



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

California Regional Water Quality Control Board, San Diego Region

July 1, 2014

Certified Mail – Return Receipt Requested

Article Number: 7009 1410 0002 2347 3384

Rick Wood
Standard Pacific Homes
255 East Rincon, Suite 200
Corona, CA 92879

**In reply/refer to:
788045:dbradford**

**Subject: Clean Water Act Section 401 Water Quality Certification No. R9-2013-0008
for the Terracina Project**

Mr. Wood:

Enclosed find Clean Water Act Section 401 Water Quality Certification No. R9-2013-0008 (Certification) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) in response to the application submitted by Standard Pacific Homes for the Terracina 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.

Standard Pacific Homes 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 Standard Pacific Homes to enforcement actions by the San Diego Water Board including administrative enforcement orders requiring Standard Pacific Homes 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.

In the subject line of any response, please include reference number 788045:dbradford. For questions or comments, please contact me by telephone at (619) 521-3356 or by email at darren.bradford@waterboards.ca.gov.

Respectfully,

DAVID W. GIBSON
Executive Officer

Enclosure:

Clean Water Act Section 401 Water Quality Certification No. R9-2013-0008 for the Terracina Project

DWG:jgs:db:kd:dlb

cc:

U.S. Army Corps of Engineers, Regulatory Branch
San Diego Field Office
Peggy Bartels
Peggy.J.Bartels@usace.army.mil

California Department of Fish and Game
South Coast Region
Habitat Conservation Planning – South
Kim Freeburn
Kim.Freeburn@wildlife.ca.gov

U.S. EPA, OWOW, Region 9
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State Water Resources Control Board, Division of Water Quality
401 Water Quality Certification and Wetlands Unit
Stateboard401@waterboards.ca.gov

Barry Jones
Helix Environmental Planning
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Tech Staff Info & Use	
Certification No.	R9-2013-0008
Party ID	84420
File No.	R9-2013-0008
WDID	9000002530
NPDES No.	None
Regulatory ID	388169
Place ID	788045
Person ID	537621
Inspection ID	None

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

2375 Northside Drive, Suite 100, San Diego, CA 92108
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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: Terracina
Certification Number R9-2013-0008
WDID: 900002530

Reg. Meas. ID: 388169 Place ID: 788045 Party ID: 84420 Person ID: 537621

APPLICANT: Standard Pacific Homes
255 East Rincon, Suite 200
Corona, CA 92879

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 November 14, 2012 was submitted by Standard Pacific Homes (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (33 U.S.C. § 1341) for the proposed Terracina Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on April 3, 2014. The Applicant proposes to discharge dredged or fill material to waters of the United States and/or State associated with construction activity at the Project site. The Applicant has also applied for a Clean Water Act section 404 permit from the United States Army Corps of Engineers for the Project (USACE File No. SPL-2012-00852-PJB).

The Project is located adjacent to the City of Temecula in unincorporated Riverside County, California at the north eastern intersection of Via Puebla and Monte Verde Road. The Project center reading is located at latitude 33.46361 and longitude -117.07916. The Applicant has paid all required fees for this Certification in the amount of \$58,943.00. On November 14, 2012, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations, title 23, section 3858 by posting information describing the Project on the San Diego Water Board's web site and providing a period of twenty-one days for public review and comment. No comments were received.

The Applicant proposes to construct single-family houses on 93.5 acres. The development includes: 206 residential lots; associated infrastructure and utilities; a sewer lift station; parks and open space; and stream channel impacts. Stream channel impacts include lowering and

widening the existing channel, a combination of earthen and hardened side slopes, access roads, and maintenance ramps. A majority of the slopes will be 4:1 earthen slopes. The Riverside County Flood Control District and Water Conservation District (RCFCWCD) will maintain the side slopes. The earthen bottom will not be maintained by the RCFCWCD with the exception of a 3-foot mowed strip at the toe of the slope on either side of the channel. Additionally, two roadway crossings will be constructed for traffic circulation. These crossings consist of a double 10 foot by 4 foot box culvert at Cebalo Street, and two double 10 foot by 4 foot box culverts at Woolpert Lane.

The Project will convert approximately 36.39 acres of pervious ground cover to impervious surfaces. Runoff leaving the developed Project area would be significantly greater in volume, velocity, peak flow rate, and duration than pre-development runoff from the same area without mitigation. Post-construction best management practices (BMPs) to manage and control the effects of these runoff increases will consist of four detention basins that will serve as both peak flow reduction and water quality basins. These BMPs will be designed, constructed, and maintained to meet Riverside County'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. 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 1.80 acre (5,562 linear feet) of streambed 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 1.80 acre of jurisdictional waters will be achieved through the establishment, restoration, and preservation of 5.40 acres (4,860 linear feet) of waters of the United States and/or State. All waters of the United States and/or State receiving temporary discharges of fill material will be restored upon removal of the fill. Mitigation for discharges of fill material to waters of the United States and/or State will be completed by the Applicant on-site in the Pauba hydrologic sub-area (HSA 902.51) and through purchase of vernal pool wetland mitigation credits from the Barry Jones Mitigation Bank (Gertrudis HSA 902.42) at a total minimum compensation ratio of 3:1 (area mitigated:area impacted).

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 *Habitat Mitigation and Monitoring Plan for the Terracina Project*, dated June 25, 2014 (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 4 of this Certification.

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Attachments:

- 1. Definitions**
- 2. Project Location Maps**
- 3. Project Site Plans**
- 4. Mitigation Figures**

I. STANDARD CONDITIONS

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

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

II. GENERAL CONDITIONS

- A. **Term of Certification.** Water Quality Certification No. R9-2013-0008 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 U.S.C. §1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.
- B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.
- C. **General Waste Discharge Requirements.** The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/gowdr401regulated_projects.pdf
- D. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality

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

- E. **Project Conformance with Water Quality Control Plans or Policies.** Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 U.S.C §1313.)
- F. **Project Modification.** The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.
- G. **Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.
- H. **Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:
1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;
 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;
 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Certification; and
 4. Sample or monitor, at reasonable times, for the purposes of assuring Certification compliance, or as otherwise authorized by the Clean Water Act or Water Code, any substances or parameters at any location.
- I. **Enforcement Notification.** In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to

any remedies, penalties, process or sanctions as provided for under State law. For purposes of section 401(d) of the Clean Water Act, the applicability of any State law authorizing remedies, penalties, process or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification.

- J. **Certification Actions.** This Certification may be modified, revoked and reissued, or terminated for cause including but not limited to the following:
1. Violation of any term or condition of this Certification;
 2. Monitoring results indicate that continued Project activities could violate water quality objectives or impair the beneficial uses of the Temecula Creek or its tributaries;
 3. Obtaining this Certification by misrepresentation or failure to disclose fully all relevant facts;
 4. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; and
 5. Incorporation of any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

The filing of a request by the Applicant for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Certification condition.

- K. **Duty to Provide Information.** The Applicant shall furnish to the San Diego Water Board, within a reasonable time, any information which the San Diego Water Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Certification or to determine compliance with this Certification.
- L. **Property Rights.** This Certification does not convey any property rights of any sort, or any exclusive privilege.
- M. **Petitions.** Any person aggrieved by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Resources Control Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:
http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

III. CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Approvals to Commence Construction.** The Applicant shall not commence Project construction until all necessary federal, State, and local approvals are obtained.
- B. **Personnel Education.** Prior to the start of the Project, and annually thereafter, the Applicant must educate all personnel on the requirements in this Certification, pollution prevention measures, spill response measures, and BMP implementation and maintenance measures.
- C. **Spill Containment Materials.** The Applicant must, at all times, maintain appropriate types and sufficient quantities of materials on-site to contain any spill or inadvertent release of materials that may cause a condition of pollution or nuisance if the materials reach waters of the United States and/or State.
- D. **General Construction Storm Water Permit.** Prior to start of Project construction, the Applicant must, as applicable, obtain coverage under, and comply with, the requirements of State Water Resources Control Board Water Quality Order No. 2009-0009-DWQ, the *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity*, (General Construction Storm Water Permit) and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.
- E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.
- F. **Waste Management.** Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited.
- G. **Downstream Erosion.** Discharges of concentrated flow during construction or after Project completion must not cause downstream erosion or damage to properties or stream habitat.

- H. **Construction Equipment.** All equipment must be washed prior to transport to the Project site and must be free of sediment, debris, and foreign matter. All equipment used in direct contact with surface water shall be steam cleaned prior to use. All equipment using gas, oil, hydraulic fluid, or other petroleum products shall be inspected for leaks prior to use and shall be monitored for leakage. Stationary equipment (e.g., motors, pumps, generator, etc.) shall be positioned over drip pans or other types of containment.
- I. **Process Water.** Water containing mud, silt, or other pollutants from equipment washing or other activities, must not be discharged to waters of the United States and/or State or placed in locations that may be subjected to storm water runoff flows. Pollutants discharged to areas within a stream diversion must be removed at the end of each work day or sooner if rain is predicted.
- J. **Surface Water Diversion.** All surface waters, including ponded waters, must be diverted away from areas of active grading, construction, excavation, vegetation removal, and/or any other activity which may result in a discharge to the receiving water. Diversion activities must not result in the degradation of beneficial uses or exceedance of the receiving water quality objectives. Any temporary dam or other artificial obstruction constructed must only be built from materials such as clean gravel which will cause little or no siltation. Normal flows must be restored to the affected stream immediately upon completion of work at that location.
- K. **Re-vegetation and Stabilization.** All areas that have 14 or more days of inactivity must be stabilized within 14 days of the last activity. The Applicant shall implement and maintain BMPs to prevent erosion of the rough graded areas. After completion of grading, all areas must be re-vegetated with native species appropriate for the area. The re-vegetation palette must not contain any plants listed on the California Invasive Plant Council Invasive Plant Inventory, which can be accessed at <http://www.cal-ipc.org/ip/inventory/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. **On-site Qualified Biologist.** The Applicant shall designate an on-site qualified biologist to monitor Project construction activities within or adjacent to waters of the United States and/or State to ensure compliance with the Certification requirements. The biologist shall be given the authority to stop all work on-site if a violation of this Certification occurs or has the potential to occur. Records and field notes of the biologist's activities shall be kept on-site and made available for review upon request by the San Diego Water Board.
- P. **Beneficial Use Protection.** The Applicant must take all necessary measures to protect the beneficial uses of waters of the unnamed tributaries to Temecula Creek. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VII.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.

IV. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Post-Construction Discharges.** The Applicant shall not allow post-construction discharges from the Project site to cause or contribute to onsite or off-site erosion or damage to properties or stream habitats.
- B. **Storm Drain Inlets.** All storm drain inlet structures within the Project boundaries must be stamped or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.
- C. **Post-Construction BMP Design.** The Project must be designed to comply with the most current Standard Storm Water Mitigation and Hydromodification Plans for County of Riverside. Post-construction BMPs, including those described in the *Water Quality Management Plan Tract 31597 "Terracina" (SWMP)*, must treat 100 percent of the added impervious surface.
- D. **Post-Construction BMP Implementation.** All post-construction BMPs must be constructed, functional, and implemented prior to completion of Project construction, occupancy, and/or planned use, and maintained in perpetuity. The post construction BMPs must include those described in the SWMP, dated January 6, 2012 (Revised October 5, 2012), prepared on behalf of the Applicant by Mayers & Associates Civil Engineering, Inc.; or any subsequent version of the SWMP approved by the County of Riverside.

- E. Post-Construction BMP Maintenance.** The post construction BMPs must be designed, constructed, and maintained in accordance with the most recent California Storm Water Quality Association (CASQA)¹ guidance. The Applicant shall:
1. No less than two times per year, assess the performance of the BMPs to ensure protection of the receiving waters and identify any necessary corrective measures;
 2. Perform inspections of BMPs, at the beginning of the wet season no later than October 1 and the end of the wet season no later than April 1, for standing water, slope stability, sediment accumulation, trash and debris, and presence of burrows;
 3. Regularly perform preventative maintenance of BMPs, including removal of accumulated trash and debris, as needed to ensure proper functioning of the BMPs;
 4. Identify and promptly repair damage to BMPs; and
 5. Maintain a log documenting all BMP inspections and maintenance activities. The log shall be made available to the San Diego Water Board upon request.
- F. Stream Crossing Structures.** Bridges, culverts, dip crossings, or other stream crossing structures shall be designed and installed in a manner that will not cause scouring of the stream bed and/or erosion of the banks in the vicinity of the Project. Storm drain lines/culverts and other stream crossing structures shall be designed and maintained to accommodate at least a 100-year, 24-hour storm event, including associated bedload and debris with a similar average velocity as upstream and downstream sections. Bottoms of temporary culverts shall be placed at stream channel grade and bottoms of permanent culverts shall be open bottom or embedded and backfilled below the grade of the stream greater than or equal to a depth of 1 foot.

V. PROJECT IMPACTS AND COMPENSATORY MITIGATION

- A. Project Impact Avoidance and Minimization.** The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable.
- B. Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to unnamed tributaries to Temecula Creek within the Santa Margarita Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum, compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

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

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
Streambed (Permanent Impacts)	1.80	5,562	0.49 Establishment ¹	0.27:1 Establishment	3,050 Establishment	0.55:1 Establishment
			1.80 Re- establishment ²	1:1 Re- establishment	1,810 Re- establishment	0.33:1 Re- establishment
			3.11 Preservation ³	1.73:1 Preservation		

1. Streambed establishment on-site.
2. Streambed re-establishment on-site.
3. Vernal pool wetland preservation at the Barry Jones Mitigation Bank.

C. **Compensatory Mitigation Plan Implementation.** The Applicant must fully and completely implement the Mitigation Plan; any deviations from, or revisions to, the Mitigation Plan must be pre-approved by the San Diego Water Board.

D. **Performance Standards.** Compensatory mitigation required under this Certification shall be considered as achieved once it has met the ecological success performance standards contained in section 9.0 of the *Habitat Mitigation and Monitoring Plan for the Terracina Project* to the satisfaction of the San Diego Water Board.

E. **Compensatory Mitigation Site Design.** The compensatory mitigation site(s) shall be designed to be self-sustaining once performance standards have been achieved. This includes minimization of active engineering features (e.g., pumps) and appropriate siting to ensure that natural hydrology and landscape context support long-term sustainability in conformance with the following conditions:

1. Most of the channels through the mitigation sites shall be characterized by equilibrium conditions, with no evidence of severe aggradation or degradation;
2. As viewed along cross-sections, the channel and buffer area(s) shall have a variety of slopes, or elevations, that are characterized by different moisture gradients. Each sub-slope shall contain physical patch types or features that contribute to irregularity in height, edges, or surface and to complex topography overall; and
3. The mitigation sites shall have a well-developed plant community characterized by a high degree of horizontal and vertical 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 60 days from the start of Project construction**, the Applicant must provide the San Diego Water Board a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. **Within one year of the issuance of this Certification**, the Applicant must submit proof of a completed final preservation mechanism that will protect all mitigation areas and their buffers in perpetuity. The conservation easement, deed restriction, or other legal limitation on the mitigation properties must be adequate to demonstrate that the sites will be maintained

without future development or encroachment on the sites which could otherwise reduce the functions and values of the sites for the variety of beneficial uses of waters of the United States and/or State that it supports. The legal limitation must prohibit, without exception, all residential, commercial, industrial, institutional, and transportation development, and any other infrastructure development that would not maintain or enhance the wetland and streambed functions and values of the sites. The preservation mechanism must clearly prohibit activities that would result in soil disturbance or vegetation removal, other than the removal of non-native vegetation. Other infrastructure development to be prohibited includes, but is not limited to, additional utility lines, maintenance roads, and areas of maintained landscaping for recreation.

- J. **Mitigation Bank Preservation Credits.** Within 60 days from the start of Project construction, the Applicant must provide proof of purchase of 3.11-acre of vernal pool preservation mitigation credits from the Barry Jones Mitigation Bank.

VI. MONITORING AND REPORTING REQUIREMENTS

- A. **Representative Monitoring.** Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.
- B. **Monitoring Reports.** Monitoring results shall be reported to the San Diego Water board at the intervals specified in section VI of this Certification.
- C. **Monitoring and Reporting Revisions.** The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
- D. **Records of Monitoring Information.** Records of monitoring information shall include:
1. The date, exact place, and time of sampling or measurements;
 2. The individual(s) who performed the sampling or measurements;
 3. The date(s) analyses were performed;
 4. The individual(s) who performed the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.

E. 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.

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

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

G. Annual Compensatory Mitigation Monitoring Report. The Applicant must submit compensatory mitigation monitoring reports, annually, by **March 1** of each year containing sufficient information to demonstrate how the compensatory mitigation project is progressing towards accomplishing its objectives and meeting its performance standards. 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 mitigation site(s):
 - 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. In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced;

8. A qualitative comparison to adjacent preserved streambed areas;
 9. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17"; and
 10. A survey report documenting boundaries of the compensatory mitigation site(s).
- H. **Reporting Authority.** The submittal of information required under this Certification, or in response to a suspected violation of any condition of this Certification, is required pursuant to Water Code section 13267 and 13383. Civil liability may be administratively imposed by the San Diego Water Board for failure to submit information pursuant to Water Code sections 13268 or 13385.
- I. **Electronic and Paper Media Documents.** The Applicant must submit all reports and information 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. R9-2013-0008:PIN 788045.
- J. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:
1. For a corporation, by a responsible corporate officer of at least the level of vice president.
 2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
 4. A duly authorized representative may sign applications, reports, or information if:
 - a. The authorization is made in writing by a person described above.
 - b. The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c. The written authorization is submitted to the San Diego Water Board Executive Officer.

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

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

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

- L. **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. R9-2013-0008:PIN 788045
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 County of Riverside, 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 County of Riverside is the lead agency (Lead Agency) under the California Environmental Quality Act (Public Resources Code section 21000, et seq., (CEQA)), and filed a Notice of Determination dated May 17, 2007 for the Mitigated Negative Declaration (MND) titled *Change of Zone No. 6926/Tentative Tract Map No. 31597*. The Lead Agency has determined the Project will have a significant effect on the environment and mitigation measures were made a condition of the Project.
- B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's FEIR and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.
- C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.
- D. 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

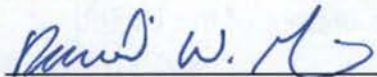
Darren Bradford, Environmental Scientist
California Regional Water Quality Control Board, San Diego Region
2375 Northside Drive, Suite 100
San Diego, California 92108
Telephone: (619) 521-3356
Email: darren.bradford@waterboards.ca.gov

X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Terracina** (Certification No. R9-2013-0008) will comply with the applicable provisions of sections 301 ("Effluent Limitations"), 302 ("Water Quality Related Effluent Limitations"), 303 ("Water Quality Standards and Implementation Plans"), 306 ("National Standards of Performance"), and 307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Board Order No. 2003-0017-DWQ, "*Statewide General Waste Discharge Requirements for Dredged or Fill Discharges that have Received State Water Quality Certification (General WDRs)*," which requires compliance with all conditions of this Water Quality Certification. Please note that enrollment under Order No. 2003-017-DWQ is conditional and, should new information come to our attention that indicates a water quality problem, the San Diego Water Board may issue individual waste discharge requirements at that time.

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

I, David W. Gibson, Executive Officer, do hereby certify the forgoing is a full, true, and correct copy of Certification No. R9-2013-0008 issued on July 1, 2014.



DAVID W. GIBSON
Executive Officer
San Diego Water Board

1 July 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.

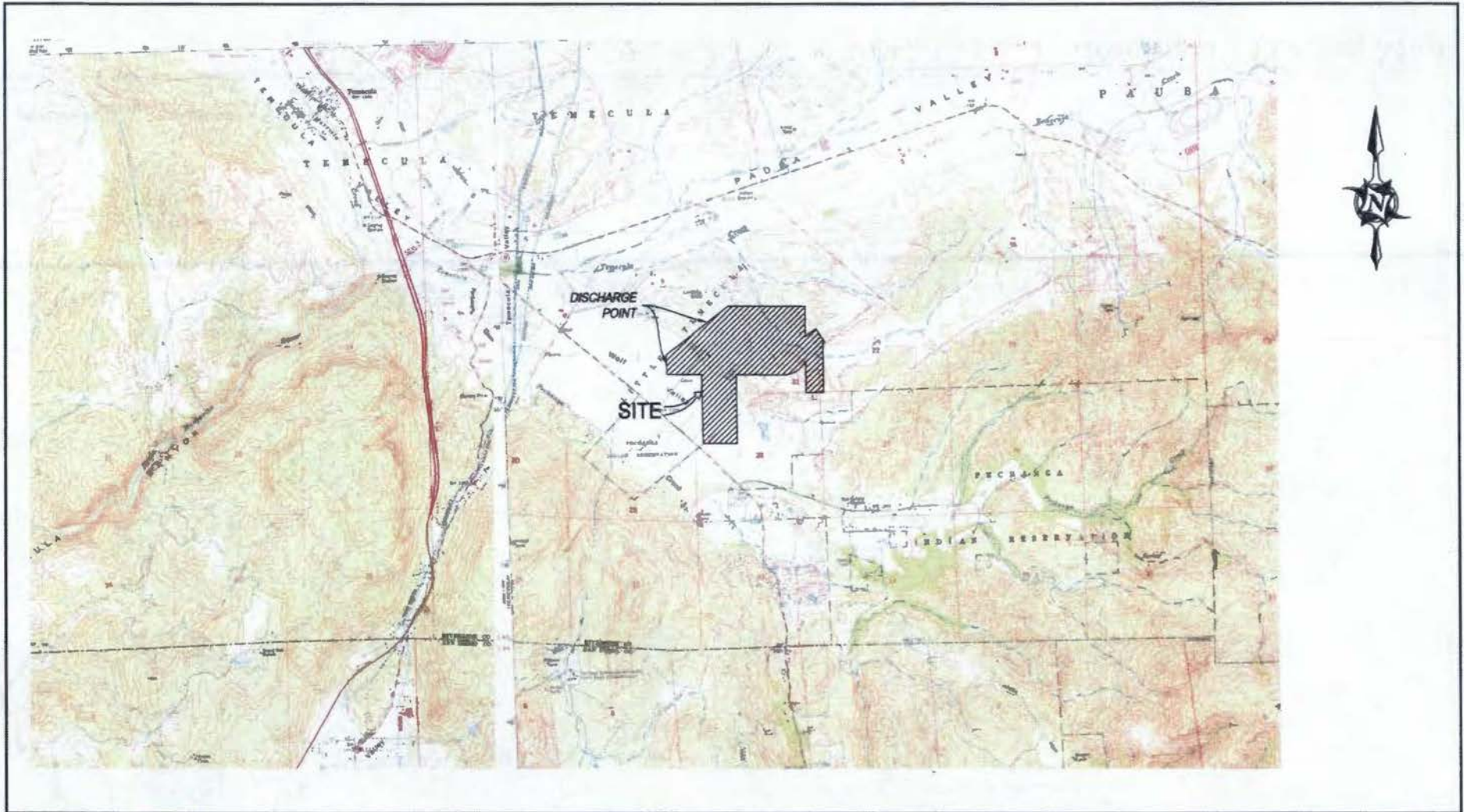
Start of Project Construction - For the purpose of this Certification, "start of Project construction" means to engage in a program of on-site construction, including site clearing, grading, dredging, landfilling, changing equipment, substituting equipment, or even moving the location of equipment specifically 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.

Standard Pacific Homes
Terracina Project
Certification No. R9-2013-0008

**ATTACHMENT 2
PROJECT LOCATION MAPS**



PREPARED BY:



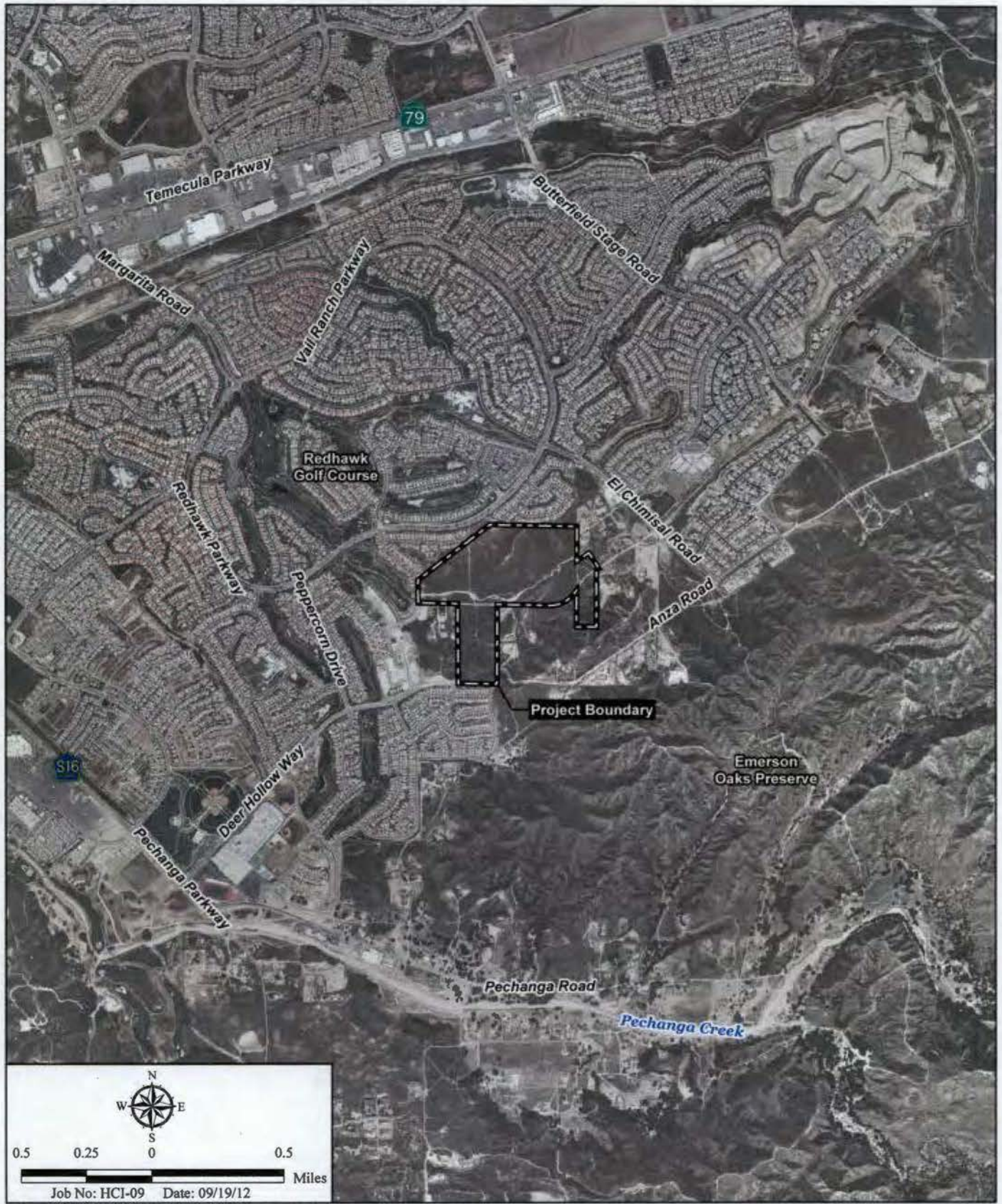
MAYERS & ASSOCIATES
 Civil Engineering, Inc.
 PLANNING • ENGINEERING • SURVEYING
 19 Spectrum Pointe Drive • Suite 609
 Lake Forest, CA 92630
 (949) 599-0870
 (949) 599-0880 Fax
<http://www.mayerscivil.com>

PREPARED FOR:

HIGHPOINTE MONTE VERDE, LLC
 20 ENTERPRISE, SUITE 320
 ALISO VIEJO, CA, 92656
 (949) 472-0174

"TERRACINA"
 COUNTY OF RIVERSIDE

VICINITY MAP
 TR. 31597



Aerial Photograph

TERRACINA - TRACT 31597

Figure 2

RECEIVING WATERS MAP

Project-Specific Preliminary Water Quality Management Plan (WQMP)
TERRACINA, Tentative Tract Map 31597





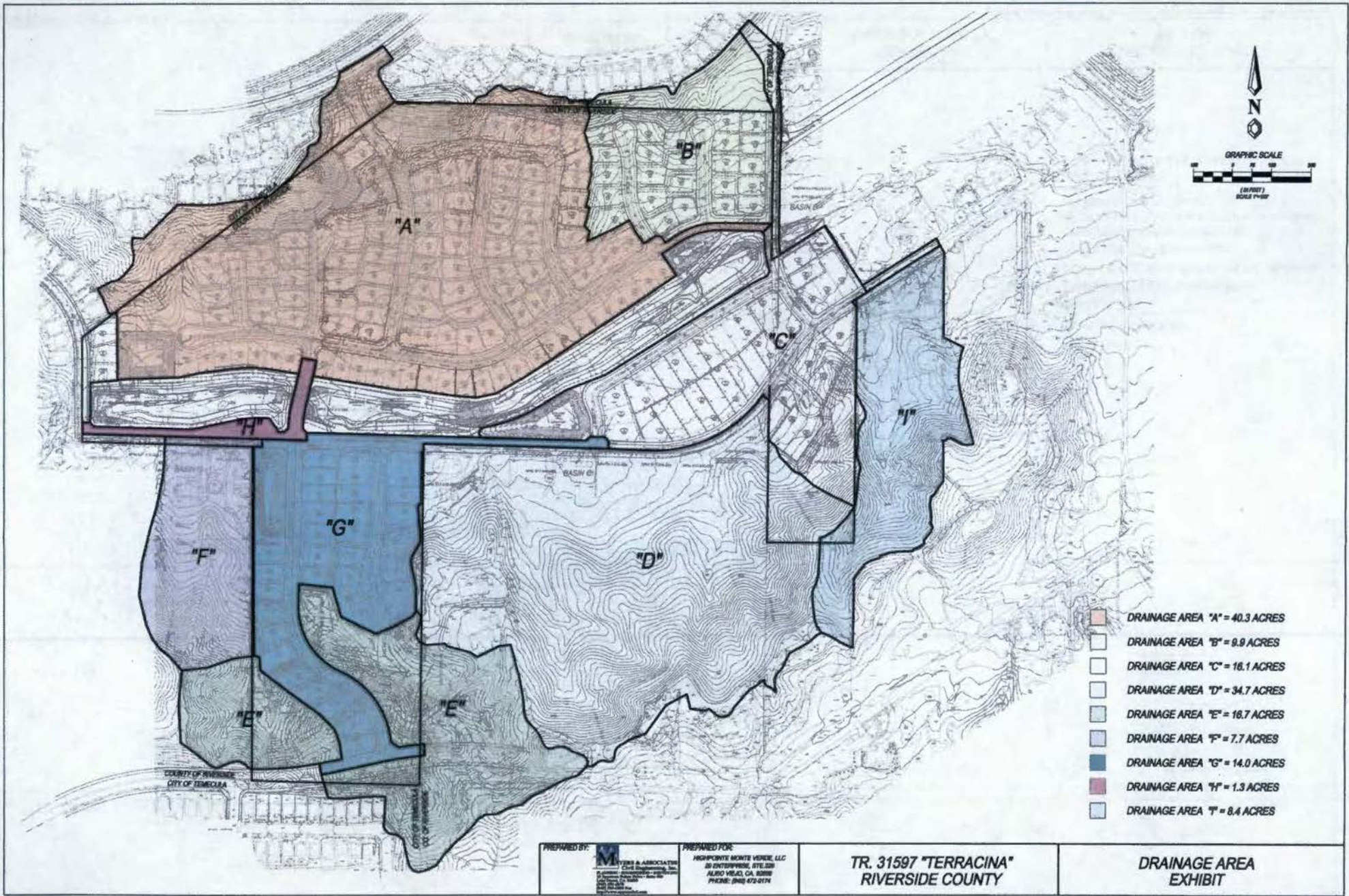
Aerial Photograph

TERRACINA - TRACT 31597

Figure 3

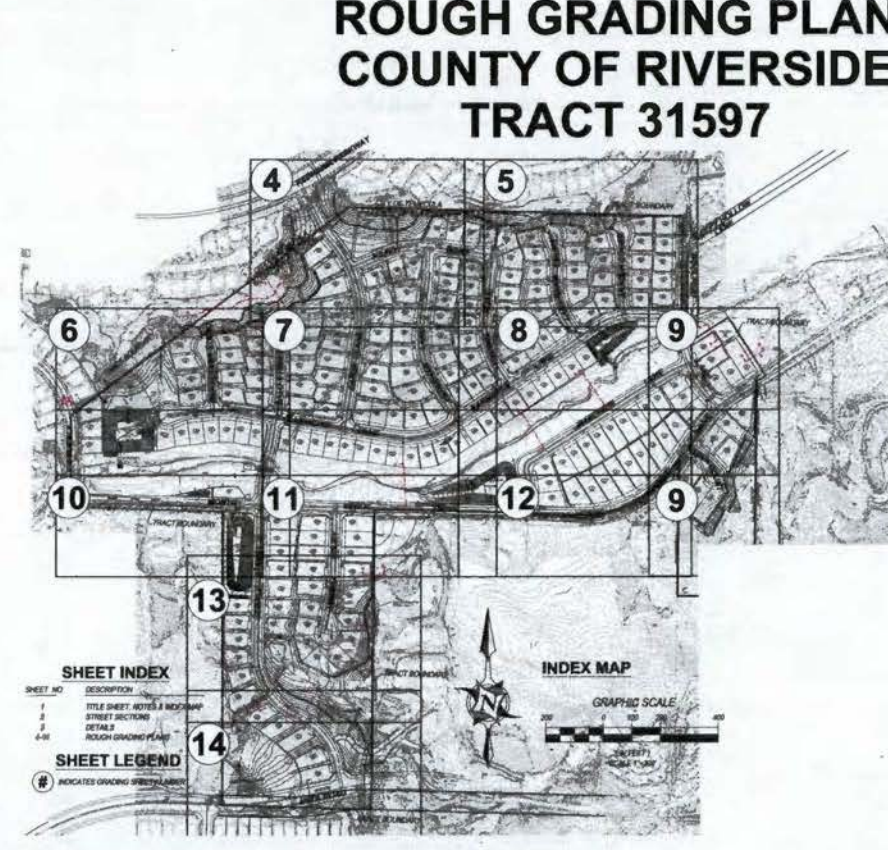
Standard Pacific Homes
Terracina Project
Certification No. R9-2013-0008

**ATTACHMENT 3
PROJECT SITE PLANS**



STANDARD GRADING NOTES

1. All grading shall conform to the Uniform Building Code Appendix Chap. 33 as amended by Ord. 457.
2. All property corners shall be clearly delineated in the field prior to commencement of any construction.
3. All work under the grading permit shall be done in accordance with the property lines. All work within the road right-of-way shall require separate plans and a separate engineering approval from the Transportation Department.
4. All grading shall be done under the supervision of a duly registered professional engineer in accordance with the recommendations of the preliminary site investigation by L.C. Thompson, Inc. (dated 08/15/2011).
5. The use of the soil compaction report shall be in accordance with L.C. Thompson, Inc. (dated 08/15/2011). All soil compaction tests shall include the name of the testing agency and the name of the engineer who performed the tests.
6. The contractor shall notify the Building and Safety Department at least 24 hours in advance to request final inspection of the site investigation report. The inspector shall be approved prior to building permit final inspection in such.
7. The contractor shall notify Undergraduate Survey Area, two days before staking of 1:400-421-1133.
8. All work shall be done on existing ground unless the ground has been disturbed, eroded, shifted, leveled and other disturbance. Fills shall be placed in the fill (backfill) as recommended in each report, compacted and tested as grading proceeds until that grade is obtained. All fills on slopes steeper than 3:1 (H:V) and a height greater than 3 feet shall be compacted and tested. This material shall be supported. The break under the toe must be 10 feet wide min.
9. The slope stability for cut and fill slopes over 10' vertical height or slopes steeper than 2:1 have been verified with a factor of safety of at least 1.5.
10. All rock or similar material shall be removed to a maximum depth greater than 12 inches shall be buried or placed in fill over than 10 feet to the finished grade.
11. A final construction report shall be submitted for all fill over 1' deep.
12. Provide a slope indicator chain along the top of all slopes where the drainage path is greater than 40 feet across the top of slope.
13. Provide 2" wide by 1" high being along the top of all fill slopes steeper than 2:1.
14. Minimum building and lot coverage shall be as follows: 10% of lot area for lots less than 10,000 sq. ft. or 10% greater than 10'. Coverage ratios shall be a minimum of 0.25, and be constructed a minimum of 2 feet above finished grade as a minimum of 18".
15. No obstruction of natural water course shall be permitted.
16. During rough grading operations and prior to construction of drainage structures, temporary drainage control (TDC) structures shall be provided by the contractor to prevent erosion and sedimentation damage to adjacent properties.
17. TDC shall be controlled by existing or other approved methods.
18. All existing drainage structures on the project site must continue to function. Protective measures and temporary drainage structures shall be used to prevent any impediment to existing structures.
19. Final grade shall be staked every 10 feet of vertical width at not less than 1" per foot for a minimum of 2'.
20. For slopes 2:1 to 1 (H:V) or steeper:
21. All slopes greater than 10' vertical height are required to be planted with grass or other plants or equal ground cover at a minimum spacing of 12" on center. Slopes exceeding 10' in vertical height shall be planted with approved shrubs not to exceed 10' on center, or trees spaced not exceed 10' on center or shrubs not to exceed 10'. A combination of shrubs and trees shall be used in addition to the grass or ground cover. Slopes that require planting shall be provided with a long-term irrigation system equipped with an appropriate water meter and a 1/2" C.P. pipe. The slope planting and irrigation system shall be installed prior to rough grading.



SHEET INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET, NOTES & RECORD
2	STREET DETAILS
3	ROUGH GRADING PLAN
4-14	ROUGH GRADING PLAN

SHEET LEGEND

INDICATES Ongoing Survey



**ROUGH GRADING PLAN
COUNTY OF RIVERSIDE
TRACT 31597**

SOILS ENGINEER

LOW GEOLOGICAL GROUP, INC.
8717 OLIVE VALLEY COURT
RIVERSIDE, CA 92507
PHONE: 951 852 1790

OWNER:
HIGHPOSITE COMMUNITIES, LLC
4081 EL TORO ROAD, SUITE 100
LAGUNA WOODS, CA 92653
(949) 472-9800

DEVELOPER:
HIGHPOSITE COMMUNITIES, INC.
4081 EL TORO ROAD, SUITE 100
LAGUNA WOODS, CA 92653
(949) 472-9800

TOTAL DISTURBED AREA
4,018,890 SQ. FT.

FEMA FLOOD ZONE: "C"

WDID NO. 9 33C347729

EARTHWORK QUANTITIES

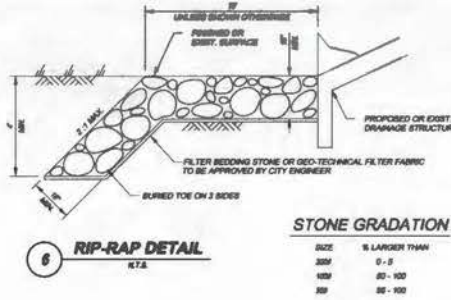
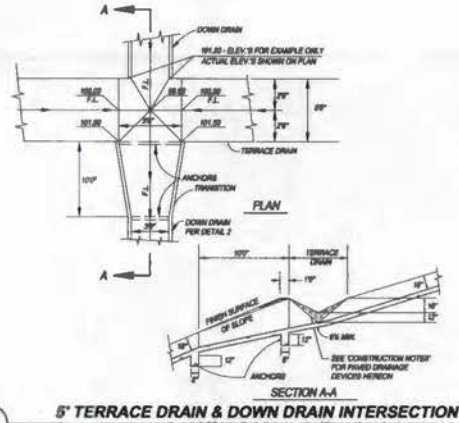
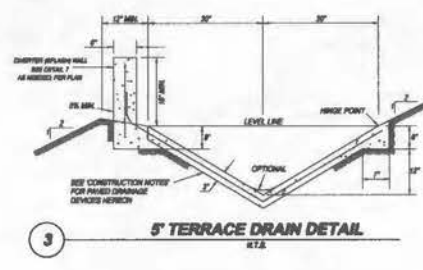
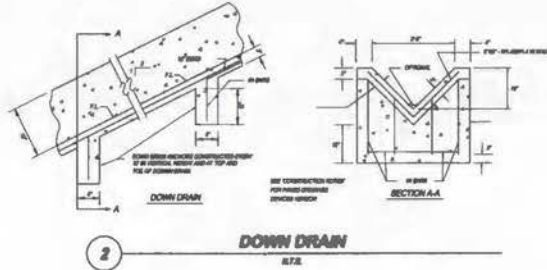
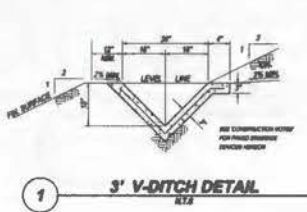
ITEM	UNIT	AMOUNT
1. SUBGRADE (H:V) (1:1)	CU	791,280
2. SUBGRADE (H:V) (2:1)	CU	16,894
3. FILL (H:V) (1:1)	CU	16,894
4. FILL (H:V) (2:1)	CU	16,894
5. FILL (H:V) (3:1)	CU	16,894
6. FILL (H:V) (4:1)	CU	16,894
7. FILL (H:V) (5:1)	CU	16,894
8. FILL (H:V) (6:1)	CU	16,894
9. FILL (H:V) (7:1)	CU	16,894
10. FILL (H:V) (8:1)	CU	16,894
11. FILL (H:V) (9:1)	CU	16,894
12. FILL (H:V) (10:1)	CU	16,894
13. FILL (H:V) (11:1)	CU	16,894
14. FILL (H:V) (12:1)	CU	16,894
15. FILL (H:V) (13:1)	CU	16,894
16. FILL (H:V) (14:1)	CU	16,894
17. FILL (H:V) (15:1)	CU	16,894
18. FILL (H:V) (16:1)	CU	16,894
19. FILL (H:V) (17:1)	CU	16,894
20. FILL (H:V) (18:1)	CU	16,894
21. FILL (H:V) (19:1)	CU	16,894
22. FILL (H:V) (20:1)	CU	16,894
23. FILL (H:V) (21:1)	CU	16,894
24. FILL (H:V) (22:1)	CU	16,894
25. FILL (H:V) (23:1)	CU	16,894
26. FILL (H:V) (24:1)	CU	16,894
27. FILL (H:V) (25:1)	CU	16,894
28. FILL (H:V) (26:1)	CU	16,894
29. FILL (H:V) (27:1)	CU	16,894
30. FILL (H:V) (28:1)	CU	16,894
31. FILL (H:V) (29:1)	CU	16,894
32. FILL (H:V) (30:1)	CU	16,894
33. FILL (H:V) (31:1)	CU	16,894
34. FILL (H:V) (32:1)	CU	16,894
35. FILL (H:V) (33:1)	CU	16,894
36. FILL (H:V) (34:1)	CU	16,894
37. FILL (H:V) (35:1)	CU	16,894
38. FILL (H:V) (36:1)	CU	16,894
39. FILL (H:V) (37:1)	CU	16,894
40. FILL (H:V) (38:1)	CU	16,894
41. FILL (H:V) (39:1)	CU	16,894
42. FILL (H:V) (40:1)	CU	16,894
43. FILL (H:V) (41:1)	CU	16,894
44. FILL (H:V) (42:1)	CU	16,894
45. FILL (H:V) (43:1)	CU	16,894
46. FILL (H:V) (44:1)	CU	16,894
47. FILL (H:V) (45:1)	CU	16,894
48. FILL (H:V) (46:1)	CU	16,894
49. FILL (H:V) (47:1)	CU	16,894
50. FILL (H:V) (48:1)	CU	16,894
51. FILL (H:V) (49:1)	CU	16,894
52. FILL (H:V) (50:1)	CU	16,894
53. FILL (H:V) (51:1)	CU	16,894
54. FILL (H:V) (52:1)	CU	16,894
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56. FILL (H:V) (54:1)	CU	16,894
57. FILL (H:V) (55:1)	CU	16,894
58. FILL (H:V) (56:1)	CU	16,894
59. FILL (H:V) (57:1)	CU	16,894
60. FILL (H:V) (58:1)	CU	16,894
61. FILL (H:V) (59:1)	CU	16,894
62. FILL (H:V) (60:1)	CU	16,894
63. FILL (H:V) (61:1)	CU	16,894
64. FILL (H:V) (62:1)	CU	16,894
65. FILL (H:V) (63:1)	CU	16,894
66. FILL (H:V) (64:1)	CU	16,894
67. FILL (H:V) (65:1)	CU	16,894
68. FILL (H:V) (66:1)	CU	16,894
69. FILL (H:V) (67:1)	CU	16,894
70. FILL (H:V) (68:1)	CU	16,894
71. FILL (H:V) (69:1)	CU	16,894
72. FILL (H:V) (70:1)	CU	16,894
73. FILL (H:V) (71:1)	CU	16,894
74. FILL (H:V) (72:1)	CU	16,894
75. FILL (H:V) (73:1)	CU	16,894
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77. FILL (H:V) (75:1)	CU	16,894
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79. FILL (H:V) (77:1)	CU	16,894
80. FILL (H:V) (78:1)	CU	16,894
81. FILL (H:V) (79:1)	CU	16,894
82. FILL (H:V) (80:1)	CU	16,894
83. FILL (H:V) (81:1)	CU	16,894
84. FILL (H:V) (82:1)	CU	16,894
85. FILL (H:V) (83:1)	CU	16,894
86. FILL (H:V) (84:1)	CU	16,894
87. FILL (H:V) (85:1)	CU	16,894
88. FILL (H:V) (86:1)	CU	16,894
89. FILL (H:V) (87:1)	CU	16,894
90. FILL (H:V) (88:1)	CU	16,894
91. FILL (H:V) (89:1)	CU	16,894
92. FILL (H:V) (90:1)	CU	16,894
93. FILL (H:V) (91:1)	CU	16,894
94. FILL (H:V) (92:1)	CU	16,894
95. FILL (H:V) (93:1)	CU	16,894
96. FILL (H:V) (94:1)	CU	16,894
97. FILL (H:V) (95:1)	CU	16,894
98. FILL (H:V) (96:1)	CU	16,894
99. FILL (H:V) (97:1)	CU	16,894
100. FILL (H:V) (98:1)	CU	16,894
101. FILL (H:V) (99:1)	CU	16,894
102. FILL (H:V) (100:1)	CU	16,894

ASSESSOR'S PARCEL NUMBERS:

971-210-0214, 971-210-0215, 971-210-0216, 971-210-0217, 971-210-0218, 971-210-0219, 971-210-0220, 971-210-0221, 971-210-0222, 971-210-0223, 971-210-0224, 971-210-0225, 971-210-0226, 971-210-0227, 971-210-0228, 971-210-0229, 971-210-0230, 971-210-0231, 971-210-0232, 971-210-0233, 971-210-0234, 971-210-0235, 971-210-0236, 971-210-0237, 971-210-0238, 971-210-0239, 971-210-0240, 971-210-0241, 971-210-0242, 971-210-0243, 971-210-0244, 971-210-0245, 971-210-0246, 971-210-0247, 971-210-0248, 971-210-0249, 971-210-0250, 971-210-0251, 971-210-0252, 971-210-0253, 971-210-0254, 971-210-0255, 971-210-0256, 971-210-0257, 971-210-0258, 971-210-0259, 971-210-0260, 971-210-0261, 971-210-0262, 971-210-0263, 971-210-0264, 971-210-0265, 971-210-0266, 971-210-0267, 971-210-0268, 971-210-0269, 971-210-0270, 971-210-0271, 971-210-0272, 971-210-0273, 971-210-0274, 971-210-0275, 971-210-0276, 971-210-0277, 971-210-0278, 971-210-0279, 971-210-0280, 971-210-0281, 971-210-0282, 971-210-0283, 971-210-0284, 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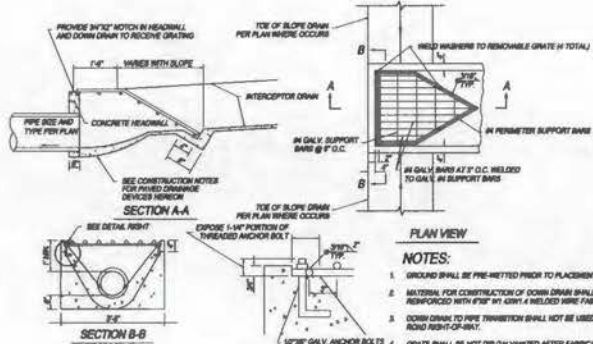
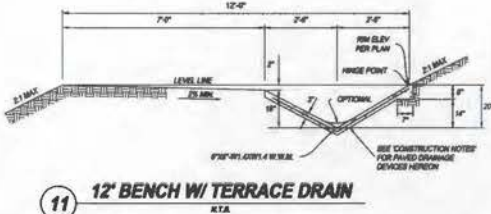
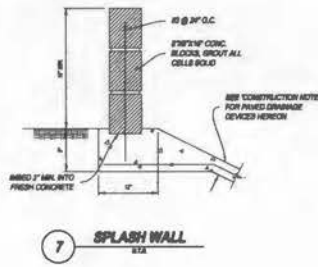
ESTIMATE OF QUANTITIES

NO.	DESCRIPTION	QUANTITY	LIMIT
1	CONSTRUCT HATCH PER DETAIL ON BWT. 3		L.F.
2	CONSTRUCT DOWN DRAIN PER DETAIL ON BWT. 3		L.F.
3	CONSTRUCT TERRACE DRAIN PER DETAIL ON BWT. 3		L.F.
4	CONSTRUCT TERRACE DRAIN & DOWN DRAIN INTERSECTION PER DETAIL BWT. 3		EA
5	RETAINING WALL PER SEPARATE RETAINING WALL PLAN & PERMIT	NA	NA
6	INSTALL RIP-RAP PER DETAIL ON BWT. 3		EA
7	CONSTRUCT SPLASH WALL PER DETAIL ON BWT. 3		L.F.
8	CONSTRUCT V-TITCH TO PIPE TRANSITION STRUCTURE UNDER THE STATE GENERAL CONSTRUCTION PERMIT		EA
9	PAVEMENT CURB PER SEPARATE STREET BMP PLAN		EA
10	EMERGENCY SPLASH WALL PER SEPARATE CHAINAGE PLAN		EA
11	CONSTRUCT 1/2" HIGH BENCH WITH TERRACE DRAIN PER DETAIL ON BWT. 3		L.F.
12	LOW CONSTRUCT DOWN DRAIN PER DETAIL ON BWT. 2		EA
13	CONSTRUCT 3" CMP WITH HEADWALLS PER DETAIL ON BWT. 2		EA



STONE GRADATION

SIZE	% LARGER THAN
3/8"	0 - 5
1/2"	80 - 100
3/4"	95 - 100



- NOTES:**
- GROUND SHALL BE PRE-TREATED PRIOR TO PLACEMENT OF CONCRETE.
 - MATERIAL FOR CONSTRUCTION OF DOWN DRAIN SHALL BE CONCRETE REINFORCED WITH #2 @ 4" ON CENTER W/ 4" MIN. WIRE FABRIC.
 - DOWN DRAIN TO PIPE TRANSITION SHALL NOT BE USED WITHIN PUBLIC ROAD RIGHT-OF-WAY.
 - GRATE SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.

BASIS OF BEARINGS
THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF OLD CALIFORNIA ROAD BEING IMPROVED AS SHOWN ON A MAP OF TRACT NO. 31597 FILED IN MAP BOOK 304, AT PAGE 3 THROUGH 6, INCLUDING IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
F.D. STANDARD U.L.G.S. BENCHMARK SET IN THE TOP OF A CONCRETE MONUMENT STAMPED HERE, 1.1 MILE NORTH ALONG A PAVED ROAD FROM THE MESSON SAN ANTONIO DE PALA AT PALA, 0.1 MILE SOUTH OF THE CENTERLINE OF THE SAN DIEGO-RIVERSIDE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 MILE WEST OF THE CENTERLINE OF THE ROAD, 17.7' SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHEAST, 1.2' WEST OF A FENCE LINE, 1.7' NORTH OF A WITNESS POST, AND 4.0' FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8" INCHES.

UNDERGROUND SERVICE ALERT
Call 811
1-800-4-A-SHARES
www.811.org

- CONSTRUCTION NOTES FOR PAVED DRAINAGE DEVICES:**
- CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 P.S.I. CONCRETE MUST BE PREPARATORILY PLACED AND SHALL CONFORM TO SECTION 05.10 OF THE LATEST BUILDING CODE.
 - REINFORCING SHALL BE #2 @ 4" - W/ 4" W/ 4" WELDED WIRE MESH (W/ 4" W/ 4") OR APPROVED EQUAL.
 - GROUND SHALL BE PRE-TREATED TO THE SATURATION OF BUILDING OFFICIAL OR ENGINEER PRIOR TO PLACEMENT OF CONCRETE. CURING COMPOUND SHALL BE USED WHEN REQUIRED BY THE PUBLIC WORKS DIRECTOR.
 - CONCRETE OR CONCRETE BLOCK OVERTOP (SPLASH) WALL TO BE CONSTRUCTED WITHIN DOWN DRAIN TRANSITS AT TERRACE DRAIN. SEE PLAN FOR LOCATION AND DETAIL.

REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSITION/CONSTRUCTION		
PARKS & RECREATION		
LAND DEVELOPMENT		

DESIGNED BY
JG

DRAWN BY
JG

CHECKED BY
GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTION	DATE	APPROV.

SEAL - ENGINEER

GARY A. SMITH R.C.E. REG. EXP. 6-30-08

APPROVED: _____ DATE: _____

UNDER THE SUPERVISION OF:

GARY A. SMITH R.C.E. REG. EXP. 6-30-08

DATE: _____

SCALE:
AS SHOWN

DATE:
10/10/08

BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE

ROUGH GRADING PLAN FOR TRACT 31597

SCHEDULE A

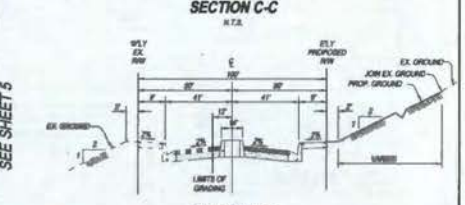
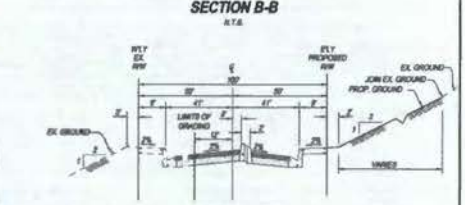
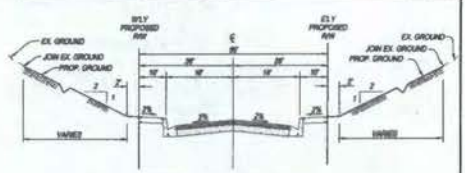
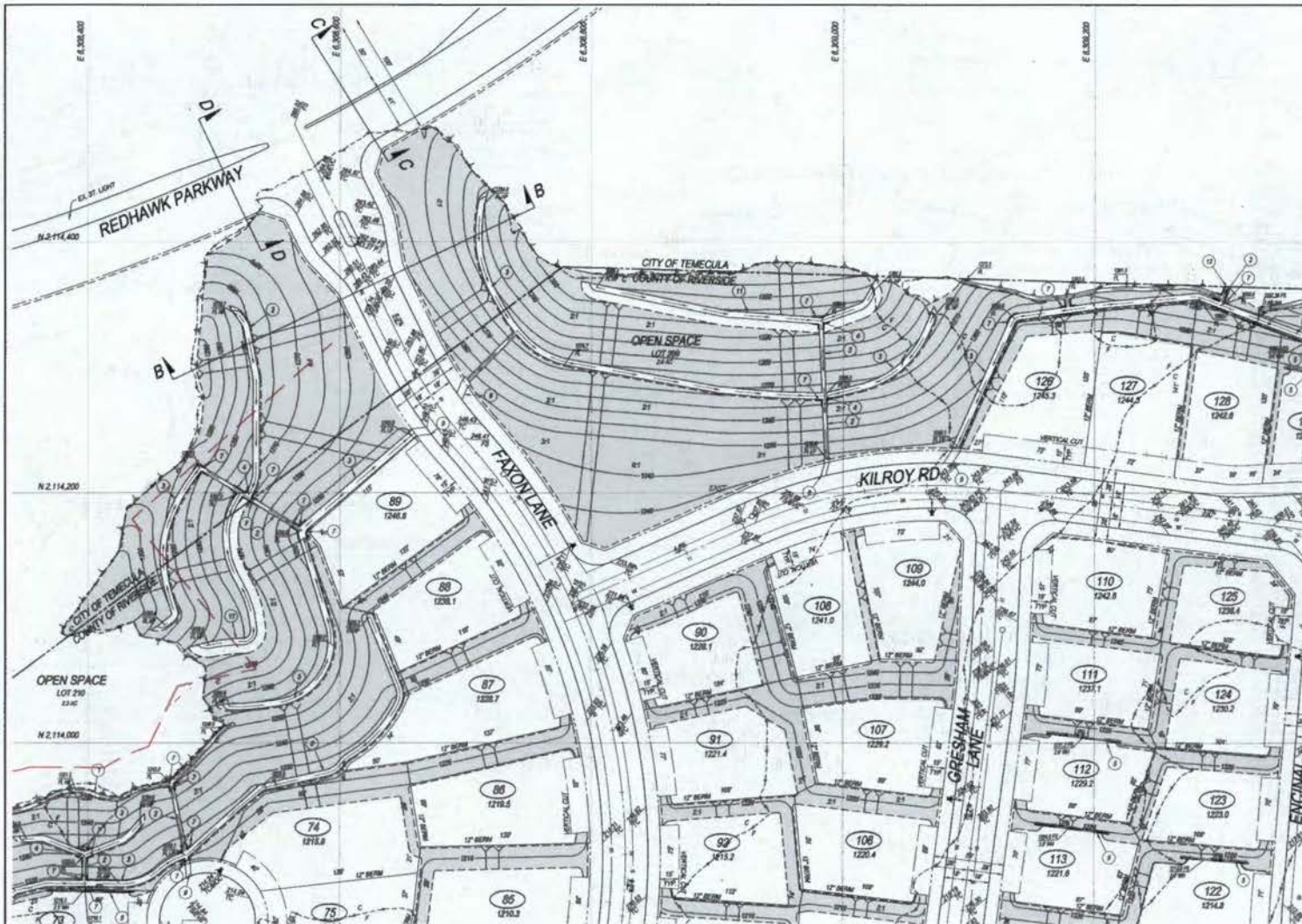
31597

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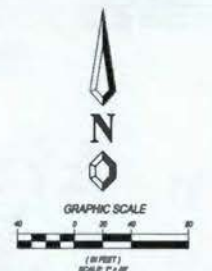
SHEET NO.

DATE: 10/10/08

FILE NO.



- CONSTRUCTION NOTES**
1. CONSTRUCT KATCH PER DETAIL ON SHEET 3
 2. CONSTRUCT CONCRETE DRAIN PER DETAIL ON SHEET 3
 3. CONSTRUCT TERRACE DRAIN PER DETAIL ON SHEET 3
 4. CONSTRUCT TERRACE DRAIN & DOWN DRAIN INTERSECTION PER DETAIL SHEET 3
 5. CONSTRUCT RETAINING WALL PER SEPARATE RETAINING WALL PLAN & PERMIT
 6. INSTALL SP-RAP PER DETAIL ON SHEET 3
 7. CONSTRUCT SPLASH WALL PER DETAIL ON SHEET 3
 8. PERMIT CALLOUT PER SEPARATE STREET IMPROVEMENT PLAN
 9. JOIN EXISTING DOWN DRAIN PER DETAIL ON SHEET 2



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CAMINO REAL ROAD IMPROVEMENT AS SHOWN ON A MAP OF TRACT NO. 3429-1 FILED IN MAP BOOK 304, AT PAGES 1 THROUGH 6, HEREIN, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
 F.C. STANDARD U.S.G.S. BRASS DISK SET BY THE TOP OF A CONCRETE MONUMENT STAMPED 1955, 0.1 MILES NORTH ALONG A PAVED ROAD FROM THE MISSION SAN ANTONIO DE PALA, AT PALA, 8.1 MILES SOUTH OF TEMECULA, AT THE SAN DIEGO RIVERSIDE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE COUNTY LINE, 20.8 WEST OF THE CENTERLINE OF THE ROAD, 17.3 SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHWEST, 1.2 WEST OF A FENCE LINE, 1.7 NORTH OF A WITNESS POST, ABOUT 4 1/2 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.
 DATE: 06/20/77 ELEV: + 1255.38

NOTE: ROCKY GROUND PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

NOTE: ALL WALLS ARE PER SEPARATE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND VERDIN UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNTIL THE CONVERSION OR PERMANENT RELOCATION IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
TRAILS & RECREATION		
LAND DEVELOPMENT		

DESIGNED BY: JG
 DRAWN BY: JG
 CHECKED BY: GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTION	DATE	APPROV.

SEAL: ENGINEER
 UNDER THE SUPERVISION OF
 GARY A. MARTIN, C.E. 3019 EDP # 30-08
 APPROVED: _____
 DATE: _____

SCALE: AS SHOWN
 DATE: 03/10/08

17 Republic Plaza, Suite 1000
 Lake Forest, CA 92550
 (949) 947-8800
YERES & ASSOCIATES
 Civil Engineering, Inc.
 PLANNING • ENGINEERING • SURVEYING

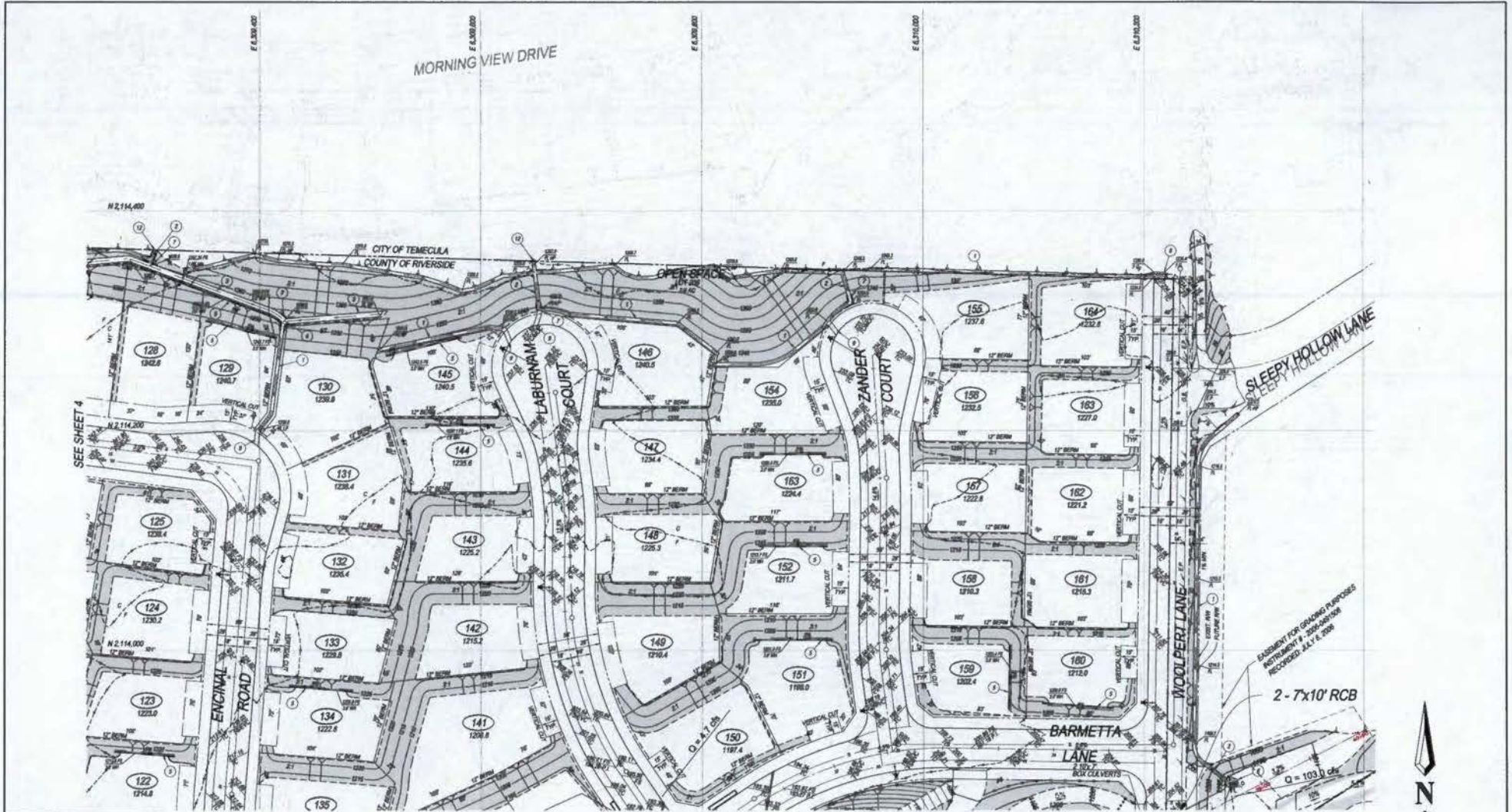
BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE

ROUGH GRADING PLAN FOR TRACT 31587

SCHEDULE A L.P. NO. 070178

SHEET NO. 4 OF 14 SHEETS
 FILE NO. _____



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CHICAL ROAD BEING 100' NORTH 89° 58' 00" WEST ON A 100' WIDE TRACT 31597 AS SHOWN ON A MAP OF TRACT 31597 FILED IN MAP BOOK 304 AT PAGE 1 THROUGH 6 INCLUSIVE IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
 F.D. STANDARD U.S.G.S. BRASS DISK SET IN THE TOP OF A CONCRETE MONUMENT STAMPED 100' 0" N 89° 58' 00" W 100' 0" E FROM THE MISSION SAN ANTONIO DE PALA, AT PALA, 8.1 MILES SOUTH OF TEMECULA, AT THE SAN DIEGO-RIVERSIDE COUNTY LINE IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE COUNTY LINE DISK, 20' WEST OF THE CENTERLINE OF THE ROAD, 17' SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHEAST, 1.7' WEST OF A FENCE LINE, 1.7' NORTH OF A WITNESS POST, ABOUT 4' 100' FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 6" INCHES.

NOTE: SOUGH GRADING PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

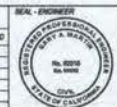
NOTE: ALL WALLS ARE PER SEPARATE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA RIBBON (RIB) AND HORIZON UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNLESS THE CONVEYOR OR PERMITTEE REQUESTS IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF		DESIGNED BY:	REVISIONS		SEAL - ENGINEER	UNDER THE SUPERVISION OF:
OFFICE	INITIALS	DATE	NO.	DATE	INITIALS	DATE
COMMUNITY SERVICES DEPT. <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
CAPITAL PROJECTS <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
TRANSPORTATION DIVISION <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
PLANNING & RECREATION <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
LAND DEVELOPMENT <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						

NO.	DATE	INITIALS	DESCRIPTIONS	DATE	APPROV.

DATE: 08/08/07
 ELEV: 128.38
 Desg. Revision Date: 08/08/07
 BY: AG
 PLOT DATE: 11/08/07



UNDER THE SUPERVISION OF:
 GARY A. BARMETTA, C.E. 00110 EXP. 08-30-08
 APPROVED: _____
 DATE: _____

SCALE: AS SHOWN
 DATE: 03/08

- CONSTRUCTION NOTES**
- CONSTRUCT V-HATCH PER DETAIL ON SHEET 3
 - CONSTRUCT DOWN DRAIN PER DETAIL ON SHEET 3
 - CONSTRUCT TRENCH DRAIN PER DETAIL ON SHEET 3
 - CONSTRUCT TRENCH DRAIN & DOWN DRAIN INTERSECTION PER DETAIL ON SHEET 3
 - RETAINING WALL PER SEPARATE RETAINING WALL PLAN & PERMIT
 - INSTALL IMP-ASP PER DETAIL ON SHEET 3
 - CONSTRUCT SPLASH WALL PER DETAIL ON SHEET 3
 - INVENTORY CULVERT PER SEPARATE STREET IMPROVEMENT PLANS
 - JOH EXISTING DOWN DRAIN PER DETAIL ON SHEET 2

BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE

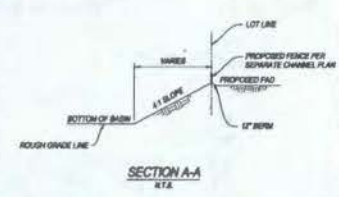
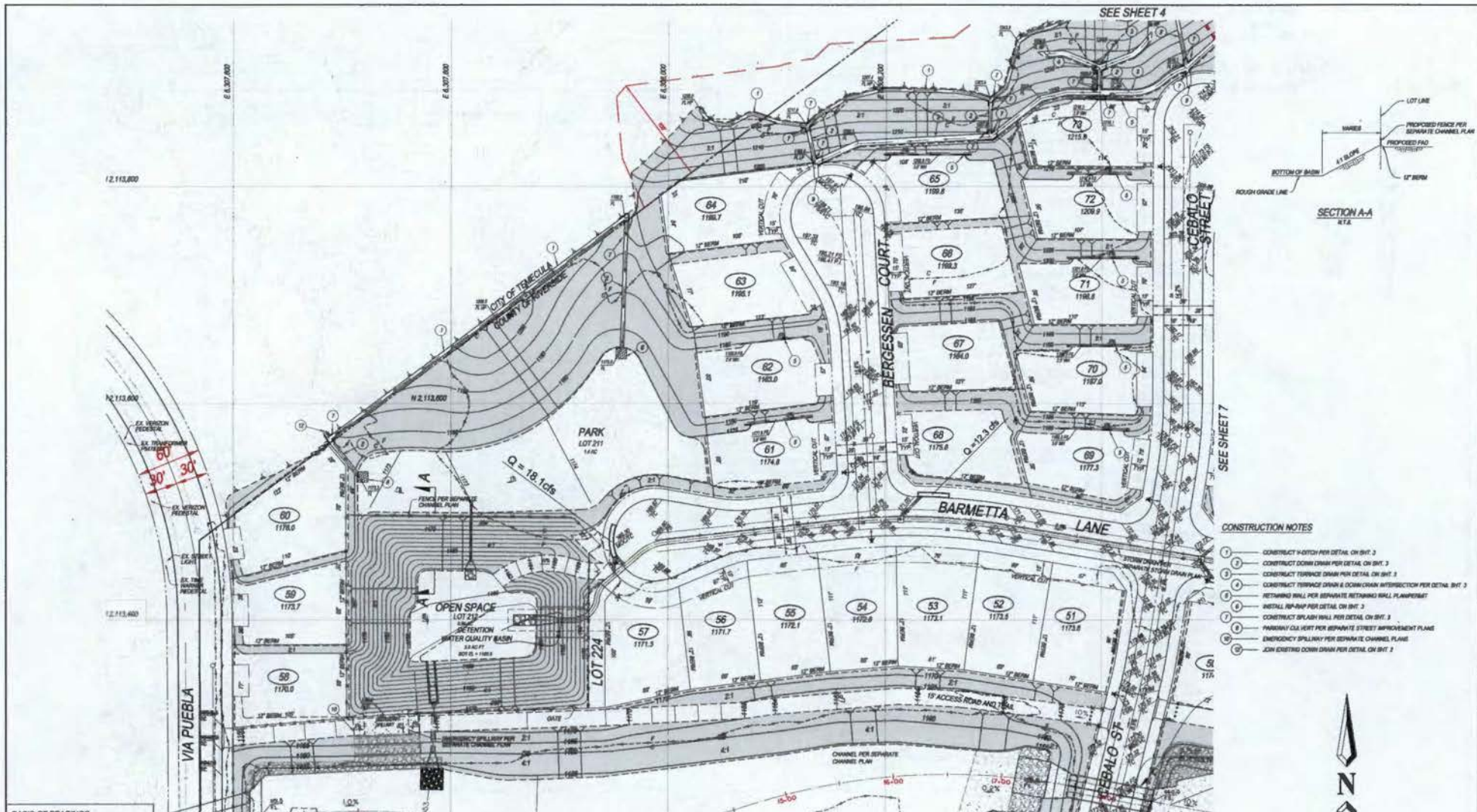
ROUGH GRADING PLAN FOR TRACT 31597

SCHEDULE A

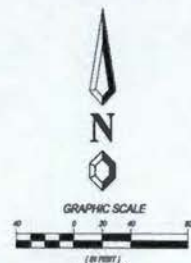
FILE NO. 5 OF 14 SHEETS

FILE NO. _____

DATE: 03/08



- CONSTRUCTION NOTES**
1. CONSTRUCT HATCH PER DETAIL ON SHT. 3
 2. CONSTRUCT DOWN DRAIN PER DETAIL ON SHT. 3
 3. CONSTRUCT TRENCH DRAIN PER DETAIL ON SHT. 3
 4. CONSTRUCT TRENCH DRAIN & DOWN DRAIN INTERSECTION PER DETAIL SHT. 3
 5. RETAINING WALL PER SEPARATE RETAINING WALL PLAN/SET
 6. INSTALL IN-PAV PER DETAIL ON SHT. 3
 7. CONSTRUCT SPLASH WALL PER DETAIL ON SHT. 3
 8. PARALLEL DIA VERT PER SEPARATE STREET IMPROVEMENT PLAN
 9. EMERGENCY SPILLWAY PER SEPARATE CHANNEL PLAN
 10. JOIN EXISTING DOWN DRAIN PER DETAIL ON SHT. 2



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CHISAL, FORD BRIDGE IMPROVEMENT AS SHOWN ON A MAP OF TRACT NO. 28473-1 FILED IN MAP BOOK 504, AT PAGES 1 THROUGH 6, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
 10' STANDARD U.S. G.S. BRASS DISK SET IN THE TOP OF A CONCRETE MOUNTAIN STAMPED 1905, 8 1/2" DIAMETER NORTH ALONG A PRIVATE ROAD FROM THE MISSION SAN ANTONIO DE PUEBLA, AT PUEBLA 8 1/2 MILES SOUTH OF TEMECULA, AT THE SAN DIEGO RIVERSIDE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE COUNTY LINE SIGN, 28 1/2" WEST OF THE CENTERLINE OF THE ROAD, 11 1/8" SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHWEST, 1 1/2" WEST OF A FENCE LINE, 1 1/2" NORTH OF A WITNESS POST, ABOUT 4 1/8 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 6 INCHES.

DATE: 05/08/07 ELEV: 1255.38

NOTE: ROUGH GRADING PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

NOTE: ALL WELLS ARE PER SEWAGE FURNISH.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND VERDUGO UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION DATED, THE COMMISSION ON PERMANENT REDUCTION IS COMPLETE, BY OTHERS.

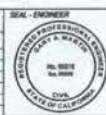
REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
PAVED & RECONSTRUCTION		
LAND DEVELOPMENT		

DESIGNED BY: JG
 DRAWN BY: JG
 CHECKED BY: GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTION	DATE	APPROV.



UNDER THE SUPERVISION OF:
 GARY A. MARTIN R.C.E. 20119 EXP. 8-30-08 DATE: _____
 APPROVED: _____ DATE: _____

19 Riverside Plaza Drive • Suite 409
 Lake Forest, CA 92550
 (949) 261-0000
RYERS & ASSOCIATES
 Civil Engineering, Inc.
 PLANNING • ARCHITECTURE • SURVEYING

SCALE: AS SHOWN DATE: 12/14/08

BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE

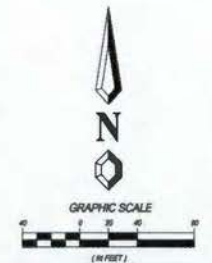
ROUGH GRADING PLAN FOR TRACT 31597

SCHEDULE A L.P. NO. 070178

SHEET NO. **6** OF **14** SHEETS
 FILE NO. _____



- CONSTRUCTION NOTES**
- ① CONSTRUCT DOWN DRAIN PER DETAIL ON SHEET 3
 - ② CONSTRUCT TERRACE DRAIN PER DETAIL ON SHEET 3
 - ③ RETAINING WALL PER SEPARATE RETAINING WALL PLAN & PERMIT
 - ④ CONSTRUCT SPRAY WALL PER DETAIL ON SHEET 3
 - ⑤ PAVEMENT CURB PER SEPARATE STREET IMPROVEMENT PLAN



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CERRILLO ROAD BEING HERETOFORE AS SHOWN ON A MAP OF TRACT NO. 38073-1 FILED IN SAN JOSE CO. AT PAGE 1 THROUGH 18, INCLUDE IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
 F.D. STANDARD U.S.G.S. BRASS DISK SET IN THE TOP OF A CONCRETE MONUMENT STAMPED 1885. 5.1 METERS NORTH ALONG A PAVED ROAD FROM THE BRIBSON SAN ANTONIO DE PALA AT PALA 0.1 MILES SOUTH OF TRUCULLA, AT THE SAN DIEGO-RIVERSIDE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHEAST, 1/2 WEST OF A FENCE LINE, 1/2 NORTH OF A WITNESS POST, ABOUT 4 METERS FROM THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.

DATE: 08/07 ELEV.: 1285.38

NOTE: ROUGH GRADING PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED FINISH TOP OF CURB ELEVATIONS.

NOTE: ALL WELLS ARE PER SEPARATE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND MICHIGAN UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNLESS THE CONVICTION OF PERMANENT REDUCTION IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT. <td></td> <td></td>		
CAPITAL PROJECTS <td></td> <td></td>		
TRANSPORTATION DIVISION <td></td> <td></td>		
PLANS & REGISTRATION <td></td> <td></td>		
LAND DEVELOPMENT <td></td> <td></td>		

REVISIONS

NO.	DATE	INITIALS	DESCRIPTION	DATE	APPROV.



UNDER THE SUPERVISION OF
 GARY A. MINTON, P.E. 0019 EXP. 8-30-08 DATE: _____
 APPROVED: _____ DATE: _____

19 Riverside Plaza Drive • Suite 409
 Lake View, CA 92546
 (951) 940-0000
MINTON & ASSOCIATES
 Civil Engineering, Inc.
 PLANNING - ARCHITECTURE - SURVEYING

SCALE: AS SHOWN DATE: 03/08

BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE

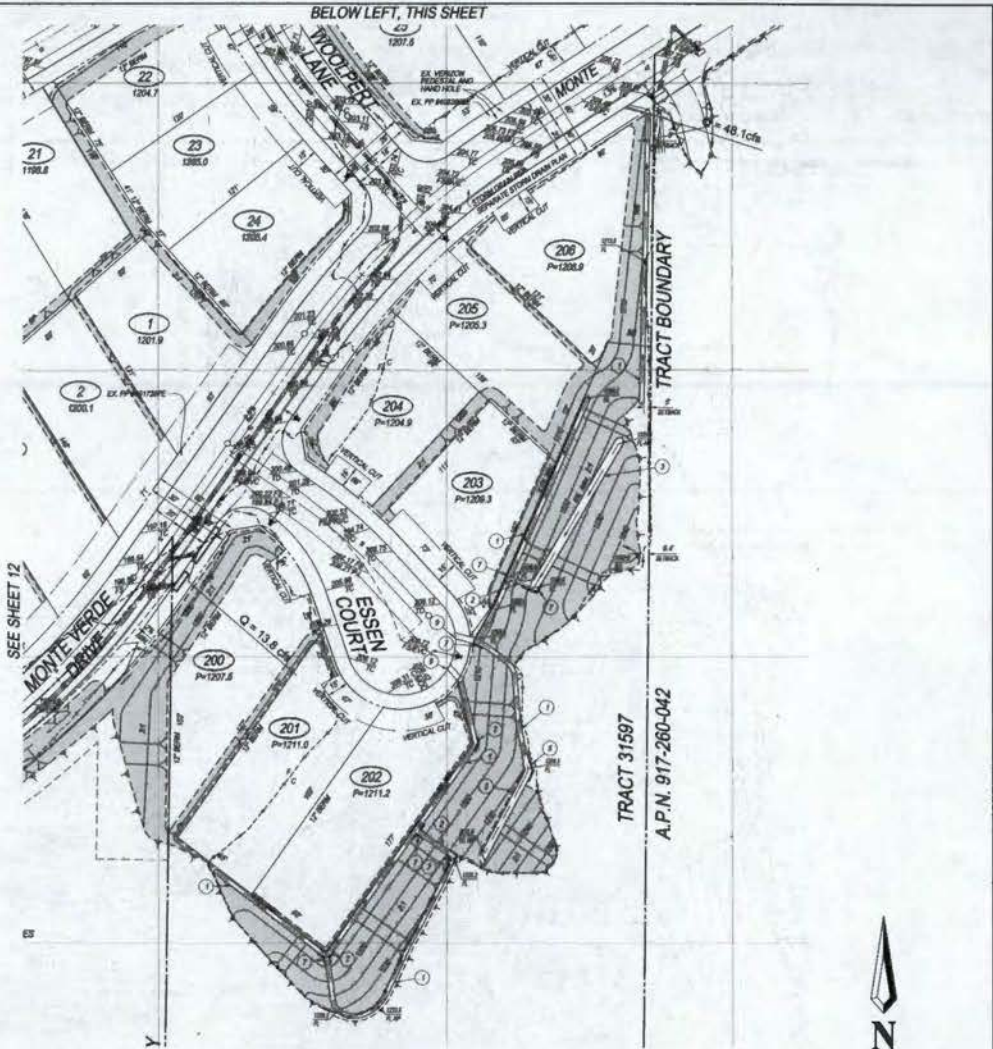
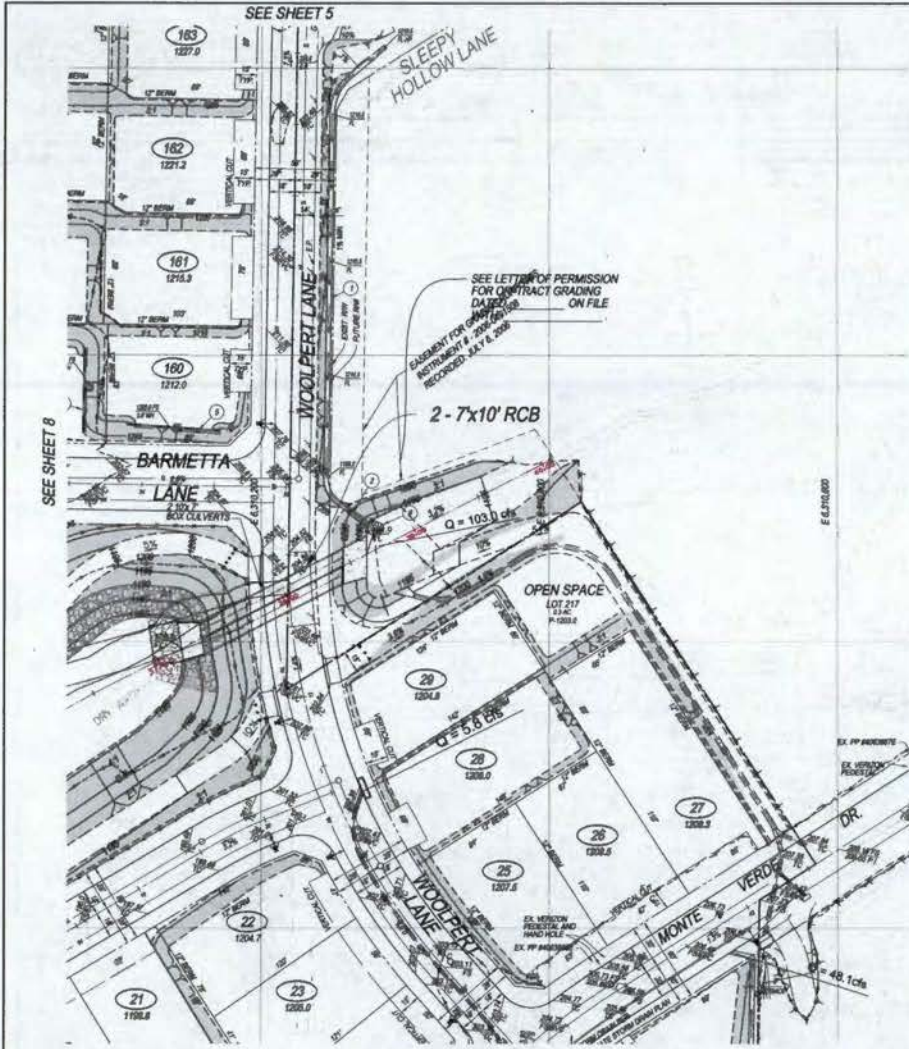
ROUGH GRADING PLAN FOR TRACT 31597

SCHEDULE A

SHEET NO. 7 OF 14

FILE NO. _____

LP. NO. 670178



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREIN ARE BASED ON THE CENTERLINE OF EL CAMINO ROAD BEING EXTENDED AS BEING ON A LINE OF TRACT NO. 30473 FILED IN MAP BOOK 204, AT PAGES 1 THROUGH 8, INCLUDING IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCHMARK
 FD. STANDARD U.S.G.S. BRASS CORK SET BY THE TOP OF A CONCRETE MONUMENT STAMPED 1986, 5.1 MILES NORTH ALONG A PAVED ROAD FROM THE ABBISSON SAN ANTONIO DE PALA, AT PALA, 0.7 MILES SOUTH OF TENECLA, AT THE SAN DIEGO-RIVERSIDE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE COUNTY LINE, 20.14 FEET WEST OF THE CENTERLINE OF THE ROAD, 17.3' SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHWEST, 1.2' WEST OF A FENCE LINE, 1.7' NORTH OF A WITNESS POST, ABOUT 4.05 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.

NOTE: ROUGH GRADING PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

NOTE: ALL WALLS ARE PER SEPARATE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND WINDSON UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNTIL THE CONSTRUCTION ON PERMANENT RELOCATION IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
PAVING & RECONSTRUCTION		
LAND DEVELOPMENT		

DESIGNED BY: JG

DRAWN BY: JG

CHECKED BY: GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTION	DATE	APPLIED



UNDER THE SUPERVISION OF:
 GARY A. MARTIN, R.C.E. 8019, EXP. 9-30-08

APPROVED:

DATE: _____

SCALE: AS SHOWN

DATE: 09/08

SCHEDULE A

COUNTY OF RIVERSIDE

ROUGH GRADING PLAN FOR TRACT 31597

SCHEDULE A

FILE NO. 079178

DRAWN BY: M. YERS & ASSOCIATES, Inc. Civil Engineering, Inc. PLANNING - ENGINEERING - SURVEYING

DATE: 09/08

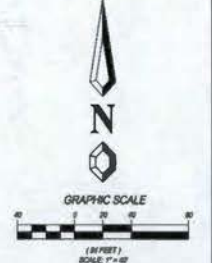
SCALE: AS SHOWN

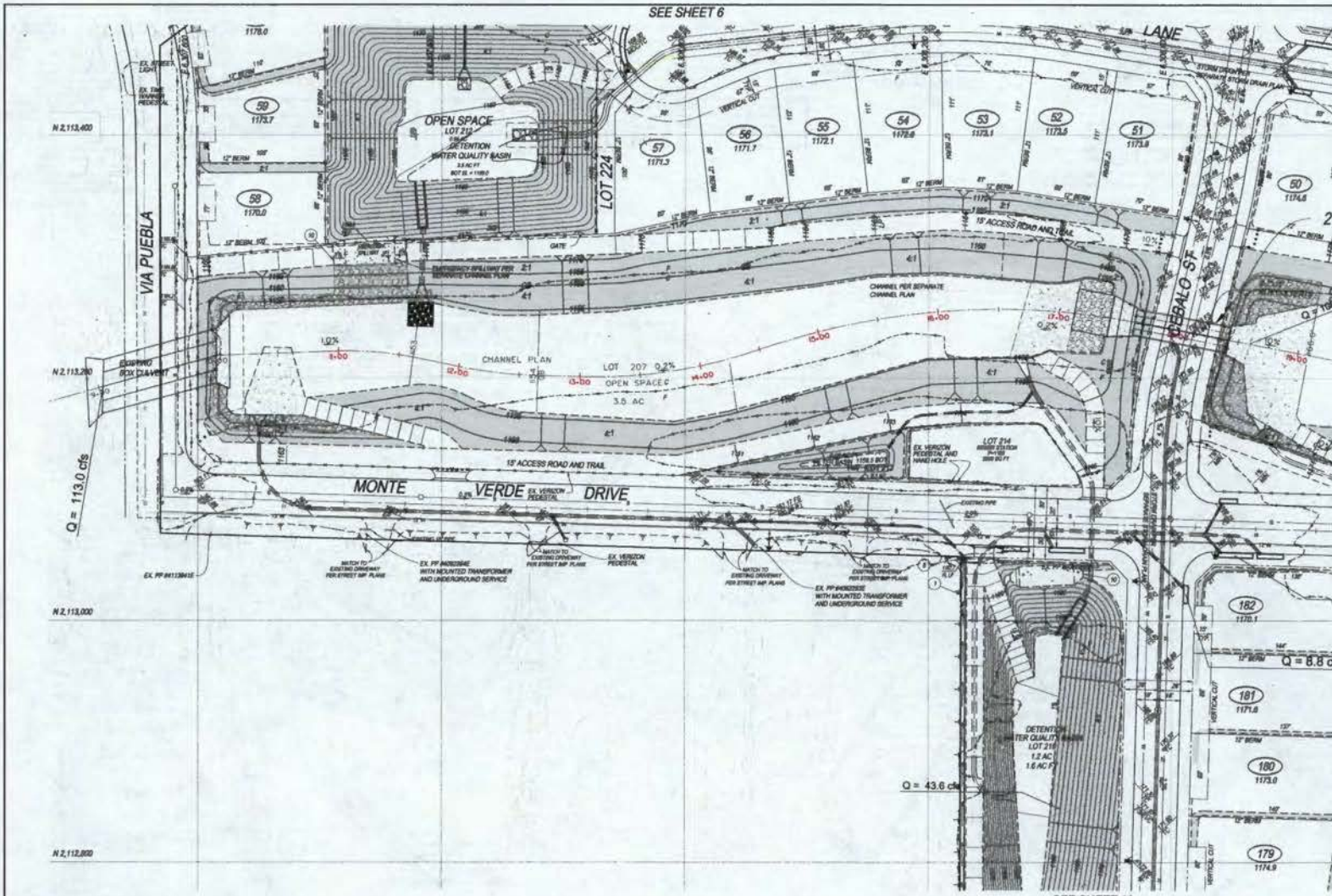
DATE: 09/08

SCHEDULE A

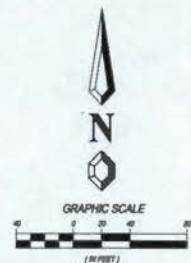
FILE NO. 079178

- CONSTRUCTION NOTES**
- CONSTRUCT WATCH PER DETAIL ON SHIT. 3
 - CONSTRUCT DOWN DRAIN PER DETAIL ON SHIT. 3
 - CONSTRUCT TERRACE DRAIN PER DETAIL ON SHIT. 3
 - RETAINING WALL PER SEPARATE RETAINING WALL PLAN & PERMIT
 - CONSTRUCT SPLASH WALL PER DETAIL ON SHIT. 3
 - PAVEMENT CULVERT PER SEPARATE STREET IMPROVEMENT PLANS





- CONSTRUCTION NOTES**
- 1 CONSTRUCT V-GUTCH PER DETAIL ON BWT. 2
 - 2 CONSTRUCT V-GUTCH TO PIPE TRANSITION STRUCTURE PER DETAIL ON BWT. 3
 - 3 EMERGENCY SPILLWAY PER SEPARATE CHANNEL PLAN



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EX. CHANNEL ROAD BEING IMPROVED AS SHOWN ON A MAP OF TRACT NO. 2475-1 FILED IN MAP BOOK 304, AT PAGES 1 THROUGH 8, INCLUDING, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
 FID. STANDARD U.S.G.S. BRASS DISK SET IN THE TOP OF A CONCRETE MONUMENT STAMPED 1886, 0.1 MILES NORTH ALONG A PAVED ROAD FROM THE MISSION SAN ANTONIO DE PALA, AT PALA, 0.1 MILES SOUTH OF TEMECULA, IN SAN DIEGO COUNTY, 1/2 SOUTH OF THE COUNTY LINE, 0.8 WEST OF THE CENTERLINE OF THE ROAD, 11.3 SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHWEST, 1.7 WEST OF A FENCE LINE, 1.7 NORTH OF A WITNESS POST, ABOUT 4 IN FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.
 DATE: 08/08/97 ELEV. = 128.36

NOTE: ROCKY GRASSES PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

NOTE: ALL WALLS ARE PER SEPARATE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND WENON UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNTIL THE CONSTRUCTION ON PERMANENT REDUCTION IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
PAVING & RECREATION		
LAND DEVELOPMENT		

DESIGNED BY: JG
 DRAWN BY: JG
 CHECKED BY: GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTIONS	DATE	APP'D

SEAL - ENGINEER
 GARY A. SMITH R.C.E. 80318 EDP 6-30-98
 CIVIL ENGINEER OF CALIFORNIA

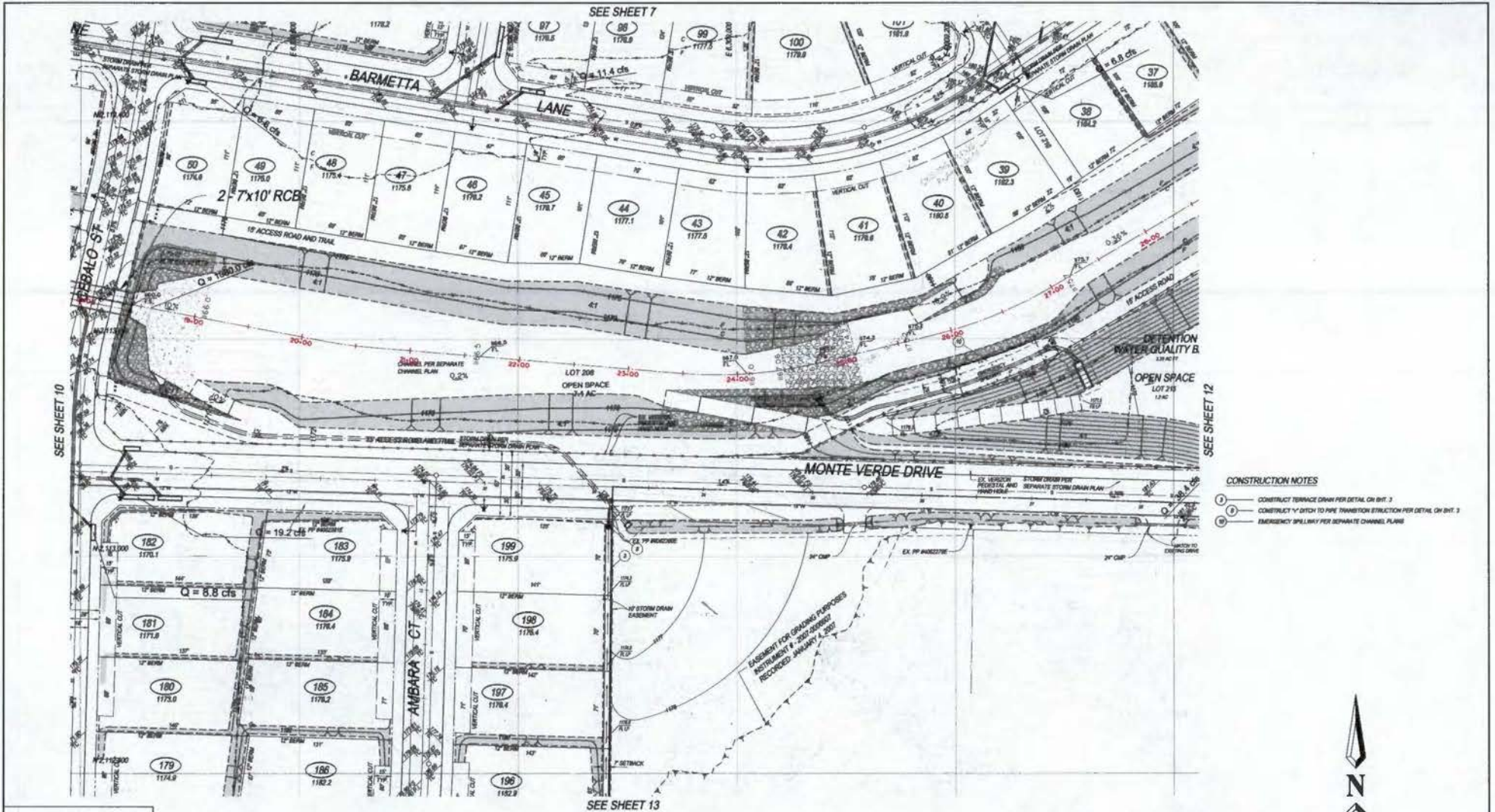
UNDER THE SUPERVISION OF
 GARY A. SMITH R.C.E. 80318 EDP 6-30-98
 APPROVED: _____
 DATE: _____

19 Sherman Plaza Drive • Suite 408
 Lake Forest, CA 92530
 (949) 940-8888
YERS & ASSOCIATES
 Civil Engineering, Inc.
 PLANNING • ARCHITECTURE • ENVIRONMENTAL

SCALE: AS SHOWN
 DATE: 10/16/98

COUNTY OF RIVERSIDE
ROUGH GRADING PLAN
 FOR
TRACT 31597
 SCHEDULE A

BGR 070552 LD 07-123GR
 SHEET NO. 10 OF 14
 FILE NO. _____
 L.P. NO. 979179



- CONSTRUCTION NOTES**
- 1. CONSTRUCT TERRACE DRAIN PER DETAIL ON SHEET 3
 - 2. CONSTRUCT 'Y' DITCH TO PIPE TRANSITION EXTRACTOR PER DETAIL ON SHEET 3
 - 3. EMERGENCY SPILLWAY PER SEPARATE CHANNEL PLANS



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CERRILLO ROAD BEING EXTENDED AS SHOWN ON A MAP OF TRACT NO. 3875-1 FILED IN MAP BOOK 38, AT PAGE 3 THROUGH 8 INCLUSIVE, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
 PD STANDARD U.S.G.S. BRASS DISK SET IN THE TOP OF A CONCRETE MOUNTMENT STAMPED 1886. 5.1 FEET NORTH ALONG A PAVED ROAD FROM THE MESSON SAN ANTONIO DE PALA, AT PALA, 5.1 MILES SOUTH OF TEMECULA, AT THE SAN DIEGO RIVERSIDE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE COUNTY LINE BORN, IN WEST OF THE CENTERLINE OF THE ROAD, 17.5 SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHWEST, 1.2 WEST OF A FENCE LINE, 1.7 NORTH OF A WITNESS POST, ABOUT 4 TO 6 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.

NOTE: ROUGH GRADING PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

NOTE: ALL WALLS ARE PER SEPARATE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND HERZOG UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNLESS THE CONVERSION OR PERMANENT RELINQUISHMENT IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
PLANNING & REGULATION		
LAND DEVELOPMENT		

DESIGNED BY: JG
 DRAWN BY: JG
 CHECKED BY: GAM
 DATE: 8/20/07
 ELEV.: 128.38

REVISIONS

NO.	DATE	INITIALS	DESCRIPTIONS	DATE	APPROV.

SEAL: ENGINEER
 GARY A. MARTIN R.C.E. 2019 EDP A-30-08
 DATE: 8/20/07

UNDER THE SUPERVISION OF:
 GARY A. MARTIN R.C.E. 2019 EDP A-30-08
 DATE: 8/20/07

SCALE: AS SHOWN
 DATE: 8/20/07

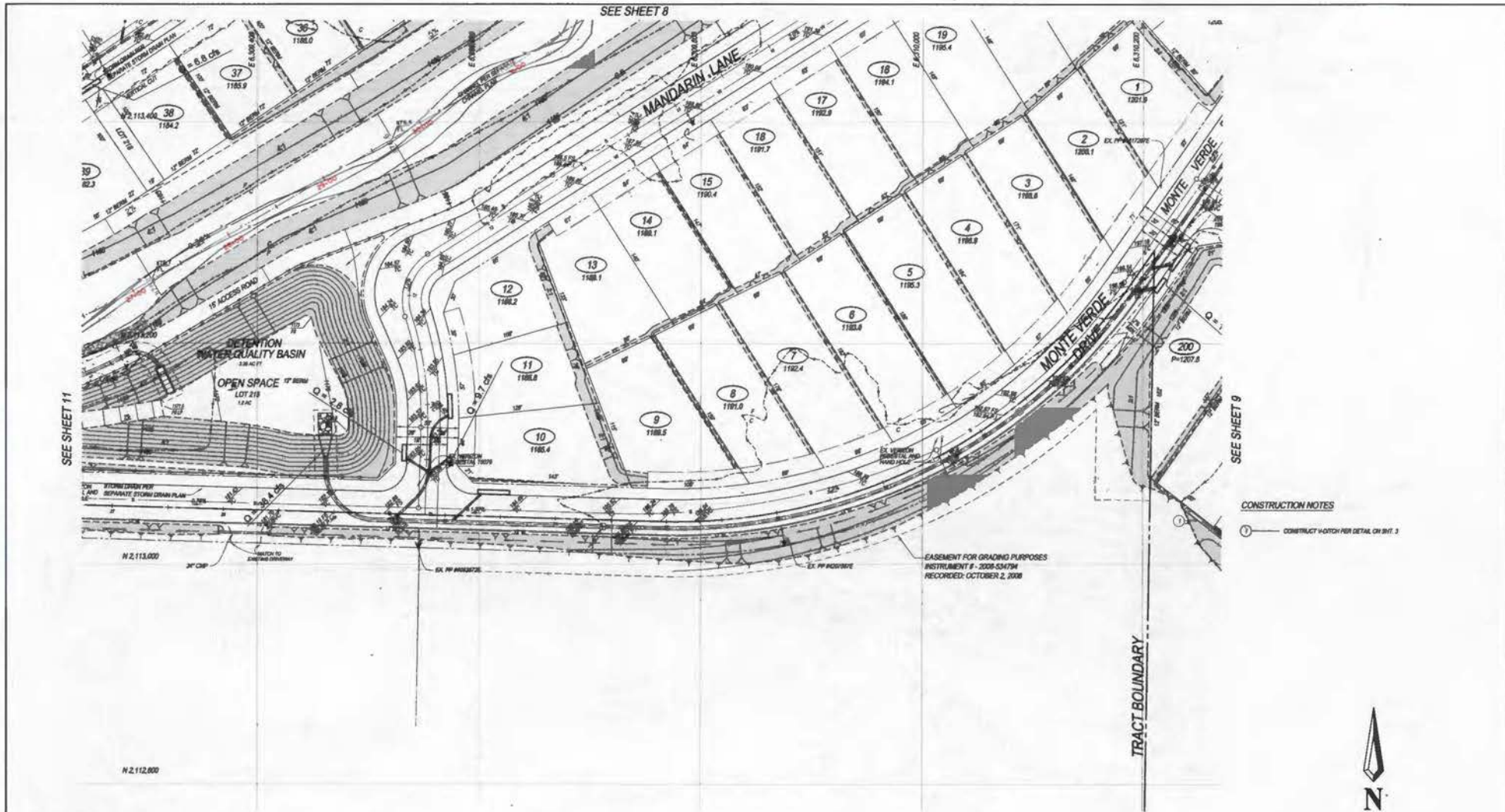
BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE

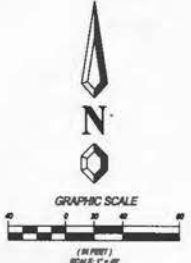
ROUGH GRADING PLAN FOR TRACT 31597

SCHEDULE A LP. NO. 070178

SHEET NO. 11 OF 14 SHEETS
 FILE NO.



CONSTRUCTION NOTES
 1. CONSTRUCT WATCH FOR DETAIL ON SHEET 3



BASIS OF BEARINGS
 THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CAMINO ROAD BEING EXTENDED AS SHOWN ON A MAP OF TRACT NO. 2007-1 FILED IN MAP BOOK 304, AT PAGES 1 THROUGH 6, INCLUDING IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK
 F.D. STANDARD U.S.G.S. BRASS DINK SET IN THE TOP OF A CONCRETE MONUMENT STAMPED 1082, 2 1/2 FEET NORTH ALONG A PAVED ROAD FROM THE MISSION SAN ANTONIO DE PALA, AT PALA, 8 1/2 MILES SOUTH OF TEMECULA, AT THE SAN DIEGO-RIVERSIDE COUNTY LINE, BY SAN DIEGO COUNTY, 1/4 SOUTH OF THE CENTERLINE OF THE ROAD, 1/2 SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHEAST, 1/2 WEST OF A FENCE LINE, 1/2 NORTH OF A WITNESS POST, ABOUT 4 1/2 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.
 DATE: 08/20/07 ELEV. = 1252.38

NOTE: ROUGH GRADING PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

NOTE: ALL WALLS ARE PER SEWERAGE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA (SDSC) AND VERDON UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNTIL THE CONSTRUCTION OR PERMANENT RELOCATION IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
PLANS & SPECIFICATIONS		
LAND DEVELOPMENT		

DESIGNED BY:
 JG
 DRAWN BY:
 JG
 CHECKED BY:
 GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTIONS	DATE	APPROV.

SEAL - ENGINEER

 GARY A. MARTIN
 No. 8078
 State of California

UNDER THE SUPERVISION OF:
 GARY A. MARTIN (P.E., 8078, EXP. 8/31/08) DATE: _____
 APPROVED: _____ DATE: _____

17 Spectrum Plaza Drive • Suite 400
 Lake Forest, CA 92530
 (949) 270-8800
 CIVIL ENGINEERS
VIORS & ASSOCIATES
 Civil Engineering, Inc.
 PLANNING ENGINEERS (P) - 828-10700

BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE

ROUGH GRADING PLAN FOR TRACT 31597

SCHEDULE A L.P. NO. 679176

SHEET NO. 12 OF 14 SHEETS

FILE NO. _____

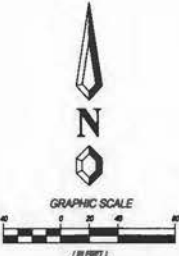


EASEMENT FOR GRADING PURPOSES
INSTRUMENT # - 2007-0008007
RECORDED: JANUARY 4, 2007

EASEMENT FOR GRADING PURPOSES
INSTRUMENT # - 2007-0008007
RECORDED: JANUARY 4, 2007

CONSTRUCTION NOTES

- 1. CONSTRUCT 1'-0" CHAIN FOR DETAIL ON SHEET 3
- 2. CONSTRUCT DOWN GRAB FOR DETAIL ON SHEET 3
- 3. CONSTRUCT TERRACE DRAIN FOR DETAIL ON SHEET 3
- 4. RETAINING WALL PER SEPARATE RETAINING WALL PLAN & PERMIT
- 5. INSTALL RIP-RAP FOR DETAIL ON SHEET 3
- 6. CONSTRUCT SPLASH WALL FOR DETAIL ON SHEET 3



BASIS OF BEARINGS

THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CHIBRAL, ROAD BEING NORTHWEST 1/4 SECTION 36, T12N, R12E, S12, AND 1/4 SECTION 36, T12N, R12E, S12, THROUGH & INCLUDING, IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCH MARK

FD, STANDARD U.S.G.S. BRASS DISK, SET IN THE TOP OF A CONCRETE MONUMENT STAMPED 1981, 8.1 MILES NORTH ALONG A PAVED ROAD FROM THE MISSION SAN ANTONIO DE PALA, AT PALA, 8.1 MILES SOUTH OF TEMECULA, AT THE SAN DIEGO-KNIPSE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE COUNTY LINE, 38.4' WEST OF THE CENTERLINE OF THE ROAD, 17.5' SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHWEST, 1.2' WEST OF A FENCE LINE, 1.7' NORTH OF A WITNESS POST, ABOUT 4 1/2 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.

NOTE: ROUGH GRADING PLAN TOP OF CLUD ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED FINISH TOP OF CLUD ELEVATIONS.

NOTE: ALL WALLS ARE PER SEPARATE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND MICHIGAN UTILITIES WILL BE PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNITS. THE CORROSION OR PERMANENT WEAR/DAMAGE IS COMPLETE, BY OTHERS.

REVIEW BY COUNTY STAFF

DIVISION	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
PLANS & RECORDS		
LAND DEVELOPMENT		

DESIGNED BY:

DATE	BY
	JG
	JG
	GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTION	DATE	APPROV.

SEAL - ENGINEER



UNDER THE SUPERVISION OF:

DATE
GARY A. MARTIN, P.E. 92918 EXP. 6-30-08

SCALE:

AS SHOWN	DATE
AS SHOWN	12/15/06

COUNTY OF RIVERSIDE

ROUGH GRADING PLAN FOR TRACT 31597

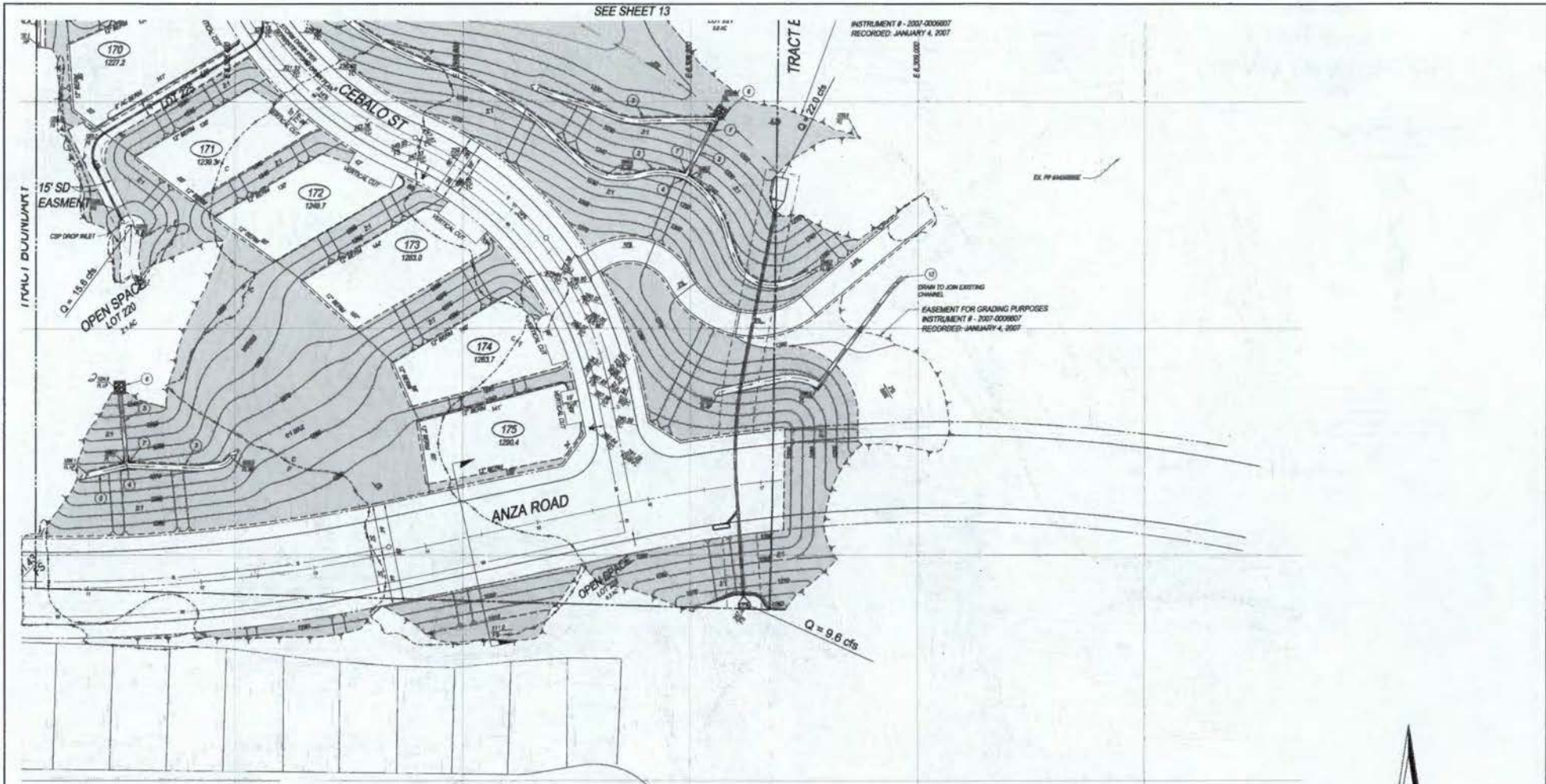
LD 07-123GR

SHEET NO.	OF	FILE NO.
13	14	

DATE: 8/28/06 ELEV. = 1380.36

By: J.C. PLOT DATE: 1/28/07

SCHEDULE A L.P. NO. 870170
P186-180-52 TRACT 31597 - FINAL ENGINEERING DESIGN - HIGH POINTS TEMECULA IV LP/06/06/06/06/06/12/06



SEE SHEET 13

INSTRUMENT # - 2007-000607
RECORDED - JANUARY 4, 2007

DESIGN TO JOIN EXISTING CHANNEL
EASEMENT FOR GRADING PURPOSES
INSTRUMENT # - 2007-000607
RECORDED - JANUARY 4, 2007

BASIS OF BEARINGS
THE BEARINGS SHOWN HEREON ARE BASED ON THE CENTERLINE OF EL CERRILLO ROAD BEING EXTENDED AS SHOWN ON A MAP OF TRACT NO. 2475, FILED IN MAP BOOK 241 AT PAGES 1 THROUGH 8, INCLUDE IN THE OFFICE OF THE COUNTY RECORDER OF RIVERSIDE COUNTY.

BENCHMARK
FED. STANDARD U.S.G.S. BRASS DISK SET IN THE TOP OF A CONCRETE MONUMENT STAMPED 1961, 5.1 METERS NORTH ALONG A PAVED ROAD FROM THE MISSION SAN ANTONIO DE PALA, AT PALA, 2.1 MILES SOUTH OF TEMECULA, AT THE SAN DIEGO RIVERSIDE COUNTY LINE, IN SAN DIEGO COUNTY, 1/4 SOUTH OF THE COUNTY LINE, 26.8 FEET WEST OF THE CENTERLINE OF THE ROAD, 17.5' SOUTH OF THE CENTERLINE OF THE ROAD, 1.7' NORTH OF A WITNESS POST, ABOUT 4.10 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 8 INCHES.
DATE: 06/28/87 ELEV: +128.36

NOTE: ROUGH GRADING PLAN TOP OF CURB ELEVATIONS ARE FOR REFERENCE ONLY. SEE STREET IMPROVEMENT PLANS FOR APPROVED PRECISE TOP OF CURB ELEVATIONS.

NOTE: ALL WELLS ARE PER SEWERAGE PERMIT.

NOTE: EXISTING SOUTHERN CALIFORNIA Edison (SCE) AND MICHIGAN UTILITIES WELLS BY PROTECTED IN PLACE THROUGHOUT CONSTRUCTION UNTIL THE COMPLETION OR PERMANENT RELOCATION IS COMPLETE, BY OTHERS.

CONSTRUCTION NOTES

- 1. CONSTRUCT V-DITCH PER DETAIL ON SHEET 3
- 2. CONSTRUCT DOWN DRAIN PER DETAIL ON SHEET 3
- 3. CONSTRUCT TERRACE DRAIN & DOWN DRAIN INTERSECTION PER DETAIL SHEET 3
- 4. INSTALL REPAIR PER DETAIL ON SHEET 3
- 5. CONSTRUCT SPLASH WALL PER DETAIL ON SHEET 3
- 6. JOIN EXISTING DOWN DRAIN PER DETAIL ON SHEET 2



REVIEW BY COUNTY STAFF

OFFICE	INITIALS	DATE
COMMUNITY SERVICES DEPT.		
CAPITAL PROJECTS		
TRANSPORTATION DIVISION		
PLANS & INSPECTION		
LAND DEVELOPMENT		

DESIGNED BY:

JG
DRAWN BY:
JG
CHECKED BY:
GAM

REVISIONS

NO.	DATE	INITIALS	DESCRIPTION	DATE	APPROV.

SEAL - ENGINEER



UNDER THE SUPERVISION OF:

GARY A. SMITH R.C.E. 8818 EGP #3048
APPROVED: _____
DATE: _____

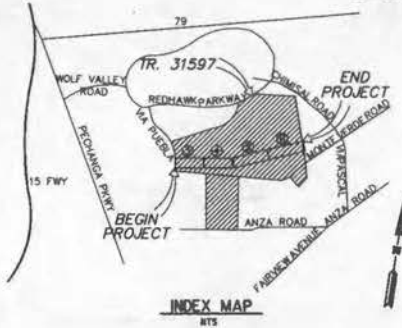
17 Riverside Plaza Drive • Suite 409
Lake Forest, CA 92550
(949) 260-2676
FAX: 949-260-8899
MAYES & ASSOCIATES
Civil Engineering, Inc.
PLANS#01 - 04/001585(10) - ESD(17)10

BGR 070552 LD 07-123GR

COUNTY OF RIVERSIDE
ROUGH GRADING PLAN
FOR
TRACT 31597
SCHEDULE A
L.P. NO. 879178

SHEET NO. 14 OF 14 SHEETS
FILE NO.

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT



INDEX

TITLE SHEET	SHEET NO.
DETAILS	1
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CHANNEL CROSS-SECTIONS	7-8
7'X0" CULVERT STRUCTURAL	9-12

R.C.F.C. & W.C.D. STANDARD DRAWINGS

OH 326	OUT-OFF WALL
M 801	HEADWALL FENCE
M 801	CHANNEL FENCE

CALTRANS STANDARD DRAWINGS

0800	7'00" x 10'00" R.C. BOX
084	PIPE CULVERT-HEADWALLS, ENDWALLS & WARPPED BROWWALLS

LEGEND OF ABBREVIATIONS & SYMBOLS

BSL	BANKLINE SETBACK LINE	AREA DRAIN	AREA DRAIN	NOT TO SCALE	SHEET FLOW RATE
BVC	BEGIN VERTICAL CURVE	CATCH BASIN & LOCAL EGRESSOR	CATCH BASIN & LOCAL EGRESSOR	PA	PAID ELEVATION
BSW	BLOCK WALL FENCE	CENTERLINE	CENTERLINE	P1	POINT OF INTERSECTION
DF	DEEPENED FOOTING	DAYLIGHT LINE	DAYLIGHT LINE	PUK	PUBLIC UTILITY EASEMENT
DRY	DRIVEWAY	SEARCH FOOTING	SEARCH FOOTING	RS	ROUGH GRADE
EP	EDGE OF PAVEMENT	EXISTING CONTOUR	EXISTING CONTOUR	TRM	TEMPORARY BENCH MARK
ENC	END VERTICAL CURVE	FIRE HYDRANT	FIRE HYDRANT	TC	TOP OF CURB
FF	FRESH FLOOR ELEV.	FLOWLINE	FLOWLINE	TF	TOP OF FOOTING ELEV.
FB	FRESH GRADE	SHARED EAVES	SHARED EAVES	TS	TOP OF GRATE
FL	FLOWLINE ELEV.	PROPERTY LINE/LOT LINE	PROPERTY LINE/LOT LINE	TP	TOP OF PAVEMENT
FS	FRESH SURFACE	PROPOSED CONTOUR	PROPOSED CONTOUR	TW	TOP OF WALL ELEV.
IB	GRADE BREAK	RETAINING WALL	RETAINING WALL	XXXX	FUTURE ELEVATION
IBF	GRADE FINISH FLOOR	ROOF OF WAY	ROOF OF WAY		
HP	HIGH POINT	ROCK OUTFCROPPING TO BE REMOVED	ROCK OUTFCROPPING TO BE REMOVED		
INV	INVERT OF DRAIN				
L	LENGTH				

NOTICE TO CONTRACTOR:

CONTRACTOR AGREES HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, THE ENGINEER, AND THE R.C.F.C. & W.C.D. AND R.C.T.D. HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM SOLE NEGLIGENCE OF OWNER, ENGINEER, OR R.C.F.C. & W.C.D. AND R.C.T.D.

EXISTING UNDERGROUND UTILITIES ARE AS PER AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION AND ELEVATION IN THE FIELD.

GENERAL NOTES

- THE CONTRACTOR SHALL CONSTRUCT THE FLOOD CONTROL IMPROVEMENTS SHOWN ON THE DRAWINGS IN CONFORMANCE WITH THE REQUIREMENTS OF THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT'S MEMORANDUM OF UNDERSTANDING STANDARD SPECIFICATIONS DATED SEPTEMBER 1994, AND DESIGN MANUAL STANDARD DRAWINGS DATED APRIL 2004.
- IF AN ENCROACHMENT PERMIT IS REQUIRED FROM RIVERSIDE COUNTY FLOOD CONTROL, THEN CONTACT ED LOTZ AT 90-900-2056. AFTER THE PERMIT IS ISSUED THE DISTRICT MUST BE NOTIFIED ONE WEEK PRIOR TO CONSTRUCTION.
- CONSTRUCTION INSPECTION WILL BE PERFORMED BY RIVERSIDE COUNTY FLOOD CONTROL. CONTACT KEVIN ALLER AT 90-900-2008. THE DISTRICT MUST BE NOTIFIED TWENTY (20) DAYS PRIOR TO CONSTRUCTION.
- ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION UNLESS OTHERWISE NOTED.
- STATIONING FOR LATERALS AND CONNECTOR PIPE REFER TO THE CENTERLINE-CENTERLINE INTERSECTION STATION.
- FORTY-EIGHT (48) HOURS BEFORE EXCAVATION, CALL UNDERGROUND SERVICE ALERT 1-800-227-2600.
- ALL ELEVATIONS SHOWN ARE IN FEET AND DECIMALS THEREOF BASED ON U.S.C. & G.S. DATUM.
- ALL CROSS SECTIONS ARE TAKEN LOOKING DOWNSTREAM.
- ELEVATIONS OF UTILITIES ARE APPROXIMATE UNLESS OTHERWISE NOTED.
- OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CULVERTS, PIPES OR SIMILAR STRUCTURES TO BE ABANDONED SHALL BE SEALED WITH 4" CLASS "F" CONCRETE.
- PIPE CONNECTED TO THE MAINLINE PIPE SHALL CONFORM TO JUNCTION STRUCTURE NO. 4 1/2 220 UNLESS OTHERWISE NOTED.
- PIPE BEDDING SHALL CONFORM TO R.C.F.C. & W.C.D. STD. DOWNS. NO MISLS EXCEPT FOR COVER 2 FEET. FOR COVER 2 FEET, CONCRETE SLURRY (2000 psi - 2 SACK) SHALL BE USED. THE ENTIRE TRENCH SHALL BE SLURRY EXTENDING 4 INCHES MINIMUM AND 12 INCHES MAXIMUM ABOVE THE TOP OF THE PIPE.
- BA-2 INDICATES SOIL BORING LOCATIONS BASED ON THE SOILS REPORT DATED 8/28/2008. LOCATIONS SHOWN ARE APPROXIMATE.
- "H" IS THE DEPTH OF CATCH BASINS MEASURED FROM THE GUTTER FLOWLINE TO INVERT OF CONNECTOR PIPE.
- CATCH BASINS SHALL BE LOCATED SO THAT LOCAL DEPRESSION SHALL BEGIN AT EXISTING CURB RETURN JOINT, UNLESS OTHERWISE SPECIFIED.
- ALL CURBS, GUTTERS, SIDEWALKS, DRIVEWAYS AND OTHER EXISTING IMPROVEMENTS TO BE RECONSTRUCTED IN KIND AND AT THE SAME ELEVATION AND LOCATION AS THE EXISTING IMPROVEMENTS UNLESS OTHERWISE NOTED.
- STANDARD DRAWINGS CALLED FOR ON THE PLAN AND PROFILE SHALL CONFORM TO DISTRICT STANDARD DRAWINGS UNLESS NOTED OTHERWISE.
- THE CONTRACTOR IS REQUIRED TO CALL ALL UTILITY AGENCIES REGARDING TEMPORARY SHORINGS AND SUPPORT REQUIREMENTS FOR THE VARIOUS UTILITY LINES SHOWN ON THESE PLANS.
- DURING ROUGH GRADING OPERATIONS AND PRIOR TO CONSTRUCTION OF PERMANENT DRAINAGE STRUCTURES, TEMPORARY DRAINAGE CONTROL SHOULD BE PROVIDED TO PREVENT PONDING WATER AND DAMAGE TO ADJACENT PROPERTIES.
- APPROVAL OF THESE PLANS BY THE RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT DOES NOT BELIEVE THE DEVELOPER'S ENGINEER OF RESPONSIBILITY FOR THE ENGINEERING DESIGN. IF FIELD CHANGES ARE REQUIRED, IT WILL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO MAKE THE NECESSARY CORRECTIONS.
- THE CONTRACTOR OR DEVELOPER SHALL SECURE ALL REQUIRED ENCROACHMENT AND/OR STATE AND FEDERAL REGULATORY PERMITS PRIOR TO THE COMMENCEMENT OF ANY WORK.
- CHANNEL LENGTHS ARE HORIZONTAL PROJECTIONS (NOT TRUE LENGTHS OF CHANNEL) AND ARE THE BASIS OF THE ESTIMATES OF QUANTITIES. THE CONTRACTOR SHALL DETERMINE THE TRUE QUANTITY OF CHANNEL REQUIRED FOR THIS PROJECT PRIOR TO CONSTRUCTION.
- THE CONCRETE COVER ON THE INSIDE OF ALL REINFORCED CONCRETE PIPES MUST BE INCREASED TO PROVIDE A MINIMUM OF 1 1/2" OVER THE REINFORCING WHEN THE DESIGN VELOCITIES EXCEED 20 FEET PER SECOND. THE CONCRETE DESIGN STRENGTH IN THESE REACHES SHALL BE FC=5000 PSI FOR VELOCITIES EXCEEDING 20 FEET PER SECOND AND FC=6000 PSI FOR VELOCITIES EXCEEDING 30 FEET PER SECOND.



19 American Palms Drive • Suite 200
Lake Forest, CA 92550
(949) 290-0870
(949) 290-0880 Fax
MURPHY & ASSOCIATES
Civil Engineering, Inc.
PLANNING • ENGINEERING • SURVEYING



COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
ALAN FRENCH P.E. 49192 DATE: 8/07/2002

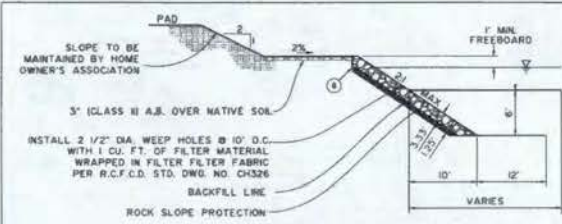
BENCH MARK
TRANSFORMER CLASS BRASS SIGN SET IN THE TOP OF A CONCRETE MONUMENT STAMPED AND 3/4" DIA. WITH ALUMINUM PAPER WRAP FROM THE WINDING BOX BEHIND 26 PALM ST. PALM ST. 1/2 MILE SOUTH OF TEMECULA, AT THE SAN JUAN RIVER/ROCKWELL QUINCY LANE IN SAN JUAN COUNTY, 1/4 MILE SOUTH OF THE QUINCY LANE BRIDGE WEST OF THE CENTERLINE OF THE ROAD, ONE SOUTH OF THE CENTERLINE OF A TRACT ROAD LEADING NORTHWEST 1/4 WEST OF A POLE LINE, 1/4 NORTH OF A METERS POLE, ABOUT 4 1/2 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTIONS UP ABOUT 4 INCHES.
DATE: 9/26/2001 DATE: 8/07/2002

NO.	DESCRIPTION	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: _____ APPROVED BY: _____
DATE: _____ DATE: _____

PROJECT NO. X-X-XXXX
DRAWING NO. X-XXX
SHEET NO. 1 of 12
TRACT 31597
TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
CHANNEL IMPROVEMENTS
TITLE SHEET

JOB No. 08-092-02 Bln No. XXXX Doc No. XXXX CHANNEL AND STORM DRAIN IMPROVEMENTS



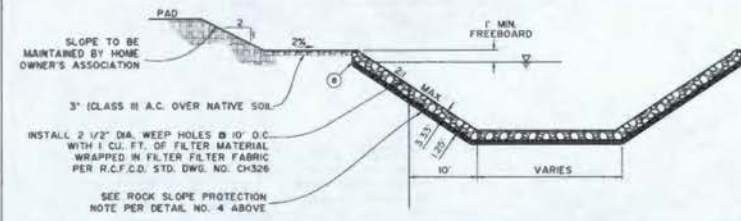
4 CHANNEL SLOPE PROTECTION

ROCK SLOPE PROTECTION
 CONSTRUCT 3.33' THICK 1/4-TON UNGROUTED RIP-RAP METHOD B PLACEMENT OVER 125' THICK NO. 2 BACKING METHOD B PLACEMENT PER CALTRANS SPECIFICATIONS SECTION NO. 72 OVER CLASS B RSP FABRIC PER CALTRANS SPECIFICATION SECTION 06-102

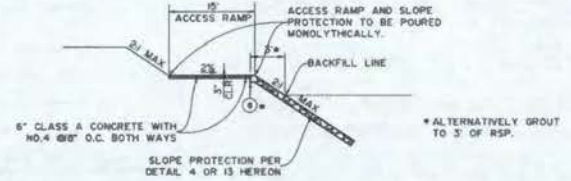
ESTIMATE OF QUANTITIES

NO.	STORM DRAIN CONSTRUCTION NOTES	QTY.	UNITS
1	CONSTRUCT DOUBLE 7.00'H X 10.00'W R.C. BOX PER CALTRANS STD. PLAN DB8		L.F.
2	CONSTRUCT BOX CULVERT BOLLARDS - TYPE "A" PER CALTRANS STD. PLAN DB4		EA.
3	CONSTRUCT REMOVABLE BOLLARDS PER R.C.F.C. & W.C.D. STDS.		EA.
4	CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 4 ON SHEET 2		C.Y.
5	CONSTRUCT 3" CLASS II A.C. OVER NATIVE SOIL		C.Y.
6	CONSTRUCT CUT-OFF WALL PER R.C.F.C.D. STD. DWG. NO. CH326		EA.
7	CONSTRUCT RIP-RAP PER DETAIL 7 ON SHEET 2		C.Y.
8	CONSTRUCT MAINTENANCE ACCESS RAMP PER ACCESS RAMP SECTION DETAIL ON SHEET 2		C.Y.
9	REMOVE EXISTING 36" CMP		L.F.
10	CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M801		L.F.
11	CONSTRUCT HEADWALL FENCE ASSEMBLY PER R.C.F.C. & W.C.D. STD. DWG. NO. M901		L.F.
12	CONSTRUCT RIP-RAP PER DETAIL 12 ON SHEET 2		C.Y.
13	CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 13 ON SHEET 2		C.Y.

MAINTAINED BY R.C.F.C. & W.C.D.

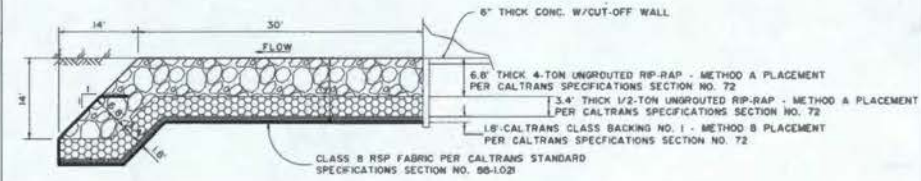


13 CHANNEL SLOPE PROTECTION (STA. 24+04 TO 25+50)

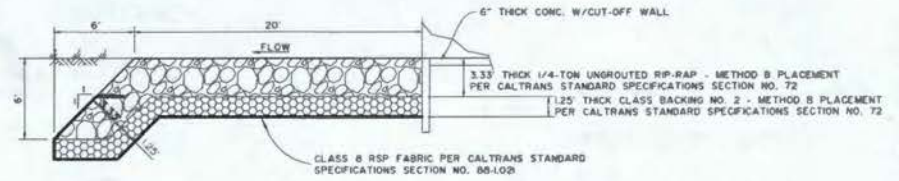


8 ACCESS RAMP SECTION DETAIL

* ALTERNATIVELY GROUT TO 3' OF RSP.



7 RIP-RAP DETAIL



12 RIP-RAP DETAIL



COUNTY OF RIVERSIDE
 TRANSPORTATION DEPARTMENT
 APPROVED BY:
 ALAN FRENCH P.E. 42912 DATE: 10/23/02
 RECOMMENDED DATE: 10/23/02

BENCH MARK
 TO STANDARD U.S.A. BEARS ONLY SET IN THE TOP OF A CONCRETE MOUNTAIN STAMPED 1000. 31 INCH NORTH ALONG A PAVED ROAD FROM THE NORTH END INTERSECTION OF PALM AT PALM, 67 INCHES SOUTH OF TEMECULA, AT THE NEW INCORPORATING COUNTY LINE, IN SAN DIEGO COUNTY, IN SOUTH OF THE COUNTY LINE AND EAST WEST OF THE CENTERLINE OF THE ROAD. TO BE SOUTH OF THE CENTERLINE OF A TRACT BEING A METERS POST, ABOUT 4 FT. FEET NORTH FROM THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING OF ABOUT 6 INCHES.

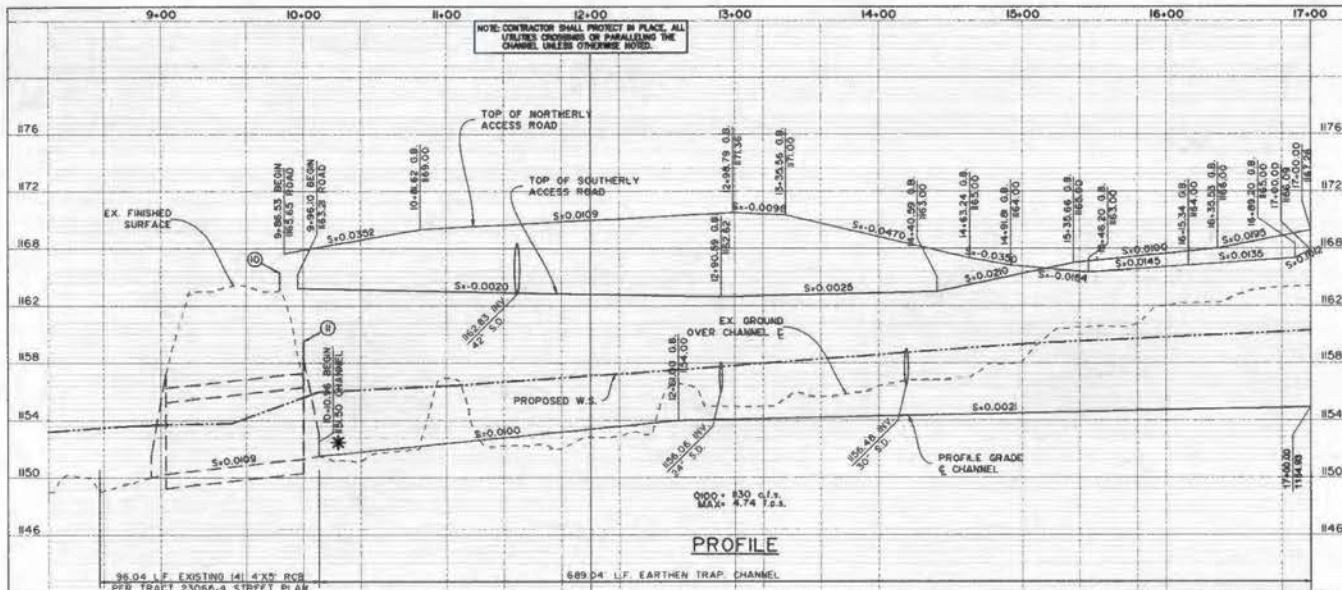
NO.	REVISIONS	DATE

RIVERSIDE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT
 RECOMMENDED FOR APPROVAL BY: _____ DATE: _____
 APPROVED BY: _____ DATE: _____

TRACT 31597
 TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
 CHANNEL IMPROVEMENTS
 QUANTITIES AND DETAILS

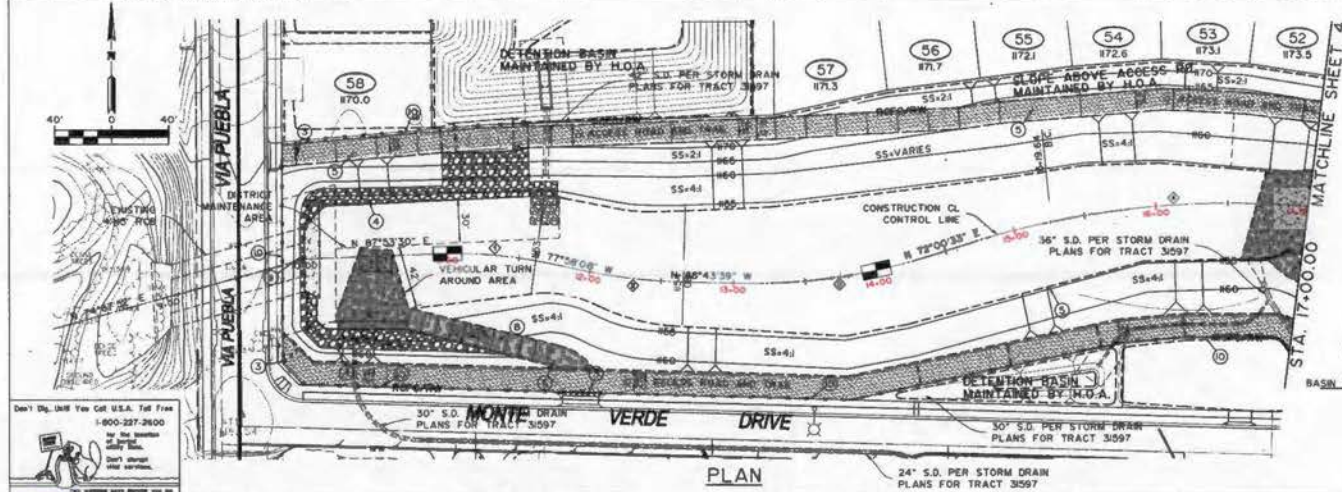
PROJECT NO. X-X-XXXXX
 DRAWING NO. X-XXX
 SHEET NO. 2 OF 12

JOB No. 06-0192-02 Bin No. XXXX Des No. XXXX CHANNEL AND STORM DRAIN IMPROVEMENTS



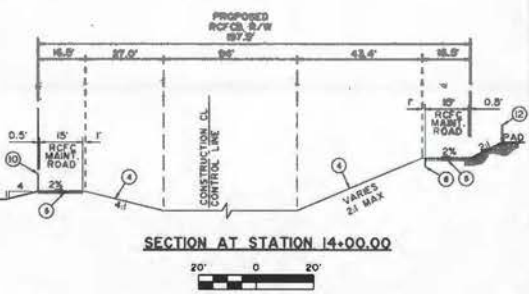
- CONSTRUCTION NOTES**
- ① CONSTRUCT REMOVABLE BOLLARDS PER R.C.F.C. & W.C.D. STDS.
 - ② CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 4 ON SHEET 2
 - ③ CONSTRUCT 3' CLASS B A.B. OVER NATIVE SOL.
 - ④ CONSTRUCT OUT-OFF WALL PER R.C.F.C.D. STD. DWG. NO. CH326
 - ⑤ CONSTRUCT MAINTENANCE ACCESS RAMP PER ACCESS RAMP SECTION DETAIL ON SHEET 2
 - ⑥ CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M601
 - ⑦ CONSTRUCT HEADWALL FENCE ASSEMBLY PER R.C.F.C. & W.C.D. STD. DWG. NO. M601

* CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION PRIOR TO START OF ANY CONSTRUCTION.



CHANNEL C.L. DATA TABLE

BEARING/DIRECTION	RADIUS	LENGTH	TANGENT
14°02'21"	300.00	74.58	37.31
52°49'31"	400.00	78.11	37.87
10°18'47"	400.00	134.49	67.39
32°49'32"	600.00	300.91	153.84



1987 L. SMITH
 1988 J.G.
 1990 J.G.
 1991 J.G.
 1992 J.G.
 1993 J.G.
 1994 J.G.
 1995 J.G.
 1996 J.G.
 1997 J.G.
 1998 J.G.
 1999 J.G.
 2000 J.G.
 2001 J.G.
 2002 J.G.

COUNTY OF RIVERSIDE
 TRANSPORTATION DEPARTMENT
 APPROVED BY: _____
 ALAN FRENCH P.E. 48708 DATE: _____
 RECOMMENDED DATE: _____

BENCH MARK
 FS STANDING U.S.A. BRASS BOLT SET IN THE TOP OF A CONCRETE MONUMENT STAMPED AND SIGNED NORTH ALONG A PAVED ROAD FROM THE MIDDLE SIGN AUTUMN OF P.A.C.A. AT P.A.C.A. TO BEECH SOUTH OF TEMECULA AT THE CORNER OF THE COUNTY LINE AND WEST OF THE CENTERLINE OF THE ROAD. THE BENCH MARK IS IN THE CORNER OF A TRACT ROAD ON THE LEAST WESTWESTLY LY WEST OF A FENCE LINE LY NORTH OF A WYETHS POINT, ABOUT 4.1/2 FEET HIGHER THAN THE ROAD AND SET IN THE TOP OF A CONCRETE POST PROJECTING UP ABOUT 4 FEET.

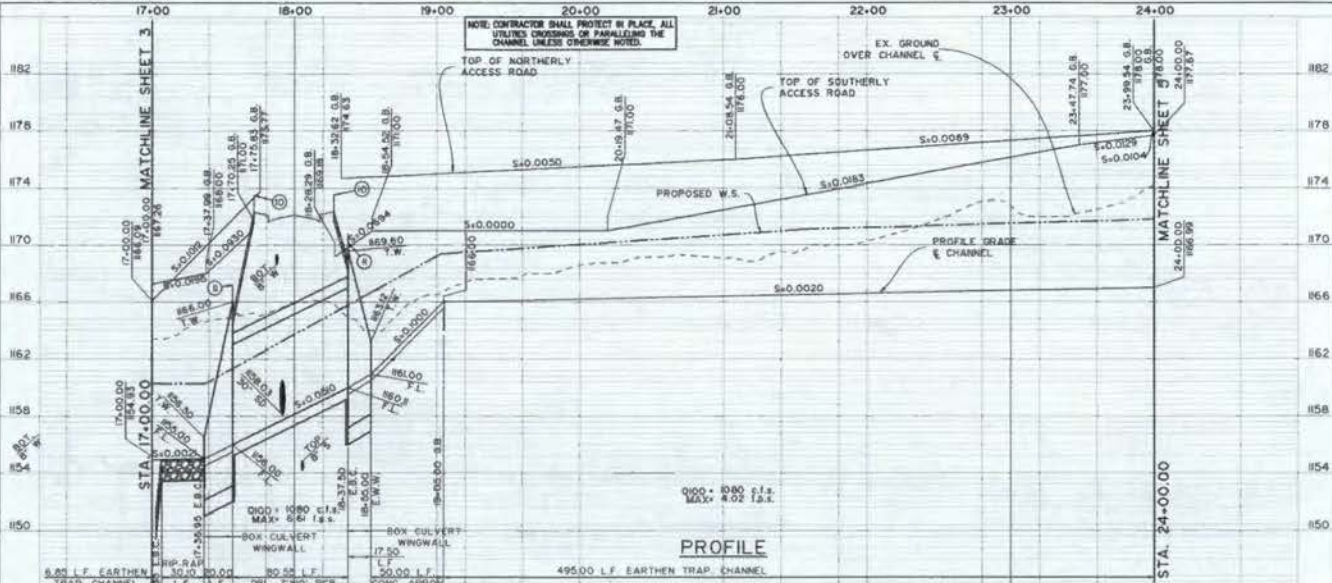
REVISIONS

NO.	DESCRIPTION	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT
 RECOMMENDED FOR APPROVAL BY: _____
 APPROVED BY: _____

TRACT 31597
 TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
CHANNEL IMPROVEMENTS
 PLAN AND PROFILE
 STA. 10+00.00 TO STA. 17+00.00
 3 of 12

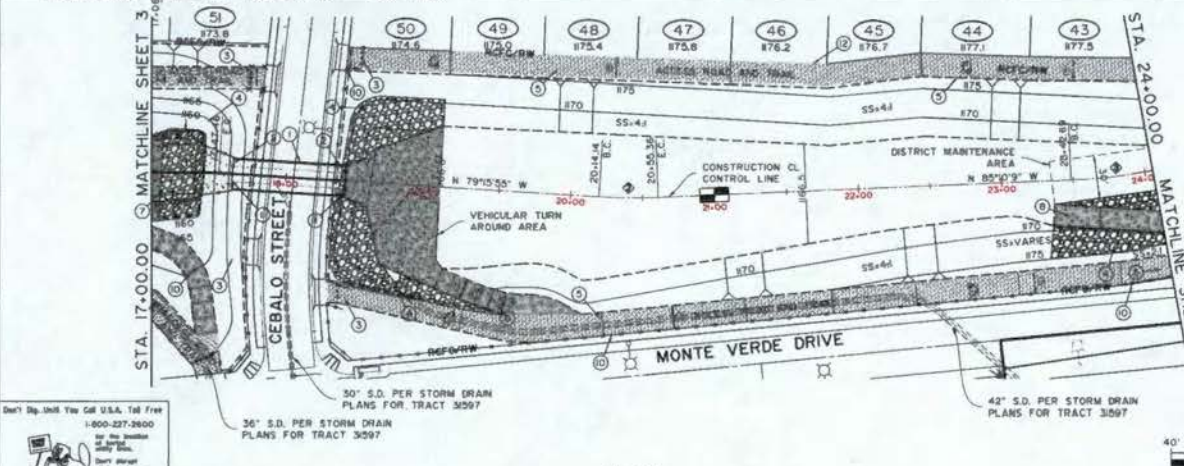
JOB NO. 08-0982-02 Bm No. XXXX Doc No. XXXX CHANNEL AND STORM DRAIN IMPROVEMENTS



- ### CONSTRUCTION NOTES
- ① CONSTRUCT DOUBLE 7.00'H x 10.00'W R.C. BOX PER CAL-TRANS STD. PLAN D08
 - ② CONST. TYPE 'A' BOX CULVERT WINGWALLS PER CAL-TRANS STD. PLAN D04
 - ③ CONSTRUCT REMOVABLE BOLLARDS PER R.C.F.C. & W.C.D. STDS.
 - ④ CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 4 ON SHEET 2
 - ⑤ CONSTRUCT 3' CLASS B A.B. OVER NATIVE SOIL
 - ⑥ CONST. RIP-RAP PER DETAIL 7 ON SHEET 2
 - ⑦ CONSTRUCT MAINTENANCE ACCESS RAMP PER SECTION DETAIL ON SHEET 2
 - ⑧ CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M801
 - ⑨ CONSTRUCT HEADWALL FENCE ASSEMBLY PER R.C.F.C. & W.C.D. STD. DWG. NO. M801
 - ⑩ RESIDENTIAL PROJECT WALL BY SEPERATE PERMIT

CHANNEL C.L. DATA TABLE

BEARING/Delta	RADIUS	LENGTH	TANGENT
2°23'58"	800.00	47.48	23.74
0°54'14"	400.00	41.22	20.83
0°12'33"	400.00	87.31	28.70



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Lodi, CA 95240
(925) 338-0870
(925) 338-0888 Fax

DAVE A. SMITH
E.C.C. SMITH
DATE: 10/24/2012
PROJECT: 102342012

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT

APPROVED BY: _____

DATE: _____

RECOMMENDED BY: _____

DATE: _____

BENCH MARK
75 STANDARD U.S. LEAS BENCH MARK SET IN THE TOP OF A CONCRETE MOUNTED STAMPED IRON 31 INCHES NORTH ALONG A PAVED ROAD FROM THE WESTERN END INTERSECTION OF PALM AT PALM AT 10821 SOUTH OF TEMECULA AT THE SAN BERNARDINO COUNTY LINE IN SAN BERNARD COUNTY, N. 84°00'00" W. 117.00' TO THE CENTERLINE OF THE ROAD, 0.25 SOUTH OF THE CENTERLINE OF A TRACT BOUND BY THE LEASING INSTRUMENT, 0.25 WEST OF A FENCE LINE, 1.75 NORTH OF A METERS POINT ABOUT 4 1/2 FEET NORTH FROM THE ROAD AND SET IN THE TOP OF A CONCRETE FOOT PROJECTION UP ABOUT 4 INCHES.

DATE: _____

BY: _____

REVISIONS

NO.	DESCRIPTION	DATE

DATE: _____

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

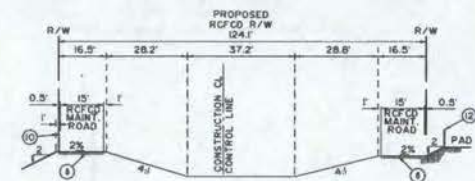
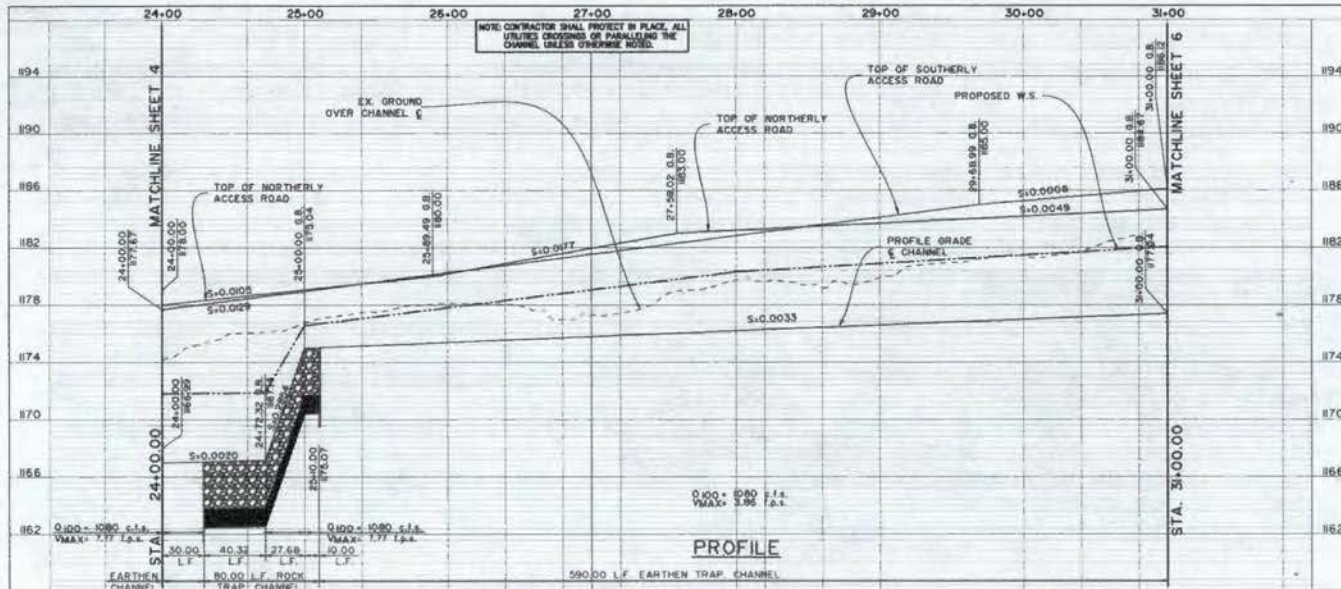
RECOMMENDED FOR APPROVAL BY: _____

APPROVED BY: _____

DATE: _____

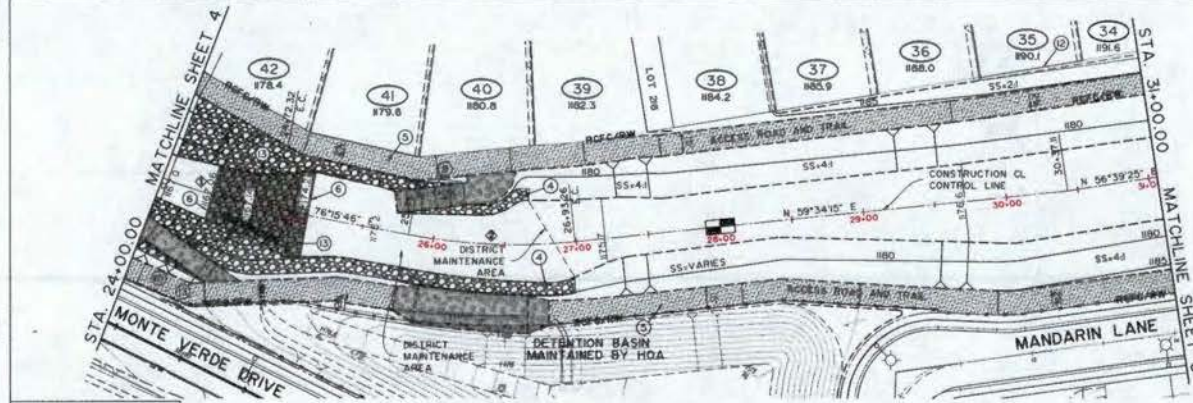
PROJECT NO. X-X-XXXX
DRAWING NO. X-XXX
SHEET NO. 4 OF 12

TRACT 31597
TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
CHANNEL IMPROVEMENTS
PLAN AND PROFILE
STA.17+00.00 TO STA.24+00.00



CHANNEL C.L. DATA TABLE

BEARING/DELTA	RADIUS	LENGTH	TANGENT
10°21'32"	400.00	72.32	36.26
18°41'31"	400.00	118.53	68.66



CONSTRUCTION NOTES

- ④ CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 4 ON SHEET 2
- ⑤ CONSTRUCT 3" CLASS # A.B. OVER NATIVE SOIL
- ⑥ CONSTRUCT CUT-OFF WALL PER R.C.F.C.D. STD. DWG. NO. CH326
- ⑦ CONSTRUCT MAINTENANCE ACCESS RAMP PER SECTION DETAIL ON SHEET 2
- ⑧ CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M80H
- ⑨ CONSTRUCT HEADWALL FENCE ASSEMBLY PER R.C.F.C. & W.C.D. STD. DWG. NO. M80H
- ⑩ CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 13 ON SHEET 2

Dist. Eng. Unit Yes Call U.S.A. Toll Free
1-800-227-2600
for the location
of the station
shown on this
drawing and
for further
information.

19 Newman Pointe Drive • Suite 800
Lake Forest, CA 92650
(949) 259-0271
(949) 259-0880 Fax
MAYERS & ASSOCIATES
Civil Engineering, Inc.
PLANNING • ENGINEERING • SURVEYING



COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
ALAN FRENCH P.E. 49789
DATE: 10/24/2012

BENCH MARK
PL. 1748891 (4.55 FEET) BEARS 1000 FEET IN THE TOP OF A
CONCRETE CURBWAY STAMPED 1988. 5.1 MILES SOUTH ALONG A
POWER LINE FROM THE POWER SUB STATION 26 PALM ST.
PALM ST. 5.1 MILES SOUTH OF TEMECULA, AT THE 500
FOOT-DEGREE CORNER LINE IN SAN DIEGO COUNTY IN SOUTH OF
THE COUNTY LINE AND 20.5 WEST OF THE CENTERLINE OF THE
ROAD, OR SOUTH OF THE CENTERLINE OF A TRACT ROAD
LEADING NORTHEAST 1/4 WEST OF A FENCE LINE 17' NORTH OF A
WATER POND, ABOUT 4 1/2 FEET HIGHER THAN THE ROAD AND
SET IN THE TOP OF A CONCRETE POST PROTECTION UP ABOUT 4
FEET.

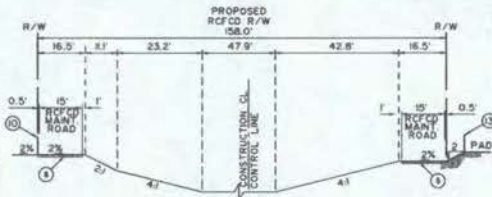
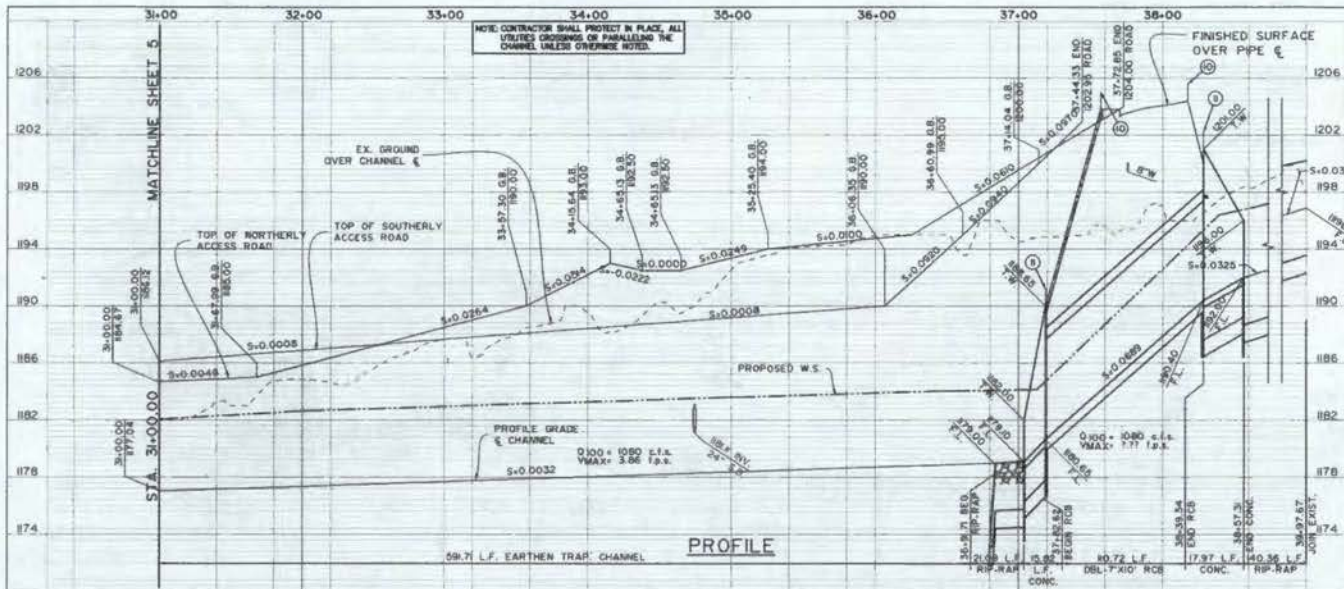
NO.	REVISION	DATE

RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: _____
APPROVED BY: _____
DATE: _____

TRACT 31597
TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
CHANNEL IMPROVEMENTS
PLAN AND PROFILE
STA.24+00.00 TO STA.31+00.00

PROJECT NO.
X-X-XXXXX
DRAWING NO.
X-XXX
SHEET NO.
5 of 12

Dist. A. 10/24/12 P.L.C. 10/24/12 DATE: 10/24/2012
Dist. 10/24/12 P.L.C. 10/24/12 DATE: 10/24/2012

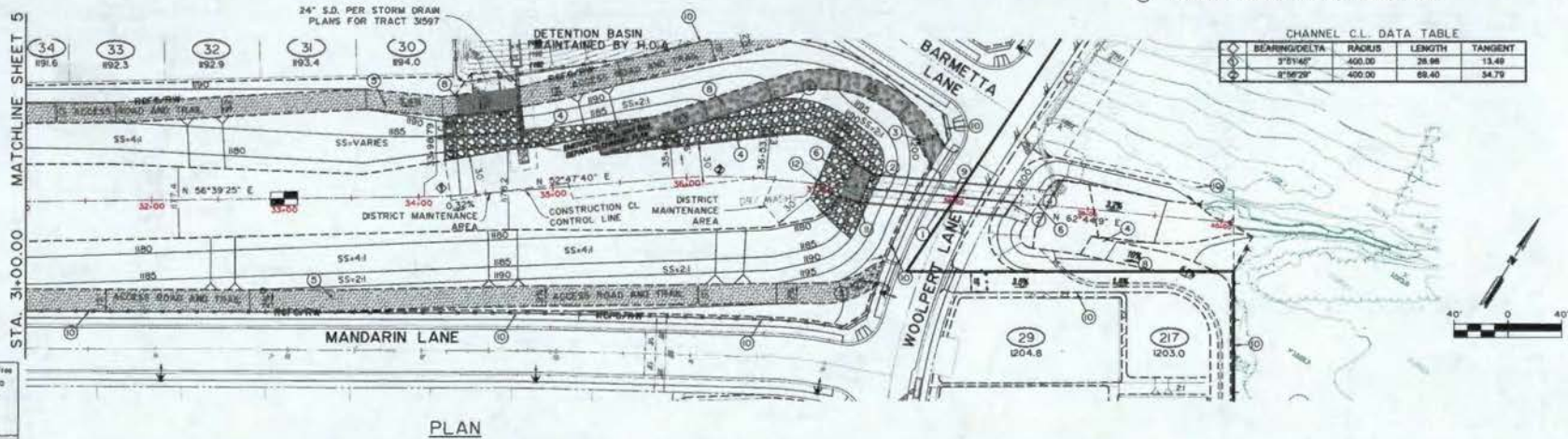


CONSTRUCTION NOTES

- ① CONSTRUCT DOUBLE 7.00' x 10.00' R.C. BOX PER CAL-TRANS STD. PLAN D8
- ② CONST. BOX CULVERT WINDWALLS - TYPE 'A' PER CAL-TRANS STD. PLAN D84
- ③ CONSTRUCT REMOVABLE BOLLARDS PER R.C.F.C.D. S.W.C.D. STD.
- ④ CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 4 ON SHEET 2
- ⑤ CONSTRUCT 3' CLASS # 4 B. OVER NATIVE SOIL
- ⑥ CONSTRUCT CUT-OFF WALL PER R.C.F.C.D. STD. DWG. NO. CH326
- ⑦ CONSTRUCT MAINTENANCE ACCESS RAMP PER SECTION DETAIL ON SHEET 2
- ⑧ REMOVE EXISTING 36" CMP
- ⑨ CONSTRUCT CHAIN LINK FENCE PER R.C.F.C.D. S.W.C.D. STD. DWG. NO. M801
- ⑩ CONSTRUCT HEADWALL FENCE ASSEMBLY PER R.C.F.C.D. S.W.C.D. STD. DWG. NO. M801
- ⑪ CONST. RIP-RAP PER DETAIL 12 ON SHEET 2
- ⑫ RESIDENTIAL PROJECT WALL BY SEPERATE PERMIT

CHANNEL C.L. DATA TABLE

BEARING/Delta	RADIUS	LENGTH	TANGENT
3°14'48"	400.00	28.98	13.48
2°52'20"	400.00	68.40	54.79



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Don't attempt deep excavations.

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MAYERS & ASSOCIATES
Civil Engineering, Inc.
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COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT

APPROVED BY: _____

DATE: _____

RECOMMENDED BY: _____

DATE: _____

BENCH MARK: 1/4" STAMPEL U.S.A. BEARS 100' SET IN THE TOP OF A CONCRETE MONUMENT STAMPED 1001, 1/2" HOLE NORTH ALONG A PAVED ROAD FROM THE WESTERN END INTERSECT OF PALM AVE. PALM AVE 1/2" HOLE SOUTH OF TEMECULA AT THE SAN BEHAVEN COUNTY LINE IN SAN BEHAVEN COUNTY, 1/4" SOUTH OF THE COUNTY LINE 100' WEST OF THE CENTERLINE OF THE TRUNK OF 2' GRADE OF THE CENTERLINE OF A TRACT ROAD. LEASING INSTRUMENT OF DEED OF 1988 LINE, 1/2" NORTH OF A METERS POINT ABOUT 4 1/2 FEET NORTH FROM THE ROAD AND SET IN THE TOP OF A CONCRETE 'T' POST PROJECTED OF ABOUT 8 INCHES.

NO.	DESCRIPTION	DATE	APPR.	DATE

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

RECOMMENDED FOR APPROVAL BY: _____

APPROVED BY: _____

DATE: _____

DATE: _____

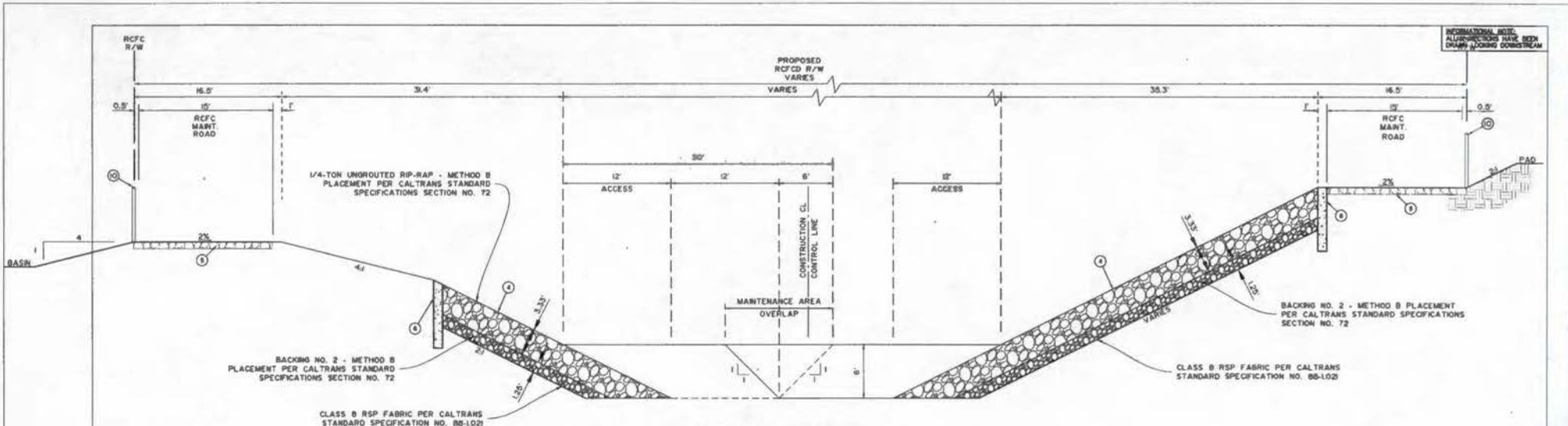
TRACT 31597
TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
CHANNEL IMPROVEMENTS
PLAN AND PROFILE
STA. 31+00.00 TO STA. 38+56.49

PROJECT NO. X-X-XXXXX
DRAWING NO. X-XXX
SHEET NO. 6 OF 12

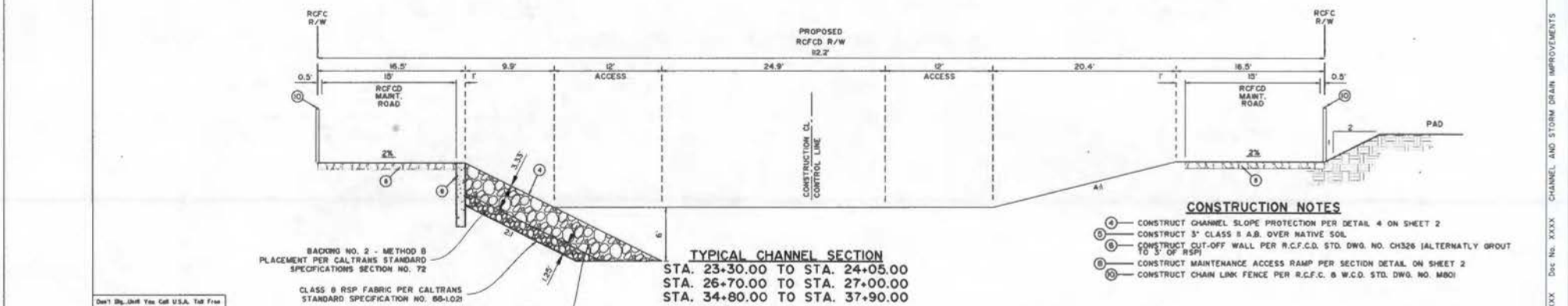
Proj. Number: 10/11/2012:01:01m DATE: 10/11/2012

P:106-092-02 TRACT 31597 - FINAL ENGINEERING DESIGN - HIGHPOINT TEMECULA IV LP/IMPROVEMENTS/STORM DRAIN/R/C.F.C.D. CHANNEL PLAN/SHT-06-DWG

JOB No. 06-092-02 Bin No. XXXX Desc No. XXXX CHANNEL AND STORM DRAIN IMPROVEMENTS



TYPICAL CHANNEL SECTION
 STA. 10+00.00 TO STA. 11+60.00
 STA. 24+05.00 TO STA. 24+30.00
 STA. 25+10.00 TO STA. 26+70.00



TYPICAL CHANNEL SECTION
 STA. 23+30.00 TO STA. 24+05.00
 STA. 26+70.00 TO STA. 27+00.00
 STA. 34+80.00 TO STA. 37+90.00

- CONSTRUCTION NOTES**
- (A) CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 4 ON SHEET 2
 - (B) CONSTRUCT 3' CLASS B A.B. OVER NATIVE SOIL
 - (C) CONSTRUCT CUT-OFF WALL PER R.C.F.C.D. STD. DWG. NO. CH326 (ALTERNATLY GROUT TO 5' OF RSP)
 - (D) CONSTRUCT MAINTENANCE ACCESS RAMP PER SECTION DETAIL ON SHEET 2
 - (E) CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M801

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COUNTY OF RIVERSIDE
 TRANSPORTATION DEPARTMENT
 APPROVED BY: _____
 DATE: _____
 RECOMMENDED BY: _____
 DATE: _____

BENCH MARK
 THE STATIONING CLASS MARKERS SHOWN ON THE TOP OF A
 CONCRETE MONUMENT STAMPED AND B.L. 5825 SOUTH ALONG A
 PAVED ROAD FROM THE HIGHWAY 54/10700 TO ROAD AT
 PALM BL 1/2 MILES SOUTH OF TEMECULA, AT THE CORNER
 OF THE COUNTY LINE AND 1/2 MILE SOUTH OF THE
 COUNTY LINE AND 1/2 MILE WEST OF THE CENTERLINE OF THE
 ROAD, 1/2 MILE SOUTH OF THE CENTERLINE OF A TRACT ROAD
 LEADING NORTHEAST, 1/2 MILE WEST OF A FENCE LINE, 1/2 MILE WEST OF A
 BENCH MARK, ABOUT 4 1/2 FEET NORTH FROM THE ROAD AND
 SET IN THE TOP OF A CONCRETE POINT PROJECTION OF ABOUT 4
 FEET.
 ELEV. - 1081.0

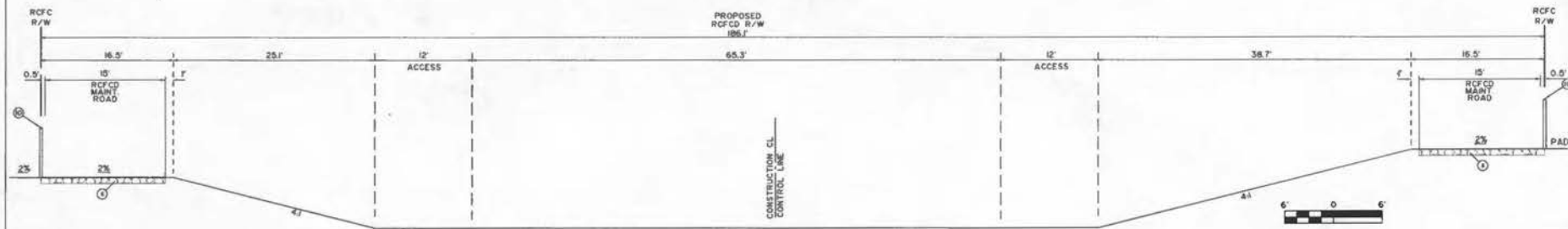
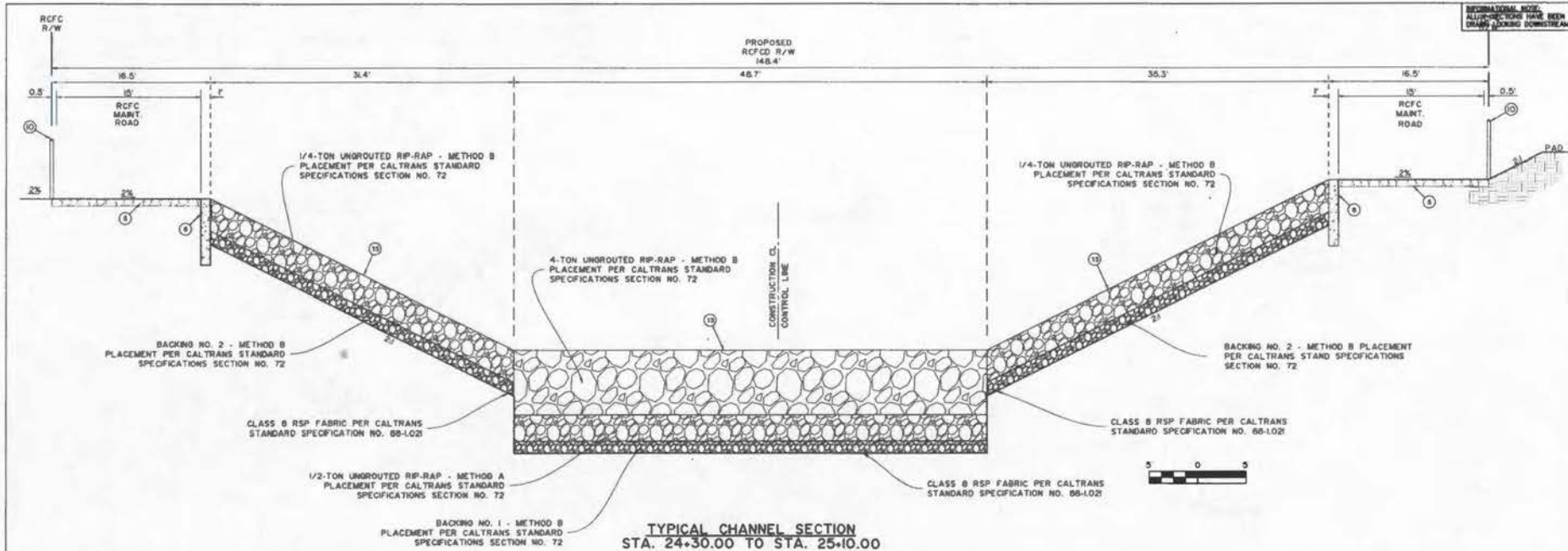
NO.	REVISIONS	DATE

REVERSE COUNTY FLOOD CONTROL
 AND
 WATER CONSERVATION DISTRICT
 RECOMMENDED FOR APPROVAL BY: _____
 APPROVED BY: _____
 DATE: _____

TRACT 31597
 TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
**CHANNEL IMPROVEMENTS
 CROSS SECTIONS**

PROJECT NO. X-X-XXXX
 DRAWING NO. X-XXX
 SHEET NO. 7 of 12

GARY A. SMITH, P.E. 50888 DATE: 11/07/2012
 Prep. Revision Date: 11/07/2012 BY: J.C. PLOFORD



TYPICAL CHANNEL SECTION
STA. 24+30.00 TO STA. 25+10.00

TYPICAL CHANNEL SECTION
STA. 11+60.00 TO STA. 17+06.00
STA. 19+05.00 TO STA. 23+30.00
STA. 27+00.00 TO STA. 34+20.00

- CONSTRUCTION NOTES**
- ① CONSTRUCT 3" CLASS B A.B. OVER NATIVE SOL.
 - ② CONSTRUCT 6" CUT-OFF WALL PER R.C.F.C. & W.C.D. STD. DWG. NO. CH336
 - ③ CONSTRUCT CHAIN LINK FENCE PER R.C.F.C. & W.C.D. STD. DWG. NO. M001
 - ④ CONSTRUCT CHANNEL SLOPE PROTECTION PER DETAIL 13 ON SHEET 2

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or use Standard
City Tel.
Don't Abuse
our services.



COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
APPROVED BY:
ALAN FRISCH P.E. AERDGE DATE: 8/28/08
RECOMMENDED DATE: 8/28/08

BENCH MARK
FD STANDARD CLASS BRASS NAIL SET IN THE TOP OF A
CONCRETE WORMHOLE STAMPED 1062, 81 INCHES NORTH ALONG A
PAVED DRIVE FROM THE WAGON DRIV W/IN THE PALM AT
PALM 87 INCHES SOUTH OF TEMECULA, AT THE CORNER
RIVERSIDE COUNTY LINE, IN SAN JUAN COUNTY, IN SOUTH OF
THE COUNTY LINE AND 200 FEET WEST OF THE CENTERLINE OF THE
ROAD. (PER SOUTH OF THE CENTERLINE OF A TRACT ROAD, AS
LIGNED INTERSECTION OF WEST OF 1/2 FINE LANE, 17' NORTH OF A
WATERMETER POINT, ABOUT 4 1/2 FEET HIGHER THAN THE ROAD AND
SET IN THE TOP OF A CONCRETE FOOT PROJECTION OF ABOUT 8
INCHES. DATE: 8/28/08 BY: S.L.C. - J.H.H.A.S.

NO.	REVISIONS	DATE







RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT
RECOMMENDED FOR APPROVAL BY: _____
APPROVED BY: _____
DATE: _____

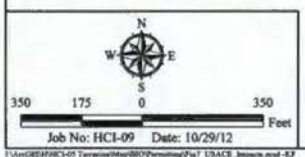
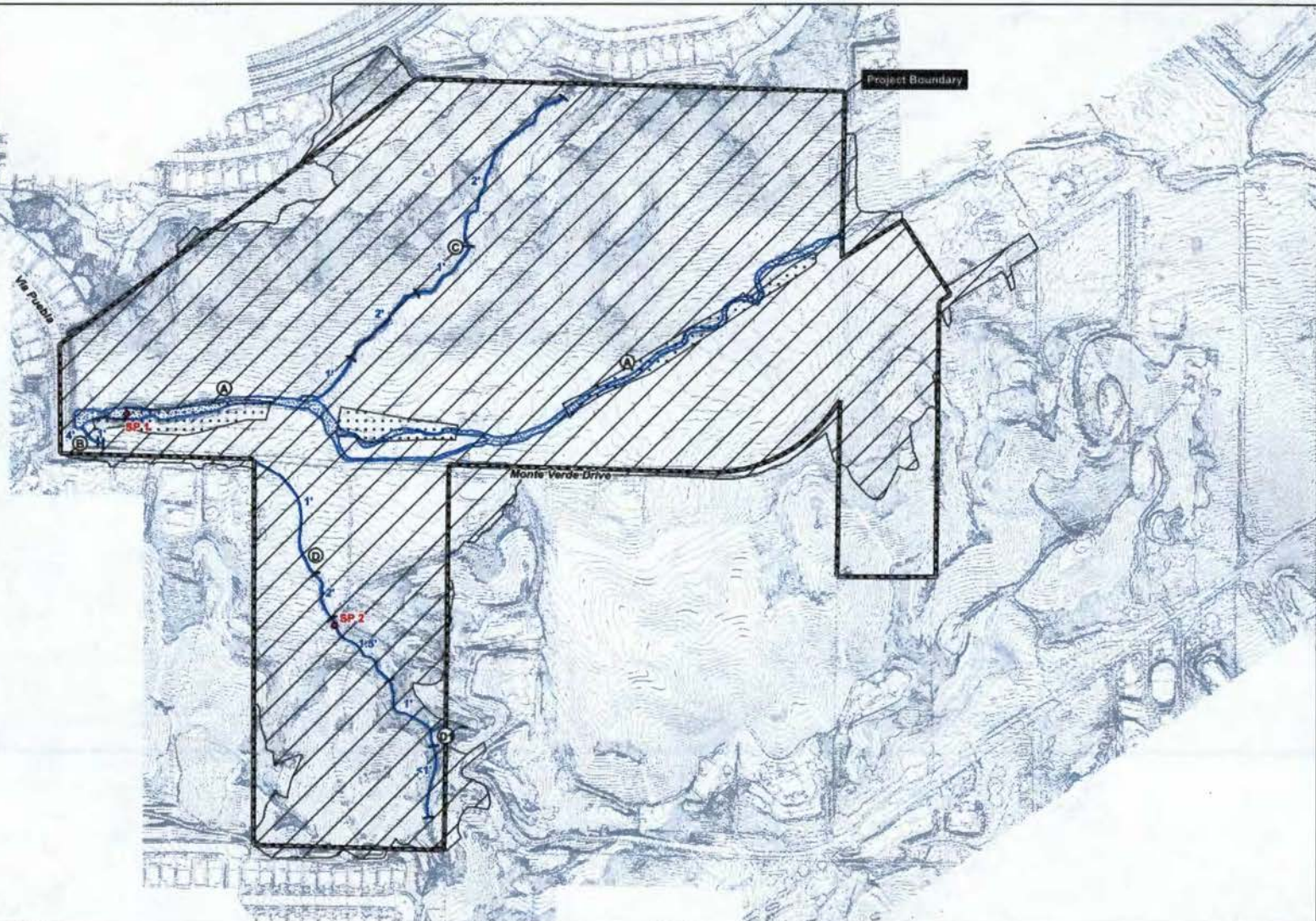
TRACT 31597
TEMECULA CREEK - MORGAN VALLEY WASH STAGE 2
CHANNEL IMPROVEMENTS
CROSS SECTIONS

PROJECT NO. X-X-XXXXX
DRAWING NO. X-XXX
SHEET NO. 8 OF 12

Standard Pacific Homes
Terracina Project
Certification No. R9-2013-0008

**ATTACHMENT 4
MITIGATION FIGURES**

-  Permanent Impacts
-  Temporary Impacts
-  Non-wetland Waters of the U.S.
-  Non-wetland Waters of the U.S. (width shown in feet)
-  Sample Plot Location
-  Drainage ID

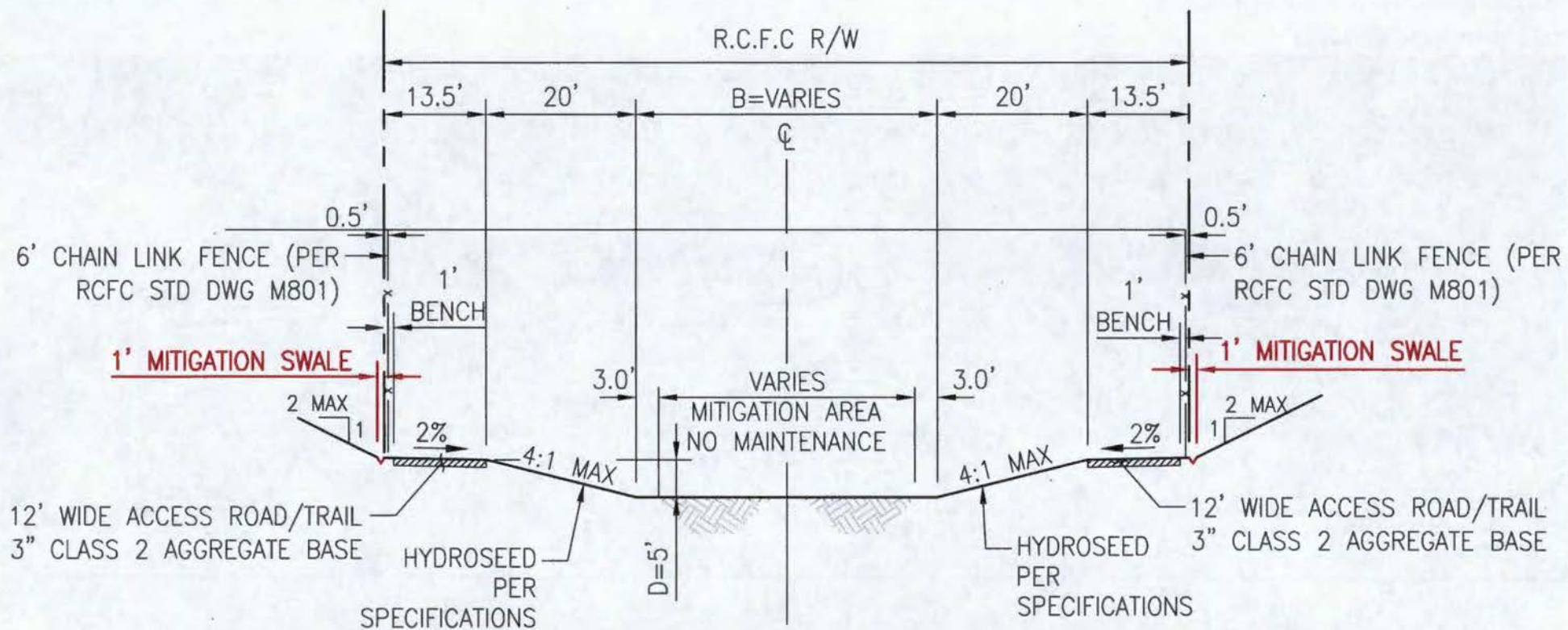


USACE Jurisdictional Area/Impacts

TERRACINA - TRACT 31597

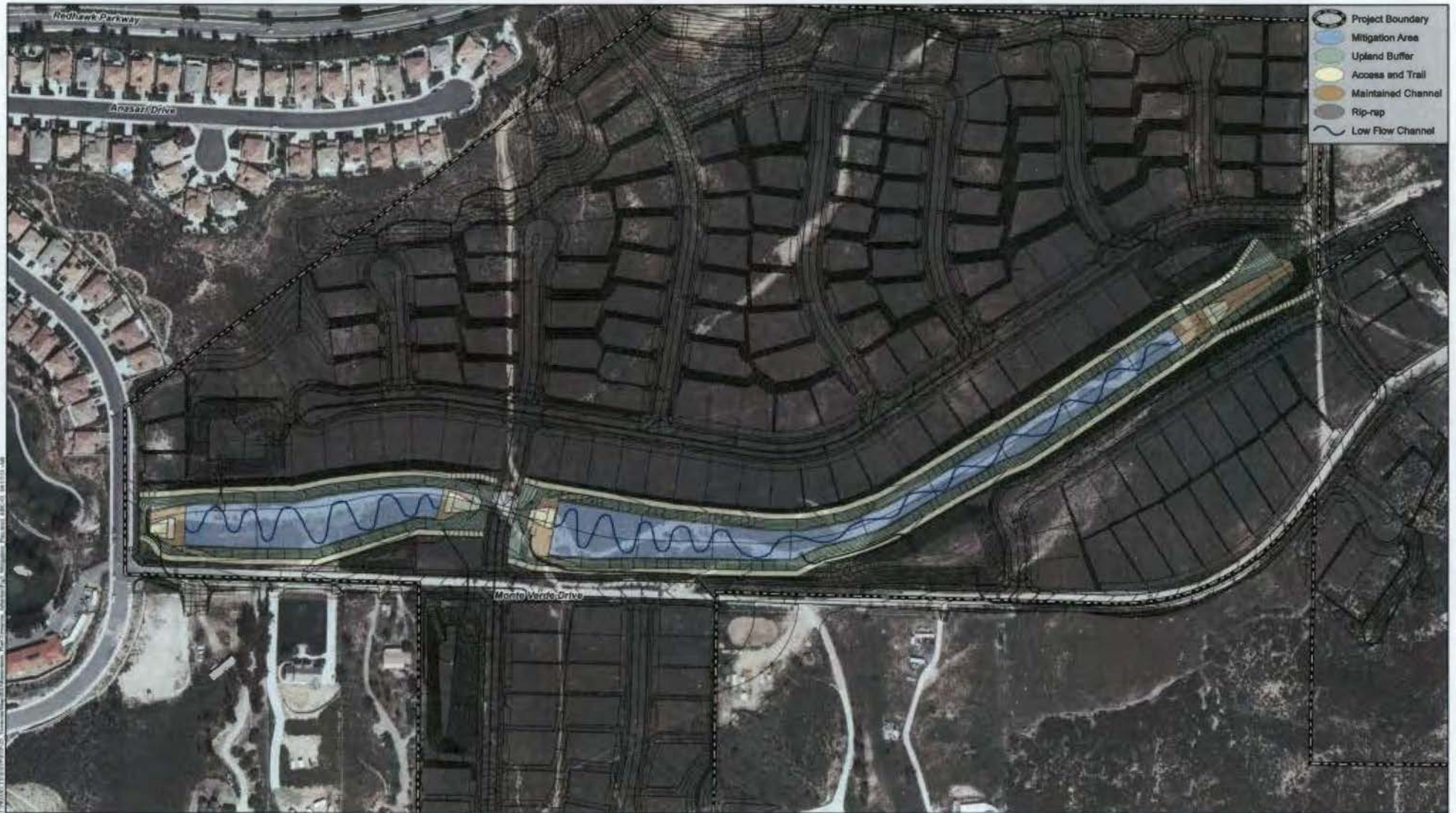
Figure 7





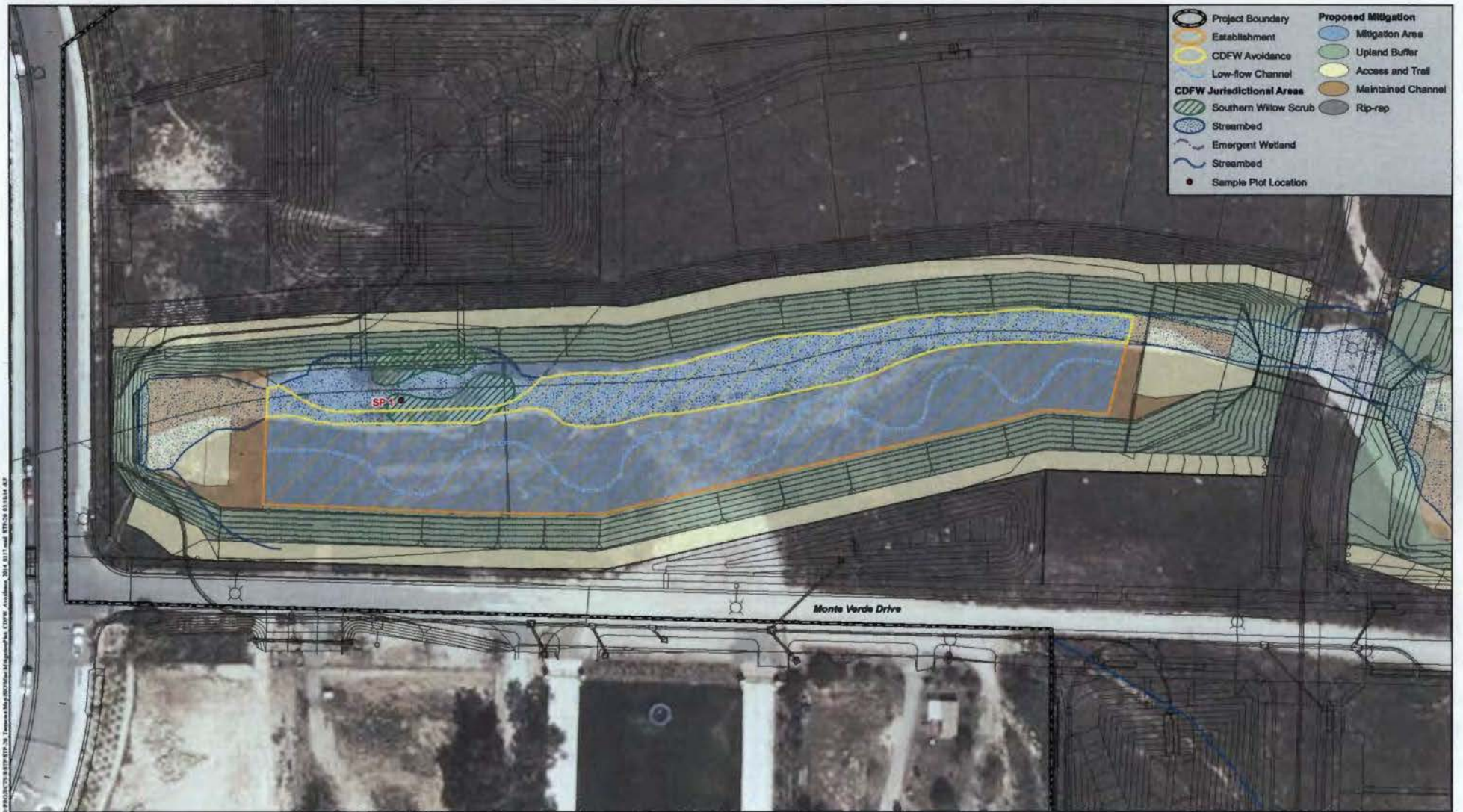
TYPICAL CHANNEL CROSS SECTION





Proposed Mitigation Area

TERRACINA TRACT 31597 AND ATHERTON TRACT 32627



Proposed Mitigation Area

TERRACINA TRACT 31597 AND ATHERTON TRACT 32627