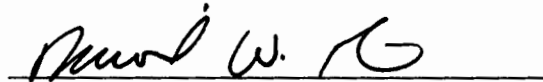
Alan Monji, Environmental Scientist  
California Regional Water Quality Control Board, San Diego Region  
2375 Northside Drive, Suite 100  
San Diego, California 92108  
Telephone: 619-521-3968  
Email: [alan.monji@waterboards.ca.gov](mailto:alan.monji@waterboards.ca.gov)

## X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Romeria Street Drainage Improvement Project** (Certification No. 10C-093) 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. 10C-093 issued on March 6, 2014.



DAVID W. GIBSON  
Executive Officer  
San Diego Water Board

3-6-2014

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.



City of Carlsbad  
Romeria Street Drainage Improvement Project  
Certification No. 10C-093

**ATTACHMENT 2**

**PROJECT LOCATION**

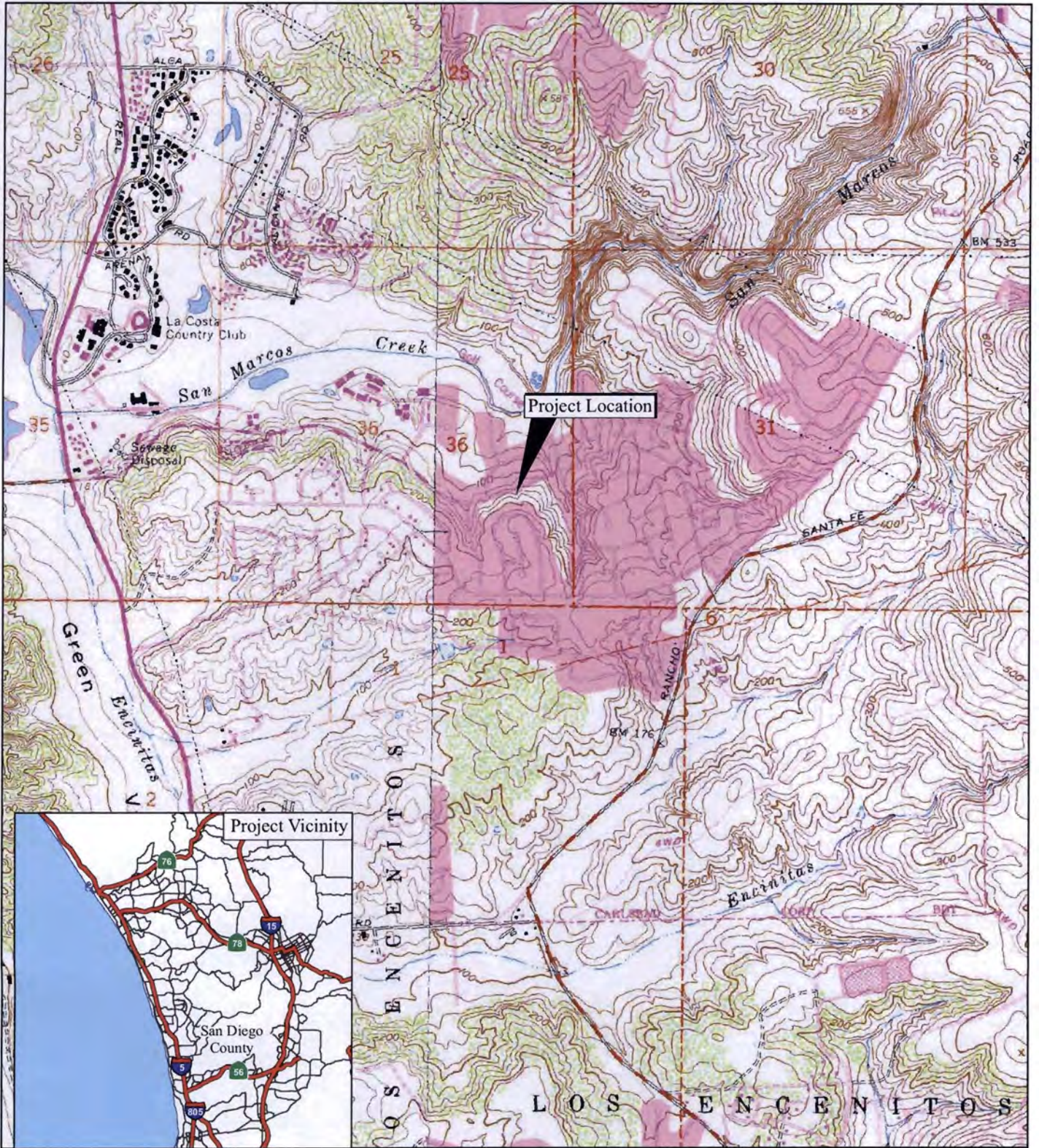
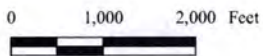


FIGURE 1

LSA

LEGEND

■ Project Boundary



La Costa Avenue and Romeria Street Slope Failure Repair  
Project Location Map

SOURCE: USGS 7.5' QUAD - RANCHO SANTA FE (83)  
I:\HCR0902\GIS\ProjLoc\_Fig1.mxd (8/25/2010)

City of Carlsbad  
Romeria Street Drainage Improvement Project  
Certification No. 10C-093

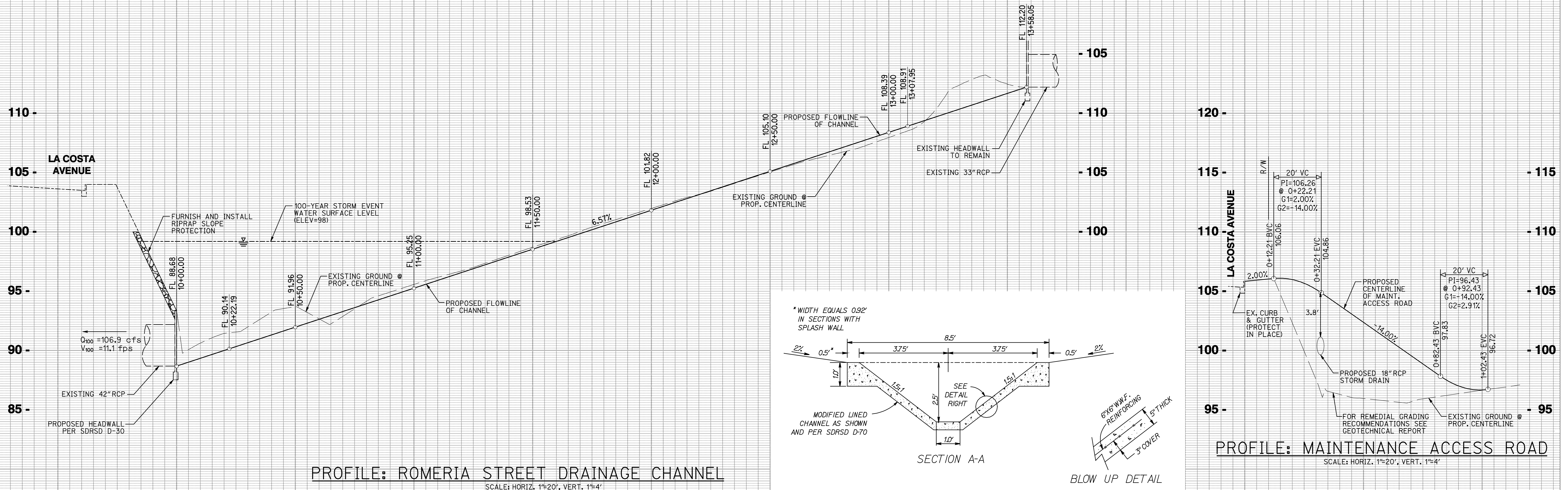
**ATTACHMENT 3**

**SITE PLANS**

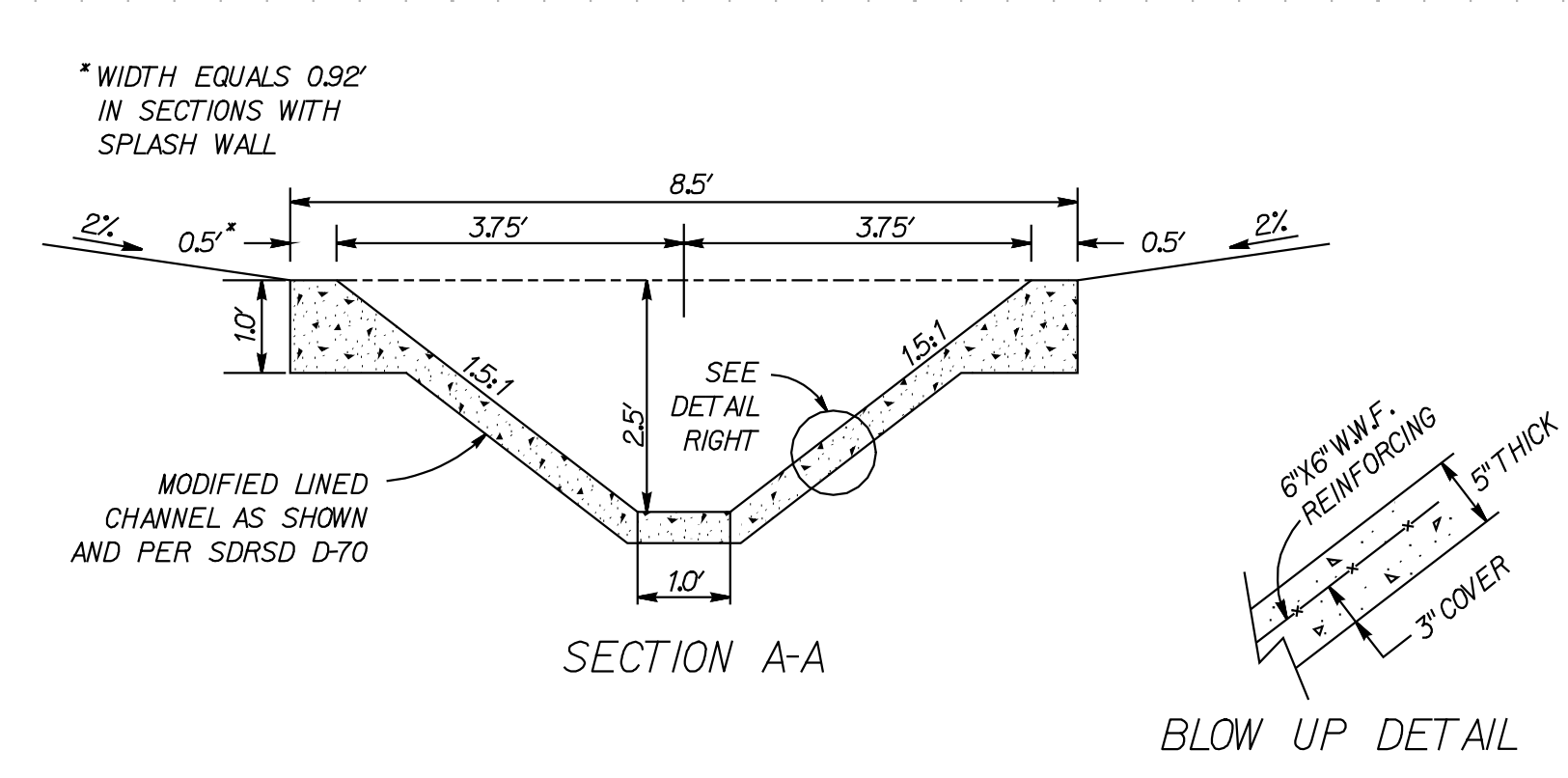




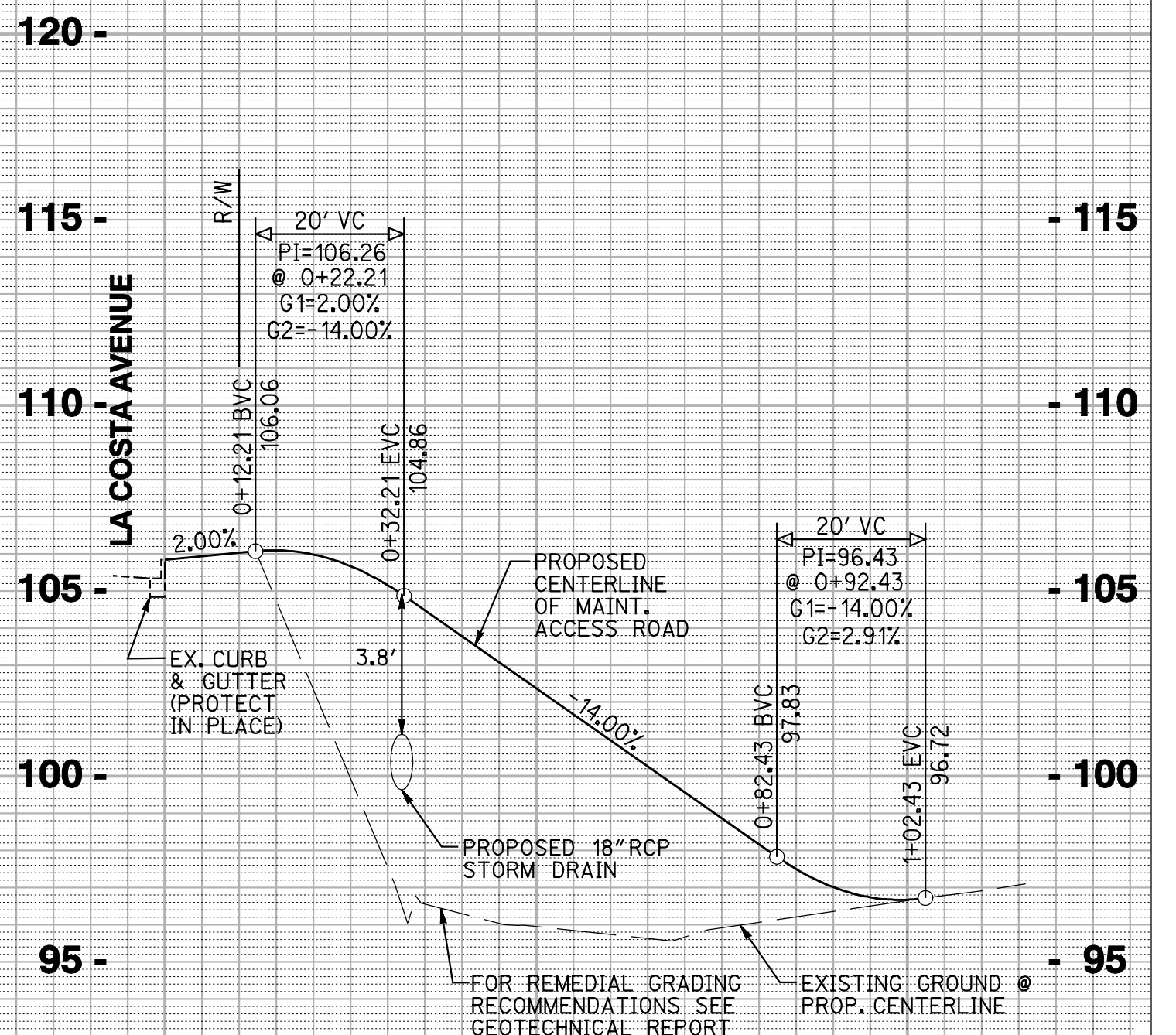




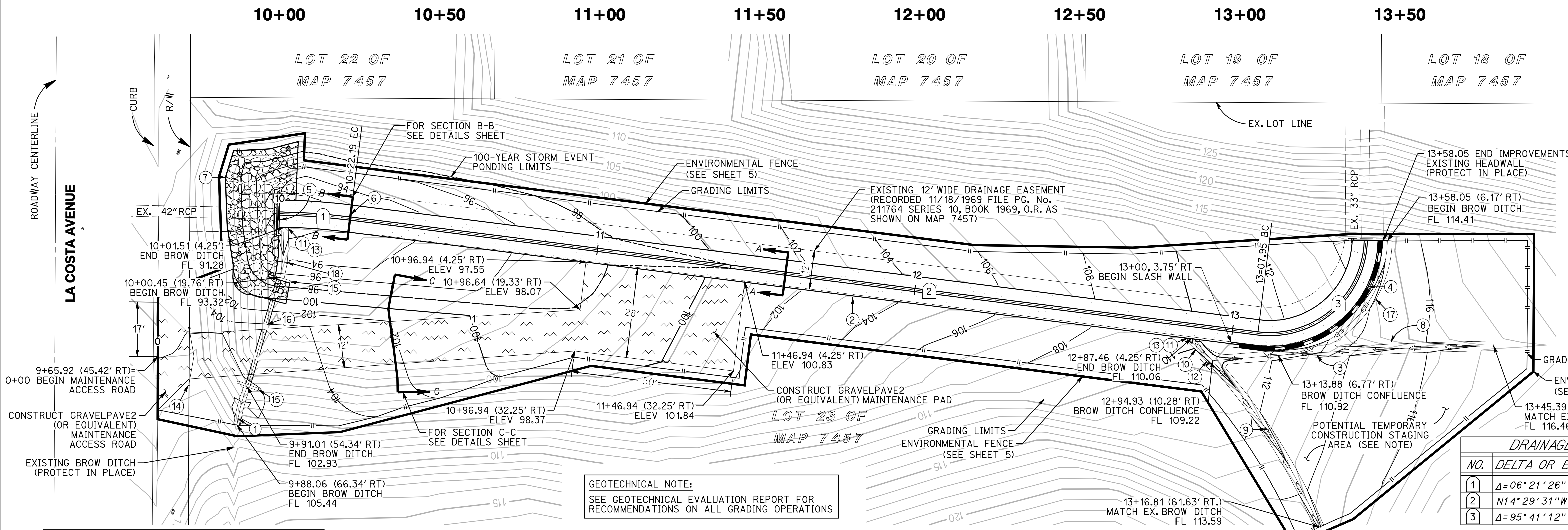
**PROFILE: ROMERIA STREET DRAINAGE CHANNEL**  
SCALE: HORIZ. 1"=20', VERT. 1"=4'



**LINED CHANNEL DETAIL (TYPICAL)**  
NOT TO SCALE



**PROFILE: MAINTENANCE ACCESS ROAD**  
SCALE: HORIZ. 1"=20', VERT. 1"=4'



**PLAN: ROMERIA STREET DRAINAGE CHANNEL**

- CONSTRUCTION NOTES:**
- REMOVE AND REPLACE BROW DITCH PER SDRSD D-75 (DEPTH = 12', LENGTH = 13')
  - REMOVE AND REPLACE LINED CHANNEL PER SDRSD D-70 AND DETAIL 1 THIS SHEET
  - REMOVE EXISTING SPLASH WALL
  - CONSTRUCT SPLASH WALL (HEIGHT=3', LENGTH = 65') PER DETAIL 8 ON SHEET 2
  - STATION 10+00.00 - REMOVE AND REPLACE EXISTING HEADWALL PER SDRSD D-30
  - STATION 10+22.19 EC - CONSTRUCT DEBRIS BARRIER PER DETAIL 2 ON SHEET 2
  - CONSTRUCT 1/4 TON ROCK CLASS RIP RAP SLOPE PROTECTION (THICKNESS = 2.7') ON GEOTEXTILE FOR EROSION CONTROL
  - REMOVE AND REPLACE BROW DITCH PER SDRSD D-75 (DEPTH = 15', LENGTH = 89')
  - REMOVE AND REPLACE BROW DITCH PER SDRSD D-75 (DEPTH = 15', LENGTH = 63')
  - REMOVE AND REPLACE BROW DITCH PER SDRSD D-75 (DEPTH = 15', LENGTH = 10')
  - CONSTRUCT CUTOFF WALL PER DETAIL 4 ON SHEET 2
  - CONSTRUCT BROW DITCH CONFLUENCE WITH SPLASH WALL (HEIGHT = 1') PER DETAIL 6 ON SHEET 2
  - CONNECT BROW DITCH TO LINED CHANNEL PER DETAIL 5 ON SHEET 2
  - CONSTRUCT MAINTENANCE ACCESS ROAD GATE PER DETAIL 1 ON SHEET 2
  - CONSTRUCT STRAIGHT HEADWALL (TYPE A) PER SDRSD D-30
  - REMOVE BROW DITCH AND CONSTRUCT 18" RCP STORM DRAIN (LENGTH = 35', BEARING=N84°39'27"E)
  - REMOVE AND REPLACE BROW DITCH PER SDRSD D-75 (DEPTH = 15', LENGTH = 55')
  - REMOVE AND REPLACE BROW DITCH PER SDRSD D-75 (DEPTH = 15', LENGTH = 16')

- LEGEND:**
- GRAVELPAVE2 OR EQUIVALENT
  - RIP RAP SLOPE PROTECTION
  - SPLASH WALL

**DRAINAGE CHANNEL CENTERLINE DATA**

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	Δ=06°21'26"	200.00'	22.19'	
2	N14°29'31"W		285.76'	
3	Δ=95°41'12"	30.00'	50.10'	

**"AS BUILT"**

P.E. \_\_\_\_\_ EXP. \_\_\_\_\_ DATE \_\_\_\_\_

REVIEWED BY: \_\_\_\_\_

INSPECTOR \_\_\_\_\_ DATE \_\_\_\_\_

SHEET 4 CITY OF CARLSBAD SHEETS 6  
ENGINEERING DEPARTMENT

**ROMERIA STREET CHANNEL IMPROVEMENTS**

**PLAN AND PROFILE**

APPROVED: WILLIAM E. PLUMMER

DEPUTY CITY ENGINEER PE 28176 EXPIRES 3/31/10 DATE \_\_\_\_\_

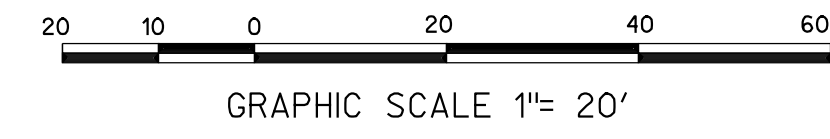
DWN BY: \_\_\_\_\_ PROJECT NO. 66041 DRAWING NO. 455-5  
CHKD BY: \_\_\_\_\_  
RVWD BY: \_\_\_\_\_



PRELIMINARY  
NOT FOR CONSTRUCTION

DATE	INITIAL	REVISION DESCRIPTION	DATE	INITIAL	DATE	INITIAL

**RICK ENGINEERING COMPANY**  
5620 FRIARS ROAD  
SAN DIEGO, CA 92110  
619.291.0707  
(FAX) 619.291.4165  
rickengineering.com

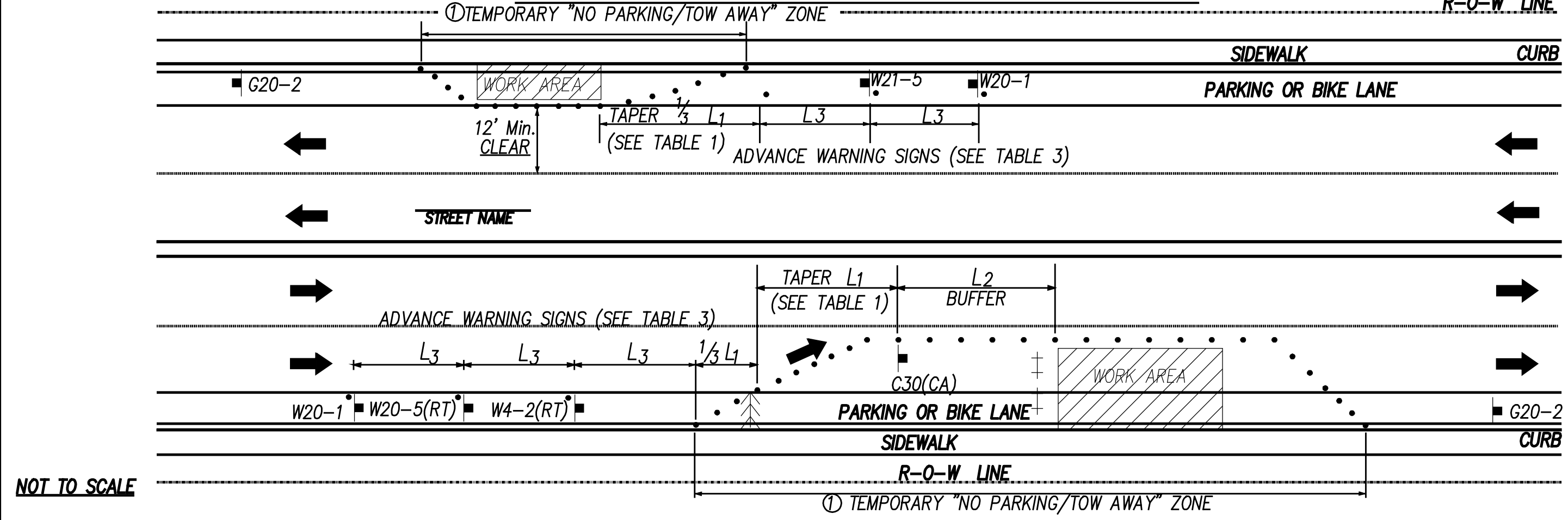


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User: j-153691, Date: 10/20/2009 10:00:00 AM, Project: 66041, Sheet: 4 of 6, Date: 10/20/2009 10:00:00 AM





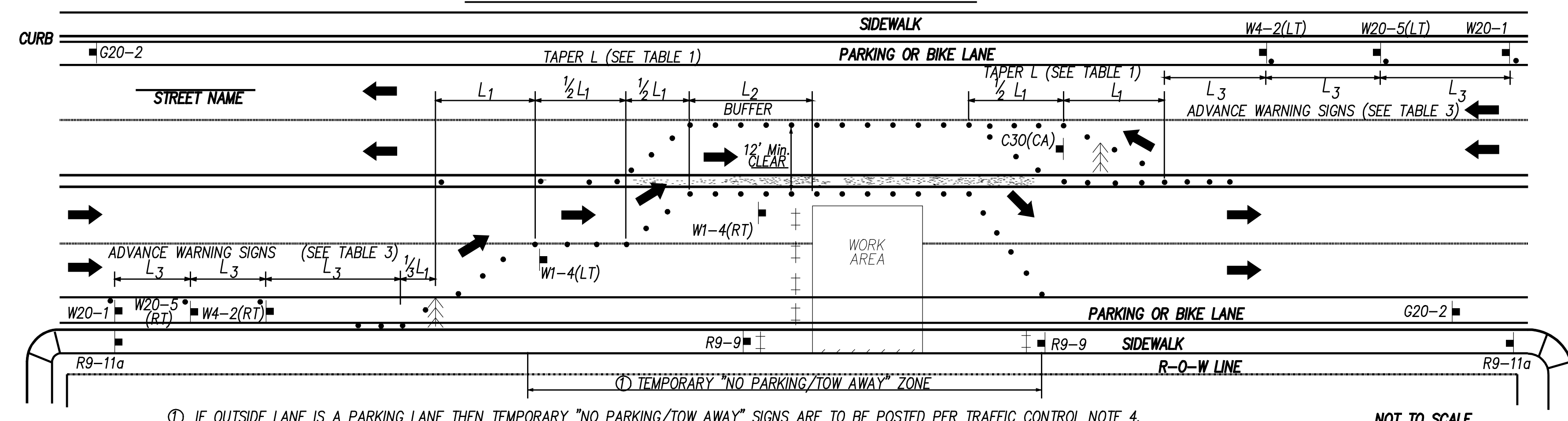
### TYPICAL LANE AND SHOULDER CLOSURE



NOT TO SCALE

① IF OUTSIDE LANE IS A PARKING LANE THEN TEMPORARY "NO PARKING/TOW AWAY" SIGNS ARE TO BE POSTED PER TRAFFIC CONTROL NOTE 4.

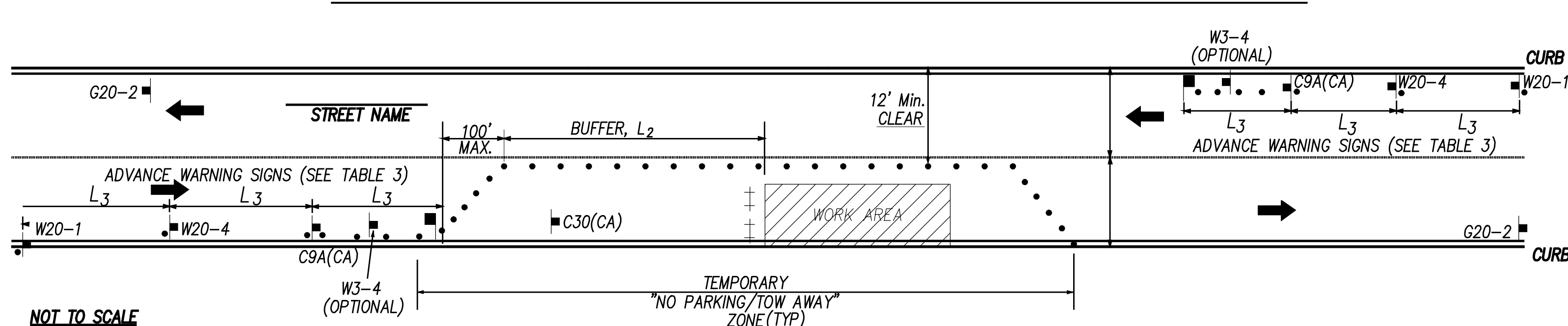
### TYPICAL CLOSING OF HALF ROADWAY



NOT TO SCALE

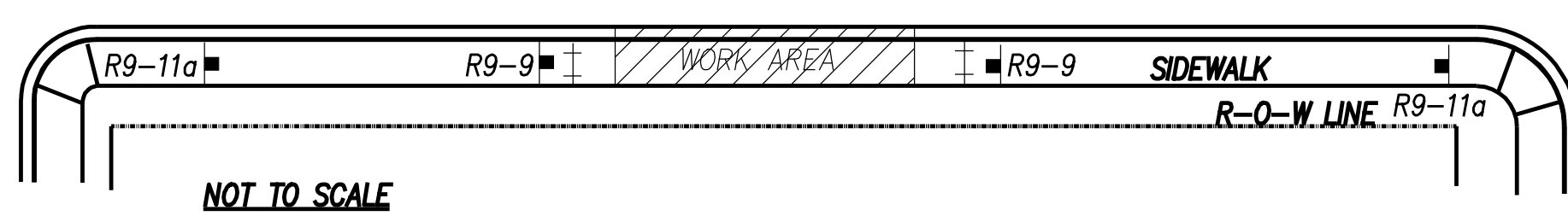
① IF OUTSIDE LANE IS A PARKING LANE THEN TEMPORARY "NO PARKING/TOW AWAY" SIGNS ARE TO BE POSTED PER TRAFFIC CONTROL NOTE 4.

### TYPICAL LANE CLOSURE ON TWO-LANE ROAD USING FLAGGERS



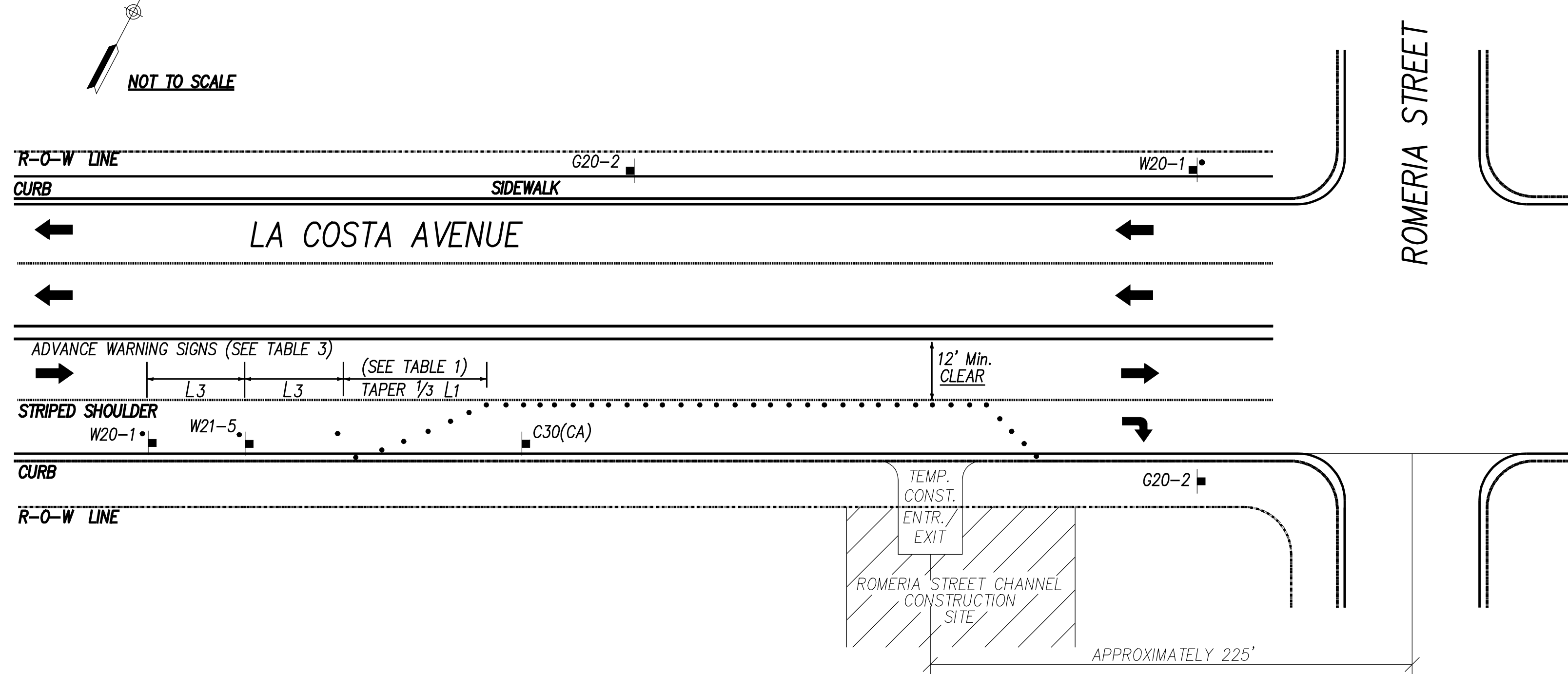
NOT TO SCALE

### TYPICAL SIDEWALK CLOSURE



NOT TO SCALE

### PROPOSED TEMPORARY TRAFFIC CONTROL ROMERIA STREET CHANNEL IMPROVEMENTS



PRELIMINARY  
NOT FOR CONSTRUCTION

### TRAFFIC CONTROL NOTES

- WORK HOURS TO BE RESTRICTED TO 8:30 am TO 3:30 pm UNLESS APPROVED OTHERWISE.
- PEDESTRIAN CONTROLS WILL BE PROVIDED AS SHOWN.
- PEDESTRIANS SHALL BE PROTECTED FROM ENTERING THE EXCAVATION BY PHYSICAL BARRIERS DESIGNED, INSTALLED, AND MAINTAINED TO THE SATISFACTION OF THE CITY ENGINEER.
- TEMPORARY "NO PARKING/TOW AWAY" SIGNS STATING THE DATE AND TIME OF PROHIBITION WILL BE POSTED 72 HOURS PRIOR TO COMMENCING WORK. CALL CARLSBAD POLICE DISPATCH AT (760)931-2197 TO VALIDATE POSTING.
- ACCESS WILL BE MAINTAINED TO ALL DRIVEWAYS UNLESS OTHER ARRANGEMENTS ARE MADE.
- TRENCHES MUST BE BACKFILLED OR PLATED DURING NON-WORKING HOURS UNLESS K-RAIL BARRIERS ARE PROVIDED. K-RAIL IS APPROVED ONLY WHEN SPECIFICALLY SHOWN ON THE APPROVED TRAFFIC CONTROL PLAN. PLATES SHALL HAVE CLEATS AND COLD MIX AT THE EDGES AS APPROVED BY THE CITY INSPECTOR.
- EXISTING STRIPING, CROSSWALKS, LEGENDS AND/OR PAVEMENT MARKERS SHALL BE REPLACED BY THE CONTRACTOR WITHIN 24 HOURS, IF REMOVED OR DAMAGED.
- WORK THAT DISTURBS NORMAL TRAFFIC SIGNAL TIMING OPERATIONS SHALL BE COORDINATED WITH THE CITY OF CARLSBAD, CONTACT STREETS DIVISION AT (760) 434-2937 72 HOURS PRIOR TO COMMENCING WORK.
- TRAFFIC SIGNALS SHALL REMAIN FULLY ACTUATED AT ALL TIMES, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR HIS REPRESENTATIVE. IF TRAFFIC SIGNAL LOOP DETECTORS ARE RENDERED INOPERATIVE BY THE PROPOSED WORK, VIDEO DETECTION SHALL BE USED TO PROVIDE ACTUATION.
- FLAGGERS SHALL BE EQUIPPED WITH A WHITE HARD HAT, AN ORANGE VEST, AND A "STOP/SLOW" PADDLE ON A 5 FOOT STAFF.
- ALL TRAFFIC CONTROL DEVICES MUST BE MAINTAINED 24 HOURS A DAY, 7 DAYS PER WEEK, BY THE CONTRACTOR.
- ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 REVISION), AS AMENDED FOR USE IN CALIFORNIA.
- TRAFFIC CONTROL PLAN SUBMITTALS ARE REQUIRED FOR EACH PHASE OF THE WORK IN THE DETAIL, FORMAT, AND QUALITY ILLUSTRATED ON THIS SHEET.
- ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW OR COVERED WHEN NOT IN USE.
- THE CITY ENGINEER OR HIS REPRESENTATIVE HAS THE AUTHORITY TO INITIATE FIELD CHANGES TO INSURE PUBLIC SAFETY.
- ALL WORK AFFECTING BUS STOPS SHALL BE COORDINATED WITH NORTH COUNTY TRANSIT DISTRICT. CONTRACTOR SHALL CALL NCTD AT (760) 967-2828 AT LEAST 72 HOURS IN ADVANCE OF STARTING WORK.
- CHANGEABLE MESSAGE SIGNS SHALL BE USED IN ADVANCE OF TRAFFIC CONTROL ON MAJOR AND PRIME ARTERIALS, UNLESS OTHERWISE APPROVED. THESE SIGNS SHALL BE SHOWN ON THE TRAFFIC CONTROL PLAN.

### SIGNAGE NOTES

- AT LEAST ONE PERSON SHALL BE ASSIGNED TO FULL TIME MAINTENANCE OF TRAFFIC CONTROL DEVICES ON ALL NIGHT LANE CLOSURES.
- ALL WARNING SIGNS FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED OR REFLECTORIZED AS SPECIFIED IN THE SPECIFICATIONS.
- ALL ADVANCE WARNING SIGN INSTALLATIONS SHALL BE EQUIPPED WITH FLAGS FOR DAYTIME CLOSURES OF ALL MAJOR AND PRIME ARTERIALS. FLASHING BEACONS SHALL BE USED DURING NIGHT LANE CLOSURES.
- A G20-2 "END ROAD WORK" SIGN SHALL BE PLACED AT THE END OF THE LANE CLOSURE UNLESS THE END OF THE WORK AREA IS OBVIOUS, OR ENDS WITHIN A LARGER PROJECT LIMITS.
- ALL CONES USED FOR NIGHT LANE CLOSURES SHALL BE ILLUMINATED TRAFFIC CONES OR FITTED WITH 15" REFLECTIVE SLEEVEES.
- FLASHING ARROW SIGNS SHALL BE USED PER THE CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (FHWA'S MUTCD 2003 REVISION), AS AMENDED FOR USE IN CALIFORNIA. SILENT TYPE SHALL BE USED IN RESIDENTIAL AREAS.
- THE MAXIMUM SPACING BETWEEN CONES IN A TAPER OR A TANGENT SHALL BE APPROXIMATELY AS SHOWN IN TABLE 1.
- ADDITIONAL ADVANCE FLAGGERS SHALL BE REQUIRED WHEN TRAFFIC QUEUES DEVELOP. FLAGGER STATIONS FOR WORK AT NIGHT SHALL BE ILLUMINATED AS NOTED IN SECTION 6G.20 OF THE MUTCD.
- PLACE C30 (CA) "LANE CLOSED" SIGN AT 500'-1000' INTERVALS THROUGHOUT EXTENDED WORK AREAS.
- ALL REQUIRED SIGNS THAT ARE TO BE LEFT IN PLACE OVER A WEEKEND OR HOLIDAY SHALL BE POST MOUNTED USING SQUARE PERFORATED STEEL TUBING WITH BREAKAWAY BASE PER SDRSD M-45.
- CONSTRUCTION AREA TRAFFIC CONTROL DEVICES SHALL MEET THE PROVISIONS OF SECTION 12 OF THE MOST RECENT EDITION OF THE CALTRANS STANDARD SPECIFICATIONS.

### SIGNS

	W20-2		W1-3(LT)
	W20-5(RT)		W13-1
	W20-5(LT)		G20-2
	W20-1		R9-9
	W20-4		R9-11a
	W21-5		R9-10
	W3-4		R4-7a
	W4-2(RT)		C9A(CA)
	W1-4(LT)		C30(CA)
	W1-4(RT)		C30A(CA)

TABLE 3: SIGN SPACING, L<sub>3</sub>

APPROACH SPEED (M.P.H.)	MINIMUM DISTANCE IN FEET L <sub>3</sub>	
	BETWEEN SIGNS*	FROM LAST SIGN TO TAPER
LESS THAN 25	100'	100'
25 TO 40	350'	350'
GREATER THAN 40	500'	500'

\*EXACT SPACING MAY VARY DUE TO FIELD CONDITIONS

TABLE 1: TAPER LENGTHS, L<sub>1</sub>

APPROACH SPEED (M.P.H.)	MINIMUM TAPER LENGTH L <sub>1</sub> *	MINIMUM NUMBER OF CONES FOR TAPER *	MAXIMUM SPACING OF CONES ALONG TAPER (FEET) ±	MAXIMUM SPACING OF CONES ALONG TANGENT (FEET) ±
25	125	6	25	50
30	180	7	30	60
35	245	8	35	70
40	320	9	40	80
45	540	13	45	90
50	600	13	50	100
55	660	13	55	110
60	720	13	60	120

\*BASED ON 12 FOOT WIDE LANE. THIS COLUMN IS ALSO APPROPRIATE FOR LANE WIDTHS LESS THAN 12 FEET.

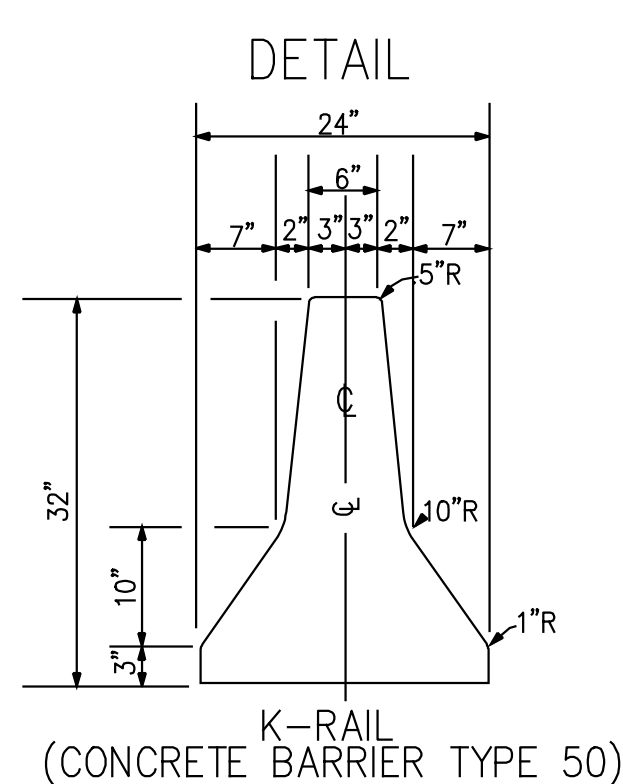
TABLE 2: BUFFER SPACE, L<sub>2</sub>

APPROACH SPEED (M.P.H.)	LONGITUDINAL BUFFER SPACE L <sub>2</sub> (FEET) ±*
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570

\*SEE CA MUTCD TABLE 6E-101(CA) FOR SUSTAINED DOWNGRADES STEEPER THAN 3% AND LONGER THAN 1 MILE.

### LEGEND

- DIRECTION OF TRAVEL
- PORTABLE SIGN
- TRAFFIC CONE/DELINEATOR
- TYPE II BARRICADE
- FLAGGER
- FLAG TREE
- FLASHING ARROW SIGN
- PORTABLE FLASHING BEACON (SEE SIGNAGE NOTE #3)
- K-RAIL (TYPE 50 CONCRETE BARRIER)
- CHANGEABLE MESSAGE SIGN



CITY OF CARLSBAD  
APPROVED  
For TRAFFIC ENGINEER DATE

DRAWN BY: \_\_\_\_\_  
DATE: \_\_\_\_\_  
RCE: \_\_\_\_\_ EXP. \_\_\_\_\_

SHEET 6	CITY OF CARLSBAD ENGINEERING DEPARTMENT	SHEETS 6
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ROMERIA STREET CHANNEL IMPROVEMENT  
**TRAFFIC CONTROL PLAN**

APPROVED: WILLIAM E. PLUMMER  
DEPUTY CITY ENGINEER PE 28176 EXPIRES 3/31/10 DATE \_\_\_\_\_

DWN BY: _____	PROJECT NO. 66041	DRAWING NO. 455-5
CHKD BY: _____		
RVWD BY: _____		

City of Carlsbad  
Romeria Street Drainage Improvement Project  
Certification No. 10C-093

**ATTACHMENT 4**

**MITIGATION PLANS**



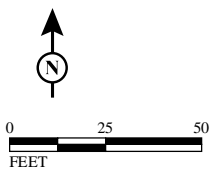
LSA

LEGEND

- Wetland Creation Area (0.058 ac)
- Riparian/Upland Transition  
*(Iva hayesiana, Baccharis salicifolia, Juncus acutus leopoldii)*
- Mulefat Scrub  
*(Baccharis salicifolia, Juncus acutus leopoldii, Salix lasiolepis)*
- Arroyo Willow Scrub  
*(Baccharis salicifolia, Juncus acutus leopoldii, Salix lasiolepis)*

- Coast Live Oak Tree
- Existing Plot 1
- Existing Plot 2

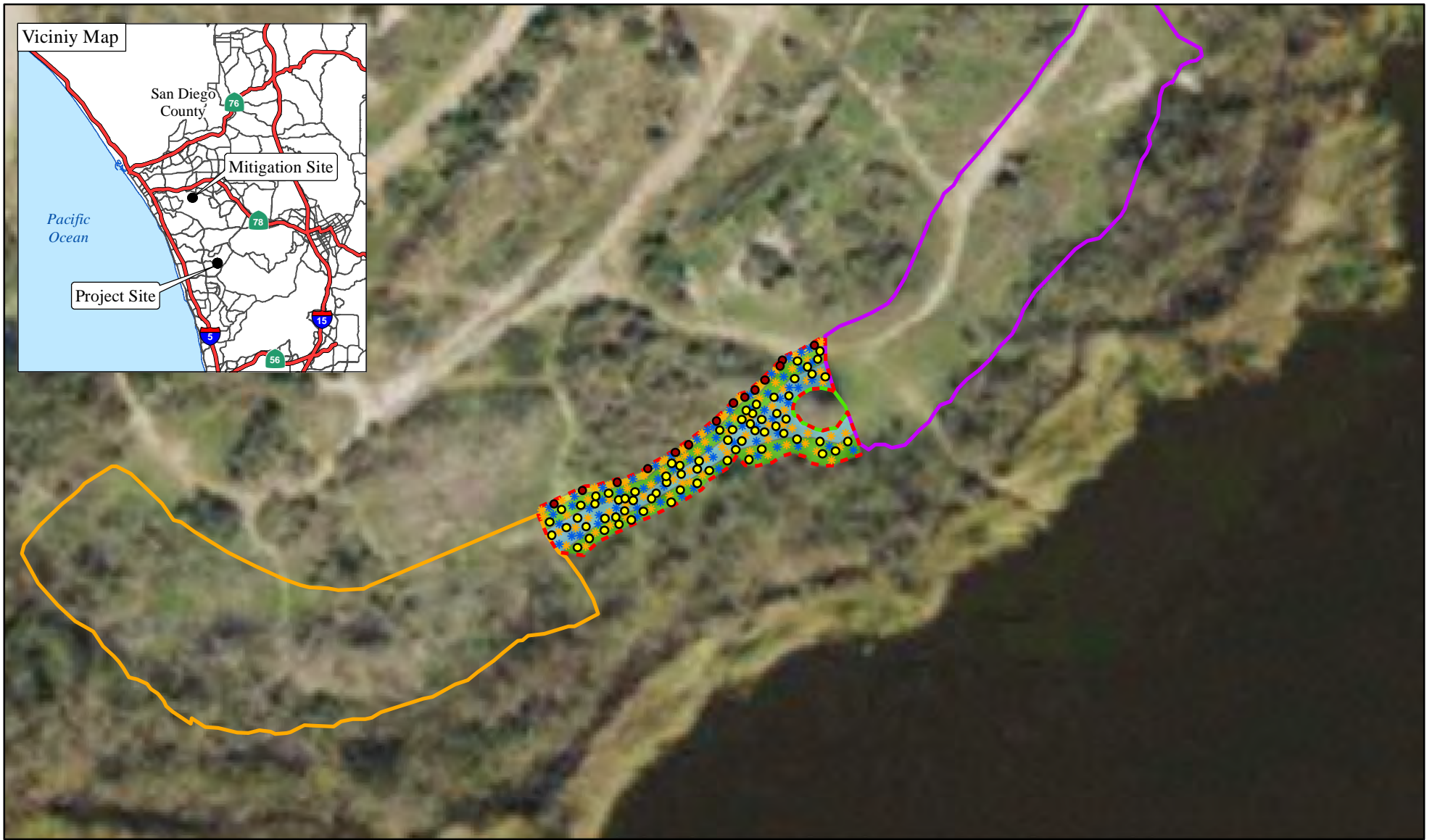
\* Container plants and cuttings installed approximately 9 feet on center (on average) in natural layout (i.e., not in a grid pattern)



SOURCE: Eagle Aerial (2007), City of Carlsbad (10/2009)  
R:\HCR0801-Romeria Street\GIS\Prop\_OffSite\_Mitigation\_20ft.mxd (9/22/2011)





FIGURE 3b




City of Carlsbad  
Conceptual Mitigation Plan for the  
Romeria Street Drainage Improvement Project  
San Diego, County  
Proposed Offsite Mitigation



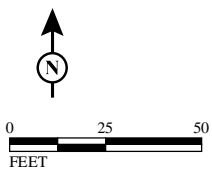
LSA

LEGEND

-  Wetland Creation Area (0.058 ac)
-  Riparian/Upland Transition  
(*Iva hayesiana*, *Baccharis salicifolia*, *Juncus acutus leopoldii*)
-  Mulefat Scrub  
(*Baccharis salicifolia*, *Juncus acutus leopoldii*, *Salix lasiolepis*)
-  Arroyo Willow Scrub  
(*Baccharis salicifolia*, *Juncus acutus leopoldii*, *Salix lasiolepis*)

-  Coast Live Oak Tree
-  Existing Plot 1
-  Existing Plot 2

\* Container plants and cuttings installed approximately 9 feet on center (on average) in natural layout (i.e., not in a grid pattern)



SOURCE: Eagle Aerial (2007), City of Carlsbad (10/2009)

R:\HCR0801-Romeria Street\GIS\Prop\_OffSite\_Mitigation\_20ft.mxd (9/22/2011)



FIGURE 3b

City of Carlsbad  
 Conceptual Mitigation Plan for the  
 Romeria Street Drainage Improvement Project  
 San Diego, County  
 Proposed Offsite Mitigation



LSA

LEGEND

-  Trail
-  Potential Wetland Restoration Area (0.088 ac)

Planting Plan






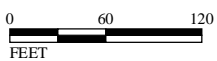
-  Anemopsis Seed
-  Marsh Fleabane Seed
-  Mugwort Seed
-  Mulefat Cuttings
-  Willow Cuttings

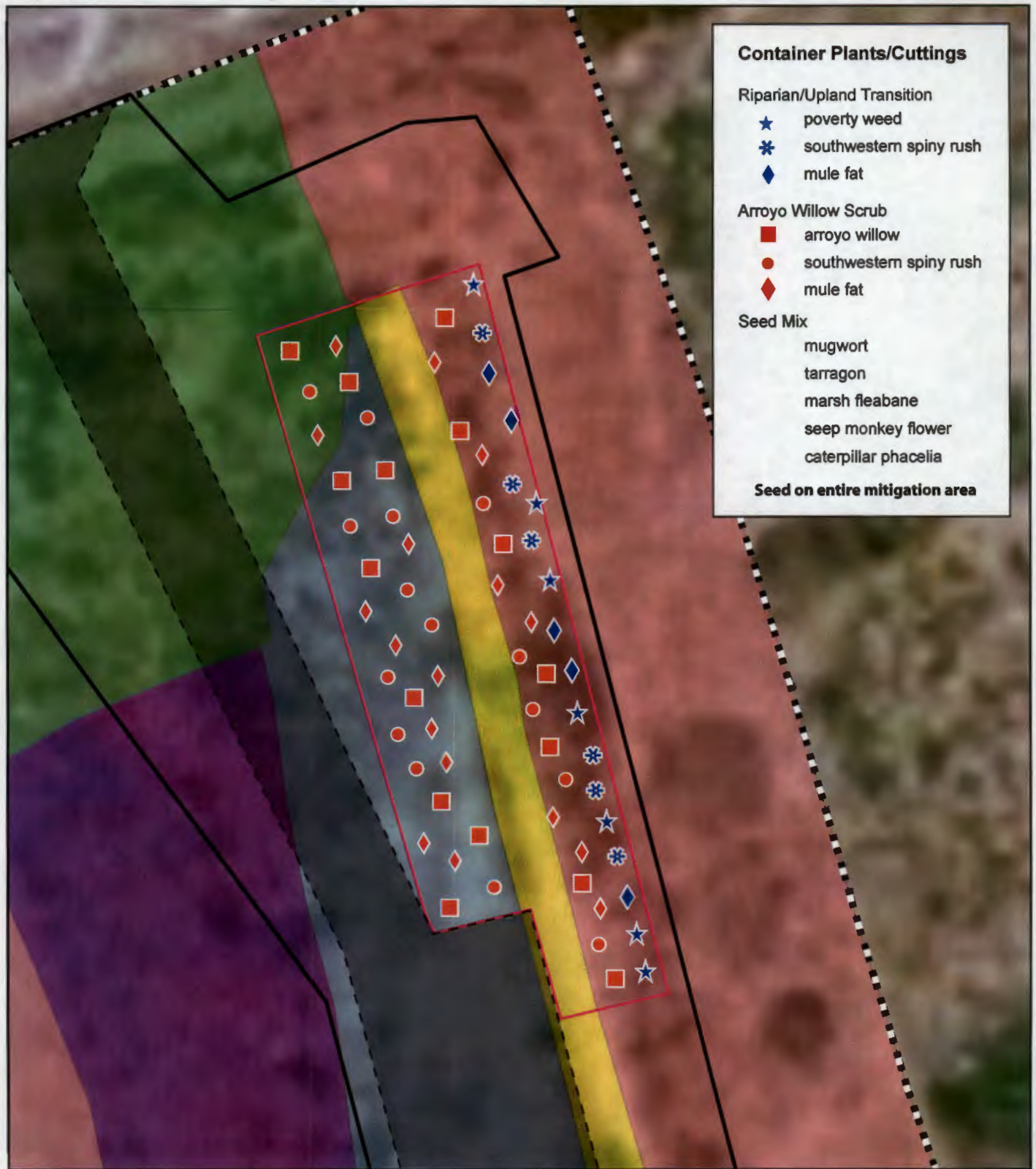
FIGURE 3c



SOURCE: Eagle Aerial (2007), City of Carlsbad (10/2009)

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*City of Carlsbad*  
*Conceptual Mitigation Plan for the*  
*Romeria Street Drainage Improvement Project*  
*San Diego, County*  
**Additional Proposed Offsite Mitigation**

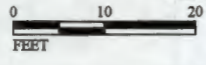


- Container Plants/Cuttings**
- Riparian/Upland Transition
- ★ poverty weed
  - \* southwestern spiny rush
  - ◆ mule fat
- Arroyo Willow Scrub
- arroyo willow
  - southwestern spiny rush
  - ◆ mule fat
- Seed Mix
- mugwort
  - tarragon
  - marsh fleabane
  - seep monkey flower
  - caterpillar phacelia
- Seed on entire mitigation area**

LSA

**LEGEND**

- ▭ Proposed Impact Area
- ▭ Project Study Area Limit
- ▭ Potential On-site Mitigation (0.07ac)
- ▭ Access Road Area
- Concrete-Lined Channel (0.07ac)
- Coastal Sage Scrub (0.40ac)
- Disturbed Habitat (0.14ac)
- Disturbed Wetlands (0.10ac)
- Nonnative Grassland (1.42ac)
- Native Grassland (0.09ac)



SOURCE: AirPhoto USA (04/07)

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FIGURE 3a

*City of Carlsbad*  
*Conceptual Mitigation Plan for the*  
*Romeria Street Drainage Improvement Project*  
*San Diego, County*  
**Proposed Onsite Mitigation**

City of Carlsbad  
Romeria Street Drainage Improvement Project  
Certification No. 10C-093

**ATTACHMENT 5**

**MITIGATION MONITORING AND REPORTING PROGRAM**

PROJECT NAME: Romeria Street Channel Improvement FILE NUMBERS: HMP 09-03

APPROVAL DATE: \_\_\_\_\_

The following environmental mitigation measures were incorporated into the Conditions of Approval for this project in order to mitigate identified environmental impacts to a level of insignificance. A completed and signed checklist for each mitigation measure indicates that this mitigation measure has been complied with and implemented, and fulfills the City's monitoring requirements with respect to Assembly Bill 3180 (Public Resources Code Section 21081.6).

Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
<b>Biology</b>					
<p><b>BIO -1 Implementation</b> of construction, clearing of vegetation, or project maintenance within the project impact footprint shall occur outside the breeding season (February 15 through September 15). The USFWS will be notified at least seven days before clearing and grubbing begins. During construction conducted outside the breeding season, a qualified biologist shall walk the area directly ahead of construction equipment to flush birds from the area. The biologist will immediately report to the USFWS the number and location of any federally listed birds disturbed by clearing and grubbing. No gnatcatchers will be injured or killed. If construction, clearing of vegetation, or maintenance must commence during breeding season, then the City shall have a qualified biologist conduct a preconstruction survey for nesting birds, including raptors, within three days of construction. Should nesting birds be detected within 100 feet of the project impact footprint, the USFWS will be notified immediately of any federally listed species that are located during the preconstruction survey. A qualified biologist shall then establish suitable buffer area (at least 300 feet) within which no construction activity may take place until the nest is no longer active. Alternatively, the City can conduct surveys for coastal California gnatcatcher to determine presence during the breeding season as described below. Work may be allowed if no gnatcatchers are present.</p> <p>If construction or maintenance activities are necessary during the breeding season, a qualified biologist will conduct a focused species coastal California gnatcatcher survey in appropriate habitat within and surrounding the project area. The surveys will</p>		Planning / Engineering			

**Explanation of Headings:**  
 Type = Project, ongoing, cumulative.  
 Monitoring Dept. = Department, or Agency, responsible for monitoring a particular mitigation measure.  
 Shown on Plans = When mitigation measure is shown on plans, this column will be initialed and dated.  
 Verified Implementation = When mitigation measure has been implemented, this column will be initialed and dated.  
 Remarks = Area for describing status of ongoing mitigation measure, or for other information.  
 RD - Appendix P.



Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
<p>consist of three visits, one week apart; the last of these will be conducted no more than three days prior to construction or maintenance, as required by the Guidelines for Biological Studies (City of Carlsbad 2008).</p> <p>During the breeding season, construction noise shall be monitored regularly to maintain a threshold at or below 60 dBA hourly Leq within 300 feet of breeding habitat occupied by listed species. If noise levels supersede the threshold, the construction array will be changed or noise attenuation measures will be implemented, as recommended in the Guidelines for Biological Studies (City of Carlsbad 2008).</p>					
<p><b>BIO – 2</b> Habitat restoration or enhancement will be performed to meet the HMP requirements for impacts to coastal sage scrub, native grasslands, and nonnative grasslands. Mitigation will be required on site or off site through preservation, creation, or restoration of habitat in accordance with the mitigation ratios listed in the HMP. Mitigation for impacts to unoccupied coastal sage scrub, nonnative grassland, and disturbed lands may be fulfilled with out-of-kind mitigation if they are contributing to assembly of a large contiguous habitat parcel, as discussed in Table 11 of the HMP. The City will be responsible for providing mitigation pursuant to the HMP prior to issuance of notice to proceed:</p> <p>A. For 0.099 acre of impacts to coastal sage scrub habitat, mitigation at a 1:1 ratio (0.099 acre, or approximately 4,312 square feet) for scrub unoccupied by coastal California gnatcatcher, or a 2:1 ratio (0.198 acre, or approximately 8,625 square feet) for occupied coastal sage scrub. Mitigation for unoccupied habitat will be achieved via credits from the City's Lake Calavera Mitigation Parcel while any occupied habitat mitigation will be achieved via on site creation or restoration, or in another suitable area approved by the appropriate resource agencies. Creation or restoration shall occur based on an approved plan, shall occur under the direction of a professional biologist, and shall</p>	Project	Planning / Engineering			

**Explanation of Headings:**

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RD - Appendix P.

Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
<p>be subject to monitoring for a period of approximately 3 to 5 years, as directed by the appropriate agencies.</p> <p>B. For 0.143 acre of impacts to nonnative grasslands, mitigation at a 0.5:1 ratio (0.072 acre, or approximately 3,136 square feet). Mitigation will be achieved via credits from the City's Lake Calavera Mitigation Parcel.</p> <p>C. For 0.098 acre of impacts to disturbed habitat, mitigation at a 0.1:1 ratio (0.0098 acre, or approximately 427 square feet). Mitigation will be achieved via credits from the City's Lake Calavera Mitigation Parcel.</p> <p>D. For 0.003 acre of impacts to native grassland, mitigation at a 3:1 ratio (0.009 acre, or approximately 392 square feet). Mitigation will be achieved via creation at the City's Lake Calavera Mitigation Parcel.</p>					
<p><b>BIO – 3</b> Prior to any site construction activities, including grading, clearing, or placement of materials or equipment, a construction fence shall be installed at the project limits adjacent to sensitive, native plants so as to clearly delineate the grading limits and to insure additional impacts do not occur. This mostly applies to the northwest and southwest portions of the project boundary.</p>	Project	Planning / Engineering			
<p><b>BIO – 4</b> Habitat restoration or creation will be preformed to meet the HMP requirements for impacts to wetlands. Mitigation will be on site or off site through creation or restoration of habitat in accordance with the mitigation ratio listed in the HMP. Creation or restoration shall occur based on an approved plan, shall occur under the direction of a professional biologist, and shall be subject to monitoring for a period of approximately 3 to 5 years, as directed by the appropriate agencies. The City will be responsible for providing mitigation pursuant to the HMP prior to issuance of notice to proceed:</p> <p>A. For 0.077 acre of impacts to disturbed wetlands, mitigation at a 1:1 ratio (0.077 acre, or approximately 3,354 square feet). Wetland mitigation will be achieved</p>	Project	Planning / Engineering			

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Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
via on site creation or restoration, or in another suitable area approved by the appropriate resource agencies.					
<b>Cultural</b>					
<p><b>CUL – 1</b> The following mitigation measures will be required as the project is located in an undeveloped area that could potentially impact significant cultural deposits. In addition, for any operation and maintenance activities that will require temporary construction of an access road through previously undeveloped or undisturbed areas, the following mitigation measures will be required prior to construction.</p> <p>a) Preconstruction Requirements – Prior to the issuance of notice to proceed, a pedestrian survey shall be conducted under the supervision of a qualified archaeologist for previously undisturbed areas that have not been surveyed or adequately surveyed (e.g., the area was surveyed with outdated or non-protocol methods). The survey shall be conducted in parallel linear transects spaced no farther than 10 meters apart in undeveloped areas.</p> <p>1) Cultural resources, if found during the survey, shall be photographed, mapped using a global positioning system (GPS), and recorded on the appropriate California Department of Parks and Recreation forms (DPR Form 523A/B). The forms shall be submitted to the SCIC for the assignment of Primary numbers within 1 week of the survey.</p> <p>2) Within 1 month of completion of the field survey, a draft letter report or technical report shall be submitted to the City for review, whether the survey is negative or positive. A final report shall be submitted within 6 weeks of receipt of the City's comments, with a copy submitted to the SCIC for their files.</p> <p>b) If the pedestrian survey is positive, the qualified archaeologist shall conduct an updated archival search, if needed, as well as additional detailed field testing. Local Native American groups shall be contacted for testing of prehistoric cultural resources</p>	Project	Planning / Engineering			

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RD - Appendix P.

Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
<p>regarding the project. Where applicable, the City will execute a Pre-Excavation Agreement with the appropriate Native American groups.</p> <p>1) Prior to the start of field testing, surface artifacts and/or features shall be marked and mapped using a GPS. Testing shall be required if surface artifacts are discovered, and shall include a program of 30-cm-diameter shovel test pits (STPs) to define site boundaries and identify the potential for a substantial subsurface deposit.</p> <p>2) Based on the results of the STPs, additional measures such as Test Excavation Units or mechanical trenching (for substantial historic sites) would be placed in areas with the potential for a substantial subsurface deposit, as determined by the qualified archeologist.</p> <p>3) All excavated soils shall be screened through 1/8-inch mesh hardware cloth. On completion of the project the artifact collection, along with copies of the catalogs and the technical report, shall be permanently curated at the San Diego Archaeological Center. An updated site record shall be prepared and submitted to the SCIC.</p> <p>4) Within 3 months of completion of the fieldwork, a draft technical report including evaluations and recommendations shall be prepared and submitted. The final technical report shall be submitted within 6 weeks of receipt of the City's comments.</p>					
<p><b>CUL – 2 Monitoring Requirements – Construction monitoring will be required for proposed components that involve excavation or grading within undisturbed native soils and could potentially impact subsurface cultural deposits.</b></p> <p>a) Prior to the first preconstruction meeting for the project, the Planning Director (PD) shall verify that the requirements for archaeological monitoring and Native American monitoring, if applicable, have been noted on the appropriate construction documents. The applicant shall retain a qualified archaeologist</p>	Project	Planning / Engineering			

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RD - Appendix P.

Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
<p>to verify that a records search has been completed and updated, as necessary, and to implement the monitoring program. At the preconstruction meeting, the archaeologist shall submit to the PD a copy of the site/grading plan that identifies areas to be monitored.</p> <p>b) The qualified archaeologist shall be present full-time during grading/excavation of native soils with the potential to contain buried cultural features or deposits and shall document activity via the Consultant Monitor Record. It is the construction manager's responsibility to keep the archaeological monitors up-to-date with current plans.</p> <p>c) In the event of a discovery, the archaeologist, or the Principal Investigator (PI) if the monitor is not qualified as a PI, shall divert, direct, or temporarily halt ground-disturbing activities in the area of the discovery to allow for preliminary evaluation of potentially significant archaeological resources. The PI shall also immediately notify the construction manager and the PD of such findings at the time of discovery.</p> <p>1) The significance of the discovered resources shall be assessed by the PI. For significant archaeological resources, a Research Design and Data Recovery Program shall be prepared and implemented by the qualified archaeologist. The results of the Research Design and Data Recovery Program shall be approved by the City before ground-disturbing activities in the area of discovery shall be allowed to resume.</p> <p>d) If human remains are discovered, work shall halt in that area and procedures set forth in the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be implemented. Construction in that area shall not resume until the remains have been evaluated and conveyed to appropriate descendants or reinterred to the satisfaction of the PI.</p> <p>e) The archaeologist shall notify the PD, in writing, of the end</p>					

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RD - Appendix P.

Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
<p>date of monitoring. The archaeologist shall be responsible for ensuring that all cultural remains collected are cleaned, catalogued, and permanently curated with an appropriate institution; that a letter of acceptance from the curation institution has been submitted to the Planning Department; that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.</p> <p>f) Within 3 months following the completion of monitoring, the Draft Results Report (even if negative) and/or evaluation report, if applicable, which describes the results, analysis, and conclusions of the Archaeological Monitoring Program (with appropriate graphics) shall be submitted to the PD for approval. For significant archaeological resources encountered during monitoring, the Research Design and Data Recovery Program shall be included as part of the Draft Results Report. The qualified archaeologist shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program, and submitting such forms to the SCIC with the Final Results Report.</p>					
<b>Geology and Soils</b>					
<p><b>GEO – 1</b> The project will comply with the recommendations of the Geotechnical Evaluation prepared by Ninyo &amp; Moore, dated June 27, 2008 in order to increase stability due to the existing soil condition.</p>	Project	Planning / Engineering			
<b>Hydrology and Water Quality</b>					
<p><b>WQ – 1</b> Prior to issuance of notice to proceed, the developer shall prepare and submit for review and approval of the Carlsbad City Engineer, a Storm Water Pollution Prevention Program (SWPPP) to demonstrate that pollutants will be controlled through compliance with the City of Carlsbad Standard Urban Storm water Mitigation Plan (SUSMP), General Construction Storm water Permit (Order No. 99-08, NPDES CAS000002), and the General Municipal Storm water Permit (Order R9-2007-</p>	Project	Planning / Engineering			

**Explanation of Headings:**

Type = Project, ongoing, cumulative.

Monitoring Dept. = Department, or Agency, responsible for monitoring a particular mitigation measure.

Shown on Plans = When mitigation measure is shown on plans, this column will be initialed and dated.

Verified Implementation = When mitigation measure has been implemented, this column will be initialed and dated.

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RD - Appendix P.

Mitigation Measure	Monitoring Type	Monitoring Department	Shown on Plans	Verified Implementation	Remarks
<p>0001, NPDES CAS0108758). The applicant shall be responsible for monitoring and maintaining the BMP erosion control measures identified below on a weekly basis in accordance with the City's grading and erosion control requirements (Municipal Code Section 15.16. et seq.). The locations of all erosion control devices shall be shown in the SWPP. BMPs that shall be installed include, but are not limited to, the following:</p> <ul style="list-style-type: none"> <li>• Silt fence, fiber rolls, or gravel bag berms</li> <li>• Street sweeping and vacuuming</li> <li>• Storm drain inlet protection</li> <li>• Stabilized construction entrance/exit</li> <li>• Hydroseed, soil binders, or straw mulch</li> <li>• Containment of material delivery and storage areas</li> <li>• Stockpile management</li> <li>• Spill prevention and control</li> <li>• Waste management for solid, liquid, hazardous, and sanitary waste, and contaminated soil</li> <li>• Concrete waste management</li> </ul>					
<b>Land Use and Planning</b>					
<p>LU – 1 Prior to issuance of notice to proceed, the applicant shall obtain all applicable permits from other agencies such as a 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG), a 404 permit from the United States Army Corps of Engineers (USACE), and a 401 permit from the California Regional Water Quality Control Board (RWQCB).</p>	Project	Planning / Engineering			

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