

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

2375 Northside Drive, Suite 100, San Diego, CA 92108  
Phone (619) 516-1990 • Fax (619) 516-1994  
<http://www.waterboards.ca.gov/sandiego/>

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

**PROJECT: Valiano Project  
Certification Number R9-2018-0180  
WDID: 900002801**

Reg. Meas. ID: 399249  
Place ID: 811648  
Party ID: 539619  
Person ID: 526151

**APPLICANT: The Eden Hills Project Owner, LLC  
2235 Encinitas Boulevard, Suite 216  
Encinitas, CA 92024**

**ACTION:**

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

**PROJECT DESCRIPTION**

An application dated December 18, 2014 was submitted by The Eden Hills Project Owner, LLC (hereinafter Applicant), for Water Quality Certification pursuant to section 401 of the Clean Water Act (United States Code (USC) Title 33, section 1341) for the proposed Valiano Project (Project). The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) deemed the application to be complete on March 5, 2015. 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-2013-00455-WSZ).

The Project is located near the Cities of San Marcos and Escondido, in unincorporated San Diego County, west of County Club Drive between Hill Valley Drive and Harmony Heights Road. The Project center reading is located at latitude 33.116660 and longitude -117.137727. The Applicant has paid all required application fees for this Certification in the amount of \$2,654.00. On an annual basis, the Applicant must also pay all active discharge fees and post discharge monitoring fees, as appropriate<sup>1</sup>. On March 5, 2015, the San Diego Water Board provided public notice of the Project application pursuant to California Code of Regulations,

<sup>1</sup> Additional information regarding fees can be found electronically at the following location:  
<http://www.waterboards.ca.gov/resources/fees/>

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 a residential community with 326 single-family dwelling units and related facilities within approximately 89.1 acres in five phases. The Project includes a community recreation center, public neighborhood park, public equestrian staging area, a private trail turnaround area, internal road and trail system, and an on-site wastewater treatment system. Approximately 31 acres will be dedicated open space and 35 acres of existing agriculture uses (avocado orchard) will be preserved in an agriculture easement. The Project also includes 56 acres of common area open space and 27 acres of landscaped easements that provide 149 acres of open space. Mass grading for the Project will be done in two phases and is expected to take approximately 18 months. The construction of all five phases of the development is expected to take approximately five years.

The Project will convert approximately 58 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 16 multi-function detention/biofiltration basins and six biofiltration basins. The biofiltration basins will remove storm water pollutants and provide hydromodification mitigation. The multifunction basins also will perform these services, in addition to incorporating 100-year storm detention. These BMPs will be designed, constructed, and maintained to meet County of San Diego BMP Design Manual design capture volume and hydromodification treatment requirements. Project runoff is routed separately from runoff from undisturbed areas to avoid co-mingling of clean runoff with untreated runoff.

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 0.19 acre (3,730 linear feet) and temporarily impact 0.01 acre (306 linear feet) of ephemeral non-wetland waters of the United States and/or State. The Applicant reports that the Project purpose cannot be practically accomplished in a manner which would avoid or result in less adverse impacts to aquatic resources considering all potential practicable alternatives, such as the potential for alternate available locations, designs, reductions in size, configuration or density.

The Applicant has minimized Project impacts by designing the Project around existing drainages and realigning sections of Channels B, C, E, and G where impacts could not be avoided. The Project includes the use of two soft-bottom arched culvert crossings over Channel H and incorporates daylighting of portions of a culvert along Channel D. Furthermore,

the Project has avoided impacts to existing freshwater marsh, wetland, and an existing freshwater pond.

The Applicant reports that compensatory mitigation for the permanent loss of 0.19 acres and temporarily impact 0.01 acres of jurisdictional waters will be achieved through the purchase of 0.38 acres of mitigation credits from a U.S. Army Corps approved mitigation bank and the realignment of 0.42 acres (3,876 linear feet) of stream channel and soft bottom ephemeral drainages on-site as part of the mitigation. 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 through purchase of 0.38 acre of mitigation bank credits (0.19 acre of wetland re-establishment credits and 0.19 acre of wetland rehabilitation or re-establishment credits (or combination thereof)) at the Brook Forest Mitigation-Bank (Bank), located in the Valley Center hydrologic sub-area (HSA 903.14) in advance of Project construction. Furthermore, on-site mitigation will consist of 3,876 linear feet (0.42 acres) of stream channel and soft bottom ephemeral drainage realignment. The onsite mitigation will be constructed in the first two grading phases of the Project and is projected to be done within the 18 months of the start of Project construction. The combination Bank credit acreage to be purchased and the acreage resulting from on-site linear feet replacement results in an overall compensation ratio of 4.2:1 (area mitigated:area impacted).

The Bank is on 26.4 acres of land located in the Moosa Creek flood plain in the lower San Luis hydrologic sub-area (HSA 903.1) in Valley Center, San Diego County, California. Mitigation credit parcels, purchased from the Bank to satisfy compensatory mitigation requirements, are required to be protected, monitored and maintained in perpetuity by the Bank pursuant to a federal and State approved bank enabling instrument and a recorded conservation easement

Brook Forest LLC, a land management company, is the Bank Sponsor and is responsible for Bank design, entitlement, construction and long-term operations and management. Detailed written specifications and descriptions of the methods being used to monitor the Bank through the initial 5-year success period including, but not limited to, the geographic boundaries of the Bank, timing, sequence, monitoring, maintenance, and ecological success performance standards are described in the *Brook Forest Development Plan (Development Plan) dated November 2015*. The Development Plan was previously accepted by the San Diego Water Board under the terms and conditions of Water Quality Certification No. R9-2015-0099, issued by the San Diego Water Board for the development and maintenance of the Bank on November 23, 2015. San Diego Water Board acceptance of the Bank Development 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 Bank Development Plan is incorporated in this Certification by this reference as if set forth fully herein. The Bank Development Plan provides for implementation of compensatory mitigation at the Bank which will offset 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 Bank Development Plan will also 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 purchase of mitigation credits from the Bank and onsite linear feet

mitigation will adequately compensate for the loss of beneficial uses and habitat within waters of the United States and/or State attributable to the Project.

Detailed written specifications and work descriptions for the compensatory mitigation project including, but not limited to, the geographic boundaries of the project, timing, sequence, monitoring, maintenance, ecological success performance standards and provisions for long-term management and protection of the mitigation areas are described in the *Valiano Project Linear Feet Mitigation Plan* (Mitigation Plan), dated October 15, 2018. The San Diego Water Board acceptance of the Mitigation Plan applies only to the Project described in this Certification and must not be construed as approval for other current or future projects that are planning to use additional acreage at the site for mitigation. The Mitigation Plan is incorporated in this Certification by reference as if set forth herein. The Mitigation Plan provides for implementation of compensatory mitigation which offsets adverse water quality impacts attributed to the Project in a manner that protects and restores the abundance, types and conditions of aquatic resources and supports their beneficial uses. Implementation of the Mitigation Plan will reduce significant environmental impacts to resources within the San Diego Water Board's purview to a less than significant level. Based on all of these considerations, the Mitigation Plan will adequately compensate for the loss of beneficial uses and habitat within waters of the United States and/or State attributable to the Project.

Additional Project details are provided in Attachments 1 through 5 of this Certification.

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### Attachments:

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

The San Diego Water Board has independently reviewed the record of the Project to analyze the extent and nature of proposed Project impacts to the water quality and beneficial uses of waters of the United States and/or State and associated compensatory mitigation required to offset impacts attributed to the Project. In accordance with this Certification, the Applicants may proceed with the Project under the following terms and conditions:

## 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. R9-2018-0180 (Certification) shall expire upon a) the expiration or retraction of the Clean Water Act section 404 (33 USC Title 33, section 1344) permit issued by the U.S. Army Corps of Engineers for this Project, or b) five (5) years from the date of issuance of this Certification, whichever occurs first.
- B. **Duty to Comply.** The Applicant must comply with all conditions and requirements of this Certification. Any Certification noncompliance constitutes a violation of the Water Code and is grounds for enforcement action or Certification termination, revocation and reissuance, or modification.
- C. **General Waste Discharge Requirements.** The requirements of this Certification are enforceable through Water Quality Order No. 2003-0017-DWQ, *Statewide General Waste Discharge Requirements for Discharges of Dredged or Fill Material that have Received State Water Quality Certification* (Water Quality Order No. 2003-0017-DWQ). This provision shall apply irrespective of whether a) the federal permit for which the Certification was obtained is subsequently retracted or is expired, or b) the Certification is expired. Water Quality Order No. 2003-0017-DWQ is accessible at:

[http://www.waterboards.ca.gov/water\\_issues/programs/cwa401/docs/generalorders/gowdr401regulated\\_projects.pdf](http://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/generalorders/gowdr401regulated_projects.pdf).

- D. **Project Conformance with Application.** All water quality protection measures and BMPs described in the application and supplemental information for water quality certification are incorporated by reference into this Certification as if fully stated herein. Notwithstanding any more specific conditions in this Certification, the Applicant shall construct, implement and comply with all water quality protection measures and BMPs described in the application and supplemental information. The conditions within this Certification shall supersede conflicting provisions within the application and supplemental information submitted as part of this Certification action.
- E. **Project Conformance with Water Quality Control Plans or Policies.** Notwithstanding any more specific conditions in this Certification, the Project shall be constructed in a manner consistent with the Basin Plan and any other applicable water quality control plans or policies adopted or approved pursuant to the Porter Cologne Water Quality Act (Division 7, commencing with Water Code Section 13000) or section 303 of the Clean Water Act (33 USC section 1313). The Basin Plan is accessible at:

[http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/basin\\_plan/index.shtml](http://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/index.shtml)

- F. **Project Modification.** The Applicant must submit any changes to the Project, including Project operation, which would have a significant or material effect on the findings, conclusions, or conditions of this Certification, to the San Diego Water Board for prior review and written approval. If the San Diego Water Board is not notified of a significant change to the Project, it will be considered a violation of this Certification.
- G. **Certification Distribution Posting.** During Project construction, the Applicant must maintain a copy of this Certification at the Project site. This Certification must be available at all times to site personnel and agencies. A copy of this Certification shall also be provided to any contractor or subcontractor performing construction work, and the copy shall remain in their possession at the Project site.
- H. **Inspection and Entry.** The Applicant must allow the San Diego Water Board or the State Water Resources Control Board, and/or their authorized representative(s) (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents as may be required under law, to:
1. Enter upon the Project or Compensatory Mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Certification;
  2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Certification;

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



action in accordance with the California Code of Regulations, title 23, sections 3867 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Certification. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: [http://www.waterboards.ca.gov/public\\_notices/petitions/water\\_quality](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 *National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, (General Construction Storm Water Permit) and any reissuance. If Project construction activities do not require coverage under the General Construction Storm Water Permit, the Applicant must develop and implement a runoff management plan (or equivalent construction BMP plan) to prevent the discharge of sediment and other pollutants during construction activities.
- E. **Waste Management.** The Applicant must properly manage, store, treat, and dispose of wastes in accordance with applicable federal, state, and local laws and regulations. Waste management shall be implemented to avoid or minimize exposure of wastes to precipitation or storm water runoff. The storage, handling, treatment, or disposal of waste shall not create conditions of pollution, contamination or nuisance as defined in Water Code section 13050. Upon Project completion, all Project generated debris, building materials, excess material, waste, and trash shall be removed from the Project site(s) for disposal at an authorized landfill or other disposal site in compliance with federal, state and local laws and regulations.
- F. **Waste Management.** Except for a discharge permitted under this Certification, the dumping, deposition, or discharge of trash, rubbish, unset cement or asphalt, concrete, grout, damaged concrete or asphalt, concrete or asphalt spoils, wash water, organic or earthen material, steel, sawdust or other construction debris waste from Project activities directly into waters of the United States and or State, or adjacent to such

waters in any manner which may permit its being transported into the waters, is prohibited.

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

beneficial uses of waters of the United States and/or State. Discharges related to the application of aquatic pesticides within waters of the United States must be done in compliance with State Water Resources Control Board Water Quality Order No. 2013-0002-DWQ, the *Statewide General National Pollution Discharge Elimination System Permit for Residual Aquatic Pesticide Discharges to Waters of the United States from Algae and Aquatic Weed Control Applications*, 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 Escondido Creek and its tributaries. This Certification requires compliance with all applicable requirements of the Basin Plan. If at any time, an unauthorized discharge to surface waters (including rivers or streams) occurs or monitoring indicates that the Project is violating, or threatens to violate, water quality objectives, the associated Project activities shall cease immediately and the San Diego Water Board shall be notified in accordance with Notification Requirement VII.A of this Certification. Associated Project activities may not resume without approval from the San Diego Water Board.
- Q. **Groundwater Dewatering.** If groundwater dewatering is required for the Project, the Applicant shall enroll in and comply with the requirements of San Diego Water Board Order No. R9-2015-0013, NPDES No. CAG919003, *General Waste Discharge Requirements For Groundwater Extraction Discharges to Surface Waters within the San Diego Region* or its successor permit.

#### IV. POST-CONSTRUCTION BEST MANAGEMENT PRACTICES

- A. **Post-Construction Discharges.** The Applicant shall not allow post-construction discharges from the Project site to cause or contribute to on-site or off-site erosion or damage to properties or stream habitats.
- B. **Storm Drain Inlets.** All storm drain inlet structures within the Project boundaries must be stamped or stenciled (or equivalent) with appropriate language prohibiting non-storm water discharges.
- C. **Post-Construction BMP Implementation.** The Project must be designed to comply with the requirements for priority development projects in section E.3 of the Regional

MS4 Permit Order R9-2013-0001, *National Pollutant Discharge Elimination Systems Permit and Waste Discharge Requirements for Discharges of Urban Runoff from the MS4s Draining the Watersheds within the San Diego Region* (Regional MS4 Permit) as well as the most current Standard Storm Water Mitigation and Hydromodification Plans for the County of San Diego. Where conflict exists between the referenced documents the most stringent requirements shall apply.

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

## V. PROJECT IMPACTS AND COMPENSATORY MITIGATION

- A. **Project Impact Avoidance and Minimization.** The Project must avoid and minimize adverse impacts to waters of the United States and/or State to the maximum extent practicable. The Applicant has minimized Project impacts by designing the Project around existing waters of the United States and/or State, incorporated two soft bottom arched culverts in Channel H, incorporated daylighting of portions of a culvert along Channel D, and incorporated realignment of four soft bottom channels (B, C, E, and G) where impacts could not be avoided. Impacts to existing wetland, freshwater marsh, and freshwater pond habitat were avoided and preserved as part of the Project.
- B. **Project Impacts and Compensatory Mitigation.** Unavoidable Project impacts to Escondido Creek and its tributaries within the Carlsbad Watershed must not exceed the type and magnitude of impacts described in the table below. At a minimum,

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<sup>2</sup> 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]

compensatory mitigation required to offset unavoidable temporary and permanent Project impacts to waters of the United States and/or State must be achieved as described in the table below:

	Impacts (acres)	Impacts (linear ft.)	Mitigation for Impacts (acres)	Mitigation Ratio (area mitigated :area impacted)	Mitigation for Impacts (linear ft.)	Mitigation Ratio (linear feet mitigated :linear feet impacted)
<b>Permanent Impacts</b>						
Stream Channel	0.19	3,730	0.19 Re-Establishment credit <sup>1</sup>  0.19 Re-Establishment and/or Rehabilitation credit <sup>1</sup>  0.42 Re-Establishment <sup>2</sup>	4.2:1	3,876 <sup>2</sup>	1.04:1 <sup>2</sup>
<b>Temporary Impacts</b>						
Stream Channel <sup>4</sup>	0.01 <sup>3</sup>	306 <sup>3</sup>	NA	NA	NA	NA

1. Project mitigation Re-Establishment and Rehabilitation credits will be purchased from the Brook Forest Mitigation Bank, Valley Center, CA.
2. Re-Establishment of linear feet mitigation is within the Project site and will be installed within the first 18 months of the start of construction.
3. Temporary impacts from replacement of an existing culvert pipes. No mitigation is required for the replacement of the pipes.
4. All areas of temporary impacts must be restored to pre-project contours and re-vegetated with native species.

**C. Mitigation Credits.** Prior to the start of construction, the Applicant must provide documentation to the San Diego Water Board verifying the purchase of at least 0.38 acres of establishment, re-establishment, and/or rehabilitation credits from the Brook Forest Mitigation Bank.

The use of an alternative mitigation bank to provide required compensatory mitigation must be approved by the San Diego Water Board before the credits are secured and is subject to the following conditions:

1. The Applicant must identify the USACE approved mitigation bank and submit documentation demonstrating that:
  - a. The permitted Project impacts are located within the service area of the mitigation bank; and



standards identified in the Bank Development 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 requirements listed in section V.I 1 through 4 below.

- I. **Long-Term Management and Maintenance.** The compensatory mitigation site(s) located on the Project site 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.
- J. **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.
- K. **Mitigation Site(s) Preservation Mechanism.** **Within 90 days from the issuance of this Certification**, the Applicant must provide the San Diego Water Board with a draft preservation mechanism (e.g. deed restriction, conservation easement, etc.) that will protect all mitigation areas and their buffers in perpetuity. **Within five years of the start of Project construction**, the Applicant must submit proof of a completed final

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

## VI. MONITORING AND REPORTING REQUIREMENTS

- A. **Representative Monitoring.** Samples and measurements taken for the purpose of monitoring under this Certification shall be representative of the monitored activity.
- B. **Monitoring Reports.** Monitoring results shall be reported to the San Diego Water Board at the intervals specified in section VI of this Certification.
- C. **Monitoring and Reporting Revisions.** The San Diego Water Board may make revisions to the monitoring program at any time during the term of this Certification and may reduce or increase the number of parameters to be monitored, locations monitored, the frequency of monitoring, or the number and size of samples collected.
- D. **Records of Monitoring Information.** Records of monitoring information shall include:
  - 1. The date, exact place, and time of sampling or measurements;
  - 2. The individual(s) who performed the sampling or measurements;
  - 3. The date(s) analyses were performed;
  - 4. The individual(s) who performed the analyses;
  - 5. The analytical techniques or methods used; and
  - 6. The results of such analyses.
- E. **Geographic Information System Data.** The Applicant must submit Geographic Information System (GIS) shape files of the Project impact sites within 30 days of the start of project construction and GIS shape files of the Project mitigation sites within 30 days of mitigation installation. All impact and mitigation site shape files must be polygons. Two GPS readings (points) must be taken on each line of the polygon and the polygon must have a minimum of 10 points. GIS metadata must also be submitted.



**F. Annual Project Progress Reports.** The Applicant must submit annual Project progress reports describing status of BMP implementation, compensatory mitigation, 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 Annual Project Progress Reports must contain compensatory mitigation monitoring information sufficient to demonstrate how the compensatory mitigation project is progressing towards accomplishing its objectives and meeting its performance standards. Annual Project Progress Reports must be submitted even if Project construction has not begun. The monitoring period for each Annual Project Progress Report shall be January 1<sup>st</sup> through December 31<sup>st</sup> of each year. Annual Project Progress Reports must include, at a minimum, the following:

1. **Project Status and Compliance Reporting.** The Annual Project Progress Report must include the following Project status and compliance information:
  - a. The names, qualifications, and affiliations of the persons contributing to the report;
  - b. 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;
  - c. A description of Project construction delays encountered or anticipated that may affect the schedule for construction completion; and
  - d. 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.
2. **Compensatory Mitigation Monitoring Reporting.** Mitigation monitoring information must be submitted as part of the Annual Project Progress Report 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 Annual Project Progress Report must include the following compensatory mitigation monitoring information:
  - a. Names, qualifications, and affiliations of the persons contributing to the report;

- b. 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;
- c. A description of the following mitigation site(s) characteristics:
  - i. Detritus cover;
  - ii. General topographic complexity;
  - iii. General upstream and downstream habitat and hydrologic connectivity; and
  - iv. Source of hydrology
- d. 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;
- e. 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;
- f. Qualitative and quantitative comparisons of current mitigation conditions with pre-construction conditions and previous mitigation monitoring results;
- g. Stream photo documentation, including all areas of permanent and temporary impact, prior to and after mitigation site construction. Photo documentation must be conducted in accordance with guidelines posted at [http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/401\\_certification/docs/401c/401PhotoDocRB9V713.pdf](http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf). In addition, photo documentation must include Geographic Positioning System (GPS) coordinates for each of the photo points referenced;
- h. As-built drawings of the compensatory mitigation project site(s), no bigger than 11"X17"; and

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

- 1. Date of construction initiation;
- 2. Date of construction completion;
- 3. BMP installation and operational status for the Project;
- 4. As-built drawings of the Project, no bigger than 11"X17";

5. Photo documentation of implemented post-construction BMPs and all areas of permanent and temporary impacts, prior to and after project construction. Photo documentation must be conducted in accordance with guidelines posted at [http://www.waterboards.ca.gov/sandiego/water\\_issues/programs/401\\_certification/docs/401c/401PhotoDocRB9V713.pdf](http://www.waterboards.ca.gov/sandiego/water_issues/programs/401_certification/docs/401c/401PhotoDocRB9V713.pdf). In addition, photo documentation must include Global Positioning System (GPS) coordinates for each of the photo points referenced; and

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 Document Submittal.** The Applicant must submit all reports and information required under this Certification in electronic format via e-mail to [SanDiego@waterboards.ca.gov](mailto:SanDiego@waterboards.ca.gov). Documents over 50 megabytes will not be accepted via e-mail and must be placed on a disc and delivered to:

California Regional Water Quality Control Board  
San Diego Region  
Attn: 401 Certification No. R9-2018-0180:811648:amonji  
2375 Northside Drive, Suite 100  
San Diego, California 92108

Each electronic document must be submitted as a single file, in Portable Document Format (PDF), converted to text searchable format using Optical Character Recognition (OCR), and not be password protected. All electronic documents must include scanned copies of all signature pages; electronic signatures will not be accepted. Please direct questions about large document submittal procedures to Mission Support Services staff at (619) 516-1990. Electronic documents submitted to the San Diego Water Board must include the following identification numbers in the header or subject line: Certification No. R9-2018-0180:811648:amonji.

J. **Document Signatory Requirements.** All applications, reports, or information submitted to the San Diego Water Board must be signed as follows:

1. For a corporation, by a responsible corporate officer of at least the level of vice president.
2. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
3. For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.
4. A duly authorized representative may sign applications, reports, or information if:

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

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

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

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

## VII. NOTIFICATION REQUIREMENTS

- A. **Twenty Four Hour Non-Compliance Reporting.** The Applicant shall report any noncompliance which may endanger health or the environment. Any such information shall be provided orally to the San Diego Water Board within **24 hours** from the time the Applicant becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Applicant becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The San Diego Water Board, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.
- B. **Hazardous Substance Discharge.** Except as provided in Water Code section 13271(b), any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, shall as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the County of San Diego, in accordance with California Health and Safety Code section 5411.5 and the California Office of Emergency Services of the discharge in accordance with the spill reporting provision of the State toxic disaster contingency plan adopted pursuant to Government Code Title 2, Division 1, Chapter 7, Article 3.7 (commencing with section 8574.17), and immediately notify the State Water Board or the San Diego Water Board of the discharge. This

provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of section 13271 of the Water Code unless the Applicant is in violation of a Basin Plan prohibition.

- C. **Oil or Petroleum Product Discharge.** Except as provided in Water Code section 13272(b), 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. **Commencement of Construction Notification.** The Applicant must notify the San Diego Water Board in writing **at least 5 days prior** to the start of initial Project construction ground disturbance
- F. **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 responsibility for compliance with this Certification in the event that a transferee fails to comply.

## VIII. CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

- A. The County of San Diego is the Lead Agency under the California Environmental Quality Act (CEQA) (Public Resources Code section 21000, et seq.) section 21067, and CEQA Guidelines (California Code of Regulations, title 14, section 15000 et seq.) section 15367, and has filed a Notice of Determination dated July 26, 2018 for the Final Environmental Impact Report (FEIR) titled Valiano Specific Plan (State Clearing House Number 2013061042). The Lead Agency has determined the Project will have a significant effect on the environment and mitigation measures were made a condition of the Project.
- B. The San Diego Water Board is a Responsible Agency under CEQA (Public Resources Code section 21069; CEQA Guidelines section 15381). The San Diego Water Board has considered the Lead Agency's FEIR and finds that the Project as proposed will have a significant effect on resources within the San Diego Water Board's purview.
- C. The San Diego Water Board has required mitigation measures as a condition of this Certification to avoid or reduce the environmental effects of the Project to resources within the Board's purview to a less than significant level.
- D. The Lead Agency has adopted a mitigation monitoring and reporting program pursuant to Public Resources Code section 21081.6 and CEQA Guidelines section 15097 to ensure that mitigation measures and revisions to the Project identified in the FEIR are implemented. The Mitigation Monitoring and Reporting Program (MMRP) is included and incorporated by reference in Attachment 5 to this Certification. The Applicant shall implement the Lead Agency's MMRP described in the FEIR, as it pertains to resources within the San Diego Water Board's purview. The San Diego Water Board has imposed additional MMRP requirements as specified in sections V and VI of this Certification.

- E. As a Responsible Agency under CEQA, the San Diego Water Board will file a Notice of Determination in accordance with CEQA Guidelines section 15096 subdivision (i).

#### IX. SAN DIEGO WATER BOARD CONTACT PERSON

Staff Name, Alan Monji  
Telephone: 619-521-3968  
Email: [Alan.Monji@waterboards.ca.gov](mailto:Alan.Monji@waterboards.ca.gov)

#### X. WATER QUALITY CERTIFICATION

I hereby certify that the proposed discharge from the **Valiano Project** (Certification No. R9-2018-0180) 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. R9-2018-0180 issued on December 24, 2018.



\_\_\_\_\_  
DAVID W. GIBSON  
Executive Officer  
San Diego Water Board

24 December 2018  
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.

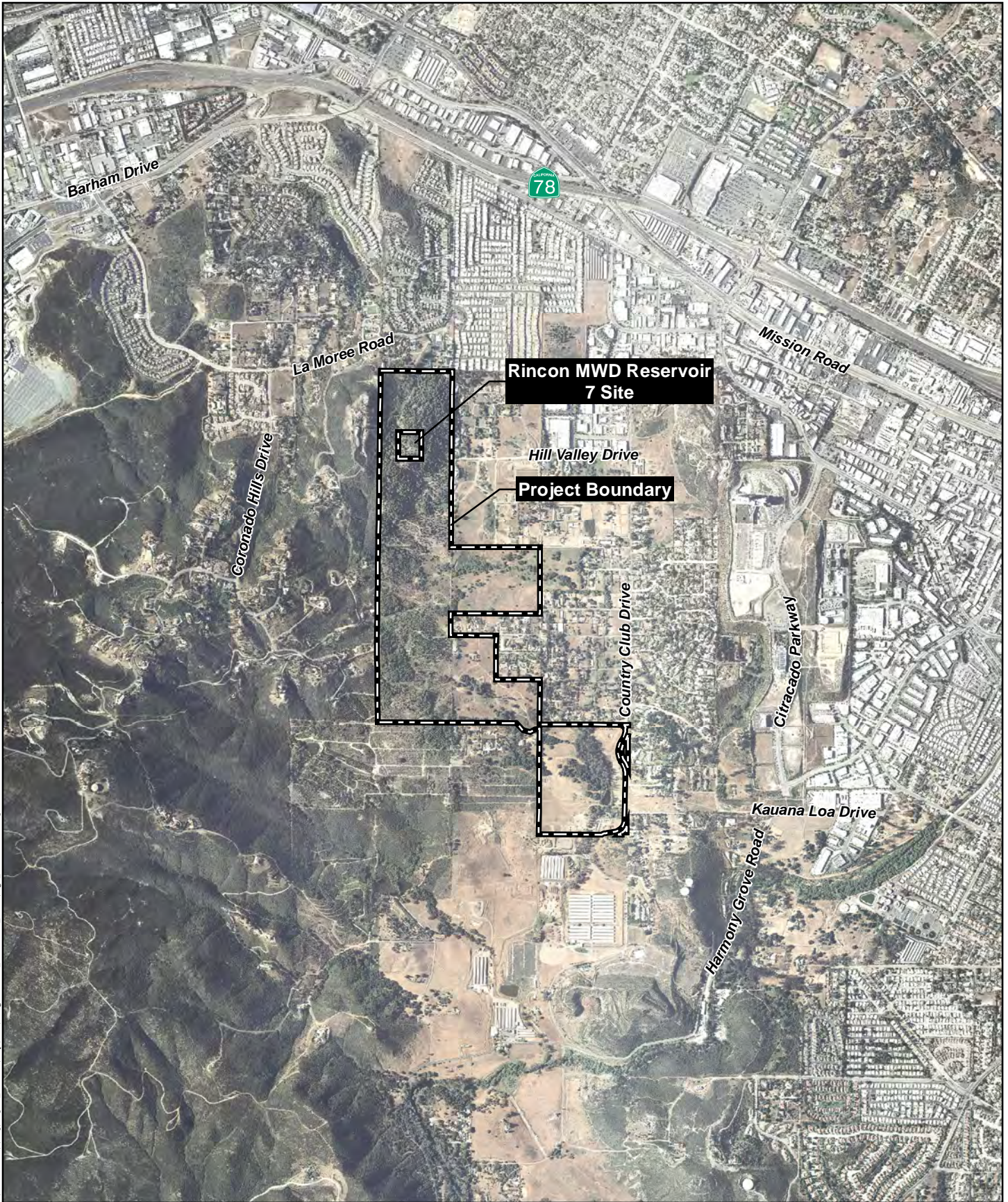
**Water quality objectives and other appropriate requirements of state law** – means the water quality objectives and beneficial uses as specified in the appropriate water quality control plan(s); the applicable provisions of sections 301, 302, 303, 306, and 307 of the Clean Water Act; and any other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

**Waters of the State** - means any surface water or groundwater, including saline waters, within the boundaries of the State. [Water Code section 13050, subd. (e)].

## **ATTACHMENT 2**

### **LOCATION MAPS AND FIGURES**

1. Helix Environmental Planning, Valiano, Project Location Aerial Photograph, Figure 2.
2. Helix Environmental Planning, Valiano, Project Location USGS Topography, Figure 3.

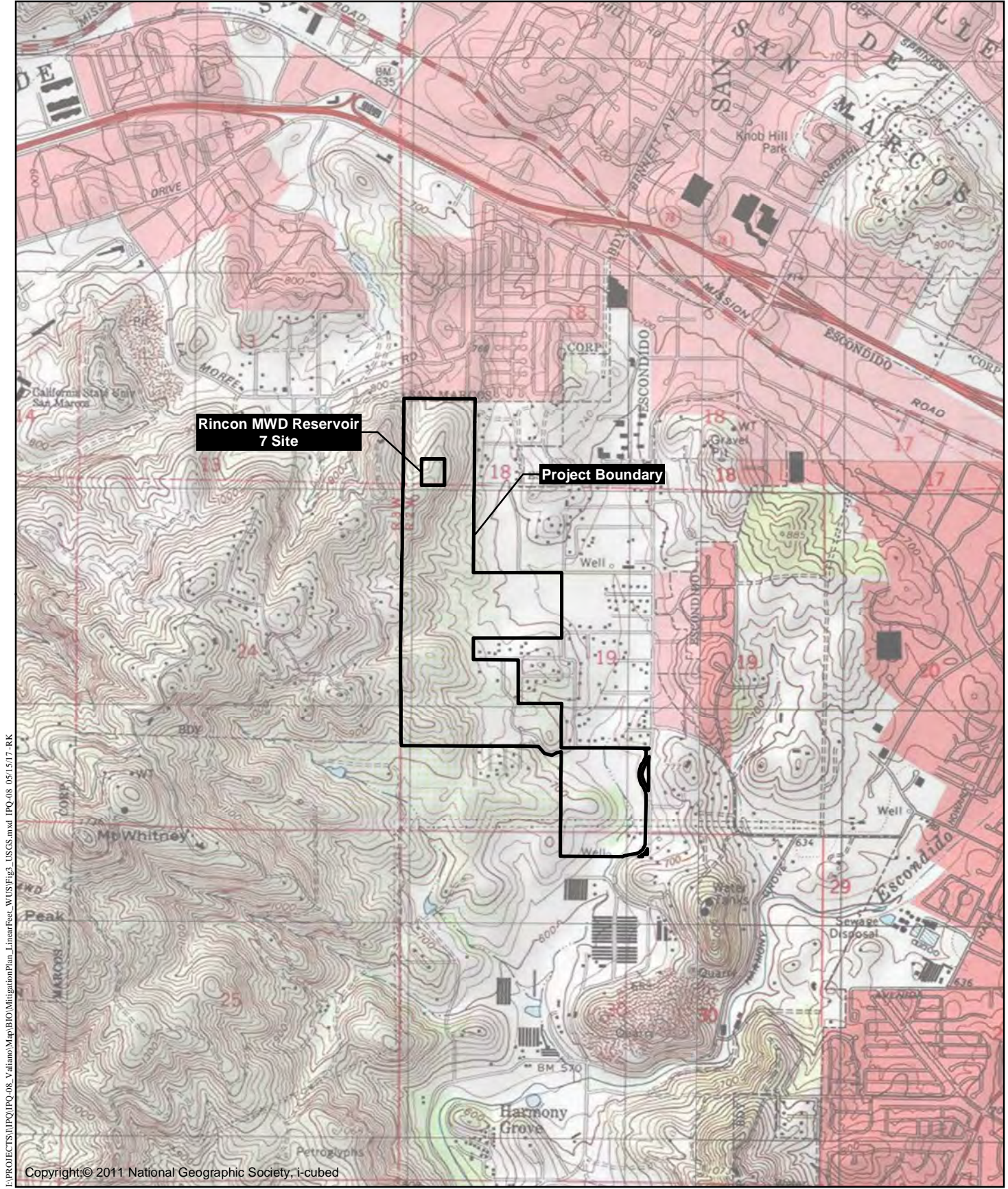


I:\PROJECTS\I\PO\I\PO-08\_Valiano\Map\BIO\MitigationPlan\_LinearFeet\_WUS\Fig2\_Aerial.mxd IPQ-08\_05/15/17\_RK

**Project Location (Aerial Photograph)**

VALIANO

Figure 2



**Project Location (USGS Topography)**

VALIANO

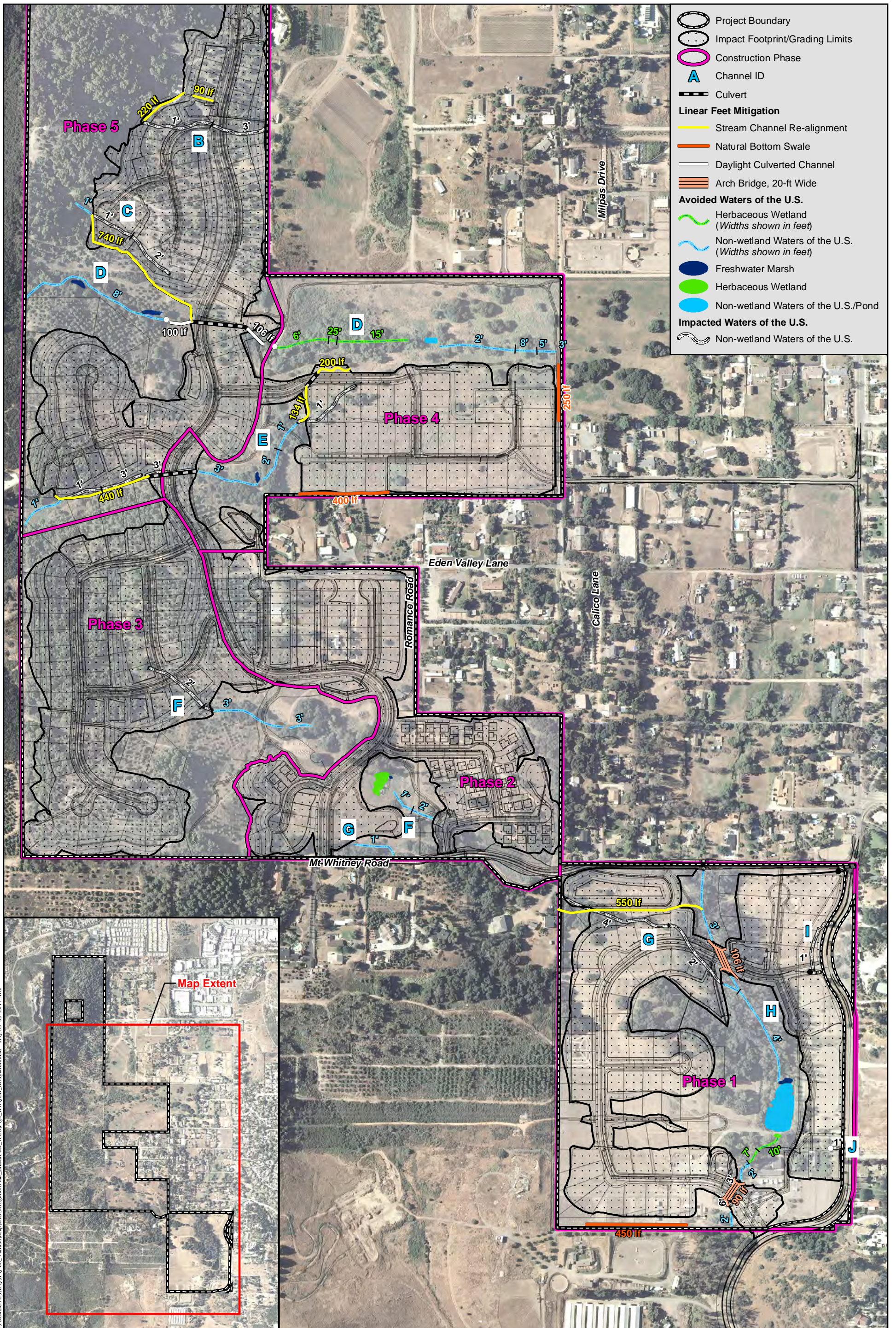
Figure 3

I:\PROJECTS\I\PO\PO-08\_Valiano\Map\BIO\MitigationPlan\_Linear\Foot\_USGS.mxd IPO-08\_05/15/17\_RK

### **ATTACHMENT 3**

#### **PROJECT FIGURES**

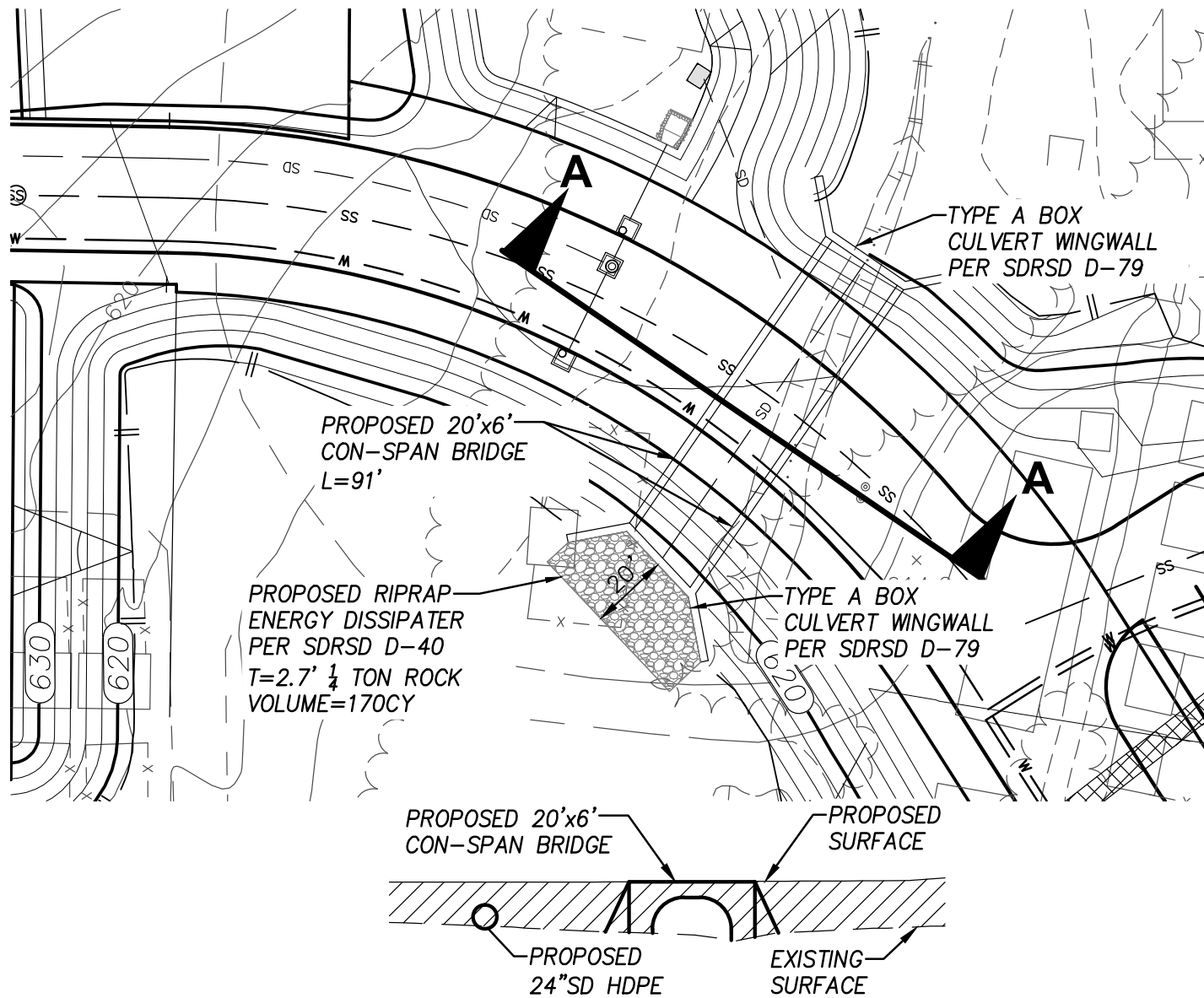
1. Helix Environmental Planning, Valiano, Waters of U.S. – Linear Feet Mitigation, Figure 4.
2. Helix Environmental Planning, Valiano, Arch Bridge Cross Section, Typical Figure and Cross Section A-A.
3. Fuscoe Engineering, Valiano, Rough Grading Plan, December 2018, Sheets 1-28.



Waters of the U.S. – Linear Feet Mitigation

I:\PROJECTS\IPQ\IPQ-08\_Valiamo\Map\BIO\MitigationPlan\_LinearFeet\_WUS\Fig4\_RWOCB\_Mitigation.mxd IPQ-08 05/15/17-RK

Sheet9 Cross-section GG.mxd IPO-08 11/13/14-RK

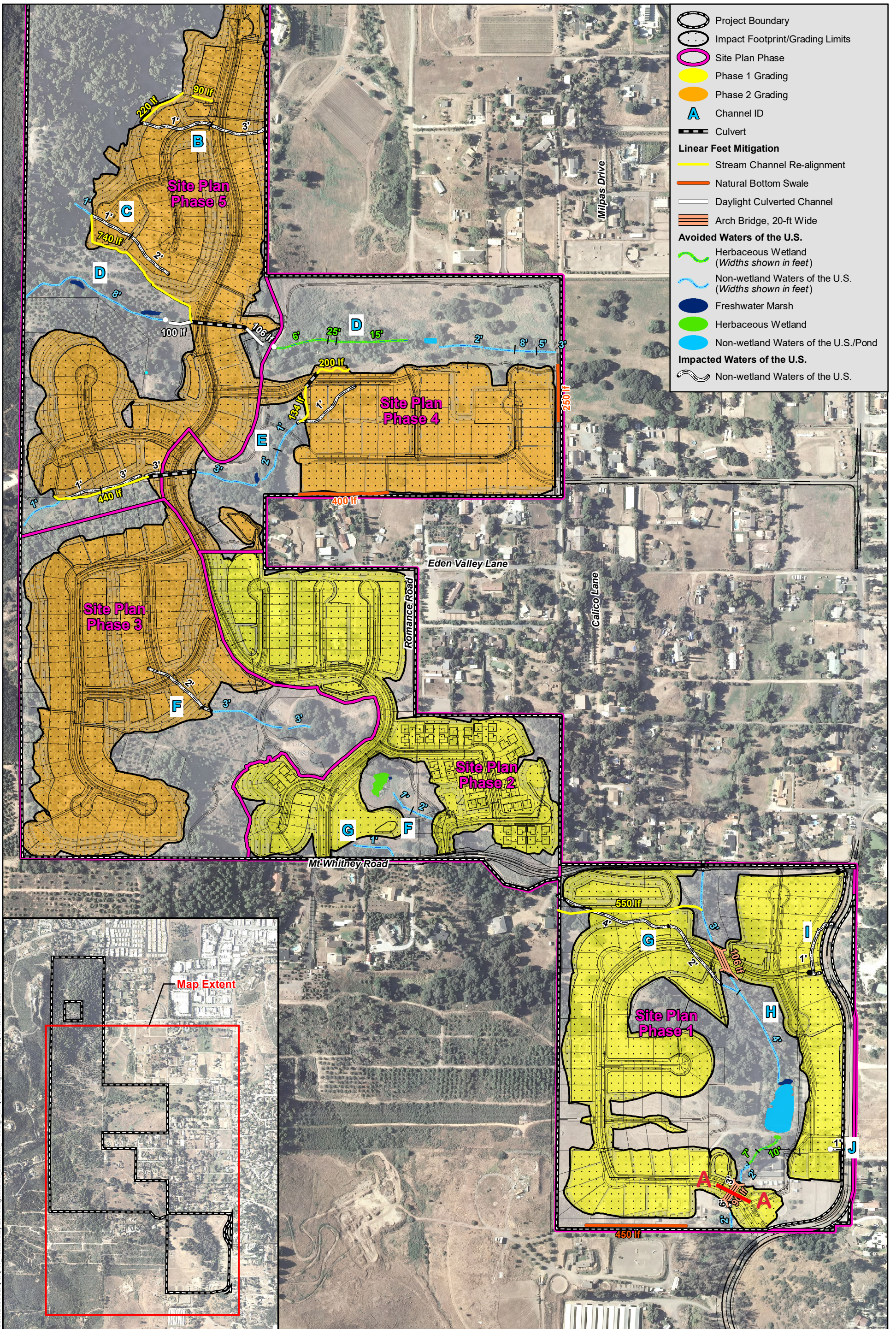


Source: Fuscoe Engineering 2014

## Cross-section A-A - Typical Arch Bridge Section

VALIANO





Arch Bridge Cross Section - Typical

GENERAL NOTES
1. APPROVAL OF THIS GRADING PLAN DOES NOT CONSTITUTE APPROVAL OF VERTICAL OR HORIZONTAL ALIGNMENT OF ANY PRIVATE ROAD SHOWN HEREON FOR COUNTY ROAD PURPOSES.

3. IMPORT MATERIAL SHALL BE OBTAINED FROM A LEGAL SITE.
4. A CONSTRUCTION, EXCAVATION OR ENCROACHMENT PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS WILL BE REQUIRED FOR ANY WORK IN THE COUNTY RIGHT-OF-WAY.

10. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WORKING UP, REPAIR, MAINTENANCE, AND DEMOLITION OF EXISTING STRUCTURES, SHALL BE COMPLETED BY 6:00 PM EACH DAY, MONDAY THRU SATURDAY, AND NO EARLYMORNING OR GRADING OPERATIONS SHALL BE CONDUCTED ON THE PREMISES ON SUNDAYS OR HOLIDAYS.

11. ALL MAJOR SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.
12. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE APPROVAL OF THESE GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO ADJACENT PROPERTY, NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PUBLIC STREET, SIDEWALK, ALLEY, FUNCTION OF ANY SEWAGE DISPOSAL SYSTEM, OR ANY OTHER PUBLIC OR PRIVATE PROPERTY WITHOUT SUPPORTING AND PROTECTING SUCH PROPERTY FROM SETTLING, CRACKING, EROSION AND OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE OWNER SHALL BE RESPONSIBLE FOR CORRECTION OF NON-DEDICATED IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY.

13. SLOPE RATIOS:
CUT 1:1 FOR MINOR SLOPES UNDER 15' HIGH OR IN ROCK, 2:1 FOR MAJOR SLOPES
FILL 2:1
EXCAVATION: 1:0.15:0.00 CY FILL: 1:0.15:0.00 CY WASTE/IMPORT: 0 CY
NOTE: A SEPARATE VALID PERMIT MUST EXIST FOR EITHER WASTE OR IMPORT AREAS

14. SPECIAL CONDITIONS: IF ANY ARCHAEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING DURING GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY DISCOVERY, AND GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE DIRECTOR OF PUBLIC WORKS TO DO SO.
15. PERMANENT POST-CONSTRUCTION BMP DEVICES SHOWN ON PLAN SHALL NOT BE REMOVED OR MODIFIED WITHOUT THE APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.

16. THE APPLICANT IS RESPONSIBLE FOR THE ROAD MAINTENANCE (SWEEPING AS NECESSARY) AND REPAIRS OF ANY DAMAGE CAUSED BY THEM TO THE ON-SITE AND OFF-SITE COUNTY MAINTAINED OR PRIVATE ROADS THAT SERVE THE PROPERTY EITHER DURING CONSTRUCTION OR SUBSEQUENT OPERATIONS, THE APPLICANT WILL REPAIR THOSE PORTIONS OF THE ROUTE THAT WOULD BE DAMAGED BY THE HEAVY LOADS THAT LOADED TRUCKS PLACE ON THE ROUTE DETERMINED.
17. THE ENGINEER-OF-WORK SHALL COMPLY WITH ALL PROJECT APPLICABLE LAWS THAT INCLUDE, BUT ARE NOT LIMITED TO, HEALTH, SAFETY, AND ENVIRONMENTAL LAWS, ORDINANCES, AND REGULATIONS RELATING TO THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, AND U.S. FEDERAL GOVERNMENT. THE PROJECT IS SUBJECT TO ENFORCEMENT UNDER PERMITS FROM THE SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD (RWQCB) AND THE COUNTY OF SAN DIEGO WATERSHED PROTECTION, STORMWATER MANAGEMENT, AND DISCHARGE CONTROL ORDINANCE NO. 10410, COUNTY OF SAN DIEGO HYDRAULIC DESIGN MANUAL, AND ALL OTHER APPLICABLE ORDINANCES AND STANDARDS FOR THE LIFE OF THIS PERMIT. THE PROJECT SITE SHALL BE IN COMPLIANCE WITH ALL APPLICABLE STANDARDS AND REGULATIONS REFERENCED ABOUT THE ASSOCIATED APPLICABLE ORDINANCES AND STANDARDS FOR THE LIFE OF THIS PERMIT. THE APPLICANT SHALL BE RESPONSIBLE FOR QUALITY MANAGEMENT PLAN (SQMP) ALL REQUIREMENTS FOR LOW IMPACT DEVELOPMENT (LID) AND SEMI-NATURAL DETENTION FACILITIES, MATERIALS AND WASTES CONTROL, EROSION CONTROL, AND SEDIMENT CONTROL ON THE PROJECT SITE.

18. THE ISSUANCE OF THIS PERMIT/APPROVAL BY THE COUNTY OF SAN DIEGO DOES NOT AUTHORIZE THE APPLICANT FOR THE PERMIT/APPROVAL TO VIOLATE ANY FEDERAL, STATE, OR COUNTY LAWS, ORDINANCES, REGULATIONS, OR POLICIES INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT AND CLEAN WATER ACT. GRADING AND/OR FURTHER DEVELOPMENT ARE PROHIBITED WITHIN THE AREAS DESIGNATED "LIMITS OF JURISDICTIONAL HABITAT" UNTIL FEDERAL PERMITS AND STATE PERMITS (IF ANY) HAVE BEEN ACQUIRED.

OWNER'S / PERMITTEES
NAME: THE EDEN HILLS PROJECT OWNER, LLC
ADDRESS: 2235 ENCINITAS BOULEVARD, SUITE 216
ENCINITAS, CALIFORNIA 92024
TELEPHONE NO: 760-944-7511
SHORT LEGAL DESCRIPTION: PORTIONS OF LOTS 1,3 AND 5 OF SECTION 19, TOWNSHIP 12 SOUTH, RANGE 2 WEST, S8M TOGETHER WITH PARCELS 1,2 AND 3 OF PARCEL MAP 3795, AND A PORTION OF LOT 11 OF SECTION 18, TOWNSHIP 12 SOUTH, RANGE 2 WEST, S8M IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA.

COUNTY OF SAN DIEGO
ROUGH GRADING PLAN
VALIANO

ENGINEER
FUSCOE ENGINEERING, SAN DIEGO, INC. 6390 GREENWICH DRIVE, STE. 170 SAN DIEGO, CA 92122 (619) 554-1500
PROPOSED GRADING
CUT: 1,015,000 CY
FILL: 1,015,000 CY
ENGINEER'S ESTIMATE ONLY. NOT FOR BID PURPOSES.

WORK TO BE DONE
THE GRADING WORK SHALL CONSIST OF THE CONSTRUCTION OF ALL CUTS AND FILLS, REMOVAL WALLS, REMOVAL GRADING, DRAINAGE AND STORM WATER TREATMENT FACILITIES, EROSION CONTROL, AND PLANTING OF PERMANENT LANDSCAPING.

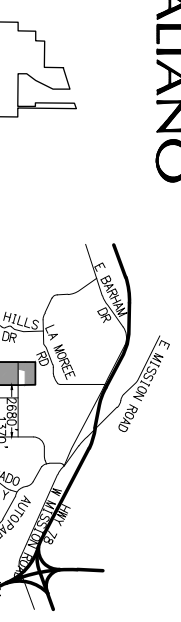
HIGH DENSITY POLYETHYLENE PIPE (HDPE)
B.5.1 GENERAL REQUIREMENTS
1. HOPE PIPE SHALL CONFORM TO CURRENT AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (ASHTO), PIPES WITH A DIAMETER OF 4 INCHES THROUGH 36 INCHES SHALL CONFORM TO ASHTO DESIGNATION M-294, TYPE S (SMOOTH INTERIOR). PIPES WITH A DIAMETER OF 42 INCHES THROUGH 48 INCHES SHALL CONFORM TO ASHTO DESIGNATION M-294, TYPE D. THE LAST 16 FEET (TYPICALLY TWO SECTIONS) AT EACH EXPOSED END OF A CULVERT SHALL BE CONSTRUCTED OF REINFORCED CONCRETE PIPE (RCP) (TYPE C IS NOT ALLOWED).

B.5.2 HOPE PIPES 48 IN DIAMETER AND SMALLER
1. PIPE SHALL BE BACKFILLED WITH CRUSHED ROCK IN ACCORDANCE WITH CITY OF SAN DIEGO STANDARD DRAWING SD-110, TYPE C ROCK ENVELOPE, INCLUDING APPROPRIATE FILTER FABRIC LINING. THE REMAINDER OF THE TRENCH SHALL BE BACKFILLED WITH THE SPECIFIED BACKFILL MATERIAL COMPACTED TO 90 PERCENT RELATIVE COMPACTION PER CALIFORNIA TEST METHOD 216, AS MODIFIED BY THE COUNTY OF SAN DIEGO OR ASTM D-1557 EXCEPT FOR THE PORTION IN THE PAVEMENT SUBGRADE, WHICH SHALL BE COMPACTED TO 95 PERCENT RELATIVE COMPACTION.

3. PIPE WITH LESS THAN 2 FEET OF COVER UNDER HIGHWAY LOADING SHALL BE CONCRETE-ENCASED IN ACCORDANCE WITH CITY OF SAN DIEGO STANDARD DRAWING SD-110, THE PORTION ABOVE THE ENCASMENT SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE PARAGRAPH ABOVE.
4. MAXIMUM PIPE COVER SHALL NOT EXCEED THE AMOUNT SPECIFIED IN THE CURRENT CALTRANS DESIGN MANUAL.
B.5.3 HOPE PIPES LARGER THAN 48 IN
1. MAXIMUM FILL HEIGHT OVER THE PIPE SHALL NOT EXCEED 19.5 FT.
2. 54-IN AND 60-IN DIAMETER CORRUGATED HOPE SHALL BE BACKFILLED WITH CONCRETE SLURRY CEMENT, OR OTHER FLOWABLE FILL MATERIAL, SATISFYING CALTRANS SPECIFICATIONS. AT MINIMUM, THIS BACKFILL SHALL BE BROUGHT TO A DEPTH EQUIVALENT TO 3/4 THE PIPE DIAMETER.

NOTICE: THE SUBJECT PROPERTY CONTAINS WETLANDS, A LAKE, A STREAM AND/OR WATERS OF THE U.S. AND/OR STATE WHICH MAY BE SUBJECT TO REGULATION BY STATE AND/OR FEDERAL AGENCIES, INCLUDING, BUT NOT LIMITED TO, THE REGIONAL WATER QUALITY CONTROL BOARD, U.S. ARMY CORPS OF ENGINEERS AND THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE. THE APPLICANT'S RESPONSIBILITY TO CONSULT WITH EACH AGENCY CONCERNING THE NECESSITY OF OBTAINING OTHER APPROVALS IS REQUIRED PRIOR TO ANY CONSTRUCTION. A PERMIT FOR APPROVAL OF OTHER APPROVALS IS REQUIRED WHICH COULD SUBJECT THE WETLANDS, LAKE, STREAM AND/OR WATERS OF THE U.S. ON THE SUBJECT PROPERTY. THE AGENCY CONTACT INFORMATION IS PROVIDED BELOW.

OWNERS / PERMITTEES
NAME: THE EDEN HILLS PROJECT OWNER, LLC
ADDRESS: 2235 ENCINITAS BOULEVARD, SUITE 216
ENCINITAS, CALIFORNIA 92024
TELEPHONE NO: 760-944-7511
SHORT LEGAL DESCRIPTION: PORTIONS OF LOTS 1,3 AND 5 OF SECTION 19, TOWNSHIP 12 SOUTH, RANGE 2 WEST, S8M TOGETHER WITH PARCELS 1,2 AND 3 OF PARCEL MAP 3795, AND A PORTION OF LOT 11 OF SECTION 18, TOWNSHIP 12 SOUTH, RANGE 2 WEST, S8M IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA.



INDEX
T=1000'

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2-21 GRADING PLANS
22-28 STORM DRAIN PROFILES
29-49 CUSTOM WALL PLAN AND PROFILES
50-55 EROSION CONTROL PROFILES
56-59 NOTES
59-60 EXISTING EASEMENTS

MONUMENTATION NOTE:
THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND PROTECT ALL SURVEY CONTROL MONUMENTS, WHETHER SHOWN ON THESE PLANS OR NOT, WITHIN THE PROJECT AREA. ALL SURVEY MONUMENTS, WHETHER FOR HORIZONTAL OR VERTICAL CONTROL, THAT WILL OR COULD BE DISTURBED OR REMOVED BY THE CONTRACTOR, OR HIS EMPLOYEES, AGENTS, SUBCONTRACTORS, CONSULTANT OR LICENSEE, SHALL BE LOCATED PRIOR TO BEING DISTURBED OR REMOVED AND REPLACED OF NEARLY IN ACCORDANCE WITH THE CALIFORNIA BUSINESS & PROFESSIONS CODE SECTION 87171(9). AT THE CONTRACTOR'S SOLE RISK, UNDER THE SUPERVISION OF THE PROJECT DESIGN AND SURVEYING ENGINEER, AUTOMATICALLY IN ADDITION, A RECORD OF SURVEY OR CORNER RECORD, AS APPLICABLE, SHALL BE FILED AND/OR RECORDED, IN ACCORDANCE WITH THE PROVISIONS OF SAID CODE.

DECLARATION OF RESPONSIBLE CHARGE
I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT THAT I HAVE EXPRESSED RESPONSIBLE CHARGE OVER THE DESIGN AND PROFESSIONAL CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.
I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF SAN DIEGO IS CONSIDERED PART OF THE RESPONSIBILITIES FOR PROJECT DESIGN.

ENGINEER'S CERTIFICATE
IF IT IS AGREED THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS, THE ENGINEER AGREES THAT THE OWNER (OR EMPLOYER) SHALL HAVE A REGISTERED CIVIL ENGINEER MAKE SUCH CHANGES. IN ADDITION TO THESE PLANS WHICH THE DIRECTOR OF PUBLIC WORKS DETERMINES ARE NECESSARY AND DESIRABLE FOR THE PROPER COMPLETION OF THE IMPROVEMENTS.

OWNER'S CERTIFICATE
THE ENGINEER HAS REVIEWED THESE GRADING PLANS AND HAS DETERMINED THAT THEY COMPLY WITH THE REQUIREMENTS OF THE GRADING ORDINANCE AND THE STANDARDS FOR THE LIFE OF THIS PERMIT. THE ENGINEER SHALL BE RESPONSIBLE FOR QUALITY MANAGEMENT PLAN (SQMP) ALL REQUIREMENTS FOR LOW IMPACT DEVELOPMENT (LID) AND SEMI-NATURAL DETENTION FACILITIES, MATERIALS AND WASTES CONTROL, EROSION CONTROL, AND SEDIMENT CONTROL ON THE PROJECT SITE.

PDS ENVIRONMENTAL NOTE:
NOTICE: THE ISSUANCE OF THIS PERMIT/APPROVAL BY THE COUNTY OF SAN DIEGO DOES NOT AUTHORIZE THE APPLICANT FOR SAID PERMIT/APPROVAL TO VIOLATE ANY FEDERAL, STATE, OR COUNTY LAWS, ORDINANCES, REGULATIONS, OR POLICIES INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT AND ANY AMENDMENTS THEREOF.

STORMWATER STRUCTURAL POLLUTANT CONTROL & HYDROMODIFICATION CONTROL BMP'S
Table with columns: DESCRIPTION/TYPE, PLAN SHEET, BMP ID #, MAINTENANCE CATEGORY, MAINTENANCE AGREEMENT/RECORDED DOCUMENT NUMBER.

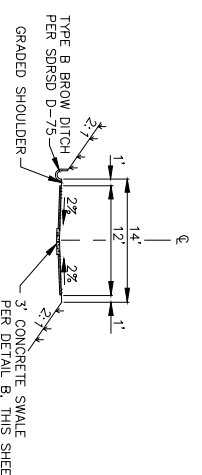
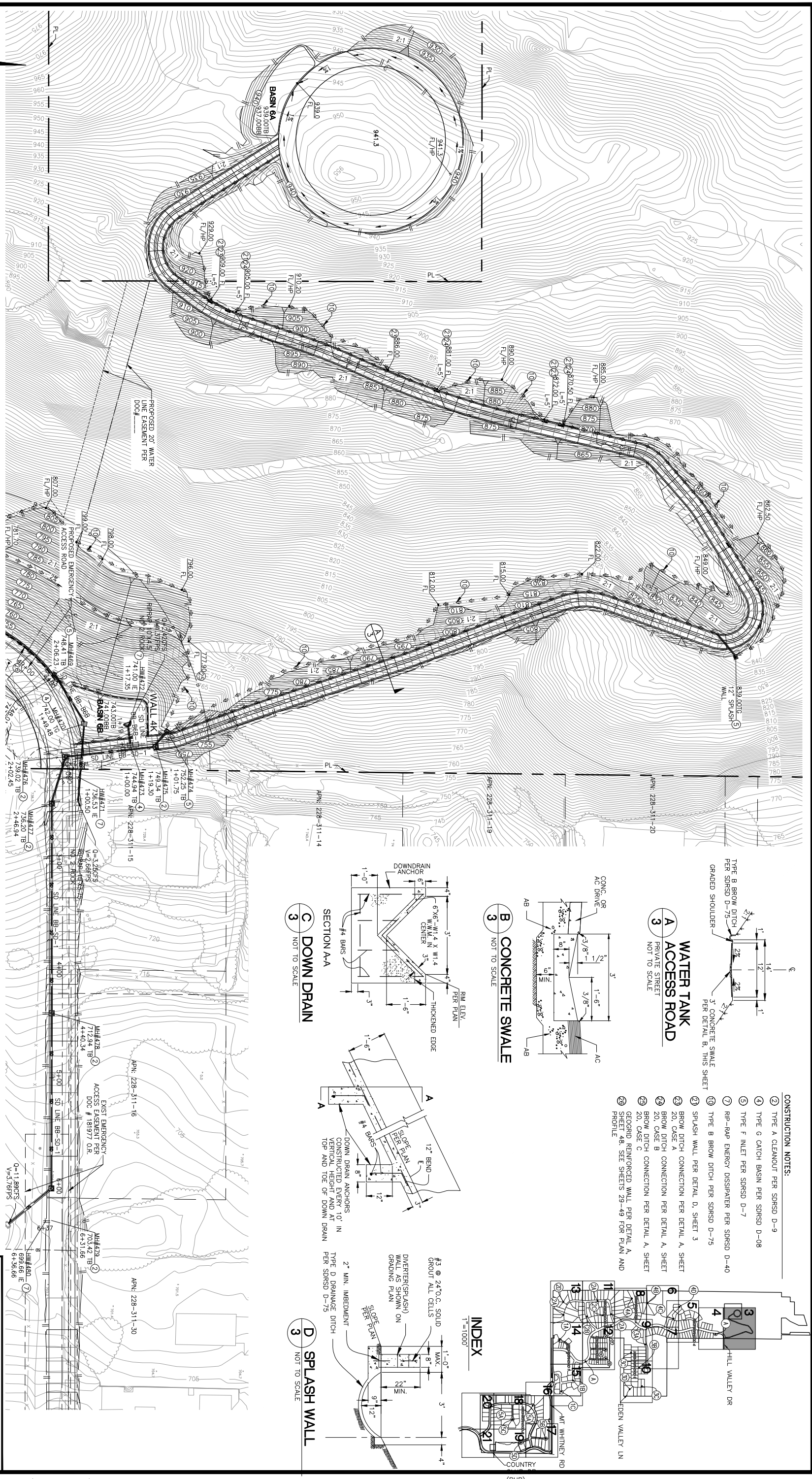
PERMITS
LANDSCAPE PERMIT NO. PDS2013-ER-12-06-002
WDO/NOI NO. SWPPP RISK LEVEL
MAJOR USE PERMIT NO. PDS2014-MUP-14-019
TENTATIVE MAP NO. PDS2013-TM-5575
SITE PLAN NO. PDS2013-SP-13-003
IMPROVEMENT PLAN NO. PDS2018-IMP-50055

PRIVATE CONTRACT
SHEET 1 OF 60
COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS

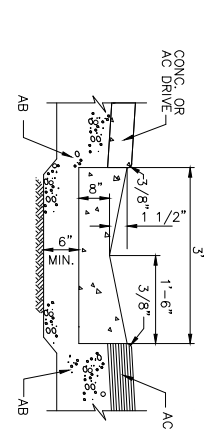
VALIANO
CALIFORNIA COORDINATE INDEX 546-1725
COUNTY ENGINEER
RECORDED FROM: POS 2018-LDRM-U-30158

APPROVED FOR WILLIAM P. WOODSON COUNTY ENGINEER
DATE: 4/22/2018

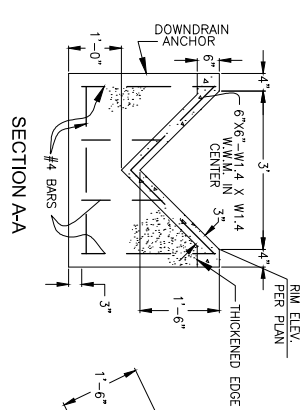




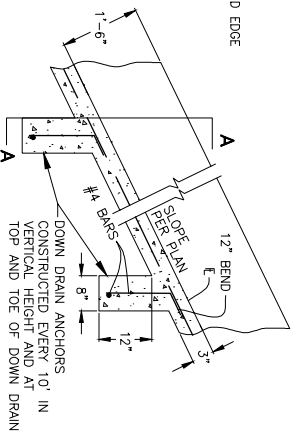
**A WATER TANK ACCESS ROAD**  
PRIVATE STREET  
NOT TO SCALE



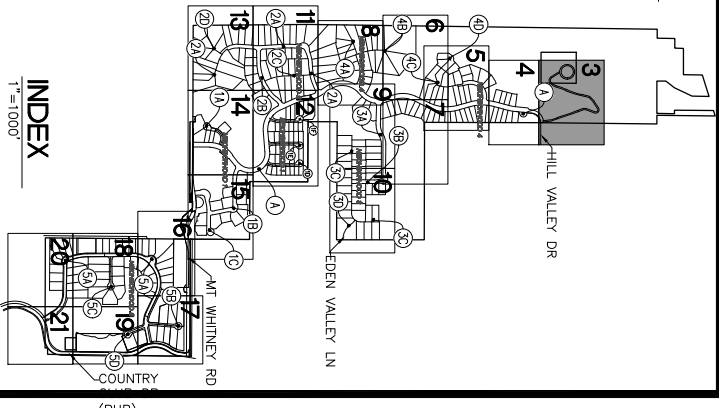
**B CONCRETE SWALE**  
NOT TO SCALE



**C DOWN DRAIN**  
NOT TO SCALE



**D SPLASH WALL**  
NOT TO SCALE

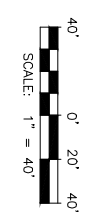


- CONSTRUCTION NOTES:**
- 2 TYPE A CLEANOUT PER SDRSD D-9
  - 4 TYPE G CATCH BASIN PER SDRSD D-08
  - 5 TYPE F INLET PER SDRSD D-7
  - 7 RIP-RAP ENERGY DISSIPATOR PER SDRSD D-40
  - 10 TYPE B BROW DITCH PER SDRSD D-75
  - 17 SPLASH WALL PER DETAIL D, SHEET 3
  - 23 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE A
  - 24 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE B
  - 25 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE C
  - 26 GEORGD. REINFORCED WALL PER DETAIL A, SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE

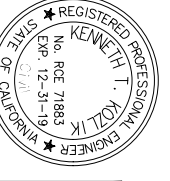
STORM DRAIN LINE PROFILE ON SHEET

BB-868	27
BB-868-1	27
BB-SD-1	27

SEE SHEET 4



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6390 Greenwich Dr., Suite 170, San Diego, California 92122  
Tel 858.554.1500 • fax 858.597.0335 • www.fuscoe.com



**RECORD PLAN**

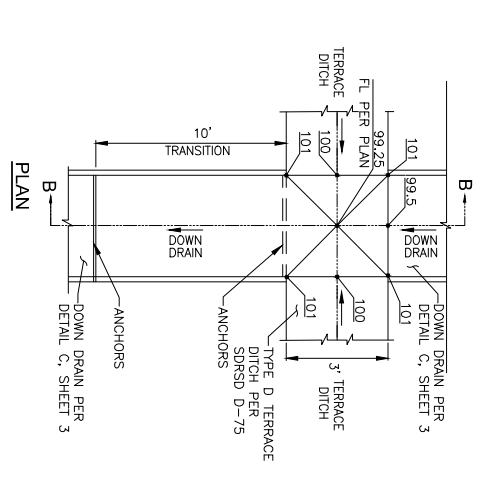
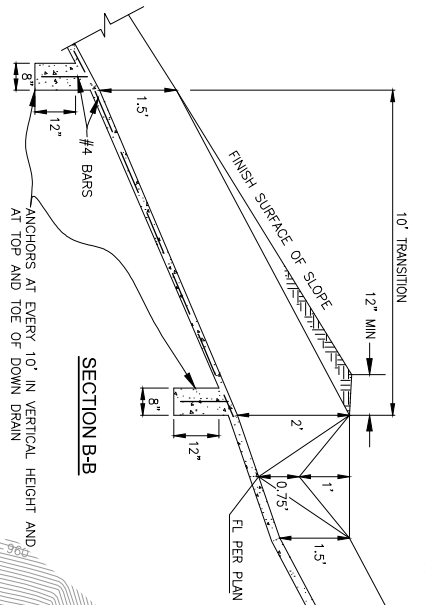
BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
R.C.E. \_\_\_\_\_  
EXPIRES: \_\_\_\_\_

**COUNTY APPROVED CHANGES**

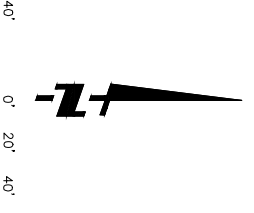
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**PRIVATE CONTRACT**

SHEET 3	COUNTY OF SAN DIEGO	60 SHEETS
ROUGH GRADING PLAN	DEPARTMENT OF PUBLIC WORKS	
<b>VALLIANO</b>		
CALIFORNIA COORDINATE INDEX 346-1725	ENGINEER OF WORK 442	
APPROVED FOR WILLIAM P. MCKENNA COUNTY ENGINEER	POS 2018-LDGRM-30158	
	GRADING PERMIT NO.	



**A** TERRACE DRAIN / DOWN DRAIN INTERSECTION  
NOT TO SCALE



**B** TYPICAL CHANNEL  
NOT TO SCALE

STREAM CHANNEL REALIGNMENT

CHANNEL ID	BW	D	TW	100'-10'	NATURAL CHANNEL	CHANNEL ID	BW	D	TW	100'-10'
B (WEST)	4'	1'	10'	4.5'	N3 (WEST)	4'	1'	10'	6.4'	
B (EAST)	4'	1.5'	13'	8.3'	N3 (EAST)	2'	1.2'	9.2'	5.4'	
C	3'	1'	9'	5.2'	NS	3'	4'	27'	5.3'	
D (WEST)	3'	2'	15'	9.9'						
D (EAST)	4'	2.5'	19'	15.8'						
E (WEST)	4'	2.25'	17.5'	10.0'						
E (CENTRAL)*	6'	2.5'	16'	12.5'						
E (EAST)*	15'	1.4'	20.6'	17.7'						
C	10'	3.5'	31'	22.7'						

\* E (CENTRAL) AND (EAST) HAS 2:1 SIDE SLOPES



SEE SHEET 3

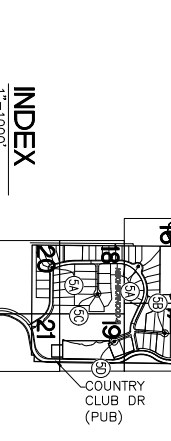
SEE SHEET 5

CONSTRUCTION NOTES:

- 1 CURB INLET TYPE B PER SDRSD D-2
- 2 TYPE A CLEANOUT PER SDRSD D-9
- 3 WING TYPE HEADWALL PER SDRSD D-34
- 4 TYPE G CATCH BASIN PER SDRSD D-08
- 5 TYPE F INLET PER SDRSD D-7
- 6 RIP-RAP ENERGY DISSIPATOR PER SDRSD D-40
- 7 TYPE B BROW DITCH PER SDRSD D-75
- 8 MASONRY RETAINING WALL TYPE 3 PER SDRSD C-03
- 9 MASONRY RETAINING WALL TYPE 5 PER SDRSD C-05
- 10 GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
- 11 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE A
- 12 GEOTECH REINFORCED WALL PER DETAIL A, SHEET 48, SEE SHEETS 29-49 FOR PLAN AND PROFILE

STORM DRAIN LINE PROFILE ON SHEET

LINE	PROFILE ON SHEET
N4-2	24
N4-B4B	24
N4-B4B-1	25
N4-B4B-1_1	24
N4-B4B-1_2	25



INDEX  
T=1000'

RECORD PLAN

BY:	NAME:	DATE:
R.C.E.:		
EXPIRES:		

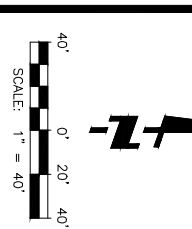
COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO	60
DEPARTMENT OF PUBLIC WORKS		SERIES
ROUGH GRADING PLAN		
VALLIANO		
CALIFORNIA COORDINATE INDEX	346-1725	
APPROVED FOR WILLIAM P. MORGAN	ENGINEER OF WORK	
COUNTY ENGINEER	DATE:	
POS 2018-LDGRM-30158	GRADING PERMIT NO.	





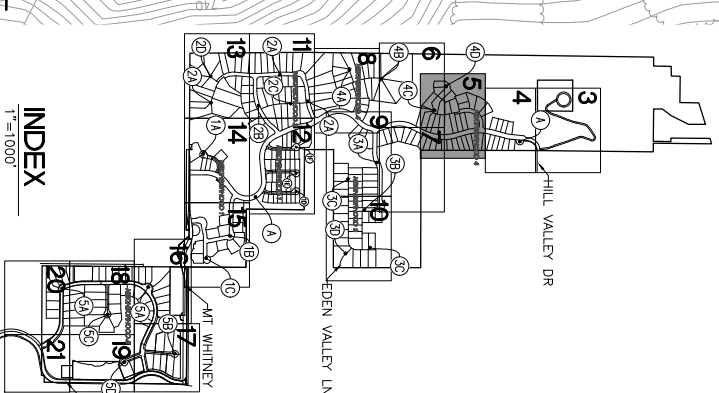
SEE SHEET 6

SEE SHEET 4

SEE SHEET 7

- CONSTRUCTION NOTES:**
- 1 CURB INLET TYPE B PER SORSO D-2
  - 2 TYPE A CLEANOUT PER SORSO D-9
  - 3 WING TYPE HEADWALL PER SORSO D-34
  - 4 RIP-RAP ENERGY DISSIPATOR PER SORSO D-40
  - 5 TYPE B BROW DITCH PER SORSO D-75
  - 6 GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
  - 7 DOWN DRAIN PER DETAIL C, SHEET 3
  - 8 SPLASH WALL PER DETAIL D, SHEET 3
  - 9 TERRACE DRAIN AND DOWN DRAIN INTERSECTION PER DETAIL A, SHEET 4
  - 10 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE A
  - 11 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE B
  - 12 GEGRID REINFORCED WALL PER DETAIL A SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE

STORM DRAIN LINE	PROFILE ON SHEET
BB-B3C	27
N4-2	24
N4-B4A	24
N4-B4A.1	24
N4-B4A.2	24
N4-B4A.2.1	24
N4-B4B-1	25
N4-2.1	24



**INDEX**  
T=1000'

**PRIVATE CONTRACT**

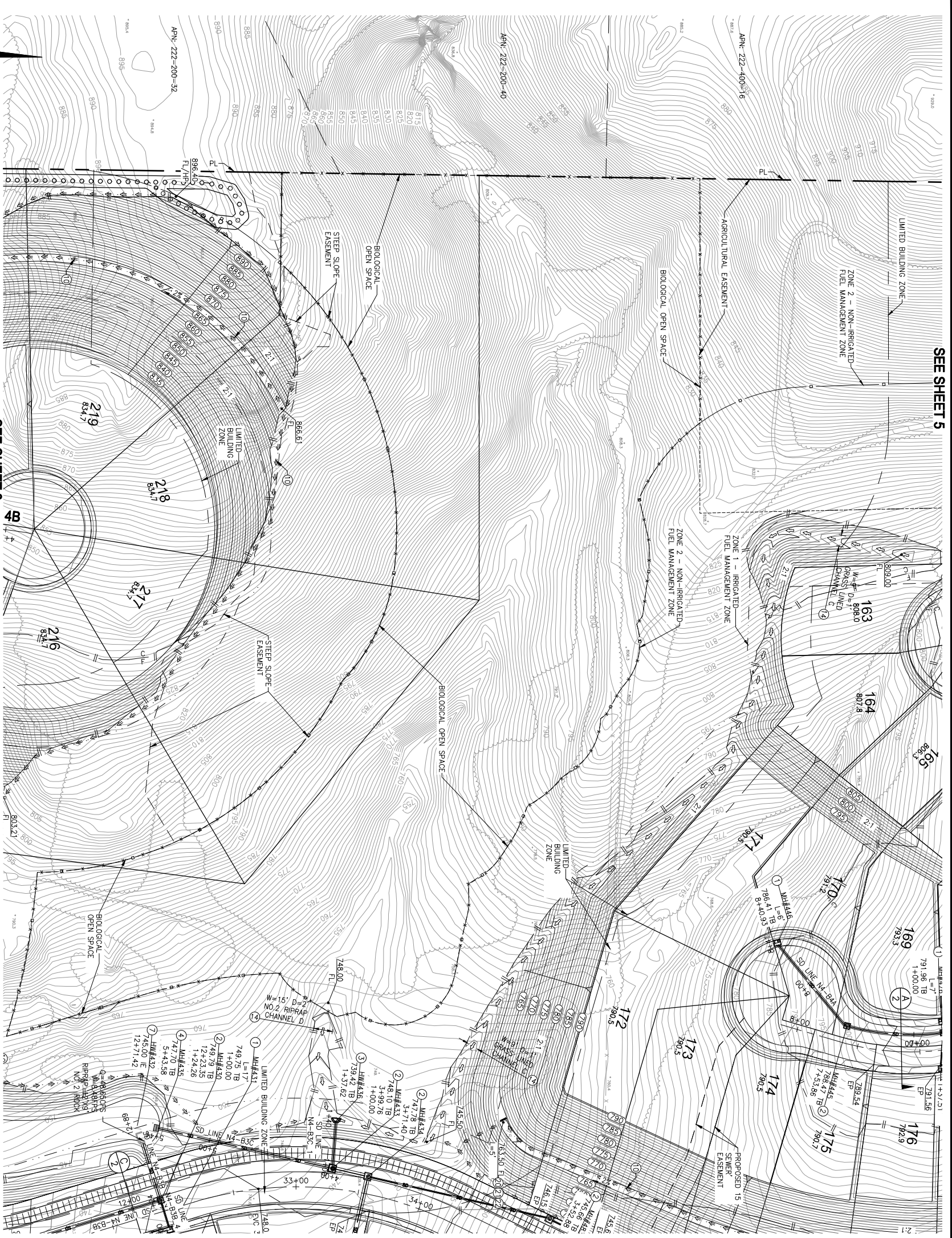
COUNTY APPROVED CHANGES	
NO.	DESCRIPTION:
APPROVED BY:	DATE:

**RECORD PLAN**

BY: \_\_\_\_\_ NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E.: \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_



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 6390 Greenwich Dr., Suite 170, San Diego, California 92122  
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SEE SHEET 5

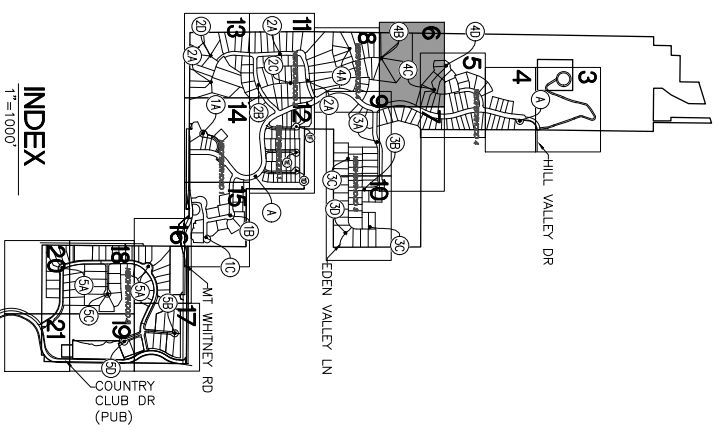
SEE SHEET 8

SEE SHEET 7

CONSTRUCTION NOTES:

- ① CURB INLET TYPE B PER SDRSD D-2
- ② TYPE A CLEANOUT PER SDRSD D-9
- ③ WING TYPE HEADWALL PER SDRSD D-34
- ④ TYPE G CATCH BASIN PER SDRSD D-08
- ⑦ RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
- ⑩ TYPE B BROW DITCH PER SDRSD D-75
- ⑬ GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
- ⑭ DOWN DRAIN PER DETAIL C, SHEET 3
- ⑰ SPLASH WALL PER DETAIL D, SHEET 3
- ⑱ TERRACE DRAIN AND DOWN DRAIN INTERSECTION PER DETAIL A, SHEET 4

STORM DRAIN LINE	PROFILE ON SHEET
N4-B3B	25
N4-B3B_4	24
N4-B3C	24
N4-B3C_1	24



PRIVATE CONTRACT

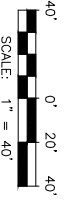
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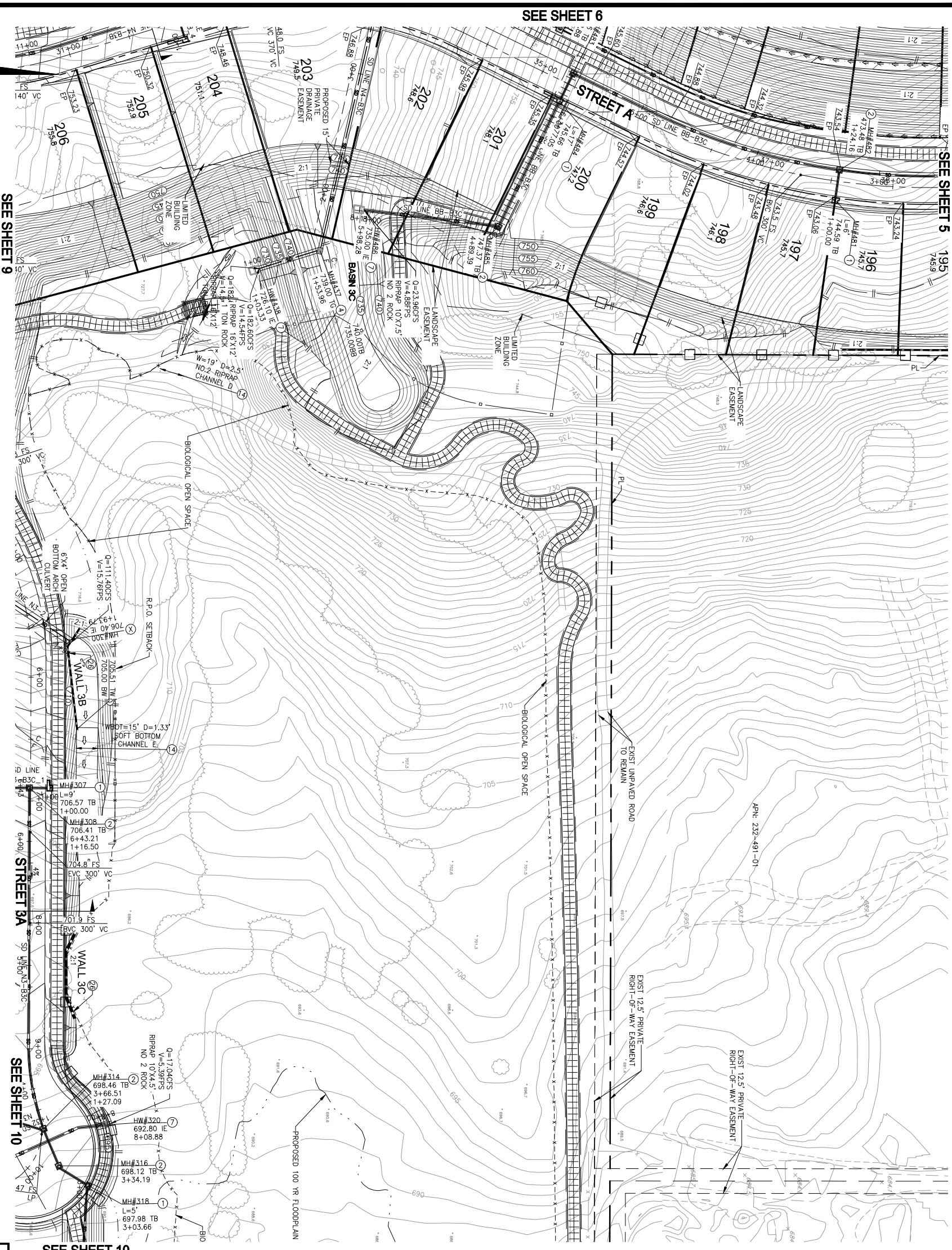
RECORD PLAN

BY: \_\_\_\_\_ NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E. \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_

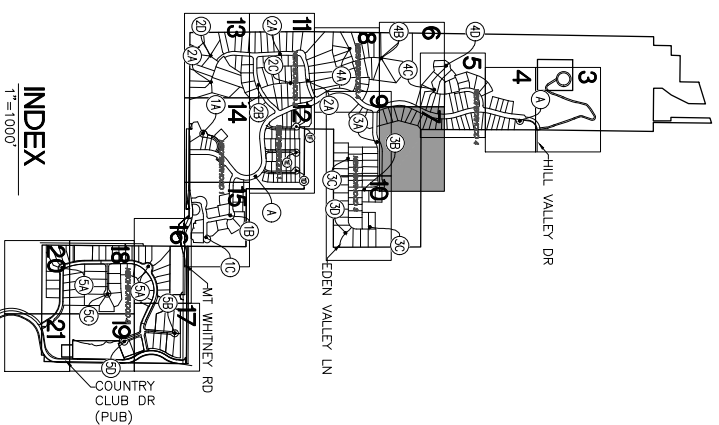


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- CONSTRUCTION NOTES:
- 1 CURB INLET TYPE B PER SDRSD D-2
  - 2 TYPE A CLEANOUT PER SDRSD D-9
  - 3 TYPE G CATCH BASIN PER SDRSD D-08
  - 4 RIIP-RAP ENERGY DISSIPATER PER SDRSD D-40
  - 5 GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
  - 6 GEORGRID REINFORCED WALL PER DETAIL A SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE
- STORM DRAIN LINE PROFILE ON SHEET
- BB-B3C 27
- N4-B3C 24



PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO	60
7	DEPARTMENT OF PUBLIC WORKS	SEDS
ROUGH GRADING PLAN		
VALIANO		
CALIFORNIA COORDINATE INDEX 346-1725		
APPROVED FOR WILLIAM P. MODIAN COUNTY ENGINEER		
BR		
ENGINEER OF WORK		
442		
POS 2018-LDGRM-30158		
GRADING PERMIT NO.		

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_

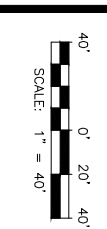
R.C.E.: \_\_\_\_\_

EXPIRES: \_\_\_\_\_



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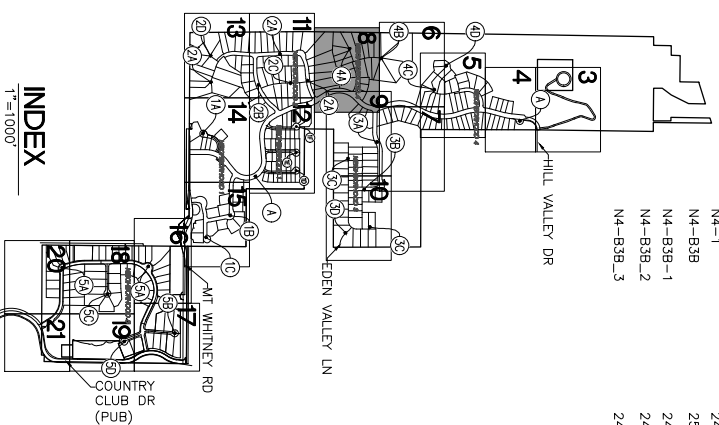




SEE SHEET 9

- CONSTRUCTION NOTES:
- 1 CURB INLET TYPE B PER SDPSD D-2
  - 2 TYPE A CLEANOUT PER SDPSD D-9
  - 3 WING TYPE HEADWALL PER SDPSD D-34
  - 4 TYPE C CATCH BASIN PER SDPSD D-08
  - 7 RIP-RAP ENERGY DISSIPATER PER SDPSD D-40
  - 10 TYPE B BROW DITCH PER SDPSD D-75
  - 12 MASONRY RETAINING WALL TYPE 5 PER SDPSD C-05
  - 13 GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
  - 14 DOWN DRAIN PER DETAIL C, SHEET 3
  - 15 SPLASH WALL PER DETAIL D, SHEET 3
  - 16 TERRACE DRAIN AND DOWN DRAIN INTERSECTION PER DETAIL A, SHEET 4
  - 17 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE A
  - 18 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE B
  - 19 GEORUD REINFORCED WALL PER DETAIL A, SHEET 48, SEE SHEETS 29-49 FOR PLAN AND PROFILE
  - 20 ANCHORPLEX RETAINING WALL PER DETAIL C, SHEET 48, SEE SHEETS 29-49 FOR PLAN AND PROFILE

STORM DRAIN LINE	PROFILE ON SHEET
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BB-B3A	27
N2-2	22
N2-B3A	23
N4-1	24
N4-B3B	24
N4-B3B-1	24
N4-B3B-2	24
N4-B3B-3	24



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T=1000'

COUNTY APPROVED CHANGES		
NO.	DESCRIPTION:	APPROVED DATE:

PRIVATE CONTRACT		
SHEET	COUNTY OF SAN DIEGO	60
ROUGH GRADING PLAN	DEPARTMENT OF PUBLIC WORKS	SERIES
VALLIANO		
CALIFORNIA COORDINATE INDEX	346-1725	
APPROVED FOR WILLIAM P. MADDEN	ENGINEER OF WORK	
COUNTY ENGINEER	DATE	
PDS 2018-LDGRM-30158	GRADING PERMIT NO.	

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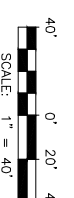


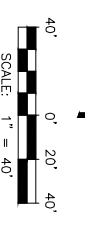
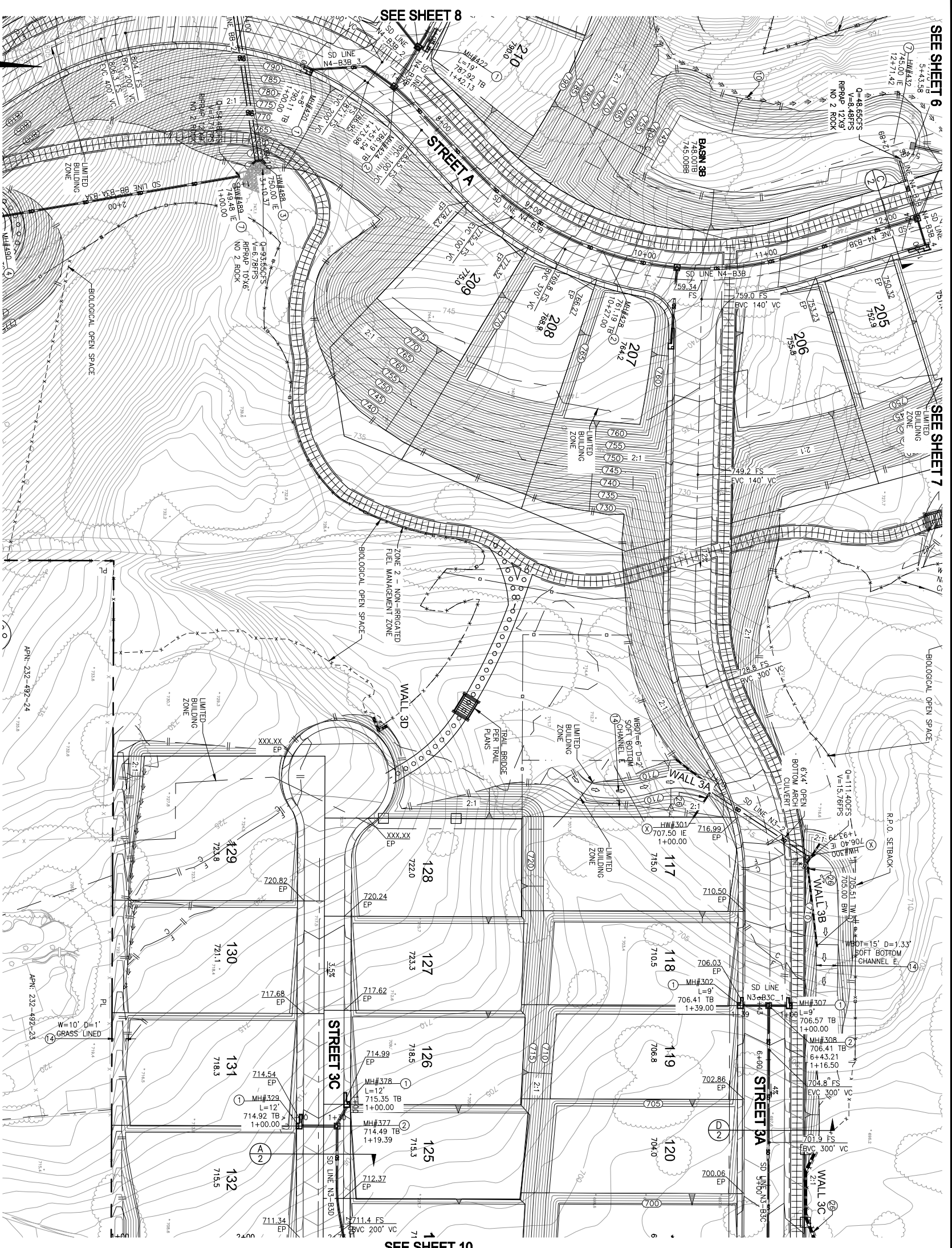
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BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_

R.C.E. \_\_\_\_\_

EXPIRES: \_\_\_\_\_

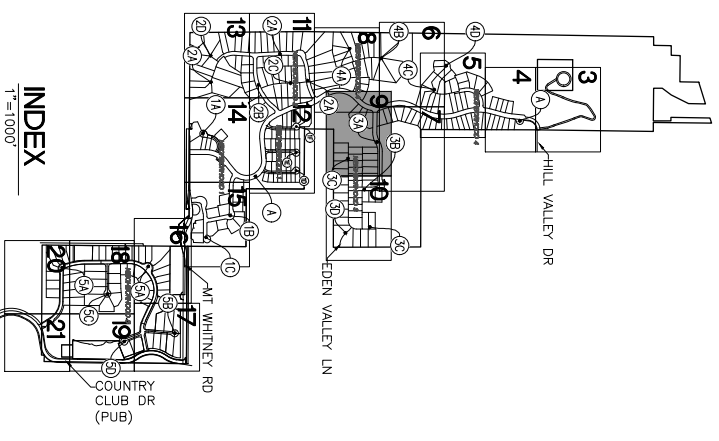




CONSTRUCTION NOTES:

- 1 CURB INLET TYPE B PER SDRSD D-2
- 2 TYPE A CLEANOUT PER SDRSD D-9
- 3 WING TYPE HEADWALL PER SDRSD D-34
- 4 RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
- 5 GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
- 6 GEORGRID REINFORCED WALL PER DETAIL A, SHEET 48; SEE SHEETS 29-49 FOR PLAN AND PROFILE
- 7 STORM DRAIN LINE PROFILE ON SHEET

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N3-2		23
N3-B3C		23
N3-B3C_1		23
N4-B3B		25
N4-B3B_2		24
N4-B3B_3		24



COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

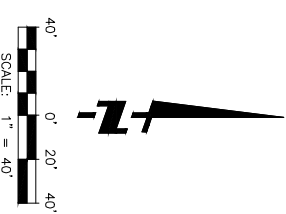
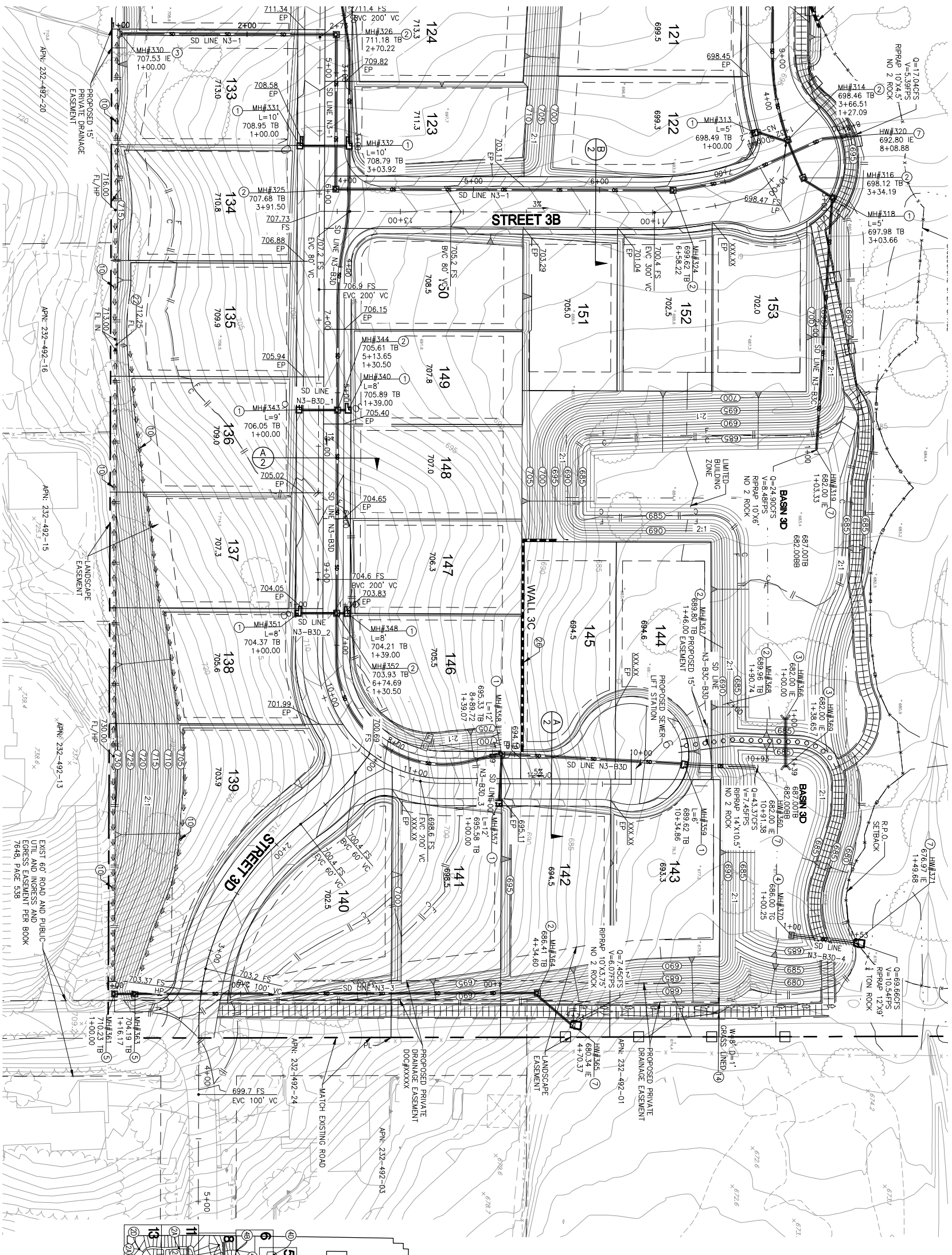
RECORD PLAN

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E. \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_



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SEE SHEET 9



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**RECORD PLAN**

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
R.C.E. \_\_\_\_\_  
EXPIRES: \_\_\_\_\_

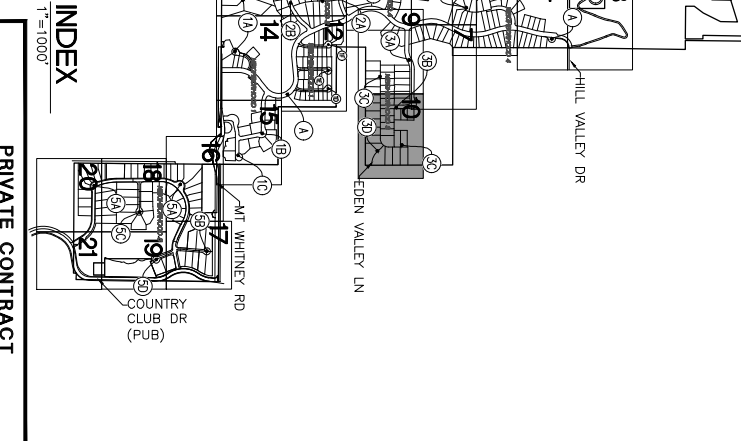
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**INDEX**  
T=1000'

SHEET	COUNTY OF SAN DIEGO	DEPARTMENT OF PUBLIC WORKS	SERIES
10			60

**PRIVATE CONTRACT**

CALIFORNIA COORDINATE INDEX 346-1725  
VALLIANO  
APPROVED FOR WILLIAM P. MORGAN  
COUNTY ENGINEER  
INDEX 346-1725  
ENGINEER OF WORK 442  
POS 2018-LDGRM-30158  
GRADING PERMIT NO.



- CONSTRUCTION NOTES:**
- 1 CURB INLET TYPE B PER SDRSD D-2
  - 2 TYPE A CLEANOUT PER SDRSD D-9
  - 3 WING TYPE HEADWALL PER SDRSD D-34
  - 4 TYPE C CATCH BASIN PER SDRSD D-08
  - 5 TYPE F INLET PER SDRSD D-7
  - 6 RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
  - 7 GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
  - 8 TERRACE DRAIN AND DOWN DRAIN INTERSECTION PER DETAIL A, SHEET 4
  - 9 GEOSGRID REINFORCED WALL PER DETAIL A, SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE
  - 10 STORM DRAIN LINE PROFILE ON SHEET
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| N3-1.2     | 23 |
| N3-3       | 23 |
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| N3-B3C-3B0 | 23 |
| N3-B3D     | 24 |
| N3-B3D.1   | 24 |
| N3-B3D.2   | 24 |
| N3-B3D.3   | 24 |
| N3-B3D.4   | 24 |

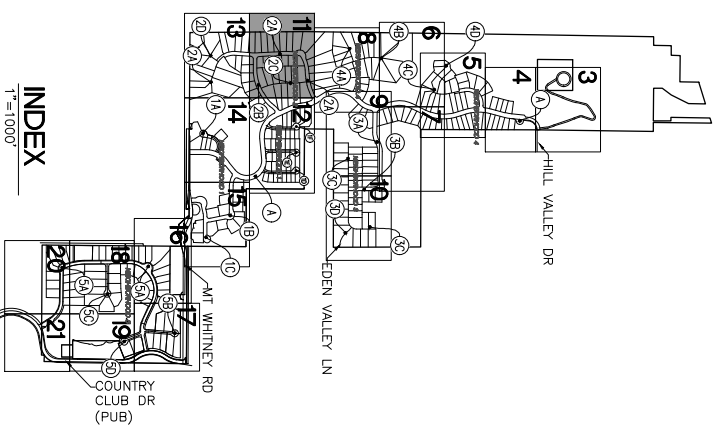


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SEE SHEET 8

SEE SHEET 12

- CONSTRUCTION NOTES:**
- 1 CURB INLET TYPE B PER SDRSD D-2
  - 2 TYPE A CLEANOUT PER SDRSD D-9
  - 3 TYPE F INLET PER SDRSD D-7
  - 4 TYPE B BROW DITCH PER SDRSD D-7S
  - 5 MASONRY REMAINING WALL TYPE 5 PER SDRSD C-05
  - 6 TERRACE DRAIN AND DOWN DRAIN INTERSECTION PER DETAIL A, SHEET 4
  - 7 BROW DITCH CONNECTION PER DETAIL A, SHEET 20, CASE A
  - 8 GEORGD RENFORCED WALL PER DETAIL A SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE
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| N2-B2C   | 23 |
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| N2-B2C-3 | 23 |



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PRIVATE CONTRACT

COUNTY APPROVED CHANGES		
NO.	DESCRIPTION:	APPROVED BY:

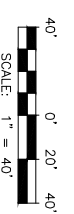
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COUNTY OF SAN DIEGO	DEPARTMENT OF PUBLIC WORKS	SERIES 60
ROUGH GRADING PLAN		
VALLIANO		
CALIFORNIA COORDINATE INDEX 346-1725	ENGINEER OF WORK	
APPROVED FOR WILLIAM P. MODIAN	DATE	
COUNTY ENGINEER		
POS 2018-LDGRM-30158		
GRADING PERMIT NO.		

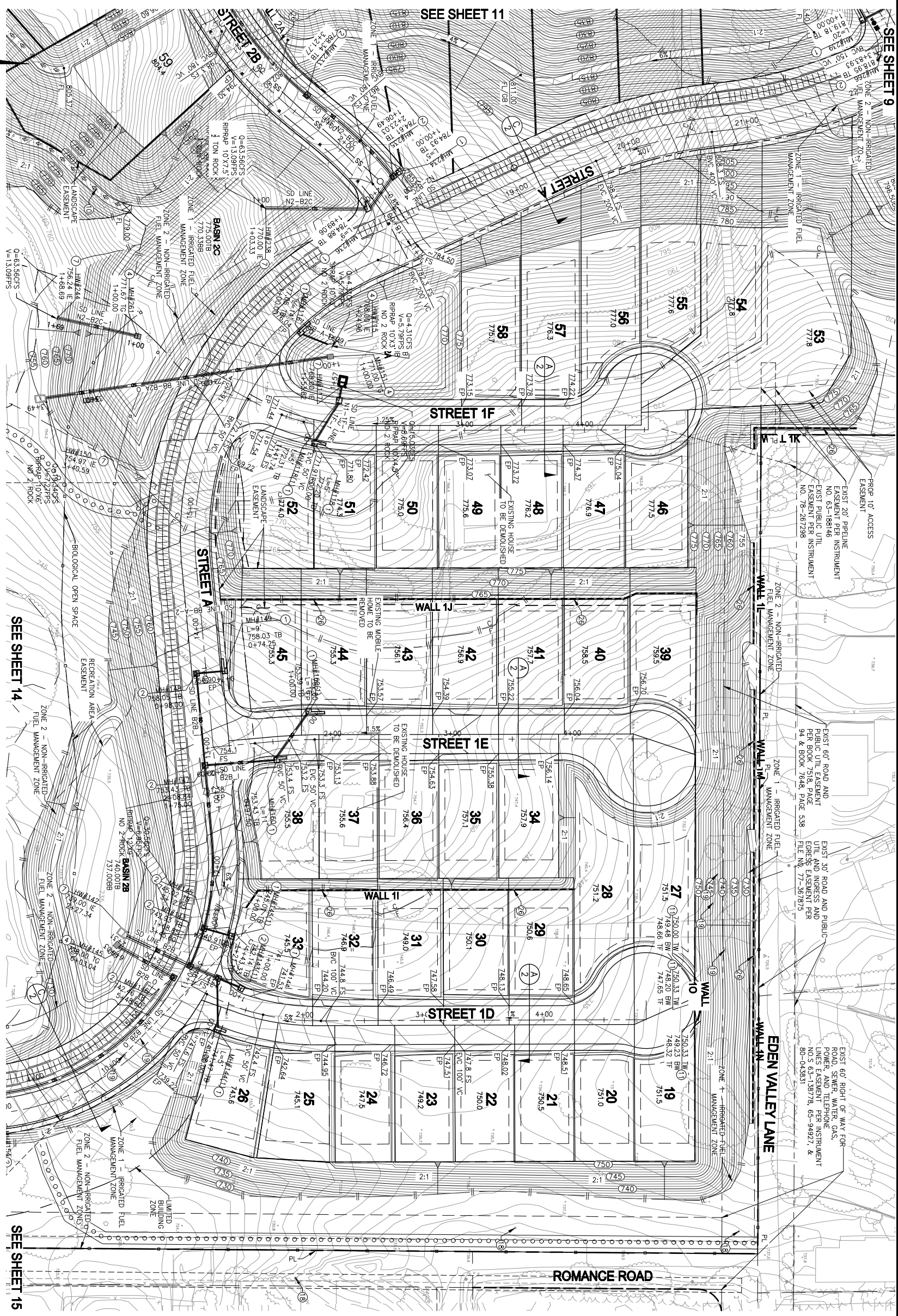
RECORD PLAN

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E. \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_



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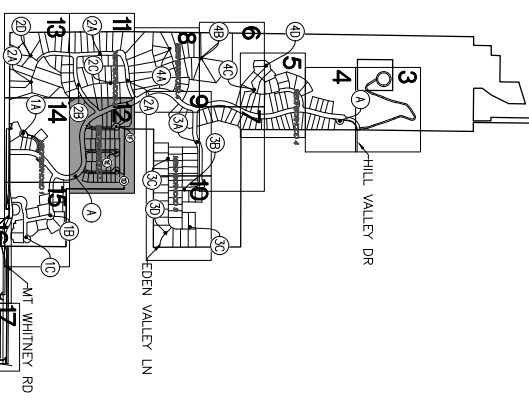
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SEE SHEET 15

CONSTRUCTION NOTES:

- ① CURB INLET TYPE B PER SDRSD D-2
- ② TYPE A CLEANOUT PER SDRSD D-9
- ③ TYPE C CATCH BASIN PER SDRSD D-08
- ④ RIP-RAP ENERGY DISSIPATOR PER SDRSD D-40
- ⑤ TYPE B BROW DITCH PER SDRSD D-75
- ⑥ MASONRY RETAINING WALL TYPE 3 PER SDRSD C-03
- ⑦ EXISTING UTILITY IMPROVEMENT, PROTECT IN PLACE
- ⑧ EXISTING UTILITY IMPROVEMENT TO BE RELOCATED PER
- ⑨ GEOGRID REINFORCED WALL PER DETAIL A SHEET 48; SEE SHEETS 29-49 FOR PLAN AND PROFILE
- ⑩ STORM DRAIN LINE PROFILE ON SHEET
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- ⑯ N2-B2C-1 0
- ⑰ BB-A-1 27
- ⑱ BB-A-2 27
- ⑲ BB-A-3 27
- ⑳ BB-A-4 27
- ㉑ BB-A-5 27
- ㉒ BB-A-6 27
- ㉓ BB-A-7 28



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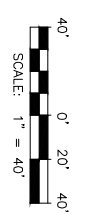
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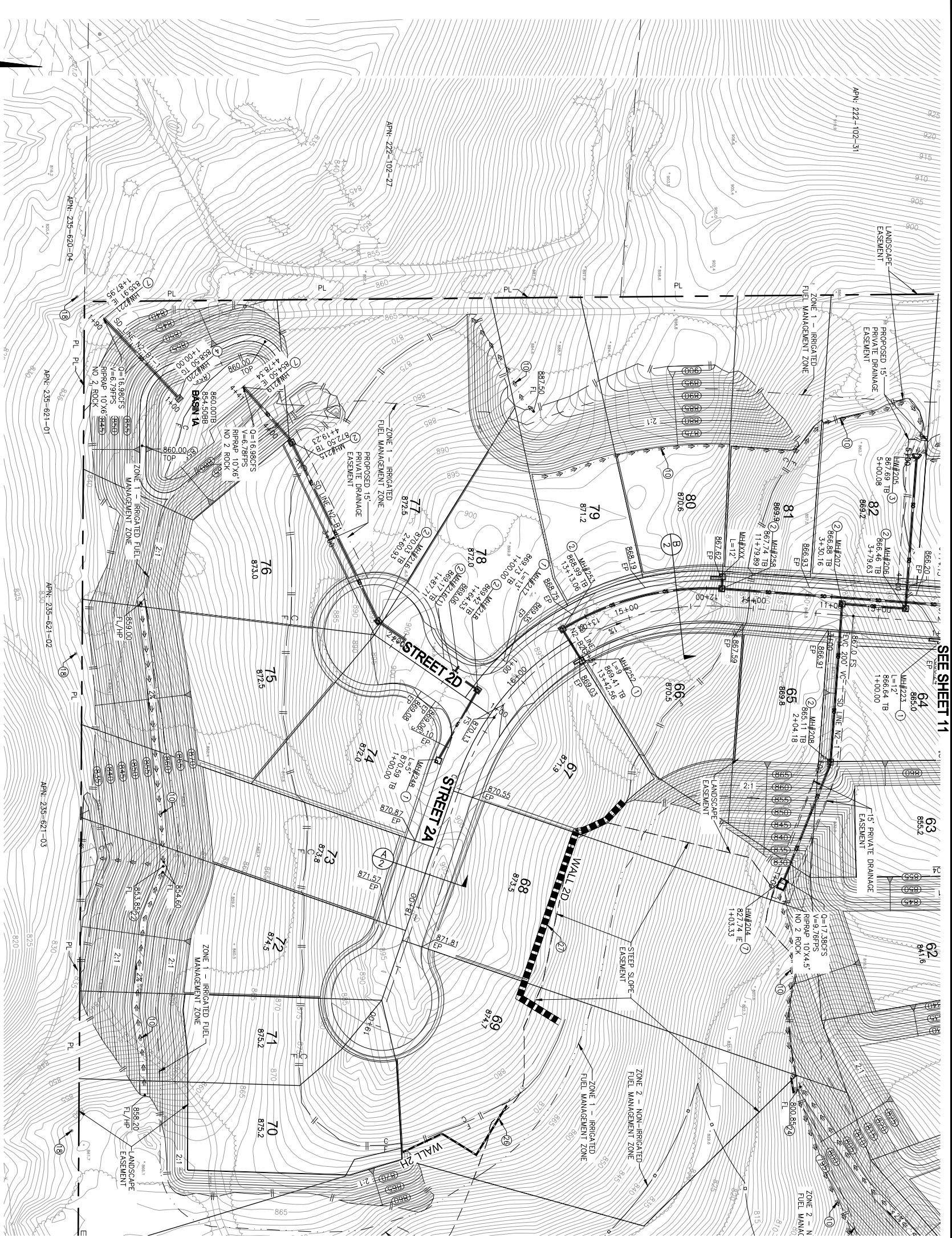
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ROUGH GRADING PLAN	DEPARTMENT OF PUBLIC WORKS	SERIES
VALLIANO		
CALIFORNIA COORDINATE INDEX 346-1725		
APPROVED FOR WILLIAM F. MADDEN		
COUNTY ENGINEER		
ENGINEER OF WORK		
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RECORD PLAN

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E.: \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_

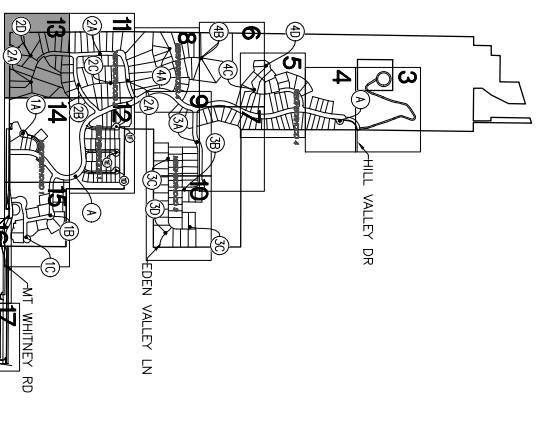




SEE SHEET 14

CONSTRUCTION NOTES:

- ① CURB INLET TYPE B PER SPSRD D-2
  - ② TYPE A CLEANOUT PER SPSRD D-9
  - ③ WING TYPE HEADWALL PER SPSRD D-34
  - ④ TYPE G CATCH BASIN PER SPSRD D-08
  - ⑤ RIP-RAP ENERGY DISSIPATOR PER SPSRD D-40
  - ⑥ EXISTING UTILITY IMPROVEMENT, PROTECT IN PLACE
  - ⑦ GEORGRID REINFORCED WALL PER DETAIL A SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE
  - ⑧ ANCHOR/PLEX RETAINING WALL PER DETAIL C SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE
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| N2-B1            | 22               |
| N2-B1-1          | 23               |



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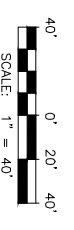
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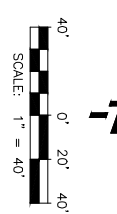
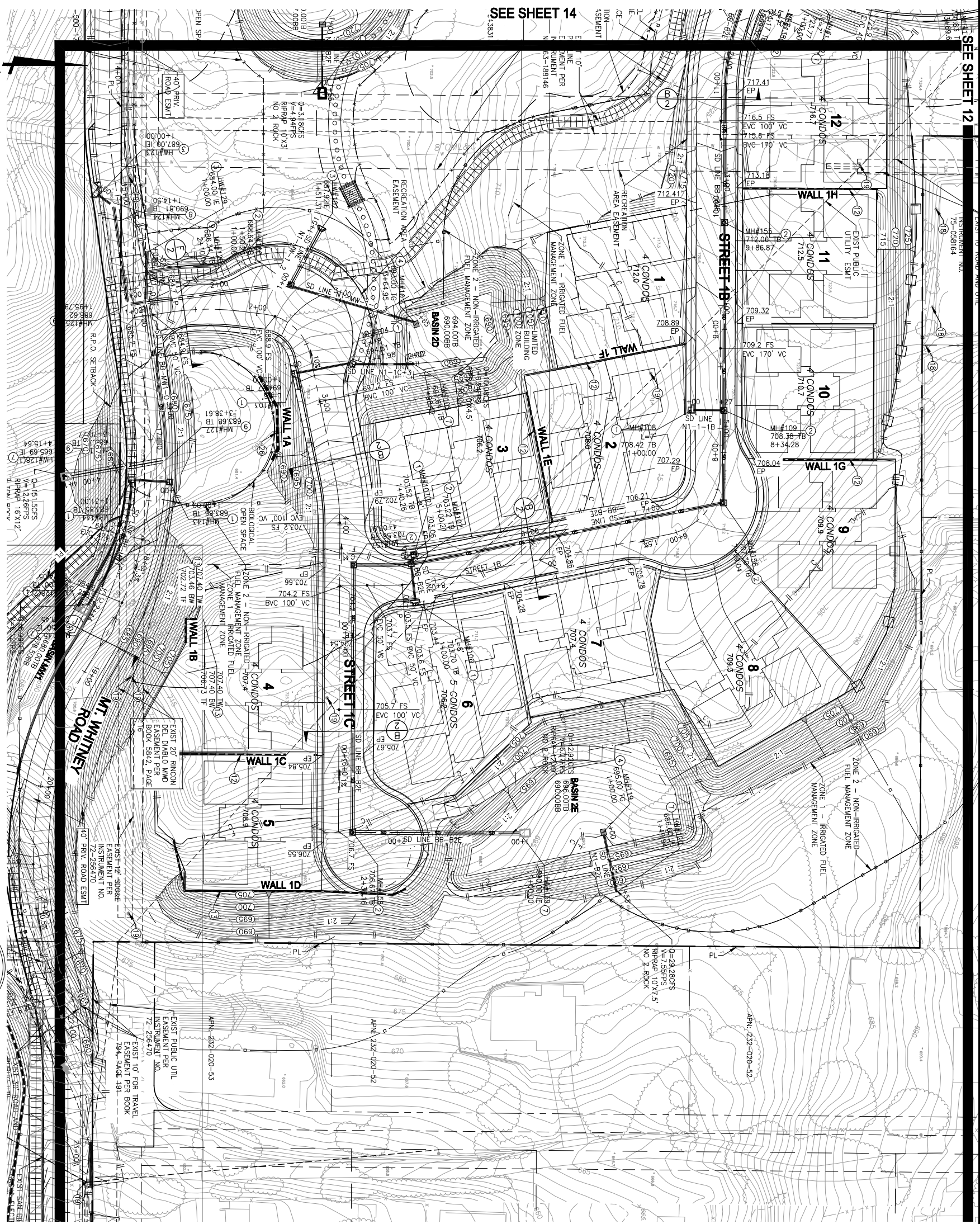
RECORD PLAN

BY: \_\_\_\_\_ NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E.: \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_

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REGISTERED PROFESSIONAL ENGINEER  
KENNETH T. KOZLIK  
No. RCE 71883  
Exp. 12-31-19  
STATE OF CALIFORNIA

**RECORD PLAN**

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
R.C.E. \_\_\_\_\_  
EXPIRES: \_\_\_\_\_

COUNTY APPROVED CHANGES		
NO.	DESCRIPTION:	APPROVED BY: DATE:

**PRIVATE CONTRACT**

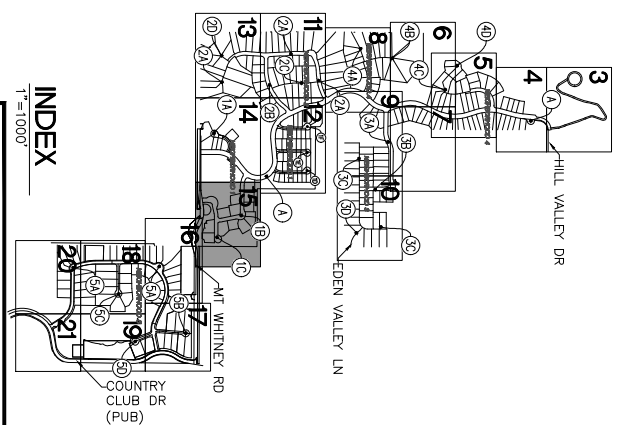
SHEET **15** COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS **60** SECTIONS

**VALLIANO**

CALIFORNIA COORDINATE INDEX 346-1725

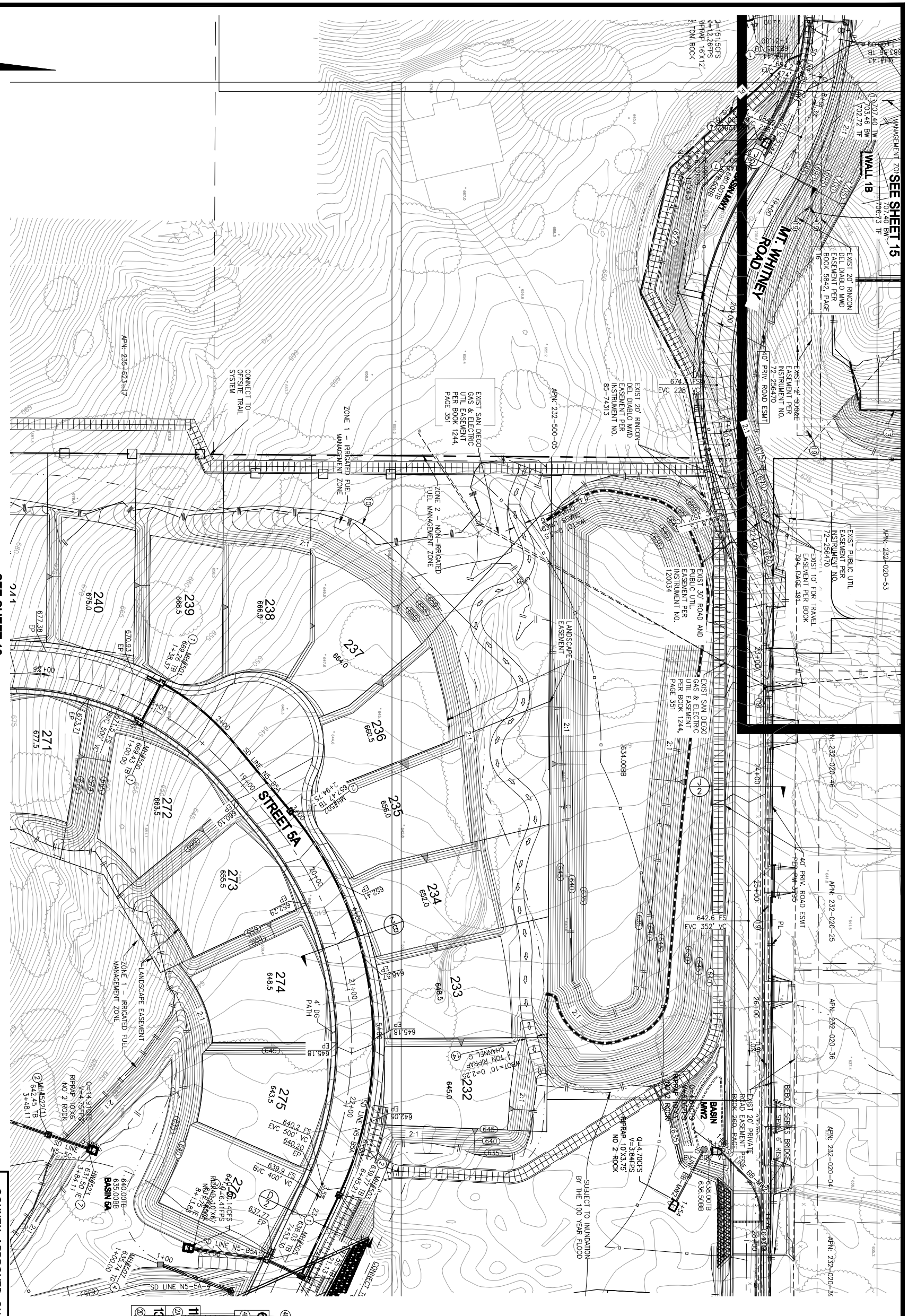
APPROVED FOR WILLIAM P. MCKENNA COUNTY ENGINEER

ENGINEER OF WORK **442** DATE: \_\_\_\_\_  
POS 2018-LDGRM-30158 GRADING PERMIT NO. \_\_\_\_\_



- CONSTRUCTION NOTES:**
- 1 CURB INLET TYPE B PER SDRSD D-2
  - 2 TYPE A CLEANOUT PER SDRSD D-9
  - 3 WING TYPE HEADWALL PER SDRSD D-34
  - 4 TYPE G CATCH BASIN PER SDRSD D-08
  - 5 RIP-RAP ENERGY DISSIPATOR PER SDRSD D-40
  - 6 TYPE B-6 CLEANOUT PER SDRSD D-10
  - 7 TYPE B-5 CLEANOUT PER SDRSD D-10
  - 8 MASONRY RETAINING WALL TYPE 5 PER SDRSD C-05
  - 9 REINFORCED CONCRETE RETAINING WALL, TYPE 1 PER SDRSD C-11B
  - 10 EXISTING UTILITY IMPROVEMENT, PROTECT IN PLACE
  - 11 EXISTING UTILITY IMPROVEMENT TO BE RELOCATED PER \_\_\_\_\_
  - 12 GEORGIO REINFORCED WALL PER DETAIL A SHEET 48. SEE SHEETS 29-49 FOR PLAN AND PROFILE
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  - 15 N1-2-1B 22
  - 16 N1-82F 22
  - 17 N1-10-1 22
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  - 19 N1-10-3 22
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  - 21 BB-1B-1 28
  - 22 BB-1B-2 28
  - 23 BB-1C-1 0
  - 24 BB-1C-2 0
  - 25 BB-1MW2 0





CONSTRUCTION NOTES:

- 1 CURB INLET TYPE B PER SDRSD D-2
- 2 TYPE A CLEANOUT PER SDRSD D-9
- 4 TYPE G CATCH BASIN PER SDRSD D-08
- 7 RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
- 16 EXISTING UTILITY IMPROVEMENT, PROTECT IN PLACE
- 19 RELOCATED PER

STORM DRAIN LINE	PROFILE ON SHEET
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NS-5A-4	26
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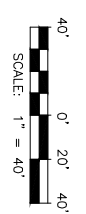
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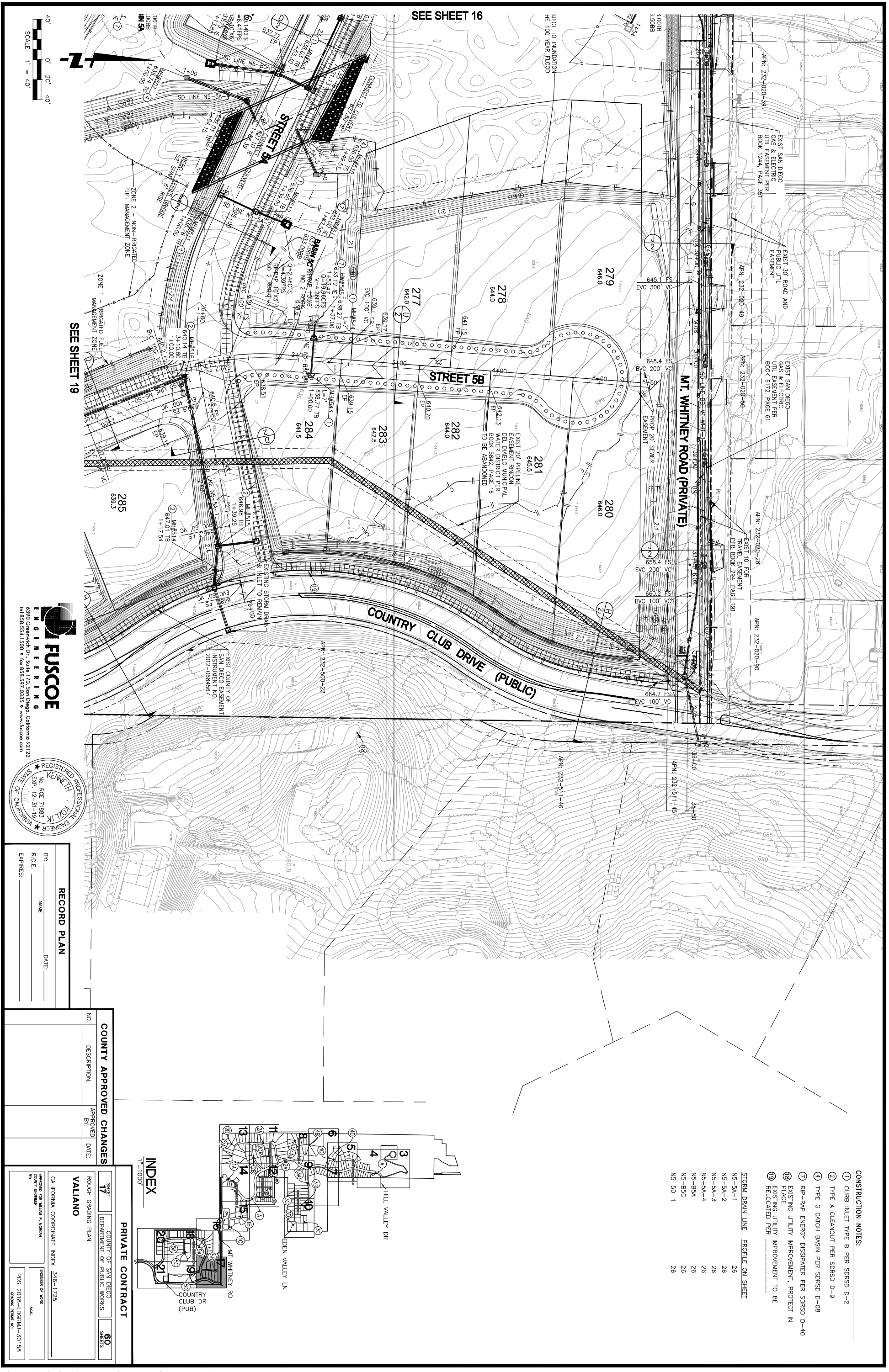
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BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
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 EXPIRES: \_\_\_\_\_



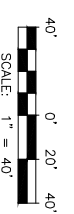
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SEE SHEET 16

SEE SHEET 19



CONSTRUCTION NOTES:

- ① CURB INLET TYPE B PER SDRSD D-2
  - ② TYPE A CLEANOUT PER SDRSD D-9
  - ④ TYPE G CATCH BASIN PER SDRSD D-08
  - ⑦ RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
  - ⑨ EXISTING UTILITY IMPROVEMENT, PROTECT IN PLACE
  - ⑩ EXISTING UTILITY IMPROVEMENT TO BE RELOCATED PER \_\_\_\_\_
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| NS-5A-4          | 26               |
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NO.	DESCRIPTION:	APPROVED BY:	DATE:
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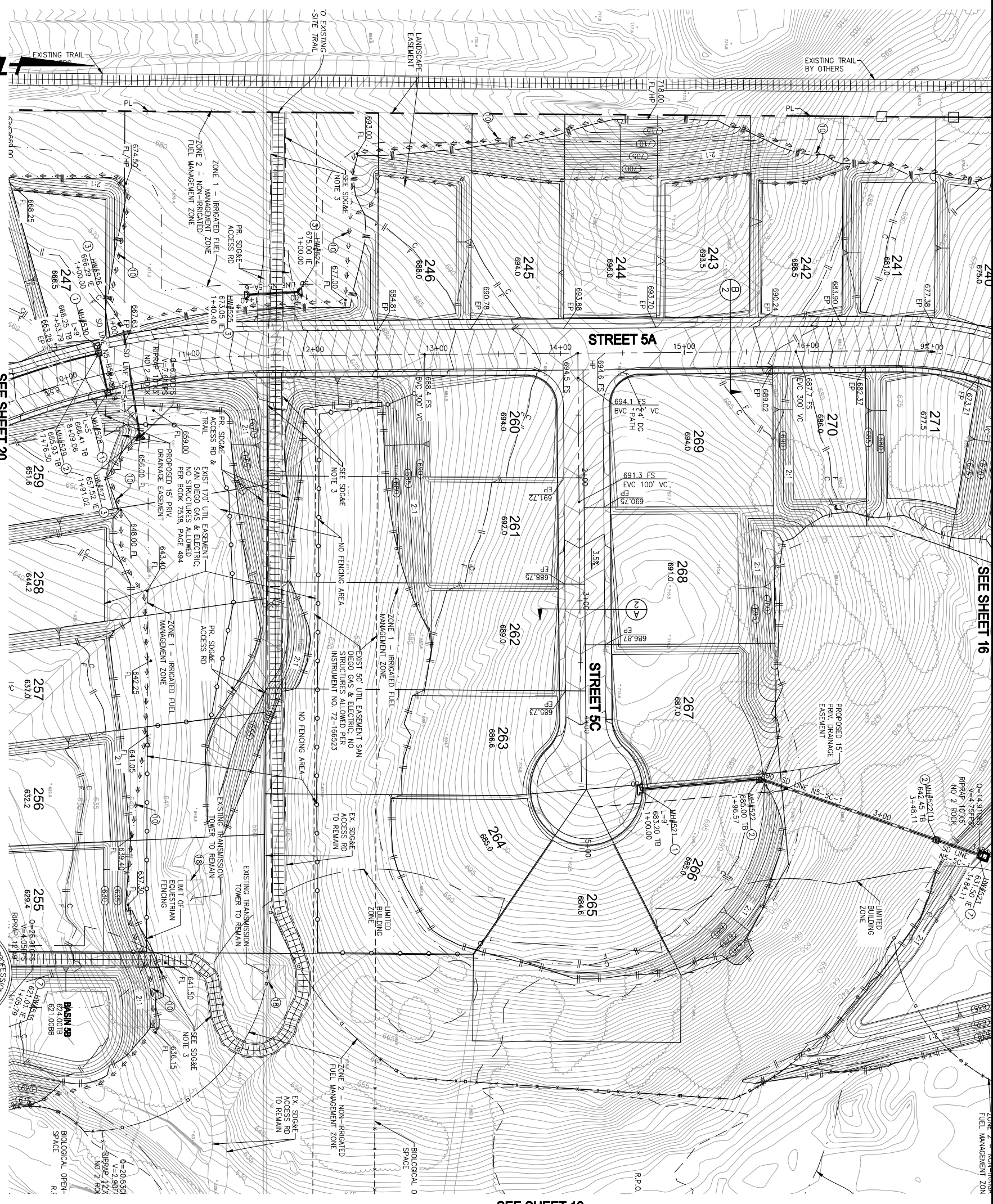
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17	DEPARTMENT OF PUBLIC WORKS	SEDS
<b>VALLIANO</b>		
CALIFORNIA COORDINATE INDEX 346-1725		
APPROVED FOR WILLIAM P. MODIAN		
COUNTY ENGINEER	ENGINEER OF WORK	442
BR:	POS	2018-LDGRM-30158
GRADING PERMIT NO.		

RECORD PLAN

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E. NAME \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_



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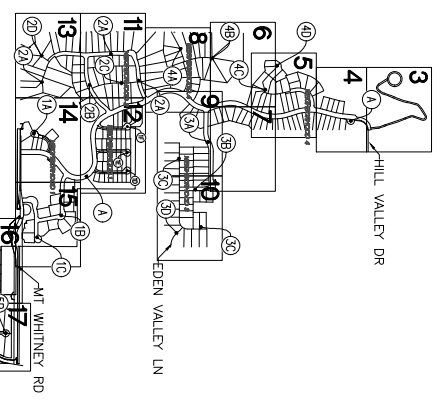
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SEE SHEET 19

SEE SHEET 20

- CONSTRUCTION NOTES:
- ① CURB INLET TYPE B PER SDRSD D-2
  - ② TYPE A CLEANOUT PER SDRSD D-9
  - ③ WING TYPE HEADWALL PER SDRSD D-34
  - ④ RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
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  - N5-5A-7 26
  - N5-B5B 26
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1"=1000'

PRIVATE CONTRACT

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BY: \_\_\_\_\_ NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
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 EXPIRES: \_\_\_\_\_

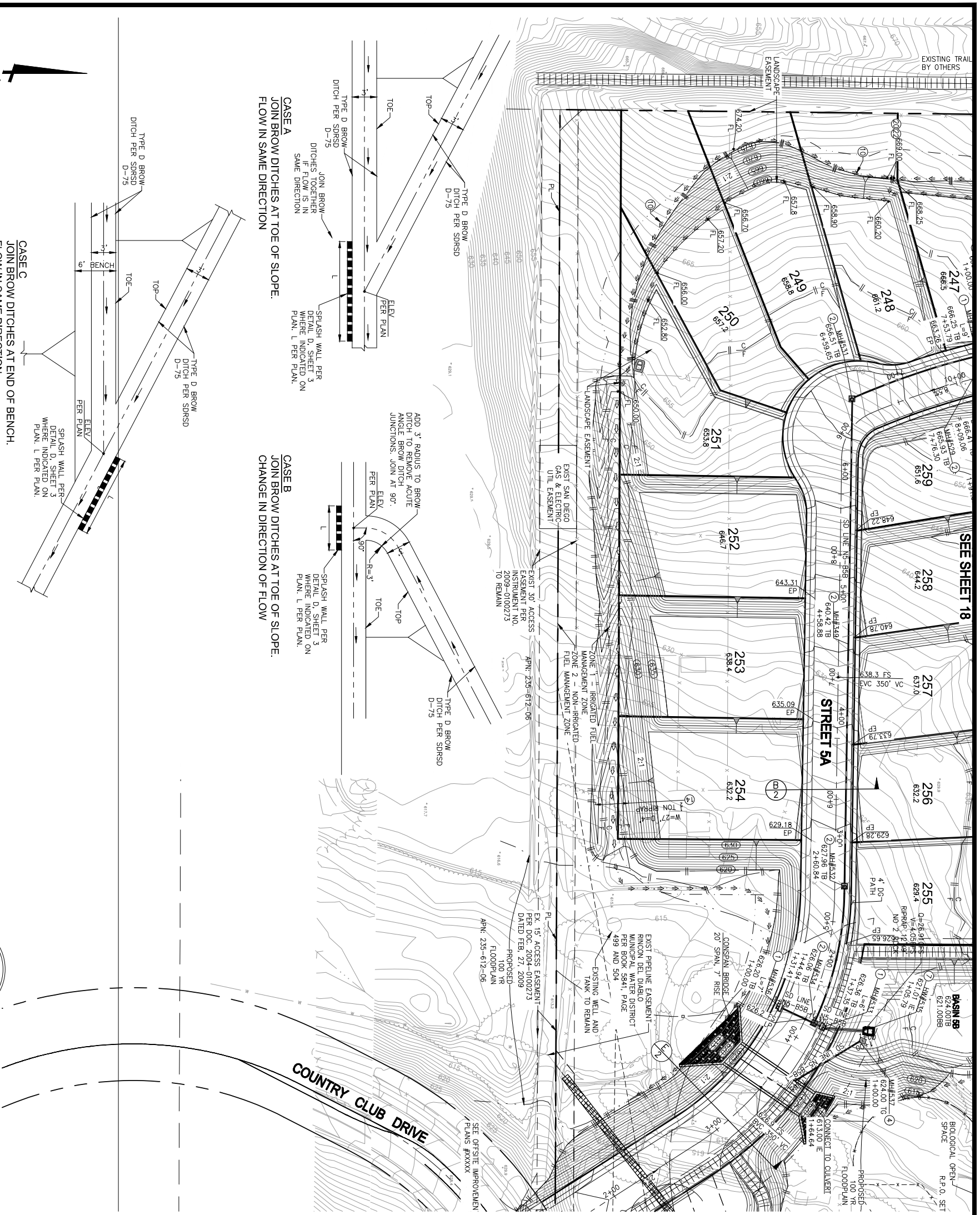
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ROUGH GRADING PLAN	DEPARTMENT OF PUBLIC WORKS	SEALS	
VALLIANO	CALIFORNIA COORDINATE INDEX 346-1725	ENGINEER OF WORK	
	APPROVED FOR WILLIAM P. MODIAN	DATE	
	COUNTY ENGINEER		
	POS 2018-LDGRM-30158	GRADING PERMIT NO.	

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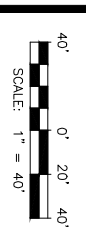
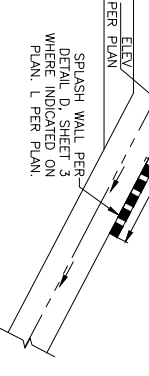
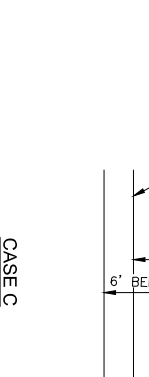
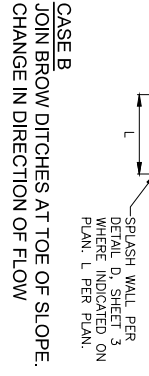






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- CONSTRUCTION NOTES:**
- ① CURB INLET TYPE B PER SDRSD D-2
  - ② TYPE A CLEANOUT PER SDRSD D-9
  - ③ TYPE G CATCH BASIN PER SDRSD D-08
  - ④ RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
  - ⑤ GRADED EARTH CHANNEL PER DETAIL B ON SHEET 4
  - ⑥ DOWN DRAIN PER DETAIL C, SHEET 3
  - ⑦ TERRACE DRAIN AND DOWN DRAIN INTERSECTION PER DETAIL A, SHEET 4
- STORM DRAIN LINE PROFILE ON SHEET**
- |          |    |
|----------|----|
| NS-5A-11 | 26 |
| NS-95B   | 26 |
| NS-95B-1 | 26 |



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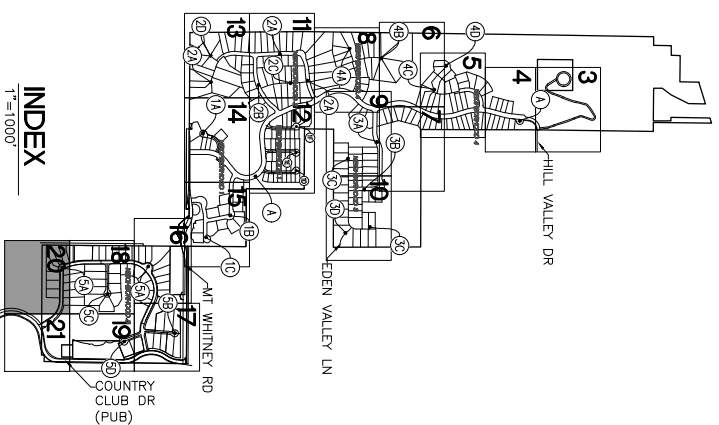
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BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
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NO.	DESCRIPTION:	APPROVED BY:	DATE:

**COUNTY APPROVED CHANGES**

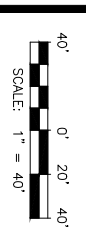
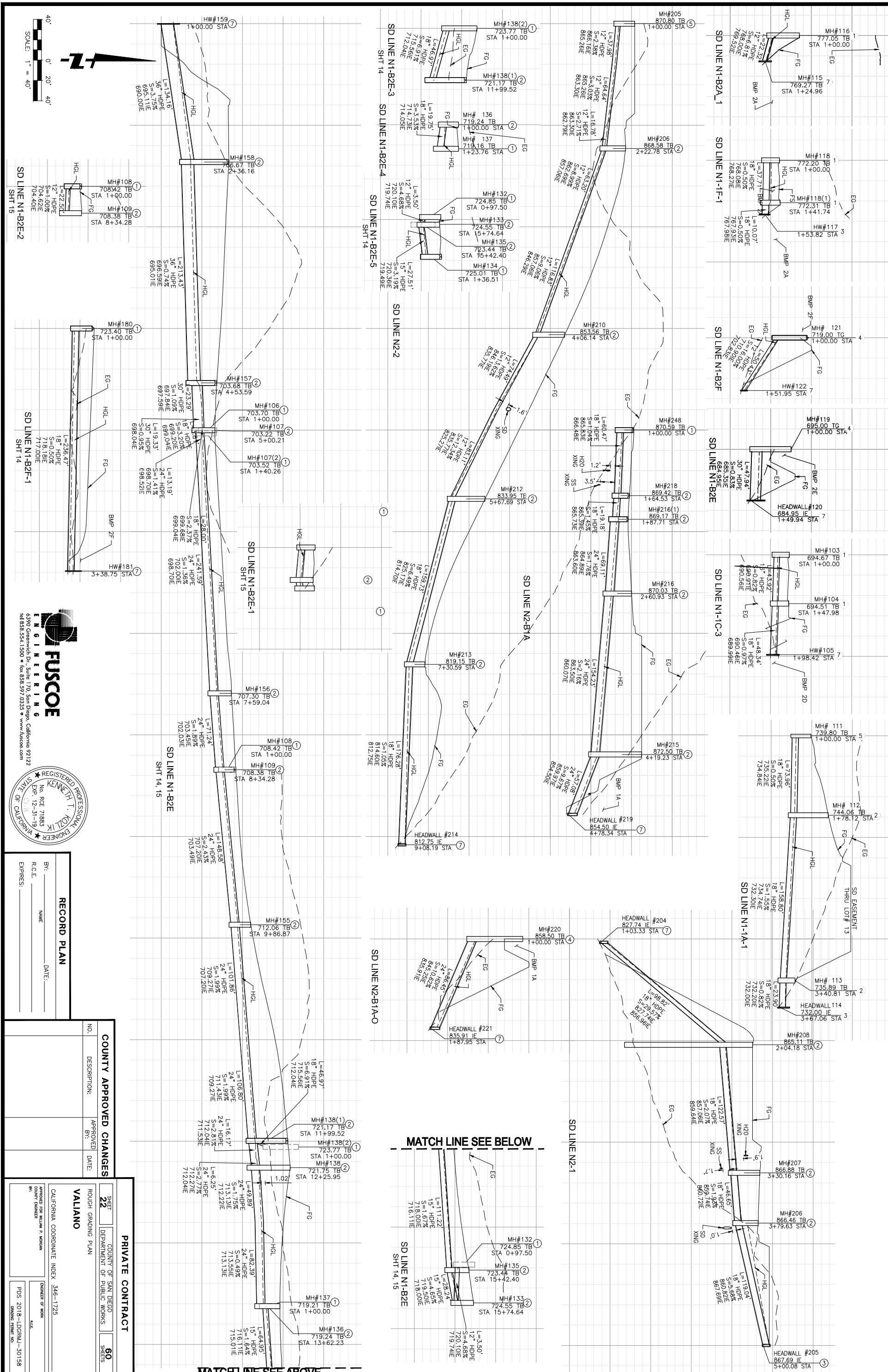
**INDEX**  
T=1000'



**PRIVATE CONTRACT**

SHEET **20** COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHEETS **60**  
**ROUGH GRADING PLAN**  
**VALLIANO**  
 CALIFORNIA COORDINATE INDEX 346-1725  
 APPROVED FOR WILLIAM P. MODERN COUNTY ENGINEER  
 ENGINEER OF WORK  
 PDS 2018-LDGRM-30158 GRADING PERMIT NO.





SCALE: 1" = 40'

SD LINE N1-B2E-2  
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SD LINE N1-1E-1

SD LINE N1-B2E

SD LINE N1-C-3

SD LINE N1-1A-1

SD LINE N1-1A-1

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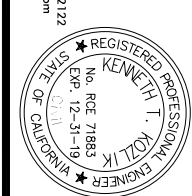
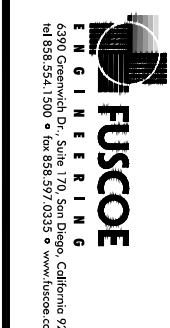
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SD LINE N1-1A-1

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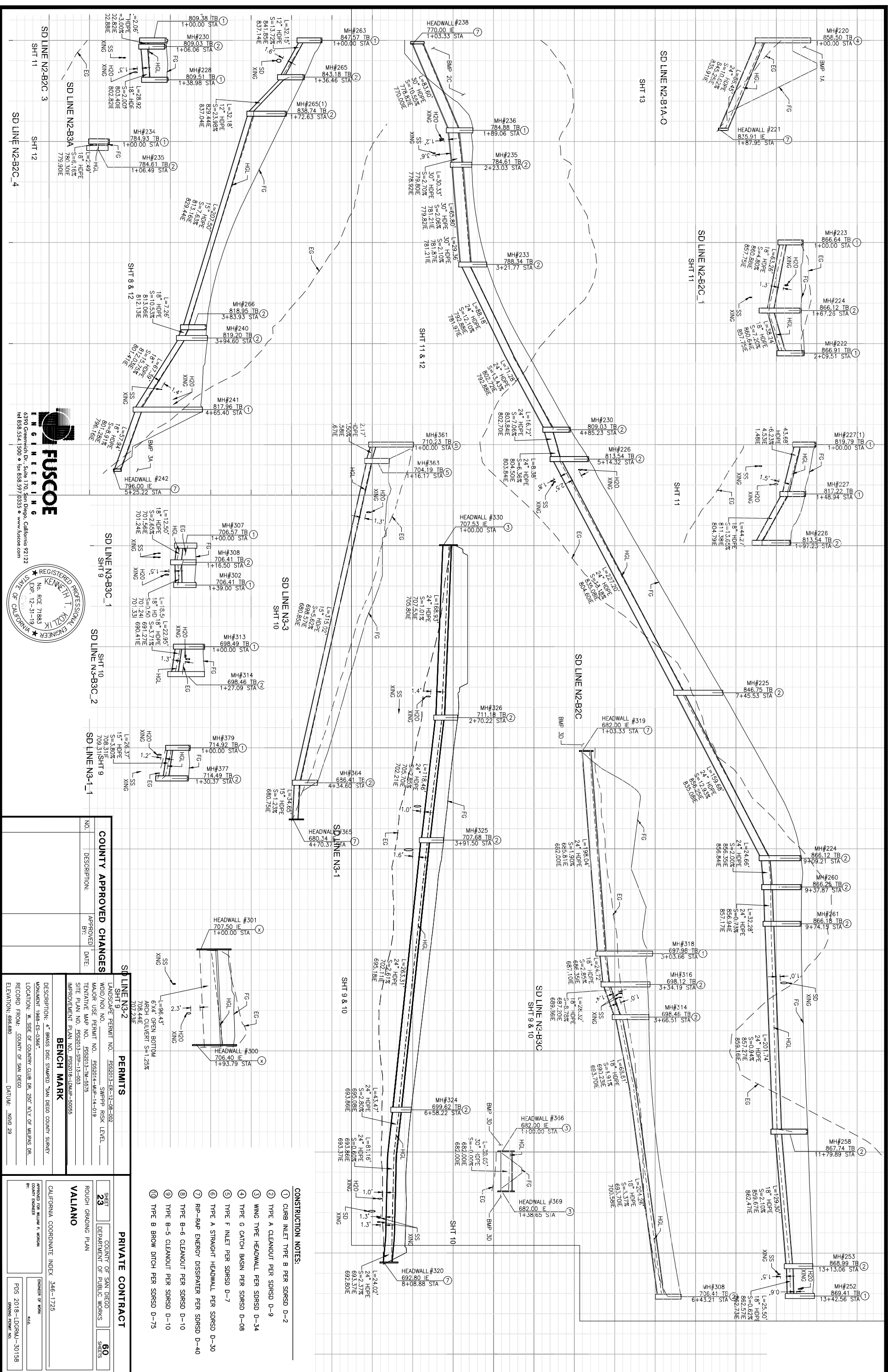
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RECORD PLAN

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Table with columns: SHEET NO. (22), COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS, PRIVATE CONTRACT, VALIANO, ENGINEER OF WORK.

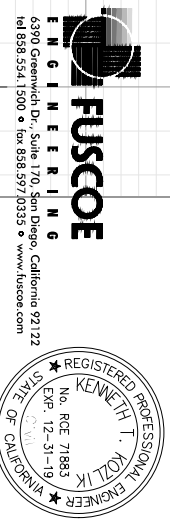


- CONSTRUCTION NOTES:**
- 1 CURB INLET TYPE B PER SDRSD D-2
  - 2 TYPE A CLEANOUT PER SDRSD D-9
  - 3 WING TYPE HEADWALL PER SDRSD D-34
  - 4 TYPE G CATCH BASIN PER SDRSD D-08
  - 5 TYPE F INLET PER SDRSD D-7
  - 6 TYPE A STRAIGHT HEADWALL PER SDRSD D-30
  - 7 RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
  - 8 TYPE B-6 CLEANOUT PER SDRSD D-10
  - 9 TYPE B-5 CLEANOUT PER SDRSD D-10
  - 10 TYPE B BROW DITCH PER SDRSD D-75

- PERMITS**
- LANDSCAPE PERMIT NO. PDS2013-ER-12-08-002  
 WDD/NOI NO. SWPPP RISK LEVEL  
 MAJOR USE PERMIT NO. PDS2014-MUP-14-019  
 TENTATIVE MAP NO. PDS2013-TM-5976  
 SITE PLAN NO. PDS2013-STP-13-003  
 IMPROVEMENT PLAN NO. PDS2018-IDMP-50055
- BENCH MARK**
- DESCRIPTION: 4" BRASS DISC STAMPED "SAN DIEGO COUNTY SURVEY  
 MONUMENT 1968-ES-0366"  
 LOCATION: W. SIDE OF COUNTY CLUB DR. 250' N.W. OF MILENS DR.  
 RECORD FROM: COUNTY OF SAN DIEGO  
 ELEVATION: 696.890 DATUM: NAVD 29
- PRIVATE CONTRACT**
- SHEET **23** COUNTY OF SAN DIEGO SHEETS **60**  
 DEPARTMENT OF PUBLIC WORKS  
 ROUGH GRADING PLAN  
**VALIANO**  
 CALIFORNIA COORDINATE INDEX 346-1725  
 APPROVED FOR: W. LUTHE R. ANDERSON  
 COUNTY ENGINEER  
 DATE: 4/24/18  
 PDS 2018-IDCMAI-30158  
 GRADING PERMIT NO.

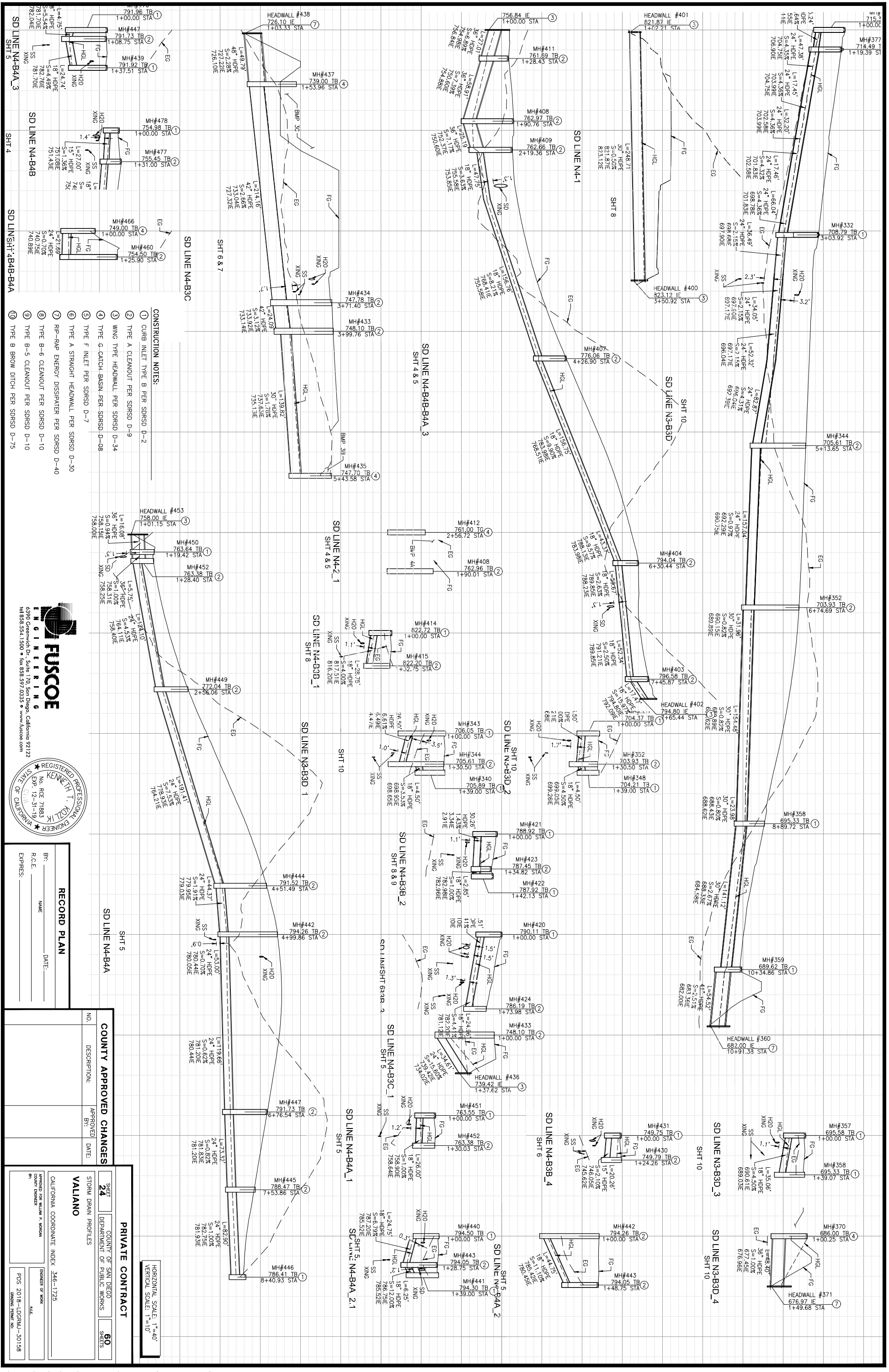
**COUNTRY APPROVED CHANGES**

NO.	DESCRIPTION:	APPROVED BY:	DATE:



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CONSTRUCTION NOTES:

- ① CURB INLET TYPE B PER SDRSD D-2
- ② TYPE A CLEANOUT PER SDRSD D-9
- ③ WING TYPE HEADWALL PER SDRSD D-34
- ④ TYPE C CATCH BASIN PER SDRSD D-08
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- ⑧ TYPE B-6 CLEANOUT PER SDRSD D-10
- ⑨ TYPE B-5 CLEANOUT PER SDRSD D-10
- ⑩ TYPE B BROW DITCH PER SDRSD D-75

HORIZONTAL SCALE: 1"=40'  
VERTICAL SCALE: 1"=10'



**RECORD PLAN**

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
R.C.E. \_\_\_\_\_  
EXPIRES: \_\_\_\_\_

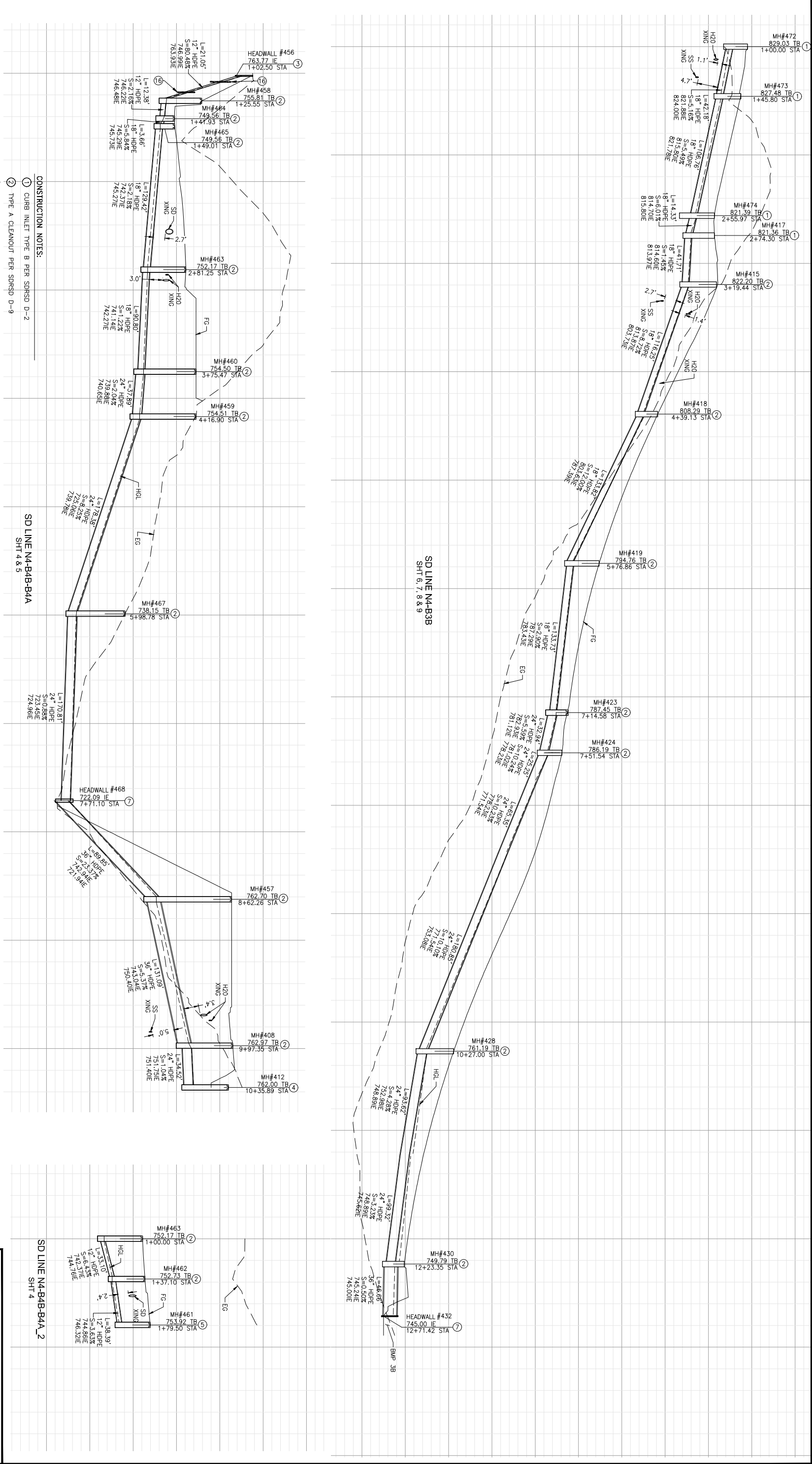
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SHEET **24** COUNTY OF SAN DIEGO SEEDS **60**  
DEPARTMENT OF PUBLIC WORKS

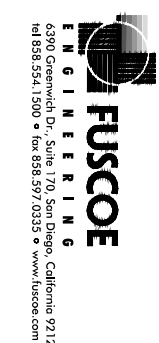
**VALLIANO**

STORM DRAIN PROFILES  
CALIFORNIA COORDINATE INDEX 346-1725  
APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER  
DRAWN BY: \_\_\_\_\_  
POS 2018-LDGRW-30158  
GRADING PERMIT NO. \_\_\_\_\_



HORIZONTAL SCALE: 1"=40'  
 VERTICAL SCALE: 1"=10'

- CONSTRUCTION NOTES:**
- CURB INLET TYPE B PER SDRSD D-2
  - TYPE A CLEANOUT PER SDRSD D-9
  - WING TYPE HEADWALL PER SDRSD D-34
  - TYPE G CATCH BASIN PER SDRSD D-08
  - TYPE F INLET PER SDRSD D-7
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  - RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
  - TYPE B-6 CLEANOUT PER SDRSD D-10
  - TYPE B-5 CLEANOUT PER SDRSD D-10
  - TYPE B BROW DITCH PER SDRSD D-75



**RECORD PLAN**

BY: \_\_\_\_\_ NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
 R.C.E. \_\_\_\_\_  
 EXPIRES: \_\_\_\_\_

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NO.	DESCRIPTION:	APPROVED BY: DATE:

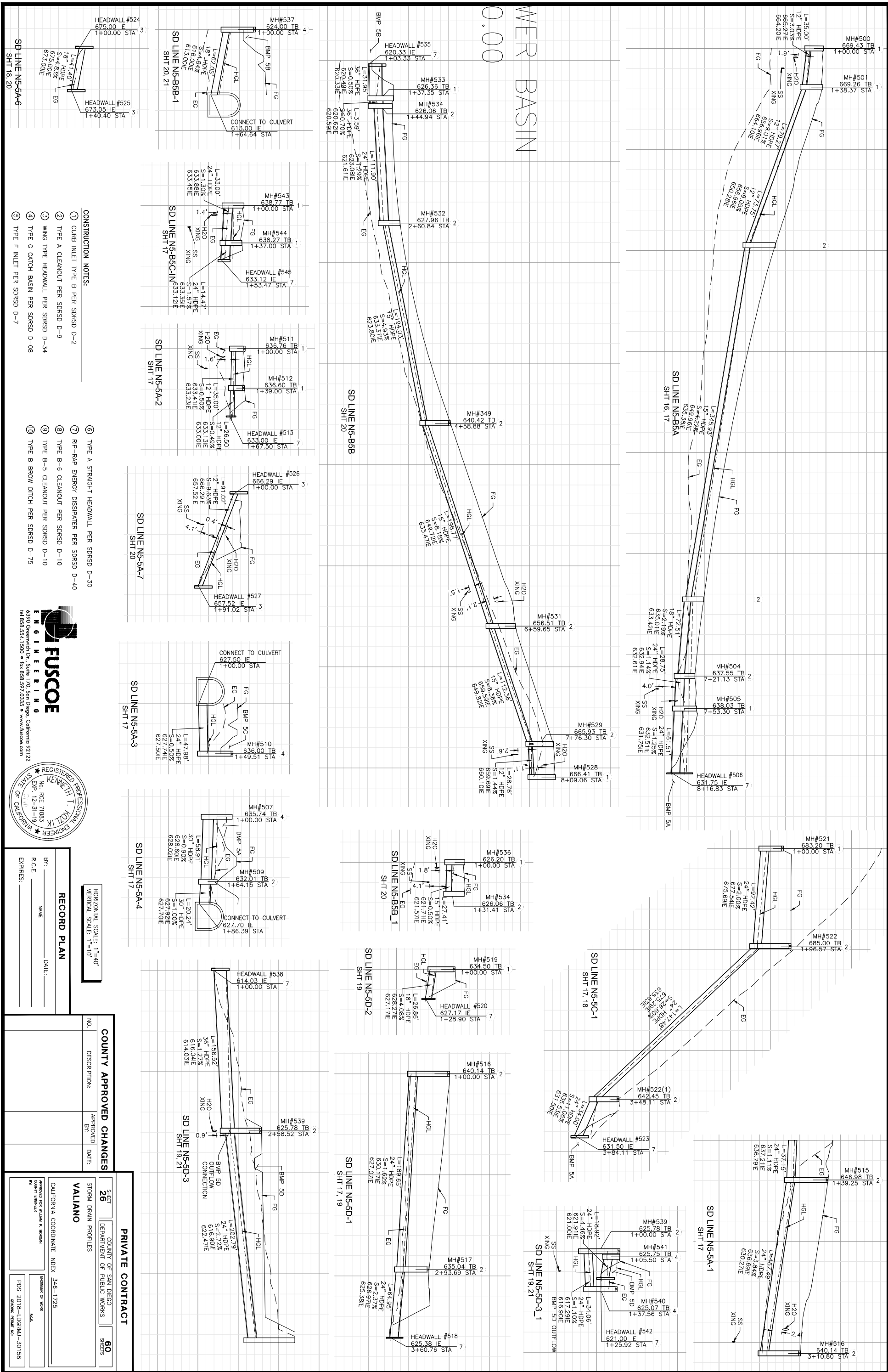
**PRIVATE CONTRACT**

SHEET **25** COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHEETS **60**

STORM DRAIN PROFILES  
**VALLIANO**

CALIFORNIA COORDINATE INDEX 346-1725

APPROVED FOR WILLIAM P. MADDEN COUNTY ENGINEER  
 ENGINEER OF WORK  
 POS 2018-LDGRM-30158  
 GRADING PERMIT NO.



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CONSTRUCTION NOTES:

- ① CURB INLET TYPE B PER SDRSD D-2
- ② TYPE A CLEANOUT PER SDRSD D-9
- ③ WING TYPE HEADWALL PER SDRSD D-34
- ④ TYPE G CATCH BASIN PER SDRSD D-08
- ⑤ TYPE F INLET PER SDRSD D-7
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- ⑦ RIP-RAP ENERGY DISSIPATER PER SDRSD D-40
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- ⑨ TYPE B-5 CLEANOUT PER SDRSD D-10
- ⑩ TYPE B BROW DITCH PER SDRSD D-75

RECORD PLAN

BY: \_\_\_\_\_ NAME \_\_\_\_\_ DATE: \_\_\_\_\_  
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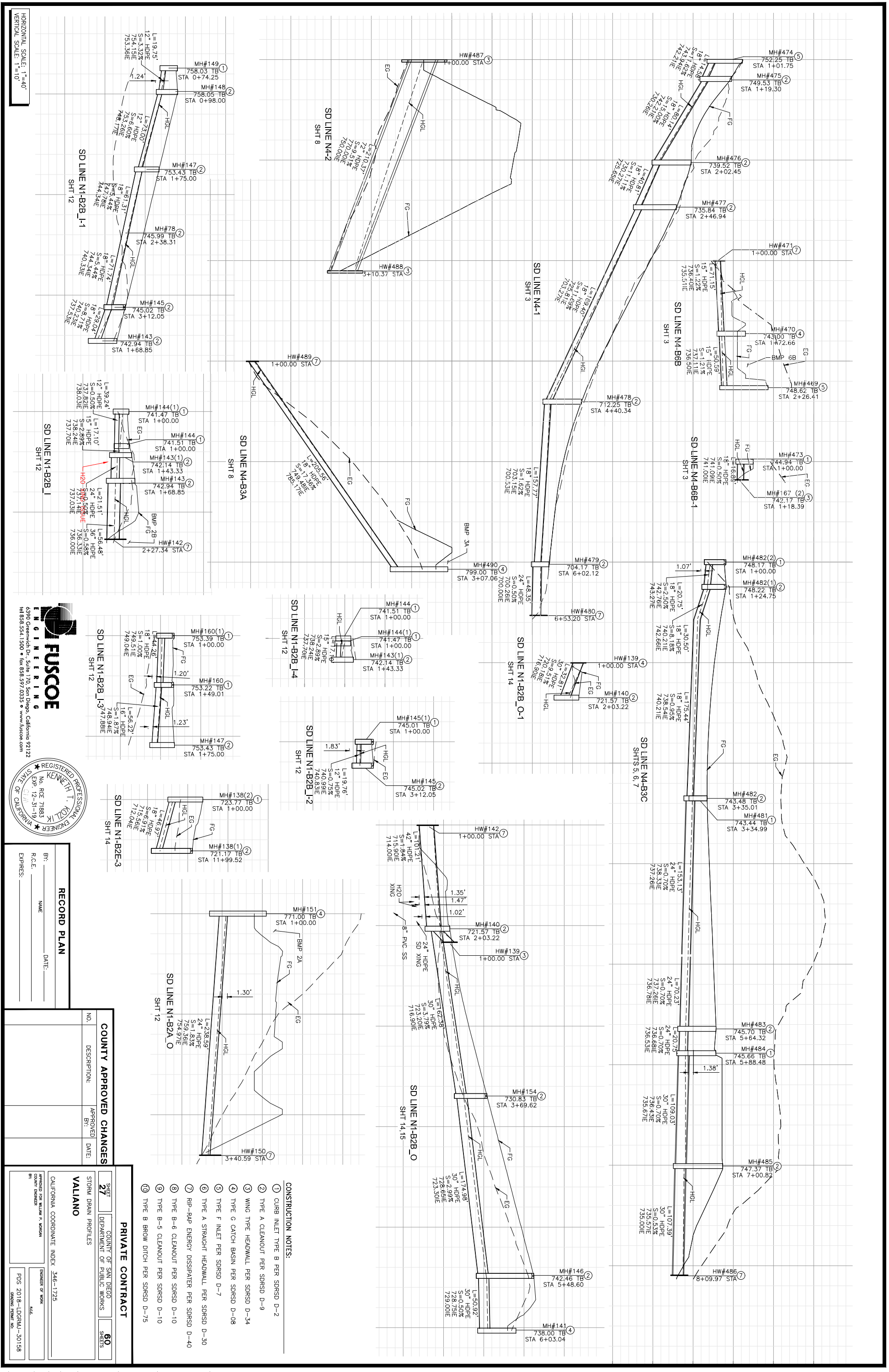
COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

PRIVATE CONTRACT

SHEET <b>26</b>	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	SHEETS <b>60</b>
STORM DRAIN PROFILES		
<b>VALLIANO</b>		
CALIFORNIA COORDINATE INDEX 346-1725		
APPROVED FOR WILLIAM P. MODIAN COUNTY ENGINEER		
ENGINEER OF WORK DATE: _____ POS 2018-LDGRM-30158 GROUND PERMIT NO. _____		





HORIZONTAL SCALE: 1"=40'  
VERTICAL SCALE: 1"=10'

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ENGINEERING  
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**RECORD PLAN**

BY: \_\_\_\_\_ NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
R.C.E.: \_\_\_\_\_  
EXPIRES: \_\_\_\_\_

COUNTY APPROVED CHANGES		
NO.	DESCRIPTION:	APPROVED DATE:

**PRIVATE CONTRACT**

SHEET **27** COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHEETS **60**

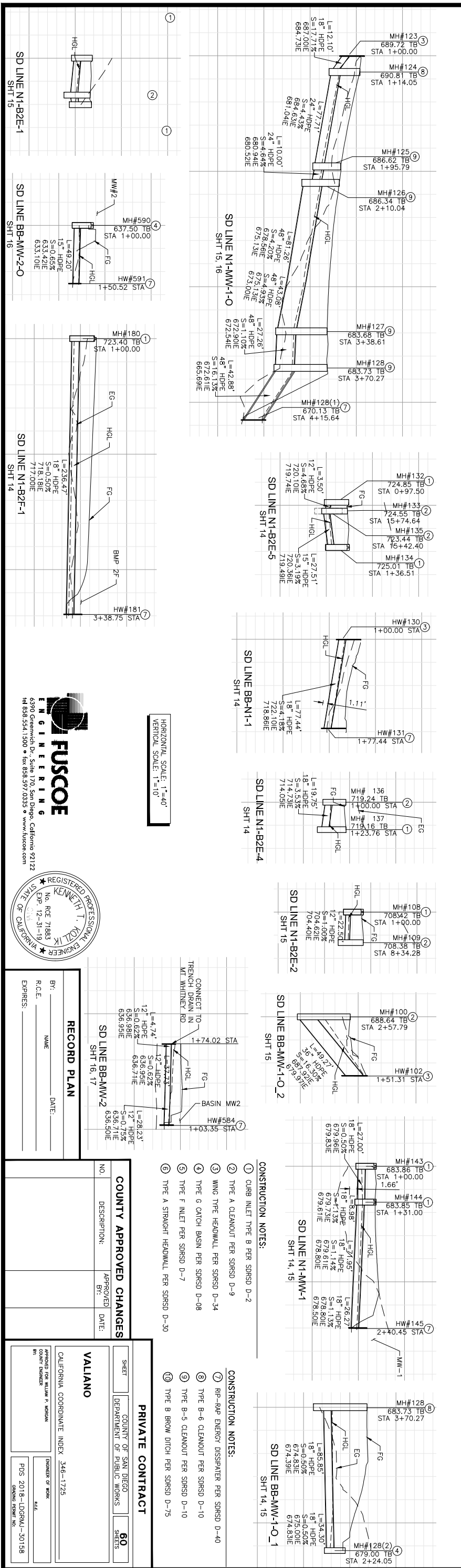
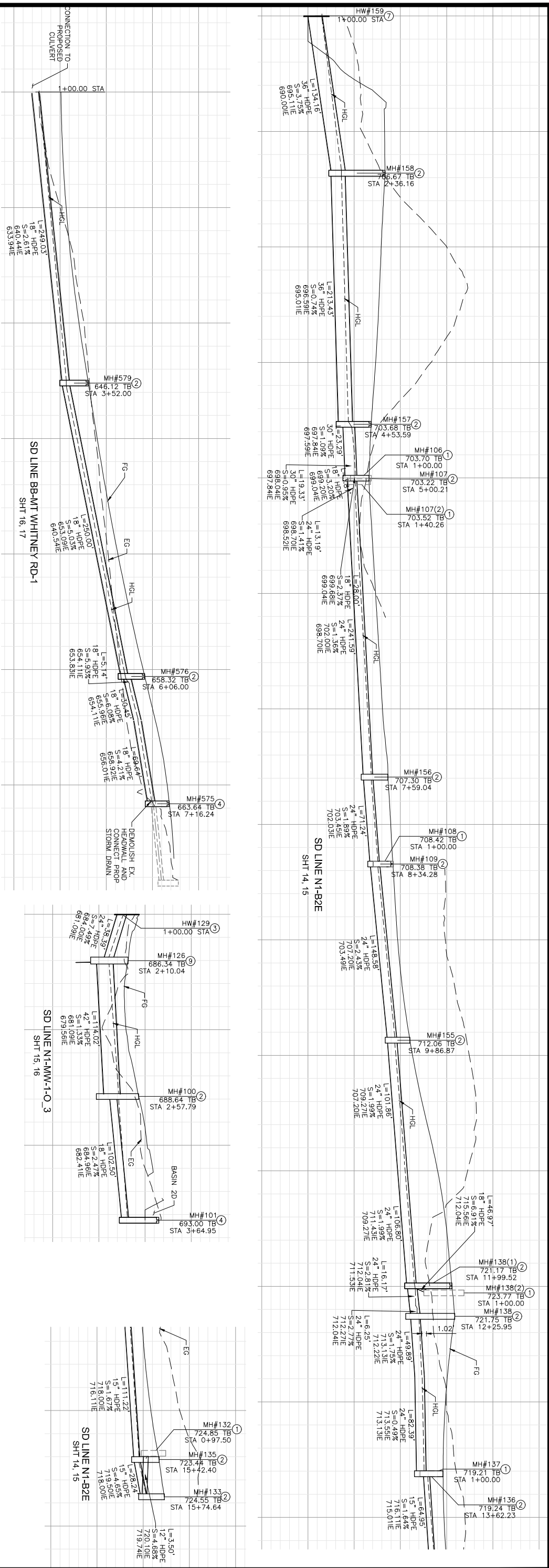
**VALLIANO**

CALIFORNIA COORDINATE INDEX 346-1725

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER

ENGINEER OF WORK 442  
POS 2018-LDORNU-30158  
GRADING PERMIT NO.

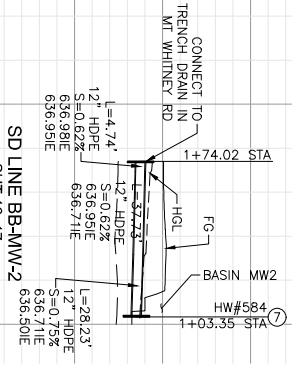
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  - 2 TYPE A CLEANOUT PER SDRSD D-9
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  - 10 TYPE B BROW DITCH PER SDRSD D-75



HORIZONTAL SCALE: 1"=40'  
VERTICAL SCALE: 1"=10'

**RECORD PLAN**

BY: \_\_\_\_\_ NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
R.C.E. \_\_\_\_\_  
EXPIRES: \_\_\_\_\_



- CONSTRUCTION NOTES:**
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  - ② TYPE A CLEANOUT PER SORSO D-9
  - ③ WING TYPE HEADWALL PER SORSO D-34
  - ④ TYPE G CATCH BASIN PER SORSO D-08
  - ⑤ TYPE F INLET PER SORSO D-7
  - ⑥ TYPE A STRAIGHT HEADWALL PER SORSO D-30

- CONSTRUCTION NOTES:**
- ⑦ RIP-RAP ENERGY DISSIPATER PER SORSO D-40
  - ⑧ TYPE B-6 CLEANOUT PER SORSO D-10
  - ⑨ TYPE B-5 CLEANOUT PER SORSO D-10
  - ⑩ TYPE B BROW DITCH PER SORSO D-75

NO.	DESCRIPTION:	APPROVED BY:	DATE:

COUNTY APPROVED CHANGES	

**PRIVATE CONTRACT**

**VALLIANO**

CALIFORNIA COORDINATE INDEX 346-1725

ENGINEER OF WORK

DEPARTMENT OF PUBLIC WORKS

SHEET **60** OF **60**

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER

ENGINEER OF WORK

DATE

PDS 2018-LDRM-J-30158

CONTRACT NUMBER

**FUSCOE ENGINEERING**

6390 Greenwch Dr., Suite 170, San Diego, California 92122

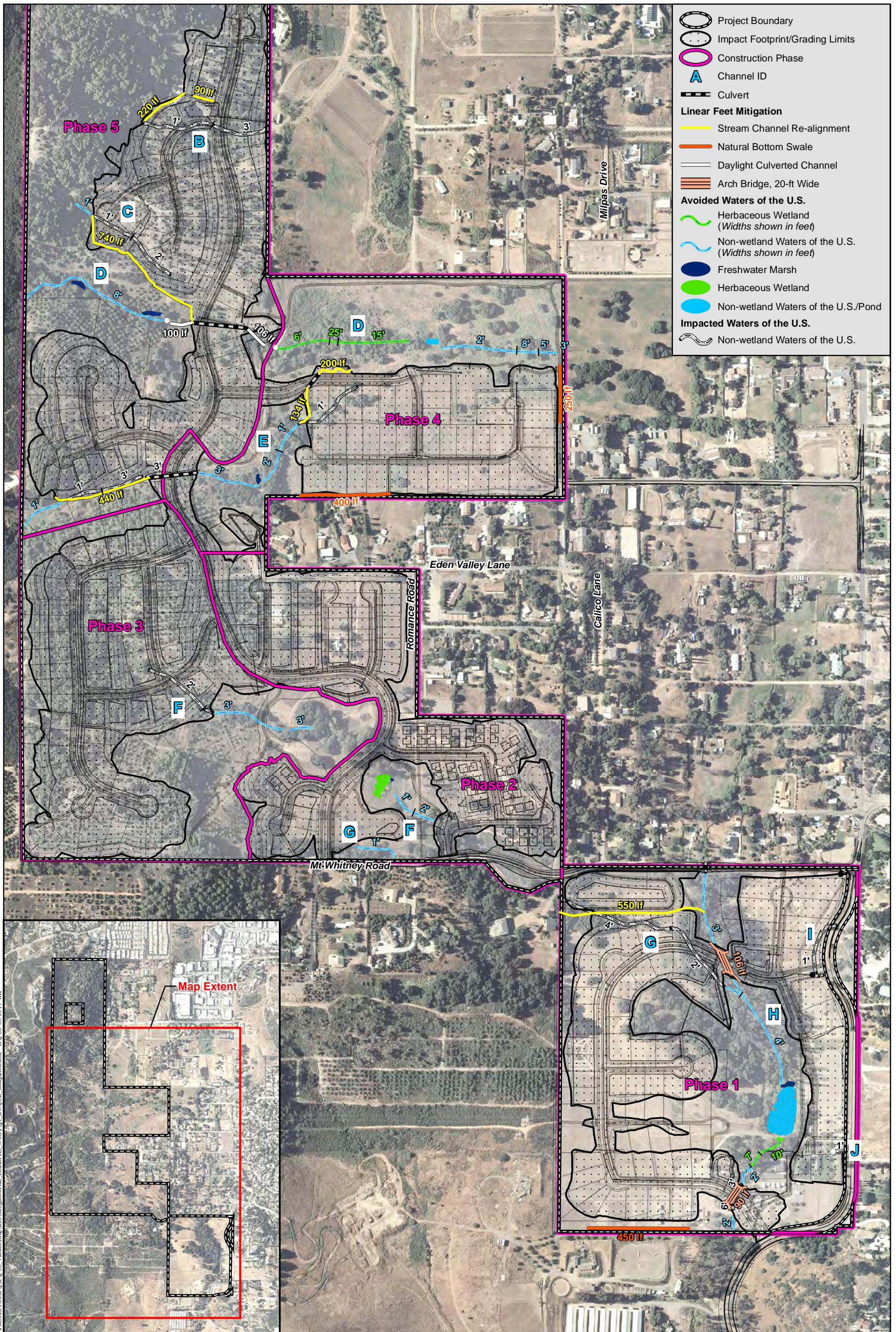
tel 858.554.1500 • fax 858.597.0335 • www.fuscoe.com



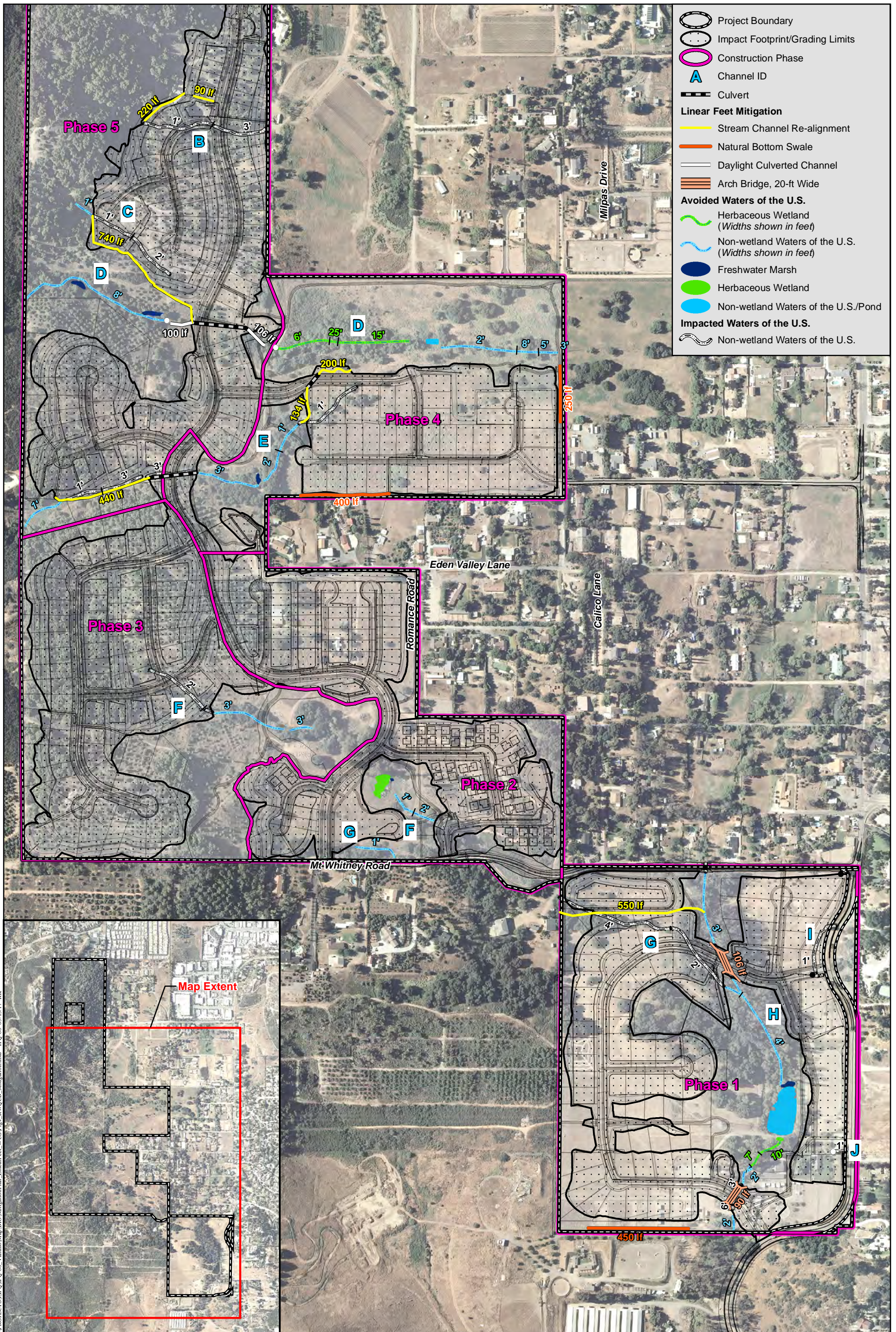
## **ATTACHMENT 4**

### **MITIGATION INFORMATION**

1. Helix Environmental Planning, Valiano, Waters of U.S. – Linear Feet Mitigation, Figure 4.
2. Helix Environmental Planning, Valiano, Waters of U.S. – Linear Feet Mitigation, Phase 1 and Phase 2 Grading added to figure.



Waters of the U.S. – Linear Feet Mitigation



Waters of the U.S. – Linear Feet Mitigation

I:\PROJECTS\IPQ\IPQ-08\_Valiamo\Map\BIO\MitigationPlan\_LinearFeet\_WUS\Fig4\_RNOCB\_Mitigation.mxd IPQ-08 05/15/17-RK



## **ATTACHMENT 5**

### **CEQA MITIGATION REQUIREMENTS**

1. Final Environmental Impact Report, Valiano Project, Chapter 7, List of Mitigation Measures and Project Design Features, February 2018.

## **CHAPTER 7.0 – LIST OF MITIGATION MEASURES AND PROJECT DESIGN FEATURES**

### **7.1 Comprehensive Listing of Mitigation Measures**

#### **7.1.1 Mitigation for Aesthetics Impacts**

**M-AE-1** The following mitigation measure addresses initial installation of the landscaping and rock staining on the manufactured slopes to ensure long-term visual continuity and screening of the manufactured slopes:

- All manufactured slopes within steep slopes shall be vegetated beyond the minimal erosion control vegetation (one one-gallon shrub per 100 s.f.) to provide one one-gallon shrub per each 75 s.f. in areas of exposed soil (i.e., non-rocky areas) and exposed newly cut rocks shall be stained to soften and screen the appearance of the manufactured slopes.

**M-AE-2** Visual character impacts related to retaining/fire walls that would not be screened by landscaping shown in the Project Landscape Concept Plan as a matter of Project design would be mitigated by the following measure:

- Wall(s) shall be textured and stained or colored to reduce visibility.

#### **7.1.2 Mitigation for Air Quality**

**M-AQ-1** A revised housing forecast shall be sent to SANDAG to ensure that revisions to the population and employment projections used in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

#### **7.1.3 Mitigation for Agricultural Resources**

**M-AG-1** In order to mitigate for on-site direct impacts to 13.1 acres of agricultural resources encompassing candidate soils would require on or offsite preservation of suitable agricultural resources at a 1:1 ratio. Options to implement this mitigation include: (1) providing 13.1 acres of off-site mitigation through the acquisition of agricultural mitigation credits via the County Purchase of Agricultural Conservation Easement (PACE) Program; (2) providing a combination of PACE mitigation credits and establishment of on- and/or off-site agricultural easements in appropriate areas encompassing CDC candidate soils and totaling 13.1 acres; or (3) purchasing off-site agricultural lands or easements totaling 13.1 acres that meet the intent of the County Agricultural Guidelines, all to the satisfaction of the Director of PDS.

#### **7.1.4 Mitigation for Biological Resources**

##### **M-BI-1a and b**

Mitigation for impacts to non-native grassland habitat (typically a 0.5:1 ratio) must include impacts to sensitive species (grasshopper sparrow and raptors) which increases

the mitigation ratio to 1:1, for a mitigation requirement of 49.1 acres.<sup>1</sup> Mitigation for impacts to 20.3 acres of extensive agriculture, which provides more limited habitat value to species, will occur at the base ratio of 0.5:1, for a mitigation requirement of 10.2 acres. Mitigation for impacts to raptor foraging habitat and grasshopper sparrow habitat would occur prior to recordation of the first Final Map through one or a combination of the following: off-site preservation of grassland habitat and/or other like-functioning habitat within the NC MSCP boundaries, or purchase of grassland credits or like-functioning habitat at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies.

- M-BI-2** No grubbing, clearing, or grading within 300 feet of an active raptor nest during the raptor breeding season (February 1 through July 15) will occur. All grading permits, improvement plans, and the final map will include such statement. If grubbing, clearing, or grading is proposed during the raptor breeding season, a pre-grading survey will be conducted within three days prior to clearing to determine if raptors occur within the areas directly impacted by grading or indirectly impacted by noise. If there are no raptors nesting (includes nest building or other breeding/nesting behavior) within this area, development will be allowed to proceed upon approval of the Director of PDS with concurrence from USFWS and CDFW. However, if raptors are observed nesting or displaying breeding/nesting behavior within the area, construction will be postponed until (1) all nesting (or breeding/nesting behavior) has ceased or until after July 15; or (2) a temporary noise barrier or berm is constructed at the edge of the development footprint to reduce noise levels below 60 dB L<sub>EQ</sub> or ambient (if ambient is greater than 60 dB L<sub>EQ</sub>), to the satisfaction of the Director of PDS with concurrence from USFWS and CDFW. Alternatively, if approved by the Director of PDS with concurrence from USFWS and CDFW, the duration of construction equipment operation could be controlled to keep noise levels below 60 dB L<sub>EQ</sub> or ambient (if ambient is greater than 60 dB L<sub>EQ</sub>) in lieu of or in concert with a wall or other sound attenuation barrier.
- M-BI-3a** Impacts to 0.04 acre of southern willow scrub will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.12 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.
- M-BI-3b** Impacts to 0.01 acre of mule fat scrub will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.03 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.
- M-BI-3c** Impacts to 0.02 acre of herbaceous wetland will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.06 acre of wetland credits at the

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<sup>1</sup> A total of 53.1 acres of grassland mitigation would be provided for impacts to 53.8 acres of non-native grassland. The remaining 0.7 acre would be mitigated through oak woodland mitigation, as impacts to 0.7 acre of non-native grassland occur within the oak root zone as defined by the County and are considered impacts to oak woodland.

- San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.
- M-BI-3d** Impacts to 0.08 acre of disturbed wetland will be mitigated prior to recordation of the First Final Map at a 3:1 ratio through the purchase of 0.24 acre of wetland credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.
- M-BI-3e** Impacts to 6.2 acres of coast live oak woodland and 1.0 acre of oak woodland buffer (consisting of 0.8 acre non-native grassland, 0.1 acre of eucalyptus woodland, and 0.1 acre combined impacts to extensive agriculture, southern mixed chaparral, and eucalyptus forest) will be mitigated at a 2:1 ratio for the 2.1 acres occurring within the LBZ around biological open space, and at a 3:1 ratio for the remaining 4.1 acres of impact and 1.0 acre of buffer impact. A 2.1-acre Oak Tree Protection Easement would be recorded over the 2.1 acres of coast live oak woodland remaining within the LBZ, which would limit fuel modification to clearing of the understory and prohibit the removal of mature oak trees. Mitigation would be accomplished through one or a combination of the following: the purchase of 19.5 acres of oak woodland, oak riparian woodland, or oak riparian forest credits at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies, and/or off-site acquisition and preservation of land within the NC MSCP PAMA boundaries containing oak woodland, oak riparian woodland, or oak riparian forest.
- M-BI-3f** Direct impacts to 0.2 acre of Diegan coastal sage scrub and indirect impacts to 1.6 acres of Diegan coastal sage scrub will be mitigated prior to recordation of the First Final Map at a 2:1 ratio through the purchase of 3.6 acres of coastal sage scrub credits at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies; and/or off-site acquisition and preservation of land within the NC MSCP boundaries containing Diegan coastal sage scrub.
- M-BI-3g** Impacts to 3.1 acres of granitic southern mixed chaparral will be mitigated prior to recordation of the first Final Map at a 0.5:1 ratio through one or a combination of the following: the purchase of 1.5 acres of chaparral credits at an approved mitigation bank such as the future Brook Forest Conservation Bank or other location deemed acceptable by the County and Wildlife Agencies; or off-site acquisition and preservation of land within the NC MSCP boundaries containing southern mixed chaparral.
- M-BI-3h** Impacts to 49.9 acres of non-native grassland will be mitigated at a 1:1 ratio as described in Mitigation Measure M-BI-1a and b, above.
- M-BI-4** Impacts to 0.19 acre of non-wetland WUS will be mitigated by purchase of 0.19 credits at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies. All mitigation for WUS will occur in consultation with the USACE.

**M-BI-5** Impacts to 0.50 acre of vegetated Waters of the State will be mitigated prior to recordation of the first Final Map by the implementation of the above Mitigation Measures M-BI-3a (southern willow scrub), M-BI-3b (mule fat scrub), M-BI-3c (herbaceous wetland), M-BI-3d (disturbed wetland) and M-BI-3e (coast live oak woodland).

Impacts to 0.26 acre of streambed Waters of the State will be mitigated prior to recordation of the first Final Map by the implementation of Mitigation Measure M-BI-4, above, plus purchase of an additional 0.07 acre credit at the San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies.

**M-BI-6** Impacts to 0.01 acre of County RPO wetlands (0.17 acre of southern riparian forest and 0.01 acre of mule fat scrub) will be mitigated by the implementation of Mitigation Measure M-BI-3b, above.

**M-BI-7** In order to ensure compliance with the MBTA, grading and clearing of vegetation will occur outside of the breeding season of most avian species (February 1 through September 1). All grading permits, improvement plans and the final map(s) will include such statement. Grading or clearing during the breeding season of MBTA-covered species could occur with PDS approval and wildlife agency concurrence if it is determined that no nesting birds (or birds displaying breeding or nesting behavior) are present immediately prior to clearing and grading. A pre-construction survey will be conducted within seven days prior to clearing and grading activities to determine if breeding or nesting avian species occur within impact areas.

**M-BI-8** Impacts would be mitigated with M-BI-3h and M-BI-1a and b. Mitigation for impacts will provide a higher mitigation ratio and better habitat value to species.

### 7.1.5 Mitigation for Cultural Resources

**M-CR-1** A data recovery program will be implemented at the site prior to approval of any grading or improvement plans that will cause the direct impact. The research design and data recovery plan are included as Appendix F of the Cultural Resources Inventory and Assessment. The data recovery program will be implemented prior to any grading and/or improvements and prior to the approval of the first Final Map. All data recovery shall include a Kumeyaay and a Luiseño Native American monitor.

**M-CR-2** A grading monitoring and data recovery program will be implemented to mitigate potential impacts to undiscovered buried archaeological resources on the Project and off-site roadway alignments site to the satisfaction of the Director of PDS. In addition, a pre-grading survey shall also be conducted. This program shall include, but shall not be limited to, the following actions:

- a. Provide evidence to PDS that a County certified archaeologist has been contracted to implement a grading monitoring and data recovery program, and a pre-grading survey to the satisfaction of the Director of PDS. A letter from the Principal

- All processes and equipment would be housed (or otherwise contained) and ventilation controlled such that no objectionable odors would be discernible at the Project site boundaries.
- A misting system with odor neutralizing liquids to break down the foul smelling chemical compounds in the biogases would be installed.
- Bio filters would be utilized to capture odor causing compounds in a media bed where they are oxidized by naturally occurring micro-organisms.
- Wastewater operators would routinely check the digester pressure relief valves to make sure they are not venting to the outdoors and that the waste gas burner is performing optimally.

### **7.2.5 Design Considerations for Biological Resources**

1. A pre-construction meeting shall be held to ensure that construction crews are informed of the presence of sensitive resources in and adjacent to the Project site. Prior to commencement of clearing or grading activities, the approved limits of disturbance shall be identified in the field, and silt or orange fencing shall be installed to prevent errant disturbance by construction vehicles or personnel. All movement of construction contractors, including ingress and egress of equipment and personnel, shall be limited to designated construction zones. This fencing shall be removed upon completion of all construction activities.
2. Prior to initiating any construction-related activities, including clearing, grubbing, grading and construction, a qualified biological monitor shall be retained and shall be on-site during clearing, grubbing, and/or grading activities. The biological monitor shall attend all pre-construction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas and protective fencing. The biological monitor would relocate sensitive wildlife species (such as orange-throated whiptail, coastal rosy boa, red diamond rattlesnake, etc.) that may become trapped in ditches or other construction-related features to areas outside the work limits.
3. Focused surveys to determine presence or absence of bat colonies and/or bat nursery sites will be conducted within any structures to be demolished or hollow trees to be removed on the Project site. Surveys will begin a maximum of seven days prior to structure demolition or tree removal and one survey will be conducted the day immediately prior to the initiation of work. If any bat colonies and/or bat nursery sites are found within any structure(s) or hollow tree(s), demolition of the structure(s) or removal of the tree(s) shall be postponed until the nursery/breeding activity ends. If bat roosting sites are found, demolition of the structure(s) or removal of the tree(s) shall be postponed until the bats are excluded from the structure(s). A copy of the survey results shall be submitted for approval to the PDS prior to the demolition of any structure(s) or removal of any hollow tree(s) on the Project site.
4. Brushing, clearing, and grading activities within 100 feet of biological open space easements would not be permitted during the avian breeding season (February 15 through August 31).

5. Native topsoil (top three to five inches) would be salvaged and stockpiled within a disturbed on-site location. Stockpiles would not be greater than six feet high and would not be mixed with other excavated materials. Following completion of construction activities, stockpiled native topsoil would be re-spread as applicable.
6. The construction site would maintain adequate storm water BMPs (erosion) and air quality control (dust).
7. Grading plan notes will require temporary protective fencing to keep construction equipment and people out of sensitive habitats that are not proposed to be graded.
8. The Project would comply with wet weather grading restrictions (October 1 to April 30) to avoid habitat damage in applicable locations.
9. As shown on the conceptual landscape plan, project landscaping would exclude exotic invasive pest plants and require native vegetation (i.e., species not listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC; 2007]).
10. As discussed in Section 3.1.3, the Project would not accelerate or increase storm water or non-storm water flows to sensitive downstream areas.
11. All Project-related lighting would be required by the D Designator Site Plan to adhere to Division 9 of the LPC. Lighting within the Project footprint adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from these sensitive habitats.
12. Biological open space areas would be fenced off from the proposed development.
13. Signage would be placed along the edge of the biological open space area to deter human incursion.
14. RPO wetlands and buffers (at least 50 feet) would be preserved within biological open space easements dedicated on the Final Map.
15. Each biological open space easement would be surrounded by a Limited Building Zone easement dedicated on the Final Map that does not allow any structures, in order to prevent fire clearing from extending into biological open space.
16. The southernmost entrance road into Neighborhood 5 would include a con-span bridge measuring 20 feet wide by 6 feet high with an earthen bottom. This Project Design Feature would allow for local movement of aquatic and terrestrial species between the on-site and off-site open space and is of sufficient size for deer to pass through, thereby reducing the potential for road mortality to wildlife.

#### **7.2.6 Design Considerations for Noise**

1. The Tentative Map Resolution will require that the Grading Plan notes require 48-hour notice prior to a blasting activity for each residence within or partially within 600 feet of the blasting

## 7.2.11 Design Considerations for Hydrology/Water Quality – Construction

### Water Quality

#### Erosion/Sedimentation

1. The Proposed Project would comply with County storm water requirements and the related NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) during all grading and land-disturbance activities. This includes preparation of a CSMP, a Risk Assessment to determine the Project's Risk Level (1, 2 or 3), and appropriate Risk Level Requirements as outlined in the Construction General Permit. Prior to land disturbance activities, a SWPPP would be prepared by a qualified SWPPP preparer, with this plan to be located on site at all times.
2. If the site is determined to be a Risk Level 2 or 3 site, a REAP would be prepared and implemented 48 hours prior to any likely precipitation event (50 percent or greater probability of producing precipitation in the Project area). The REAP would be prepared for all phases of construction and implemented for construction activities to provide enhanced erosion and sediment control measures during predicted storm events.
3. The Project would comply with seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable locations/conditions.
4. Existing vegetation would be preserved wherever feasible, and phased grading schedules would be used to limit the area subject to erosion at any given time.
5. Storm water and non-storm water flows would be properly managed to minimize runoff.
6. Erosion control/stabilizing measures, such as geotextiles, mulching, mats, plastic sheets/tarps, fiber rolls, soil binders, compost blankets, soil roughening, and/or temporary hydroseeding (or other plantings) in appropriate areas (e.g., disturbed areas and graded slopes), would be used.
7. Sediment controls would be used to protect the construction site perimeter and prevent off-site sediment transport, including measures such as temporary inlet filters, silt fence, fiber rolls, silt dikes, biofilter bags, gravel bag berms, compost bags/berms, temporary sediment basins, check dams, street sweeping/vacuuming, ATS (if applicable based on risk assessment), energy dissipators, stabilized construction access points/sediment stockpiles, and properly fitted covers for sediment transport vehicles.
8. BMP materials would be stored in applicable on-site areas to provide "standby" capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.
9. Full erosion control would be provided in disturbed areas not scheduled for additional activity for 14 or more consecutive calendar days.
10. Appropriate training would be provided for the personnel responsible for BMP installation and maintenance.



11. Solid waste management efforts, such as proper containment and disposal of construction debris, would be used.
12. The Proposed Project would comply with local dust control requirements (see measures listed under Air Quality).
13. Permanent landscaping, with emphasis on native and/or drought-tolerant varieties, would be installed as soon as feasible during or after construction.
14. Appropriate monitoring and maintenance efforts (e.g., prior to and after storm events) would be implemented to ensure proper BMP function and efficiency.
15. Sampling/analysis, monitoring/reporting and post-construction management programs would be implemented per NPDES and/or County requirements, along with additional BMPs as necessary to ensure adequate erosion and sediment control.

#### Construction-related Hazardous Materials

1. The amount of hazardous materials used and stored on the site would be minimized, and use/storage locations will be restricted to areas at least 50 feet from storm drains and surface waters.
2. Raised (e.g., on pallets), covered, and/or enclosed storage facilities would be used for all hazardous materials.
3. Accurate and up-to-date written inventories and labels would be maintained for all stored hazardous materials.
4. Berms, ditches, and/or impervious liners (or other applicable methods) would be used in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.
5. Warning signs would be placed in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal.
6. All construction equipment and vehicles would be properly maintained so as not to release fuels, oils, or solvents.
7. Paving operations would be restricted during wet weather, appropriate sediment control devices/methods would be used downstream of paving activities and wastes and/or slurry from sources including concrete, dry wall and paint would be contained or disposed of by using properly designed and contained washout areas.
8. Training for applicable employees would be provided in the proper use, handling, and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.

9. Absorbent and clean-up materials would be stored in readily accessible on-site locations.
10. Portable wastewater facilities would be properly located, maintained, and contained.
11. Solid waste management efforts such as proper containment and disposal of construction debris, and restricting construction debris storage areas to appropriate locations at least 50 feet from storm drain inlets and water courses would be implemented.
12. Regular (at least weekly) monitoring and maintenance would be conducted for all hazardous material use/storage facilities and operations to ensure proper working order.
13. A licensed waste disposal operator would be employed to regularly (at least weekly) to remove and dispose of construction debris at an authorized off-site location.
14. Recycled or less hazardous materials would be used wherever feasible.
15. Regulatory agency telephone numbers and a summary guide of clean-up procedures would be posted in a conspicuous on-site location.
16. Additional BMPs would be implemented as necessary (and in conformance with applicable requirements) to ensure adequate hazardous material control.

#### Demolition-related Debris Generation

1. Appropriate (i.e., non-hazardous) construction debris would be recycled for on- or off-site use whenever feasible.
2. Dust-control measures such as watering to reduce particulate generation would be used for pertinent locations/activities (e.g., concrete removal).
3. Appropriate erosion prevention and sediment control measures would be used downstream of all demolition activities.
4. The Project would conform with applicable requirements related to the removal, handling, transport and disposal of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport and disposal of hazardous materials generated during Project construction.

#### Disposal of Extracted Groundwater

1. Dewatering operations conducted during Project construction, if required, would conform with all applicable treatment and disposal requirements under the NPDES General Permit for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region Except for San Diego Bay (Groundwater Permit). This may include standard measures such as: (1) using appropriate erosion and sediment controls in applicable

areas/conditions (e.g., disposal of extracted groundwater on slopes or graded areas); (2) testing extracted groundwater for appropriate contaminants prior to discharge; and (3) treating extracted groundwater prior to discharge, if required, to provide conformance with applicable Groundwater Permit discharge criteria, through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant.

## **7.2.12 Design Considerations for Hydrology/Water Quality – Operation**

### Drainage Alteration

1. The Project design would include a series of storm drain facilities to capture, convey, and regulate flows within and through the site, including separate drainage systems for flows within/from off-site drainages and on-site pervious areas where possible to prevent mingling of runoff from these areas with runoff from developed sites. The described storm drain system(s) would retain the overall drainage patterns and directions within and from the Project site, with flows within the developed areas continuing to move primarily to the east and south (similar to existing conditions) and eventually entering Escondido Creek before continuing west to San Elijo Lagoon and the Pacific Ocean. This would include an area of approximately 0.25 acre associated with the proposed R7 Reservoir that currently drains north to San Marcos Creek but would be redirected east to merge with Project site drainage and eventually enter Escondido Creek. Proposed Project development in the northernmost portion of the site that would continue to drain north to San Marcos Creek, would be limited to a minor (approximately 0.1-acre) manufactured slope with no impervious surfaces. Based on the described conditions, associated flow characteristics in the Project site and adjacent watersheds would remain essentially unchanged from existing conditions.

### Runoff Rates/Amounts

1. The proposed storm drain system(s) would include a series of curb/gutter inlets, crossing structures (culverts), and 16 extended detention basins (with bioretention layers), all of which would be tied to an underground system of pipelines/related structures and designed to accommodate peak 100-year storm flows. With implementation of the described drainage system(s), post-development flows leaving the site would be equal to or less than existing flow rates/amounts.
2. Additional or upgraded drainage crossing structures would be installed in association with off-site roadway improvements along Mt. Whitney Road, including a triple 12- by 6-foot box culvert and two bridges, with these facilities designed to accommodate peak 100-year storm flows (and flow regulation provided upstream by the previously described detention basins).
3. Appropriate energy dissipation facilities (e.g., riprap aprons) would be used at the proposed discharge locations.

### Hydromodification

1. The Project design would include the previously described 16 appropriately located and sized detention basins, as well as six bio-retention facilities, to provide conformance with County of

San Diego Final Hydromodification Management Plan, pursuant to recommendations in the Project Hydromodification Management Study.

### Floodplains/Flooding

1. The Project design would include a series of storm drain facilities to capture, convey, and regulate flows within and through the site as previously described, with these facilities to accommodate 100-year peak storm flows and address all related potential concerns regarding on- and off-site flooding.

### Groundwater

1. Pervious surfaces would be retained on approximately 75 percent of the Project site to minimize potential effects to surface water infiltration and associated groundwater recharge capacity.
2. The previously described detention basins, as well as the wet weather storage area associated with the Project wastewater reclamation facility, would include an impermeable layer (e.g., concrete or impermeable membrane) to avoid localized additional infiltration of surface water and associated potential effects to groundwater levels and related facilities such as septic systems.

### Water Quality

#### Low Impact Development (LID) Site Design BMPs

1. Well-draining (Type B) soils, significant trees, critical areas (e.g., steeper slopes), and areas near drainages would be preserved wherever feasible to provide natural buffer zones.
2. Appropriate set-backs from drainages would be provided for development envelopes, and construction equipment access will be restricted in planned green/open space areas.
3. Curb cuts to direct flows into landscaped areas, minimum street widths, and permeable surfacing would be used in appropriate areas to minimize and disconnect impervious surfaces.
4. Sidewalks would be eliminated or provided on one side of streets only, and permeable pavement would be used where feasible to minimize impervious surfaces.
5. Downspouts would be provided to direct drainage from rooftops into vegetated areas where feasible.
6. Reuse of native topsoils, “smart” irrigation systems (e.g., appropriate water schedules and rain/pressure-sensitive shutoff devices), and appropriate native and/or drought-tolerant landscaping (including street trees) would be installed.
7. Disturbance would be limited on slopes, retaining walls would be used where feasible, rounding/shaping of slopes would be employed to reduce concentrated flows, and concentrated flows on slopes would be collected in stabilized drains and channels.

### Source Control BMPs

1. “No dumping” stencils/tiles and/or signs with prohibitive language (per current County guidelines) would be installed at applicable locations such as drainages, storm drain inlets, catch basins and public access points to discourage illegal dumping.
2. Trash storage areas in applicable locations (i.e., WTWRF and public areas such as parks) would be designed to reduce pollutant discharge through methods such as providing an adequate number of receptacles, paving with impervious surfaces, installing screens or walls to prevent trash dispersal, providing attached lids and/or roofs for trash containers to prevent direct precipitation contact, precluding disposal of liquid or hazardous materials, implementing daily inspection/clean up and as-need facility repair, storing clean up materials on-site, providing pre-treatment prior to discharge of associated runoff, and discharging to the sanitary sewer if applicable.
3. Regular (e.g., monthly, or as needed based on site-specific conditions) street sweeping would be implemented in areas such as plazas, sidewalks and parking lots, and associated debris and washwater would be precluded from entering the storm drain system.
4. Applications of chemical pesticides, herbicides and fertilizers would be minimized; licensed professionals would be used for application of such chemicals in common landscaped areas; the rates and times of fertilizer applications would be restricted to minimize potential discharge in irrigation or precipitation runoff; building design features such as sand barriers under floor slabs would be used as pest shields; and Integrated Pest Management information would be provided to on-site owners, lessees and operators.
5. Site landscaping would be designed to maximize the retention and/or use of appropriate native, drought-tolerant and pest-resistant varieties; and appropriate plant varieties would be used in areas such as storm water facilities to ensure successful establishment and viability.
6. Industrial processes and associated drainage would be restricted to indoor areas at the Project site WTWRF.
7. Proper outdoor material/equipment storage would be implemented at the Project site wastewater reclamation facility, potentially including measures such as preventing run-on and runoff (e.g., through structural controls), use of secondary containment/covers, pre-treatment of runoff prior to discharge to the storm drain system, and compliance with hazardous materials requirements if applicable (e.g., limiting on-site storage quantities and use of proper storage/containment).
8. Secondary containment would be provided for rooftop equipment with the potential to produce pollutants; and the use of copper or other unprotected metals would be avoided for roofing, gutters, and trim.

## LID and Treatment Control BMPs

1. The Project design would include 16 extended detention basins with a bioretention layer, designed to function as water quality basins, as well as trash rack catch basin inserts with hydrocarbon booms, and six bio-retention facilities in applicable locations to treat runoff prior to off-site discharge and provide conformance with applicable regulatory requirements.

Monitoring and maintenance efforts for the 16 detention basins and four of the six bioretention basins (with the bioretention basins in DMAs 6A and 6B to be operated and maintained by the Rincon MWD) would be implemented by the Project owner(s) through: (1) submitting annual (at a minimum) Maintenance Notifications to the County; and (2) entering into a written BMP Maintenance Agreement with the County for Second Category BMPs (i.e., all proposed treatment BMPs). Specific monitoring and maintenance efforts associated with proposed BMP facilities and programs include monitoring and reporting to document that programs/activities are being implemented as designed, inspection and maintenance of physical facilities, and making necessary modifications/repairs to ensure that intended BMP functions and regulatory requirements are being met.

### **7.2.13 Design Considerations for Utilities and Service Systems**

1. The hydraulic analysis shall be reviewed by the Rincon MWD to verify the associated sizing and scheduling conclusions, with any resultant modifications to be incorporated into the final Project design.