ADDENDUM No. 3 TO THE FINAL ENVIRONMENTAL IMPACT REPORT Carpinteria Valley Water District's Water Storage Tank Project And Rancho Monte Alegre Annexation

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1.0 INTRODUCTION

1.1 PURPOSE

This Addendum (Addendum No. 3 to the Final Environmental Impact Report [FEIR] for the Carpinteria Valley Water District's Water Storage Tank Project and Rancho Monte Alegre Annexation [SCH# 2002011085] certified by the Carpinteria Valley Water District Board on January 8, 2003) has been prepared in accordance with Section 15164 of the State of California Environmental Quality Act (CEQA) Guidelines. This addendum is necessary because minor changes relevant to the project have occurred since the preparation of the FEIR and Addendums Nos. 1 and 2 to the FEIR. However, these changes, described further herein, do not meet any of the conditions described in Sections 15162 and 15163 of the CEQA guidelines requiring the preparation of a subsequent or supplemental Environmental Impact Report as described further below.

1.2 CEQA GUIDANCE

The State CEQA Guidelines provide guidance on the appropriate document for revisions to a previously certified EIR. Section 15162 requires the preparation of a Subsequent EIR if the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more

significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15164 requires the lead agency to prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred. An Addendum need not be circulated for public review but can be included in or attached to the final EIR. The decision making body must consider the Addendum with the final EIR prior to making a decision on the project. A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in the Addendum, the lead agency's findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.

1.3 FINDINGS

None of the conditions described above under Section 15162 of the State CEQA Guidelines requiring a subsequent or supplemental EIR have occurred. New significant environmental effects or a substantial increase in the severity of previously identified significant effects are not expected. In addition, no substantial changes have occurred with respect to the circumstances under which the project will be undertaken. These findings are supported by the following environmental assessment of the project. The minor changes and additions to the project as listed below are consistent with Section 15164 of the State CEQA Guidelines, and an Addendum to the previously certified EIR is the appropriate CEQA documentation. This Addendum will be considered by the Carpinteria Valley Water District Board of Directors at a noticed public meeting as part of approval of changes to the project.

2.0 REVISIONS TO THE EIR PROJECT DESCRIPTION

Current revisions to the project are identified in summary in the following table and are described in further detail below.

	EIR/Addendums Project Description	Current Plans
1	Biological Mitigation for California Red-legged frog BIO1 and BIO2.	Due to the acceptance of California Department of Fish and Game (CDFG) Streambed Alteration Agreement Permit conditions and decision not to allow for movement of red-legged frogs, which would require the District obtain an Incidental Take Permit from the United States Fish and Wildlife Service (USFWS), the text of BIO1 and BIO2 was revised. Additional Mitigation Measures added to the project as part of a "Request for Concurrence of No Take" from the USFWS for work in or adjacent to Santa Monica Creek with the potential to impact California red-legged frog.
2	General description of tank site plan and preliminary grading plan showing tentative layout of the tank facilities.	Minor modification of site plan at the 3.0 MG tank site.
3	FEIR describes a proposed 18 feet wide bridge with a span of about 70 feet.	Presently the proposed bridge would have a travel lane width of 20 feet ¼ inch with an outside truss to truss width of 27 feet and 2½ inches with a span of 110 feet.
4	No discussion of detention basin	Lower detention basin constructed.
5	Cut and fill to be balanced onsite amended by Addendum Nos. 1 and 2 to specifically include the use of crushed rock from the site or earth materials from RMA borrow sites located on existing ranch roads outside of the coastal zone.	Use of Santa Barbara County Flood Control District (SBCFCD) fill from the detention basin at Santa Monica Creek.
6	No landslides identified at project site. However, mitigation requiring further geotechnical investigation for potential hazards including landslide potential and development of appropriate mitigation if identified.	Landslides identified in subsequent geotechnical investigations. Mitigation measures are proposed to reduce the impact of these features to the road and public safety. Landslide remediation includes work in areas not previously proposed for construction and requires construction techniques not previously considered in the evaluation of associated environmental impacts (e.g., use of caisson rows, viaduct replacing a short segment of typical road section, and rock removal and layback of rock face and ledge to stabilize rock face and prevent falling rock.

	EIR/Addendums Project Description	Current Plans
7	Road to upper tank site per plans in Addendum No. 2.	In addition to the newly proposed landslide mitigation, the current project plans include the following elements: • a change in the location of upper access road pump station 2; • new water channeling/erosion control rock rip rap walls at pump station 4; • a new fifth pump station; • the elimination of some previously proposed drainage features and replacement with two new drain pipes and an expanded drainage swale; • modification to the placement of retaining walls; and • a slight realignment of the upper tank access road near the upper tank site to further avoid oak trees. Current plans are provided as attachments to this Addendum (Carpinteria Valley Water District Phase 4 & 5 Upper Tanks Access Road sheets 1 of 8 through 8 of 8).
8	Identification of existing potential geoenvironmental hazards at the site included past use of agricultural pesticides.	Agricultural dump site identified at the lower tank site including creosote waste.
9	Construction schedule for road to upper tank site per Addendum No. 1 winter/spring 2005.	Phase 4 road improvement construction is anticipated to commence in May of 2008 with completion expected in spring of 2009. Phase 5 road improvement construction commenced in August 2007 with completion in spring of 2008.

2.1 RED-LEGGED FROG MITIGATION

The FEIR identified potential impacts to California red-legged frog in association with work proposed in the vicinity of the Santa Monica Creek crossing along the upper RMA ranch road. The FEIR included the following mitigation measure to address this potential impact.

BIO 1 California Red-Legged Frog. Measures listed in Programmatic Formal Endangered Species Act Consultation on Issuance of Permits under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for Projects that May Affect the California Red-legged Frog (USFWS, 1999), shall be implemented. Specific measures detailed in the programmatic agreement are as follows:

1. At least 15 days prior to the onset of activities, the District shall submit the name(s) and credentials of biologists who would conduct activities specified in the following measures. No project activities shall begin until the District has received written approval from the USFWS that the biologist(s) is qualified to conduct the work;
2. A USFWS-approved biologist shall survey the work site two weeks before the onset of activities. If California red-legged frog adults, tadpoles, or eggs are found, the approved biologist shall contact the USFWS to determine if moving any of the life-stages is appropriate. In making this determination, the USFWS shall consider if an appropriate relocation site exists. If the USFWS approves moving animals, the approved biologist shall be allowed sufficient time to move California red-legged frogs from the work site before work activities begin. Only USFWS-approved biologists shall participate in activities associated with the captures, handling, and monitoring of California red-legged frogs.
3. Before any construction activities begin on a project, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the importance of the California red-legged frog and it habitat, the general measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions;
4. A USFWS-approved biologist shall be present at the work site until such time as all removal of California red-legged frogs, instruction of workers, and habitat disturbance have been completed. After this time, the District shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this individual receives training outlined above in measure 3 and in the identification of California red-legged frogs. The monitors and the USFWS-approved biologist shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by USFWS during review of the proposed action. If work is stopped, USFWS shall be notified immediately by the USFWS-approved biologist or on-site biological monitor;
5. During project activities, all trash that may attract predators shall be properly contained, removed form the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas;
6. All fueling and maintenance of vehicles and other equipment and staging areas shall occur at least 20 meters from any riparian habitat or water body. The District shall ensure contamination of habitat does not occur during such

operations. Prior to the onset of work, the District shall prepare a plan to allow a prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur;

7. A USFWS-approved biologist shall ensure the spread or introduction of invasive exotic plant species shall be avoided to the maximum extent possible. When practicable, invasive exotic plants in the project areas shall be removed;
8. California red-legged frog habitat disturbed during construction shall be revegetated with an appropriate assemblage of native riparian wetland and upland vegetation suitable for the area. A species list and restoration and monitoring plan shall be included with the project proposal for review and approval by the USFWS. Such a plan must include, but not be limited to, location of the restoration, species to be used, restoration techniques, time of year the work would be done, identifiable success criteria for completion, and remedial actions if the success criteria are not achieved;
9. Stream contours shall be returned to their original condition at the end of project activities, unless consultation with the USFWS has determined that it is not beneficial to the species or feasible (does not apply to this project);
10. The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the project goal. Routes and boundaries shall be clearly demarcated, and these areas shall be outside of riparian and wetland areas. Where impacts occur in these staging area and access routes, restoration shall occur as identified in measures 8 and 9 above;
11. Work activities that may affect California red-legged frog shall be completed between April 1 and November 1. Should the District demonstrate a need to conduct activities outside this period, USFWS may grant approval;
12. To control erosion and water quality degradation during and after project implementation, the District shall implement best management practices, as identified by the Central Coast Regional Water Quality Control Board;
13. If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters (mm) to prevent California red-legged frogs from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.
14. A USFWS-approved biologist shall permanently remove, from within the project area, any individuals of exotic species, such as bullfrogs, crayfish, and centrachid fishes, to the maximum extent possible. The District shall have

the responsibility to ensure that their activities are in compliance with the California Fish and Game Code.

Timing: Measures 1 through 3 shall be conducted prior to construction. A portion of Measure 8 and Measure 12 would be conducted after construction. The remaining Measures and a portion of Measures 8 and 12 shall be conducted during construction.

Monitoring: CVWD is responsible for the retention of a qualified biologist and ensuring that all stages of the measure are conducted. CVWD shall keep a copy of all documentation pertaining to the survey for red-legged frog and any and all coordination with the USFWS. CVWD shall also make periodic site visits during and after construction to ensure that mitigation is implemented.

It was determined in the FEIR that implementation of these measures would prevent any take of California red-legged frogs.

Subsequent to the preparation of the FEIR, the District consulted with the California Department of Fish and Game and obtained a Streambed Alteration Agreement for the work to be located in proximity to Santa Monica Creek at the proposed bridge site. The streambed Alteration Agreement contains numerous measures to protect the creek and its associated flora and fauna making many components of BIO1 redundant. Additionally, because the District's project is outside of the United States Army Corps of Engineers (USACE) permitting jurisdiction, there is no federal nexus for consultation with the United States Fish and Wildlife Service (USFWS). Without such a nexus the process of obtaining an "Incidental Take" permit from USFWS is substantively more time consuming and complex. Thus the District determined that the project would move forward without allowing for the movement of red-legged frogs (i.e., the biological monitor would be authorized to stop work if there was any potential for "take of a frog"). Therefore, BIO1 has been revised to read as follows:

BIO1 The following measures shall be implemented and have replaced the California Red-Legged Frog measures listed in Programmatic Formal Endangered Species Act Consultation on Issuance of Permits under Section 404 of the Clean Water Act or Authorizations under the Nationwide Permit Program for Projects that May Affect the California Red-legged Frog (USFWS, 1999) previously provided as in BIO1 as no federal nexus exists and all other relevant measures are provided in the Streambed Alteration Agreement between the District and the California Department of Fish and Game.

1. District to use USFWS approved biologists for mitigation implementation pertaining to streambed alteration and special status species. District to inform USFWS of the persons conducting such mitigation.

2. Before any construction activities begin on the project, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a provision describing the Endangered Species Act,

a description of the California red-legged frog and its habitat, the importance of the California red-legged frog and it habitat, the general measures that are being implemented to conserve the California red-legged frog as they relate to the project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

Mitigation BIO2 which was adopted by the District to protect other aquatic species was likewise modified to add that in addition to the existing requirements of the measure that "measures from the Streambed Alteration Agreement which would protect aquatic species shall be implemented".

The following additional mitigation measures have been added to the project as part of the Request to USFWS for Concurrence of No Take of Red-legged Frog:

1. Biological Monitoring. One or more of these qualified biologists will be present during all clearing and earth disturbing activities. In addition, prior to the initiation of work each day, one of these qualified biologists will survey the work area including any open trenches and under vehicle wheels/tracks for the presence of listed species. If a California red-legged frog is detected within 100 feet of construction activities, the biologist will have the authority to stop all construction activity.

2. A biologist qualified to survey for the California red-legged frog will conduct pre-construction surveys for the species not more than 7 days prior to construction.

3. If a California red-legged frog should happen to be detected the Service will be contacted and work will be halted until the appropriate level of permitting is attained.

4. All pits and/or trenches will be covered at the end of each work day to prevent capture of California red-legged frogs.

5. Temporary Exclusion Fence. Prior to any clearing and/or grubbing activities in the project area or surveying that requires vegetation removal or trampling, a qualified biologist will direct the placement of temporary exclusion fencing along the work limits to prevent entry by workers or equipment into adjacent habitat areas and prevent any California red-legged frogs from entering the construction area. The exclusion fence will be constructed of geo-textile silt fencing material attached to steel fence posts and will be buried at the base to close all gaps. A fine (less than 0.4 inches) mesh will be used to avoid entrapment of amphibians in the silt fence.

6. The silt fence will be monitored by a qualified biologist, at a minimum of once weekly, during construction to evaluate its effectiveness.

7. The fencing will be maintained throughout the construction period and removed upon project completion.

8. All feasible Best Management Practices (BMPs) will be incorporated to reduce erosion from construction activities, to prevent sediment in storm water discharges, and to minimize non-storm water pollutants at the project site to the maximum extent possible.

9. BMPs to prevent discharge of construction materials, contaminants, washings, concrete, fuels, and oils including at a minimum those BMPs identified in the Streambed Alteration Agreement between the District and the CDF&G.

10. A spill prevention/spill response plan for the project site shall be prepared that:

    - Includes training, equipment, and procedures to address spills from construction equipment, refueling operations, and stored fluids (if any).

    - All stored fuel, lubricants, paints, and other construction liquids shall be placed in secured and covered containers within a bermed or otherwise contained area at least 200 feet from the creek.

    - Fueling Restrictions. All fueling, maintenance of vehicles and other equipment, and staging areas will occur at least 200 feet from any riparian habitat, the creek, or any body of water.

    - All vehicles and equipment used within the floodplain or associated riparian area of project area must be inspected daily to ensure they are free of any leaks of fuel, cooling, lubricating, or other potentially polluting fluid.

11. Equipment washing and major maintenance at the project site shall be prohibited, except for wash-down of vehicles to remove dirt.

12. All refuse and construction debris from the site shall be removed as soon as possible.

13. Trash Management. Throughout the construction period, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly.

14. Weed Control. The contractor shall not stockpile materials on-site in a manner that could cause the spread or introduction of invasive exotic plant species to the project site.

15. In the event of a hazardous material spill within the floodplain, wetland, or riparian area associated with the project area USF&W will be contacted within 24 hours to determine the proper course of action and clean-up methods.

16. If a spill occurs on a weekend or late Friday, USF&W must be contacted by close of business the following Monday.

17. Pets of project personnel that could prey on California red-legged frogs must be prohibited anywhere within the floodplain or associated riparian area of project area during project activities.

18. In addition, the corridor disturbed for the temporary detour road and/or bridge will also be restored to native riparian habitat, in accordance with the Streambed Alteration Agreement.

In a letter from Steve Henry, Assistant Field Supervisor, to Charles Hamilton of the District, dated June 7, 2007, the USFWS concurred with the District, that as proposed, the project would not result in a take of the California red-legged frog based upon the following factors: 1) the District proposes to implement avoidance and minimization measures to avoid possible effects to listed species; 2) a qualified biologist will be present during all clearing and earth disturbing activities; 3) prior to initiation of work each day, a qualified biologist will survey the work area, including any open trenches, for the presence of listed species; 4) if a California red-legged frog is detected within 100 feet of construction activities, the biologist will have authority to stop all construction activity; and 5) if a California red-legged frog is detected, the Service will be contacted and the appropriate level of permitting will be attained before work may resume.

2.2 MODIFICATION OF SITE PLAN FOR 3.0 MG TANK SITE

The project EIR included a short general description of the proposed 3.0 MG tank facilities, including a preliminary grading plan (Figure 3-5-1 of the FEIR1) which showed a tentative layout of the tank and related infrastructure and typical cross sections for the tank (Figure 3.5-2 of the FEIR). The District has slightly revised the site plan for the 3 MG tank. The revisions include elimination of a proposed clearwell2 and reconfiguration of the Tank Access Road. As a result of the elimination of the clearwell and reconfiguration of the Tank Access Road, slight revisions to the layout of other proposed facilities were implemented. Please see the following related drawings:

No. 10-C-06, Tank Site Grading Alignments and Layout
No. 10-C-04, Tank Access Road turn-Around Construction Detail
No. 10-C-07, Tank Site Sections
No. 10-C-08, Tank Site Grading Details

The tank site access improvements as shown in the project FEIR included a cul-de-sac type vehicular turn-around at the westerly terminus of the tank site driveway located adjacent to and northwesterly of the 3.0 MG tank. The cul-de-sac design provided appropriate traffic circulation geometry for Carpinteria-Summerland Fire Protection District. and large truck access.

[1] All referenced figures exhibits and photos are provided at the end of the Addendum.
[2] Clearwell - A reservoir for the storage of filtered water with sufficient capacity to prevent the need to vary the filtration rate in response to short-term changes in customer demand. Also used to provide chlorine contact time for disinfection.

Subsequent design review by the Carpinteria-Summerland Fire Protection District led to a relocation of the cul-de-sac component to be located at the intersection of the Tank Access Road and the tank site entry driveway adjacent and northeasterly of the 3.0 MG tank. The cul-de-sac improvement consists of a relocated 50-foot radius asphalt paved circular turn-around with 6-inch concrete curb/18-inch concrete gutter. Traffic entry/exit points are located at the north and south connections to the Tank Access Road and on the west connecting to the tank site driveway. The tank site driveway improvement has been modified to terminate at a "hammer-head" type turn-around having a 60-foot long vehicular entry/backup lane with flared radius transitions from the driveway edges to the entry/backup lane. The hammer-head improvement consists of asphalt paved surface with a combination of 6-inch concrete curb/18-inch concrete gutter or 6-inch concrete curb.

2.3 BRIDGE

The FEIR text states the following regarding the proposed bridge. "*A bridged creek crossing is proposed to replace the existing in-stream crossing on the road between the upper and lower water storage tank sites. The bridge will be approximately 18 feet wide with a span of about 70 feet. It will be of steel and concrete construction, meets CVWD's access requirements, and is compatible with Carpinteria-Summerland Fire Protection District safety criteria. The bridge will have poured in place reinforced concrete abutments. These abutments will be located outside of the normal boundaries of the creek channel, outside the ordinary high water mark (ohw). This design is proposed to avoid impacts to the streambed, to riparian vegetation, and to ensure that all construction areas are outside the jurisdiction of the U.S. Army Corps of Engineers. The bridge deck will be either concrete or steel. A concrete deck would consist of prefabricated reinforced concrete segments that will be trucked to the site and placed with a crane. A steel deck would consist of two (2) side by side spans that would be trucked to the site, laid in place by a crane and bolted together*." (See Project Description Support Material Appendix of the FEIR for bridge details.)

Presently, the project involves the installation of a pre-fabricated steel truss bridge with concrete deck over Santa Monica Creek with a 110 foot-wide span. The proposed bridge would be located approximately 60 feet southeast (downstream) of the existing road crossing. The bridge would have a travel lane width of 20 feet ¼ inch with an outside truss to truss width of 27 feet and 2½ inches with guard rails (see Contech bridge sections and Flowers Bridge Site and Road Approach Plan in Attachments Section of this Addendum). The bridge would be supported on abutments located away from the stream banks and outside CDFG and Corps of Engineers jurisdiction. The Streambed Alteration Agreement with the California Department of Fish and Game and letter of concurrence of "no take of federally listed species" from the United States Fish and Wildlife Service are based upon a bridge plan that included installation of prefabricated steel truss bridge with concrete 110 feet long deck over the creek. The bridge was proposed to be 26 feet wide (outside truss to outside truss) with a 20 foot-wide traffic lane with guard rails. The most current plans will need to be submitted to these agencies.

2.4 DETENTION BASIN

The construction of a detention basin on the lower ranch property was not specifically identified in the FEIR project description or the two Addendums to the FEIR. However, mitigation incorporated into the project called for the development and implementation of an erosion control plan for the project (see DEIR Project Description page 3-40, measure 2). As part of the detailed project engineering a detention basin was added to the project for the attenuation of peak runoff at the site. This detention basin was shown on project plans as permitted by the County of Santa Barbara (see drawing numbers 15-C-05 and 15-C-06) and was later modified as shown on drawings 15-C-05R and 15-C-06R (see Attachments to this Addendum).

The basin was constructed with rock lined steepened sides to minimize the footprint while still maintaining necessary detention storage as the owner of the property did not want to lose any more of the existing avocado grove than necessary. The change to the pond was a field change approved by RMA and the District.

Further, revisions to the detention basin as it existed in August 2006 were completed to optimize the ponds effectiveness given a diversion proposed by RMA within the tributary drainage watershed (see drawing 15-C-08 provided in the Attachments Section of this Addendum). The pond outlet structure orifices were modified to this end. The outlet structure modifications included reducing the size of the lower orifice and adding additional orifices 3 to 5 feet above the lower orifice.

The pond outfall was modified with an energy dissipation structure that splits flows and direct it perpendicular to the pipe (see drawings 15-C-07 and 15-C-08 provided in the Attachments Section of this Addendum). The dissipation structure is a concrete box approximately three to four feet wide and tall with 12-inch by 6-inch rectangular openings on two sides.

The existing swale connecting the outfall to the neighbor's facilities was modified slightly to better direct flow as it leaves the outfall and was lined with grouted rock. A short splash wall was constructed along the property line adjacent to the Williams' property. Grading was limited to forming swales south of the road at the outfall.

The detention basin will be maintained by the RMA Homeowners Association (HOA). The recorded CC&Rs for the RMA Homeowners will be amended to provide for easements for drainage facilities and maintenance access of these facilities by the HOA.

2.5 FILL FROM SANTA BARABRA FLOOD CONTROL DISTRICT

As originally described in the FEIR, cut and fill would be balanced onsite. This project element was amended by Addendum Nos. 1 and 2 to specifically include the use of crushed rock from the site or earth materials from RMA borrow sites located on existing ranch roads

outside of the coastal zone. Upon the final stages of backfilling of the 3.0 MG tank, a shortfall of about 5,000 cubic yards of fill material was identified. As a coastal development permit had not yet been obtained for the Phase 4 road, the District was considering the use of material from the Phase 5 road area or fill material stored at the adjacent Santa Barbara County Flood Control District (SBCFCD) Facility at Santa Monica Creek which had been offered to the District for use on the project site by the Flood Control District. On January 4, 8 and 10, the contractor for the tank construction obtained the estimated 5,000 cubic yards of fill material from the SBCFCD stockpiles (cleanout spoils) on a bench on the south side of the dam at the Santa Monica Creek upper debris basin. The material was hauled directly from the stockpile to the tank site using existing flood control and ranch access roads (see Exhibit 1 in Attachments Section of this Addendum which shows the haul route). The fill was placed in two locations, to the northwest and northeast of the tank form about 4-feet to 8-feet below the finished surface. The material was similar in color, gradation and compactability to the stockpiled material located on RMA. As placed, it met compaction requirements. Once the stockpiles were removed from the affected area on SBCFCD property, it was left clean and graded to approximately the original bench grade.

2.6 LANDSLIDES

As part of the process of developing detailed plans for road construction from the 3.0 MG tank to the upper tank site, additional geotechnical evaluations were conducted. These evaluations include, but are not limited to, the following reports addressing the road to the upper tank site and are herein incorporated by reference, and are available for review at the District office at 1301 Santa Ynez Avenue, Carpinteria, California.

- Preliminary Geologic Investigation for Phase 2 of the CVWD Rancho Monte Alegre Project, prepare by Adam Simmons, June 23, 2005 (Revised August 1, 2005). (The Simmons Report was submitted to Santa Barbara County Planning and Development Department for the road and pipes from the lower tank to the upper tank site. The County requested further analysis which was provided by Earth Systems.)

- Addendum to Supplemental Geotechnical Engineering Report No. -07-2-26 for RMA Phase 4 CVWD Water Facilities Project, Santa Barbara County, CA, prepared by Earth Systems Southern California, February 28, 2006. (Provides results of additional slope analysis performed for specific road sections and provides recommendations to reduce slope gradients.)

- Engineering Geology and Geotechnical Engineering Report for Rancho Monte Alegre Phase 4 CVWD Water Facilities Project, Santa Barbara County, CA, prepared by Earth Systems Southern California, July 31, 2006.

- Addendum to Engineering Geology and Geotechnical Engineering Report RMA Phase 4 Retaining Walls, Carpinteria Area, Santa Barbara County, CA, prepared by

Earth Systems Southern California, December 20, 2006. (Addresses retaining walls in stable slope areas and not in slide areas.)

- Geotechnical Engineering Values for Cross Section C-C for RMA, Santa Barbara County, CA Report No. 06-9-09, Earth Systems Southern California, September 28, 2006. (Addresses Section C-C landslide on slopes at about 2:1 h:v by providing geotechnical design valuaes that will allow the road to be stabilized in this area.)

- Addendum to Engineering Geology and Geotechnical Engineering Report RMA Phase 4 Road Sections F-F Slope Stability Analyses. Carpinteria Area, Santa Barbara County, CA, prepared by Earth Systems Southern California, January 2007. (Addresses Section F-F landslide which is on terrain with 2:1 hv slope.)

- Addendum to Engineering Geology and Geotechnical Engineering Report RMA Phase 4 Road Sections C-C Slope Stability Analyses. Carpinteria Area, Santa Barbara County, CA, prepared by Earth Systems Southern California, January 18, 2007. (Addresses Section C-C landslide which is located is on terrain that slopes about 2:1 hv.)

- Volume I and Volume II, Supplemental Geotechnical Engineering Report RMA Phase 4 Road Sections Carpinteria Area, Santa Barbara County, CA, prepared by Earth Systems Southern California, February 12, 2007. (This report presents supplemental stability analyses of slope stability for a portion of the access road STA 263+50 to 274+00, a 1,700 ft long 20 ft wide road section. Caisson supported retaining walls up to 5 ft high, zones of tiebacks, rock removal and layback will be used along the western portion of the road because of steep terrain and geologic instability. The analysis covers slope stability in areas other than C-C and F-F.)

- Geotechnical Engineering Report for Access Road (Station 292+25 to 329+64.8) RMA Phase 5 CVWD Water Facilities Project, Santa Barbara County, CA, prepared by Earth Systems Southern California, April 16, 2007. (Reports results of subsurface exploration and lab testing as well as conclusions and recommendations pertaining to geotechnical aspects of project design.)

Geological investigations identified three landslide features along the existing access road from the lower tank site to the upper tank site. These features were not identified in the FEIR; however, the FEIR included mitigation measure GEO1 which reads as follows.

GEO1 A Supplemental Investigation prior to design and construction shall include additional site-specific subsurface exploration, sampling, and laboratory testing programs to provide accurate and precise information concerning earth materials and subsurface conditions across the project site including, lithology, engineering characteristics, liquefaction potential, expansion/contraction characteristics, collapsibility, settlement potential and bedrock bedding and jointing conditions for proposed exposed bedrock cut slope areas. The results of the Supplemental

Investigation shall be used in final facilities design to prevent slope failure, erosion, and landslides and to ensure the long-term integrity of the facilities. **Plan Requirements**: The recommendations of the Supplemental Investigation shall be incorporated into the final building and grading plans for the proposed project elements to the degree appropriate and feasible. **Timing:** Recommendations shall be shown on plans prior to construction and implemented in the field during construction.

Monitoring: CVWD shall retain a copy of the final plans; and shall hire a registered geologist to periodically inspect the project site to ensure that the contractor is complying with the mitigation measures adopted by CVWD as part of the project approval.

Thus the project now includes proposed remedial measures, as recommended in the geotechnical reports, to protect the proposed road from the 3.0 MG tank to the upper tank site from identified landslide features. The three landslide features and a rock cliff are described below along with the remedial measures proposed.

2.6.1 Landslide No. 1 (Geotechnical Section A-A)

The Section A-A landslide area covers a 25-foot wide by 40-foot long area within the Phase 4 grading area. (See Sheet 2 of 8 CVWD Phase 4 & 5 Upper Tanks Access Road RMA provided in the Attachments Section of the Addendum.) The depth of the slide area is estimated to be about 10-foot maximum. The remediation as recommended by the project geotechnical reports is to scarify the road subgrade to a depth of 2-feet, and to remove and recompact soil within the grading limits sufficient to properly key fill slopes. The limits of grading and earthwork were addressed in Revised Addendum No. 2, and no additional work tasks or expansion of work areas for Addendum No. 2 is anticipated. However, the geologic hazard condition is identified herein with the remediation actions described below.

The maximum disturbance area for equipment movement and laydown is 1,000 square feet (0.02 acres). 800 square feet of disturbance underlies the permanent road improvement, while 200 square feet of disturbance area should be considered as temporary short term construction disturbance for slope grading subject to project revegetation requirements. “Triple lift” excavation methodology will be utilized to ensure preservation and replacement of top soil in these areas.

Equipment to be used in construction is as follows:

(1) tracked bulldozer to clear vegetation and scarify grading area.

(1) tracked excavator to excavate keyway for slope compaction and trim finished slope to grade.

(1) soil compactor/roller to compact soils.

(1) 4,000 gallon water truck.

(1) motor grader to establish road subgrade.

Construction materials utilized will consist of layered geo grid material installation.

Construction procedures will generally consist of (i) dozer clearing of existing vegetation and removal of vegetation by dump truck; (ii) dozer scarification of grading area; (iii) excavation of toe of slope area to create slope keyway; (iv) replacement and recompaction of soil, including top soil on embankment areas; (v) restoration planting of embankment areas with native plants pursuant to restoration plan specifications.

Earthwork excavation, recompaction and fill operation to remediate geotechnical hazard is estimated at 200 cubic yards. No import or export is anticipated.

Based on normal project construction sequencing, the maximum number of construction workers at the site at any one time should not exceed 3 persons. If a "worst case" scenario arises where simultaneous construction occurs, the maximum number if workers will not exceed 6 persons.

The duration for this construction activity is estimated to be one to two weeks.

There are no long term measures necessary for the maintenance of the remedial work associated with the geo-hazard area.

2.6.2 Landslide No. 2 (Geotechnical Section C-C)

Landslide C-C is described by Earth Systems (January 18, 2007) as 250 feet long, 60 feet wide and about 8 feet thick where it crosses the RMA access road within the Phase 4 area. (See Sheet 3 of 8 CVWD Phase 4 & 5 Upper Tanks Access Road RMA provided in the Attachments Section of the Addendum.) The geologic hazard remediation proposed consists of installation of 36-inch diameter pour-in-place concrete caissons on each side of the roadway corridor through the geo-hazard area, and the option of either the installation of 30-inch diameter pour-in-place caissons aligned in two rows upslope and westerly of the access road or the installation of drilled 6-inch diameter steel tie backs with compression plate. The caissons are design to be imbedded a minimum of 10-feet into underlying bedrock. The caissons on the westerly side are located behind the retaining wall to stabilize the retaining wall. The caissons on the easterly side of the road are located under the curb and wall. The two (2) rows of caissons upslope and westerly of the roadway improvements are design to stabilize the geo-hazard mass as detailed in the geotechnical studies provided. Each pair of road side caissons has an upper and lower lateral tie back beam to further stabilize the caissons. The project area roadway between caissons will contain paving, walls, curbs, utility conduits and improvements, and undergo grading and excavation, as identified in the project FEIR and subsequent addendums. However, the geologic hazard condition is identified herein with the remediation actions described below.

The maximum disturbance area for equipment movement and laydown is 2,000 square feet (0.05 acres).

Equipment to be used in construction is as follows:

(1) Truck or track mounted auger type drill rig to drill 36-inch diameter caisson holes.

(1) "Walking" drill rig for upslope drilling of 30-inch diameter caisson holes or drilling and installation of 6-inch diameter tie backs.

(1) Truck or track mounted drill rig to drill caisson tie-backs.

(1) Tracked excavator and/or truck mounted crane to lift and place caisson rebar cages in augured caisson hole.

(1) Concrete pump truck to pump concrete mix into caisson holes.

(1) End dump truck to haul excavated soils and cleared vegetation.

Construction materials utilized will consist of steel rebar reinforcement and poured in place concrete for twenty-two (22) 36-inch diameter caissons and either twenty-two (22) 30-inch diameter caissons or thirty-three (33) 6-inch diameter steel rod tie backs ranging in depth from 15-feet to 48-feet. Total amount of excavation is estimated at 300 cubic yards.

Construction procedures will generally consist of (i) drilling of individual caissons; (ii) drilling and excavation of caisson slope tie-backs; (iii) epoxy injection to secure slope tie-backs; (iv) placement of prefabricated caisson rebar cages and lateral tie back rebar cages; (v) pour concrete to complete caisson construction and lateral tie backs. For upslope caissons or ties backs, the "walking" drill rig will "walk" up the slope to individual caisson or tie back locations to perform drilling and installation activities. Vegetation in the work area will be hand trimmed to 18-inches in height in order for the walking rig to move from location to location over the existing vegetation.

Earth work volumes generated from grading and excavation operation consist of 300 cubic yards of excavation for up to 44 caisson installations. The 300 cubic yards generated from caisson excavation shall be used as fill for roadway construction.

Quantities for concrete and rebar are estimated at 180 cubic yards and 60,000 pounds respectively. Total estimated truck trips is associated with movement of this material is 25.

Based on normal project construction sequencing, the maximum number of construction workers at the site at any one time should not exceed 8 persons. If a "worst case" scenario arises where simultaneous construction occurs, the maximum number if workers will not exceed 16 persons. Such a scenario is not anticipated due to the sequential nature of the work tasks involved.

The duration for this construction activity is estimated to be six to eight weeks.

There are no long term measures necessary for the maintenance of the remedial work associated with the landslide.

2.6.3 Landslide No. 3 (Geotechnical Section F-F)

The Section F-F landslide area covers approximately a one acre area which straddles the terminus of Phase 4 and beginning of Phase 5 roadway and infrastructure improvements. (See Sheet 4 of 8 CVWD Phase 4 & 5 Upper Tanks Access Road RMA provided in the Attachments Section of the Addendum.) The land slide is described by Earth Systems (January 2007) as 290 feet long and 170 feet wide with the roadway improvements running south to north through the middle of the geologic hazard area. The overall depth of the slide area is estimated to range to about 60-feet, and is about 38 feet to 40 feet thick where it crosses the RMA access road.

The geologic hazard remediation proposed consists of installation of fifty-seven (57) 48-inch diameter pour-in-place concrete caissons set in three (3) rows to the west of the roadway, and on each side of the roadway corridor through the geo-hazard area for geo-hazard stabilization purposes. The caissons are design to be imbedded a minimum of 10-feet into underlying bedrock. The three (3) rows of caissons westerly of the roadway improvements are design to stabilize the geo-hazard mass as detailed in the geotechnical studies identified above. These caissons have a depth ranging from 15-feet to 48-feet with slope tie backs. Temporary ground disturbance and vegetation removal is required to create access paths and support slopes to and along the caisson rows for construction equipment and installation. In addition, thirty-four (34) 48-inch diameter caissons are located along each side of the roadway corridor, ranging in depth from 15-feet to 60-feet. The caissons on the westerly side are located behind the retaining wall to stabilize the retaining wall. The caissons on the easterly side of the road are located under the curb and wall. Each pair of caissons has an upper and lower lateral tie back beam to further stabilize the caissons. The project area roadway between caissons will contain paving, walls, curbs, utility conduits and improvements, and undergo grading and excavation, as identified in the project FEIR and subsequent addendums. However, the geologic hazard condition is identified herein with the following remediation actions described below.

The remediation for this landslide is stablilization of the slope with caissons in rows as shown on Carpinteria Valley Water District Phase 4 & 5 Upper Tank Access Road Rancho Monte Alegre Sheet 4 of 8 (see attachments to this addendum). Construction procedures will generally consist of (i) hand and dozer clearing of existing vegetation and removal of vegetation by dump truck; (ii) dozer grading to create caisson access paths for drill rigs; (iii) drilling of individual caissons; (iv) drilling of caisson tie-backs; (v) epoxy injection to secure tie-backs; (vi) placement of prefabricated caisson rebar cages; (vii) pour concrete to complete caisson construction; (viii) re-grading of access paths to restore to original grade, including replacement of top soil; and (ix) restoration planting of work area with oak woodland and native plants pursuant to restoration plan specifications. The duration for this construction activity is

estimated to be six to eight weeks. There are no long term measures necessary for the maintenance of the remedial work associated with the landslide.

The maximum disturbance area for equipment movement and laydown associated with the remedial effort for landslide No. 3 is 16,600 square feet (0.38 acres). The total disturbance area would be a temporary short term construction disturbance area as construction improvements (stabilization caissons) will be subsurface and all disturbance areas will be restored as oak woodland after construction. "Triple lift" excavation methodology will be utilized to ensure preservation and replacement of top soil. The remaining caissons supporting the road improvements will utilize the graded road area as identified in the project FEIR.

Construction materials to be used in the remedial effort will consist of steel rebar reinforcement and poured in place concrete for fifty-seven (57) 48-inch diameter caissons ranging in depth from 15-feet to 60-feet. Total amount of excavation is estimated at 1,400 cubic yards.

The required quantities of concrete and rebar are estimated at 840 cubic yards and 160,000 pounds respectively. The total associated estimated truck trips for transport of materials is 90.

Earth work volumes generated from grading and excavation operation consist of 1,400 cubic yards of excavation for 125 caisson installations; 2,000 cubic yards for grading associated with temporary caisson access paths for equipment. The 1,400 cubic yards generated from caisson excavation shall be used as fill for roadway construction. The 2,000 cubic yards of cut from temporary access paths shall be re-deposited and compacted to reshape the work area to original grade.

The equipment to be used in construction of the stablilization measures for slide No. 3 are as follows:

(1) Tracked bulldozer to clear vegetation and cut work roads for drilling rig access to caisson rows, and to re-grade work area after caisson installation for restoration planting.

(1) Truck or track mounted auger type drill rig to drill 4 –foot diameter caisson holes.

(1) Truck or track mounted drill rig to caisson drill tie-backs.

(1) Tracked excavator to lift and place caisson rebar cages in augured caisson hole.

(1) Concrete pump truck to pump concrete mix into caisson holes.

(1) End dump truck to haul excavated soils and cleared vegetation.

Based on normal project construction sequencing, the maximum number of construction workers at the site at any one time should not exceed 10 persons. If a "worst case" scenario

arises where simultaneous construction occurs, the maximum number if workers will not exceed 20 persons. Such a scenario is not anticipated due to the sequential nature of the work tasks involved.

2.6.4 Rock Cliff and Access Road Viaduct (Geotechnical Section M-M)

The Section M-M area represents a hard rock formation with an existing slope layback of steeper than 1:1 hv slope ratio. (See Sheet 4 of 8 CVWD Phase 4 & 5 Upper Tanks Access Road RMA provided in the Attachments Section of the Addendum. This area is identified as the "Loose Rock Area" on the plan.) In some areas the rock slopes are near vertical. This formation is exposed above the proposed access road but is below ground surface below the access road at relatively shallow depths. The character of the formation consists of a large rock mass with multiple surface fissures and separations contributing to some areas of surface rock instability. The hazard created by this existing condition is that rock outcrops and fissured rock may separate from the rock mass and fall onto the road surface below. In addition, the slope face of the rock formation under some areas proposed for access road construction is so steep that construction access is impeded or construction costs for conventional caissons on the down slope side of the road is prohibitive. These conditions require the construction of a viaduct to span the excessively steep sloped formation.

Remediation of the rock face instability condition requires removal of loose rock outcrops or fissured separated rock ledges which will involve dislodging looser material by hand levering or mechanical jack hammering. The dislodged material will fall to the road bed and be loaded into trucks for removal. In order to assure that additional material does not become a hazard over time, additional rock removal will be required. The area subject to rock slope removal is about 1.4 acres. As exposed rock continues to weather over time, the need to remediate the hazard of on-going falling rock is required. Coupled with the construction access and cost issues related to the steeply dipping rock formations under the roadway, construction of a road viaduct is proposed. The viaduct will span an area about 75 feet in length, with ground clearance below the viaduct varying from 3 feet to 6 feet to existing ground. The viaduct is in essence a bridge structure of identical materials and construction components as the bridge crossing proposed at Santa Monica Creek. The viaduct will be anchored at each end to concrete abutments on poured in place caissons. The road surface will have a concrete driving surface poured over a steel pan. The viaduct is raised 3 feet to six feet above the existing ground surface to allow loosened rock to slide under the deck surface.

2.7 OTHER MODIFICATIONS TO ROAD PLANS

2.7.1 Drainage Modifications

Drainage improvements have been revised pursuant to discussions and direction from the SBCFCD as follows. Drainage plan revisions include the elimination of a proposed 700 linear foot 24-inch storm drain connecting the southern terminus of the upper tank access road directly to Santa Monica Creek as identified in FEIR Addendum No. 2. The 700 linear foot 8-foot wide swale identified in Addendum No. 2 to be constructed above the storm drain is to be

relocated southerly along the northerly edge of an existing ranch road, and be reduced in length to approximately 500 linear feet to conduct surface drainage from the outlet of a 24-inch storm drain discharging flow from the southern terminus of the upper tank access road to an 18-inch storm drain inlet along the westerly side of the SBCFCD access road.

The use of the existing agricultural irrigation ponds to detain storm water run-off from the upper tank access road and adjacent areas as identified in Addendum No. 2 has been eliminated, as well as construction of the three (3) proposed storm drain outlet structures discharging storm water flows into the ponds, and construction of two (2) pond overflow outlet structures discharging pond overflow into the existing concrete swale running along the western side of the SBCFCD access road, all as identified in Addendum No. 2.

An above ground, 222 linear foot, 18-inch HDPE storm drain pipe is proposed to be installed from a storm drain manhole at located at upper tank access road running southerly and southwesterly to a discharge point in an existing concrete drainage swale near the SBCFCD access road, in order to drain storm water flows from the upper tank access road to the SBCFCD swale (see sheets 1 of 8, 2 of 8 and 3 of 8 for the CVWD Phase 4 & 5 Upper Tanks Access Road RMA provided in the Attachments Section of this Addendum).

Approximately 840 linear feet of existing 3-foot wide concrete drainage swale along the westerly side of the SBCFCD access road is proposed to be removed, reconstructed and enlarged to a 4-foot wide concrete swale to accept increased drainage flows.

Approximately 527 linear feet of 36-inch storm drain pipe and 148 linear feet of 18-inch storm drain pipe is proposed to be constructed from the confluence of the southern terminus of the reconstructed concrete swale southerly along the easterly side of the SBCFCD access road to a discharge structure located at the existing plunge pond located at the southern terminus of the concrete lined Santa Monica Detention Basin spillway channel. This is the downstream final component of the system. All drainage from Phase 4 will be collected upstream and discharged at this point.

All new storm drain pipes will be installed using conventional trenching and backfill methods. Above ground HDPE storm drain will be installed by surface laying of pipe and installation of pipe anchors. Construction procedures will generally consist of (i) excavator clearing and removal of existing vegetation and removal of existing concrete swale and dump truck loading; (ii) trench excavation; (iii) compaction of swale subgrade; (iv) installation of rebar and forming of swale for concrete pour; (v) concrete pour for swale constructing; (vi) loading storm drain pipe in trench; (vii) backfill trench; (viii) form removal and cleanup. The duration for this construction activity is estimated to be three to six weeks.

The disturbance area for subsurface storm drain will include the trench zone, and adjacent excavation spoil area and mobilization area. Due to the proximity to the existing SBCFCD access road, and the methods anticipated for installation the majority of the disturbance area will be over the access road area, with an additional 3,000 square feet of disturbance attributable to trenching. The area of this operation is previously disturbed and

maintained for vegetation control by SBCFCD, so little if any vegetation removal is anticipated. Similarly, the disturbance area for the reconstructed and enlarged concrete drainage swale will involve minimal disturbance. The adjacent SBCFCD access road will serve as a mobilization and construction area for removal existing concrete swale and loading of removed materials to dump trucks, and for the construction of the new concrete swale. The above ground HDPE storm drain pipe installation will consist of minor vegetation removal along the pipe alignment (approximately 600 square feet). No mechanized equipment will need to access the alignment area.

Materials required for construction include about 222 linear feet of 18-inch HPDE storm drain pipe; 675 linear feet of 18 inch, and 36 inch PVC storm drain pipe; 80 cubic yards of concrete for swale construction; precast concrete manhole and inlet structures; rebar; and sand backfill.

Earthwork from swale and storm drain excavation is estimated 400 cubic yards. Excavation materials to be exported is estimated at 200 cubic yards. Export will be utilized as onsite fill in other project areas.

Equipment to be used in construction is as follows:

(1) tracked excavator for trench excavation and swale removal.

(1) rubber tire backhoe for trenching, backfill, material loading and pipe loading.

(1) 4,000 gallon water truck.

(2) end dump trucks for waste removal and backfill material delivery.

(2) 2-ton flat bed trucks for material and equipment delivery.

(1) Small walk behind compactors for trench and subgrade compaction.

(1) concrete pump truck.

(2) concrete delivery trucks.

Based on normal project construction sequencing, the maximum number of construction workers at the site at any one time should not exceed 6 persons. If a “worst case” scenario arises where simultaneous construction occurs, the maximum number if workers will not exceed 12 persons.

Over the life of the project, best management practices (BMPs) for storm water discharge to ensure required water quality levels are to be implemented by unitization of filtering basins to filter pollutants from storm water run-off.

2.7.2 Wall Modifications

Presently, a total of approximately 2,000 linear feet of retaining walls and bin walls are proposed along the Phase 4 and Phase 5 Upper Tank Access Road, of which approximately 725 linear feet of retaining walls are located in the Coastal Zone. Retaining walls in the Coastal Zone are 8 foot or less in height. Previously, as described in Addendum No. 2, approximately 1,800 feet of retaining wall, 8 feet or less in height, was proposed. Of that, 550 feet of wall was to be located within the Coastal Zone. The FEIR project description proposed 2.320 linear feet of retaining walls.

2.7.3 Pump Station Modifications

Pump station modifications consist of a relocation of upper access road Pump Station No. 2 from the southwesterly side of the road at approximately road station 260+40 to the northern side of the road; the addition of two approximately 60 feet long walls northwest of pump station No. 3 to direct drainage (not actually a modification of the pump station); additional grading (about 1/10 acre) for site stabilization at Pump Station No. 4; and the addition of a new pump station, Pump Station No. 5, to be located on the northerly side of the road at approximately road station 317+00. In total there are five pump stations proposed for the transmission of potable water to the proposed upper tanks. All pump stations will be equipped with three pumps with motors ranging from 40 to 60 hp. Motors will be electric using Southern California Edison power. The generators come equip with noise shielding. A diesel generator for each pump station is proposed for backup power (150-175 KVA). Fuel will be stored onsite (500 gallons) housed on the generator with double containment. Liquid natural gas is also being considered as an alternative to diesel. If this option is selected then the tank will be separate from the generator but will still be approximately 500 gallons. Emissions will be generated only when the backup generators are running for emergency power or are being exercised for maintenance.

2.8 GEOENVIRONMENTAL CONDITION

An agricultural waste dump area was identified during the course of grading activities at the CVWD RMA tank site on January 19, 2007. (The location of the hazardous materials site is shown on an Assessor's Parcel Map and Tank Site Grading Alignments and Layout drawing provided in the Attachments Section of the Addendum.) Reportedly, abundant agricultural debris, consisting mainly of logs mixed with lesser amounts of pipe and concrete, was discovered during the overexcavation and preparation of sub-grade for the access road leading to the recently constructed CVWD water storage tank, which is located immediately west of the dump area. The debris was required to be removed to achieve adequate soil compaction for the construction of the road. During the course of the waste dump excavation and associated spoils pile activities, approximately 10 to 15 buried drums containing creosote were encountered along the eastern boundary of the excavation area, which were subsequently removed and stockpiled onsite. The drums were inadvertently damaged during the excavation and removal

activities. The drums and creosote waste were separated from the larger debris/soil stockpile then encased in plastic.

Padre Associates, Inc. (Padre) geotechnical staff members were contacted by CVWD on the afternoon of Friday January 19, 2007 and were requested to visit the project site on Monday January 22, 2007. Padre visited the site on January 22, 2007 to observe and document the final stage of the waste dump excavation activities. The excavation area was observed to extend approximately 80 feet north to south and 50 feet east to west. The west side of the excavation extended to an approximate depth of 8 feet, and the east side of the excavation extended to an approximate depth of 6 feet. Padre observed the removal of a lens of agricultural waste remaining on the west side of the excavation and the final four to six drums on the east side of the excavation. Following that removal work, the identified agricultural waste and drums were observed by Padre to have been entirely removed from the excavated area. Native soil consisting of brown to reddish brown sandy clay with abundant sandstone rubble was observed throughout the floor and sidewalls of the resulting excavation area.

Padre collected soil samples for chemical analyses from the creosote waste, the soil stockpile, and the excavation floor and sidewalls. The soil samples were chemically analyzed by a certified laboratory for the presence of total petroleum hydrocarbons (TPH) carbon; volatile organic compounds (VOCs) semi-volatile organic compounds (SVOCs); polychlorinated biphenyls (PCBs); and organochlorine pesticides. The samples were also chemical analyzed for the presence of CAM 17 metals.

The laboratory analytical results of the creosote sludge sample (SP-012207-1) indicated elevated TPH, VOCs, and SVOCs constituent concentrations in excess of hazardous waste criteria. OCPs, PCBs, and metals concentrations were not reported in excess of the analytical method reporting limits. Additional details of the testing procedures and result are provided in Remedial Action Plan/Health And Safety Plan Waste Dump Soil Remediation Activities Carpinteria Valley Water District Rancho Monte Alegre Annexation And Water Storage Tank Project Carpinteria, Santa Barbara County, California, prepared for CVWD and RMA by Padre Associates, Inc., February 2, 2007 (RAP). (The RAP is available for public review at the District office.)

As outlined in the RAP, Padre which maintains a Hazardous Waste Substances Removal Certification as defined, by CCR Division 8, Title 16, Article 3 (Haz), is coordinating remediation activities for the agricultural dump site. The County of Santa Barbara Fire Department – Fire Prevention Division (SBCFPD) and Santa Barbara County Public Health Department – Solid Waste are providing regulatory oversight of the agricultural waste dump remediation project activities. These activities include mechanical separation of soil stockpile (complete), disposal of creosote-containing waste and soil stockpile, and supplemental soil assessment activities.

Presently, soil characterization at the site has been completed with one outstanding issue relating to a soil sample at 10 feet taken near the recently constructed water tank which

has TPH. Padre is waiting for a response from the County Fire Prevention District regarding this one sample.

The creosote containing waste and drums, were placed in a 20 cubic yard capacity hazardous materials roll-off bin at the site. American Integrated Services removed the drums and solid materials from the site on April 30, 2007. These wastes were disposed at US Ecology in Beatty Nevada, a Class I waste disposal site.

At present, about 1,200 cubic yards of soil reported to contain concentrations in excess of Santa Barbara County investigation levels is stockpiled at the site. The stockpile is covered with plastic and straw wattles surround the stockpile to prevent movement of the material away from the stockpile. On behalf of the District and RMA, Padre has been in communication with Santa Barbara County Fire Protection District and the Regional Water Quality Control Board (RWQCB) regarding a plan to utilize the soil stockpile material as fill material encased beneath a specific portion of the access road leading to the Upper Tank Site. The stockpile contains low concentrations of similar contaminants that are found in recycled base material and asphalt. To date, no determination has been made regarding the ultimate disposition of the stockpile material.

It is anticipated that the County of Santa Barbara Fire Protection District, as lead agency for the agricultural waste dump remediation, will file a California Environmental Quality Act (CEQA) notice of exemption for this “project”.

2.9 CONSTRUCTION SCHEDULE

Phase 4 road improvement construction is anticipated to commence in May of 2008 with completion expected in spring of 2009. Phase 5 road improvement construction is anticipated to commence in August 2007 with completion in spring of 2008.

3.0 IMPACT ASSESSMENT

This section provides an assessment of the effects of the project revisions, as identified in Section 2.0, on the impact analysis as presented in the FEIR.

3.1 GEOLOGY

The biological mitigation revision, minor modification of the 3 MG tank site layout, bridge with modification, detention basin construction, use of fill from Santa Barbara Flood Control District detention basin at Santa Monica Creek, agricultural dump site remediation and construction schedule revision would not have any effect on geological impacts as discussed in the previous environmental documentation for the project, as the referenced revisions to the project would not result in a substantial alteration of the location of the project components to the extent that geological conditions would be different than those documented to exist within the impact areas as evaluated in the FEIR, or simply have no geologic impact. Additionally, changes to the project activities are not of a nature to create any new geologic impacts.

As indicated above, landslides were not specifically identified in the FEIR; however, mitigation for further geotechnical study included further evaluation of such features and implementation of recommended remedial measures as identified by subsequent study. Therefore, the proper implementation of the landslide remediation measures to stabilize the landslide features relative to the proposed road construction, as documented in the reports listed in Section 2.6 of this Addendum is consistent with the intent of the FEIR. Indirect impacts associated with the implementation of these landslide remediation efforts are further evaluated herein by issue.

Revisions to the road plans to the upper tank site include new drain pipes and a drainage swale widening. These are near surface or on surface features within relatively flat ground with the exception of the above-ground 18-inch pipe to be located north of the pond and extending south to the existing concrete drainage swale. These facilities are not subject to significant failure due to geologic conditions.

Modification of the placement of retaining walls is a refinement of the project design to ensure the integrity of the road against steep or unstable slope conditions as previously identified in the FEIR and addressed in the geotechnical reports identified in Section 2.6. The geological impact analysis presented in the FEIR remains adequate for the project with revisions described in Section 2.0.

3.2 WATER RESOURCES/FLOODING

The biological mitigation revision, minor modification of the 3.0 MG tank site layout, bridge with modification, use of fill from Santa Barbara Flood Control District detention basin at Santa Monica Creek, landslide mitigation, and construction schedule revision would not have any effect on water resources, drainage or flooding due to their inherent nature. Although, not a

District project, the agricultural dump site remediation activities are being conducted to prevent any impacts to public health and water quality. The identified hazardous materials are being handled in compliance with all regulatory requirements such that no significant water quality impact is anticipated.

Detention basin construction was implemented to address changes to the traditional drainage basins, increased stormwater runoff and shortened time of runoff concentration associated with the construction of the lower access road which adversely affected one of seven discharge drainage points within RMA (MNS, August 24, 2006). The basin was constructed in conformance with the following report which is herein incorporated by reference and is available for review at the District office at 1301 Santa Ynez Avenue, Carpinteria, California.

- CVWD- 3MG Tank Project, 2nd Addendum to Storm Water Analysis (August 24, 2006) MNS Engineers, Inc. This report supersedes: Draft Drainage Memo for Lower Ranch Road (Feb. 21, 2006) MNS Engineers, Inc. and CVWD - 3MG Tank Project, Addendum 1 to Storm Water analysis (May 22, 2006) MNS Engineers, Inc. which are also available for review at the district office.

The above referenced reports evaluated the pre-project, post lower road project and project with detention basin condition hydrology. With the detention basin as developed in accordance with MNS Engineers recommendations for Option 1, the MNS report concludes that the measures greatly improve and mitigate any adverse condition that existed with and prior to the start of the CVWD-RMA project. The detention basin represents a refinement to the project design to address an adverse drainage situation and provides an improvement of hydrologic conditions at the lower ranch site, but does not constitute or result in any new significant hydrological impacts.

As described in Section 2.7.1 above, previously proposed drainage features as addressed in FEIR Addendum No. 2 have been eliminated and replaced with a drain system as described and evaluated in two reports prepared by Flowers and Associates, Inc. (Drainage Analysis RMA Phase IV Roadway County of Santa Barbara, CA, February 1, 2007 and Drainage Analysis RMA Phase V Roadway County of Santa Barbara, CA, May 17, 2007). These reports are herein incorporated by reference and are available for review at the District office located at 1301 Santa Ynez Avenue, Carpinteria, CA. (Note that these reports address the entire drainage system as a whole and not just the revisions as identified in this Addendum.) Based upon the findings of the reports, the proposed drainage system has been shown to be adequate to control, convey and discharge the projected peak flows, the increase in total peak flows is relatively small when compared to the overall peak flows from the project area and the peak flow increase is negligible when compared to the flow in Santa Monica Creek. In addition, best management practices, including inlet filters, vegetated swale and energy dissipaters have been incorporated into the design to minimize the erosive forces and corresponding impacts to water quality.

Based upon the above discussion, the water resources/supply and flooding impact analysis presented in the FEIR remains adequate for the project.

3.3 BIOLOGICAL RESOURCES

Vegetation

Vegetation impacts associated with the lower tank site, access road and related facilities would be the same or less than identified in the FEIR and 2005 Addendum, as the secondary access road has been deleted (addressed in Addendum No. 2). A pump station has been added to the proposed upper tank site; however, impacts to vegetation at this site would be very similar to that identified for the upper tank site in the FEIR (1.0 acre temporary, 1.0 acre permanent).

Permanent vegetation impacts of the upper tank access road would be slightly greater than estimated in the FEIR (see Table 1), due to a wider roadway section and inclusion of pump stations along the roadway. Temporary vegetation impacts would be greater than estimated in the FEIR, primarily as a result of remediation of landslides (using caissons) and loose rock removal. Most of the increased vegetation loss would involve big-pod ceanothus series which is abundant in the region. In addition, areas cleared of vegetation for landslide remediation (Landslides 1, 2 and 3, rock cliff/viaduct) would be restored with native vegetation, including coast live oak. Consistent with the FEIR, impacts to vegetation are considered a less than significant impact.

Table 1. Upper Tank Access Road Vegetation Loss Estimates (acres)

Vegetation Type	FEIR Estimates		Current Estimates	
	Temporary	Permanent	Temporary	Permanent
Agriculture	0.00	0.00	0.00	0.00
Olive groves	0.39	0.06	0.60	0.70
Annual grassland/ruderal	0.52	0.47	0.36	0.55
Cape ivy/ruderal	0.14	0.07	0.38	0.32
Purple sage series	0.45	0.28	0.43	0.34
Big-pod ceanothus series	0.46	0.37	1.31	0.56
Coast live oak series	0.78	0.44	1.01	0.54
White alder series	0.01	0.01	0.02	0.04
Purple needlegrass series	0.00	0.00	0.00	0.00
Eucalyptus woodland	0.00	0.00	0.22	0.16
TOTAL	**2.75**	**1.70**	**4.33**	**3.21**

Environmentally Sensitive Habitat (ESH)

As discussed in the FEIR, no impacts to County-designated ESH would occur. Current project revisions would not alter this finding.

Sensitive Habitats

A pump station would be constructed near the proposed upper tank site; however, impacts to sensitive habitat (0.63 acres of purple needlegrass series) at this site would be the same as identified for the upper tank site in the FEIR.

Wetlands

Changes to the roadway crossing over Santa Monica Creek addressed in Addendum 2 included placement of rock rip-rap along the upper bank which would result in the loss of approximately 0.03 acres of riparian vegetation, which is considered wetlands by the California Department of Fish and Game. This impact is considered less than significant due to the small area affected and potential for riparian vegetation to colonize the interstitial spaces within the ungrouted rock rip-rap. No substantial changes to the bridge and associated bank protection are proposed as part of Addendum 3 to the FEIR.

Special-Status Plant Species

As discussed in the FEIR, widening the existing ranch road would result in the loss of approximately 0.04 acres of Santa Barbara honeysuckle. The revised alignment and proposed modifications to the upper tank access road would result in an increase in the amount of loss of Santa Barbara honeysuckle from 0.04 to 0.08 acres, but would not alter the findings, adequacy or mitigation measures of the FEIR.

Oak trees and other mature native trees are considered sensitive by Santa Barbara County. The revised upper tank access road alignment has been designed to avoid oak trees to the extent feasible. However, the number of oaks to be impacted would be increased due to the additional features (primarily landslide remediation) of the upper tank access road (see Table 2). Table 2 also includes encroachment impacts, which are defined as excavation within a substantial portion of the critical root zone. As discussed in the FEIR, impacts to native trees are considered less than significant because less than 10 percent of the trees in the annexation area would be removed. This finding holds true for the revised project. However, mitigation has been provided in the FEIR (see measure BIO5) to minimize impacts and to replace native trees removed at a 10:1 ratio.

Table 2. Comparison of Oak Tree Impacts

Impact Type	FEIR	Current Project
Total oak tree removals	31	100
Mature oak tree removals	16	69
Mature oak tree encroachment	38	31

Special-Status Wildlife Species

As discussed in the FEIR, construction-related impacts to California newt, California red-legged frog, southwestern pond turtle and two-striped garter snake would be potentially significant but mitigation has been provided to reduce impacts to a level of less than significant.

Revisions to the upper tank access road addressed in this Addendum would result in an increase in temporary vegetation loss, and may adversely affect special-status species such as Bell's sage sparrow and southern California rufous-crowned sparrow. However, as discussed in the FEIR, the affected vegetation is unlikely to support these species due to its linear configuration and relatively low habitat value. Therefore, impacts to these species are considered less than significant. In addition, the FEIR included a mitigation measure to avoid active bird nests (see measure BIO6), which would prevent significant impacts if these species were found in the construction area.

3.4 CULTURAL RESOURCES

Elements of the proposed revisions including the revision to the biological mitigation, bridge span modification, use of fill from the detention basin at Santa Monica Creek and revision to the construction schedule would have no effect on the assessment of cultural resources due to the nature of the proposed modifications.

Archaeological monitoring of the tank site area was conducted by Western Points Archaeological Consulting as reported in "An Archaeological Monitoring Program Conducted for the Carpinteria Valley Water District Pipeline and Water Tank Project, Rancho Monte Alegre, Santa Barbara County, CA" dated January 3, 2007 (available for review at the District office and hereby incorporated by reference), pursuant to Mitigation Measure CUL2 of the FEIR. No existing cultural resources were previously documented at the tank site and no significant cultural resources were identified in the area as a result of the monitoring of ground disturbance. Modification of the tank site plan resulted in no changes to the evaluation of cultural resources as presented in the FEIR and addendums.

The detention basin is located adjacent to the lower tank access road. This area has no identified significant archaeological resources in as documented in the Phase I Archaeological Survey Report by Conejo Archaeological Consultants (March 6, 2007) and the follow-up Addendum No. 3 report by Conejo Archaeological consultants dated December 28, 2004. Therefore, this modification to the project does not result in any previously unidentified cultural resource impacts as documented in the FEIR and addendums.

Conejo Archaeological Consultants prepared Addendum dated September 6, 2007 (available for review at the District office and hereby incorporated by reference) to address the various proposed revisions to the RMA access road to the upper tank site (e.g., landslide mitigation, pump stations, turn outs, etc.) and newly proposed drainage improvements. The addendum does not identify any new cultural resources within the newly surveyed areas. However, the addendum report notes that Pump Station No. 2 and the new turnout to be located

just south of Pump Station No. 2 are both located within close proximity to prehistoric site CA-SBa-1482, and a portion of the proposed drainage v-ditch is located adjacent to CA-SBa-1330 and -3663. With implementation of mitigation measure CUL2[3] presented in the FEIR and modified to address these revised components of the project as provided below, there would not be a substantially altered level of cultural resource impact from that previously identified in the FEIR and addendums to the FEIR.

CUL2 An archaeologist and Native American shall be retained to monitor ground disturbance within those areas designated as archaeologically sensitive as shown on Figures 7a and b of the Phase I Archaeological Survey report prepared for the project by Conejo Archaeological Consultants (March 2002). Where locations of project components identified for monitoring on Figure 7a have been revised as described in Addendum 1 to the FEIR, the area to be monitored shall likewise be revised.

~~In addition, construction of the 24-inch storm drain between the southern terminus of the upper tank access road and Santa Monica Creek shall be monitored.~~ (No longer required – drain removed from project)

In addition, ground disturbance at Pump Station No. 2, the turnaround south of Pump Station No. 2, and along the southern half (where it is adjacent to the Flood Control road) of the location of the existing concrete v-ditch to be widened shall be monitored.

The archaeologist shall have the power to temporarily halt or redirect project construction in the immediate area of discovered cultural resource in the event that potentially significant cultural resources are exposed. Based on monitoring observations and the actual extent of project disturbance, the lead archaeologist shall have the authority to refine, from time to time, the monitoring requirements as appropriate (i.e., change to spot checks, reduce or increase the area to be monitored) in consultation with the lead agency.

A monitoring report shall be prepared upon completion of construction. The report shall identify the locations monitored, and describe the results of the monitoring program and include a conclusion whether the project resulted in any significant impacts to cultural resources and if so, what mitigation measures were implemented in response to those impacts. A photographic file for project documentation will also be prepared and maintained in the CVWD project file.

Monitoring: The archaeologist shall provide a copy of the monitoring report to CVWD. CVWD shall keep a copy of the report in the project file.

[3] FEIR mitigation measure CUL2 already requires monitoring of the proposed road improvements in the vicinity of pump station No. 2 and the turnout.

3.5 AGRICULTURAL RESOURCES

Elements of the proposed revisions including the revision to the biological mitigation, bridge span modification, use of fill from the detention basin at Santa Monica Creek and revision to the construction schedule would have no effect on the assessment of agricultural resources due to the nature of the proposed modifications.

The County of Santa Barbara's methodology for the determination of significance for agricultural impacts was used as guidance in the evaluation of the project's agricultural impacts as presented in the FEIR. This methodology includes the ranking of agricultural viability of the subject property before and after project implementation based upon several factors. Those factors include parcel size, soil classification, water availability, agricultural suitability, existing and historic use, comprehensive plan designation, adjacent uses, and combined farming. The proposed revisions to the project would not affect pre-project factors.

The lower tank site was determined to have a score below the significance threshold screening value of 60 which determines the viability of an agricultural parcel. Therefore, the minor revisions to the lower tank site plan, do not create any new significant agricultural impacts nor substantially increase the magnitude of any identified significant agricultural impacts.

Construction of the detention basing resulted in the removal of approximately 15 avocado trees based upon a review of the detention basin plan that is overlain on an aerial photograph of the area and converts an area of about 0.35 acres of prime farmland to a non-agricultural use. As described in the FEIR, project-related modifications to agricultural soils would serve agricultural uses as well as project uses (e.g., access roads) with the exception of the 1.5 acres of unique farmland associated with the lower tank site that can not be cultivated. However, even the tank supports agriculture as the District serves a variety of users including agricultural users. With the addition of the detention basin an additional 0.35 acres of prime farmland will be removed from agricultural use. This effect exacerbates the adverse impact to prime farmland identified in the FEIR, but does not represent a substantial change to the existing FEIR analysis.

Modifications to the plans for the road to the upper tank site include increased loss of agriculturally zoned land due to the placement of pump stations, turnouts, drainage infrastructure and landslide mitigation. This area has Todos-Lodos (TDF2) soils as identified in the FEIR. These soils have a soil capability classification of Vie-1 and are identified as eroded. Less than 1 acre of these soils would be precluded from future agricultural use as a result of these project modifications. (This estimate assumes that tree crops could be grown between the rows of subsurface caissons proposed for landslide mitigation on the slope adjacent to the upper tank access road.) These modifications should not affect the agricultural viability of the parcels on which they are located.

Similarly, the minor widening of the existing concrete drainage channel and installation of the 18-inch storm drain pipe would remove less than 0.2 acre of marginal agricultural land from future agricultural production.

Based upon the limited magnitude of the agricultural effects from the project modifications addressed herein, the agricultural impact evaluation provided in the FEIR remains adequate.

3.6 AESTHETICS

Elements of the proposed project modifications with the potential to have visual impact include: tank site layout modifications, bridge revisions, new detention basin, landslide mitigation and other modifications to the road to the upper tank site, and drainage modifications. The tank site modifications and the new detention basin are relatively minor and would not be visible to viewers other than existing and future ranch residents and visitors, and District personnel. Further, these revisions are not visually inconsistent with the overall project. The bridge revision, would not substantively change the infrastructure as evaluated in the FEIR and would also only be visible to District personnel, and ranch residents and visitors. The landslide mitigation is confined mainly to the use of subsurface caissons for stabilization of the road with respect to the landslide masses. However, landslides Nos. 2 and 3 (Geotechnical Sections C-C and F-F) would require installation of caissons outside of the roadway footprint covering areas approximately 0.15 acre and 1 acre in size. These areas would be partially cleared of vegetation to allow for the installation of the caissons. Similarly, areas of additional land disturbance as shown on the revised plans for the road to the upper tank site is associated with the loose rock remediation, pump stations, and drainage improvements would result in the temporary removal of vegetation and in some cases minor alteration of landform.

Of the modifications discussed, the most substantive from a visual standpoint is the remediation for landslide No. 3 which includes installation of three rows of caissons up the slope immediately west of the access road. The approximate width of the disturbance area is about 140 feet across and encompasses about one acre. As viewed from the south, this area is partially blocked by intervening topography, although a portion may be visible from public view locations as a distant view. Similar ground disturbance would occur at landslide No. 2, but would be confined to about 0.15 acre. The short-term removal of vegetation and exposure of soil may be visible as a distant view from public view points to the south. However, over the long term vegetation would reestablish itself in these areas. Additionally, pursuant to the adopted mitigation program for the project, disturbed sites will be revegetated/stabilized as soon as practicable (Measure 3 incorporated into the project), and native trees would be avoided to the extent practical and shall be replaced on a 10:1 ratio in the coastal zone and 3:1 ratio outside of the coastal zone (BIO5). Thus, these impacts are not considered significant and do not change the finding s of the FEIR.

As part of the Phase 4 Coastal Development Permit process, several months ago, representatives from CVWD and County of Santa Barbara Planning & Development conducted a field evaluation of the visual effects of the proposed retaining walls and landslide mitigation, proposed at that time, on public views. (At the time the upslope caissons were not being proposed for Landslide No. 2 mitigation.) Balloons were suspended at wall height and 20-feet above wall height over the landslide mitigation area and other areas of proposed wall construction with the potential to be viewed form public viewing areas, and then the area was

viewed from the various public view locations. It was determined by Planning & Development that these areas are not visible to the public from the locations evaluated which included the Carpinteria High School (Lloyd, personal communication, August 2007).

The proposed pump station Nos. 1 and 5 would occupy an area of about 0.05 acres each. Pump station No. 3 would be adjacent to a drainage inlet and together these two features would occupy an area of about 0.09 acre and would have two associated approximately 53 feet long walls channeling drainage toward the inlet. Pump station No. 4 would occupy about 0.15 acre, but the total area of disturbance including ground surface modification for stabilization of the site would impact about 0.5 acre of vegetation. Pump station No. 1 is at the lower tank site and may be visible as a tiny element of distant views depending upon the existence or lack thereof of intervening vegetation from the view perspective. Pump stations 2 and 4 may be visible as distant views from public viewing locations, but are not likely to be due to their relatively small size. As with the landslide No. 3 remediation pump Station No 3 would be mainly hidden from view by topography as seen from public view points to the south. Because of limited size of the proposed pump stations and the distance from public view points, these features would not significantly impact public views

The current project plans eliminate most of retaining wall No. identified in the FEIR. This wall was shown to be visible as a distant view in the photo simulations prepared by Videoscapes and incorporated in the FEIR. The current project eliminates the portion of the wall that would be visible. Further, the current plans do not propose any substantive segment of wall in areas not previously evaluated. Thus, the present project revisions pertaining to retaining wall is an improvement aesthetically over that evaluated in the FEIR.

The 18-inch storm drain would be an on-ground surface feature and is located on a south facing slope. This feature is likely to be visible as a distant view from public view locations until vegetation is re-established and screens the pipe. This is a slight exacerbation of the short-term visual impacts associated with the project.

The overall magnitude of the changes in aesthetic impacts associated with the project revisions identified above is not considered substantial relative to the evaluation as provided in the FEIR and addendums, and would remain less than significant.

3.7 AIR QUALITY

Project revisions having the potential to affect project-generated air emissions include the increased use of heavy equipment and number of truck trips required to construct the landslide remediation measures and other modifications to the upper access road plans which will require the import of materials such as rebar and concrete. Similarly, additional construction equipment operation and material transport was required for the construction of the lower ranch detention basin. These project activities would produce additional air emissions. However, the FEIR evaluated peak day emissions assuming construction of all of the project phases simultaneously. This has not been the case. Only the lower tank site and lower ranch road and pipelines phases have been conducted to date. Therefore, the daily construction emissions

estimates of the EIR remain valid. In any case, short-term construction-related emissions are considered less than significant by the County and the District.

Long-term emissions air emission would be associated with the proposed pump stations. These emissions were not considered in the FEIR. However, the pump motors would all be electric. As electrical power is provided through the power grid it can not be determined where the generation of emissions associated with this power use would occur. However, based upon the relatively limited power requirements such emissions are not likely to be considered significant. Additionally, diesel or liquid gas powered backup generators will be used. However, missions would be generated only in emergency circumstances or during maintenance testing of the generators. No significant long-term emissions are anticipated and the FEIR air quality analysis remains adequate.

3.8 TRANSPORTATION

In January of 2005 a traffic and circulation study was prepared by Associated Transportation Engineers (ATE) to address the revisions to the project identified in Addendum No. 1 to the FEIR (specifically additional truck trips for movement of cut and fill and revised schedule). The ATE traffic study identified excellent levels of service on the project area street network as shown in the table below, with operational levels of service (LOS) in the LOS A and LOS B range (LOS A through LOS C are generally considered acceptable and LOS D through LOS F indicate poor conditions). Similarly, the existing intersection levels of service were determined to be good (LOS A through LOS C) with the exception of the Santa Monica Road/Via Real/U.S. 101 northbound interchange which operates at LOS E during the AM peak hours and LOS D in the PM peak hours. (Any project that would add an additional 10 trips to this intersection in the AM or 15 trips in the PM would result in significant impacts.)

Intersection	Control	Delay / LOS[a]	
		A.M. Peak	P.M. Peak
Santa Monica/Route 192	2-Way Stop	9.1 Sec/LOS A	8.8 Sec/LOS A
Santa Monica/Via Real/U.S. 101 NB	All-Way Stop	37.1 Sec/LOS E	25.7 Sec/LOS D
Linden/Route 192	All-Way Stop	3.6 Sec/LOS A	3.4 Sec/LOS A
Casitas Pass/Route 192	All-Way Stop	4.2 Sec/LOS A	3.8 Sec/LOS A
Casitas Pass/U.S. 101 NB	All-Way Stop	11.7 Sec/LOS B	19.7 Sec/LOS C
Casitas Pass/U.S. 101 SB	All-Way Stop	12.4 Sec/LOS B	17.1 Sec/LOS C

[a] LOS based on average delay per vehicle measured in seconds.

It is assumed that the LOS information for the Santa Monica Road/Via Real/U.S. 101 NB intersection is operating at the same level as indicated in the table above as this information was used by the City of Carpinteria for the Green Heron Spring Condominium Project Recirculated Draft Mitigated Negative Declaration (June 1, 2007). As reported in the Final Traffic and Analysis Report for the U.S. 101/Linden Avenue and U.S. 101/Casitas Pass Road Interchange Improvement Project (Fehr and Peers, June 2007) and the City of Carpinteria Draft EIR for the Venoco Paredon Project, **the existing AM peak hour operation of the Casitas Pass Road/U.S. Highway 101 NB ramps is currently LOS E** and the PM peak LOS is C

(MRS 2007). (Under future conditions with the completion of interchange improvements the LOS is projected to be C for both the AM and PM peak.) Existing AM and PM peak operation of the Casitas Pass Road/U.S. Highway 101 SB ramps is still reported to be LOS B and C respectively. (Under future conditions with the completion of interchange improvements the LOS is projected to be B for both the AM and PM peak.) The Paredon Project EIR also notes that several sections of U.S. Highway 101 operate below LOS C during peak hours including, in the project area, sections at Casitas Pass Road, Linden Avenue and Santa Monica Road/7th Street. No updated data was made available for the other intersections when requested of the City of Carpinteria, Santa Barbara County and Caltrans by Padre. However, based upon the location of the remaining intersections and the levels of service in 2005 (all LOS A) there is no evidence that these intersections have deteriorated to an unacceptable condition in the past two years.

The maximum number of project-generated truck trips and employee trips considered in the ATE traffic analysis were 40 and 52 respectively on a peak day (i.e., assumes 20 trucks and 30 employees with an average 1.1 vehicle occupancy on a peak day). With this level of project generated trips roadway capacity impacts were considered less than significant. The project with revisions as proposed is not estimated to increase peak truck or employee trips over that previously evaluated due to the limited space on the upper access road and nature of road construction which allows for limited simultaneous operations.

The FEIR (Initial Study) stated that the movement of construction, equipment, materials and personnel would temporarily add traffic to area roads and that Santa Monica Road south of Foothill Road should not be used by construction traffic as this road has sharp (in some cases 90 degree) turns and extends through a primarily residential area. It was also identified that the project would directly impact Foothill Road during construction of the proposed transmission main, and construction traffic and activities on public roads would increase hazards to other pedestrians, bicyclists and other vehicles. This was considered a significant impact and therefore, a mitigation measure was incorporated into the project (measure 9) requiring that CVWD prepare a Traffic Control Plan.

The above referenced traffic study prepared by ATE provided an assessment of the identified potential project truck routes to determine existing conditions, constraints for trucks and the most appropriate route for trucks transporting materials to/from the site. Use of US 101 South Padero Lane Interchange, travel west on Via Real, north on Nidever Road, and east on 192 to the project site is the recommended truck route. Based upon the findings of the ATE traffic study, the District modified the Traffic Control Plan measure incorporated into the project during the FEIR Addendum No. 1 process to include 1) the truck routing recommendations of the ATE Traffic and Circulation Study for the project dated January 2005; and 2) a requirement that all project construction employee vehicles use the Casitas Pass Road/US Highway 101 interchange in the morning. However, the Traffic Control Plan was subsequently revised based upon input from the County of Santa Barbara to require trucks needing to travel south to take the northbound ramp at Santa Claus Lane and exit at Padero Lane then re-enter 101 south at Padero Lane. Additional limitations regarding numbers of trucks per day, etc. were also included in the Traffic Control Plan. Presently, the requirement that project construction

employee vehicles use the Casitas Pass Road/US Highway 101 interchange in the morning would have the potential to significantly exacerbate unacceptable levels of congestion at that intersection. Therefore, the traffic mitigation measure referenced above shall be revised to incorporate the second option provided in the ATE traffic analysis to avoid impacts to congested intersections during peak hours which is as follows:

- Employees shall be scheduled to arrive before 7:00 AM or after 9:00 AM.

Thus the revised mitigation incorporated into the project is as follows:

> CVWD shall prepare a Traffic Control Plan detailing access routes and lane closures, as well as signage and other mechanisms to ensure the effective and safe operation of the roadway network, bicycle lanes and pedestrian facilities in the project area during construction. The Plan shall include the truck routing recommendations (use of US 101 South Padero Lane Interchange, travel west on Via Real, north on Nidever Road, and east on 192 to the project site, trucks needing to travel south on 101 shall take the northbound onramp at Santa Claus Lane and exit at Padero Lane then re-enter 101 south at Padero Lane) of the ATE Traffic and Circulation Study for the project dated January 25, 2005). The Plan shall describe methods for minimizing the closure of Foothill Road and the safe re-routing of traffic during total or partial closure of any roadway segment. Detour routes through the City of Carpinteria shall be limited to Cravens Lane or Casitas Pass. The Plan shall include a requirement that all ~~peak AM (7:00-9:00 AM)~~ construction employee related traffic shall arrive at the project site before 7:00 AM or after 9:00 AM ~~use the Casitas Pass Road US/101 interchange to access the site~~. The Plan shall be submitted to and approved by the California Department of Transportation, the County of Santa Barbara Public Works Department Transportation Division, and the City of Carpinteria. Timing: The Plan shall be prepared and submitted to the appropriate agencies before the commencement of construction. Monitoring: CVWD shall retain a copy of the approved plan and shall conduct periodic field inspections to ensure that the Plan is being implemented during construction.

With these refinements to the project provided by the above-mentioned revisions to the Traffic Control Plan, no previously unidentified impacts would result, nor would the magnitude of any previously identified impact be substantially increased with the revisions presently considered in this addendum.

The ATE traffic study also recommended that the District coordinate its construction project with other construction projects to the extent feasible to minimize any overlapping of construction activities in the area. It is anticipated that through the process of recirculating the Traffic Control Plan for the next project phase (prior to pavement of the upper access road) for review and approval by the California Department of Transportation, County of Santa Barbara Public Works Department Transportation Division and City of Carpinteria as identified in the FEIR measure (measure 9 as revised above and incorporated into the project), that maximum

feasible coordination of construction projects with respect to reduction of effects on transportation issues will be accomplished.

3.9 NOISE

Biological mitigation revision will not effect the noise analysis due to its nature. Revisions to the tank site plan and addition of the detention basin did not require any substantive additional construction equipment or duration of the project. Additionally, construction occurred in areas that were already subject to construction under the proposed project. Therefore, no substantive change to the noise assessment as provided in the FEIR resulted.

The proposed project revisions to the road to the upper tank site including, bridge revisions, landslide mitigation, new pump stations and revised alignment will affect the same area as previously evaluated in the FEIR. No types of construction equipment that were not already anticipated to be used for construction purposes are proposed. Although construction noise may be concentrated in a single area longer than previously anticipated (e.g., landslide mitigation area), no additional noise impacts are anticipated beyond that analyzed in the FEIR.

The revisions to the drainage infrastructure will bring construction to areas not previously proposed such as along the Santa Barbara County Flood Control Road for installation of the 36-inch storm drain. The closest RMA structure and offsite residence are about 65 feet and 540 feet away form this proposed construction respectively. Because of the short duration of this element of construction (a few weeks) and the limited equipment required (which would not be substantially unlike equipment regularly used at the project site and surrounding agricultural parcels), this impact would not substantively alter the findings as documented in the FEIR regarding noise impacts. Measures incorporated into the project (measures 11 and 12) pertaining to limiting high noise-producing construction activity to the hours of 8:00 AM to 5:00 PM Monday through Friday and advanced written notification of residents within a minimum of 1,600 feet of proposed construction will apply to this element of the project as to all project construction.

3.10 LAND USE

The proposed revisions would not change the nature of the development as previously proposed and evaluated in the FEIR. Therefore, the assessment of compatibility with existing land uses would not change. The revisions do not include elements that would increase the potential for growth beyond that evaluated in the FEIR. Nor would the revisions substantially alter the findings of the FEIR with respect to prime or other unique farmlands, economic or social effects resulting in physical changes or conflicts with safety plans.

3.11 HOUSING

There will be no loss of housing as a result of the project as originally proposed or with the proposed revisions. Therefore, no change to the Final EIR housing analysis is needed for either the project-specific or cumulative impact scenarios.

3.12 HAZARDOUS MATERIAL

The project areas to be disturbed with the proposed project revisions would be generally the same as originally proposed with respect to past land uses that would have the potential to have resulted in hazardous materials contamination and thereby exposure of construction workers and the public to such materials during construction. Therefore, the evaluation of this issue as provided in the Final EIR is adequate for the project with the proposed revisions.

The agricultural waste dump remediation is being directed by the County of Santa Barbara Fire Prevention District in accordance with all applicable health regulations. This activity is not specifically a part of the project, although was discovered during project activities. The lead agency from a CEQA perspective for this activity is the Carpinteria-Summerland Fire Prevention District.

3.13 PUBLIC FACILITIES

The proposed revisions would not introduce new uses that were not originally proposed for inclusion in the project. As with the original project, the revised project would not introduce any new population to the area and indirect growth inducement impacts would not be exacerbated by project revisions. Therefore, the proposed revisions would not substantially increase or result in any new impacts associated with public facilities (i.e., police, health care, school capacity, solid waste disposal capacity or sewer facilities) under the project-specific or cumulative impact scenarios.

3.14 ENERGY

The proposed project revisions may result in an increase in fossil fuel for the operation of trucks moving earth materials to and from the site. Because petroleum resources are considered a world-wide, nation-wide and state-wide resources that is beyond the scope of local governments to control or manage individual projects are not considered to have a significant impact on the demand for petroleum resources.

The use of electricity for the revised project is expected to be increased from the original project due to the addition of more pump stations to the proposed infrastructure. However, this demand is not anticipated to result in the need for the development of new electrical power sources or to use a substantive portion of the available power supply. Therefore, the existing assessment of project impacts on energy resources would not be substantively altered by the proposed project revisions.

3.15 FIRE PROTECTION

With the revised project, the same general uses are proposed as evaluated in the Final EIR. The minor alteration in the location of project components would not alter the existing fire hazard conditions associated with the project and specific modifications such as the inclusion of turn arounds on the upper tank access road would enhance the ability of fire protection services

to access the upper ranch. Therefore, the evaluation of project impacts on fire protection as provided in the Final EIR remains adequate for the project.

3.16 RECREATION

The revised project, like the project as originally proposed, would not directly impact any recreational facilities. No new recreational impacts would result from the proposed project revisions and no previously identified significant recreational impact would be substantially increased.

3.17 ENVIRONMENTAL JUSTICE/POPULATION

As with the original project, the project as revised is not located within proximity to a low income or minority populated neighborhood. Therefore, such neighborhoods would not be impacted. No demographic impacts would result with the original or revised project.

4.0 REFERENCES

City of Carpinteria (June 2007) Draft Environmental Impact Report Venoco Paredon Project, prepared by Marine Research Specialists.

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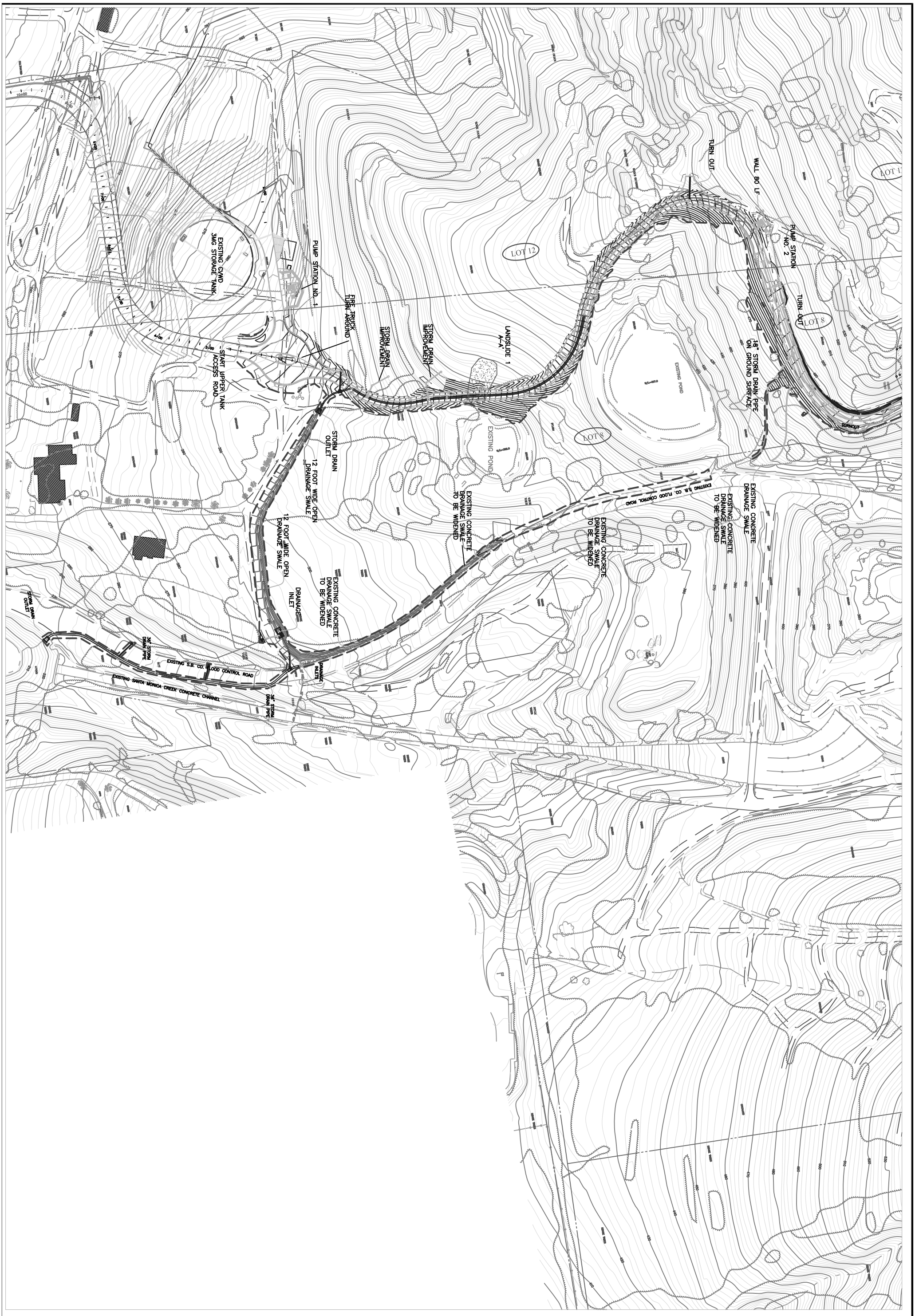
ATTACHMENTS



L P CONSULTANTS
3 WEST CARRILLO STREET
SUITE 205
SANTA BARBARA, CA 93101
(805) 962-4611 (PHONE)
(805) 962-4161 (FAX)

CLIENT:
CARPINTERIA VALLEY WATER DISTRICT
1301 SANTA YNEZ AVENUE
CARPINTERIA, CA 93013

(805) 684-2816

ATTN:
CHARLES HAMILTON, DISTRICT MANAGER

CARPINTERIA VALLEY WATER DISTRICT
PHASE 4 & 5 UPPER TANKS ACCESS ROAD
RANCHO MONTE ALEGRE
COUNTY OF SANTA BARBARA, CALIFORNIA

PROJECT NO.

DRAWING NAME:
SHEET 1 OF 8

DATE:
JUNE 11, 2007

LOT 12

LOT 8

LOT 8

TURN OUT

RETAINING WALL
±80 LF

PUMP STATION
NO. 2

TURN OUT

TURN OUT

P/L

LANDSLIDE 1
SECTION A–A'

STORM DRAIN
IMPROVEMENT

STORM DRAIN
IMPROVEMENT

STORM DRAIN
OUTLET

WIDE OPEN
E SWALE

EXISTING POND
W/L=352.0

EXISTING POND
W/L=407.0

18" STORM DRAIN PIPE
ON GROUND SURFACE

EXISTING CONCRETE
DRAINAGE SWALE
TO BE WIDENED

EXISTING S.B. CO. FLOOD CONTROL ROAD

EXISTING CONCRETE
DRAINAGE SWALE
TO BE WIDENED

EXISTING CONCRETE
DRAINAGE SWALE

EXISTING CONCRETE
DRAINAGE SWALE
TO BE WIDENED

BRUSH

DENSE TREES

CKS OUTCROP

SCALE IN FEET
0 30 60 90 120

PROJECT NO.
03-039.01
DRAWING NAME:
SHEET 2 OF 8
DATE:
JUNE 18, 2007

CARPINTERIA VALLEY WATER DISTRICT
PHASE 4 & 5 UPPER TANKS ACCESS ROAD
RANCHO MONTE ALEGRE
COUNTY OF SANTA BARBARA, CALIFORNIA

CLIENT:
CARPINTERIA VALLEY WATER DISTRICT
1301 SANTA ROSA AVENUE
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SUITE 205
SANTA BARBARA, CA 93101
(805) 962-4611 (PHONE)
(805) 962-4161 (FAX)

LPA CONSULTANTS

RETAINING WALL
±80 LF

PUMP STATION
NO. 2

TURN OUT

P/L

LOT 12

LOT 8

CONCRETE
CAISSONS

BEGIN RETAINING
WALL 425 LF

36" OAK CLUSTER

8"&14" OAK

LANDSLIDE 2
SECTION C–C'

CONCRETE
CAISSONS

END
RETAINING
WALL

6" OAK

6" OAK

10" OAK

12" OAK

2" OAK

BEGIN RETAINING
WALL ±220 LF

CONCRETE
CAISSONS

CONCRETE CAISSONS
WITH HORIZONTAL TIES

STORM DRAIN
OUTLET

TURNOUT

18" STORM DRAIN PIPE
ON GROUND SURFACE

EXISTING POND
W/L=407.0

EXISTING CONCRETE

BRUSH

DENSE TREES

SCALE IN FEET
0 30 60 90 120

PROJECT NO.
03-039.01
DRAWING NAME:
SHEET 3 OF 8
DATE:
JUNE 18, 2007

CARPINTERIA VALLEY WATER DISTRICT
PHASE 4 & 5 UPPER TANKS ACCESS ROAD
RANCHO MONTE ALEGRE
COUNTY OF SANTA BARBARA, CALIFORNIA

CLIENT:
CARPINTERIA VALLEY WATER DISTRICT
1301 SANTA MARIA AVENUE
CARPINTERIA, CA 93013
(805) 684-2816
ATTN: CHARLES HAMILTON, DISTRICT MANAGER

3 WEST CARRILLO STREET
SUITE 205
SANTA BARBARA, CA 93101
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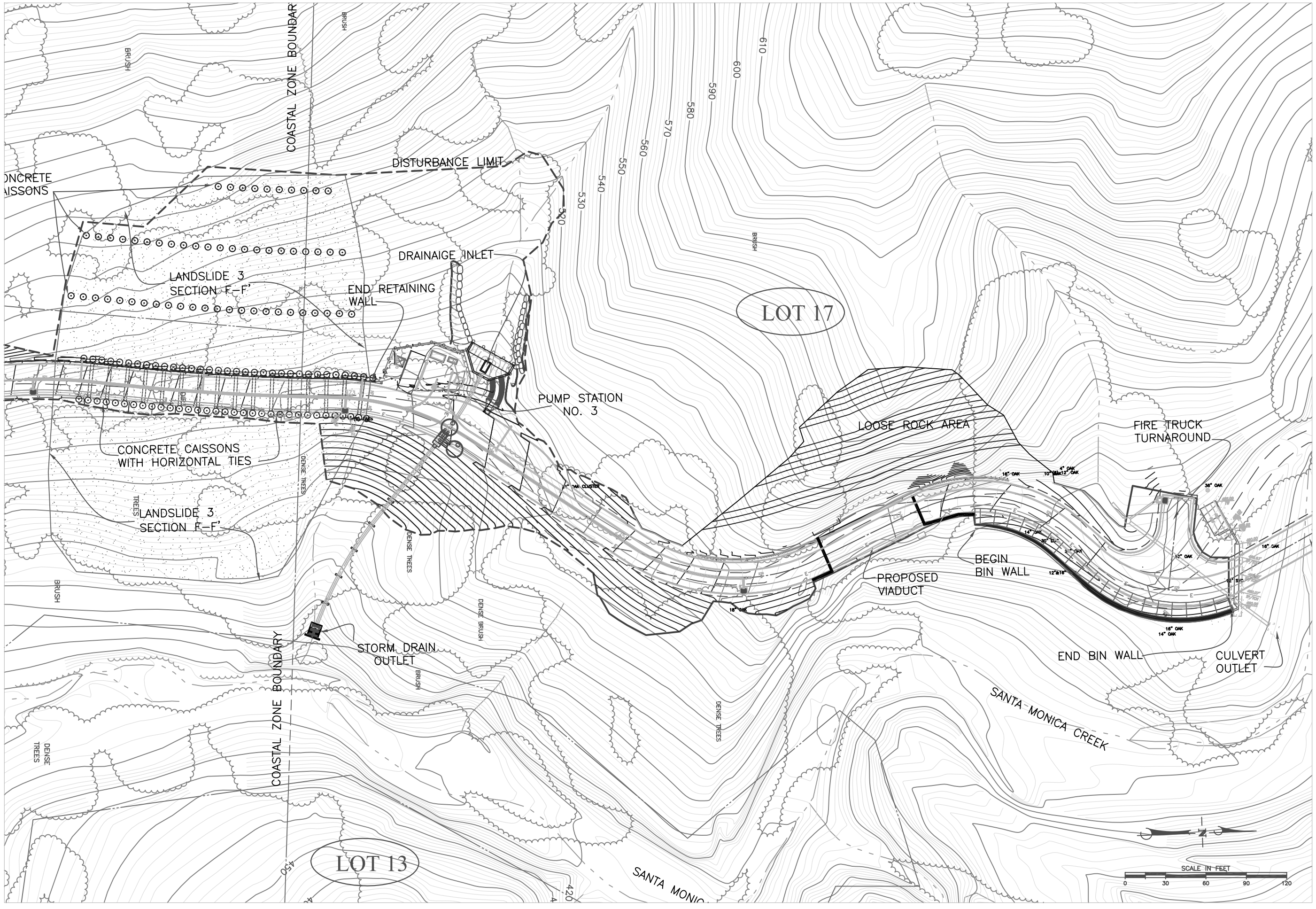
(805) 962-4161 (FAX)

LSP CONSULTANTS



PROJECT NO. 03-039.01
DRAWING NAME:
SHEET 4 OF 8
DATE: JUNE 18, 2007

CARPINTERIA VALLEY WATER DISTRICT
PHASE 4 & 5 UPPER TANKS ACCESS ROAD
RANCHO MONTE ALEGRE
COUNTY OF SANTA BARBARA, CALIFORNIA

CLIENT:
CARPINTERIA VALLEY WATER DISTRICT
1301 SANTA MARIA AVENUE
CARPINTERIA, CA 93013
(805) 684-2816
ATTN: CHARLES HAMILTON, DISTRICT MANAGER

3 WEST CARRILLO STREET
SUITE 205
SANTA BARBARA, CA 93101
(805) 962-4611 (PHONE)
(805) 962-4161 (FAX)

LSA CONSULTANTS

BIN—WALL

BEGIN RETAINING
WALL 119 LF

END RET. WALL

FIRE TRUCK
TURNAROUND

BEGIN RETAINING
WALL 139 LF

END RET. WALL

TURN-OUT

SANTA MONICA CREEK

BRUSH

DENSE TREES

BEGIN RETAINING
WALL 320 LF

END
WALL

STORMWATER
DETENTION
BASIN

BASIN
OUTLET

BIN WALL
152 LF

RIPRAP BANK
PROTECTION

BIN
WALL

BEGIN RETAINING
WALL ±260 LF

FIRE TRUCK
TURNAROUND

PROPOSED
BRIDGE

PUMP STATION
NO. 4

LOT 17

LOT 18

SCALE IN FEET
0 30 60 90 120

PROJECT NO.
03-039.01
DRAWING NAME:
SHEET 5 OF 8
DATE:
JUNE 18, 2007

CARPINTERIA VALLEY WATER DISTRICT
PHASE 4 & 5 UPPER TANKS ACCESS ROAD
RANCHO MONTE ALEGRE
COUNTY OF SANTA BARBARA, CALIFORNIA

CLIENT:
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LP CONSULTANTS

LOT 18

LOT 18

STORM DRAIN OUTLET

STORM DRAIN OUTLET

DENSE TREES

DENSE TREES

DENSE TREES

DENSE TREES

DENSE TREES

DENSE BRUSH

BRUSH

BRUSH

4" OAK

18" OAK

16" OAK

16" OAK

18" OAK

9" OAK

18" OAK

12" OAK

(2) 24" OAK

(3) OAK

(2) 10" OAK

630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850

SCALE IN FEET

0 30 60 90 120

PROJECT NO.
03-039.01
DRAWING NAME:
SHEET 6 OF 8
DATE:
JUNE 18, 2007

CARPINTERIA VALLEY WATER DISTRICT
PAHSE 4 & 5 UPPER TANKS ACCESS ROAD
RANCHO MONTE ALEGRE
COUNTY OF SANTA BARBARA, CALIFORNIA

CLIENT:
CARPINTERIA VALLEY WATER DISTRICT
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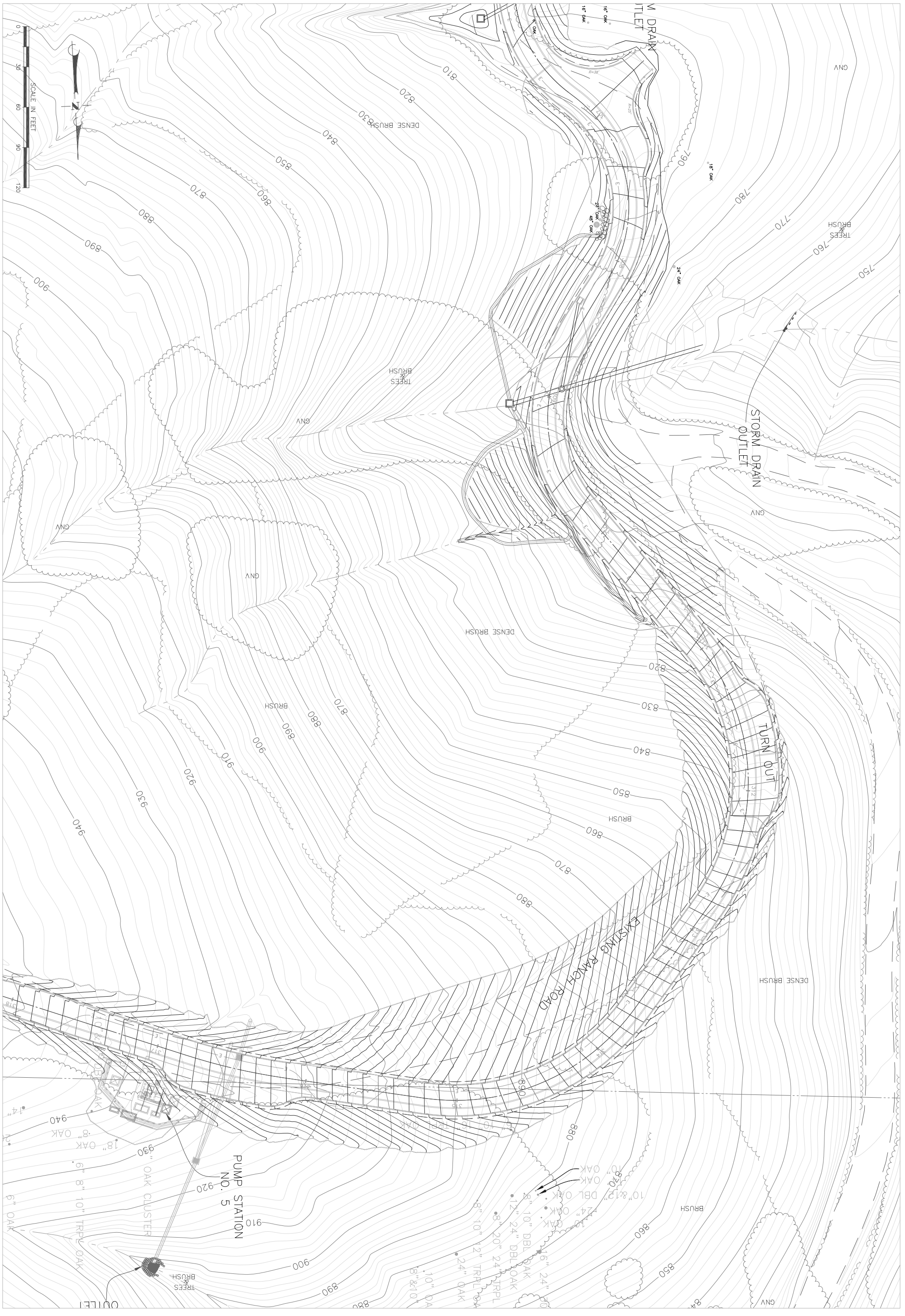
LSA CONSULTANTS



LOP CONSULTANTS
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CARPINTERIA, CA 93013

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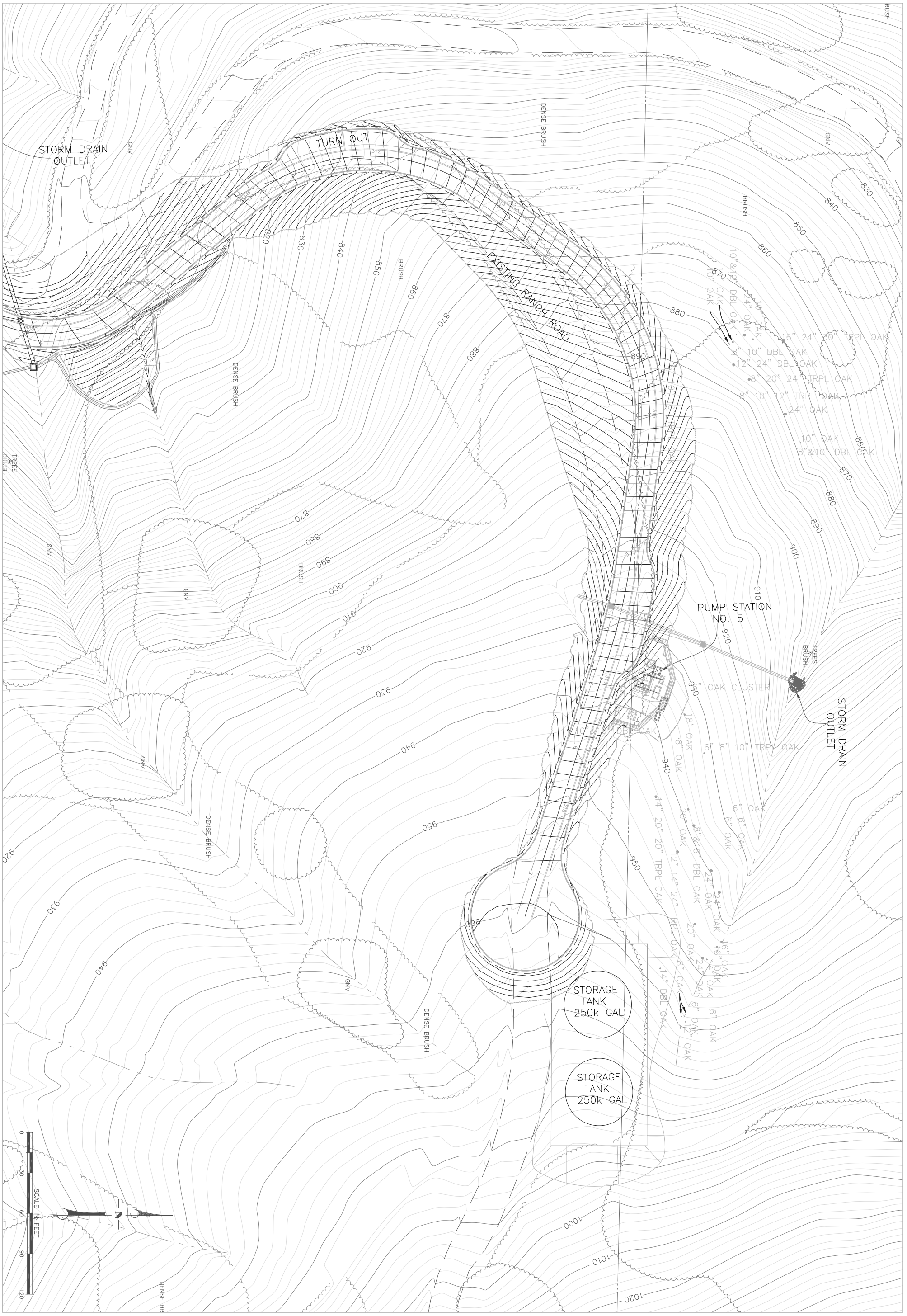
ATTN:
CHARLES HAMILTON, DISTRICT MANAGER

CARPINTERIA VALLEY WATER DISTRICT
PHASE 4 & 5 UPPER TANK ACCESS ROAD
RANCHO MONTE ALEGRE
COUNTY OF SANTA BARBARA, CALIFORNIA

PROJECT NO.
03-039.01
DRAWING NAME:
SHEET 7 OF 8
DATE:
JUNE 18, 2007



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ATTN:
CHARLES HAMILTON, DISTRICT MANAGER

CARPINTERIA VALLEY WATER DISRICT
PHASE 4 & 5 UPPER TANKS ACCESS ROAD
RANCHO MONTE ALEGRE

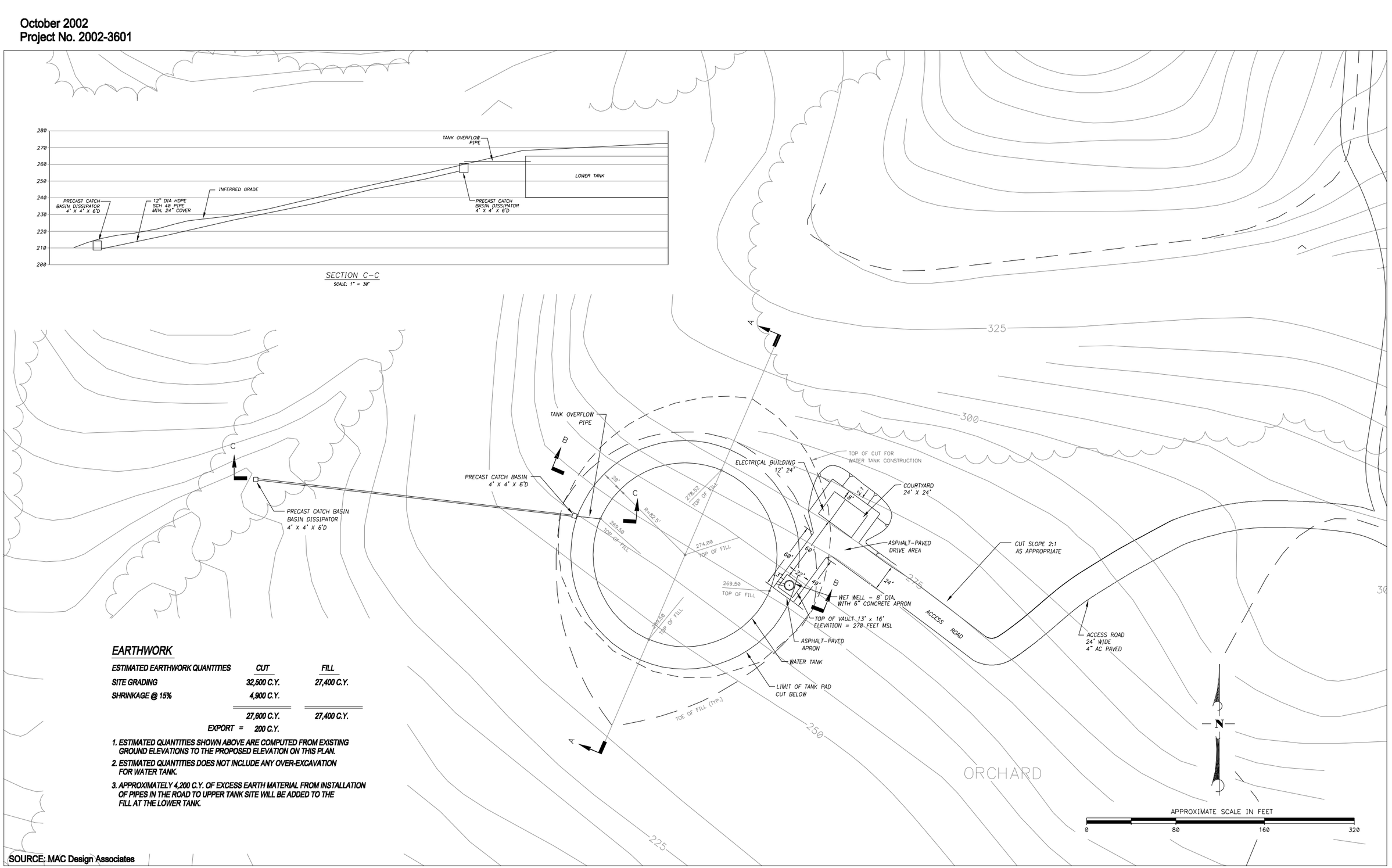
COUNTY OF SANTA BARBARA, CALIFORNIA

PROJECT NO.
03-039.01

DRAWING NAME:
SHEET 8 OF 8

DATE:
JUNE 18, 2007

SECTION C–C
SCALE: 1" = 30'



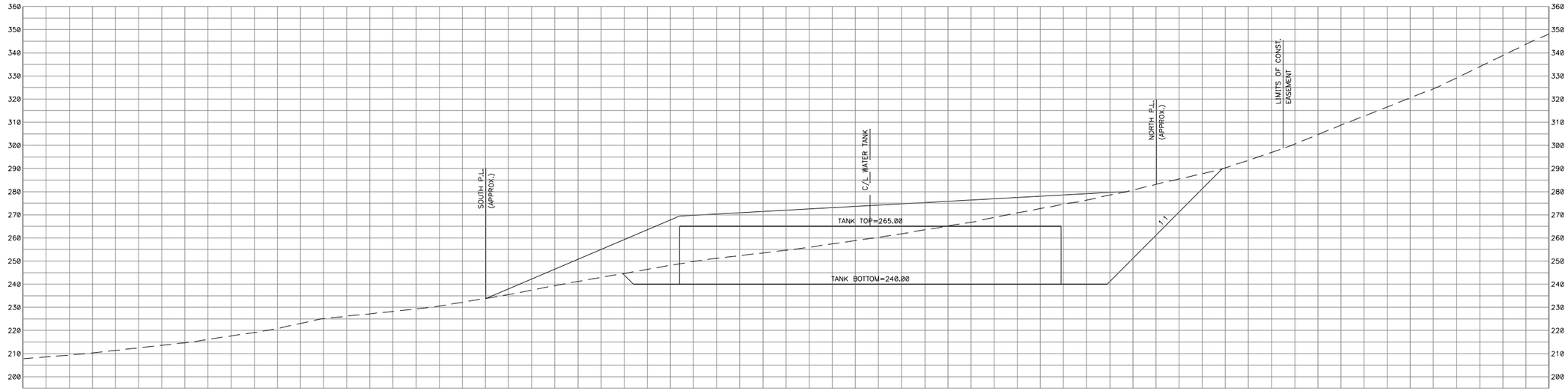
EARTHWORK

ESTIMATED EARTHWORK QUANTITIES	CUT	FILL
SITE GRADING	32,500 C.Y.	27,400 C.Y.
SHRINKAGE @ 15%	4,900 C.Y.	
	27,600 C.Y.	27,400 C.Y.
EXPORT =	200 C.Y.	

1. ESTIMATED QUANTITIES SHOWN ABOVE ARE COMPUTED FROM EXISTING GROUND ELEVATIONS TO THE PROPOSED ELEVATION ON THIS PLAN.
2. ESTIMATED QUANTITIES DOES NOT INCLUDE ANY OVER-EXCAVATION FOR WATER TANK.
3. APPROXIMATELY 4,200 C.Y. OF EXCESS EARTH MATERIAL FROM INSTALLATION OF PIPES IN THE ROAD TO UPPER TANK SITE WILL BE ADDED TO THE FILL AT THE LOWER TANK.

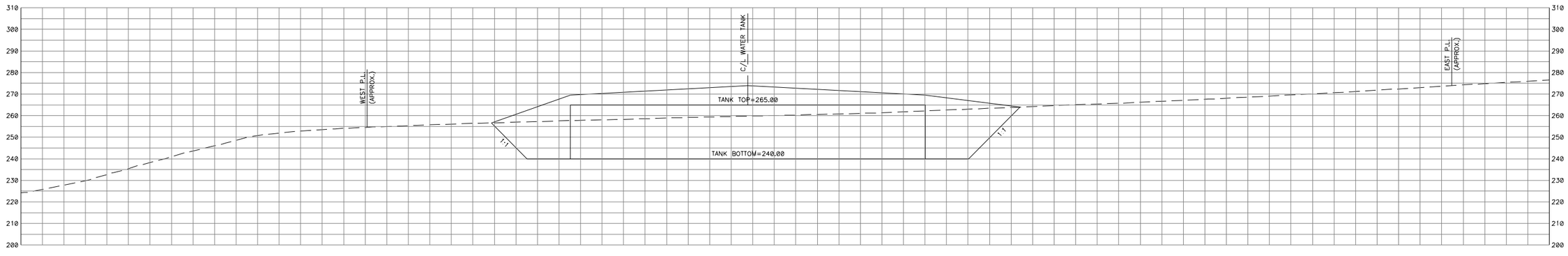
SOURCE: MAC Design Associates

PRELIMINARY GRADING PLAN
3.0 MG TANK
FIGURE 3.5-1



SECTION A – A

SCALE: HORIZ. 1" = 20'
VERT. 1" = 20'



SECTION B – B

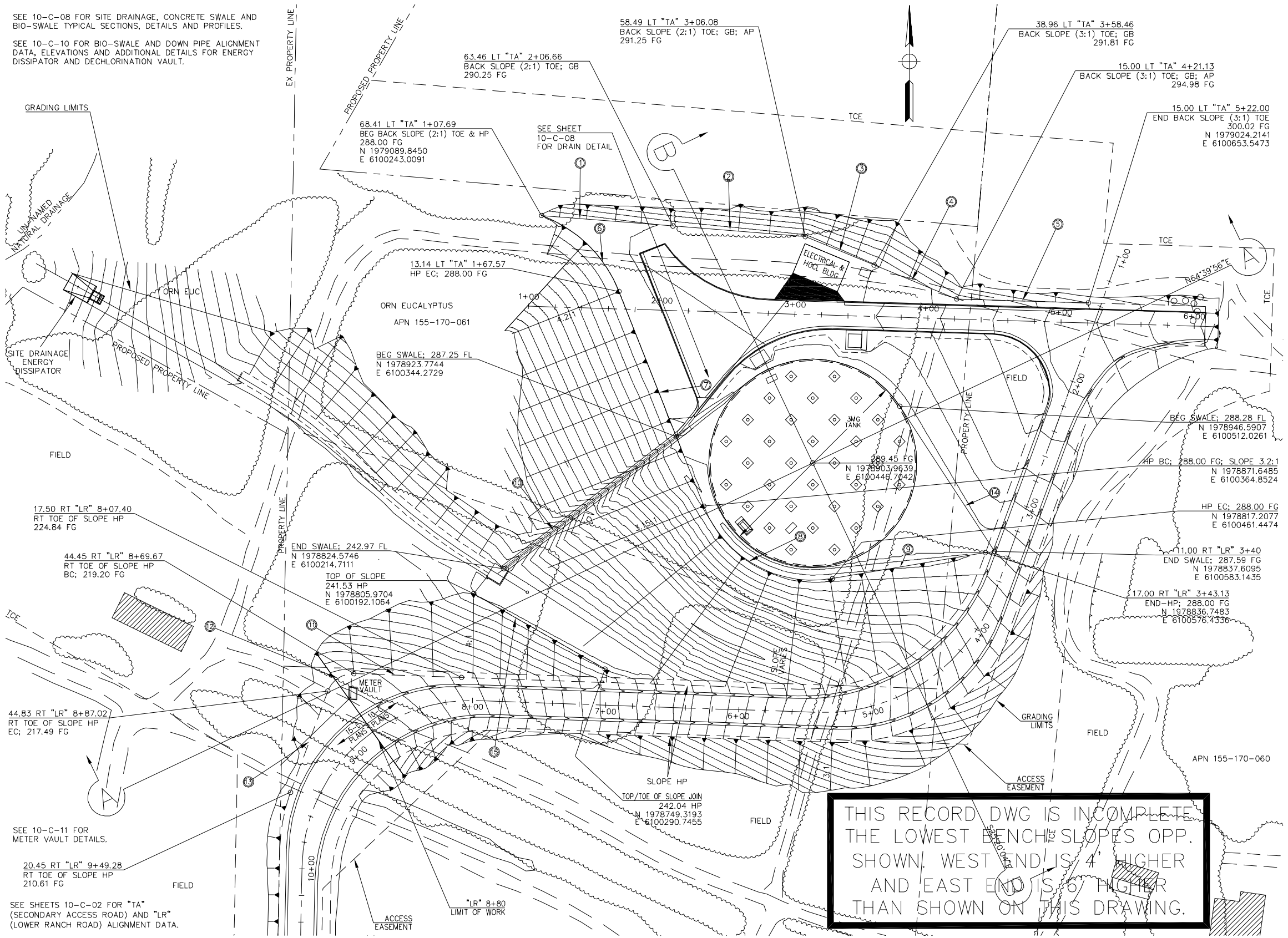
SCALE: HORIZ. 1" = 20'
VERT. 1" = 20'

SOURCE: MAC Design Associates

TYPICAL CROSS SECTIONS
3.0 MG TANK
FIGURE 3.5-2

SEE 10-C-08 FOR SITE DRAINAGE, CONCRETE SWALE AND BIO-SWALE TYPICAL SECTIONS, DETAILS AND PROFILES.

SEE 10-C-10 FOR BIO-SWALE AND DOWN PIPE ALIGNMENT DATA, ELEVATIONS AND ADDITIONAL DETAILS FOR ENERGY DISSIPATOR AND DECHLORINATION VAULT.



GRADING ALIGNMENTS DATA TABLE				
NO.	R (ft)	Δ/BEARING	T (ft)	L (ft)
1	–	S85°26'03"E	–	99.09
2	–	S85°26'03"E	–	99.55
3	–	S67°35'36"E	–	56.00
4	–	S67°35'36"E	–	67.00
5	–	S88°17'54"E	–	98.87
6	100.00	48°05'26"	44.62	83.93
7	–	S21°32'39"E	–	173.28
8	88.00	78°06'03"	71.39	119.95
9	–	N80°21'19"E	–	116.63
10	–	N52°33'37"E	–	163.18
11	–	N88°00'00"W	–	81.04
12	20.00	71°46'30"	14.47	25.05
13	–	–	–	81.04
14	–	N33°07'38"W	–	130.13
15	–	S60°07'48"E	–	113.75

GENERAL GRADING NOTES:

1. A DRAINAGE IMPROVEMENT CERTIFICATION SHALL BE SUBMITTED TO P&D WITHIN 60 DAYS OF PROJECT COMPLETION. THE DISTRICT CERTIFICATION FORM REQUIRES THAT THE CALIFORNIA REGISTERED ENGINEER CERTIFY THAT ALL DRAINAGE IMPROVMENTS WERE CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH APPROVED PLANS.

2. DURING CONSTRUCTION THE FLOOD CONTROL DISTRICT SHALL REVIEW AND APPROVE IN WRITING ANY SIGNIFICANT DESIGN REVISIONS TO THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE PROPOSED REVISIONS.

3. AS-BUILT PLANS SHALL BE SUBMITTED TO THE SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT WITHIN 60 DAYS OF PROJECT COMPLETION.

4. NATURAL COLOR COMPATIBLE WITH SURROUNDING TERRAIN (EARTHTONES AND NON-REFLECTIVE PAINTS) SHALL BE USED ON EXTERIOR SURFACES OF ALL STRUCTURES.

5. CONTRACTOR SHALL CLEAR THE PROJECT SITE OF EXCESS CONSTRUCTION DEBRIS PRIOR TO FINAL BUILDING INSPECTION.

6. TEMPORARY BERM AND SEDIMENT BASINS SHALL BE CONSTRUCTED TO AVOID UNNECESSARY SILTATION INTO LOCAL STREAMS DURING CONSTRUCTION ACTIVITIES. TEMPORARY EROSION CONTROL DEVICES SHALL BE IN-PLACE WHEN CONSTRUCTION BEGINS.

7. DUST GENERATED BY CONSTRUCTION ACTIVITES SHALL BE KEPT TO A MINIMUM WITH THE GOAL OF RETAINING DUST ON SITE.
   7A. DURING CLEARING, GRADING, EARTH MOVING, OR TRANSPORTATION OF CUT OR FILL MATERIALS, WATER TRUCKS OR SPRINKLER SYSTEMS ARE TO BE USED TO PREVENT DUSTFROM LEAVING THE SITE AND TO CREATE A CRUST AFTER EACH DAY'S ACTIVITIES CEASE.
   7B. DURING CONSTRUCTION, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED TO KEEP ALL AREA OF VEHICLE MOVEMENT DAMP ENOUGH TO PREVENT DUST FROM LEAVING THE SITE. AT A MINIMUM, THIS WOULD INCLUDE WETTING DOWN SUCH AREAS IN THE LATER MORNING AND AFTER WORK IS COMPLETED FOR THE DAY AND WHENEVER WIND EXCEEDS 15 MILES PER HOUR.
   7C. SOIL STOCKPILED FOR MORE THAN TWO DAYS SHALL BE COVERED, KEPT MOIST, OR TREATED WITH SOIL BINDERS TO PREVENT DUST GENERATION.

8. IF THE CONSTRUCTION SITE IS GRADED AND LEFT UNDEVELOPED FOR OVER FOUR WEEKS, THE APPLICANT SHALL EMPLOY METHODS IMMEDIATELY TO INHIBIT DUST GENERATION. METHODS SHALL INCLUDE SEEDING AND WATERING TO REVEGETATE GRADED AREAS; AND/OR SPREADING OF SOIL BINDERS; AND/OR ANY OTHER METHODS DEEMED APPROPRIATE BY P&D.

9. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT RUNOFF. SILT FENCING, STRAW BALES OR SAND BAGS SHALL BE USED IN CONJUNCTION WITH OTHER METHODS TO PREVENT EROSION AND SILTATION OF THE STREAM CHANNEL.

10. DURING CONSTRUCTION, WASHING OF CONCRETE, PAINT, OR EQUIPMENT SHALL OCCUR ONLY IN AREAS WHERE POLLUTED WATER AND MATERIALS CAN BE CONTAINED FOR SUBSEQUENT REMOVAL FROM THE SITE. WASHING SHALL NOT BE ALLOWED NEAR SENSITIVE BIOLOGICAL RESOURCES. AN AREA DESIGNATED FOR WASHING FUNCTIONS SHALL BE IDENTIFIED. SEE EROSION CONTROL PLAN.

11. GRADING OPERATIONS AND IMPLEMENTATION OF THE EROSION CONTROL PLANS SHALL BE SUBJECT TO THE FOLLOWING CONDITIONS: GRADING SHALL BE PROHIBITED WITHIN 50 FEET OF THE TOP OF BANK OF ANY CREEK. METHODS SUSH AS RETENTION BASINS, DRAINAGE DIVERSION STRUCTURES AND SPOT GRADING SHALL BE USED TO REDUCE SILTATION INTO ADJACENT STREAMS DURING GRADING AND CONSTRUCTION ACTIVITIES. GRADING ON SLOPES STEEPER THAN 5:1 SHALL BE DESIGNED TO MINIMIZE SURFACE WATER RUNOFF.

REV	DATE	BY	DESCRIPTION
1			ENTIRE SHEET REVISED
			TO ELEMINATE
			SEPERATE PUMP STATION

MNS ENGINEERS INC
ENGINEERS ▾ SURVEYORS ▾ CONSTRUCTION MANAGERS
Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-5921 FAX. (805) 692-6931

DESIGNED:	S. KOWALEWSKI
DRAWN:	S. KOWALEWSKI/MGH
CHECKED:	W. HAEFELE
QA/QC:	
CONSTRUCTABILITY:	

RECORD DRAWING
DATE September 2007
THIS RECORD DRAWING WAS PREPARED USING INFORMATION REPORTED TO MNS ENGINEERS INC. AND CONTAINS ONLY THE STANDARD AND CUSTOMARY LEVEL OF DETAIL. THE INFORMATION WAS NOT INDEPENDENTLY FIELD VERIFIED. THERE IS NO ONGOING PROGRAM TO UPDATE THE DRAWING TO REFLECT CHANGES SUBSEQUENT TO THE DATE INDICATED. THEREFORE, THIS DRAWING CANNOT BE RELIED UPON AS AN EXACT REPRESENTATION OF ACTUAL CONDITIONS.

0 1/2 1 2
THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE
HORIZONTAL: 1"=40'
VERTICAL: N/A

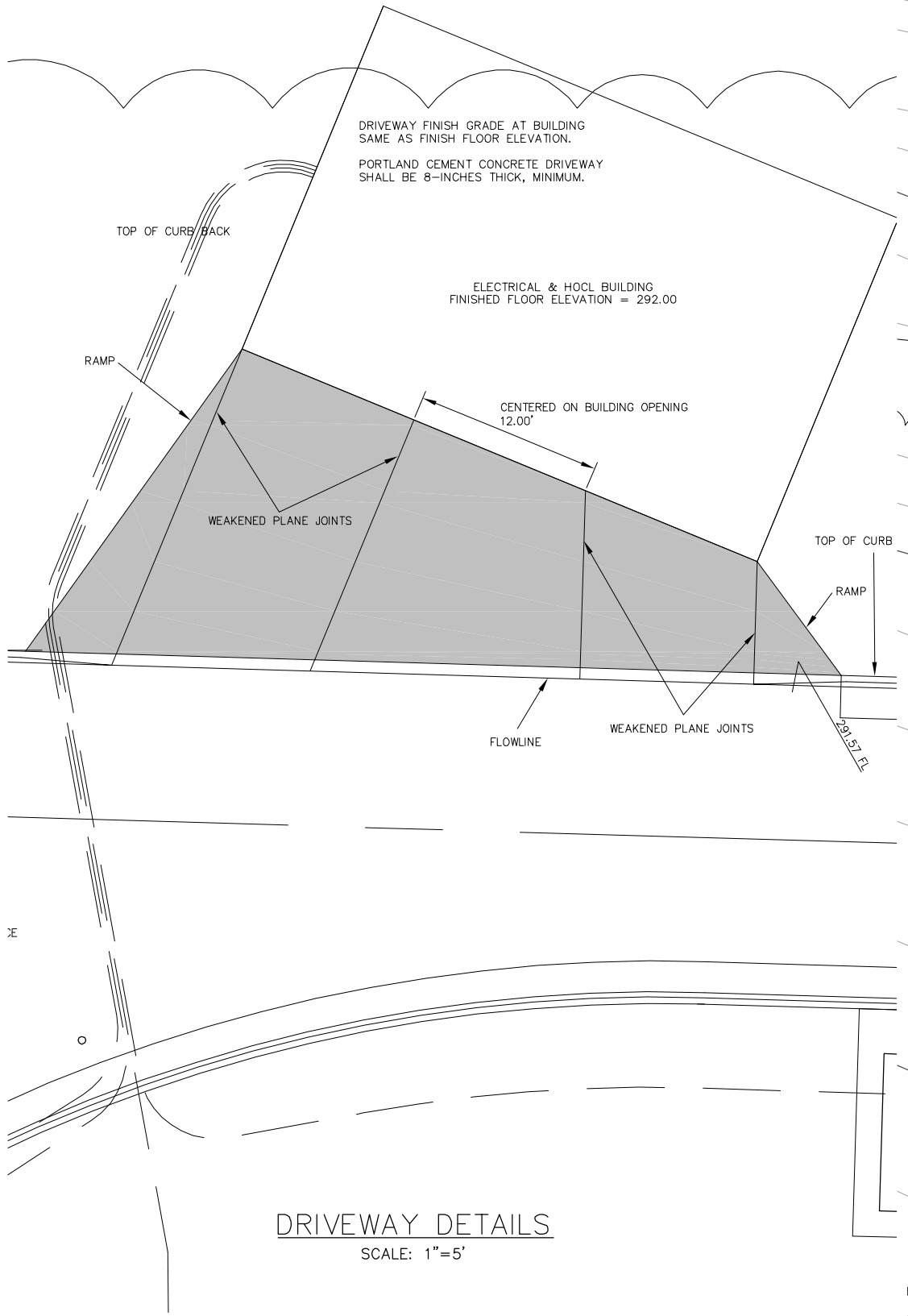
CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

TANK SITE GRADING ALIGNMENTS AND LAYOUT

PROJECT NUMBER 12207B
DRAWING NUMBER 10-C-06
SHEET NUMBER 09 OF 88

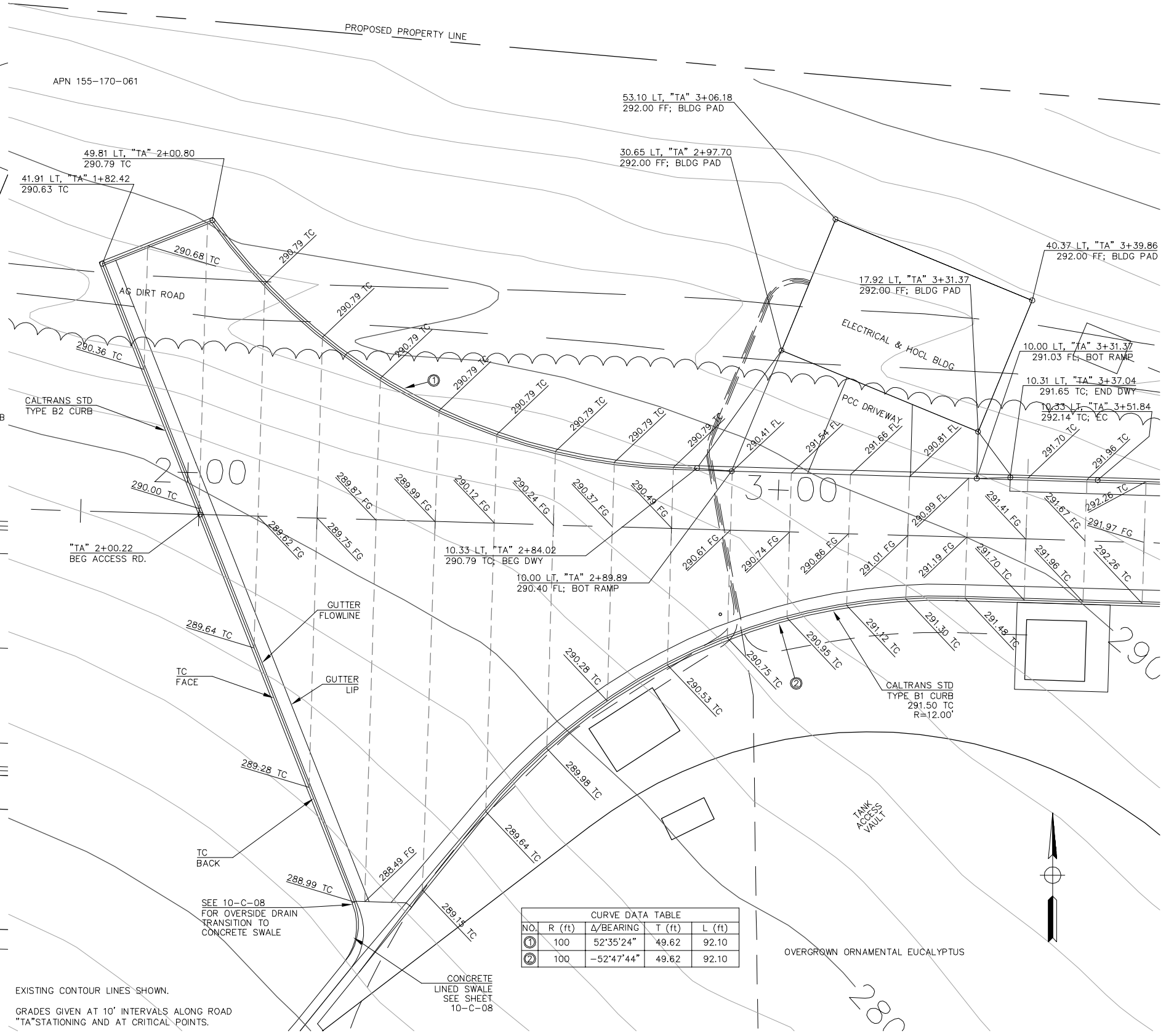
PLAN CHECK PRINTS (not for construction) FINAL SUBMITTAL DATE: 03-21-05

Y:\12200_Series\12207\CADD\12207\dwg\Design\Lower Ranch Tank\10-C-GRD-REVI.dwg 3/20/2006 5:21:55 PM PST



DRIVEWAY DETAILS

SCALE: 1"=5'



CURVE DATA TABLE				
NO.	R (ft)	Δ/BEARING	T (ft)	L (ft)
①	100	52°35'24"	49.62	92.10
②	100	-52°47'44"	49.62	92.10

EXISTING CONTOUR LINES SHOWN.

GRADES GIVEN AT 10' INTERVALS ALONG ROAD "TA"STATIONING AND AT CRITICAL POINTS.

REV	DATE	BY	DESCRIPTION
1			ENTIRE SHEET REVISED TO
			ELIMINATE SEPARATE
			PUMP STATION

MNS ENGINEERS INC
ENGINEERS • SURVEYORS • CONSTRUCTION MANAGERS
Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

DESIGNED:	S. KOWALEWSKI
DRAWN:	S. KOWALEWSKI
CHECKED:	T. WRIGHT
QA/QC:	J. SALVITO
CONSTRUCTABILITY:	L. CABALLERO

WAYNE R. HAEFELE, PE
WAYNE HAEFELE & ASSOCIATES

DATE

REGISTERED PROFESSIONAL ENGINEER
WAYNE R HAEFELE
C60791
EXPIRES 12-31-__
CIVIL
STATE OF CALIFORNIA

0 1/2 1 2
THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE
HORIZONTAL: 1"=10'
VERTICAL: N/A

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

TANK ACCESS ROAD TURN-AROUND CONSTRUCTION DETAIL

PROJECT NUMBER 12207B
DRAWING NUMBER 10-C-04
SHEET NUMBER 07 OF 88

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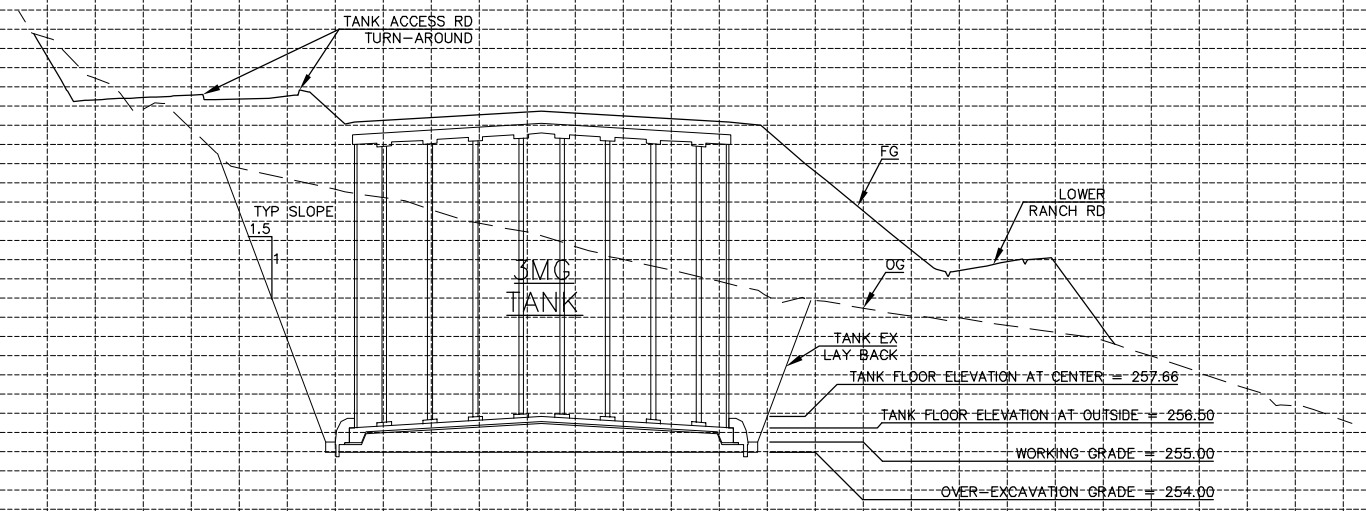
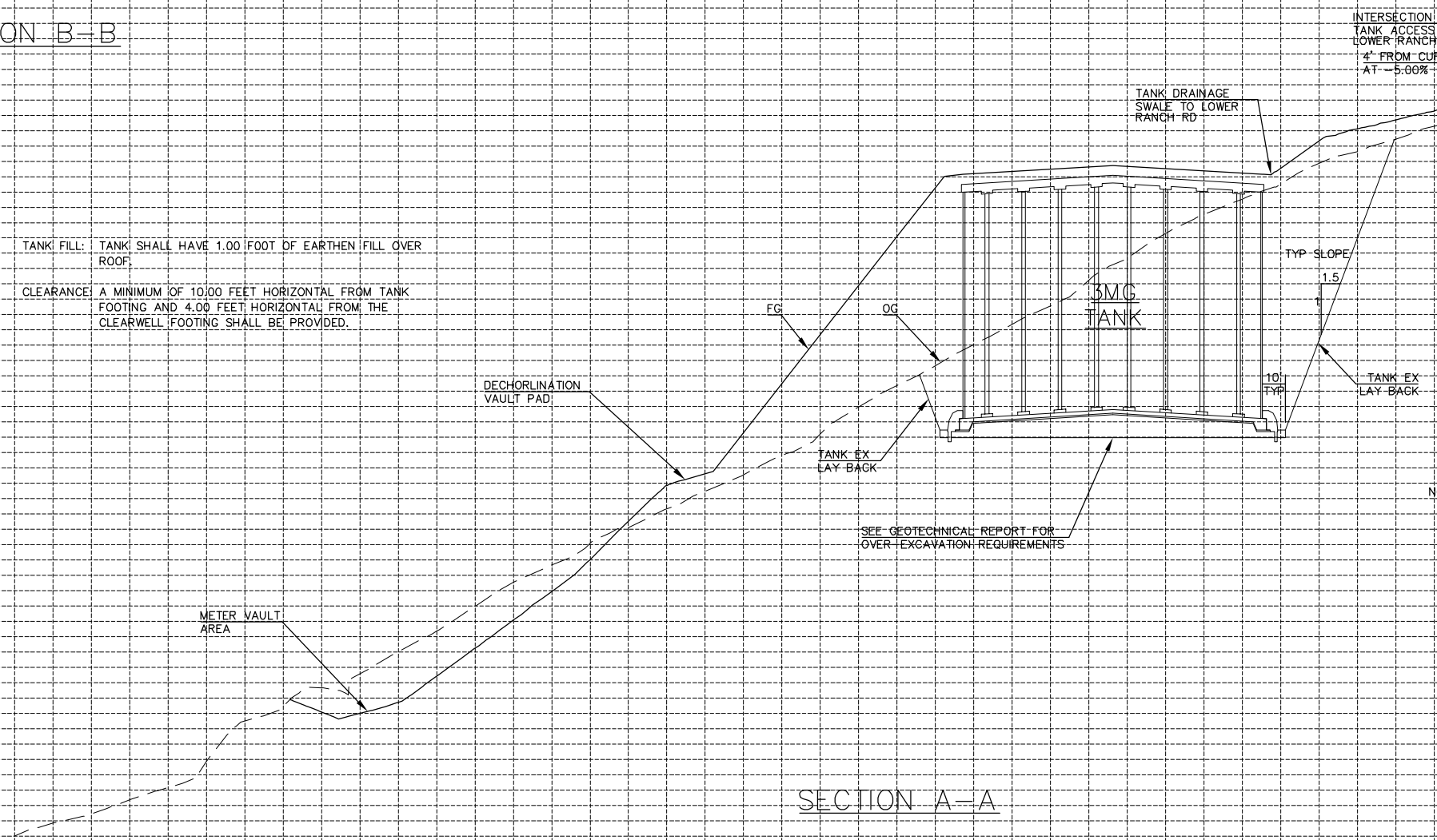


SECTION B-B

TANK FILL: TANK SHALL HAVE 1.00 FOOT OF EARTHEN FILL OVER ROOF.

CLEARANCE: A MINIMUM OF 10.00 FEET HORIZONTAL FROM TANK FOOTING AND 4.00 FEET HORIZONTAL FROM THE CLEARWELL FOOTING SHALL BE PROVIDED.



SEE SHEETS 10-C-14, 10-C-15 & 10-C-16 FOR TANK DETAILS

NOTE: NUMEROUS LARGE COBBLES AND BOULDERS MAY BE ENCOUNTERED DURING GRADING WORK. SEE GEOTECHNICAL REPORT FOR FURTHER DETAILS.

SECTION A-A

REV	DATE	BY	DESCRIPTION
1			ENTIRE SHEET REVISED
			TO ELEMINATE
			SEPERATE PUMP STATION

MNS ENGINEERS INC
ENGINEERS ▪ SURVEYORS ▪ CONSTRUCTION MANAGERS
Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

DESIGNED:	S. KOWALEWSKI
DRAWN:	S. KOWALEWSKI
CHECKED:	T. WRIGHT
QA/QC:	J. SALVITO
CONSTRUCTABILITY:	L. CABALLERO

WAYNE R. HAEFELE, PE
WAYNE HAEFELE & ASSOCIATES

DATE

REGISTERED PROFESSIONAL ENGINEER
WAYNE R HAEFELE
C60791
EXPIRES 12-31-__
CIVIL
STATE OF CALIFORNIA

0 1/2 1 2
THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

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

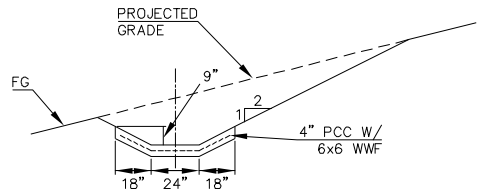
CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

TANK SITE SECTIONS

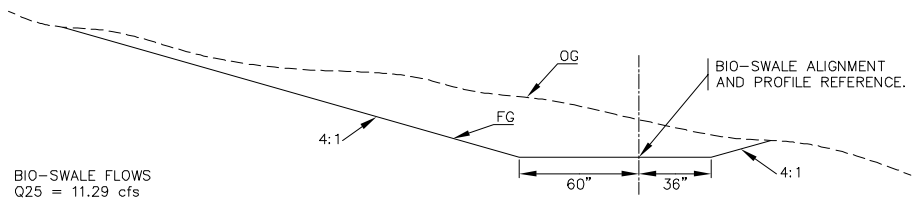
PROJECT NUMBER 12207B
DRAWING NUMBER 10-C-07
SHEET NUMBER 10 OF 88

Y:\12200_Series\12207\CADD\12207\dwg\Design\Lower Ranch Tank\10-C-08D-REV1.dwg 3/20/2006 5:21:55 PM PST

CONCRETE SWALE FLOWLINE IS THE BASIS FOR THE ALIGNMENT AND PROFILE.



CONCRETE SWALE

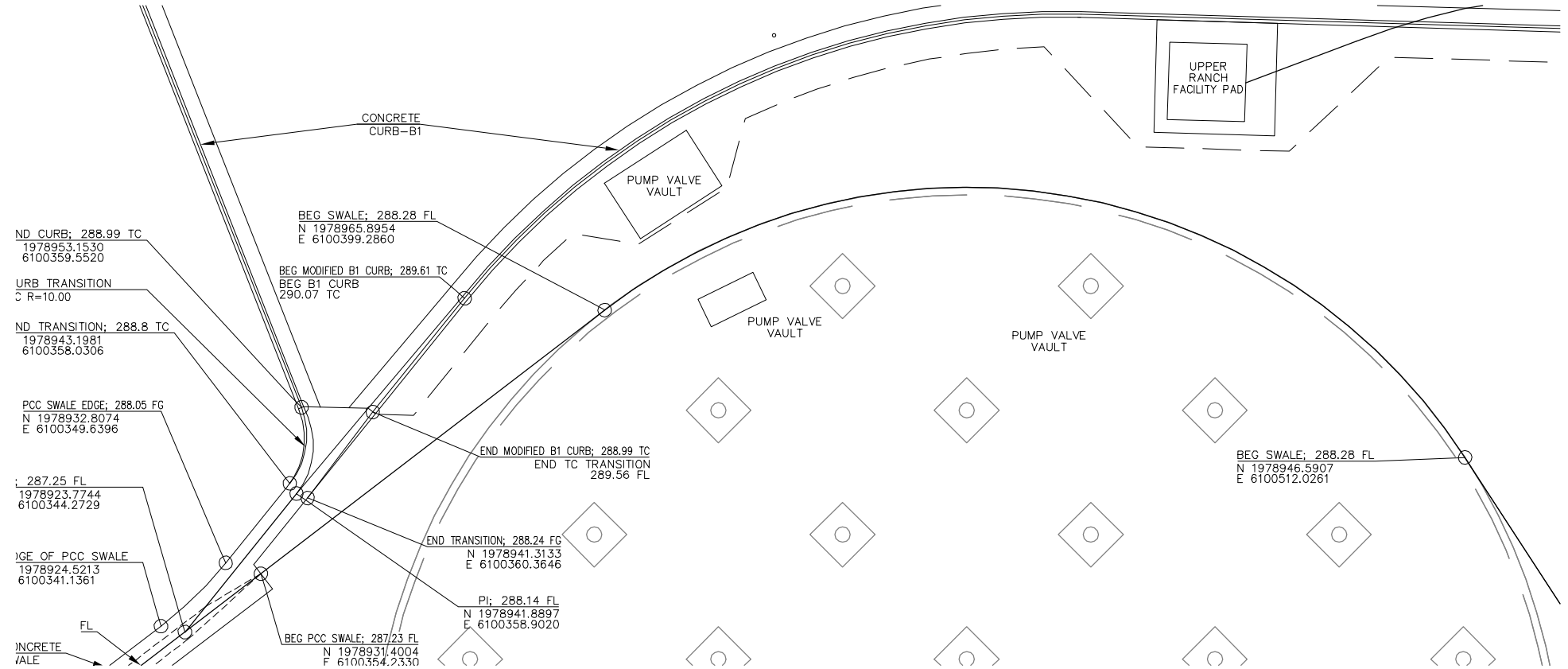


BIO-SWALE FLOWS
Q25 = 11.29 cfs
Q100 = 14.79 cfs

BIO-SWALE

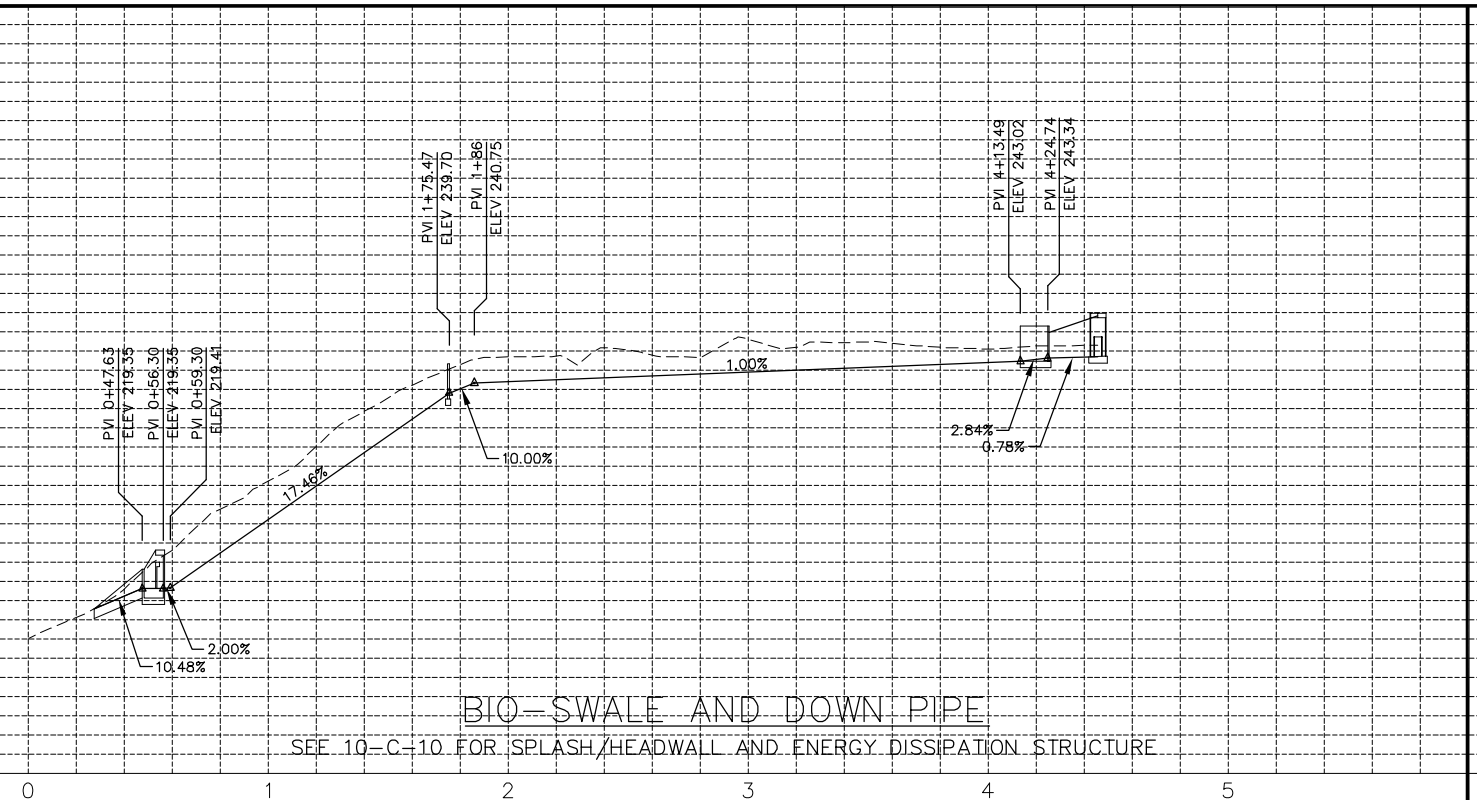
BIO-SWALE AND CONCRETE SWALE SECTIONS

SCALE: 1"=4'



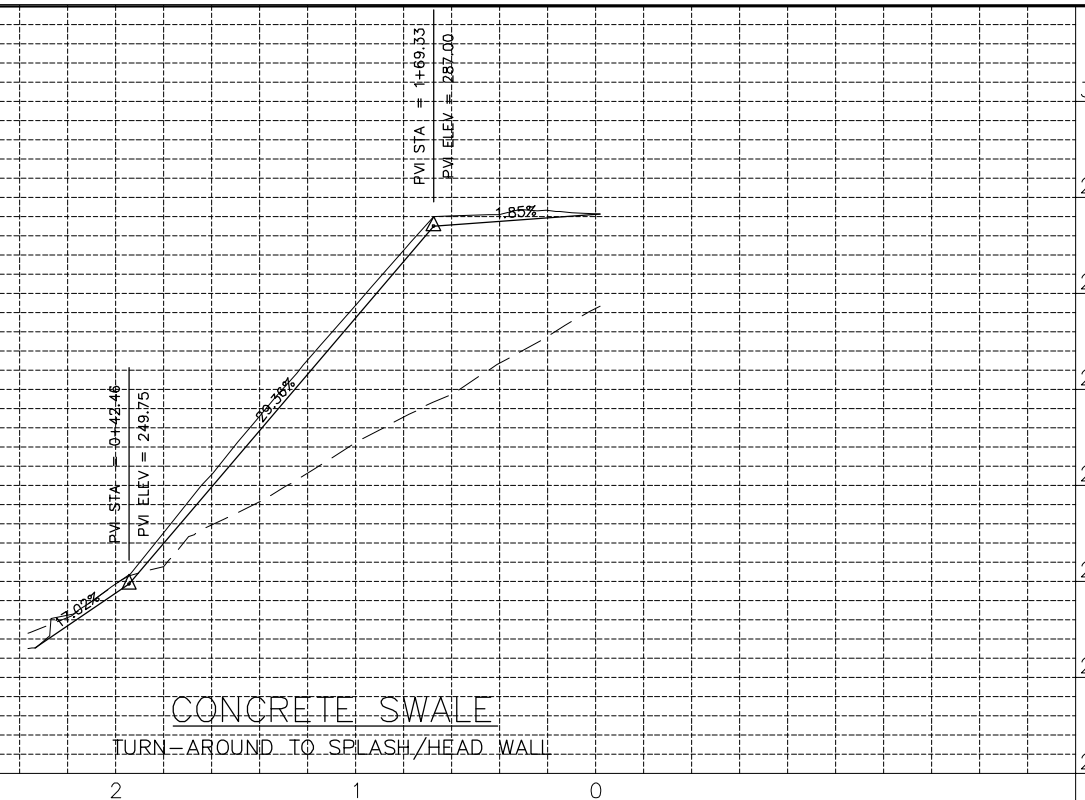
OVERSIDE DRAIN TO CONCRETE SWALE

SCALE: 1"=10'



BIO-SWALE AND DOWN PIPE

SEE 10-C-10 FOR SPLASH/HEADWALL AND ENERGY DISSIPATION STRUCTURE



CONCRETE SWALE

TURN-AROUND TO SPLASH/HEAD WALL

REV	DATE	BY	DESCRIPTION
1			ENTIRE SHEET REVISED
			TO ELEMINATE
			SEPERATE PUMP STATION

MNS ENGINEERS INC
ENGINEERS ▾ SURVEYORS ▾ CONSTRUCTION MANAGERS
Quality Infrastructure Services
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WAYNE R. HAEFELE, PE
WAYNE HAEFELE & ASSOCIATES

DATE

REGISTERED PROFESSIONAL ENGINEER
WAYNE R HAEFELE
C60791
EXPIRES 12-31-
CIVIL
STATE OF CALIFORNIA

0 1/2 1 2
THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

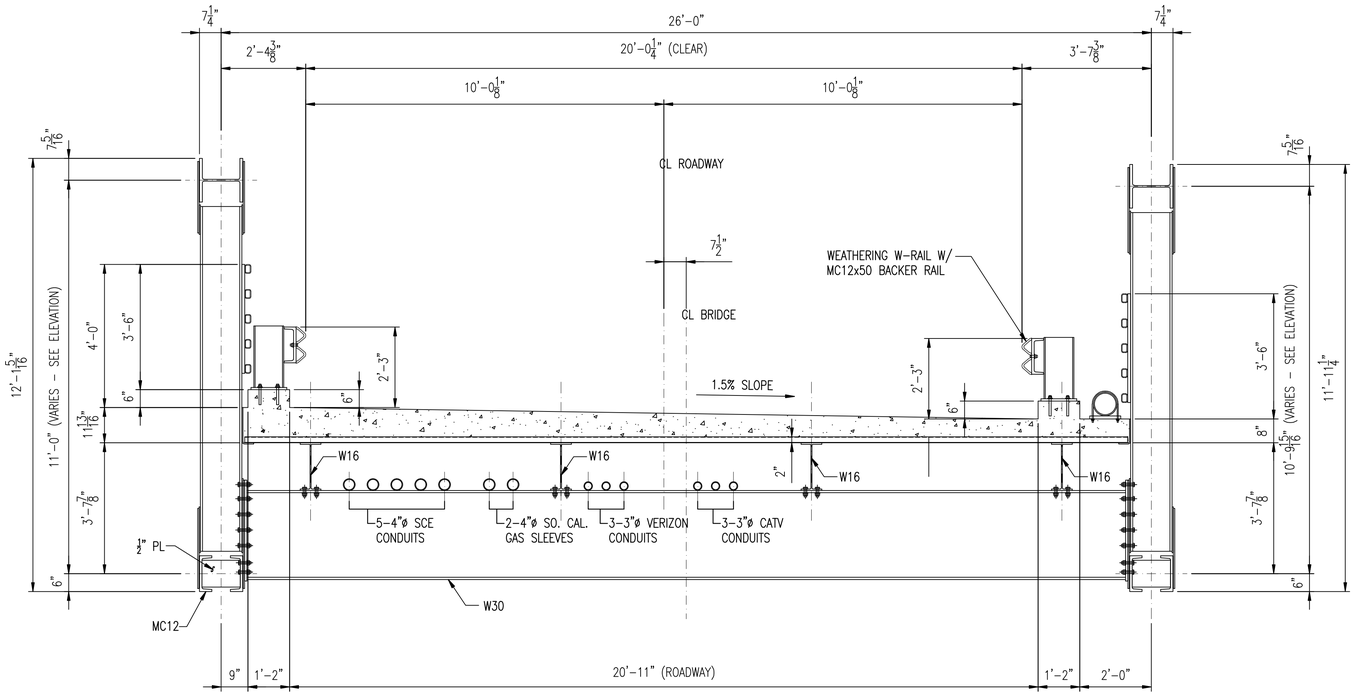
SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=10'

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

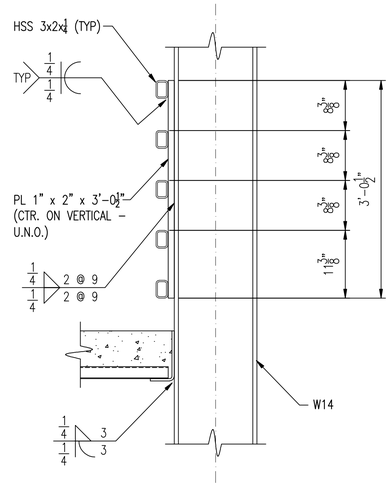
TANK SITE GRADING DETAILS

PROJECT NUMBER 12207B
DRAWING NUMBER 10-C-08
SHEET NUMBER 11 OF 88

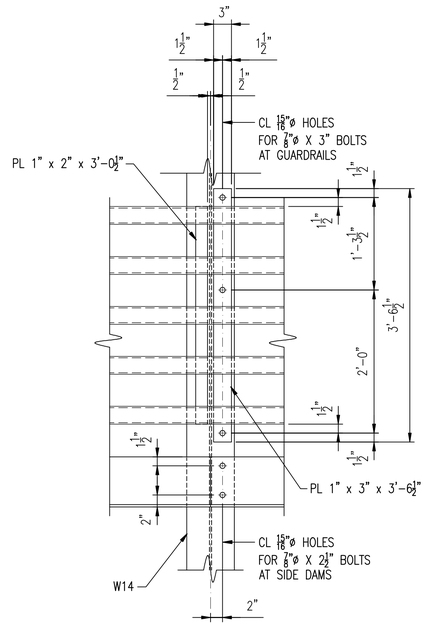
Y:\12200_Series\12207\CADD\12207\dwg\Design\Lower Rancho Tank\10-C-GRD-REV1.dwg 3/20/2006 5:21:55 PM PST



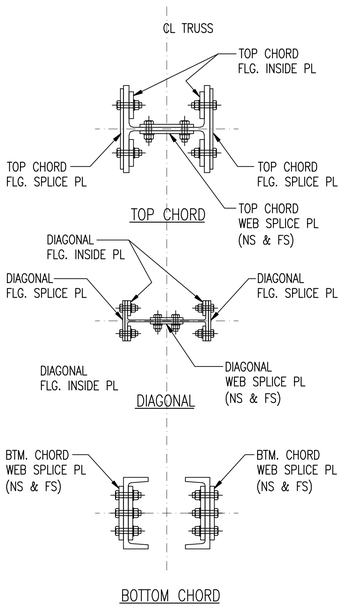
SECTION A-A



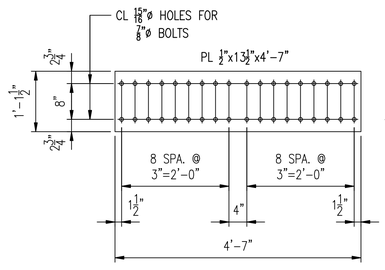
PEDESTRIAN RAILING DETAIL
SCALE: 1"=1'-0"



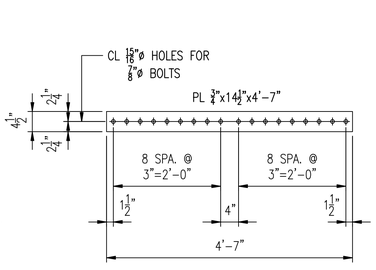
PEDESTRIAN RAILING DETAIL AT SPLICE
SCALE: 1"=1'-0"



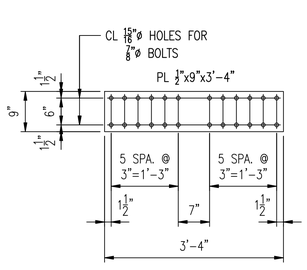
SECTION B-B
SCALE: 1"=1'-0"



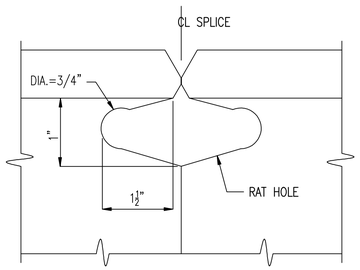
OUTSIDE TOP CHORD FLG. SPLICE PLATE



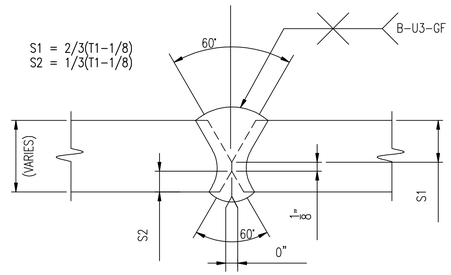
INSIDE TOP CHORD FLG. SPLICE PLATE

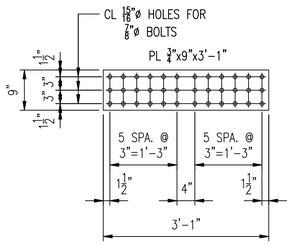


TOP CHORD WEB SPLICE PLATE

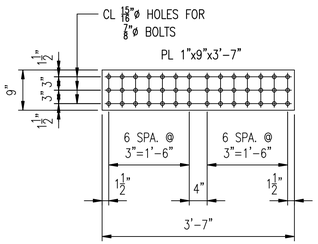


CHORD SPLICE

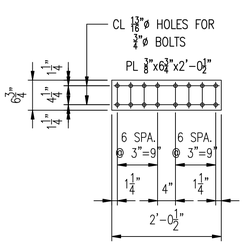




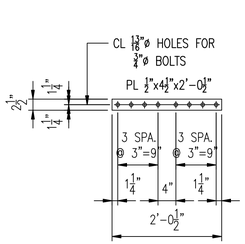
BTM. CHORD SPLICE PLATE @ QTR. POINT



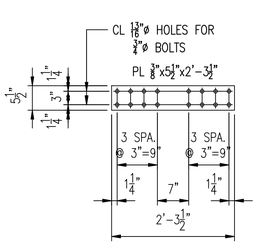
BTM. CHORD SPLICE PLATE @ MID POINT



OUTSIDE DIAGONAL FLG. SPLICE PLATE



INSIDE DIAGONAL FLG. SPLICE PLATE



DIAGONAL WEB SPLICE PLATE

SPLICE PLATE DETAILS
SCALE: ¾"=1'-0"

FOR APPROVAL

CONTECH BRIDGE SOLUTIONS INC.
FT. PAYNE, ALABAMA 1-800-749-7515

QUALITY MAJOR BRIDGE CERTIFICATION AISC

PLACARD ATTACHED ON RIGHT END POST AT EACH END OF BRIDGE

STEADFAST BRIDGES
MAXIMUM LOAD
HS 25
FORT PAYNE, ALABAMA 1-800-749-7515
DATE OF MANUFACTURE
CAPSTONE SERIAL #

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER.

REV.	BY: DATE:	DESCRIPTION:
A	XXX 00/00/00	RELEASED FOR APPROVAL

BRIDGE: "CAPSTONE" 24 X 110
PROJECT: RANCHO MONTE ALLEGRE
LOCATION: SANTA BARBARA, CA

BRIDGE #75047A
SCALE: 1/2" = 1'-0"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED BY:
BAH	TEB		

DATE: 6/19/07 SHEET NO. 5 OF 6 JOB # 75047

B BRIDGE SITE AND ROAD APPROACH PROFILE

SCALE 1" = 20' HORZ. & VERT.

A BRIDGE SITE AND ROAD APPROACH PLAN & DETAILS

SCALE 1" = 20'

!!! CONTRACTOR NOTICE !!!

TOPOGRAPHIC MAPPING NOTES:

ALL STEREO COMPILATION AND DIGITAL TERRAIN MODELS INCLUDING DIGITAL 3D BREAKLINES WERE PREPARED BY CENTRAL COST AERIAL MAPPING INC FOR THE CLIENT L&P CONSULTANTS.

ORTHOPHOTOGRAPHIC MAPPING BASED ON PREVIOUS 5 FOOT SB COUNTY FLOOD CONTROL AERIAL PHOTOGRAPHY. SUPPLEMENTAL STRIP TOPOGRAPHY WAS FURNISHED BY L&P CONSULTANTS.

NO.	DESCRIPTION	DATE	APPROVED
	REVISIONS		

WATER SYSTEM REVIEWED BY: ______ DATE: ______

REVIEWED BY: ______ DATE: ______
CARPINTERIA–SUMMERLAND FIRE PROT. DISTR.

REVIEWED BY: ______ DATE: ______
PLANNING & DEVELOPMENT - GRADING SECTION

REVIEWED BY: ______ DATE: ______
FLOOD CONTROL ENGINEER, S.B.C.F.C.W.C.D.

REGISTERED PROFESSIONAL ENGINEER — ROBERT T. — No. 18324 — Exp. 6-30-07 — CIVIL — STATE OF CALIFORNIA — PRELIMINARY NOT FOR CONSTRUCTION

FLOWERS & ASSOCIATES, INC.
CIVIL ENGINEERS
500 East Montecito Street Santa Barbara, California 93103
Telephone (805) 966-2224

BY: ______ DATE: ______

DESIGN: WCS
DRAFT: TJH
CHECK: RTF

BRIDGE SITE & ROAD APPROACH PLAN

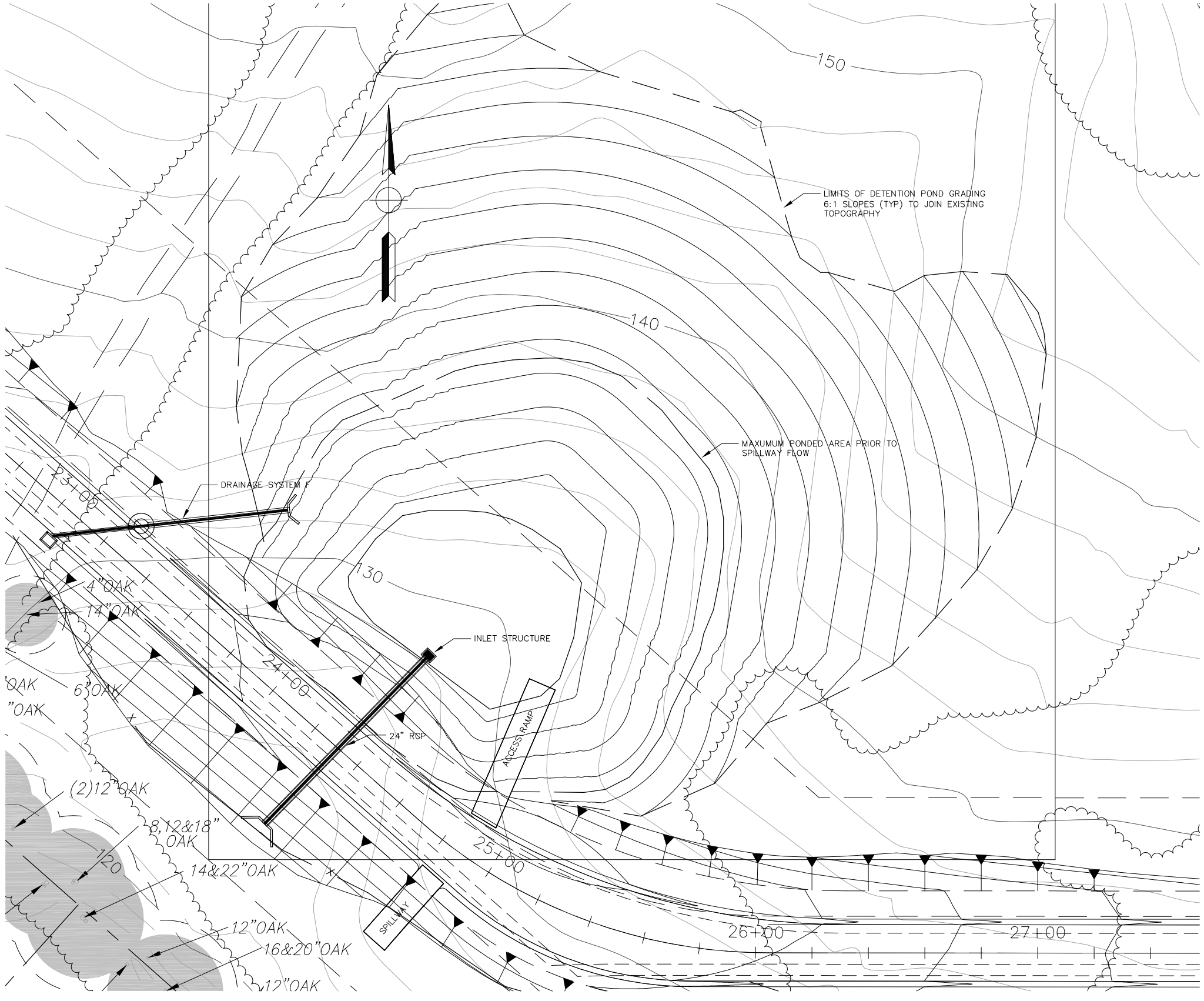
CARPINTERIA VALLEY WATER DISTRICT ACCESS ROAD
SANTA MONICA CREEK BRIDGE PHASE 5
RANCHO MONTE ALEGRE PROJECT
COUNTY OF SANTA BARBARA, CALIFORNIA

BP-5

SHT. 5 OF 23

W.O. 0471

PLOTTED: Feb 24, 2006 – 9:27am bridge and bin wall plans BP.dwg



REV	DATE	BY	DESCRIPTION

MNS ENGINEERS INC

ENGINEERS ▾ SURVEYORS ▾ CONSTRUCTION MANAGERS
Quality Infrastructure Services

4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

DESIGNED:	T. WRIGHT
DRAWN:	T. WRIGHT
CHECKED:	S. KOWALEWSKI
QA/QC:	J. SALVITO
CONSTRUCTABILITY:	L. CABALLERO

SHAWN M. KOWALEWSKI
MNS ENGINEERS, INC.

DATE

REGISTERED PROFESSIONAL ENGINEER
SHAWN M. KOWALEWSKI
No. 59539
Exp. 12-31-05
CIVIL
STATE OF CALIFORNIA

0 1/2 1 2
THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE
HORIZONTAL: 1"=20'
VERTICAL: N/A

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

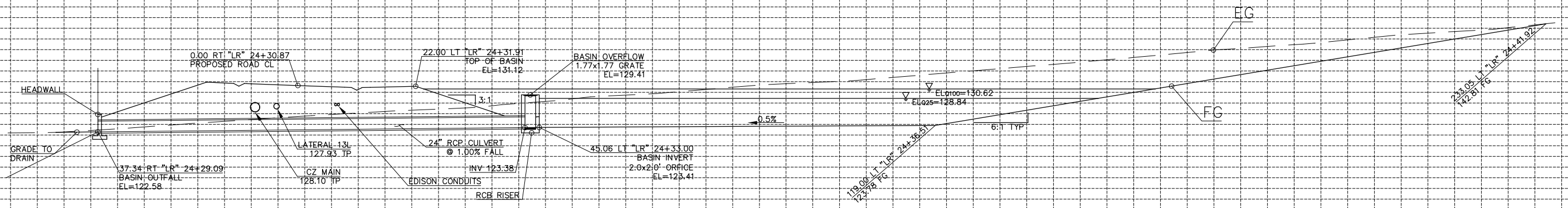
LOWER RANCH ROAD DETENTION BASIN AND DRAINAGE FACILITIES

PROJECT NUMBER
12207A

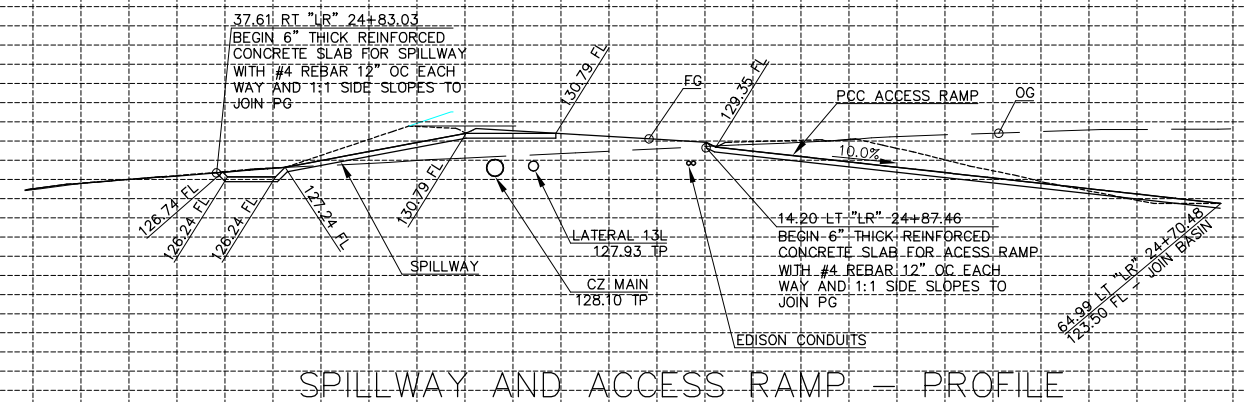
DRAWING NUMBER
15-C-05

SHEET NUMBER
08 OF 29

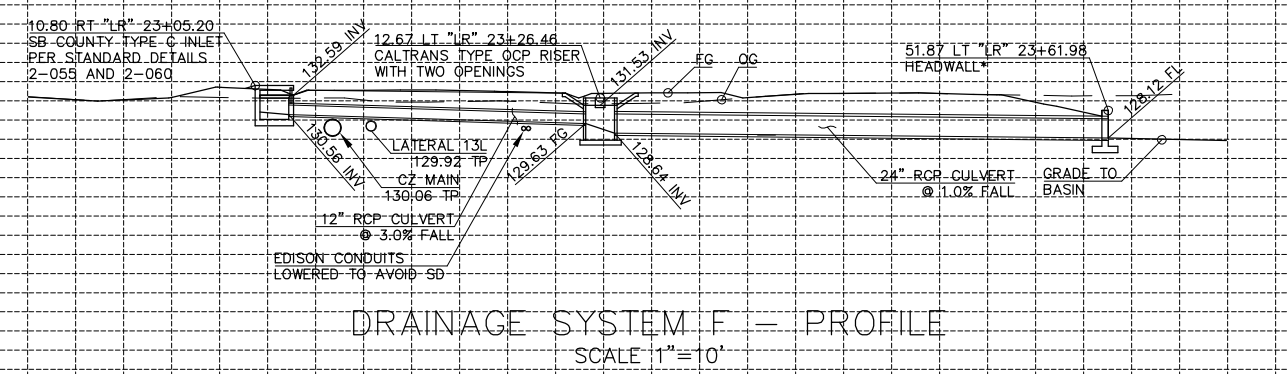
Y:\12200_Series\12207\CADD\12207\dwg\Design\Lower Ranch Pipe\15-C.dwg 3/22/2005 9:12:07 AM PST



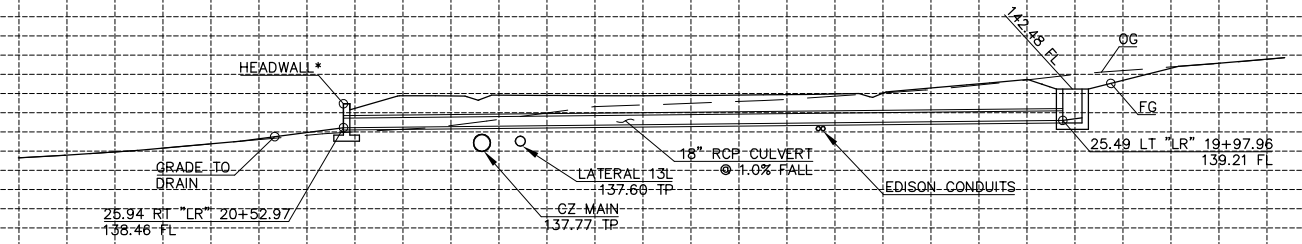
DETENTION BASIN OUTFALL — PROFILE
SCALE 1"=10'



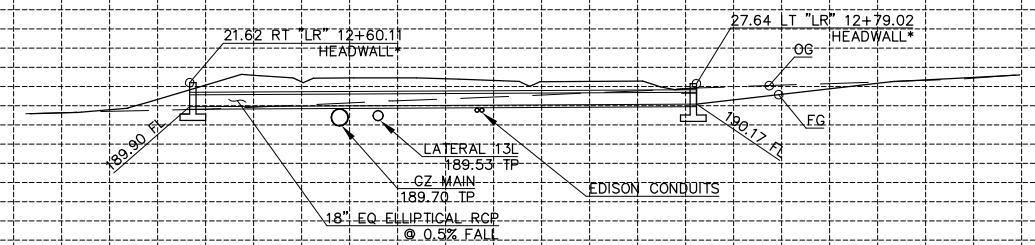
SPILLWAY AND ACCESS RAMP — PROFILE
SCALE 1"=10'



DRAINAGE SYSTEM F — PROFILE
SCALE 1"=10'



DRAINAGE SYSTEM K — PROFILE
SCALE 1"=10'



DRAINAGE SYSTEM L — PROFILE
SCALE 1"=10'

*ALL HEADWALLS PER CALTRANS STD. PLAN D89 UNLESS OTHERWISE NOTED.

REV	DATE	BY	DESCRIPTION

MNS ENGINEERS INC
ENGINEERS ▾ SURVEYORS ▾ CONSTRUCTION MANAGERS
Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

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CONSTRUCTABILITY:	L. CABALLERO

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MNS ENGINEERS, INC.

DATE

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No. 59539
Exp. 12-31-05
CIVIL
STATE OF CALIFORNIA

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

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

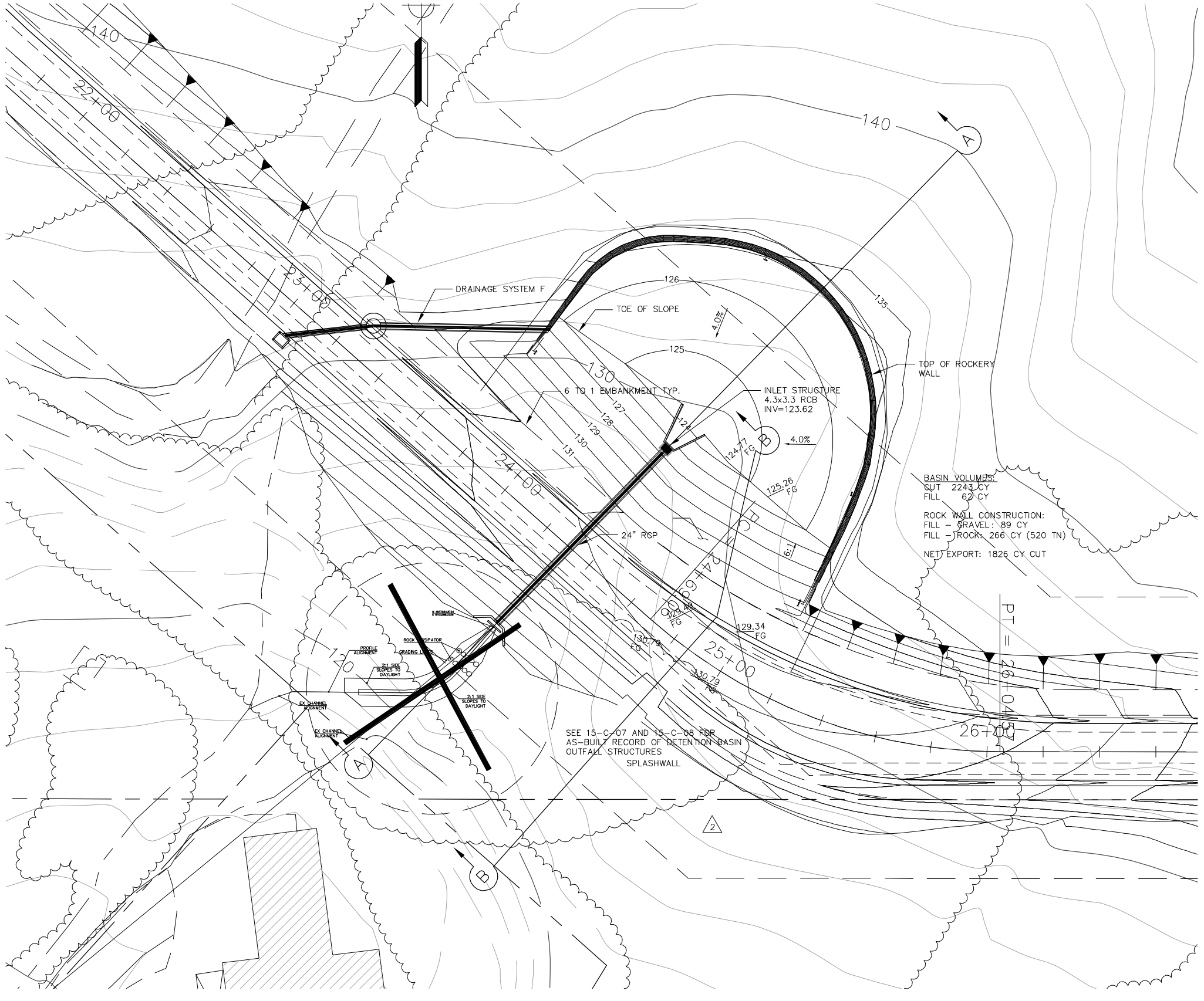
LOWER RANCH ROAD DRAINAGE PROFILES

PROJECT NUMBER
12207A

DRAWING NUMBER
15-C-06

SHEET NUMBER
09 OF 29

Y:\12200_Series\12207\CADD\12207.dwg\Design\Lower Ranch Pipe\15-C.dwg 3/22/2005 9:12:07 AM PST



BASIN VOLUMES:
CUT 2243 CY
FILL 62 CY

ROCK WALL CONSTRUCTION:
FILL – GRAVEL: 89 CY
FILL – ROCK: 266 CY (520 TN)

NET EXPORT: 1826 CY CUT

REV	DATE	BY	DESCRIPTION
1	2/07	WRH	SHEET REDRAWN TO SHOW AS BUILT BASIN
2	2/07	WRH	REVISED TO SHOW SUBSEQUENT ADDITIONAL CONSTRUCTION

MNS ENGINEERS INC

ENGINEERS ▪ SURVEYORS ▪ CONSTRUCTION MANAGERS
Quality Infrastructure Services

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DESIGNED:	T. WRIGHT
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QA/QC:	J. SALVITO
CONSTRUCTABILITY:	L. CABALLERO

RECORD DRAWING

DATE 02/09/07

THIS RECORD DRAWING WAS PREPARED USING INFORMATION REPORTED TO MNS ENGINEERS INC. AND CONTAINS ONLY THE STANDARD AND CUSTOMARY LEVEL OF DETAIL. THE INFORMATION WAS NOT INDEPENDENTLY FIELD VERIFIED. THERE IS NO ONGOING PROGRAM TO UPDATE THE DRAWING TO REFLECT CHANGES SUBSEQUENT TO THE DATE INDICATED. THEREFORE, THIS DRAWING CANNOT BE RELIED UPON AS AN EXACT REPRESENTATION OF ACTUAL CONDITIONS.

0 1/2 1 2

THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE
HORIZONTAL: 1"=20'
VERTICAL: N/A

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

LOWER RANCH ROAD DETENTION BASIN AND DRAINAGE FACILITIES

PROJECT NUMBER 12207A

DRAWING NUMBER 15-C-05

SHEET NUMBER 12 OF 33

PLAN CHECK PRINTS (not for construction)

FINAL SUBMITTAL DATE: 03-21-05

REV	DATE	BY	DESCRIPTION
A	2/07	MR	ENTIRE SHEET REVISED TO SHOW AS BUILT CONDITION

MNS ENGINEERS INC
ENGINEERS ▼ SURVEYORS ▼ CONSTRUCTION MANAGERS
Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

RECORD DRAWING
DATE 02/09/07

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SCALE
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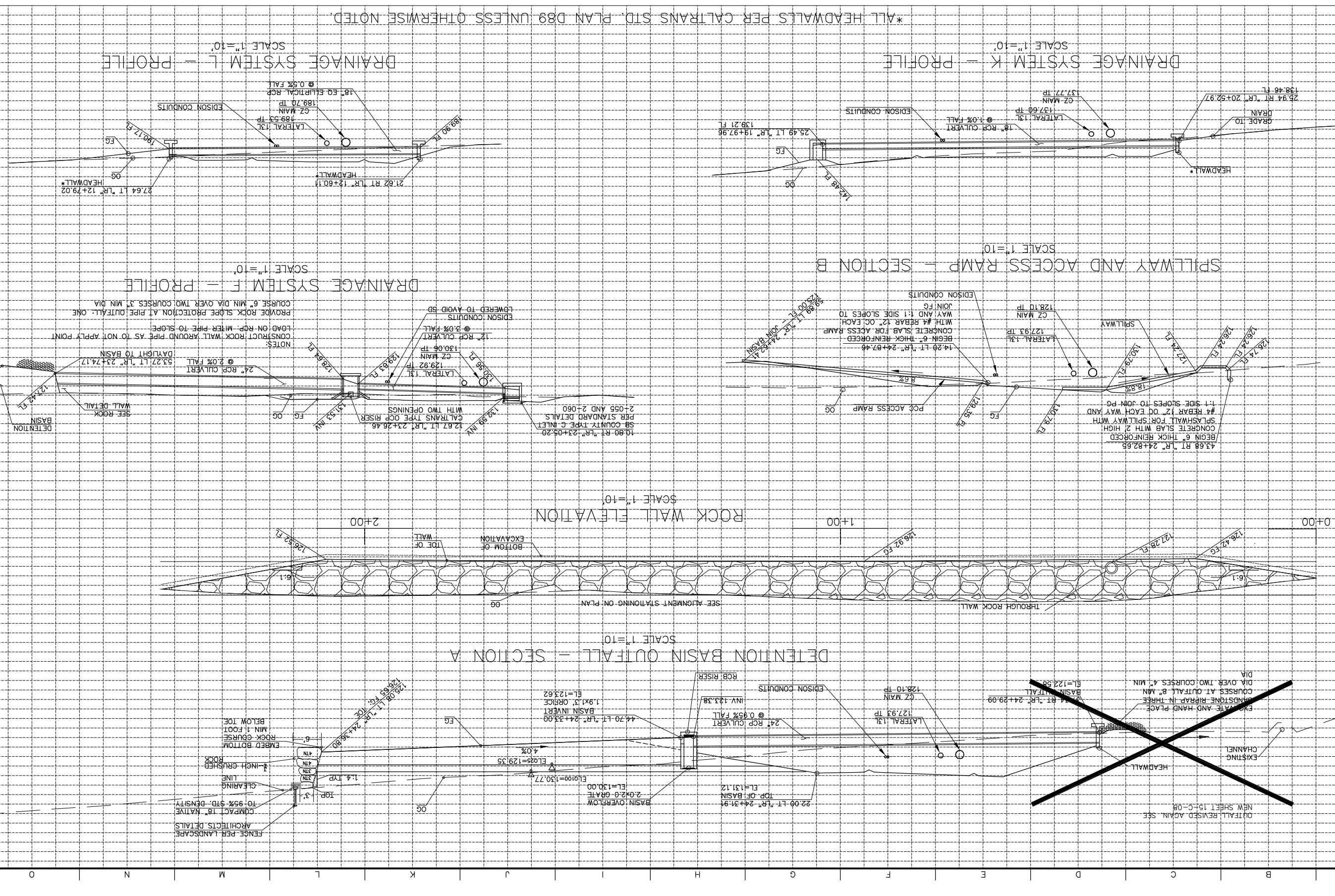
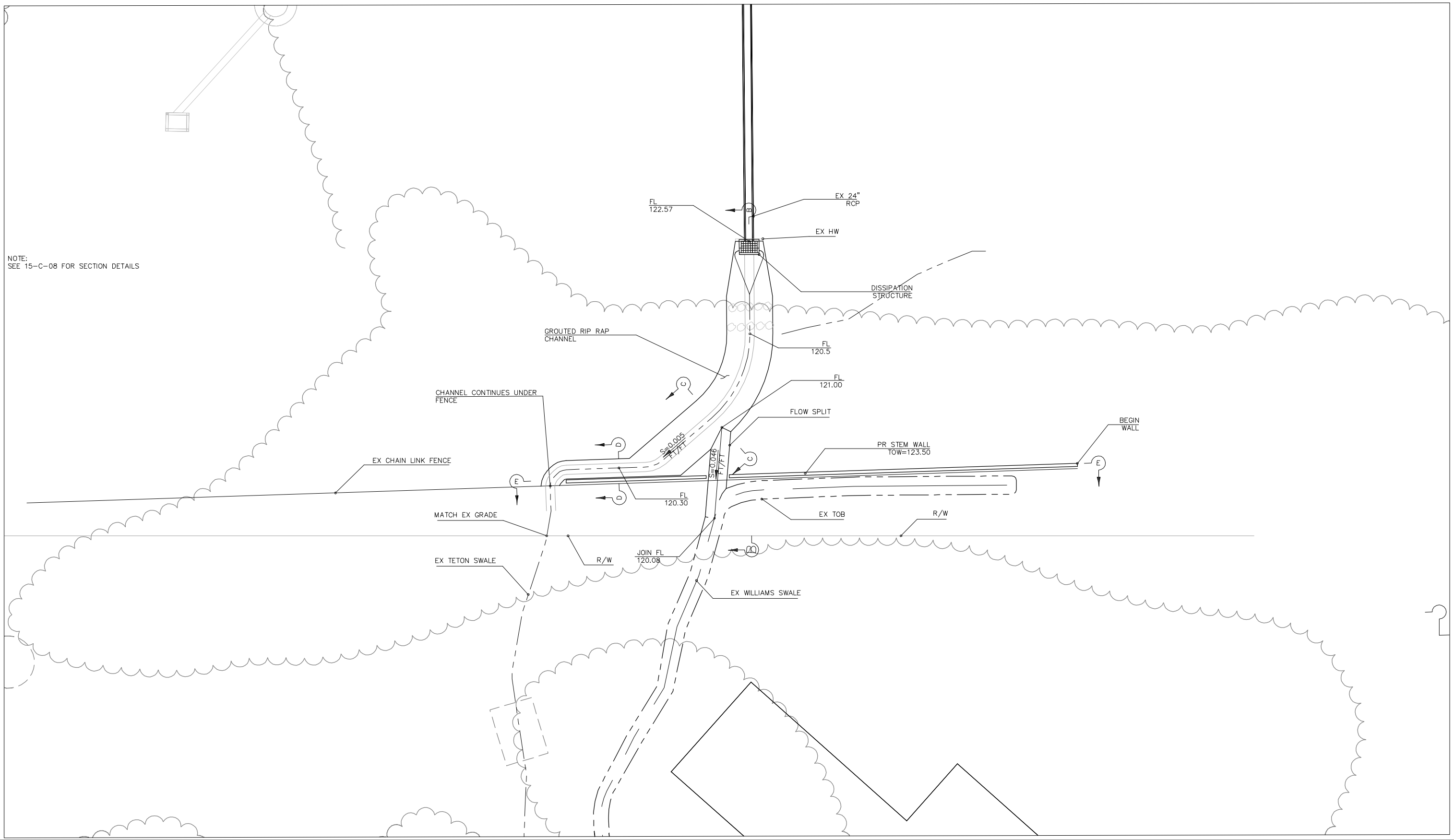
VERTICAL: 1"=10'

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

LOWER RANCH ROAD DRAINAGE PROFILES

PROJECT NUMBER	DRAWING NUMBER	SHEET NUMBER
12207A	15-C-06R	13 OF 33





REV	DATE	BY	DESCRIPTION
1	02/07	WRH	SHEET ADDED TO RECORD AS BUILT INFORMATION

MNS ENGINEERS INC
ENGINEERS ▾ SURVEYORS ▾ CONSTRUCTION MANAGERS
Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

DESIGNED:	T. WRIGHT
DRAWN:	T. WRIGHT/WRH
CHECKED:	N/A
QA/QC:	N/A
CONSTRUCTABILITY:	N/A

RECORD DRAWING
DATE 02/09/07

THIS RECORD DRAWING WAS PREPARED USING INFORMATION REPORTED TO MNS ENGINEERS INC. AND CONTAINS ONLY THE STANDARD AND CUSTOMARY LEVEL OF DETAIL. THE INFORMATION WAS NOT INDEPENDENTLY FIELD VERIFIED. THERE IS NO ONGOING PROGRAM TO UPDATE THE DRAWING TO REFLECT CHANGES SUBSEQUENT TO THE DATE INDICATED. THEREFORE, THIS DRAWING CANNOT BE RELIED UPON AS AN EXACT REPRESENTATION OF ACTUAL CONDITIONS.

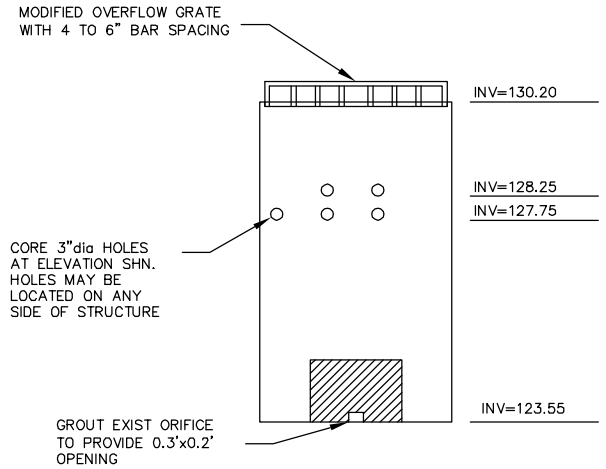
0 1/2 1 2
THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE
HORIZONTAL: NOTED
VERTICAL: NOTED

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

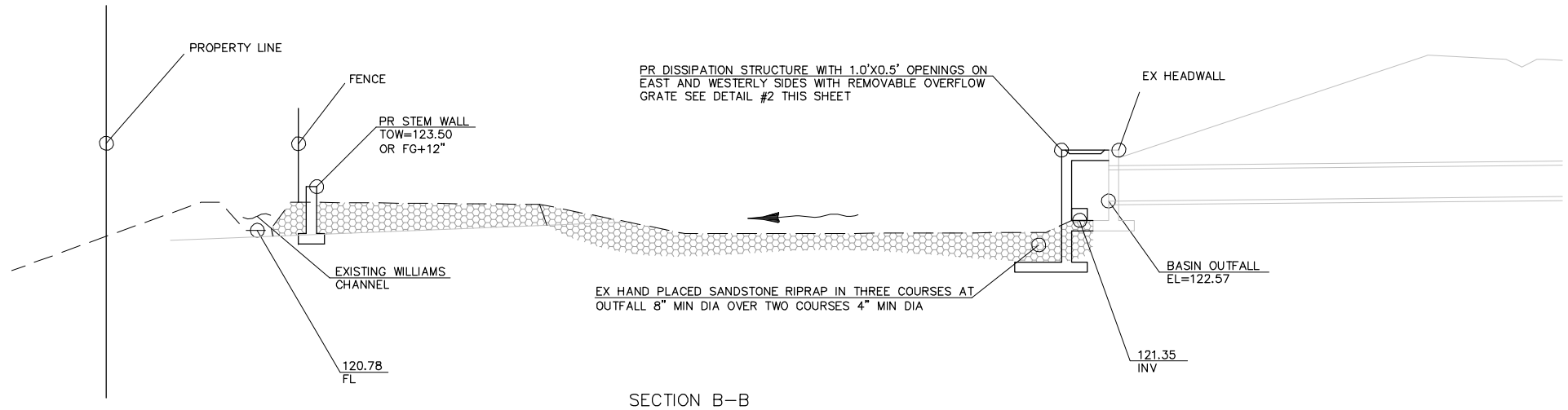
REVISED DETENTION BASIN OUTFALL ENLARGED PLAN

PROJECT NUMBER 12207A
DRAWING NUMBER 15-C-07
SHEET NUMBER 14 OF 33



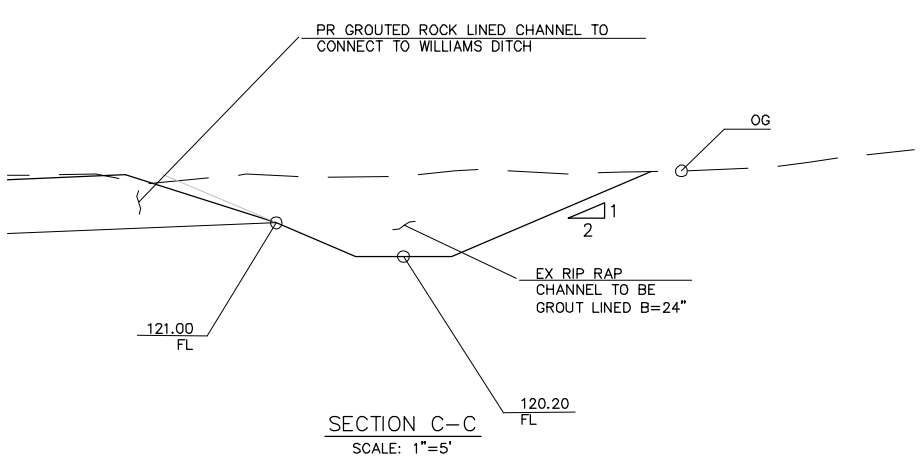
SECTION A–A OUTLET STRUCTURE FINAL CONFIGURATION

SCALE: 1"=2'



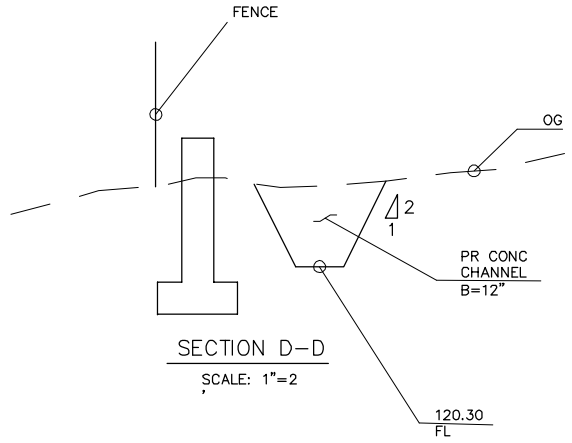
SECTION B–B

SCALE: 1"=5'



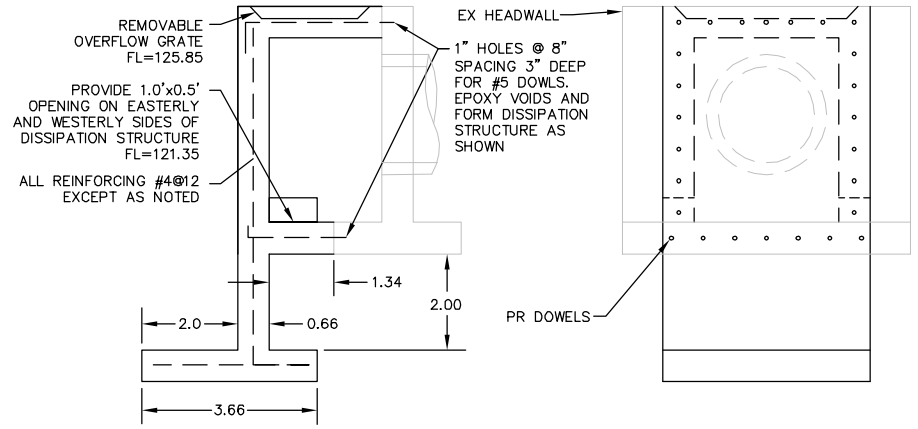
SECTION C–C

SCALE: 1"=5'



SECTION D–D

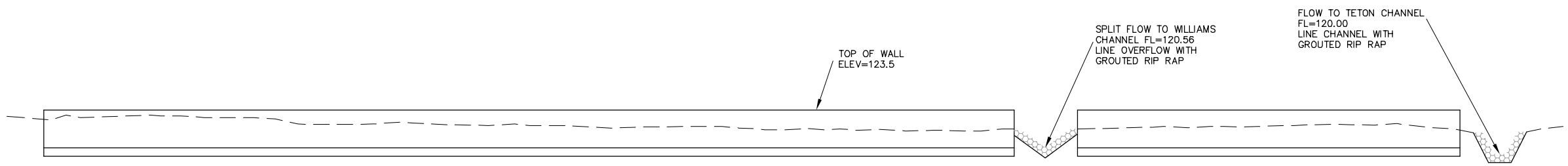
SCALE: 1"=2



SIDE VIEW FRONT VIEW

DETAIL 2 – OUTFALL DISSIPATION STRUCTURE

Scale: 1"=2'



SECTION E–E

SCALE: 1"=5'

REV	DATE	BY	DESCRIPTION
1	02/07	WRH	SHEET ADDED TO RECORD AS BUILT INFORMATION

MNS ENGINEERS INC
ENGINEERS ▪ SURVEYORS ▪ CONSTRUCTION MANAGERS
Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

DESIGNED:	T. WRIGHT
DRAWN:	T.WRIGHT/WRH
CHECKED:	N/A
QA/QC:	N/A
CONSTRUCTABILITY:	N/A

RECORD DRAWING

DATE 02/09/07

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0 1/2 1 2

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SCALE

HORIZONTAL: NOTED

VERTICAL: NOTED

CARPINTERIA VALLEY WATER DISTRICT

RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

REVISED DETENTION BASIN OUTFALL DETAILS

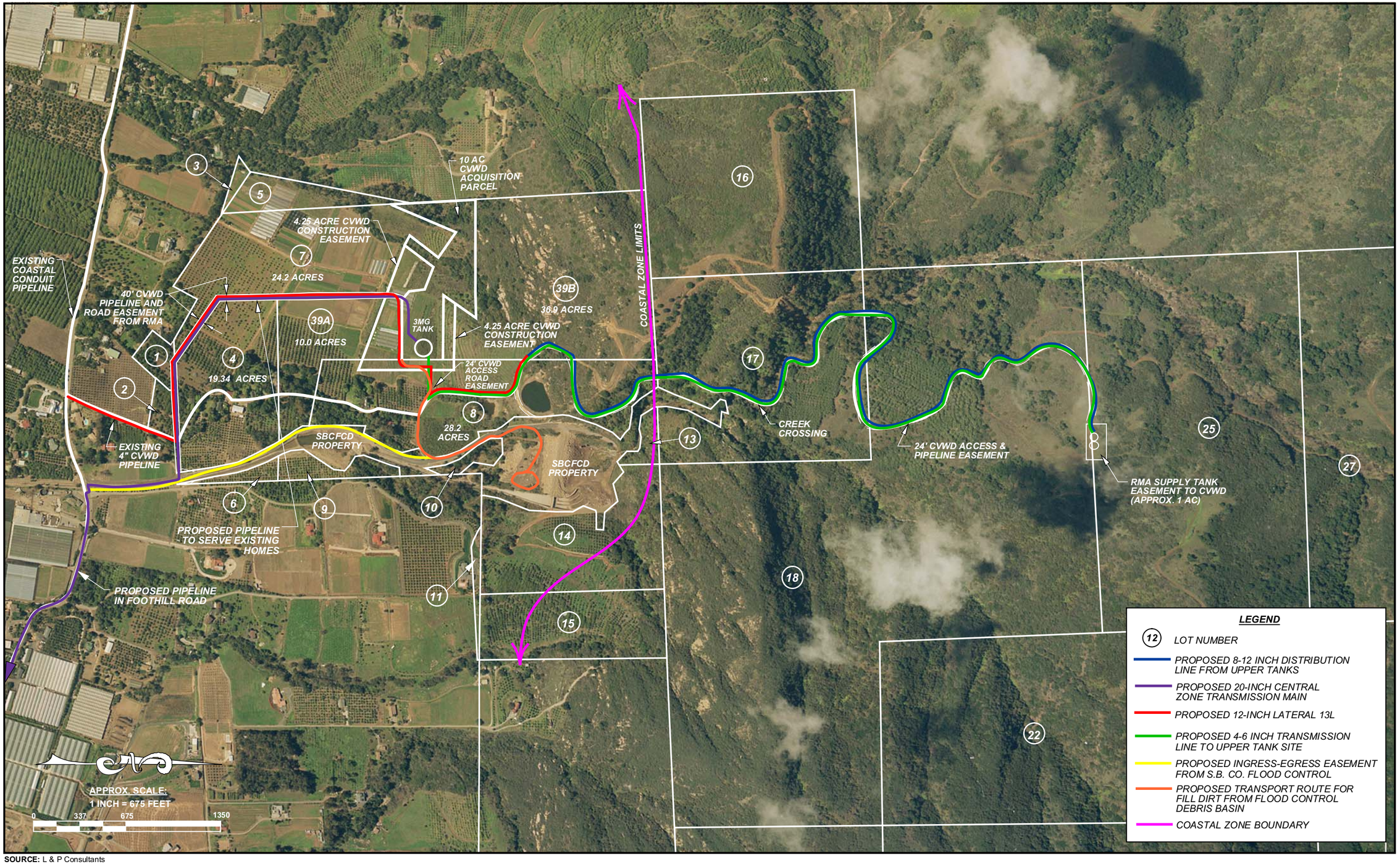
PROJECT NUMBER 12207A

DRAWING NUMBER 15–C–08

SHEET NUMBER 15 OF 33

PLAN CHECK PRINTS (not for construction) FINAL SUBMITTAL DATE: 03–21–05

November 2004
Project No. 2002-3607



SOURCE: L & P Consultants

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
CVWD RMA Annexation & Water Project

PROPOSED ROUTE TO TRANSPORT FILL MATERIAL FROM FLOOD CONTROL DEBRIS BASIN
EXHIBIT 1

POR. PUEBLO LANDS & (17) POR. T4N R25W SBB&M

155–17A

Page 2 of 2

LINE TABLE		
NO.	BEARING	DISTANCE
L 1	*N39°34'59"W	117.18
L 2	*NORTH	123.00
L 3	*N31°21'57"W	83.00
L 4	*S85°35'36"W	106.00
L 5	*S3°54'15"W	89.95
L 6	*S37°07'00"E	185.60
L 7	*S21°00'12"E	119.97
L 8	*S4°57'12"E	150.00
L 9	*N26°01'36"E	137.05
L 10	*N0°54'45"E	100.00
L 11	*N61°00'00"W	227.50
L 12	*S45°00'00"W	226.44
L 13	*N55°00'00"W	65.00
L 14	*N45°00'00"E	237.76
L 15	*N70°00'00"W	209.22
L 16	*S23°00'00"W	228.38
L 17	*S79°00'00"W	130.73

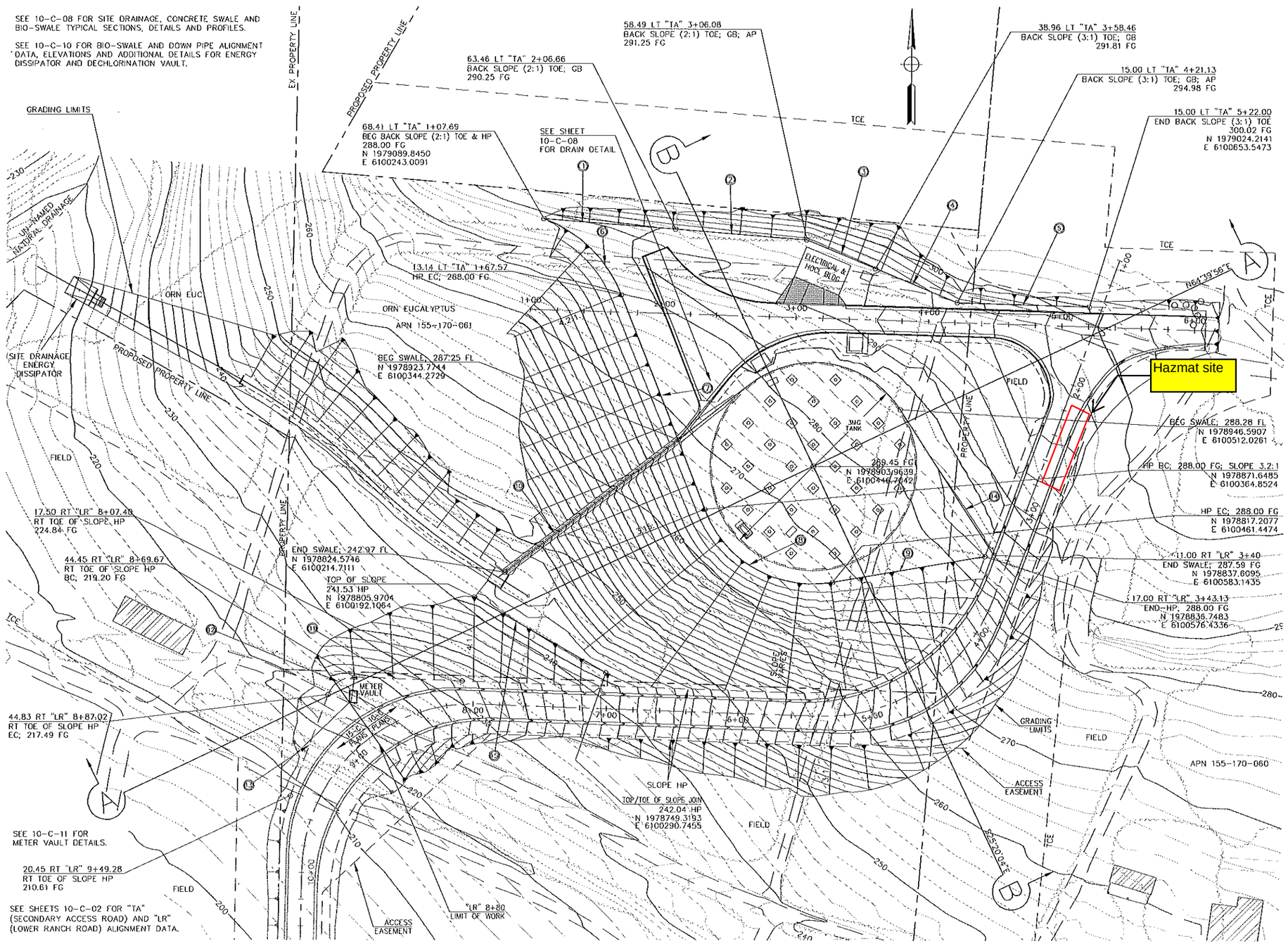
NOTICE

Assessor Parcels are for tax assessment purposes only and do not indicate either parcel legality or a valid building site.

Bearings shown with (*) in front
are in the Calif. Co-ordinate System, Zone 5.
and their lines have been rotated to to true north.

Assessor's Map Bk, 155–Pg, 17A
County of Santa Barbara, Calif.

12/04 NEW AG PRESERVE # on 41
56,61,70 into 73,75,79,80



GRADING ALIGNMENTS DATA TABLE				
NO.	R (ft)	Δ/BEARING	T (ft)	L (ft)
1	--	S85°26'03"E	--	99.09
2	--	S85°26'03"E	--	99.55
3	--	S67°35'36"E	--	56.00
4	--	S67°35'36"E	--	67.00
5	--	S88°17'54"E	--	98.87
6	100.00	48°05'26"	44.62	83.93
7	--	S21°32'39"E	--	173.28
8	88.00	78°06'03"	71.39	119.95
9	--	N80°21'19"E	--	116.63
10	--	N52°33'37"E	--	163.18
11	--	N88°00'00"W	--	81.04
12	20.00	71°46'30"	14.47	25.05
13	--	--	--	81.04
14	--	N33°07'38"W	--	130.13
15	--	S60°07'48"E	--	113.75

GENERAL GRADING NOTES:

1. A DRAINAGE IMPROVEMENT CERTIFICATION SHALL BE SUBMITTED TO P&D WITHIN 60 DAYS OF PROJECT COMPLETION. THE DISTRICT CERTIFICATION FORM REQUIRES THAT THE CALIFORNIA REGISTERED ENGINEER CERTIFY THAT ALL DRAINAGE IMPROVMENTS WERE CONSTRUCTED IN SUBSTANTIAL CONFORMANCE WITH APPROVED PLANS.

2. DURING CONSTRUCTION THE FLOOD CONTROL DISTRICT SHALL REVIEW AND APPROVE IN WRITING ANY SIGNIFICANT DESIGN REVISIONS TO THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE PROPOSED REVISIONS.

3. AS-BUILT PLANS SHALL BE SUBMITTED TO THE SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT WITHIN 60 DAYS OF PROJECT COMPLETION.

4. NATURAL COLOR COMPATIBLE WITH SURROUNDING TERRAIN (EARTHTONES AND NON-REFLECTIVE PAINTS) SHALL BE USED ON EXTERIOR SURFACES OF ALL STRUCTURES.

5. CONTRACTOR SHALL CLEAR THE PROJECT SITE OF EXCESS CONSTRUCTION DEBRIS PRIOR TO FINAL BUILDING INSPECTION.

6. TEMPORARY BERM AND SEDIMENT BASINS SHALL BE CONSTRUCTED TO AVOID UNNECESSARY SILTATION INTO LOCAL STREAMS DURING CONSTRUCTION ACTIVITIES. TEMPORARY EROSION CONTROL DEVICES SHALL BE IN-PLACE WHEN CONSTRUCTION BEGINS.

7. DUST GENERATED BY CONSTRUCTION ACTIVITIES SHALL BE KEPT TO A MINIMUM WITH THE GOAL OF RETAINING DUST ON SITE.
   7A. DURING CLEARING, GRADING, EARTH MOVING, OR TRANSPORTATION OF CUT OR FILL MATERIALS, WATER TRUCKS OR SPRINKLER SYSTEMS ARE TO BE USED TO PREVENT DUSTFROM LEAVING THE SITE AND TO CREATE A CRUST AFTER EACH DAY'S ACTIVITIES CEASE.
   7B. DURING CONSTRUCTION, WATER TRUCKS OR SPRINKLER SYSTEMS SHALL BE USED TO KEEP ALL AREA OF VEHICLE MOVEMENT DAMP ENOUGH TO PREVENT DUST FROM LEAVING THE SITE. AT A MINIMUM, THIS WOULD INCLUDE WETTING DOWN SUCH AREAS IN THE LATER MORNING AND AFTER WORK IS COMPLETED FOR THE DAY AND WHENEVER WIND EXCEEDS 15 MILES PER HOUR.
   7C. SOIL STOCKPILED FOR MORE THAN TWO DAYS SHALL BE COVERED, KEPT MOIST, OR TREATED WITH SOIL BINDERS TO PREVENT DUST GENERATION.

8. IF THE CONSTRUCTION SITE IS GRADED AND LEFT UNDEVELOPED FOR OVER FOUR WEEKS, THE APPLICANT SHALL EMPLOY METHODS IMMEDIATELY TO INHIBIT DUST GENERATION. METHODS SHALL INCLUDE SEEDING AND WATERING TO REVEGETATE GRADED AREAS; AND/OR SPREADING OF SOIL BINDERS; AND/OR ANY OTHER METHODS DEEMED APPROPRIATE BY P&D.

9. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT RUNOFF. SILT FENCING, STRAW BALES OR SAND BAGS SHALL BE USED IN CONJUNCTION WITH OTHER METHODS TO PREVENT EROSION AND SILTATION OF THE STREAM CHANNEL.

10. DURING CONSTRUCTION, WASHING OF CONCRETE, PAINT, OR EQUIPMENT SHALL OCCUR ONLY IN AREAS WHERE POLLUTED WATER AND MATERIALS CAN BE CONTAINED FOR SUBSEQUENT REMOVAL FROM THE SITE. WASHING SHALL NOT BE ALLOWED NEAR SENSITIVE BIOLOGICAL RESOURCES. AN AREA DESIGNATED FOR WASHING FUNCTIONS SHALL BE IDENTIFIED. SEE EROSION CONTROL PLAN.

11. GRADING OPERATIONS AND IMPLEMENTATION OF THE EROSION CONTROL PLANS SHALL BE SUBJECT TO THE FOLLOWING CONDITIONS: GRADING SHALL BE PROHIBITED WITHIN 50 FEET OF THE TOP OF BANK OF ANY CREEK. METHODS SUSH AS RETENTION BASINS, DRAINAGE DIVERSION STRUCTURES AND SPOT GRADING SHALL BE USED TO REDUCE SILTATION INTO ADJACENT STREAMS DURING GRADING AND CONSTRUCTION ACTIVITIES. GRADING ON SLOPES STEEPER THAN 5:1 SHALL BE DESIGNED TO MINIMIZE SURFACE WATER RUNOFF.

REV	DATE	BY	DESCRIPTION
1			ENTIRE SHEET REVISED
			TO ELEMINATE
			SEPERATE PUMP STATION

MNS ENGINEERS INC
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Quality Infrastructure Services
4141 STATE STREET, SUITE B-11, SANTA BARBARA, CA 93110
TELEPHONE (805) 692-6921 FAX. (805) 692-6931

DESIGNED:	S. KOWALEWSKI
DRAWN:	S. KOWALEWSKI/MGH
CHECKED:	W. HAEFELE
QA/QC:	
CONSTRUCTABILITY:	

SHAWN M. KOWALEWSKI
MNS ENGINEERS, INC.

9.18.06
DATE

REGISTERED PROFESSIONAL ENGINEER SHAWN M. KOWALEWSKI No. 59539 Exp. 12-31-07 CIVIL STATE OF CALIFORNIA

0 1/2 1 2
THIS BAR IS 2 INCHES AT FULL SCALE. IF NOT 2 INCHES, THEN SCALE ACCORDINGLY.

SCALE
HORIZONTAL: 1"=40'
VERTICAL: N/A

CARPINTERIA VALLEY WATER DISTRICT
RANCHO MONTE ALEGRE WATER FACILITIES PROJECT

TANK SITE GRADING ALIGNMENTS AND LAYOUT

PROJECT NUMBER 122078
DRAWING NUMBER 10-C-06
SHEET NUMBER 09 OF 88

X:\12200_Series\12207\CADD\12207\dwg\Design\Lower Ranch Tank\10-C-GRD-REV1.dwg 3/20/2006 5:21:55 PM PST