CITY OF SAN DIEGO
MEMORANDUM

DATE: May 7, 2013

TO: Tony Heinrichs, Director

FROM: Dennis Gakunga, Purchasing Agent

SUBJECT: Sole Source Request for Sole Source Award for Emergency Contractor, Rancho Mission Slope Repair

Your Sole Source Request for the above subject with Hazard Construction was approved. In order for a Purchase Order to be issued, your department has to submit a purchase requisition. In the internal header notes of the requisition, please reference Sole Source Case Number 2914. For questions, please contact Paul Chopin at x55298.

05/08/2013

Dennis Gakunga
Purchasing Agent

DG/br

cc: James Nagelvoort, Assistant Director, Public Works Department
Darren Greenhalgh, Deputy Director, Projection Implementation Division
Mark Nassar, Deputy Director, Architectural Engineering & Parks Division
Jam Shamloufard, Senior Civil Engineer, Projection Implementation Division
Chris Zirkle, Deputy Director, Parks and Recreation Department, Open Space Division
Al Rechany, Program Manager, Public Works Contracting Group
Downs Prior, Principal Contract Specialist, Public Works Contracting Group
Samir Mahmalji, Project Officer II, Architecture Engineering & Parks Division
Debbie Van Martin, Project Manager, Architectural Engineering & Parks Division

CITY OF SAN DIEGO
MEMORANDUM

DATE:	5/7/2013
TO:	Dennis Gakunga
FROM:	Paul Chopin
SUBJECT:	Sole Source Request — Hazard Construction for Sole Source Award for Emergency Contractor, Rancho Mission Slope Repair

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Negotiated Total:	
Dept. Est. Total:	$1,100,000.00
Vendor:	Hazard Construction
Expiration Date:	One-Time Purchase
Recommendation:	**Approved**

In response to a March, 2011 landslide in the Rancho Mission Canyon Park's Open Space, Public Works Department hired consultants who conducted a geotechnical investigation and engineering analysis on the condition of the affected slopes.

Prior to the winter of 2011, the City implemented temporary slope stabilization recommended by the engineering analysis, by covering the entire landslide slope with visqueen sheets and installing monitoring stakes along the canyonside for slope movement observation. Instability in the slope was noted during the winter of 2012 by the City geologist, who recommended more immediate aggressive permanent repair prior to the winter of 2013.

To prevent further slope movement and ultimate slope failure, the work recommended by the City geologist needs to take place during the 2013 dry season that runs from May through August. Construction is estimated for 100 days, and obtaining bids could take 60 to 90 days. This could push construction into August or September, 2013, which would not allow for sufficient time to complete the work during the dry season. Therefore, the normal process of obtaining bids for this work would be unavailing and impractical, and would place the surrounding residences at great risk.

Based upon the above reasons, the sole source selection of Hazard Construction, at an estimated construction cost of $1.1 M, from the City's On-call Emergency Contractors list is justified so that construction can start immediately, and allow sufficent time for the repairs to be completed during the 2013 dry season.

CITY OF SAN DIEGO
MEMORANDUM

RECOMMENDED BY:

5/7/13

Al Rechany, Program Manager, Public Works Contracting Group

APPROVED BY:

05/08/13

Dennis Gakunga, Director, Purchasing & Contracting

Case Number 2914

THE CITY OF SAN DIEGO

MEMORANDUM

DATE: May 2, 2013

TO: Honorable Council President Todd Gloria and Members of the City Council

FROM: Tony Heinrichs, Director, Public Works Department

SUBJECT: Rancho Mission Slope Repair – Sole Source Award for Emergency Contractor Agreement

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Pursuant to San Diego Municipal Code Section 22.3108, "Exceptions to Advertisement and Competitive Award of Public Works Contracts", this memorandum is to inform the City Council of an Emergency Sole Source award to Hazard Construction Company for the permanent landslide slope repair in the Ranch Mission Slope Canyon Park's Open Space. The requested sole source contract will be presented to the City Council at a near future date for ratification.

The landslide reportedly occurred on March 25, 2011 on the referenced canyon slope, approximately 170 feet high, located at 7908 and 7916 Deerfield Drive, in the Navajo Community Area. In response to the situation, Public Works has contracted As-Needed consultants to perform geotechnical investigations and engineering analysis for the immediate slope stabilization measures and permanent slope repair work.

At the conclusion of the analysis, the City implemented the recommended temporary slope stabilization measures during the summer of 2011 and prior to the wet winter of 2011, covering the entire landslide slope with visqueen sheets and installing monitoring stakes along the canyon side for movement observation. During the winter of 2012, the consulting geologist as well as the City geologist confirmed that the slope was not stable with measurable movement. The City geologist had recommended more immediate aggressive permanent repair prior to the winter of 2013 to prevent further slope movement and ultimate slope failure threatening the down slope residences and public infrastructures.

The scope of permanent repair work involves removing the landslide debris in its entirety, reconstructing the affected slopes, installing subsurface drainage systems and restoring native vegetation. Estimated construction cost is approximately $1.1 million, and construction operations will take up 100 days to complete.

The schedule required for a standard advertisement and competitive award process (90 days) would yield a start construction date in September which will not allow sufficient time to perform the permanent slope repair work before the raining season. Due to the urgency and criticality of the site conditions, obtaining bids for this work would be impractical and unavailing, putting the surrounding residences at a greater risk.

We have attached Figures 1 and 2, showing the location of the landslide; as wells as photographs showing the temporary slope stabilization. Please contact Mark Nassar, Deputy Director of Architectural Engineering and Parks, should there be any questions regarding this project, at ext. 36600.

Sincerely,

Tony Heinrichs
Director, Public Works Department
(619) 236-6274

MN:mn

Attachments: 1) Figures 1 and 2
2) Photographs of existing slope and slope stabilization

Cc: Scott Chadwick, Interim Chief Operating Officer
Nelson Hernandez, Assistant Chief Operating Officer
James Nagelvoort, Assistant Director, Public Works Department
Dennis Gakunga, Director, Purchasing and Contracting Department
Henry Foster, Program Manager, Equal Opportunity Contracting Program
Greg Byck, Interim Chief Financial Officer, Risk Management
Valerie VanDeweghe, Acting Director Risk Management Department
Darren Greenhalgh, Deputy Director, Public Works Department
Mark Nassar, Deputy Director, Public Works Department
Thomas Zeleny, Deputy City Attorney, City Attorney's Office
Al Rechany, Program Manager, Public Works Contracting Group
Downs Prior, Principal Contract Specialist, Public Works Contracting Group
Samir Mahmalji, Project Officer II, Public Works Department

THE CITY OF SAN DIEGO

M E M O R A N D U M

DATE: April 23, 2013

TO: Dennis Gakunga, Purchasing and Contracting Director

FROM: Tony Heinrichs, Director, Public Works Department

SUBJECT: Rancho Mission Slope Repair – Sole Source Award for Emergency Contractor

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In response to a reported landslide on March 2011 in the Rancho Mission Canyon Park's Open Space (see attached for location & photographs), Public Works Department hired consultants that conducted a geotechnical investigation and engineering analysis on the condition of the affected slopes.

At the conclusion of the analysis, and prior to the wet winter of 2011, the City implemented the recommended temporary slope stabilization measures during the summer of 2011, covering the entire landslide slope with visqueen sheets and installing monitoring stakes along the canyon side for movement observation. During the winter of 2012, the consulting geologist as well as the City geologist confirmed that the slope was not stable with measurable movement. The City geologist had recommended more immediate aggressive permanent repair prior to the winter of 2013 to prevent further slope movement and ultimate slope failure.

It is most imperative that the slope repair work be accomplished during the 2013 dry season (May – August). It is estimated that construction will take 100 days to complete. Obtaining bids for this work under the normal procurement process will take 60 to 90 days. Obtaining a contractor through that process can only yield a construction start date of August or September which will not allow sufficient time to perform the work during the dry season; therefore, making the normal process of obtaining bids for this work unavailing and impractical – and would put the surrounding residences at great risk.

We therefore requests the sole source selection of Hazard Construction, at an estimated construction cost of $1.1M, from the City's On-call Emergency Contractors list, in order to start the construction immediately and allow sufficient time for the repairs to be completed during this dry season.

Should you need any additional information, please contact the Project Manager, Debbie Van Martin, at (619)533-5414.

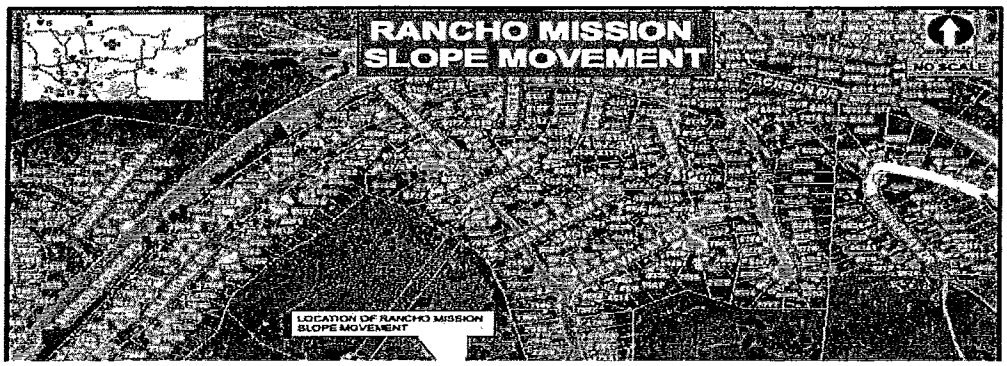
Tony Heinrichs
Director

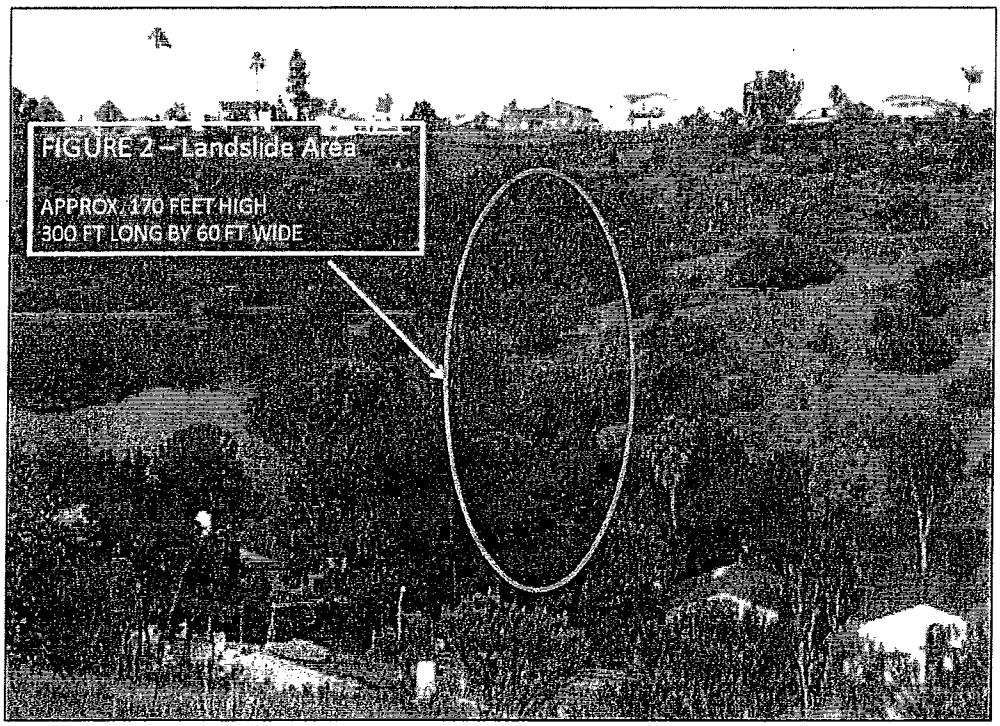
Attachments: Location and Photographs

cc: James Nagelvoort, Assistant Director, Public Works Department
Darren Greenhalgh, Deputy Director, Projection Implementation Division
Mark Nassar, Deputy Director, Architectural Engineering & Parks Division
Jim Shamloufard, Senior Civil Engineer, Projection Implementation Division
Chris Zirkle, Deputy Director, Parks and Recreation Department, Open Space Division
Al Rechany, Program Manager, Public Works Contracting Group
Downs Prior, Principal Contract Specialist, Public Works Contracting Group
Samir Mahmalji, Project Officer II, Architectural Engineering & Parks Division
Debbie Van Martin, Project Manager, Architectural Engineering & Parks Division

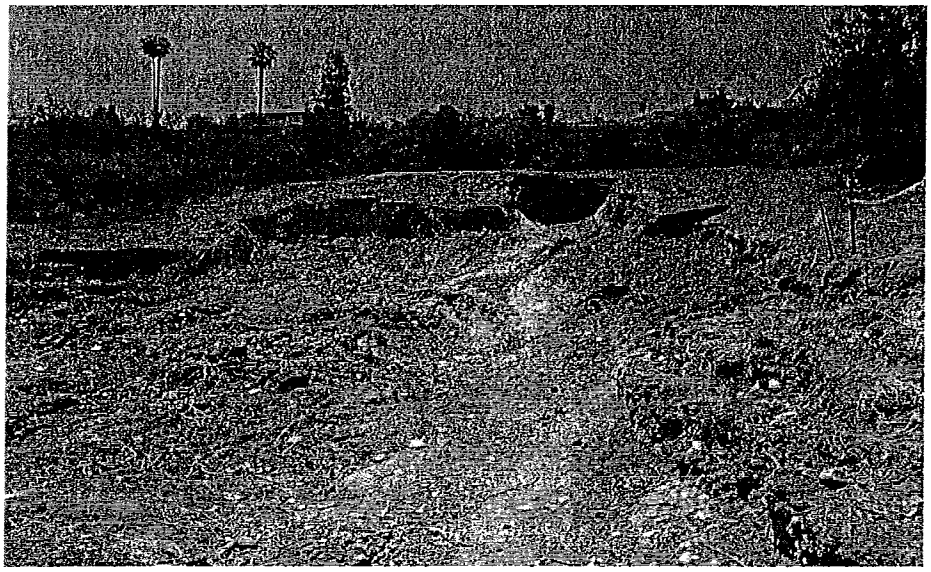
ATTACHMENTS

FIGURE 1 – Landslide Location
Rancho Mission Canyon Park's Open Space





Upper Landslide Area



City of San Diego

CONTRACTOR'S NAME: Hazard Construction Company
ADDRESS: 6465 Marindustry Drive, P.O. Box 229000, San Diego, CA 92192-9000
TELEPHONE NO.: (858) 587-3600 **FAX NO.:** (858) 453-6034
CITY CONTACT: Claudia Abarca - Contract Specialist, Email: CAbarca@sandiego.gov
Phone No. 619-533-3439, Fax No. 619-533-3633
DVanMartin / Bdoringo / LS

CONTRACT DOCUMENTS

FOR

RANCHO MISSION SLOPE REPAIR

VOLUME 1 OF 1

BID NO.: **K-13-5966-EMR-3**
SAP NO. (WBS/IO/CC): **B-13015 / B-13206**
CLIENT DEPARTMENT: **1714**
COUNCIL DISTRICT: **7**
PROJECT TYPE: **GG**

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:

- THE CITY'S SUBCONTRACTING PARTICIPATION REQUIREMENTS FOR SLBE PROGRAM.

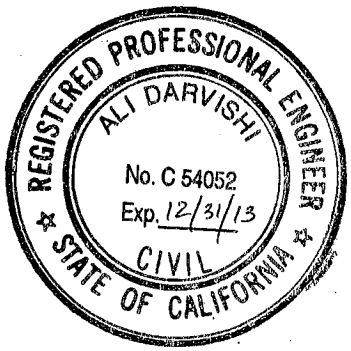
ENGINEER OF WORK

The engineering Specifications and Special Provisions contained herein have been prepared by or under the direction of the following Registered Engineer:

For City Engineer

6/4/13
Date

Seal:



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CITY OF SAN DIEGO, CALIFORNIA

NOTICE INVITING BIDS

1. DESCRIPTION OF WORK:

1.1. The Work involves furnishing all labor, materials, equipment, services, and other incidental works and appurtenances for the purpose of designing and constructing this emergency project at the direction of the City Engineer.

1.2. The Work consists of removal of landslide debris in its entirety, export and disposal of the material, the reconstruction of the slope with proper compacted fill and drainage system, and the restoration of environmentally sensitive resources in the Multiple Habitat Protection Area open space.

1.3. This solicitation is for a firm Bid with Lump Sum and Unit Price items to be paid in accordance with SECTION 9, "MEASUREMENT AND PAYMENT" of the Specifications.

1.4. The Work shall be performed in accordance with:

1.4.1. Bid No.**K-13-5966-EMR-3** and Plans numbered **37276-1-D** through **37276-14-D,** inclusive.

2. CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM:

2.1. **Prior** to the Award of the Contract or each Task Order, you and your Subcontractors and Suppliers **must** register with Prism®, the City's web-based contract compliance portal at:

https://pro.prismcompliance.com/default.aspx.

2.2. The City may not award the contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified in the Notice of Intent to Award letter, the City reserves the right to rescind the Notice of Award / Intent to Award and to make the award to the next responsive and responsible bidder / proposer.

3. EQUAL OPPORTUNITY.

3.1. To The WHITEBOOK, Chapter 10, Sections D and E, DELETE in their entirety and SUBSTITUTE with the following:

D. CITY'S EQUAL OPPORTUNITY COMMITMENT.

1. Nondiscrimination in Contracting Ordinance.

1. The Contractor, Subcontractors and Suppliers shall comply with requirements of the City's Nondiscrimination in Contracting Ordinance, San Diego Municipal Code §§22.3501 through 22.3517.

The Contractor shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring, or treatment of subcontractors, vendors, or suppliers. The Contractor shall provide equal opportunity for subcontractors to participate in subcontracting opportunities. The Contractor understands and agrees that violation of this clause shall be considered a material breach of the contract and may result in contract termination, debarment, or other sanctions.

The Contractor shall include the foregoing clause in all contracts between the Contractor and Subcontractors and Suppliers.

2. Disclosure of Discrimination Complaints. As part of its Bid or Proposal, the Bidder shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

3. Upon the City's request, the Contractor agrees to provide to the City, within 60 days, a truthful and complete list of the names of all Subcontractors and Suppliers that the Contractor has used in the past 5 years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by the Contractor for each subcontract or supply contract.

4. The Contractor further agrees to fully cooperate in any investigation conducted by the City pursuant to the City's Nondiscrimination in Contracting Ordinance, Municipal Code §§22.3501 through 22.3517. The Contractor understands and agrees that violation of this clause shall be considered a material breach of the Contract and may result in remedies being ordered against the Contractor up to and including contract termination, debarment and other sanctions for violation of the provisions of the Nondiscrimination in Contracting Ordinance. The Contractor further understands and agrees that the procedures, remedies and sanctions provided for in the Nondiscrimination in Contracting Ordinance apply only to violations of the Ordinance.

E. EQUAL EMPLOYMENT OPPORTUNITY OUTREACH PROGRAM.

1. The Contractor, Subcontractors and Suppliers shall comply with the City's Equal Employment Opportunity Outreach Program, San Diego Municipal Code §§22.2701 through 22.2707.

   The Contractor shall not discriminate against any employee or applicant for employment on any basis prohibited by law. Contractor shall provide equal opportunity in all employment practices. Prime Contractor shall ensure their subcontractors comply with this program. Nothing in this section shall be interpreted to

hold a prime contractor liable for any discriminatory practice of its subcontractors.

The Contractor shall include the foregoing clause in all contracts between the Contractor and Subcontractors and Suppliers.

2. If the Contract is competitively solicited, the selected Bidder shall submit a Work Force Report (Form BB05), within 10 Working Days after receipt by the Bidder of Contract forms to the City for approval as specified in the Notice of Intent to Award letter from the City.

3. If a Work Force Report is submitted, and the City determines there are under-representations when compared to County Labor Force Availability data, the selected Bidder shall submit an Equal Employment Opportunity Plan.

4. If the selected Bidder submits an Equal Employment Opportunity Plan, it shall include the following assurances:

    1. The Contractor shall maintain a working environment free of discrimination, harassment, intimidation and coercion at all sites and in all facilities at which the Contractor's employees are assigned to work.

    2. The Contractor reviews its EEO Policy, at least annually, with all on-site supervisors involved in employment decisions.

    3. The Contractor disseminates and reviews its EEO Policy with all employees at least once a year, posts the policy statement and EEO posters on all company bulletin boards and job sites, and documents every dissemination, review and posting with a written record to identify the time, place, employees present, subject matter, and disposition of meetings.

    4. The Contractor reviews, at least annually, all supervisors' adherence to and performance under the EEO Policy and maintains written documentation of these reviews.

    5. The Contractor discusses its EEO Policy Statement with subcontractors with whom it anticipates doing business, includes the EEO Policy Statement in its subcontracts, and provides such documentation to the City upon request.

    6. The Contractor documents and maintains a record of all bid solicitations and outreach efforts to and from subcontractors, contractor associations and other business associations.

    7. The Contractor disseminates its EEO Policy externally through various media, including the media of people of color and women, in advertisements to recruit, maintains files documenting these efforts, and provides copies of these advertisements to the City upon request.

8. The Contractor disseminates its EEO Policy to union and community organizations.

9. The Contractor provides immediate written notification to the City when any union referral process has impeded the Contractor's efforts to maintain its EEO Policy.

10. The Contractor maintains a current list of recruitment sources, including those outreaching to people of color and women, and provides written notification of employment opportunities to these recruitment sources with a record of the organizations' responses.

11. The Contractor maintains a current file of names, addresses and phone numbers of each walk-in applicant, including people of color and women, and referrals from unions, recruitment sources, or community organizations with a description of the employment action taken.

12. The Contractor encourages all present employees, including people of color and women employees, to recruit others.

13. The Contractor maintains all employment selection process information with records of all tests and other selection criteria.

14. The Contractor develops and maintains documentation for on-the-job training opportunities, participates in training programs, or both for all of its employees, including people of color and women, and establishes apprenticeship, trainee, and upgrade programs relevant to the Contractor's employment needs.

15. The Contractor conducts, at least annually, an inventory and evaluation of all employees for promotional opportunities and encourages all employees to seek and prepare appropriately for such opportunities.

16. The Contractor ensures the company's working environment and activities are non-segregated except for providing separate or single-user toilets and necessary changing facilities to assure privacy between the sexes.

4. SUBCONTRACTING PARTICIPATION PERCENTAGES.

4.1. The City has incorporated voluntary subcontractor participation percentage to enhance competition and maximize subcontracting opportunities as follows.

4.2. The following voluntary subcontractor participation percentage for DBE, DVBE, WBE, MBE, SLBE, and ELBE certified Subcontractors shall apply to this contract:

Total voluntary subcontractor participation percentage for this project is 40.8%.

5. CONTRACT TIME: The Work shall be completed within **80 Working Days** from the date of issuance of the NTP unless extended by the Engineer.

6. **CONTRACT PRICE:** The Engineer's Estimate of the Contract Price is **$950,000**. The Contractor shall not perform Work that exceeds the Engineer's Estimate excluding Allowances without prior written notice from the Engineer that sufficient additional funding has been secured.

7. **CONTRACTOR'S LICENSE CLASSIFICATION:** In accordance with the provisions of California Law, the Contractor shall possess valid appropriate license(s) at the time of award. The City has determined the following licensing classification(s) for this contract: **Class A.**

8. **JOINT VENTURE CONTRACTORS.** Provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 10 Working Days after receiving the Contract forms. See 2-1.1.2, "Joint Venture Contractors" in The WHITEBOOK for details.

9. **WAGE RATES:** Prevailing wages are not applicable to this project.

10. **PRE-BID SITE VISIT:** The Contractor is encouraged to visit the Work Site with the Engineer. The purpose of the Site visit is to acquaint Contractors with the Site conditions.

11. **REFERENCE STANDARDS:** Except as otherwise noted or specified, the Work shall be completed in accordance with the following standards:

Title	Edition	Document Number
Standard Specifications for Public Works Construction ("The GREENBOOK")	2012	PITS070112-01
City of San Diego Standard Specifications for Public Works Construction ("The WHITEBOOK")*	2012	PITS070112-02
City of San Diego Standard Drawings*	2012	PITS070112-03
Caltrans Standard Specifications	2010	PITS070112-04
Caltrans Standard Plans	2010	PITS070112-05
California MUTCD	2012	PITS070112-06
City Standard Drawings – Standard Drawings Updates Approved For Use *	Varies	Varies
Standard Federal Equal Employment Opportunity Construction Contract Specifications and the Equal Opportunity Clause Dated 09-11-84	1984	769023
NOTE: *Available online under Engineering Documents and References at: http://www.sandiego.gov/publicworks/edocref/index.shtml		

12. **PREQUALIFICATION OF CONTRACTORS:** The contractor must be pre-qualified for the City estimated Contract Price prior to Award. For additional information or the answer to questions about the prequalification program, please contact David Stucky at 619-533-3474 or dstucky@sandiego.gov.

13. **INSURANCE REQUIREMENTS:**

13.1. All certificates of insurance and endorsements required by the contract are to be provided upon issuance of the City's Notice of Intent to Award letter.

13.2. Refer to sections 7-3, "LIABILITY INSURANCE", and 7-4, "WORKERS' COMPENSATION INSURANCE" of the Supplementary Special Provisions (SSP) for the insurance requirements which must be met.

14. CITY'S RESPONSES AND ADDENDA: The City at its option, may respond to any or all questions submitted in writing, via letter, or FAX in the form of an addendum. No oral comment shall be of any force or effect with respect to this solicitation. The changes to the Contract Documents through addendum are made effective as though originally issued with the Bid.

15. CITY'S RIGHTS RESERVED: The City reserves the right to cancel this request for proposal at any time, and further reserves the right to reject submitted Proposals, without giving any reason for such action, at its sole discretion and without liability. Costs incurred by the Contractor as a result of preparing its proposals shall be the sole responsibility of the Contractor.

16. SUBMITTAL OF "OR EQUAL" ITEMS: See 4-1.6, "Trade Names or Equals."

17. AWARD PROCESS: The Award of this contract is contingent upon the Contractor's compliance with all conditions precedent to Award, including the submittal of acceptable insurance and surety bonds pursuant to San Diego Municipal Code §22.3007.

This contract is deemed to be awarded, and effective, only upon the signing of the Contract by the Mayor or designee of the City.

18. SUBCONTRACT LIMITATIONS: The Bidder's attention is directed to Standard Specifications for Public Works Construction, Section 2-3, "SUBCONTRACTS" which requires the Contractor to perform not less than the amount therein stipulated with its own forces. Failure to comply with these requirements may render the Bid **non-responsive** and ineligible for award.

19. PLANS AND SPECIFICATIONS: Questions about the meaning or intent of the Contract Documents as related to the scope of Work and of technical nature shall be directed to the City's Project Manager prior to Bid opening. Interpretations or clarifications considered necessary by the City in response to such questions will be issued by Addenda.

Oral and other interpretations or clarifications will be without legal effect. The Director (or designee), Public Works Department is the officer responsible for opening, examining, and declaring of competitive Bids submitted to the City for the acquisition, construction and completion of any public improvement except when otherwise set forth in these documents. Questions in these areas of responsibility (e.g., i.e. Pre-qualification, EOCP information, bidding activities, bonds and insurance, etc. as related to this contract shall be addressed to the Contract Specialist, Public Works Department, 1010 Second Avenue, Suite 1400, San Diego, California, 92101, Telephone No. (619) 533-3450.

20. SAN DIEGO BUSINESS TAX CERTIFICATE: All Contractors, including Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center

Plaza, first floor, before the Contract can be executed.

21. PROPOSAL FORMS: The signature of each person signing shall be in longhand.

22. AWARD OF CONTRACT OR REJECTION OF BIDS:

22.1. This contract may be awarded to a contractor selected from the City's as-needed emergency contractors list.

22.2. This contract may be awarded to a contractor without competitive bidding if an emergency exists requiring the immediate mobilization of a contractor to protect people or property.

22.3. The City of San Diego reserves the right to reject any or all bids received when such rejection is in the best interests of the City.

23. **THE CONTRACT:** The Contractor shall execute a written contract with the City of San Diego and furnish good and approved bonds and insurance documents specified in 2-4, "CONTRACT BONDS," 7-3, "LIABILITY INSURANCE," and 7-4 WORKERS' COMPENSATION INSURANCE within **3 Working Days** after receipt by the Contractor of a form of contract for execution unless an extension of time is granted to the Contractor in writing. Bonds shall be in amount of the Contract Price for the Work included in the Bid.

The Contract shall be made in the form adopted by the City, which includes the provision that no claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder. If the Contractor fails to enter into the contract as herein provided, the award may be annulled. An award may be made to the next contractor on the shortlist who shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made.

The Contractor shall furnish evidence of its corporate existence and evidence that the officer signing the Contract and bond for the corporation is duly authorized to do so.

24. **EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK:** The Contractor shall examine carefully the Project Site, the Plans and Specifications, other materials as described in the Special Provisions, Section 2-7, and the proposal forms. The signing of the Contract shall be conclusive evidence that the Contractor has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of Work, the quantities of materials to be furnished, and as to the requirements of the Contract Documents.

25. **CITY STANDARD PROVISIONS.** This contract is subject to the following standard provisions. See The WHITEBOOK for details.

25.1. The City of San Diego Resolution No. R-277952 adopted on May 20, 1991 for a Drug-Free Workplace.

25.2. The City of San Diego Resolution No. R-282153 adopted on June 14, 1993 related to the Americans with Disabilities Act.

25.3. The City of San Diego Municipal Code §22.3004 for Pledge of Compliance.

25.4. The City of San Diego's Labor Compliance Program and the State of California Labor Code §§1771.5(b) and 1776.

25.5. Sections 1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.

25.6. The City's Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 of The San Diego Municipal Code (SDMC).

25.7. The City's Information Security Policy (ISP) as defined in the City's Administrative Regulation 90.63.

Tony Heinrichs, Director
Public Works Department

AGREEMENT
FOR
EMERGENCY CONSTRUCTION SERVICES
BETWEEN
THE CITY OF SAN DIEGO
AND
HAZARD CONSTRUCTION COMPANY

This emergency construction services agreement (Agreement) is made and entered into by and between The City of San Diego (City), California a municipal corporation, and **HAZARD CONSTRUCTION COMPANY** (Contractor), for the purpose of designing (when required) and constructing emergency projects at the direction of the City Engineer. The City and the Contractor are referred to herein as the "Parties."

RECITALS

A. The City desires to construct the emergency project identified in the Notice Inviting Bids.

B. The City desires to contract with a single entity for Emergency Construction Services, as set forth in this agreement.

C. The City has issued a Request for Qualifications (RFQ) for on-call emergency contractors, List 2: Earthwork/Slope Repair/Shoring/Hyro-seeding/K-rail services.

D. In accordance with City's RFQ, RFQ number **5753**, the Contractor submitted a Statement for Qualifications (SOQ) for the Project pursuant to which the City established a pre-qualified list from the most highly qualified contractors to perform emergency Construction Services as directed by the City in accordance with the methods described in the RFQ.

E. In accordance with the City's RFQ, the Contractor submitted an SOQ and is prepared to enter into this agreement.

F. The City has selected the Contractor from the City's list of on-call contractors to perform, either directly or pursuant to Subcontracts, hereinafter defined, the design, engineering, and construction services set forth in this agreement and the Contract Documents.

G. The Contractor is ready, willing, and able to perform the emergency construction services required as specified in the Scope of Required Work and Services section of this agreement and in accordance with the terms and conditions of this agreement and under the direction of the Engineer.

In consideration of the above recitals and the mutual covenants and conditions set forth herein, and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby set forth their mutual covenants and understandings as follows:

INTRODUCTORY PROVISIONS

A. The above referenced recitals are true and correct and are incorporated into this agreement by this reference.

B. Exhibits referenced in this agreement are incorporated into the Agreement by this reference.

C. This agreement incorporates the Standard Specifications for Public Works Construction (The GREENBOOK), including those amendments set forth in the City of San Diego Supplements included in The WHITEBOOK. All changes, additions, or both are stated herein and all other provisions remain unchanged.

D. The Contractor shall comply with City's Equal Opportunity Contracting Program Requirements set forth in the Contract Documents. See The WHITEBOOK.

E. The Contractor, including Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center Plaza, first floor, before the Agreement can be executed.

F. Upon award, amendment, renewal, or extension of such contracts, the Contractors shall complete a Pledge of Compliance attesting under penalty of perjury that they complied with the requirements of City Municipal Code §22.3224.

G. The Contractor shall ensure that the Subcontractors whose subcontracts are greater than $50,000 in value complete a Pledge of Compliance attesting under penalty of perjury that they complied with the requirements of this section. The Contractor shall include in each subcontract agreement, language which requires Subcontractors to abide by the provisions of City Municipal Code §22.3224. A sample provision is as follows:

> "Subcontractor acknowledges that it is familiar with the requirements of San Diego Municipal Code §22.3224 ("Contractor Standards"), and agrees to comply with requirements of that section. The Subcontractor further agrees to complete the Pledge of Compliance, incorporated herein by reference."

H. Pledge of Compliance may be downloaded at:

http://www.sandiego.gov/purchasing/pdf/contractor_standards_questionnaire.pdf

I. The City received initial approval as a Labor Compliance Program on August 11, 2003. The limited exemption from prevailing wages pursuant to Labor Code §1771.5(a) does not apply to contracts under jurisdiction of the Labor Compliance Program. Inquiries, questions, or assistance about the Labor Compliance Program should be directed to: Equal Opportunity Contracting Program, 1010 Second Avenue, Suite 1400 MS614C, San Diego, CA 92101, Tel. 619-533-3450.

J. The Contractor's attention is directed to the provisions of the State of California Labor Code §1776 (Stats. 1978, Ch. 1249). The Contractor shall be responsible for the compliance with these provisions by Subcontractors.

K. The Contractor shall complete the work to be performed under this agreement and shall achieve Acceptance within the specified Working Days in the Notice Inviting Bids from the NTP unless authorized otherwise by the Engineer. Time is of essence for the completion of the Work and the Project has critical milestones to be met as listed in the Notice Inviting Bids.

L. This contract is for a firm price including Lump Sum and Unit Price items in the amount of **NINE HUNDRED FIFTY THOUSAND DOLLARS AND ZERO CENTS ($950,000.00)**. The City shall pay the Contractor for performance of the Work in accordance with Section 9, "Measurement and Payment" of the specifications.

M. During the final design process (if any), if the Contractor modifies the Project such that a revision of the environmental document is required, the Contractor shall be responsible for all work required for implementing a revision, including preparation of revised documentation and coordination with City staff. Work shall not proceed on the project until the environmental requirements are met to the satisfaction of the City. There shall be no additional time allowed in the contract for processing and approval of revised permit documents.

N. Prior to NTP or as required by the City, the Contractor shall:

a) file surety bonds with the City to be approved by the City in the amounts and for the purposes noted in the Notice Inviting Bids and

b) obtain the required insurance in accordance with 7-3, "LIABILITY INSURANCE" and any additional insurance as may be specified in the Supplemental Special Provisions.

IN WITNESS WHEREOF, this Agreement is executed by the City of San Diego, acting by and through its Mayor or designee, pursuant to the emergency contract provisions of City Charter §94 authorizing such execution, and by the Contractor.

THE CITY OF SAN DIEGO

By Tony Heinrichs

Print Name: Tony Heinrichs
Director, Department of Public Works

Date: 6/25/13

APPROVED AS TO FORM AND LEGALITY

Jan I. Goldsmith, City Attorney

By Pedro De Lara, Jr.

Print Name: Pedro De Lara, Jr.
Deputy City Attorney

Date: 6/26/13

CONTRACTOR

By HAZARD CONSTRUCTION COMPANY

Print Name:

Title: JASON A. MORDHORST, VICE PRESIDENT

Date: 6/24/13

City of San Diego License No.: B19980068961

State Contractor's License No.: 750542A

AGREEMENT (continued)
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:

HAZARD CONSTRUCTION COMPANY, a corporation, as principal, and Travelers Casualty and Surety Company of America, a corporation authorized to do business in the State of California, as Surety, hereby obligate themselves, their successors and assigns, jointly and severally, to The City of San Diego a municipal corporation in the sum of Nine Hundred Fifty Thousand Dollars and Zero Cents ($950,000.00) for the faithful performance of the annexed contract, and in the sum of Nine Hundred Fifty Thousand Dollars and Zero Cents ($950,000.00) for the benefit of laborers and materialmen designated below.

Conditions:

If the Principal shall faithfully perform the annexed contract **Rancho Mission Slope Repair, Bid Number: K-13-5966-EMR-3**, San Diego, California then the obligation herein with respect to a faithful performance shall be void; otherwise it shall remain in full force.

If the Principal shall promptly pay all persons, firms and corporations furnishing materials for or performing labor in the execution of this contract, and shall pay all amounts due under the California Unemployment Insurance Act then the obligation herein with respect to laborers and materialmen shall be void; otherwise it shall remain in full force.

The obligation herein with respect to laborers and materialmen shall inure to the benefit of all persons, firms and corporations entitled to file claims under the provisions of Chapter 3 of Division 5 of Title I of the Government Code of the State of California or under the provisions of Section 3082 et seq. of the Civil Code of the State of California.

Changes in the terms of the annexed contract or specifications accompanying same or referred to therein shall not affect the Surety's obligation on this bond, and the Surety hereby waives notice of same.

AGREEMENT (continued)
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

The Surety shall pay reasonable attorney's fees should suit be brought to enforce the provisions of this bond.

Dated June 5, 2013

Approved as to Form and Legality

Jan I. Goldsmith, City Attorney

By _____
Deputy City Attorney

Approved:

By _____
Tony Heinrichs
Director, Department of Public Works

Hazard Construction Company
Principal

By _____

Thomas D. Shaddox, President
Printed Name of Person Signing for Principal

Travelers Casualty and Surety Company of America
Surety

By _____
Tara Bacon, Attorney-in-fact

9325 Sky Park Ct., #220
Local Address of Surety

San Diego, CA 92123
Local Address (City, State) of Surety

(858) 616-6240
Local Telephone No. of Surety

Premium $ 8,148.00

Bond No. 105891535

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of San Diego

On June 7, 2013 (Date) before me, Elizabeth A. White, Notary Public (NAME, TITLE OF OFFICER - E.G. "JANE DOE, NOTARY PUBLIC")

personally appeared Thomas D. Shaddox (NAME(S) OF SIGNER(S))

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies) and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

(SEAL)

NOTARY PUBLIC SIGNATURE

ELIZABETH A. WHITE
Commission # 1853449
Notary Public - California
San Diego County
My Comm. Expires Jun 9, 2013

OPTIONAL

Though the data below is not required by law. It may prove valuable to persons relying on the document and could prevent fraudulent reattachment of this form.

CAPACITY CLAIMED BY SIGNER

- ☐ INDIVIDUAL
- ☐ CORPORATE OFFICER

_____ TITLE(S)

- ☐ PARTNER(S) ☐ LIMITED ☐ GENERAL
- ☐ ATTORNEY-IN-FACT
- ☐ TRUSTEE(S)
- ☐ GUARDIAN/CONSERVATOR
- ☐ OTHER: _____

SIGNER IS REPRESENTING:
NAMES OF PERSON(S) OR ENTITY(IES)

DESCRIPTION OF ATTACHED DOCUMENT

_____ TITLE OR TYPE OF DOCUMENT

_____ NUMBER OF PAGES

_____ DATE OF DOCUMENT

_____ SIGNER(S) OTHER THAN NAMED ABOVE

ACKNOWLEDGMENT

State of California
County of San Diego

On June 5, 2013 before me, Maria Hallmark, Notary Public, personally appeared Tara Bacon, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature _____

(Seal)

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

TRAVELERS

POWER OF ATTORNEY

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

Attorney-In Fact No. 222176 **Certificate No.** 004946403

KNOW ALL MEN BY THESE PRESENTS: That St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company and St. Paul Mercury Insurance Company are corporations duly organized under the laws of the State of Minnesota, that Farmington Casualty Company, Travelers Casualty and Surety Company, and Travelers Casualty and Surety Company of America are corporations duly organized under the laws of the State of Connecticut, that United States Fidelity and Guaranty Company is a corporation duly organized under the laws of the State of Maryland, that Fidelity and Guaranty Insurance Company is a corporation duly organized under the laws of the State of Iowa, and that Fidelity and Guaranty Insurance Underwriters, Inc., is a corporation duly organized under the laws of the State of Wisconsin (herein collectively called the "Companies"), and that the Companies do hereby make, constitute and appoint

Dale Harshaw, Tara Bacon, Geoffrey R. Shelton, Bradley R. Orr, and Kyle King

of the City of San Diego, State of California, their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign, execute, seal and acknowledge any and all bonds, recognizances, conditional undertakings and other writings obligatory in the nature thereof on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

IN WITNESS WHEREOF, the Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 29th day of June, 2012.

Farmington Casualty Company
Fidelity and Guaranty Insurance Company
Fidelity and Guaranty Insurance Underwriters, Inc.
St. Paul Fire and Marine Insurance Company
St. Paul Guardian Insurance Company
St. Paul Mercury Insurance Company
Travelers Casualty and Surety Company
Travelers Casualty and Surety Company of America
United States Fidelity and Guaranty Company

State of Connecticut
City of Hartford ss.

By: George W. Thompson, Senior Vice President

On this the 29th day of June, 2012, before me personally appeared George W. Thompson, who acknowledged himself to be the Senior Vice President of Farmington Casualty Company, Fidelity and Guaranty Insurance Company, Fidelity and Guaranty Insurance Underwriters, Inc., St. Paul Fire and Marine Insurance Company, St. Paul Guardian Insurance Company, St. Paul Mercury Insurance Company, Travelers Casualty and Surety Company, Travelers Casualty and Surety Company of America, and United States Fidelity and Guaranty Company, and that he, as such, being authorized so to do, executed the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

In Witness Whereof, I hereunto set my hand and official seal.
My Commission expires the 30th day of June, 2016.

Marie C. Tetreault, Notary Public

58440-6-11Printed in U.S.A.

WARNING: THIS POWER OF ATTORNEY IS INVALID WITHOUT THE RED BORDER

EXHIBIT A

DRUG-FREE WORKPLACE CERTIFICATION

EXHIBIT A

DRUG-FREE WORKPLACE

PROJECT TITLE: RANCHO MISSION SLOPE REPAIR

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outlined in the WHITEBOOK, Section 7-13.3, "Drug-Free Workplace", of the project specifications, and that;

Hazard Construction Company
(Name under which business is conducted)

has in place a drug-free workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of subdivisions a) through c) of the policy as outlined.

Signed _____

Printed Name Jason A. Mordhorst

Title Vice President

EXHIBIT B

AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

EXHIBIT B

AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

PROJECT TITLE: RANCHO MISSION SLOPE REPAIR

I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-4 regarding the American With Disabilities Act (ADA) outlined in the WHITEBOOK, Section 7-13.2, "American With Disabilities Act,,, of the project specifications, and that;

Hazard Construction Company
(Name under which business is conducted)

has in place workplace program that complies with said policy. I further certify that each subcontract agreement for this project contains language which indicates the subcontractor's agreement to abide by the provisions of the policy as outlined.

Signed _____

Printed Name Jason A. Mordhorst

Title Vice President

EXHIBIT C

CONTRACTOR STANDARDS – PLEGE OF COMPLIANCE

EXHIBIT C

CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

PROJECT TITLE: RANCHO MISSION SLOPE REPAIR

I declare under penalty of perjury that I am authorized to make this certification on behalf of HAZARD CONSTRUCTION COMPANY, as Contractor, that I am familiar with the requirements of City of San Diego Municipal Code § 22.3224 regarding Contractor Standards as outlined in the WHITEBOOK, Section 7-13.4, "Contractor Standards", of the project specifications, and that Contractor has complied with those requirements.

I further certify that each of the Contractor's subcontractors whose subcontracts are greater than $50,000 in value has completed a Pledge of Compliance attesting under penalty of perjury of having complied with City of San Diego Municipal Code § 22.3224.

Dated this 7th Day of June, 2013.

Signed _____

Printed Name Jason A. Mordhorst

Title Vice President

EXHIBIT D

AFFIDAVIT OF DISPOSAL

EXHIBIT D

AFFIDAVIT OF DISPOSAL

WHEREAS, on the _____ DAY OF _____, _____, the undersigned entered into and executed a contract with the City of San Diego, a municipal corporation, for:

RANCHO MISSION SLOPE REPAIR
(Name of Project)

as particularly described in said contract and identified as Bid No. **K-13-5966-EMR-3**; SAP No. (WBS/IO/CC) **B-13015** and **WHEREAS**, the specification of said contract requires the Contractor to affirm that "all brush, trash, debris, and surplus materials resulting from this project have been disposed of in a legal manner"; and **WHEREAS**, said contract has been completed and all surplus materials disposed of:

_____

_____

_____

NOW, THEREFORE, in consideration of the final payment by the City of San Diego to said Contractor under the terms of said contract, the undersigned Contractor, does hereby affirm that all surplus materials as described in said contract have been disposed of at the following location(s)

_____

_____

_____

and that they have been disposed of according to all applicable laws and regulations.

Dated this _____ DAY OF _____, _____.

_____ Contractor
by

ATTEST:

State of _____
County of _____

On this _____ DAY OF _____, 2____, before the undersigned, a Notary Public in and for said County and State, duly commissioned and sworn, personally appeared_____ _____ known to me to be the _____ Contractor named in the foregoing Release, and whose name is subscribed thereto, and acknowledged to me that said Contractor executed the said Release.

Notary Public in and for said County and State

EXHIBIT E

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID UNDER 23 UNITED STATES CODE 112 AND PUBLIC CONTRACT CODE 7106

EXHIBIT E

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID UNDER 23 UNITED STATES CODE 112 AND PUBLIC CONTRACT CODE 7106

State of California)
) ss.
County of San Diego)

Jason A. Mordhorst, being first duly sworn, deposes and says that he or she is Vice President of the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Signed: _____

Title: Vice President

Subscribed and sworn to before me this _____ day of _____, 20___

See attached

_____
Notary Public

(SEAL)

JURAT

State of California

County of San Diego

Subscribed and sworn to (or affirmed) before me on this 10th day of June, 2013 by Jason A. Mordhorst, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

ELIZABETH A. WHITE
COMM. #2025187
NOTARY PUBLIC • CALIFORNIA
SAN DIEGO COUNTY
Commission Expires June 9, 2017

(seal)

Signature of Notary

OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

_____
(Title of description of attached document)

_____
(Title of description of attached continued)

Number of Pages _____ Document Date _____

_____
(Additional information)

INSTURCITONS FOR COMPLETING THIS FORM

The wording of all Jurats completed in California after January 1, 2008 must be in the form as set forth within this Jurat. There are no exceptions. If a Jurat to be completed does not follow this form, the notary must correct the verbiage by using a jurat stamp containing the correct wording or attaching a separate jurat form such as this one which does contain proper wording. In addition, the notary must require an oath or affirmation from the document signer regarding the truthfulness of the contents of the document. The document must be signed AFTER the oath or affirmation. If the document was previously signed, it must be re-signed in front of the notary public during the jurat process.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the jurat process is completed.
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Signature of the notary public must match the signature of file with the office of the county clerk.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different jurat form.
  - Additional information is not required but could help to ensure this jurat is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
- Securely attach this document to the signed document

EXHIBIT F

CONTRACTORS CERTIFICATION OF PENDING ACTIONS

EXHIBIT F

CONTRACTORS CERTIFICATION OF PENDING ACTIONS

As part of its bid or proposal (Non-Price Proposal in the case of Design-Build contracts), the Bidder shall provide to the City a list of all instances within the past ten years where a complaint was filed or pending against the Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

CHECK ONE BOX ONLY.

☐ The undersigned certifies that within the past 10 years the Bidder has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers.

☒ The undersigned certifies that within the past 10 years the Bidder has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

Date of Claim	Location	Description of Claim	Litigation (Y/N)	Status	Resolution/ Remedial Action Taken
March 2013	San Diego	In March 2013, a lawsuit was filed against Hazard Construction Company by a former employee, Kenneth McDonald, in the Superior Court of California, County of San Diego. McDonald was laid off by Hazard as part of a company-wide labor force reduction in December 2011. The lawsuit states various allegations of discrimination, harassment, and retaliation against McDonald by Hazard and/or its employees. Hazard's management believes the lawsuit is without any merit and is planning to vigorously defend such allegations. The suit is on-going.	Yes	The suit is ongoing	See Description of Claim.

Contractor Name: Hazard Construction Company

Certified By Jason A. Mordhorst Title Vice President

Name

Signature Date 6/7/13

USE ADDITIONAL FORMS AS NECESSARY

EXHIBIT G

EQUAL BENEFITS ORDINANCE CERTIFICATION OF COMPLIANCE

EXHIBIT G

EQUAL BENEFITS ORDINANCE CERTIFICATION OF COMPLIANCE

For additional information, contact:
CITY OF SAN DIEGO
EQUAL BENEFITS PROGRAM
202 C Street, MS 9A, San Diego, CA 92101
Phone (619) 533-3948 Fax (619) 533-3220

COMPANY INFORMATION

Company Name:Hazard Construction Company	Contact Name: Jason A. Mordhorst
Company Address: 6465 Marindustry Drive, P.O. Box 229000, San Diego, CA 92192-9000	Contact Phone: (858) 587-3600
	Contact Email: jmordhorst@hazardconstruction.com

CONTRACT INFORMATION

Contract Title: Rancho Mission Slope Repair	Start Date:
Contract Number (if no number, state location): K-13-5966-EMR	End Date:

SUMMARY OF EQUAL BENEFITS ORDINANCE REQUIREMENTS

The Equal Benefits Ordinance [EBO] requires the City to enter into contracts only with contractors who certify they will provide and maintain equal benefits as defined in SDMC §22.4302 for the duration of the contract. To comply:

- Contractor shall offer equal benefits to employees with spouses and employees with domestic partners.
  - Benefits include health, dental, vision insurance; pension/401(k) plans; bereavement, family, parental leave; discounts, child care; travel/relocation expenses; employee assistance programs; credit union membership; or any other benefit.
  - Any benefit not offer an employee with a spouse, is not required to be offered to an employee with a domestic partner.
- Contractor shall post notice of firm's equal benefits policy in the workplace and notify employees at time of hire and during open enrollment periods.
- Contractor shall allow City access to records, when requested, to confirm compliance with EBO requirements.
- Contractor shall submit *EBO Certification of Compliance*, signed under penalty of perjury, prior to award of contract.

NOTE: This summary is provided for convenience. Full text of the EBO and Rules Implementing the EBO are available at *www.sandiego.gov/administration.*

CONTRACTOR EQUAL BENEFITS ORDINANCE CERTIFICATION

Please indicate your firm's compliance status with the EBO. The City may request supporting documentation.

☒ I affirm **compliance** with the EBO because my firm *(contractor must select one reason):*

- ☒ Provides equal benefits to spouses and domestic partners.
- ☐ Provides no benefits to spouses or domestic partners.
- ☐ Has no employees.
- ☐ Has collective bargaining agreement(s) in place prior to January 1, 2011, that has not been renewed or expired.

☐ I request the City's approval to pay affected employees a cash equivalent in lieu of equal benefits and verify my firm made a reasonable effort but is not able to provide equal benefits upon contract award. I agree to notify employees of the availability of a cash equivalent for benefits available to spouses but not domestic partners and to continue to make every reasonable effort to extend all available benefits to domestic partners.

It is unlawful for any contractor to knowingly submit any false information to the City regarding equal benefits or cash equivalent associated with the execution, award, amendment, or administration of any contract. [San Diego Municipal Code §22.4307(a)]

Under penalty of perjury under laws of the State of California, I certify the above information is true and correct. I further certify that my firm understands the requirements of the Equal Benefits Ordinance and will provide and maintain equal benefits for the duration of the contract or pay a cash equivalent if authorized by the City.

Name/Title of Signatory	Signature	Date
		6/7/13

FOR OFFICIAL CITY USE ONLY

Receipt Date: EBO Analyst: □ Approved □ Not Approved – Reason:

rev 02/15/2011

EXHIBIT H

FORMS

LIST OF SUBCONTRACTORS

In accordance with the requirements provided in the "Subletting and Subcontracting Fair Practices Act", Division 2, Part 1, Chapter 4 of the Public Contract Code, the Bidder shall list below the name and address of each Subcontractor who will perform work, labor, render services or specially fabricates and installs a portion [type] of the work or improvement, in an amount in excess of 0.5% of the Contractor's total Bid. The Bidder shall also list below the portion of the work which will be done by each subcontractor under this Contract. The Contractor shall list only one Subcontractor for each portion of the Work. The **DOLLAR VALUE** of the total Bid to be performed shall be stated for all subcontractors listed. Failure to comply with this requirement shall result in the Bid being rejected as **non-responsive** and ineligible for award. The Bidder's attention is directed to the Special Provisions - General; Paragraph 2-3 Subcontracts, which stipulates the percent of the Work to be performed with the Bidders' own forces. The Bidder shall list all SLBE, ELBE, DBE, DVBE, MBE, WBE, OBE, SDB, WoSB, HUBZone, and SDVOSB Subcontractors that Bidders are seeking recognition towards achieving any mandatory, voluntary, or both subcontracting participation percentages.

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB①	WHERE CERTIFIED②	CHECK IF JOINT VENTURE PARTNERSHIP
Name: H&D Construction Address: P.O. Box 12859 City: El Cajon State: CA Zip: 92022 Phone: 619-444-6118	Constructor	PCC Flatwork	4,700-	SLBE	City	
Name: The Land Stewards Address: 455 N. Twin Oak Valley Rd City: San Marcos State: CA Zip: 92069 Phone: 760-759-2366	Constructor	Erosion Control	10,162	OBE	N/A	
Name: Valley Crest Landscape Development Address: 8450 Miramar Pl City: San Diego State: CA Zip: 92121 Phone: 858-456-9900	Constructor	Landscape & Irrigation	78,559	OBE	N/A	

① As appropriate, Bidder shall identify Subcontractor as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

② As appropriate, Bidder shall indicate if Subcontractor is certified by:

City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

NAMED EQUIPMENT/MATERIAL SUPPLIER LIST

The Bidder seeking the recognition of equipment, materials, or supplies obtained from Suppliers towards achieving any mandatory, voluntary, or both subcontracting participation percentages shall list the Supplier(s) on the Named Equipment/Material Supplier List. The Named Equipment/Material Supplier List, at a minimum, shall have the name, locations (City) and the **DOLLAR VALUE** of the Suppliers. The Bidder will be credited up to 60% of the amount to be paid to the Suppliers for such materials and supplies unless vendor manufactures or substantially alters materials and supplies in which case 100% will be credited. The Bidder is to indicate (Yes/No) whether listed firm is a supplier or manufacturer. In calculating the subcontractor participation percentages, vendors/suppliers will receive 60% credit of the listed **DOLLAR VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed dollar value for purposes of calculating the Subcontractor Participation Percentage, Suppliers will receive 60% credit of the listed **DOLLAR VALUE**, whereas manufacturers will receive 100% credit. If no indication provided, listed firm will be credited at 60% of the listed **DOLLAR VALUE** for purposes of calculating the subcontractor participation percentages.

NAME, ADDRESS AND TELEPHONE NUMBER OF VENDOR/SUPPLIER	MATERIALS OR SUPPLIES	DOLLAR VALUE OF MATERIAL OR SUPPLIES	SUPPLIER (Yes/No)	MANUFACTURER (Yes/No)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB①	WHERE CERTIFIED②
Name: Address: City: State: Zip: Phone:						
Name: Address: City: State: Zip: Phone:						
Name: Address: City: State: Zip: Phone:						

① As appropriate, Bidder shall identify Vendor/Supplier as one of the following and shall include a valid proof of certification (except for OBE, SLBE and ELBE):

Certified Minority Business Enterprise	MBE	Certified Woman Business Enterprise	WBE
Certified Disadvantaged Business Enterprise	DBE	Certified Disabled Veteran Business Enterprise	DVBE
Other Business Enterprise	OBE	Certified Emerging Local Business Enterprise	ELBE
Certified Small Local Business Enterprise	SLBE	Small Disadvantaged Business	SDB
Woman-Owned Small Business	WoSB	HUBZone Business	HUBZone
Service-Disabled Veteran Owned Small Business	SDVOSB		

② As appropriate, Bidder shall indicate if Vendor/Supplier is certified by:

City of San Diego	CITY	State of California Department of Transportation	CALTRANS
California Public Utilities Commission	CPUC	San Diego Regional Minority Supplier Diversity Council	SRMSDC
State of California's Department of General Services	CADoGS	City of Los Angeles	LA
State of California	CA	U.S. Small Business Administration	SBA

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification.

EXHIBIT I

PROPOSAL

EXHIBIT I

PROPOSAL

Bidder's General Information

To the City of San Diego:

Pursuant to "Notice Inviting Bids", specifications, and requirements on file with the City Clerk, and subject to all provisions of the Charter and Ordinances of the City of San Diego and applicable laws and regulations of the United States and the State of California, the undersigned hereby proposes to furnish to the City of San Diego, complete at the prices stated herein, the items or services hereinafter mentioned. The undersigned further warrants that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

The undersigned bidder(s) further warrants that bidder(s) has thoroughly examined and understands the entire Contract Documents (plans and specifications) and the Bidding Documents therefore, and that by submitting said Bidding Documents as its bid proposal, bidder(s) acknowledges and is bound by the entire Contract Documents, including any addenda issued thereto, as such Contract Documents incorporated by reference in the Bidding Documents.

IF A SOLE OWNER OR SOLE CONTRACTOR SIGN HERE:

(1) Name under which business is conducted _____

(2) Signature (Given and surname) of proprietor _____

(3) Place of Business (Street & Number) _____

(4) City and State _____ Zip Code _____

(5) Telephone No. _____ Facsimile No. _____

IF A PARTNERSHIP, SIGN HERE:

(1) Name under which business is conducted _____

(2) Name of each member of partnership, indicate character of each partner, general or special (limited):

_____

_____

(3) Signature (Note: Signature must be made by a general partner)

_____

Full Name and Character of partner

_____

_____

(4) Place of Business (Street & Number) _____

(5) City and State _____ Zip Code _____

(6) Telephone No. _____ Facsimile No. _____

IF A CORPORATION, SIGN HERE:

(1) Name under which business is conducted Hazard Construction Company

(2) Signature, with official title of officer authorized to sign for the corporation:

_____
(Signature)

Jason A. Mordhorst
(Printed Name)

Vice President
(Title of Officer)

(Impress Corporate Seal Here)

(3) Incorporated under the laws of the State of California

(4) Place of Business (Street & Number) 6465 Marindustry Drive, P.O. Box 229000

(5) City and State San Diego, CA Zip Code 92192-9000

(6) Telephone No. (858) 587-3600 Facsimile No. (858) 453-6034

THE FOLLOWING SECTIONS MUST BE FILLED IN BY ALL PROPOSERS:

In accordance with the "**NOTICE INVITING BIDS**,,, the bidder holds a California State Contractor's license for the following classification(s) to perform the work described in these specifications:

LICENSE CLASSIFICATION A

LICENSE NO. 750542 EXPIRES 6/30/14 ,

This license classification must also be shown on the front of the bid envelope. Failure to show license classification on the bid envelope may cause return of the bid unopened.

TAX IDENTIFICATION NUMBER (TIN): [redacted]

E-Mail Address: jmordhorst@hazardconstruction.com

THIS PROPOSAL MUST BE NOTARIZED BELOW:

I certify, under penalty of perjury, that the representations made herein regarding my State Contractor's license number, classification and expiration date are true and correct.

Signature Title Vice President

SUBSCRIBED AND SWORN TO BEFORE ME, THIS DAY OF ,.

Notary Public in and for the County of , State of

(NOTARIAL SEAL)

See attached

JURAT

State of California

County of San Diego

Subscribed and sworn to (or affirmed) before me on this 10th day of June, 2013 by Jason A. Mordhorst, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

ELIZABETH A. WHITE
COMM. #2025187
NOTARY PUBLIC • CALIFORNIA
SAN DIEGO COUNTY
Commission Expires June 9, 2017

(seal)

Signature of Notary

OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

_____
(Title of description of attached document)

_____
(Title of description of attached continued)

Number of Pages _____ Document Date _____

_____
(Additional information)

INSTURCITONS FOR COMPLETING THIS FORM

The wording of all Jurats completed in California after January 1, 2008 must be in the form as set forth within this Jurat. There are no exceptions. If a Jurat to be completed does not follow this form, the notary must correct the verbiage by using a jurat stamp containing the correct wording or attaching a separate jurat form such as this one which does contain proper wording. In addition, the notary must require an oath or affirmation from the document signer regarding the truthfulness of the contents of the document. The document must be signed AFTER the oath or affirmation. If the document was previously signed, it must be re-signed in front of the notary public during the jurat process.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the jurat process is completed.
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Signature of the notary public must match the signature of file with the office of the county clerk.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different jurat form.
  - Additional information is not required but could help to ensure this jurat is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
- Securely attach this document to the signed document

PROPOSAL

The Bidder agrees to the construction of **RANCHO MISSION SLOPE REPAIR** for the city of San Diego, in accordance with these contract documents for the prices listed below.

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
BASE BID							
1	1	LS	524126	2-4.1	Bonds (Payment and Performance)		$8,500.00
2	1	LS	541330	7-10.2.6	Traffic Control Design		$1,000.00
3	1	LS	237310	7-10.2.6	Traffic Control		$20,000.00
4	1	LS	237310	9-3.1	Removal and Replacement of Homeowener Improvements in Drainage Easement		$15,000.00
5	1	LS	237110	9-3.1	Drainage Improvements		$30,000.00
6	1	AL	561730	7-10.7.4	Water Meter and Service Fee - Type I		$10,000.00
7	1	LS	237310	9-3.4.1	Mobilization		$60,000.00
8	1	AL		9-3.5	Field Orders - Type II		$50,000.00
9	1	LS	238910	300-1.4	Clearing & Grubbing		$15,000.00

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
10	9,500	CY	237310	300-2.9	Cut	$9.50	$90,250.00
11	5,000	CY	237310		Export	$24.00	$120,000.00
12	7,000	CY	237310		Import	$19.50	$136,500.00
13	11,500	CY	237310	300-4.9	Fill	$17.00	$195,500.00
14	500	CY	561730		Top Soil Storage and Replacement	$100.00	$50,000.00
15	30	LF	237310	303-5.9	Curb & Gutter	$75.00	$2,250.00
16	200	SF	237310	303-5.9	Sidewalk	$10.00	$2,000.00
17	1	EA	237110	306-14.1	2" Water Service with Backflow Assembly and Stainless Steel Enclosure	$16,500.00	$16,500.00
18	1	LS	237990	700-2.15	Construction Fencing and Access Route		$7,500.00
19	1	LS	561730	700-2.15	Revegetation and Erosion Control		$65,000.00
20	1	LS	541330	700-2.15	120 Day Plant Establishment Period		$14,000.00
21	1	LS	541330	701-13.9.5	Post Construction BMP Improvements		$10,000.00

Item	Quantity	Unit	NAICS	Payment Reference	Description	Unit Price	Extension
22	1	LS	541330	701-13.9.5	Water Pollution Control Program Development		$1,000.00
23	1	LS	237990	701-13.9.5	Water Pollution Control Program Implementation		$30,000.00
					ESTIMATED TOTAL BASE BID:		**$950,000.00**

TOTAL BID PRICE FOR BID (Items 1 through 23 inclusive) amount written in words:

Nine Hundred Fifty Thousand Dollars and Zero Cents

The names of all persons interested in the foregoing proposal as principals are as follows:

IMPORTANT NOTICE: If Bidder or other interested person is a corporation, state secretary, treasurer, and manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing firm; if Bidder or other interested person is an individual, state first and last names in full.

Bidder: Hazard Construction Company

Title: Jason A. Mordhorst, Vice President

Business Address: 6465 Marindustry Drive, P.O. Box 229000, San Diego, CA 92192-9000

Place of Business:

Place of Residence:

Signature:

A. Unit prices shall be entered for all unit price items. Unit prices shall not exceed two (2) decimal places. If the Unit prices entered exceed two (2) decimal places, the City will only use the first two digits after the decimal points without rounding up or down.

B. All extensions of the unit prices bid will be subject to verification by the City. In the case of inconsistency or conflict between the product of the Quantity x Unit Price and the Extension, the product shall govern.

C. In the case of inconsistency or conflict, between the sums of the Extensions with the estimated total Bid, the sum of the Extensions shall govern.

EXHIBIT J

SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

SUPPLEMENTARY SPECIAL PROVISIONS

The following Supplementary Special Provisions (SSP) modifies the following documents:

1) Standard Specifications for Public Works Construction (The GREENBOOK) currently in effect.

2) The City of San Diego Standard Specifications for Public Works Construction (The WHITEBOOK).

SECTION 1 – TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

1-2 TERMS AND DEFINITIONS.

Normal Working Hours. To the City Supplement, ADD the following:

The Normal Working Hours are 7:30 AM to 4:30 PM.

SECTION 2 - SCOPE AND CONTROL OF WORK

2-3.2 Self Performance. DELETE in its entirety and SUBSTITUTE with the following:

1. You must perform, with your own organization, Contract work amounting to at least 50% of the base bid alone or base bid and any additive or deductive alternate(s) that together when added or deducted form the basis of award.

2-7 SUBSURFACE DATA. ADD the following:

1. In preparation of the Contract Documents, the designer has relied upon the following reports of explorations and tests of subsurface conditions at the Work Site:

    1. Report of Limited Geotechnical Investigation dated October 10, 2011 by GEOCON Inc.

    2. Addendum to the Limited Geotechnical Investigation Dated January 18, 2013 by GEOCON Inc.

SECTION 4 - CONTROL OF MATERIALS

4-1.6 Trade Names or Equals. ADD the following:

You must submit your list of proposed substitutions for "an equal" ("or equal") item(s) **no later than 5 Working Days after issuing the Notice to Proceed** and on a City form when provided by the City.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-3 LIABILITY INSURANCE. DELETE in its entirety and SUBSTITUTE with the following:

The insurance provisions herein must not be construed to limit your indemnity obligations contained in the Contract.

7-3.1 Policies and Procedures.

1. You must procure the insurance described below, at its sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or Subcontractors.

2. Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.

3. You must maintain this insurance for the duration of this contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this contract. Your liabilities under the Contract, e.g., your indemnity obligations, is not deemed limited to the insurance coverage required by this contract.

4. Payment for insurance is included in the various items of Work as bid by you, and except as specifically agreed to by the City in writing, you are not entitled to any additional payment. Do not begin any work under this contract until you have provided and the City has approved all required insurance.

5. Policies of insurance must provide that the City is entitled to 30 days (10 days for cancellation due to non-payment of premium) prior written notice of cancellation or non-renewal of the policy. Maintenance of specified insurance coverage is a material element of the Contract. Your failure to maintain or renew coverage or to provide evidence of renewal during the term of the Contract may be treated by the City as a material breach of the Contract.

7-3.2 Types of Insurance.

7-3.2.1 Commercial General Liability Insurance.

1. Commercial General Liability Insurance must be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.

2. The policy must cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).

3. There must be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You must maintain the same or equivalent insurance for at least 10 years following completion of the Work.

4. All costs of defense must be outside the policy limits. Policy coverage must be in liability limits of not less than the following:

General Annual Aggregate Limit	Limits of Liability
Other than Products/Completed Operations	$2,000,000
Products/Completed Operations Aggregate Limit	$2,000,000
Personal Injury Limit	$1,000,000
Each Occurrence	$1,000,000

7-3.2.2 Commercial Automobile Liability Insurance.

1. You must provide a policy or policies of Commercial Automobile Liability Insurance written on the current version of the ISO form CA 00 01 12 90 or later version or equivalent form providing coverage at least as broad in the amount of $1,000,000 combined single limit per accident, covering bodily injury and property damage for owned, non-owned, and hired automobiles ("Any Auto").

2. All costs of defense must be outside the limits of the policy.

7-3.3 Rating Requirements. Except for the State Compensation Insurance Fund, all insurance required by this contract as described herein must be carried only by responsible insurance companies with a rating of, or equivalent to, at least "A-, VI" by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the State, and that have been approved by the City.

7-3.3.1 Non-Admitted Carriers. The City will accept insurance provided by non-admitted, "surplus lines" carriers only if the carrier is authorized to do business in the State and is included on the List of Approved Surplus Lines Insurers (LASLI list).

All policies of insurance carried by non-admitted carriers must be subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

7-3.4 Evidence of Insurance. Furnish to the City documents e.g., certificates of insurance and endorsements evidencing the insurance required herein, and furnish renewal documentation prior to expiration of this insurance. Each required document must be signed by the insurer or a person authorized by the insurer to bind coverage on its behalf. We reserve the right to require complete, certified copies of all insurance policies required herein.

7-3.5 Policy Endorsements.

7-3.5.1 Commercial General Liability Insurance

7-3.5.1.1 Additional Insured.

a) You must provide at your expense policy endorsement written on the current version of the ISO Occurrence form CG 20 10 11 85 or an equivalent form providing coverage at least as broad.

b) To the fullest extent allowed by law e.g., California Insurance Code §11580.04, the policy must be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured.

c) The additional insured coverage for projects for which the Engineer's Estimate is $1,000,000 or more must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) your products, (c) your work, e.g., your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you.

d) The additional insured coverage for projects for which the Engineer's Estimate is less than $1,000,000 must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) your products, or (c) premises owned, leased, controlled, or used by you.

7-3.5.1.2 Primary and Non-Contributory Coverage. The policy must be endorsed to provide that the coverage with respect to operations, including the completed operations, if appropriate, of the Named Insured is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives. Further, it must provide that any insurance maintained by the City and its elected officials, officers, employees, agents and representatives must be in excess of your insurance and must not contribute to it.

7-3.5.1.3 Project General Aggregate Limit.

The policy or policies must be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the Work. Only claims payments which arise from the Work must reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit must be in addition to the aggregate limit provided for the products-completed operations hazard.

7-3.5.2 Commercial Automobile Liability Insurance.

7-3.5.2.1 Additional Insured. Unless the policy or policies of Commercial Auto Liability Insurance are written on an ISO form CA 00 01 12 90 or a later version of this form or equivalent form providing coverage at least as broad, the policy must be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured, with respect to liability arising out of automobiles owned, leased, hired or borrowed by you or on your behalf. This endorsement is limited to the obligations permitted by California Insurance Code §11580.04.

7-3.6 **Deductibles and Self-Insured Retentions.** You must pay for all deductibles and self-insured retentions. You must disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided.

7-3.7 **Reservation of Rights.** The City reserves the right, from time to time, to review your insurance coverage, limits, deductibles and self-insured retentions to determine if they are acceptable to the City. The City will reimburse you, without overhead, profit, or any other markup, for the cost of additional premium for any coverage requested by the Engineer but not required by this contract.

7-3.8 **Notice of Changes to Insurance.** You must notify the City 30 days prior to any material change to the policies of insurance provided under this contract.

7-3.9 **Excess Insurance.** Policies providing excess coverage must follow the form of the primary policy or policies e.g., all endorsements.

7-3.10 **Architects and Engineers Professional Insurance (Errors and Omissions Insurance)**.

1. For contracts with required engineering services (e.g., Design-Build, preparation of engineered Traffic Control Plans (TCP), etc. by the Contractor) for all of your employees or Subcontractors who provide professional engineering services under this contract, you must keep or must require its Subcontractor keep in full force and effect, Professional Liability coverage with a limit of $**1,000,000** per claim and $**2,000,000** annual aggregate.

2. You must ensure both that: (a) the policy retroactive date is on or before the date of commencement of the Project; and (b) the policy will be maintained in force for a period of 3 years after completion of the Project or termination of this contract whichever occurs last. You agree that for the time period specified above, there will be no changes or endorsements to the policy that affect the specified coverage.

3. If professional engineering services are to be provided solely by the Subcontractor, you must (a) certify this to the City in writing and (b) agree in writing to require the Subcontractor to procure Professional Liability coverage in accordance with the requirements set forth above.

7-4 **WORKERS' COMPENSATION INSURANCE.** DELETE in its entirety and SUBSTITUTE with the following:

7-4.1 **Workers' Compensation Insurance and Employers Liability Insurance.**

1. In accordance with the provisions of §3700 of the California Labor Code, you must provide at your expense Workers' Compensation Insurance and Employers Liability Insurance to protect you against all claims under applicable state workers compensation laws. The City, its elected officials, and employees will not be responsible for any claims in law or equity occasioned by your failure to comply with the requirements of this section.

2. Limits for this insurance must be not less than the following:

Workers' Compensation	Statutory Employers Liability
Bodily Injury by Accident	$1,000,000 each accident
Bodily Injury by Disease	$1,000,000 each employee
Bodily Injury by Disease	$1,000,000 policy limit

3. By signing and returning the Contract you certify that you are aware of the provisions of §3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code and you must comply with such provisions before commencing the Work as required by §1861 of the California Labor Code.

7-4.1.1 Waiver of Subrogation.

The policy or policies must be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from work performed by the Named Insured for the City.

7-8.6 Water Pollution Control. ADD the following:

1. Based on a preliminary assessment by the City, the Contract is subject to WPCP.

7-10.2.2 ENGINEERED Traffic Control Plans Provided by the Contractor. To the City Supplements, ADD the following:

Engineered "D" size TCP are required for the following areas:

1. Deer Field Street from Mission George Road, but not limited, to the project location.

7-10.5.3 Steel Plate Covers. Table 7-10.5.3(A), REVISE the plate thickness for 5'-3" trench width to read 1 ¾".

7-15 INDEMNIFICATION AND HOLD HARMLESS AGREEMENT. To the City Supplements, fourth paragraph, last sentence, DELETE in its entirety and SUBSTITUTE with the following:

Your duty to indemnify and hold harmless does not include any claims or liability arising from the established active or sole negligence, or willful misconduct of the City, its officers, or employees.

7-16.1 Public Notice by Contractor. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

1. Furnish and distribute public notices 30 days prior to starting the Work using the City's format per Exhibit N, Notice of Upcoming Construction Letter, to all occupants within 300 feet from the project site, all occupants along the streets where the Work is to be performed, and Deerfield Street between Mission George Road and the end of Cul-De-Sac.

2. Furnish and distribute public notices in the form of door hangers per Exhibit N using the City's format to all occupants within 300 feet from the project site, all occupants along the streets where the Work is to be performed, and Deerfield Street between Mission George Road and the end of Cul-De-Sac. For all work on private property, contact each owner indidually a minimum of 15 days prior to the Work. If the Work has been delayed, re-notify residents of the new work schedule.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

8-2 **FIELD OFFICE FACILITIES.** To the City Supplement, DELETE in its entirety.

SECTION 9 - MEASUREMENT AND PAYMENT

9-3.2.5 **Withholding of Payment.** To the City Supplement, item i), DELETE in its entirety and SUBSTITUTE with the following:

i) Your failure to comply with 7-2.3, "PAYROLL RECORDS" and 2-16, "CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM."

9-3.4 **Mobilization.** To the City Supplement, ADD with the following:

Storage of equipment and marterals will not be permitted on site. Provide an off-site staging area for all delivered materials, equipment and vehicles prior to starting the Work.

SECTION 300 – EARTHWORK

300-1.4 **Payment.** To the City Supplement, paragraph (2), DELETE in its entirety and SUBSTITUTE with the following:

2. Payment for existing pavement removal and disposal of up to 12" thick, within the excavation e.g., trench limits, shall be included in the Bid item for installation of the mains or the Work item that requires pavement removal.

SECTION 302 – ROADWAY SURFACING

302-3 **Preparatory Repair Work**. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

302-3 **Preparatory Repair Work**.

1. Prior to roadway resurfacing or the application of slurry, the Contractor shall complete all necessary preparation and repair work to the road segment e.g., tree trimming, weed spray, weed abatement, crack sealing, asphalt repair, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc. and as specified in the Special Provisions.

2. Preparatory work shall include, but not be limited to, tree trimming, weed spray, weed abatement, crack sealing, asphalt repair i.e., mill and pave, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc.

3. The Contractor shall repair areas of distressed asphalt concrete pavement by milling or removing damaged areas of pavement to a minimum depth of 2" for Residential streets, and a minimum depth of 3" for all others to expose firm and unyielding pavement. The Contractor shall prepare subgrade as needed and install a minimum of 2" for residential streets, and a minimum of 3" for all others, of compacted asphalt concrete pavement over compacted native material as directed by the Engineer.

4. If, in order to achieve the minimum specified depth, the base material is exposed, the material shall be compacted to 95% relative compaction to a depth 10" below the finished grade (dig out). Compaction tests shall be made to ensure compliance with the specifications. The Engineer will determine when and where the test will occur. The City will pay for the soils testing required by the Engineer, which meets the required compaction. The Contractor shall reimburse the City for the cost of retesting failing compaction tests. If additional base material is required, the Contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, "Crushed Aggregate Base."

5. Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, "Crushed Miscellaneous Aggregate Base."

6. Prior to replacing asphalt, the area shall be cleaned by removing all loose and damaged material, moisture, dirt, and other foreign matter and shall be tack coated in accordance with 302-5.4 "Tack Coat."

7. The Contractor shall install new asphalt within the repair area or for patches in accordance with 302-5, "ASPHALT CONCRETE PAVEMENT." Asphalt concrete shall be C2-PG 64-10 in compliance with 400-4, "ASPHALT CONCRETE."

8. No preparatory asphalt work shall be done when the atmospheric temperature is below 50 °F or during unsuitable weather.

9. Following the asphalt placement, the Contractor shall roll the entire area of new asphalt in both directions at least twice. The finished patch shall be level and smooth in compliance with 302-5.6.2 "Density and Smoothness." After placement and compaction of the asphalt patch, the Contractor shall seal all finished edges with a 4" wide continuous band of SS-1H.

10. The minimum dimension for each individual repair shall be 4' x 4' and shall be subject to the following conditions:

    a) If the base material is exposed to achieve the required minimum removal thickness, the base material shall be prepared conforming to 301-1, "SUBGRADE PREPARATION."

b) When additional base material is required, then the contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, "Crushed Aggregate Base." Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, "Crushed Miscellaneous Base."

c) The Contractor may use grinding as a method for removal of deteriorated pavement when the areas indicated for removal are large enough (a minimum of the machine drum width) and when approved by the Engineer.

d) For both scheduled and unscheduled base repairs, failed areas may be removed by milling or by excavation provided that the edges are cut cleanly with a saw. The areas shall be cleaned and tack coated in accordance with 302-5.4, "Tack Coat" before replacing the asphalt. The areas for scheduled repairs have been marked on the street.

302-3.1 Asphalt Patching.

1. Asphalt patching shall consist of patching potholes, gutter-line erosion, and other low spots in the pavement that are deeper than ½" per 302-5.6.2, "Density and Smoothness." These areas are generally smaller and more isolated than those areas in need of mill and pave.

2. The areas requiring patching have been identified in the Contract Documents, marked on the streets, or as directed by the Engineer. The Contractor shall identify any new areas that may require patching prior to slurry work to ensure the smoothness and quality of the finished product.

3. The Contractor shall identify and repair any areas that may require patching, prior to the placement of slurry seal for smooth finished product.

4. Asphalt overlay shall not be applied over deteriorated pavement. Preparatory asphalt work shall be completed and approved by the Engineer before proceeding with asphalt overlay.

5. The Contractor shall remove distressed asphalt pavement either by saw cutting or milling, to expose firm and unyielding pavement; prepare subgrade (as needed); and install compacted asphalt concrete pavement over compacted native material as directed by the Engineer.

6. Prior to replacing asphalt, the area shall be cleaned and tack coated per 302-5.4, "Tack Coat".

7. Following the asphalt placement, the Contractor shall roll the entire patch in both directions covering the patch at least twice.

8. After placement and compaction of the asphalt patch, the Contractor shall seal all finished edges with a 4" wide continuous band of SS-1H.

9. Base repairs shall not exceed 20% RAP in content.

302-3.2 Payment.

1. Payment for replacement of existing pavement when required shall be included in the unit bid price for Asphalt Pavement repair for the total area replaced and no additional payment shall be made regardless of the number of replacements completed. No payment shall be made for areas of over excavation or outside trench areas in utility works unless previously approved by the Engineer. No payment for pavement replacement will be made when the damage is due to the Contractor's failure to protect existing improvements. The Contractor shall reimburse the City for the cost of retesting all failing compaction tests.

2. The areas and quantities shown on the road segments and in appendices are given only for the Contractor's aid in planning the Work and preparing Bids. The Engineer will designate the limits to be removed and these designated areas shall be considered to take precedent over the area shown in an Appendix to the Contract Documents. The quantities shown in the appendices are based on a street assessment survey and may vary.

3. At the end of each day, the Contractor shall submit to the Engineer an itemized list of the asphalt pavement repair work completed. The list shall include the location of the work and the exact square footage of the repair.

4. Preparatory repair work and tack coating will be paid at the Contract unit price per ton for Asphalt Pavement Repair. No payment shall be made for areas of over excavation unless previously approved by the Engineer.

5. Milling shall be included in the Bid item for Asphalt Pavement Repair unless separate Bid item has been provided.

6. Payment for miscellaneous asphalt patching shall be included in the Contract unit price for slurry and no additional payment shall be made therefore.

302-5.1.1 Damaged AC Pavement Replacement. To the City Supplement, DELETE in its entirety.

302-5.1.2 Measurement and Payment. To the City Supplement, DELETE in its entirety.

SECTION 306 – UNDERGROUND CONDUIT CONSTRUCTION

306-1 OPEN TRENCH OPERATIONS. To the City Supplements, CORRECT certain section numbering as follows:

OLD SECTION NUMBER	TITLE	NEW SECTION NUMBER
306-1.8	**House Connection Sewer (Laterals) and Cleanouts**	**306-1.9**
306-1.7.1	**Payment**	**306-1.9.1**

OLD SECTION NUMBER	TITLE	NEW SECTION NUMBER
306-1.7.2	**Sewer Lateral with Private Replumbing**	**306-1.9.2**
306-1.7.2.1	**location**	**306-1.9.2-1**
306-1.7.2.2	**Permits**	**306-1.9.2-2**
306-1.7.2.3	**Submittals**	**306-1.9.2-3**
306-1.7.2.4	**Trenchless Construction**	**306-1.9.2-4**
306-1.7.2.5	**Payment**	**306-1.9.2-5**
306-1.7.3.6	**Private Pump Installation**	**306-1.9.2-6**
306-1.7.3.7	**Payment**	**306-1.9.2-7**

306-1.6 **Basis of Payment for Open Trench Installations.** ADD the following:

Payment for imported backfill when the Contractor elects to import material from a source outside the project limits and when authorized by the Engineer shall be included in the Bid unit price for Imported Backfill. The price shall include the removal and disposal of unsuitable materials.

SECTION 700 –REVEGETATION, MAINTENANCE, AND MONITORING

700-1.7.2 **Project Biologist.** To the City Supplement, ADD the following:

The City has retained a qualified Project Biologist to perform biological monitoring work for this contract. You must coordinate your activities and Schedule with the activities and schedules of the Biologist Monitor.

SECTION 705 – WATER DISCHARGES

705-2.6.3 **Community Health and Safety Plan.** To the City Supplements, DELETE in its entirety and SUBSTITUTE with the following:

705-2.6.3 **Community Health and Safety Plan.** See 703-2, "Community Health and Safety Plan."

705-2.6.1 **General.** Paragraph (3), CORRECT reference to Section 803 to read "Section 703."

END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

EXHIBIT K

LIMITED GEOTECHNICAL INVESTIGATION

LIMITED GEOTECHNICAL INVESTIGATION

RANCHO MISSION SLOPE MOVEMENT TASK NO. 11GG06 CONTRACT NO. H104861 SAN DIEGO, CALIFORNIA

GEOCON
INCORPORATED

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

CITY OF SAN DIEGO
SAN DIEGO, CALIFORNIA

OCTOBER 10, 2011
PROJECT NO. G1200-52-05

Project No. G1200-52-05
October 10, 2011

City of San Diego
Engineering and Development Department
1010 Second Avenue, Suite 1100
San Diego, California 92101-4155

Attention: Mr. Julian Espinoza

Subject: LIMITED GEOTECHNICAL INVESTIGATION
RANCHO MISSION SLOPE MOVEMENT
TASK NO. 11GG06; CONTRACT NO. H104861
SAN DIEGO, CALIFORNIA

Dear Mr. Espinoza:

In accordance with your request and our proposal LG-11145 dated May 13, 2011, we have performed a limited geotechnical study for the subject site. The accompanying report presents the results of our analysis and our recommendations and methods of stabilizing the landslide.

Should you have any questions regarding this report, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON INCORPORATED

Ali Sadr
CEG 1778

PROFESSIONAL GEOLOGIST ★ STATE OF CALIFORNIA ★ ALI SADR No. 1778 CERTIFIED ENGINEERING GEOLOGIST

Yong Wang
GE 2775

REGISTERED PROFESSIONAL ENGINEER ★ STATE OF CALIFORNIA ★ YONG WANG No. 2775 Exp. 6/30/12 GEOTECHNICAL

AS:YW:dmc

(6/del) Addressee

TABLE OF CONTENTS

LIMITED GEOTECHNICAL INVESTIGATION

1. PURPOSE AND SCOPE

This report presents the results of a limited geotechnical study of the existing landslide located in the Navajo area of San Diego, California. The purpose of our investigation was to map the limits of the landslide, observe and sample prevailing materials, perform laboratory testing and engineering analysis, and to provide recommendations pertaining to the geotechnical aspect and various mitigation methods for the subject landslide.

The scope of our study included a review of stereoscopic aerial photographs and published maps and the topographic map of the area prepared by the City of San Diego.

We performed a field investigation that included a site geologic reconnaissance and excavating eleven exploratory trenches to a maximum depth of 14 feet. Logs of the exploratory trenches and other details of the field investigation are presented in Appendix A.

We performed laboratory tests on selected soil samples obtained during the field investigation to evaluate pertinent physical characteristics of the soil types encountered. A summary of laboratory test results is presented in Appendix B. Recommendations contained herein are based on an analysis of data obtained in the trenches, laboratory test results and our experience with similar soil and geologic conditions.

2. SITE AND PROJECT DESCRIPTION

The landslide is located within the Rancho Mission Open Space area, between Town View Lane and Deerfield Street in the Navajo area of San Diego, California (Vicinity Map, Figure 1). The landslide reportedly occurred on March 25, 2011, in the middle of a northeast facing natural slope in an old ravine. The slope is approximately 170 feet high with inclination ranging from approximately 2:1 (horizontal to vertical) to 3:1. A review of the published geologic maps indicates that the area is underlain by the Stadium Conglomerate at the higher elevations and the Friars Formation at the lower elevations. The landslide occurred within the area underlain by Friars Formation and is approximately 300 feet long and up to 60 feet wide. The head of the recent landslide is at an elevation of approximately 515 feet Mean Sea Level (MSL) and the toe at an elevation of 423 feet (MSL). An older escarpment, indicating previous activities, is evident at an approximate elevation of 530 feet (MSL).

Within the landslide mass, the topography is hummocky with the main scarp approximately 15 feet in height, and relatively flat benches and a steep segment with a bulging toe. Numerous near-vertical, minor scarps along with tension cracks were observed during the site reconnaissance. The existing

public trail located at approximate elevation of 490 feet (MLS) has been displaced by the landslide. The area of the landslide has recently been cleared of heavy brush and vegetation to facilitate our field investigation and subsequent mitigation.

The landslide is considered active. Periods of heavy rain, such as last winter in San Diego were likely a major contributing factor to the mass movement and continued creep. Standing water and heavy seepage were observed at several locations during our initial visits last April. In our opinion, the landslide is unstable and may be reactivated with a sizable rainfall.

Our investigation was limited to the current landslide area. The slope located above the landslide area appeared to be stable during our site investigation. We did not encounter any evidence indicating otherwise nor brought to our attention. Additional investigation in the vicinity, if required, can be performed under a separate scope.

3. SOIL AND GEOLOGIC CONDITIONS

The general area of the landslide is underlain by Eocene-age strata consisting of the Friars Formation and Stadium Conglomerate. The landslide occurred primarily within the weathered portion of the Friars Formation. The surficial materials consist of a relatively thick colluvium that had formed within the old ravine and the landslide debris. Each of these units is described below and their lateral limits are shown on the Geologic Map, Figure 2.

3.1 Landslide Debris (Qls)

The landslide is approximately 300 feet long, 45 to 60 feet wide and 10 to 15 feet thick. The exploratory data indicate that the landslide is translational in nature and has occurred within the saturated colluvium and the weathered portion of the Friars Formation in the old ravine. There is an older escarpment approximately 50 feet above the new head scarp indicating previous activity. The landslide material consists of loose wet, dark brown clayey sand and cobles mixed with soft saturated gray and pink clay. The lateral limits and head of the landslide are characterized by abrupt, near-vertical escarpments while the toe of the slide is defined, in part, by a bulge. Numerous secondary scarps were also encountered throughout the landslide mass. No significant tension cracks were observed above the main scarp of the landslide.

3.2 Colluvium (Qc)

Colluvial soils occur along the canyon side-slopes, at the base of the natural slopes and in the ravines. The colluvium that accumulated in the old ravine is part of the landslide debris. The maximum thickness of colluvium observed in excavations is approximately 4 feet. The material, consisting of

medium dense, dry to moist, dark brown, clayey sand with cobbles, blankets the areas surrounding the landslide.

3.3 Stadium Conglomerate (Tst)

Sandstones and conglomerates of the Eocene-age Stadium Conglomerate unconformably overlie the Friars Formation above an elevation of approximately 535 feet (MSL). We did not encounter Stadium Conglomerate in our exploratory trenches. In general, the materials consist of very dense, dry to humid, brown, cobbly to sandy, carbonate-rich conglomerate with abundant boulder-size rock. The bedding within this unit is generally massive and typically parallels the underlying Friars Formation contact, which dips 2 to 3 degrees to the southwest.

3.4 Friars Formation (Tf)

Interbedded sandstones and claystones associated with the Friars Formation underlie the area below an elevation of approximately 540 feet MSL. In general, the formational materials encountered consist of soft to firm, wet, gray to pinkish gray, sandy claystone to dense, moist, very light gray silty sandstone. The clayey soils are mostly highly weathered and at the higher elevation. It appears that the current landslide has originated in this clayey material.

4. LANDSLIDE

A review of the stereoscopic aerial photographs of 1953 (AXN-10M-107 and 108) reveals no indication of the presence of an ancient landslide in the area. The recent slide reportedly occurred on March 25, 2011. During our initial site visit in April 2011, standing water and heavy seepage were noted near the head scarp. The source of water can be attributed to irrigation of the slope above the slide area, recent precipitation and poor drainage. It has been brought to our attention that according to the Water Department records excessive water use (due to a water leak) prior and during the slope movement has been detected, at the residence on top of the slop (6730 Town View Court). An older escarpment above the recent head scarp indicates previous activities. The Geologic Cross-Section A-A′ presented on Figure 3 shows the approximate location of the basal plane near the center of the landslide. The Geologic Cross Section B-B′, also presented on Figure 3, shows the configuration of the slide near the existing trail.

The recent landslide likely originated as a circular failure within the saturated clayey soils of the weathered Friars Formation and overlaying colluvium and became a translational slide As confinement was lost. The landslide is considered unstable and any sizable rainfall may reactivate it. Stabilization should take place prior to start of the next rainy season. The land slide debris is generally clayey and wet. The material is not suitable to be used as fill in its present conditions and will require mixing and moisture conditioning prior to use as fill. Due to the limited access and space,

removal and processing will be difficult. We have provided two alternatives in *Section 6* for mitigation of the slide.

5. SLOPE STABILITY

We evaluated the slope configuration, as depicted on the Geologic Map, to calculate global stability based on the current geologic information. We performed the slope stability analyses using the two-dimensional computer program *GeoStudio2007* created by Geo-Slope International Ltd. Analyses were performed to provide two alternatives to mitigate the landslide and reduce the potential for additional movement and damage to the adjacent properties. The approximate configurations of each alternative for the existing slope are presented in Appendix C. The proposed slope should be stable from shallow sloughing conditions provided the recommendations for grading and drainage are incorporated into the design and construction of the proposed slopes.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 General

6.1.1 Our study indicates that the subject landslide is a translational failure that occurred within the colluvium and the weathered portion of the Friars Formation within an old ravine. This landslide is considered active and should be stabilized to preclude future progressive failure that could encroach on the residences located beyond the toe of the slide.

6.1.2 The slope above and adjacent to the landslide is considered stable. However, moisture migration due to runoff by excessive irrigation or precipitation should be diverted into controlled drainage system. The near surface moisture migration from upstream should be intercepted by installing a cutoff drain above the head of the landslide.

6.2 Landslide Mitigation Methods

6.2.1 We have presented two alternatives to mitigate the landslide and reduce the potential for additional movement and damage to the adjacent properties.

6.2.2 **Alternative No. 1 – Total Removal and Regrade.** This alternative considers removal of the landslide debris in its entirety, export and disposal of the material. The removal should include the highly weathered portion of the Friars Formation within the slide and extend at least 10 feet beyond the lateral limits of the landslide. The resulting excavation should be regraded and re- contoured to blend into the surrounding topography to create positive drainage and reduce the potential for ponding water. Some compacted fill may be required to be place in the middle section of the slope to accommodate the trail connection, as illustrated on Figure 4, Proposed Mitigation, Alternative 1.

6.2.3 **Alternative No. 2 – Total Removal and Replacement.** The slope can also be regraded using import soil. The landslide debris should be removed, drainage installed, and excavated soils replaced with imported granular soils. The landslide debris, due to high clay content and low shear strength is not suitable to be used for regrading the slope and should be exported from the site. Select soils with adequate shear strength should be imported and properly placed as compacted fill to achieve the original topography. A schematic illustration of this alternative is presented on Figure 5, Proposed Mitigation, Alternative 2.

6.2.4 For Alternative 2, select fill material with minimum shear strength parameters of: ϕ=25 degrees and C = 250 psf should be used to reconstruct the slope. The slope

should be constructed with an inclination of approximately 2:1 (horizontal to vertical) or matching the existing slope.

6.2.5 The landslide debris and the weathered portion of the Friars Formation within the landslide area and at least 10 feet beyond the limits of the landslide should be removed and exported from the site for both alternatives.

6.2.6 A toe key, approximately 20 feet wide, embedded at least 5 feet into the undisturbed formational materials should be excavated at the toe of the landslide and properly backfilled with compacted fill for Alternative 2 (see Figure 5).

6.2.7 A subdrain should be placed at the base of the cleanout and connected into an appropriate discharge facility for Alternative 2. A typical subdrain detail is shown on Figure 6.

6.2.8 The imported soil should be moisture conditioned and compacted as discussed hereinafter.

6.2.9 For both alternatives, we recommend installation of a "cutoff" drain above the head of the landslide to intercept potential moisture migration from the upslope areas. A typical cutoff drain detail is shown on Figure 7. The drain should be connected to an appropriate discharge facility.

6.2.10 A cut off wall should be installed where the perforated pipe is transitioning into the solid pipe. A typical subdrain cutoff wall is depicted on Figure 8.

6.2.11 A review of the above alternatives indicate that Alternative No. 1 appears to be a more practical and economical method of mitigation, since it does not require massive import of material.

6.2.12 Regardless of mitigation method, the area should be graded to maintain the connection of the public trail located within the upper portion of the landslide.

6.2.13 The slope stability analysis results for the existing conditions and proposed alternatives are presented on Figures C-1 through C-3.

6.3 Grading

6.3.1 Grading for site development should be performed in accordance with the *Recommended Grading Specifications* contained in Appendix D, and in accordance with pertinent

ordinances of the City of San Diego. Where the recommendations of Appendix D conflict with this section of the report, the recommendations of this section shall take precedence.

6.3.2 All earthwork should be performed in conjunction with the observation and testing services of Geocon Incorporated.

6.3.3 Prior to commencing grading, a preconstruction conference should be held at the site with the City of San Diego, Grading Contractor, Civil Engineer, and Geotechnical Engineer in attendance. Special soil handling and/or the grading plans can be discussed at that time.

6.3.4 Site preparation should begin with removal of all deleterious matter and vegetation from areas to be graded. Material generated during stripping operations should be exported from the site to an approved location.

6.3.5 If Alternative No. 1 is selected, the landslide debris and highly weathered portion of the Friars Formation should be removed and exported. The ground surface can then be graded to create a positive and secure surface drainage system and topographically blend into the adjacent surroundings. We do not anticipate significant fill placement with this alternative other than the trail area and minor areas required to make contours.

6.3.6 If Alternative No. 2 is selected, after removal and export of the unsuitable soils, the bottom of excavation should then be scarified, moisture conditioned, and compacted. The site should be brought to final finish grade elevations with structural fill compacted in layers. In general, on-site soils are not suitable for reuse as fill and select soils with adequate shear strength should be imported to be placed as fill. Layers of fill should be no thicker than will allow for adequate bonding and compaction. All fill (including backfill and scarified ground surfaces) should be compacted to at least 90 percent of the laboratory maximum density near to slightly above optimum moisture content in accordance with ASTM D 1557.

6.3.7 All import fill materials should be approved by Geocon Incorporated in writing prior to delivery to the site.

6.3.8 The bottom of excavation should be observed by an engineering geologist to verify that soil and geologic conditions do not differ significantly from those anticipated. The requirement for remedial measures will be evaluated in the field during grading when the exposed conditions can be more appropriately observed.

6.3.9 All fill slopes should be overbuilt at least 3 feet horizontally, and cut to the design finish grade. As an alternative, fill slopes may be compacted by back-rolling at vertical intervals not to exceed 4 feet and then track-walking with a D-8 dozer or equivalent upon completion such that the fill soils are uniformly compacted to at least 90 percent relative compaction to the face of the finished slope.

6.3.10 All slopes should be planted with appropriate native vegetation, drained and properly maintained to reduce erosion.

6.4 Drainage and Maintenance

6.4.1 Good drainage is imperative to reduce the potential for differential soil movement, erosion, and subsurface seepage. Positive measures should be taken to properly finish grade the area so that drainage water from the cutoff drain, subdrain and surface drainage to existing drainage structures. Experience has shown that even with these provisions, a shallow groundwater or subsurface water condition can and may develop in areas where no such water condition existed prior to site development; this is particularly true where a substantial increase in surface water infiltration results from an increase in landscape irrigation.

6.4.2 If irrigation is used for native revegetation, all irrigation would be temporary and above grade, so no excavation for irrigation lines would be necessary.

6.5 Slope Maintenance

6.5.1 Slopes that are steeper than 3:1 (horizontal:vertical) may, under conditions which are both difficult to prevent and predict, be susceptible to near surface (surficial) slope instability. The instability is typically limited to the outer three feet of a portion of the slope and usually does not directly impact the improvements on the pad areas above or below the slope. The occurrence of surficial instability is more prevalent on fill slopes and is generally preceded by a period of heavy rainfall, excessive irrigation, or the migration of subsurface seepage. The disturbance and/or loosening of the surficial soils, as might result from root growth, soil expansion, or excavation for irrigation lines and slope planting, may also be a significant contributing factor to surficial instability. It is, therefore, recommended that, to the maximum extent practical: (a) disturbed/loosened surficial soils be either removed or properly recompacted, (b) irrigation systems be periodically inspected and maintained to eliminate leaks and excessive irrigation, and (c) surface drains on and adjacent to slopes be periodically maintained to preclude ponding or erosion. It should be noted that although the incorporation of the above recommendations should reduce the potential for surficial slope instability, it will not

eliminate the possibility, and, therefore, it may be necessary to rebuild or repair a portion of the project's slopes in the future.

6.6 Grading Plan Review

6.6.1 The soil engineer and engineering geologist should review the grading plans prior to finalization to verify their compliance with the recommendations of this report and determine the need for additional comments, recommendations and/or analysis

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The firm that performed the geotechnical investigation for the project should be retained to provide testing and observation services during construction to provide continuity of geotechnical interpretation and to check that the recommendations presented for geotechnical aspects of site development are incorporated during site grading, construction of improvements, and excavation of foundations. If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. A copy of the letter should be provided to the regulatory agency for their records. In addition, that firm should provide revised recommendations concerning the geotechnical aspects of the proposed development, or a written acknowledgement of their concurrence with the recommendations presented in our report. They should also perform additional analyses deemed necessary to assume the role of Geotechnical Engineer of Record.

2. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon Incorporated should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon Incorporated.

3. This report is issued with the understanding that it is the responsibility of the owner or his representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

4. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

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NO SCALE

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GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
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PHONE 858 558-6900 - FAX 858 558-6159

AS / RA		DSK/GTYPD

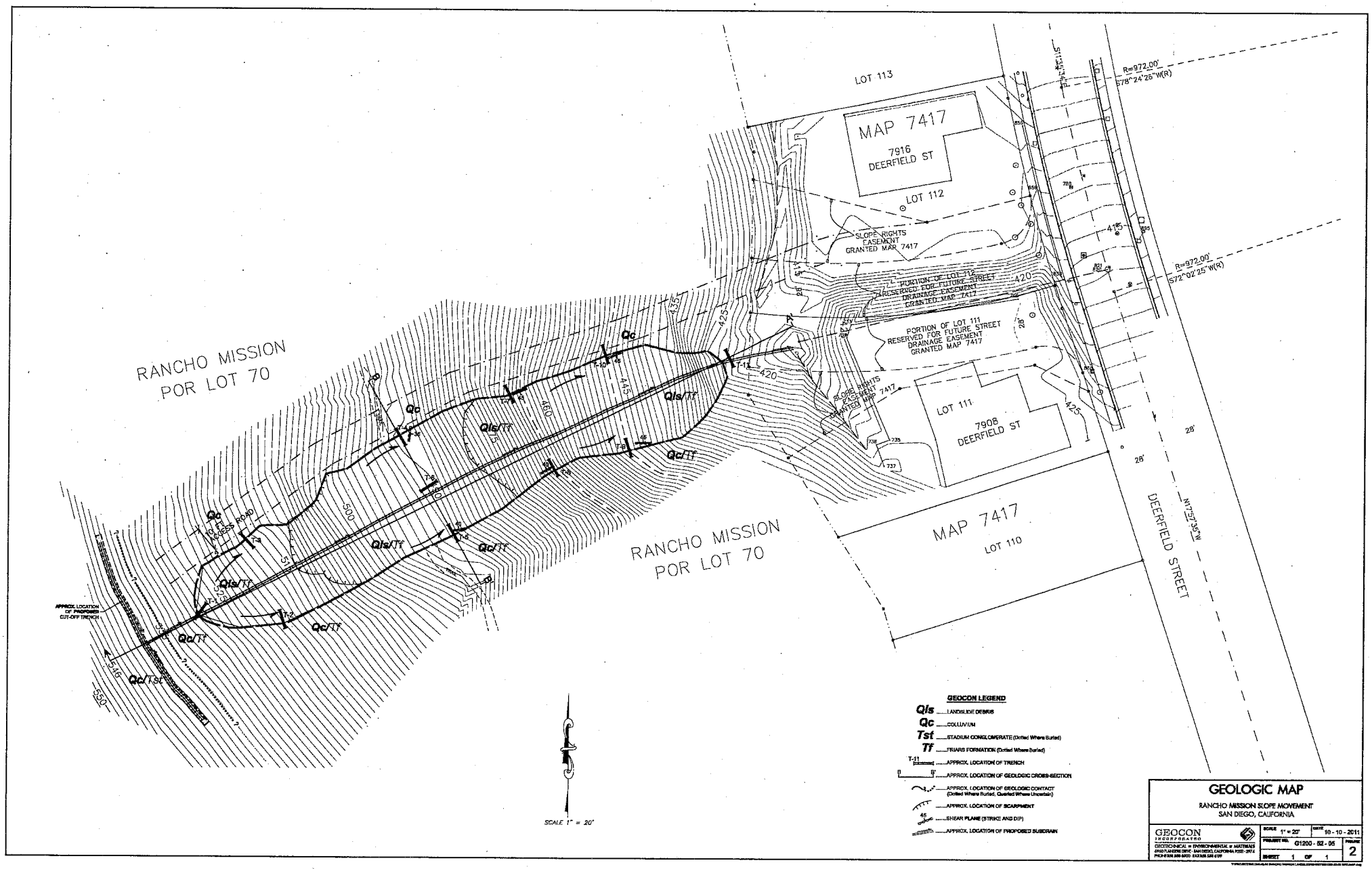
Vicinity Map

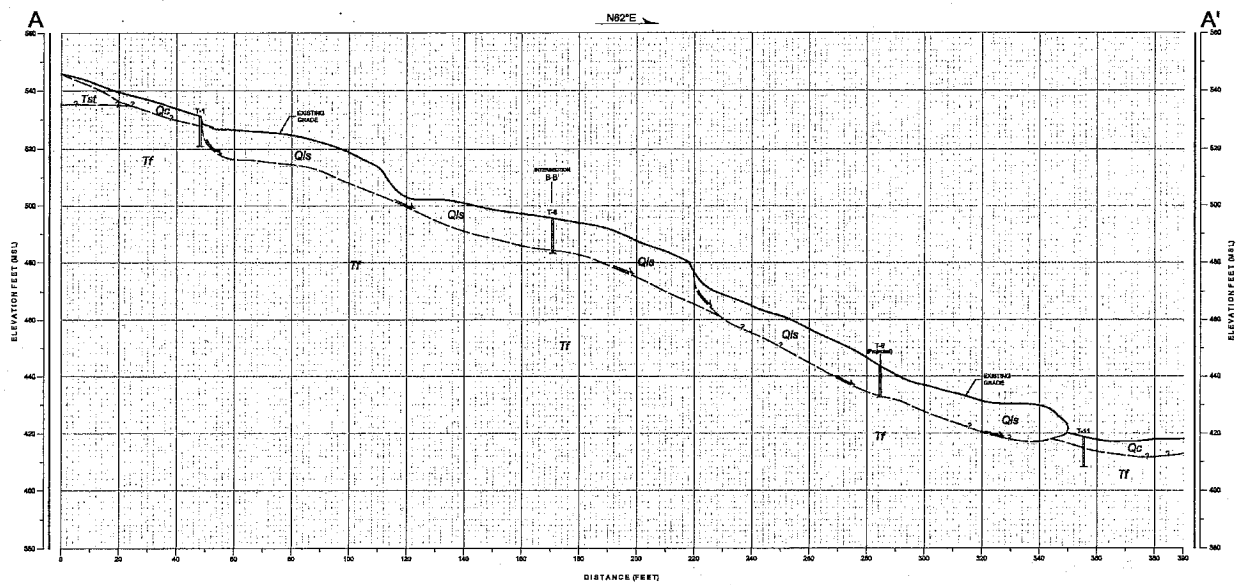
VICINITY MAP

RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. 1

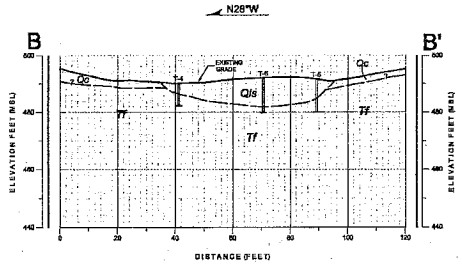
Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05 Vicinity Map.dwg


LOT 113
MAP 7417
7916 DEERFIELD ST
LOT 112
SLOPE RIGHTS EASEMENT GRANTED MAP 7417
PORTION OF LOT 112 RESERVED FOR FUTURE STREET DRAINAGE EASEMENT GRANTED MAP 7417
PORTION OF LOT 111 RESERVED FOR FUTURE STREET DRAINAGE EASEMENT GRANTED MAP 7417
LOT 111
7908 DEERFIELD ST
MAP 7417
LOT 110
DEERFIELD STREET
R=972.00'
S78°24'25"W(R)
R=972.00'
S72°02'25"W(R)
N17°57'35"W
RANCHO MISSION POR LOT 70
RANCHO MISSION POR LOT 70
Qc
Qls/Tf
Qc/Tf
Qc/Tst
APPROX. LOCATION OF PROPOSED CUT-OFF TRENCH
SCALE 1" = 20'
GEOCON LEGEND
Qls ..... LANDSLIDE DEBRIS
Qc ..... COLLUVIUM
Tst ..... STADIUM CONGLOMERATE (Dotted Where Buried)
Tf ..... FRIARS FORMATION (Dotted Where Buried)
T-11 ..... APPROX. LOCATION OF TRENCH
B B' ..... APPROX. LOCATION OF GEOLOGIC CROSS-SECTION
APPROX. LOCATION OF GEOLOGIC CONTACT (Dotted Where Buried, Queried Where Uncertain)
APPROX. LOCATION OF SCARPMENT
45 ..... SHEAR PLANE (STRIKE AND DIP)
APPROX. LOCATION OF PROPOSED SUBDRAIN
GEOLOGIC MAP
RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA
GEOCON INCORPORATED
SCALE 1" = 20'
DATE 10 - 10 - 2011
PROJECT NO. G1200 - 52 - 05
FIGURE 2
SHEET 1 OF 1



GEOLOGIC CROSS-SECTION A-A'

SCALE: 1" = 20' (Vert. = Horiz.)



GEOLOGIC CROSS-SECTION B-B'

SCALE: 1" = 20' (Vert. = Horiz.)

GEOCON LEGEND

Qls .....LANDSLIDE DEBRIS

Qc .....COLLUVIUM

Tst .....STADIUM CONGLOMERATE

Tf .....FRIARS FORMATION

T-11 .....APPROX. LOCATION OF TRENCH

.....APPROX. LOCATION OF GEOLOGIC CONTACT (Queried Where Uncertain)

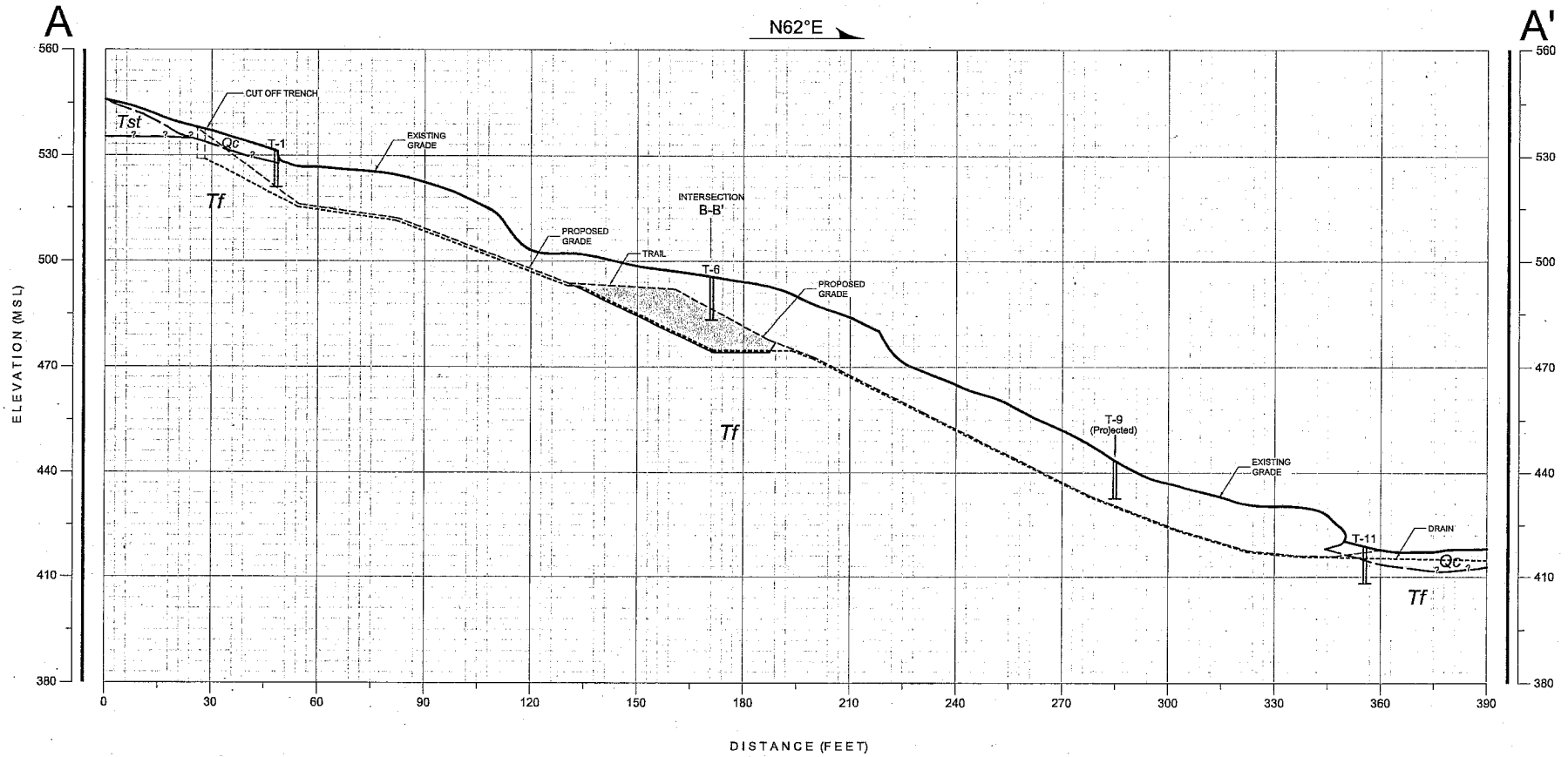
GEOLOGIC CROSS - SECTIONS

RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

GEOCON INCORPORATED
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
SAN DIEGO, CALIFORNIA 92121 - 2974

SCALE 1" = 20' | DATE 10 - 10 - 2011
PROJECT NO. G1200 - 52 - 05 | FIGURE 3
SHEET 1 OF 1

RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA



GEOCON LEGEND

Tf .....FRIARS FORMATION

T-11 .....APPROX. LOCATION OF TRENCH

.....APPROX. LOCATION OF GEOLOGIC CONTACT (Queried Where Uncertain)

GEOLOGIC CROSS-SECTION A-A'

SCALE: 1" = 30' (Vert. = Horiz.)

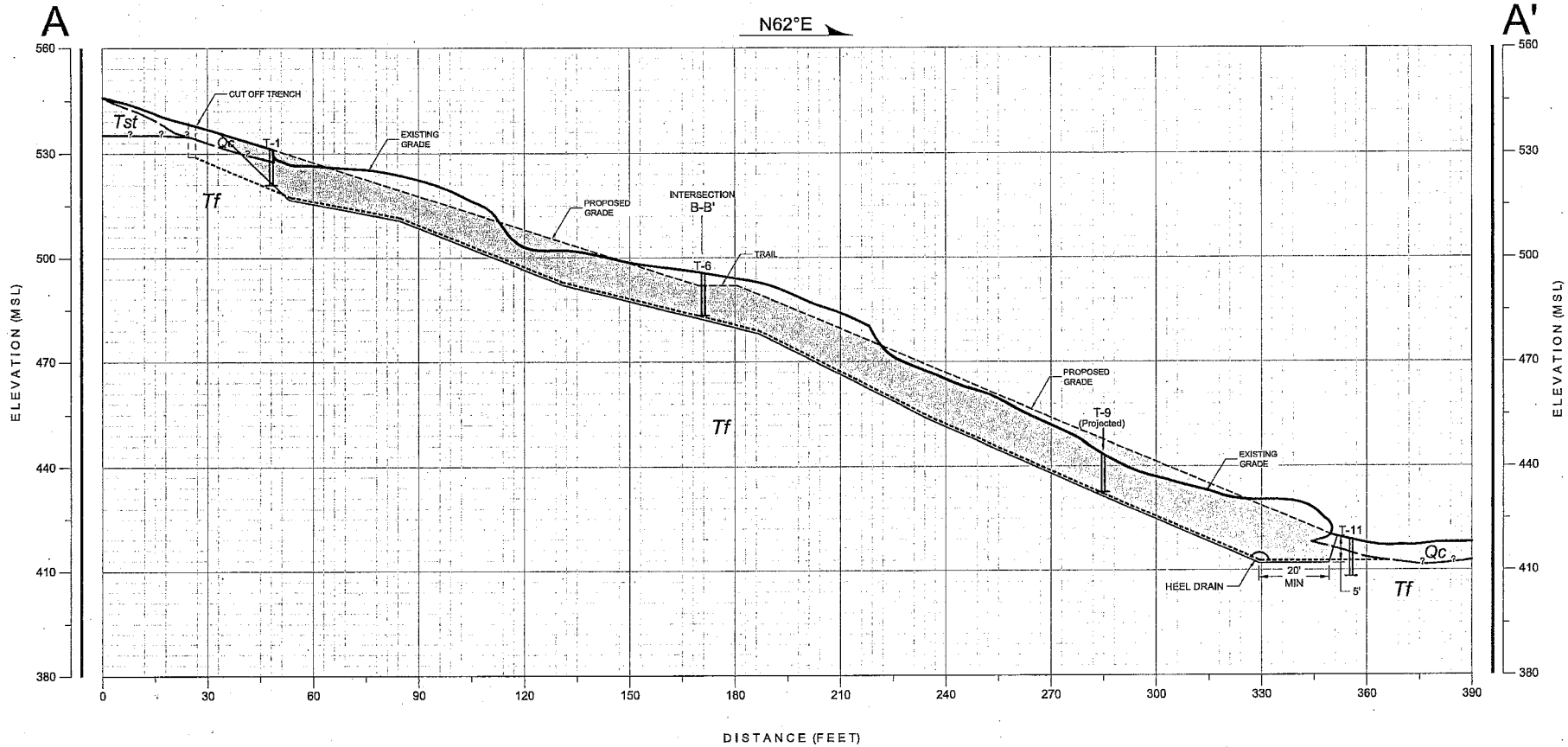
ALTERNATIVE 1 - TOTAL REMOVAL

GEOCON INCORPORATED
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159

PROJECT NO. G1200 - 52 - 05
FIGURE 4
DATE 10 - 10 - 2011

LADRILLONO

RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA



GEOCON LEGEND

Tf .....FRIARS FORMATION

T-11 .....APPROX. LOCATION OF TRENCH

.....APPROX. LOCATION OF GEOLOGIC CONTACT (Queried Where Uncertain)

GEOLOGIC CROSS-SECTION A-A'

SCALE: 1" = 30' (Vert. = Horiz.)

ALTERNATIVE 2 - REMOVAL AND REPLACE

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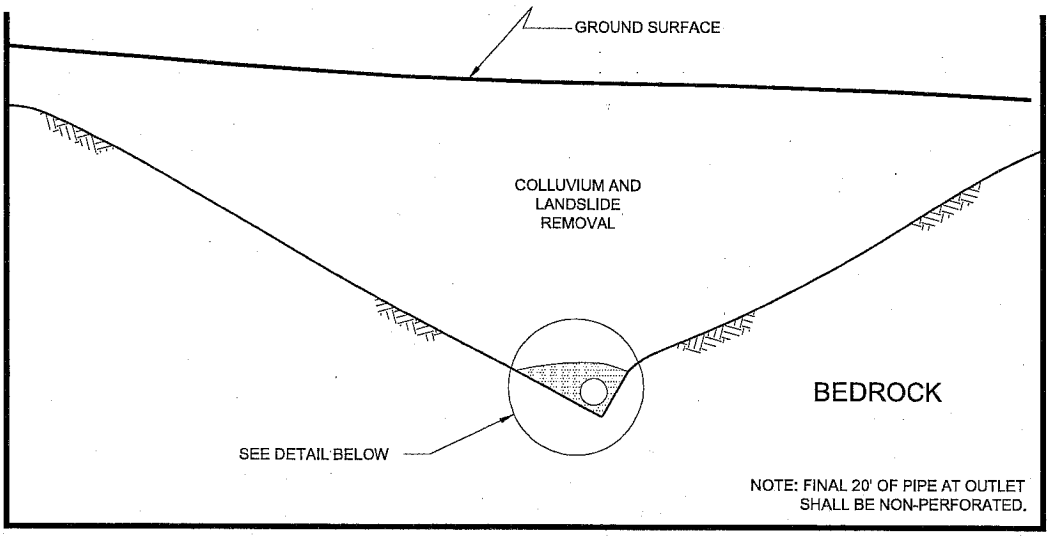
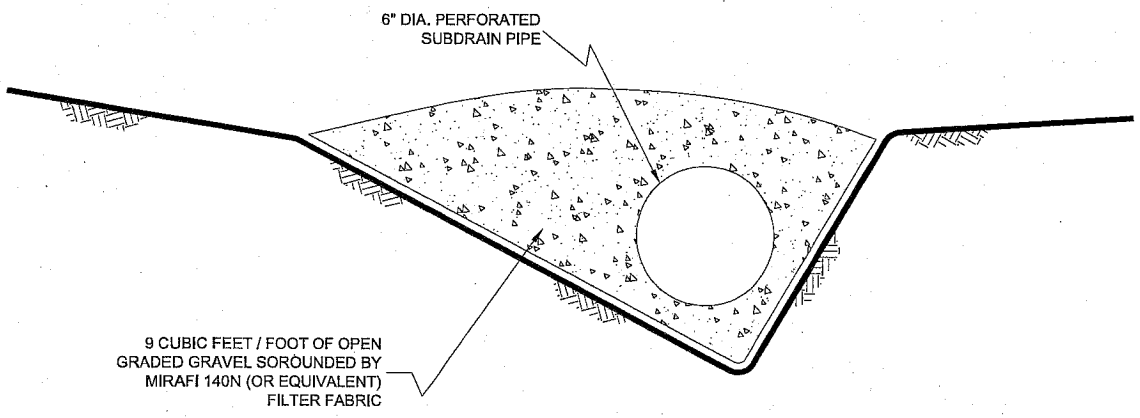
PROJECT NO. G1200 - 52 - 05
FIGURE 5
DATE 10 - 10 - 2011

LADRILLONO

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\RESTING\1200-52-05 X5-AA (Alternative).dwg





NOTES:

1.....6-INCH DIAMETER SCHEDULE 40 PVC PERFORATED PIPE

NO SCALE

TYPICAL CANYON SUBDRAIN DETAIL

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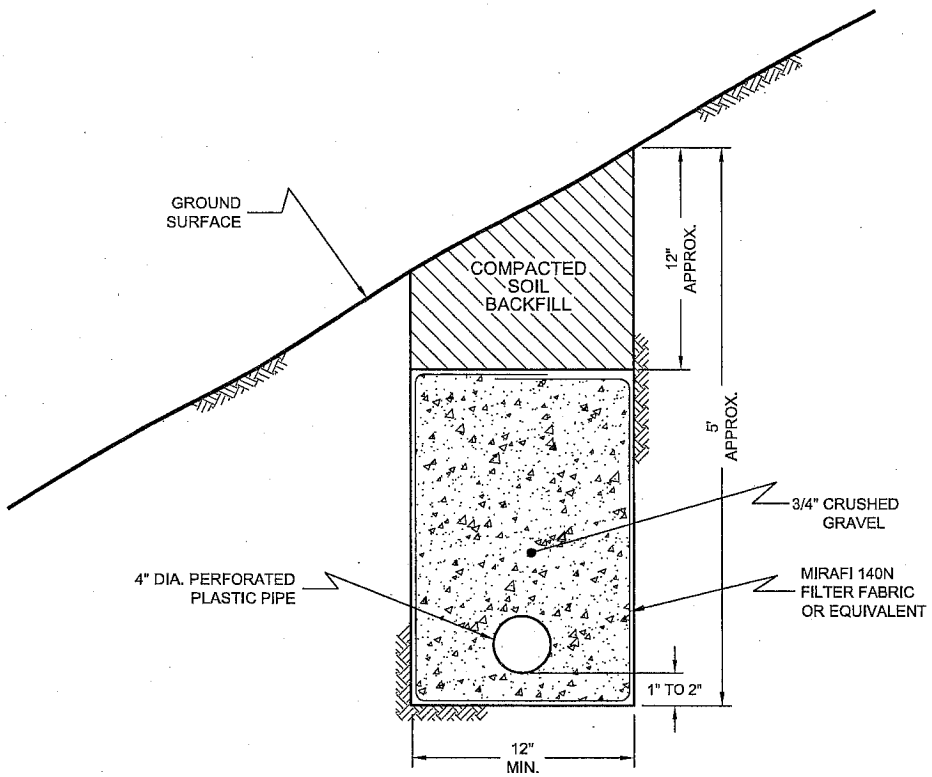
RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. 6

Y:/PROJECTS/G1200-52-05 RANCHO MISSION LANDSLIDE/DETAILS/CYNDTAIL_2A.dwg



NO SCALE

SUBSURFACE CUT-OFF DRAINAGE SYSTEM

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RANCHO MISSION SLOPE MOVEMENT
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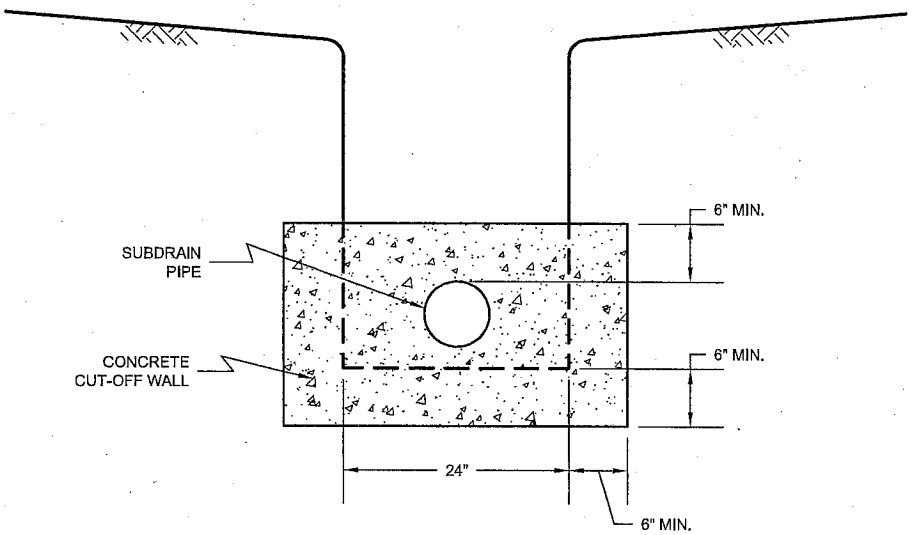
DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. 7

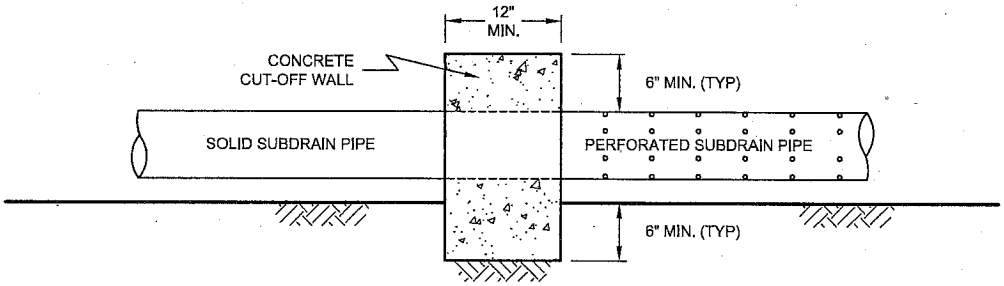
Y:/PROJECTS/G1200-52-05 RANCHO MISSION LANDSLIDE/DETAILS/SDS1.dwg

FRONT VIEW



NO SCALE

SIDE VIEW



NO SCALE

TYPICAL SUBDRAIN CUT-OFF WALL DETAIL

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RANCHO MISSION SLOPE MOVEMENT
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DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. 8

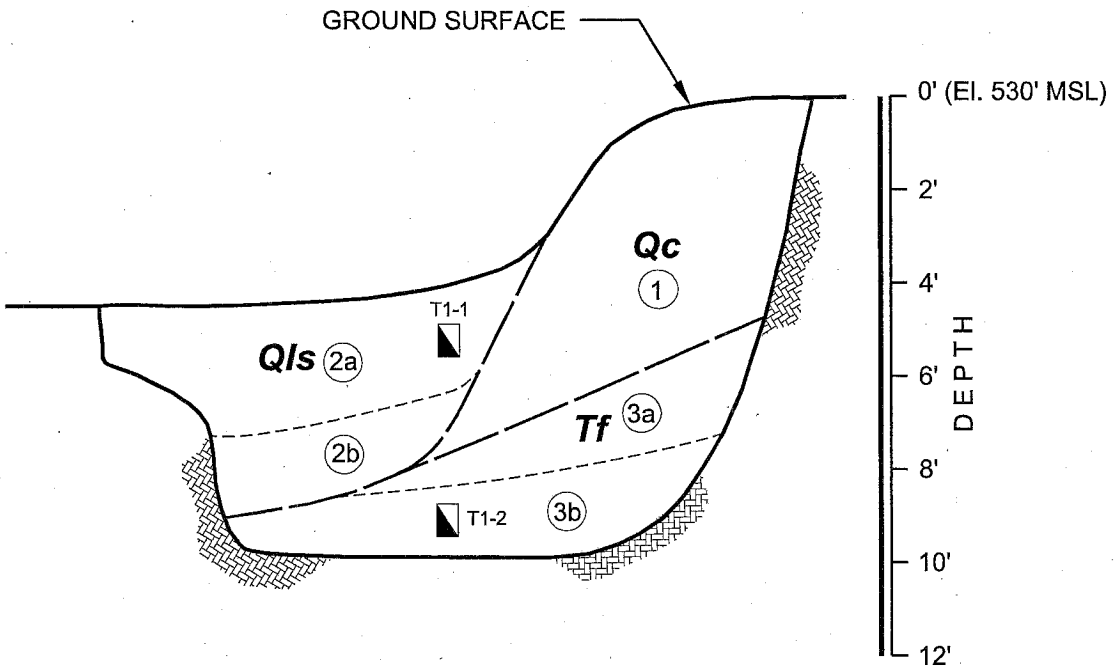
Y:/PROJECTS/G1200-52-05 RANCHO MISSION LANDSLIDE/DETAILS/RSCOW.dwg

APPENDIX A

APPENDIX A

FIELD INVESTIGATION

The field investigation was performed on August 9, 2011, and consisted of 11 exploratory trenches. The approximate locations of the trenches are shown on the Geologic Map, Figure 2. We visually examined the soil conditions encountered within the trenches, classified, and logged in general conformance with Unified Soil Classification System (USCS). Logs of trenches are presented on Figure A-1 through A-11. The logs depict the general soil and geologic conditions encountered and the depth at which we obtained the samples.



COLLUVIUM

(1) Medium dense, moist, grayish brown, Clayey SAND; with some cobbles (SC)

LANDSLIDE DEBRIS

(2a) Soft, wet, very light green to gray, Silty CLAY (CL)

(2b) Becomes firm , wet, light green and light pink, Silty CLAY, randomly sheared and slikensided (CL)

FRIARS FORMATION

(3a) Firm, moist, greenish gray and pink, Sandy CLAYSTONE, blocky weathered, shinny parting surfaces (CL)

(3b) Dense, moist, light greeish green, Clayey, fine SANDSTONE (SC)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 1

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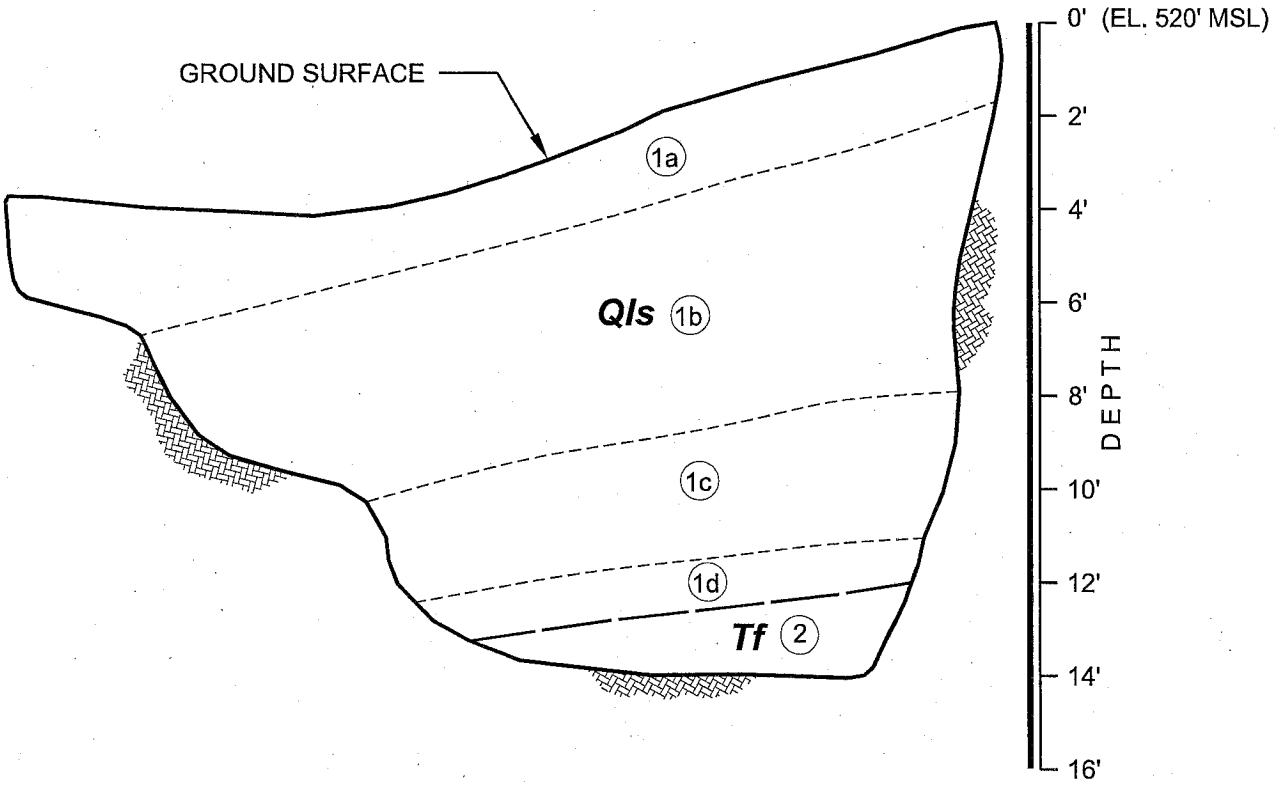
AS / RS		DSK/GTYPD

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A1

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



LANDSLIDE DEBRIS

(1a) Medium dense, dry to damp, light grayish brown, Silty SAND and gravel (SM)

(1b) Becomes moist, brown, Silty to Clayey SAND with some cobbles (SC-SM)

(1c) Fine, moist to wet, light green and pinkish green, Silty CLAY, randomly sheared (CL)

(1d) Becomes stiff, blocky and slickensided - randomly sheared

FRIARS FORMATION

(2) Hard, moist, greenish brown, Sandy CLAYSTONE - blocky (CL)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 2

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RANCHO MISSION SLOPE MOVEMENT
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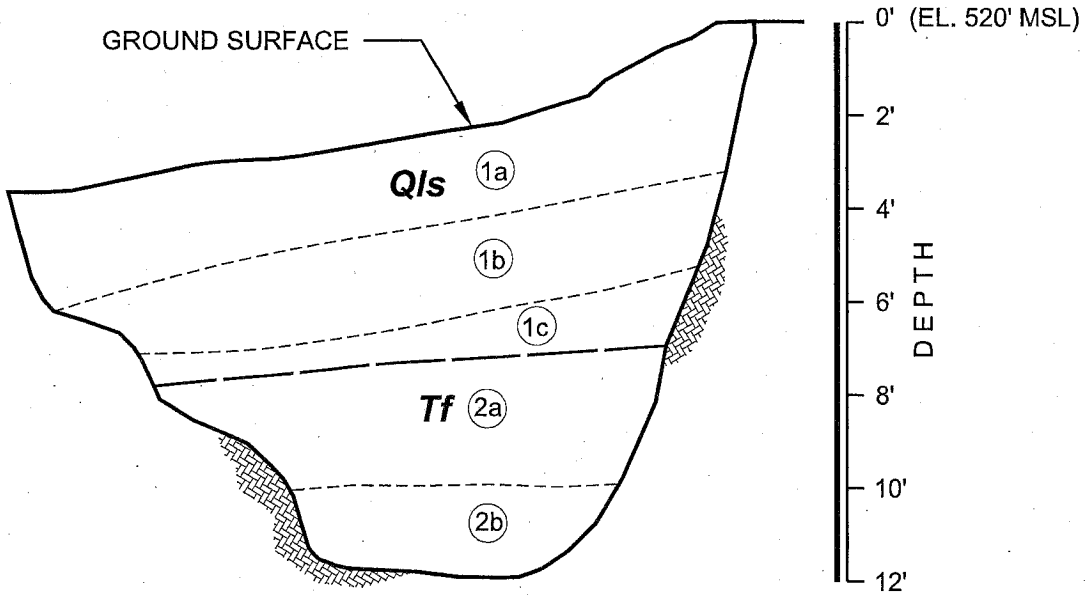
DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A2

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



LANDSLIDE DEBRIS

(1a) Medium dense, dry to damp, grayish brown, Silty SAND with gravel/cobbles and roots (SM)

(1b) Firm, very moist, light grayish green, Sandy CLAY (CL)

(1c) Becomes soft and wet to saturated

FRIARS FORMATION

(2a) Firm, very moist, light pinkish green, Silty CLAY, blocky, shiny parting surfaces (weathered) (CL)

(3b) Hard, moist, green, CLAYSTONE, blocky (CL)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 3

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RANCHO MISSION SLOPE MOVEMENT
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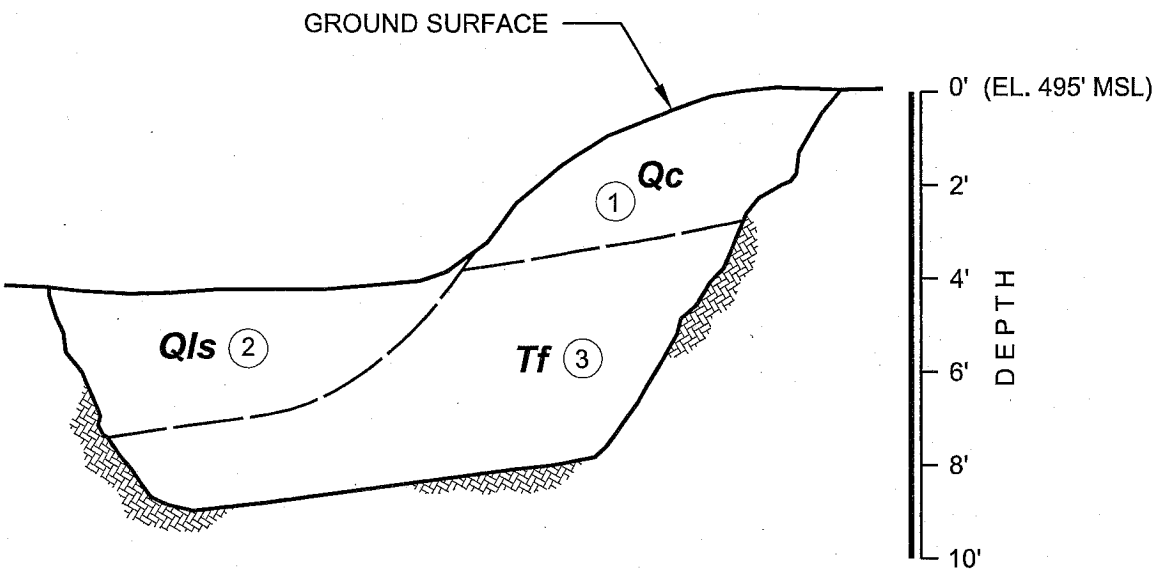
DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A3

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



COLLUVIUM

(1) Firm, damp, dark brown to grayish brown, Sandy CLAY, dessication cracks and caliche (CL)

LANDSLIDE DEBRIS

(2) Firm, moist, dark brown to grayish brown, Sandy CLAY, few cobbles randomly sheared (CL), shear plane N30°E, 35°SE

FRIARS FORMATION

(3) Dense to very dense, moist, very light grayish brown, Silty SANDSTONE (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 4

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RANCHO MISSION SLOPE MOVEMENT
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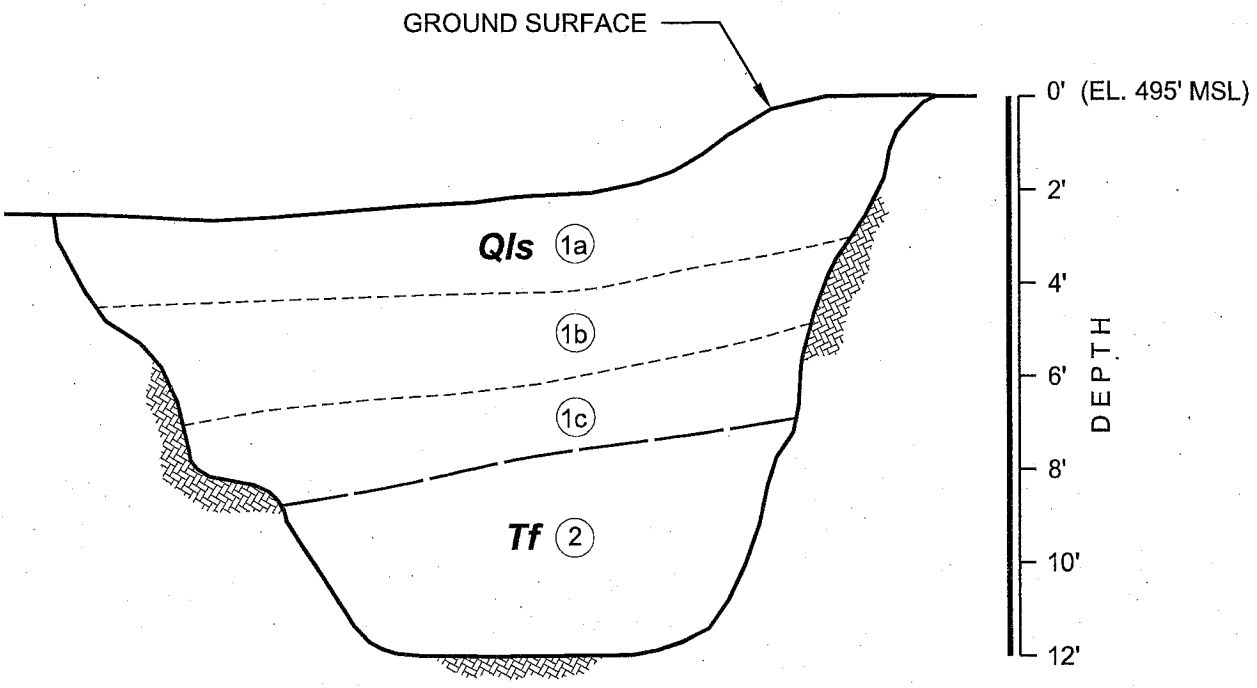
DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A4

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



LANDSLIDE DEBRIS

(1a) Medium dense, damp, dark, grayish brown, Silty to Clayey SAND with cobbles, boulders up to 10" diameter (SC-SM)

(1b) Firm, moist, graysih brown, Sandy CLAY with little cobble, occasionally sheared (CL)

(1c) Becomes medium dense, moist, grayish brown, Silty to Clayey SAND, mixed with firm, moist, Sandy CLAY, partially sheared (SC-SM/CL), shear plane N80°W, 40°NE

FRIARS FORMATION

(2) Dense, moist, yellowish gray, Silty, fine to medium SANDSTONE (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 5

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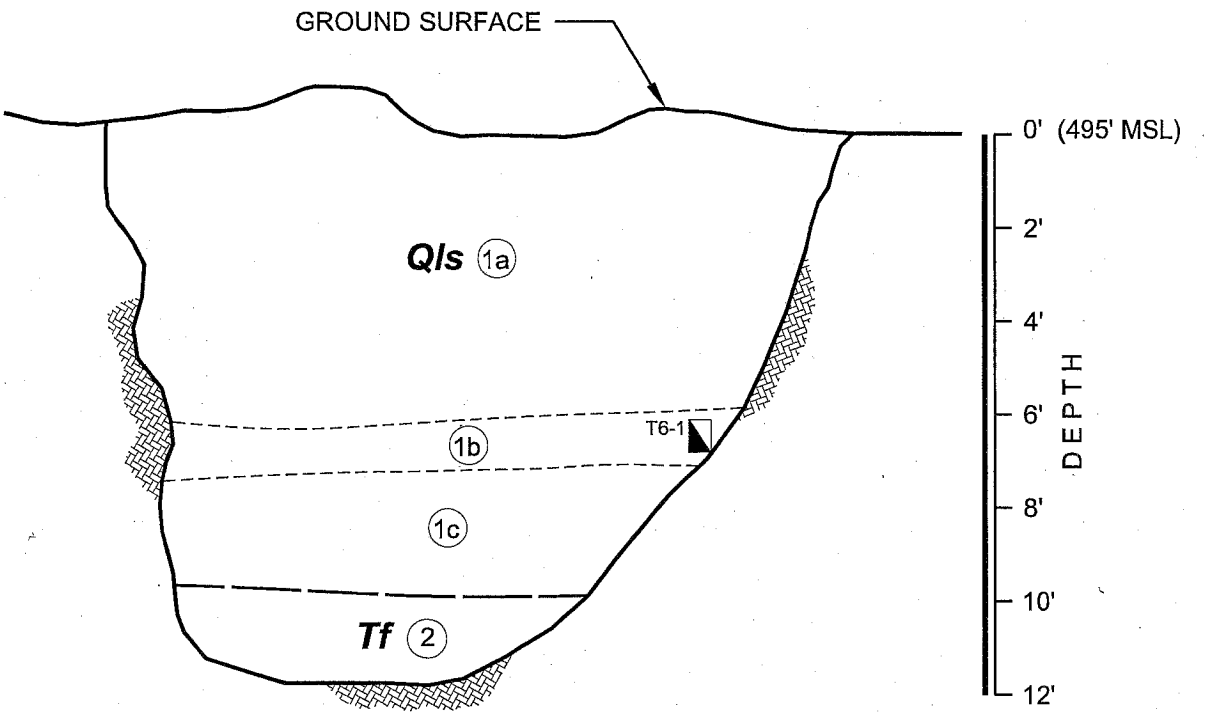
RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A5

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



LANDSLIDE DEBRIS

(1a) Loose, wet, dark brown, Clayey SAND and COBBLES (GC)

(1b) Soft, saturated pinkish gray, CLAY, partially sheared (CL)

(1c) Loose to medium dense,wet, yellowish brown, Silty to Clayey SAND with cobbles and boulders (SC-SM)

FRIARS FORMATION

(2) Dense, moist, very light gray, Silty, fine to medium SANDSTONE (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 6

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RANCHO MISSION SLOPE MOVEMENT
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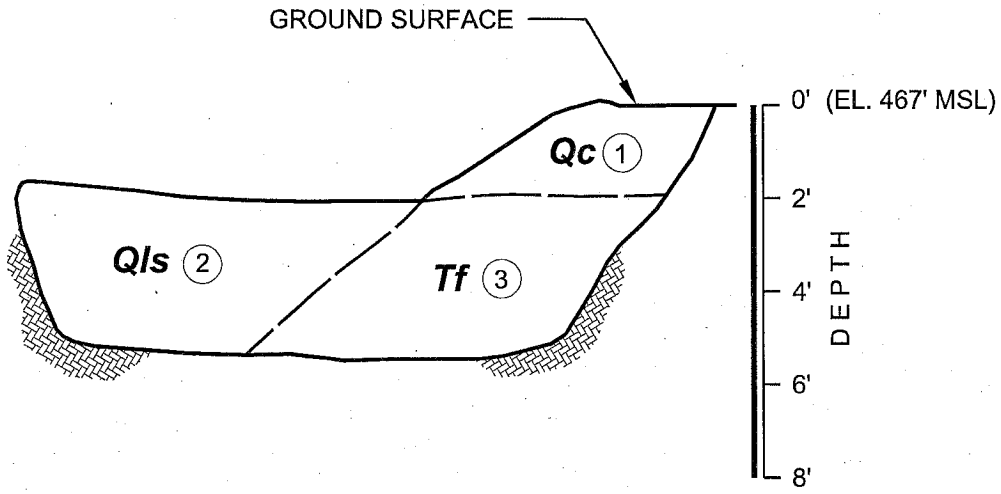
DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A6

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



COLLUVIUM

(1) Firm, damp, dark brown, Sandy CLAY, with roots (CL)

LANDSLIDE DEBRIS

(2) Firm, wet, dark brown, Sandy CLAY, with some cobbles (CL)
contact N60°E, 45°SE

FRIARS FORMATION

(3) Dense to very dense, moist, very light gray to white, Silty, fine to medium SANDSTONE (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 7

GEOCON
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RANCHO MISSION SLOPE MOVEMENT
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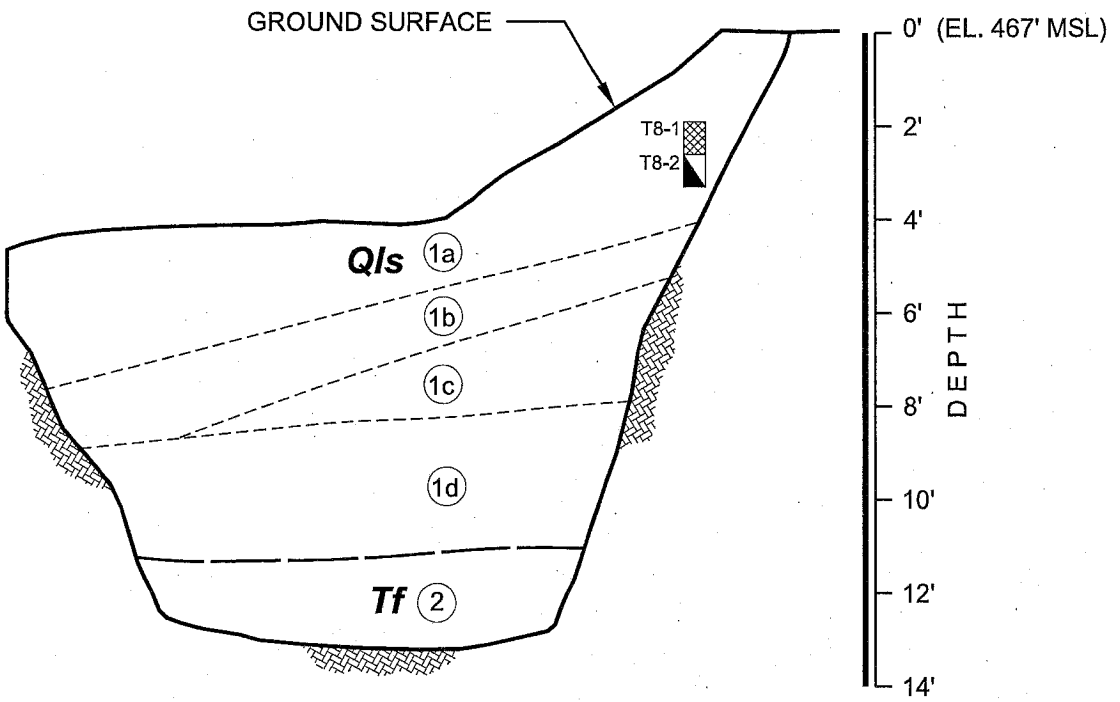
DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A7

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



LANDSLIDE DEBRIS

(1a) Loose, wet, dark brown, Sandy CLAY, with cobbles and roots (CL)

(1b) Soft, wet to saturated, graysih brown and pink, Sandy CLAY, randomly sheared (CL)

(1c) Medium dense, moist, dark brown, Clayey SAND with some cobbles (SC)

(1d) Becomes wet, yellowish brown, SAND and COBBLE, partially sheared, shear plane/contact N60°E, 40°NW

FRIARS FORMATION

(2) Medium dense to dense, wet, yellowish brown, Silty SANDSTONE, massive (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 8

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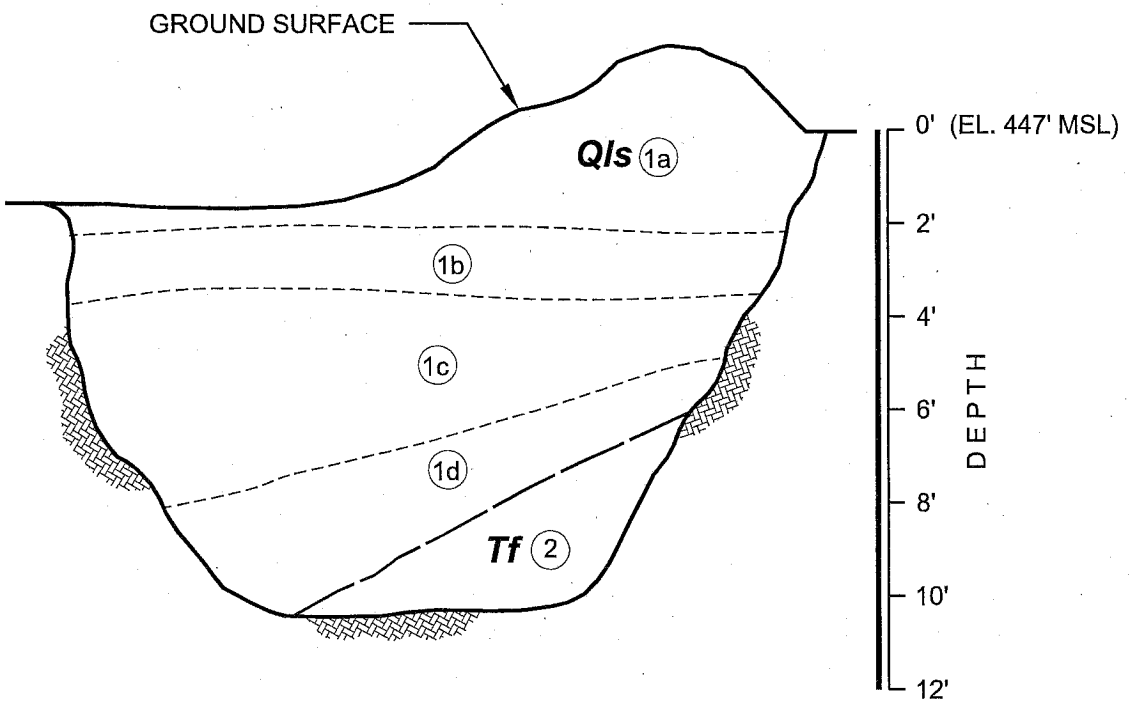
RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A8

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



LANDSLIDE DEBRIS

(1a) Loose, wet, dark brown, Sandy CLAY, with cobbles and roots (CL)

(1b) Soft, saturated, graysih brown, Sandy CLAY (CL)

(1c) Loose, wet, vey dark brown to black, Clayey SAND with cobbles and roots (SC)

(1d) Soft, wet to saturated, grayish brown, Silty to Sandy CLAY (SC-SM), basal shear plane/contact N80°E, 30°SE

FRIARS FORMATION

(2) Dense, moist, yellowish gray, Silty, fine to medium SANDSTONE (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 9

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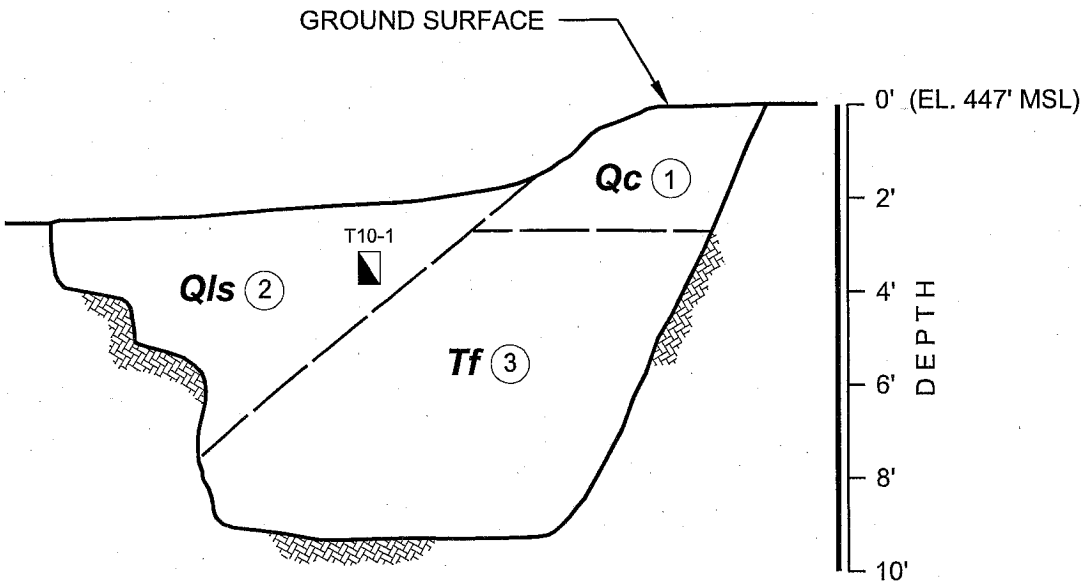
RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A9

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



COLLUVIUM

(1) Loose to medium dense, damp, dark brown, Silty to Clayey SAND with little cobble (SC-SM)

LANDSLIDE DEBRIS

(2) Soft, wet to saturated, graysih brown, Sandy CLAY, mixed with sandy cobbles and roots (CL), basal shear plane/contact N30°E, 45°SE

FRIARS FORMATION

(3) Dense, moist, light grayish brown, Silty SANDSTONE (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 10

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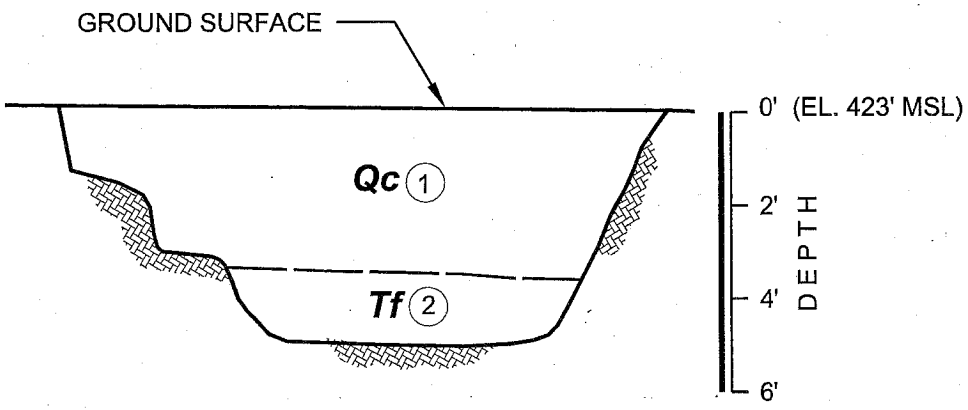
RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A10

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg



COLLUVIUM

(1) Firm to stiff, damp to moist, very dark brown, Sandy CLAY with little cobbles - roots to 1½ feet (CL)

FRIARS FORMATION

(2) Dense to very dense, moist, light grayish brown, Silty, fine to medium SANDSTONE, caliche filled fractures (SM)

SCALE : 1" = 4' (VERT. = HORIZ.)

TRENCH NO. 11

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RANCHO MISSION SLOPE MOVEMENT
SAN DIEGO, CALIFORNIA

DATE 10 - 10 - 2011	PROJECT NO. G1200 - 52 - 05	FIG. A11

Y:\PROJECTS\G1200-52-05 RANCHO MISSION LANDSLIDE\DETAILS\G1200-52-05_TRENCHES.dwg

APPENDIX B

APPENDIX B

LABORATORY TESTING

We performed the laboratory tests in accordance with the current versions of the generally accepted *American Society for Testing Materials* (ASTM) procedures or other suggested procedures. We tested selected soil samples for their in-place density and moisture content, maximum dry density and optimum moisture content and shear strength characteristics. The results of our laboratory tests are presented on Tables B-I through B-III.

TABLE B-I
SUMMARY OF LABORATORY MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT TEST RESULTS
ASTM D 1557

Sample No.	Description	Maximum Dry Density (pcf)	Optimum Moisture Content (% dry wt.)
T8-1	Dark brown, Sandy CLAY	113.3	16.1
T11-1	Light grayish brown, Silty, fine to medium SAND	121.5	12.0

TABLE B-II
SUMMARY OF LABORATORY DIRECT SHEAR TEST RESULTS
ASTM D 3080

Sample No.	Dry Density (pcf)	Moisture Content (%)		Peak [Ultimate] Cohesion (psf)	Peak [Ultimate] Angle of Shear Resistance (degrees)
		Initial	Final		
T8-1*	100.0	18.3	35.8	630 [610]	11 [10]
T11-1**	109.1	12.4	22.7	485 [465]	25 [26]

Ultimate measured at 0.2 inch deflection.
*Sample remolded to in place density and moisture content.
** Sample remolded to approximately 90 percent relative compaction near optimum moisture content

TABLE B-III
SUMMARY OF LABORATORY IN PLACE DENSITY AND MOISTURE CONTENT TEST
ASTM

Sample No.	Density (pcf)	Moisture Content (%)
T4-1	116.9	9.0
T6-1	90.1	30.0
T8-2	102.4	22.0
T10-1	108.5	20.3

APPENDIX C

APPENDIX C

SLOPE STABILITY ANALYSES

We performed the slope stability analyses using the two-dimensional computer software *GeoStudio2004* developed by Geo-Slope International Ltd. We analyzed the critical modes of potential slip surfaces including rotational-mode and auto search-mode based on Spencer's method. The soil parameters used, case conditions, and the calculated factors of safety are presented herein. Plots of analyses' results, including the soil stratigraphy, potential failure surfaces, and calculated factors of safety, are attached within this appendix.

We estimated the shear strength characteristics of the existing geologic units based on laboratory direct shear tests on samples obtained during our field investigation in accordance with ASTM D 3080 (see Appendix B) and our experience with similar soil types and geologic conditions. The soil parameters used for the stability analyses were presented in Table C-I.

TABLE C-I
SUMMARY OF SOIL PROPERTIES USED FOR SLOPE STABILITY ANALYSES

Geologic Unit/Material	Density (pcf)	Cohesion (psf)	Friction Angle (degrees)
Compacted Fill/Engineered Fill (Qcf/Afe)	120	250	25
Landslide Debris (Qls)	120	250	10
Colluvium (Qc)	120	350	25
Stadium Conglomerate (Tst)	125	300	35
Friars Formation	125	300	30

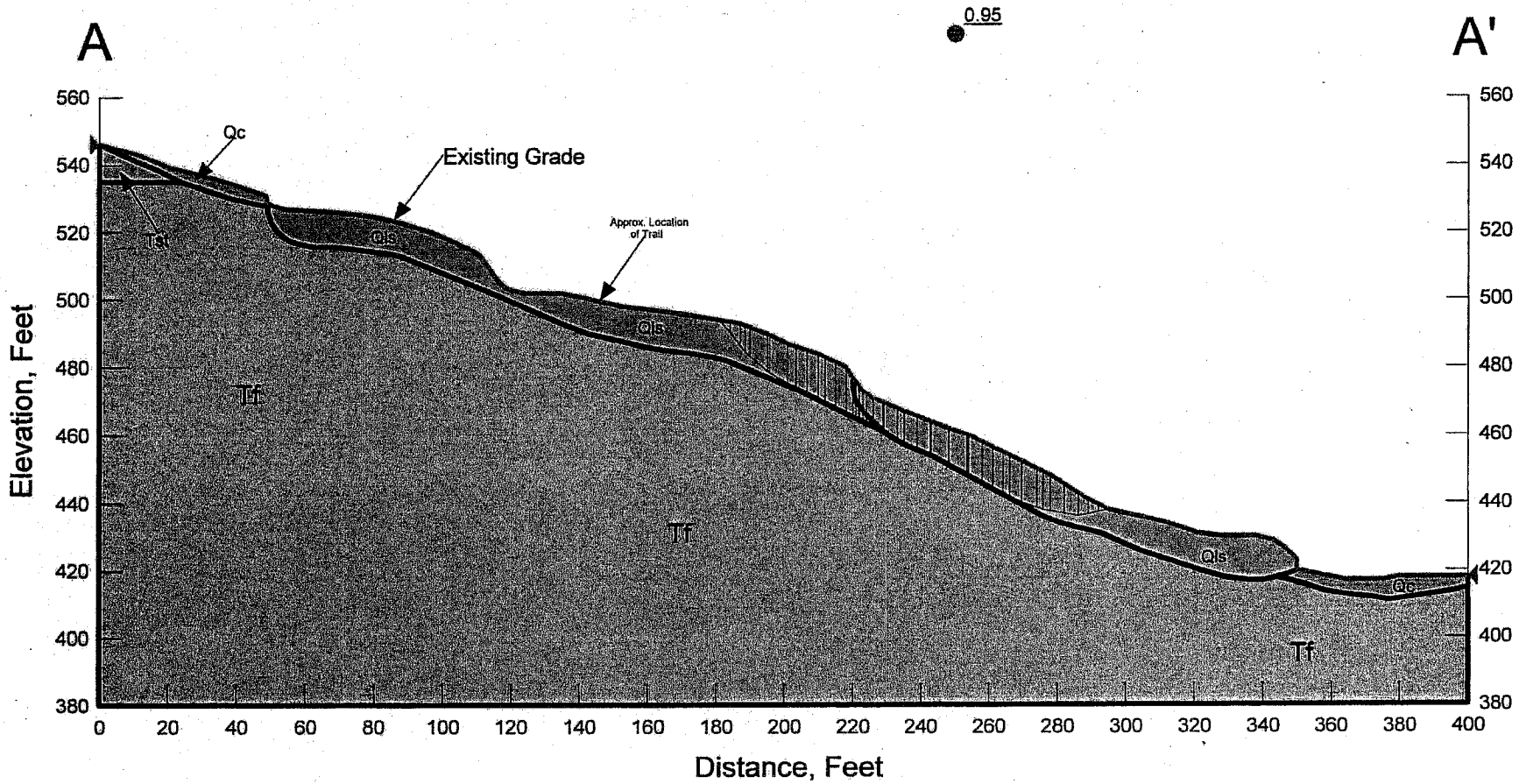
We selected Cross Section A-A′ to perform the slope stability analyses. Table C-II provides a summary of cases analyzed and calculated factors of safety. The case conditions, including the alternative analysis, are also indicated in the table. A minimum factor of safety of 1.5 under static conditions, is currently required by the City of San Diego for slope stability. Results of slope stability analyses are plotted on Figures C-1 through C-3.

TABLE C-II
SUMMARY OF SLOPE STABILITY ANALYSES

Cross Section	File Name	Condition of Slope Stability Analyses	Calculated Factor of Safety	Figure Number
A-A′	A-A Case 1	Existing condition with landslide debris, auto search-mode analysis, static condition	0.95	C-1
A-A′	A-A Case 2	Alternative No. 1, total removal and regrade, auto search-mode analysis, static condition	1.85	C-2
A-A′	A-A Case 3	Alternative No. 2, total removal and replacement, auto search-mode analysis, static condition	1.62	C-3

Rancho Mission Slope Movement
Project No. G1200-52-05
Section A-A' - Existing Condition
Name: A-A Case 1.gsz
Date: 10/7/2011 Time: 10:05:26 AM

Method: Spencer
Slip Surface Option: AutoSearch
Description: Qcf C: 250psf Phi: 25deg. Wt: 120pcf
Description: Qls C: 250psf Phi: 10deg. Wt: 120pcf
Description: Qc C: 350psf Phi: 25deg. Wt: 120pcf
Description: Tf C: 300psf Phi: 30deg. Wt: 125pcf
Description: Tst C: 300psf Phi: 35deg. Wt: 125pcf

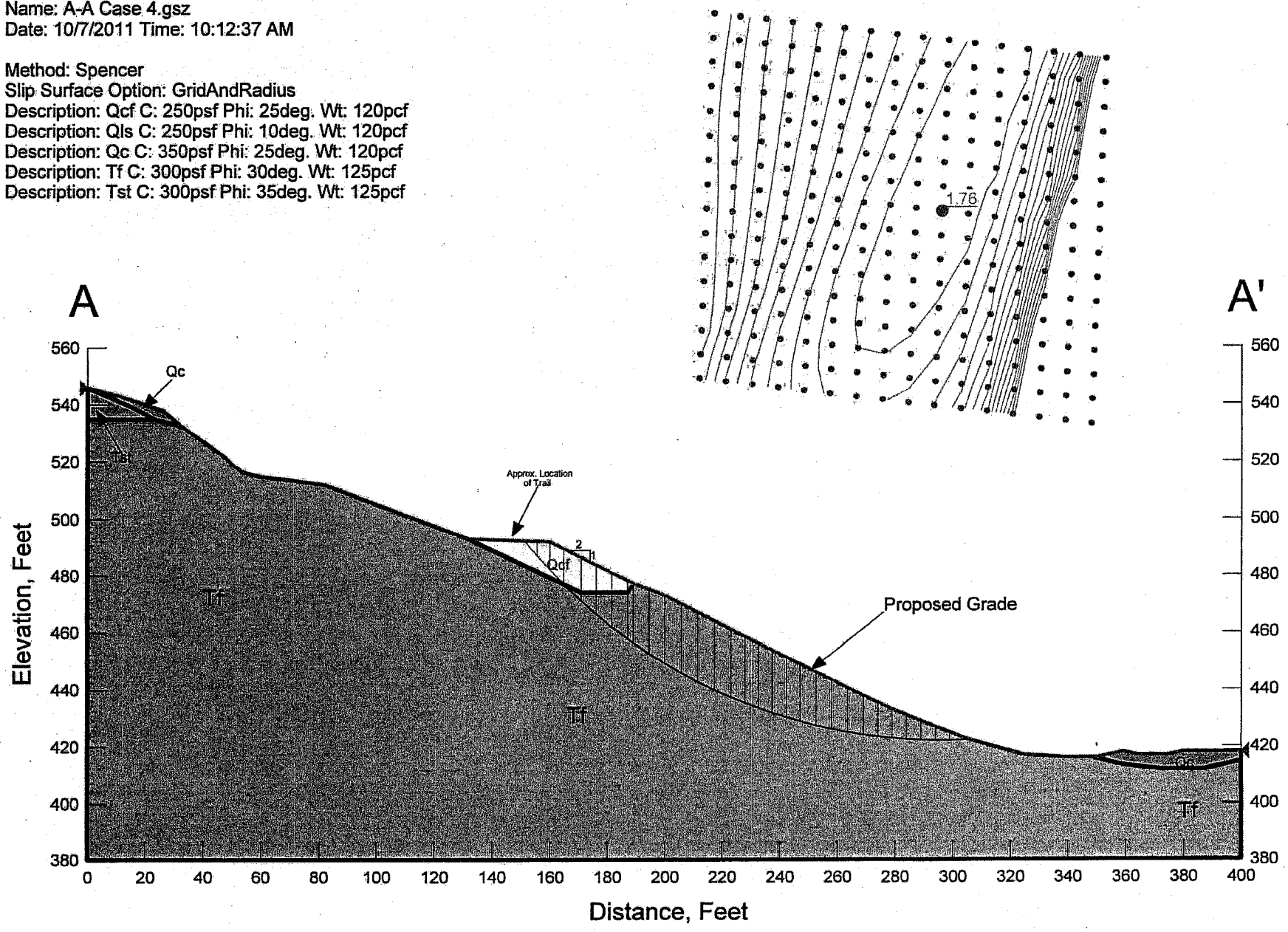


X:\WPUSER\Geocon\E & G\Liang\=SLOPE W\G1200-52-05 Rancho Mission Landslide\ A-A Case 1.gsz

Figure C-1

Rancho Mission Slope Movement
Project No. G1200-52-05
Section A-A' - Proposed Mitigation Alternative 1
Name: A-A Case 4.gsz
Date: 10/7/2011 Time: 10:12:37 AM

Method: Spencer
Slip Surface Option: GridAndRadius
Description: Qcf C: 250psf Phi: 25deg. Wt: 120pcf
Description: Qls C: 250psf Phi: 10deg. Wt: 120pcf
Description: Qc C: 350psf Phi: 25deg. Wt: 120pcf
Description: Tf C: 300psf Phi: 30deg. Wt: 125pcf
Description: Tst C: 300psf Phi: 35deg. Wt: 125pcf

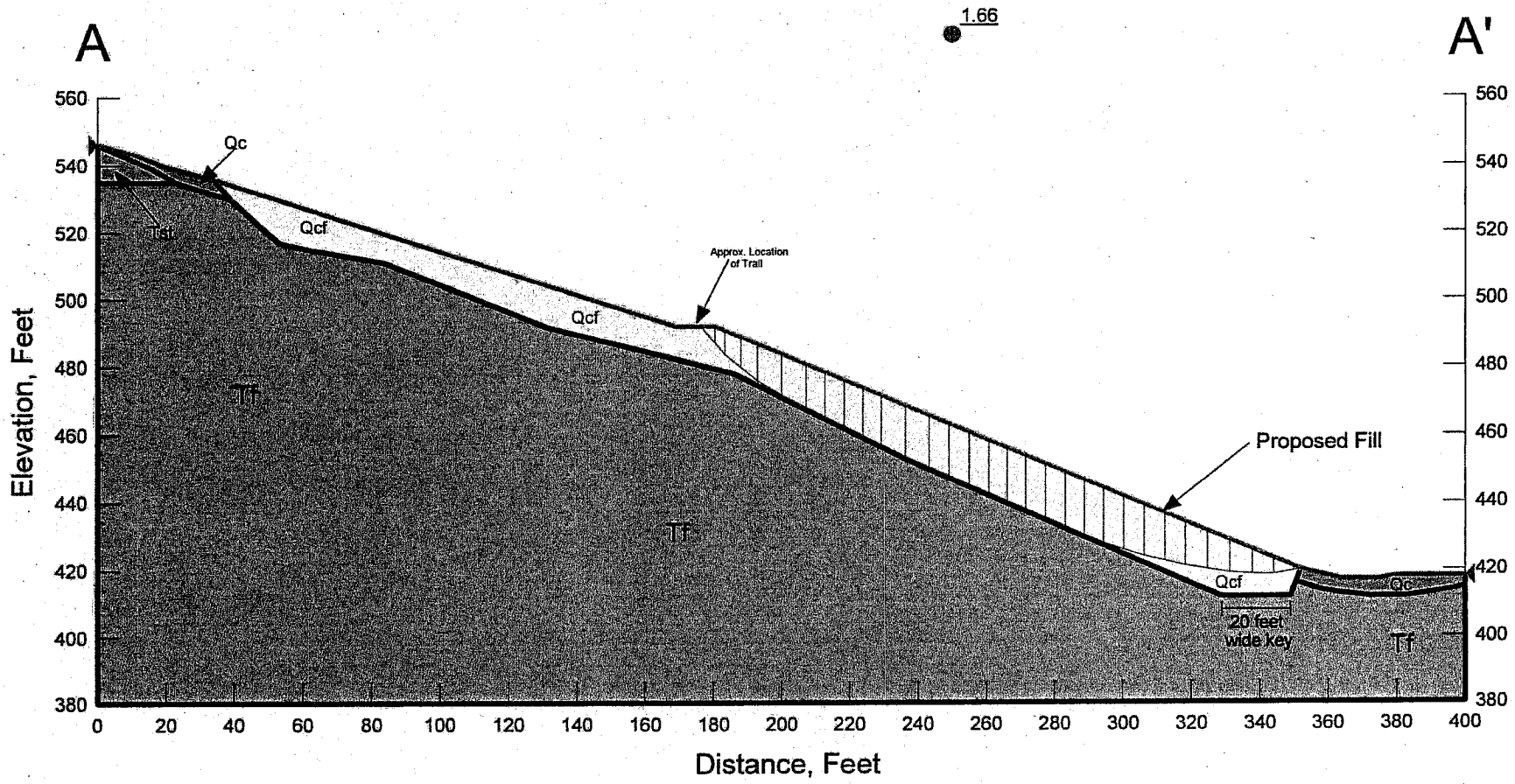


X:\WPUSER\Geocon\E & G\Liang\=SLOPE W\G1200-52-05 Rancho Mission Landslide\ A-A Case 4.gsz

Figure C-2

Rancho Mission Slope Movement
Project No. G1200-52-05
Section A-A' - Proposed Mitigation Alternative 2
Name: A-A Case 3.gsz
Date: 10/10/2011 Time: 7:34:27 AM

Method: Spencer
Slip Surface Option: AutoSearch
Description: Qcf C: 250psf Phi: 25deg. Wt: 120pcf
Description: Qls C: 250psf Phi: 10deg. Wt: 120pcf
Description: Qc C: 350psf Phi: 25deg. Wt: 120pcf
Description: Tf C: 300psf Phi: 30deg. Wt: 125pcf
Description: Tst C: 300psf Phi: 35deg. Wt: 125pcf



X:\WPUSER\Geocon\E & G\Liang\=SLOPE W\G1200-52-05 Rancho Mission Landslide\ A-A Case 3.gsz

Figure C-3

APPENDIX D

APPENDIX D

RECOMMENDED GRADING SPECIFICATIONS

FOR

RANCHO MISSION LANDSIDE
TASK NO. 11GG06; CONTRACT NO. H104861
SAN DIEGO, CALIFORNIA

PROJECT NO. G1200-52-05

RECOMMENDED GRADING SPECIFICATIONS

1. GENERAL

1.1 These Recommended Grading Specifications shall be used in conjunction with the Geotechnical Report for the project prepared by Geocon Incorporated. The recommendations contained in the text of the Geotechnical Report are a part of the earthwork and grading specifications and shall supersede the provisions contained hereinafter in the case of conflict.

1.2 Prior to the commencement of grading, a geotechnical consultant (Consultant) shall be employed for the purpose of observing earthwork procedures and testing the fills for substantial conformance with the recommendations of the Geotechnical Report and these specifications. The Consultant should provide adequate testing and observation services so that they may assess whether, in their opinion, the work was performed in substantial conformance with these specifications. It shall be the responsibility of the Contractor to assist the Consultant and keep them apprised of work schedules and changes so that personnel may be scheduled accordingly.

1.3 It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes or agency ordinances, these specifications and the approved grading plans. If, in the opinion of the Consultant, unsatisfactory conditions such as questionable soil materials, poor moisture condition, inadequate compaction, adverse weather, result in a quality of work not in conformance with these specifications, the Consultant will be empowered to reject the work and recommend to the Owner that grading be stopped until the unacceptable conditions are corrected.

2. DEFINITIONS

2.1 **Owner** shall refer to the owner of the property or the entity on whose behalf the grading work is being performed and who has contracted with the Contractor to have grading performed.

2.2 **Contractor** shall refer to the Contractor performing the site grading work.

2.3 **Civil Engineer** or **Engineer of Work** shall refer to the California licensed Civil Engineer or consulting firm responsible for preparation of the grading plans, surveying and verifying as-graded topography.

2.4 **Consultant** shall refer to the soil engineering and engineering geology consulting firm retained to provide geotechnical services for the project.

2.5 **Soil Engineer** shall refer to a California licensed Civil Engineer retained by the Owner, who is experienced in the practice of geotechnical engineering. The Soil Engineer shall be responsible for having qualified representatives on-site to observe and test the Contractor's work for conformance with these specifications.

2.6 **Engineering Geologist** shall refer to a California licensed Engineering Geologist retained by the Owner to provide geologic observations and recommendations during the site grading.

2.7 **Geotechnical Report** shall refer to a soil report (including all addenda) which may include a geologic reconnaissance or geologic investigation that was prepared specifically for the development of the project for which these Recommended Grading Specifications are intended to apply.

3. MATERIALS

3.1 Materials for compacted fill shall consist of any soil excavated from the cut areas or imported to the site that, in the opinion of the Consultant, is suitable for use in construction of fills. In general, fill materials can be classified as *soil* fills, *soil-rock* fills or *rock* fills, as defined below.

3.1.1 **Soil fills** are defined as fills containing no rocks or hard lumps greater than 12 inches in maximum dimension and containing at least 40 percent by weight of material smaller than ¾ inch in size.

3.1.2 **Soil-rock fills** are defined as fills containing no rocks or hard lumps larger than 4 feet in maximum dimension and containing a sufficient matrix of soil fill to allow for proper compaction of soil fill around the rock fragments or hard lumps as specified in Paragraph 6.2. **Oversize rock** is defined as material greater than 12 inches.

3.1.3 **Rock fills** are defined as fills containing no rocks or hard lumps larger than 3 feet in maximum dimension and containing little or no fines. Fines are defined as material smaller than ¾ inch in maximum dimension. The quantity of fines shall be less than approximately 20 percent of the rock fill quantity.

3.2 Material of a perishable, spongy, or otherwise unsuitable nature as determined by the Consultant shall not be used in fills.

3.3 Materials used for fill, either imported or on-site, shall not contain hazardous materials as defined by the California Code of Regulations, Title 22, Division 4, Chapter 30, Articles 9 and 10; 40CFR; and any other applicable local, state or federal laws. The Consultant shall not be responsible for the identification or analysis of the potential presence of hazardous materials. However, if observations, odors or soil discoloration cause Consultant to suspect the presence of hazardous materials, the Consultant may request from the Owner the termination of grading operations within the affected area. Prior to resuming grading operations, the Owner shall provide a written report to the Consultant indicating that the suspected materials are not hazardous as defined by applicable laws and regulations.

3.4 The outer 15 feet of *soil-rock* fill slopes, measured horizontally, should be composed of properly compacted *soil* fill materials approved by the Consultant. *Rock* fill may extend to the slope face, provided that the slope is not steeper than 2:1 (horizontal:vertical) and a soil layer no thicker than 12 inches is track-walked onto the face for landscaping purposes. This procedure may be utilized provided it is acceptable to the governing agency, Owner and Consultant.

3.5 Samples of soil materials to be used for fill should be tested in the laboratory by the Consultant to determine the maximum density, optimum moisture content, and, where appropriate, shear strength, expansion, and gradation characteristics of the soil.

3.6 During grading, soil or groundwater conditions other than those identified in the Geotechnical Report may be encountered by the Contractor. The Consultant shall be notified immediately to evaluate the significance of the unanticipated condition

4. CLEARING AND PREPARING AREAS TO BE FILLED

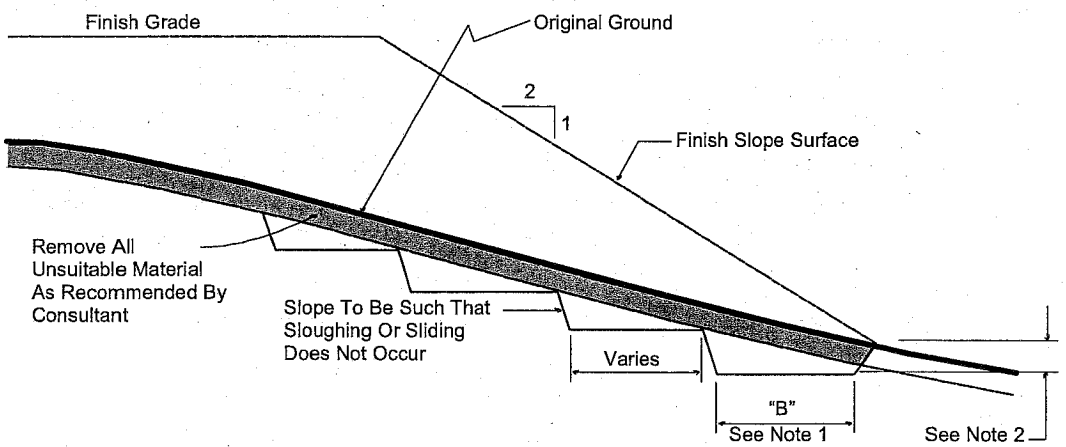
4.1 Areas to be excavated and filled shall be cleared and grubbed. Clearing shall consist of complete removal above the ground surface of trees, stumps, brush, vegetation, man-made structures, and similar debris. Grubbing shall consist of removal of stumps, roots, buried logs and other unsuitable material and shall be performed in areas to be graded. Roots and other projections exceeding 1½ inches in diameter shall be removed to a depth of 3 feet below the surface of the ground. Borrow areas shall be grubbed to the extent necessary to provide suitable fill materials.

4.2 Any asphalt pavement material removed during clearing operations should be properly disposed at an approved off-site facility. Concrete fragments that are free of reinforcing steel may be placed in fills, provided they are placed in accordance with Section 6.2 or 6.3 of this document.

4.3 After clearing and grubbing of organic matter and other unsuitable material, loose or porous soils shall be removed to the depth recommended in the Geotechnical Report. The depth of removal and compaction should be observed and approved by a representative of the Consultant. The exposed surface shall then be plowed or scarified to a minimum depth of 6 inches and until the surface is free from uneven features that would tend to prevent uniform compaction by the equipment to be used.

4.4 Where the slope ratio of the original ground is steeper than 5:1 (horizontal:vertical), or where recommended by the Consultant, the original ground should be benched in accordance with the following illustration.

TYPICAL BENCHING DETAIL



No Scale

DETAIL NOTES: (1) Key width "B" should be a minimum of 10 feet, or sufficiently wide to permit complete coverage with the compaction equipment used. The base of the key should be graded horizontal, or inclined slightly into the natural slope.

(2) The outside of the key should be below the topsoil or unsuitable surficial material and at least 2 feet into dense formational material. Where hard rock is exposed in the bottom of the key, the depth and configuration of the key may be modified as approved by the Consultant.

4.5 After areas to receive fill have been cleared and scarified, the surface should be moisture conditioned to achieve the proper moisture content, and compacted as recommended in Section 6 of these specifications.

5. COMPACTION EQUIPMENT

5.1 Compaction of *soil* or *soil-rock* fill shall be accomplished by sheepsfoot or segmented-steel wheeled rollers, vibratory rollers, multiple-wheel pneumatic-tired rollers, or other types of acceptable compaction equipment. Equipment shall be of such a design that it will be capable of compacting the *soil* or *soil-rock* fill to the specified relative compaction at the specified moisture content.

5.2 Compaction of *rock* fills shall be performed in accordance with Section 6.3.

6. PLACING, SPREADING AND COMPACTION OF FILL MATERIAL

6.1 *Soil* fill, as defined in Paragraph 3.1.1, shall be placed by the Contractor in accordance with the following recommendations:

6.1.1 *Soil* fill shall be placed by the Contractor in layers that, when compacted, should generally not exceed 8 inches. Each layer shall be spread evenly and shall be thoroughly mixed during spreading to obtain uniformity of material and moisture in each layer. The entire fill shall be constructed as a unit in nearly level lifts. Rock materials greater than 12 inches in maximum dimension shall be placed in accordance with Section 6.2 or 6.3 of these specifications.

6.1.2 In general, the *soil* fill shall be compacted at a moisture content at or above the optimum moisture content as determined by ASTM D 1557-02.

6.1.3 When the moisture content of *soil* fill is below that specified by the Consultant, water shall be added by the Contractor until the moisture content is in the range specified.

6.1.4 When the moisture content of the *soil* fill is above the range specified by the Consultant or too wet to achieve proper compaction, the *soil* fill shall be aerated by the Contractor by blading/mixing, or other satisfactory methods until the moisture content is within the range specified.

6.1.5 After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted by the Contractor to a relative compaction of at least 90 percent. Relative compaction is defined as the ratio (expressed in percent) of the in-place dry density of the compacted fill to the maximum laboratory dry density as determined in accordance with ASTM D 1557-02. Compaction shall be continuous over the entire area, and compaction equipment shall make sufficient passes so that the specified minimum relative compaction has been achieved throughout the entire fill.

6.1.6 Where practical, soils having an Expansion Index greater than 50 should be placed at least 3 feet below finish pad grade and should be compacted at a moisture content generally 2 to 4 percent greater than the optimum moisture content for the material.

6.1.7 Properly compacted *soil* fill shall extend to the design surface of fill slopes. To achieve proper compaction, it is recommended that fill slopes be over-built by at least 3 feet and then cut to the design grade. This procedure is considered preferable to track-walking of slopes, as described in the following paragraph.

6.1.8 As an alternative to over-building of slopes, slope faces may be back-rolled with a heavy-duty loaded sheepsfoot or vibratory roller at maximum 4-foot fill height intervals. Upon completion, slopes should then be track-walked with a D-8 dozer or similar equipment, such that a dozer track covers all slope surfaces at least twice.

6.2 *Soil-rock* fill, as defined in Paragraph 3.1.2, shall be placed by the Contractor in accordance with the following recommendations:

6.2.1 Rocks larger than 12 inches but less than 4 feet in maximum dimension may be incorporated into the compacted *soil* fill, but shall be limited to the area measured 15 feet minimum horizontally from the slope face and 5 feet below finish grade or 3 feet below the deepest utility, whichever is deeper.

6.2.2 Rocks or rock fragments up to 4 feet in maximum dimension may either be individually placed or placed in windrows. Under certain conditions, rocks or rock fragments up to 10 feet in maximum dimension may be placed using similar methods. The acceptability of placing rock materials greater than 4 feet in maximum dimension shall be evaluated during grading as specific cases arise and shall be approved by the Consultant prior to placement.

6.2.3 For individual placement, sufficient space shall be provided between rocks to allow for passage of compaction equipment.

6.2.4 For windrow placement, the rocks should be placed in trenches excavated in properly compacted *soil* fill. Trenches should be approximately 5 feet wide and 4 feet deep in maximum dimension. The voids around and beneath rocks should be filled with approved granular soil having a Sand Equivalent of 30 or greater and should be compacted by flooding. Windrows may also be placed utilizing an "open-face" method in lieu of the trench procedure, however, this method should first be approved by the Consultant.

6.2.5 Windrows should generally be parallel to each other and may be placed either parallel to or perpendicular to the face of the slope depending on the site geometry. The minimum horizontal spacing for windrows shall be 12 feet center-to-center with a 5-foot stagger or offset from lower courses to next overlying course. The minimum vertical spacing between windrow courses shall be 2 feet from the top of a lower windrow to the bottom of the next higher windrow.

6.2.6 Rock placement, fill placement and flooding of approved granular soil in the windrows should be continuously observed by the Consultant.

6.3 *Rock* fills, as defined in Section 3.1.3, shall be placed by the Contractor in accordance with the following recommendations:

6.3.1 The base of the *rock* fill shall be placed on a sloping surface (minimum slope of 2 percent). The surface shall slope toward suitable subdrainage outlet facilities. The *rock* fills shall be provided with subdrains during construction so that a hydrostatic pressure buildup does not develop. The subdrains shall be permanently connected to controlled drainage facilities to control post-construction infiltration of water.

6.3.2 *Rock* fills shall be placed in lifts not exceeding 3 feet. Placement shall be by rock trucks traversing previously placed lifts and dumping at the edge of the currently placed lift. Spreading of the *rock* fill shall be by dozer to facilitate *seating* of the rock. The *rock* fill shall be watered heavily during placement. Watering shall consist of water trucks traversing in front of the current rock lift face and spraying water continuously during rock placement. Compaction equipment with compactive energy comparable to or greater than that of a 20-ton steel vibratory roller or other compaction equipment providing suitable energy to achieve the

required compaction or deflection as recommended in Paragraph 6.3.3 shall be utilized. The number of passes to be made should be determined as described in Paragraph 6.3.3. Once a *rock* fill lift has been covered with *soil* fill, no additional *rock* fill lifts will be permitted over the *soil* fill.

6.3.3 Plate bearing tests, in accordance with ASTM D 1196-93, may be performed in both the compacted *soil* fill and in the *rock* fill to aid in determining the required minimum number of passes of the compaction equipment. If performed, a minimum of three plate bearing tests should be performed in the properly compacted *soil* fill (minimum relative compaction of 90 percent). Plate bearing tests shall then be performed on areas of *rock* fill having two passes, four passes and six passes of the compaction equipment, respectively. The number of passes required for the *rock* fill shall be determined by comparing the results of the plate bearing tests for the *soil* fill and the *rock* fill and by evaluating the deflection variation with number of passes. The required number of passes of the compaction equipment will be performed as necessary until the plate bearing deflections are equal to or less than that determined for the properly compacted *soil* fill. In no case will the required number of passes be less than two.

6.3.4 A representative of the Consultant should be present during *rock* fill operations to observe that the minimum number of "passes" have been obtained, that water is being properly applied and that specified procedures are being followed. The actual number of plate bearing tests will be determined by the Consultant during grading.

6.3.5 Test pits shall be excavated by the Contractor so that the Consultant can state that, in their opinion, sufficient water is present and that voids between large rocks are properly filled with smaller rock material. In-place density testing will not be required in the *rock* fills.

6.3.6 To reduce the potential for "piping" of fines into the *rock* fill from overlying *soil* fill material, a 2-foot layer of graded filter material shall be placed above the uppermost lift of *rock* fill. The need to place graded filter material below the *rock* should be determined by the Consultant prior to commencing grading. The gradation of the graded filter material will be determined at the time the *rock* fill is being excavated. Materials typical of the *rock* fill should be submitted to the Consultant in a timely manner, to allow design of the graded filter prior to the commencement of *rock* fill placement.

6.3.7 *Rock* fill placement should be continuously observed during placement by the Consultant.

7. OBSERVATION AND TESTING

7.1 The Consultant shall be the Owner's representative to observe and perform tests during clearing, grubbing, filling, and compaction operations. In general, no more than 2 feet in vertical elevation of *soil* or *soil-rock* fill should be placed without at least one field density test being performed within that interval. In addition, a minimum of one field density test should be performed for every 2,000 cubic yards of *soil* or *soil-rock* fill placed and compacted.

7.2 The Consultant should perform a sufficient distribution of field density tests of the compacted *soil* or *soil-rock* fill to provide a basis for expressing an opinion whether the fill material is compacted as specified. Density tests shall be performed in the compacted materials below any disturbed surface. When these tests indicate that the density of any layer of fill or portion thereof is below that specified, the particular layer or areas represented by the test shall be reworked until the specified density has been achieved.

7.3 During placement of *rock* fill, the Consultant should observe that the minimum number of passes have been obtained per the criteria discussed in Section 6.3.3. The Consultant should request the excavation of observation pits and may perform plate bearing tests on the placed *rock* fills. The observation pits will be excavated to provide a basis for expressing an opinion as to whether the *rock* fill is properly seated and sufficient moisture has been applied to the material. When observations indicate that a layer of *rock* fill or any portion thereof is below that specified, the affected layer or area shall be reworked until the *rock* fill has been adequately seated and sufficient moisture applied.

7.4 A settlement monitoring program designed by the Consultant may be conducted in areas of *rock* fill placement. The specific design of the monitoring program shall be as recommended in the Conclusions and Recommendations section of the project Geotechnical Report or in the final report of testing and observation services performed during grading.

7.5 The Consultant should observe the placement of subdrains, to verify that the drainage devices have been placed and constructed in substantial conformance with project specifications.

7.6 Testing procedures shall conform to the following Standards as appropriate:

7.6.1 Soil and Soil-Rock Fills:

7.6.1.1 Field Density Test, ASTM D 1556-02, *Density of Soil In-Place By the Sand-Cone Method.*

7.6.1.2 Field Density Test, Nuclear Method, ASTM D 6938-08A, *Density of Soil and Soil-Aggregate In-Place by Nuclear Methods (Shallow Depth).*

7.6.1.3 Laboratory Compaction Test, ASTM D 1557-02, *Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-Pound Hammer and 18-Inch Drop.*

7.6.1.4. Expansion Index Test, ASTM D 4829-03, *Expansion Index Test.*

7.6.2 Rock Fills

7.6.2.1 Field Plate Bearing Test, ASTM D 1196-93 (Reapproved 1997) *Standard Method for Nonreparative Static Plate Load Tests of Soils and Flexible Pavement Components, For Use in Evaluation and Design of Airport and Highway Pavements.*

8. PROTECTION OF WORK

8.1 During construction, the Contractor shall properly grade all excavated surfaces to provide positive drainage and prevent ponding of water. Drainage of surface water shall be controlled to avoid damage to adjoining properties or to finished work on the site. The Contractor shall take remedial measures to prevent erosion of freshly graded areas until such time as permanent drainage and erosion control features have been installed. Areas subjected to erosion or sedimentation shall be properly prepared in accordance with the Specifications prior to placing additional fill or structures.

8.2 After completion of grading as observed and tested by the Consultant, no further excavation or filling shall be conducted except in conjunction with the services of the Consultant.

9. CERTIFICATIONS AND FINAL REPORTS

9.1 Upon completion of the work, Contractor shall furnish Owner a certification by the Civil Engineer stating that the lots and/or building pads are graded to within 0.1 foot vertically of elevations shown on the grading plan and that all tops and toes of slopes are within 0.5 foot horizontally of the positions shown on the grading plans. After installation of a section of subdrain, the project Civil Engineer should survey its location and prepare an *as-built* plan of the subdrain location. The project Civil Engineer should verify the proper outlet for the subdrains and the Contractor should ensure that the drain system is free of obstructions.

9.2 The Owner is responsible for furnishing a final as-graded soil and geologic report satisfactory to the appropriate governing or accepting agencies. The as-graded report should be prepared and signed by a California licensed Civil Engineer experienced in geotechnical engineering and by a California Certified Engineering Geologist, indicating that the geotechnical aspects of the grading were performed in substantial conformance with the Specifications or approved changes to the Specifications.

ADDENDUM TO THE LIMITED GEOTECHNICAL INVESTIGATION

RANCHO MISSION SLOPE REPAIR
TASK NO. 11GG06;
CONTRACT NO. H104861
SAN DIEGO, CALIFORNIA

GEOCON

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

CITY OF SAN DIEGO
SAN DIEGO, CALIFORNIA

JANUARY 18, 2013
PROJECT NO. G1200-52-05

Project No. G1200-52-05
January 18, 2013

City of San Diego
Engineering and Development Department
1010 Second Avenue, Suite 1100
San Diego, California 92101-4155

Attention: Ms. Debbie Van Martin

Subject: ADDENDUM TO THE LIMITED GEOTECHNICAL INVESTIGATION
RANCHO MISSION SLOPE REPAIR
TASK NO. 11GG06; CONTRACT NO. H104861
SAN DIEGO, CALIFORNIA

Reference: *Limited Geotechnical Investigation Rancho Mission Slope Repair, Task No. 11GG06: Contract No. H104861, San Diego, California*, prepared by Geocon Incorporated, dated October 10, 2011 (Project No. G1200-52-05).

Dear Ms. Van Martin:

We have prepared this correspondence to present additional recommendations regarding the repair of the slope failure located at the Navajo area of San Diego, California. The landslide occurred in March 2011 in the middle of a northeast facing natural slope in an old ravine. The slide area is approximately 300 feet long and 60 feet wide. We performed a limited geotechnical investigation for the project and issued the reference report. We discussed two alternatives to repair and stabilize the slope: Alternative 1 consisted of total removal and disposal of the landslide debris and regrading the slope along with installation of a drainage system. Alternative 2 consisted of removal and disposal of the slide debris, reconstructing the slope with properly compacted fill. We understand the Alternative 1, due to the environmental impact to the adjacent areas will not be practical. Alternative 2, however with some modification, can be implemented.

We evaluated the stability of the existing slope located above the slide area. Our analyses indicate that the slope possesses adequate factor of safety, both during the reconstruction of the slope and post construction. However, as a precautionary measure, we recommend to construct a drained buttress fill at the top of the landslide. Figure 1 shows approximate limits or the remediation. The shear key for this buttress should be at least 30 feet wide, with a 1:1 (horizontal to vertical) back cut. The buttress would be equipped with a heal drain and panel drain system. A typical buttress configuration is presented on Figure 2. By construction of the drained buttress fill, the previously proposed "cut-off

trench" can be eliminated. The reconstruction of the balance of the slope remains the same, including construction of the shear key at the toe of the landslide.

The heel drains for the top buttress and the shear key at the toe of the landslide should consist of a 4-inch diameter perforated pipes, connected with a 4-inch diameter solid pipe into the existing storm drain located at the toe of the slope. In order to reduce the potential for damaging the solid pipe during the grading and benching, we recommend to place the pipe at either side of the excavation.

The grading contractor should place the fill in horizontal layers and benched into the exposed formational material. The fill area should be wide enough to allow for the compaction equipment to compact the fill as indicated in Appendix C of the reference report. Typically at least 20 feet is required for equipment to cross pass and compact the soil. That means that for a 2: 1 slope the fill should be approximately 10 feet thick. This would be the minimum amount of fill that is needed to reconstruct the slope with adequate factor of safety. The results of slope stability analyses are presented in Appendix A.

We have also looked into using the slide debris as compacted fill. The material is generally wet and partially very clayey and would not meet the minimum requirement to be used as compacted fill as is. If the less clayey portions can be moisture conditioned and mixed with more granular soils, it may meet the recommended criteria. The soils generated from excavations into the formational materials, should be suitable to use as compacted fill. Geocon will evaluate the suitability of the fill material during the grading operations.

Should you have any questions regarding this correspondence, or if we may be of further service, please contact the undersigned at your convenience

Very truly yours,

GEOCON INCORPORATED

Ali Sadr
CEG 1778

PROFESSIONAL GEOLOGIST
ALI SADR No. 1778 CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Yong Wang
GE 2775

REGISTERED PROFESSIONAL ENGINEER
YONG WANG
No.2775
GEOTECHNICAL
STATE OF CALIFORNIA

AS:YW:dmc

(4) Addressee
(e-mail) City of San Diego
Attention: Mr. Rob Hawk
(e-mail) RBF Consulting
Attention: Mr. Rob Gehrke

RANCHO MISSION SLOPE REPAIR
SAN DIEGO, CALIFORNIA

APN
456-460-30

LOT 112
APN #
456-460-29

LOT 111
APN #
456-460-28

LOT 110
APN #
456-460-27

DEER FIELD ST.

EX BROW DITCH
PROTECT IN PLACE

PORTION OF LOT 112
RESERVED FOR FUTURE STREET/
DRAINAGE EASEMENT GRANTED MAP 7417

SLOPE RIGHTS EASEMENT
GRANTED MAP 7417

PORTION OF LOT 111
RESERVED FOR FUTURE STREET/
DRAINAGE EASEMENT GRANTED MAP 7417

SLOPE RIGHTS EASEMENT
GRANTED MAP 7417

SOLID PIPE

EX TRAIL

1:1
BACKCUT

UPPER BUTTRESS FILL

LOWER SHEARKEY FILL

PROPOSED 6" PVC SD

EX 18" RCP

EX HEADWALL
(IE 412.00)

EX A-4 CLEANOUT
(IE 406.5±)

PERFORATED
PIPE

PERFORATED
PIPE

RIM 538.42
IE 534.42

RIM 512.05
IE 508.05

RIM 492.01
IE 484.01

IE 480.90
IE 486.90

RIM 456.69
IE 452.69

RIM 415.00
IE 412.00

RIM 417.59
IE 411.74

A

A'

0' 20' 40' 60' 80'

SCALE 1"= 40'

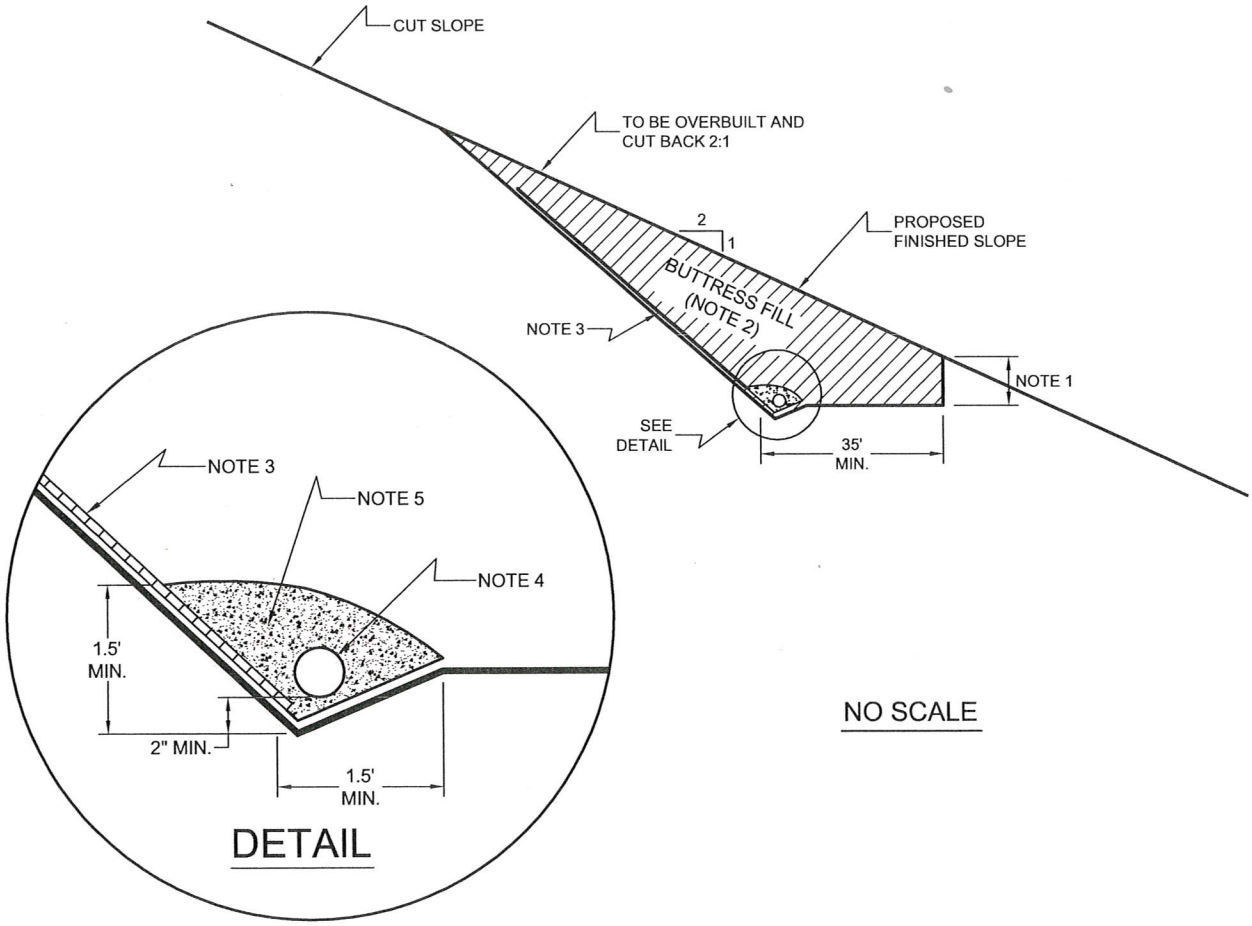
GEOCON
INCORPORATED

GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159
PROJECT NO. G1200 - 52 - 05
FIGURE 1
DATE 01 - 18 - 2013

SITE PLAN

Y:\PROJECTS\G1200-52-05 (Slope Repair)\SHEETS\G1200-52-05 Map.dwg

Y:\PROJECTS\G1200-52-05 (Slope Repair)\SHEETS\G1200-52-05 Map.dwg, 1/18/2013 9:31:27 AM, Ladrillono A



NOTES:

1.....THE OUTSIDE EDGE OF THE BUTTRESS FILL KEY SHOULD BE AT LEAST 10 FEET BELOW FINISHED SLOPE SURFACE.

2.....BUTTRESS FILL TO BE COMPOSED OF PROPERLY COMPACTED GRANULAR SOIL APPROVED BY GEOCON INCORPORATED PRIOR TO USE.

3.....CHIMNEY DRAINS IN THE FORM APPROVED PREFABRICATED PANELS (MIRADRAIN, TENSAR OR EQUIVALENT) SPACED APPROXIMATELY 20 FEET CENTER TO CENTER, A MINIMUM OF 4 FEET IN WIDTH , CHIMNEY DRAINS SHOULD EXTEND TO 10 FEET BELOW THE TOP OF THE SLOPE. WHERE UTILIZED, NO BENCHING IS REQUIRED.

4.....HEEL DRAIN TO BE 4-INCH MINIMUM DIAMETER, PERFORATED, THICK-WALLED SHEDULE 40 OR ABS SDR 35 SLOPED TO DRAIN AT 1 PERCENT MINIMUM AND CONNECTED TO STORM DRAIN.

5.....FILTER MATERIAL TO BE 3 CUBIC FEET PER FOOT OR HEEL DRAIN, OPEN GRADED CRUSHED ROCK, ENCLOSED IN MIRAFI 140 OR EQUIVALENT FILTER FABRICS.

6.....EXCAVATE BACKSLOPE AT 1:1 INCLINATION SUCH THAT KEYWAY WILL BE A MINIMUM OF 35 FEET IN WIDTH AND DOES NOT ENCROACH UPOM PAD.

TYPICAL STABILITY FILL DETAIL

GEOCON
INCORPORATED
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159

AS / AML		DSK/E0000

RANCHO MISSION SLOPE REPAIR
SAN DIEGO, CALIFORNIA

DATE 01 - 18 - 2013	PROJECT NO. G1200 - 52 - 05	FIG. 2

Y:\PROJECTS\G1200-52-05 (Slope Repair)\DETAILS\STABFILL7.dwg, 1/18/2013 9:31:02 AM, Ladrillono A

APPENDIX A

APPENDIX A

SLOPE STABILITY ANALYSES

We performed the slope stability analyses using the two-dimensional computer software *GeoStudio2004* developed by Geo-Slope International Ltd. We analyzed the critical modes of potential slip surfaces including rotational-mode and auto search-mode based on Spencer's method. The soil parameters used, case conditions, and the calculated factors of safety are presented herein. Plots of analyses' results, including the soil stratigraphy, potential failure surfaces, and calculated factors of safety, are attached within this appendix.

We estimated the shear strength characteristics of the existing geologic units based on laboratory direct shear tests on samples obtained during our field investigation in accordance with ASTM D 3080. The soil parameters used for the stability analyses were presented in Table A-I.

TABLE A-I
SUMMARY OF SOIL PROPERTIES USED FOR SLOPE STABILITY ANALYSES

Geologic Unit/Material	Density (pcf)	Cohesion (psf)	Friction Angle (degrees)
Compacted Fill/Engineered Fill (Qcf/Afe)	120	250	25
Landslide Debris (Qls)	120	250	10
Colluvium (Qc)	120	350	25
Stadium Conglomerate (Tst)	125	300	35
Friars Formation	125	300	30

We selected Cross Section A-A′ to perform the slope stability analyses. Table A-II provides a summary of cases analyzed and calculated factors of safety. The case conditions, including the Buttress fill located at the head of the landslide and overall stability of the slope as the modified Alternative 2 in static conditions and with seismic loading. We have also evaluated the stability of the temporary back cut of the slope during the construction. A minimum Factor of Safety of 1.5 for static and 1.2 with seismic loading are currently required by the City of San Diego for slope stability. For the temporary back cut the minimum required factor of safety is 1.2. Results of slope stability analyses are plotted on Figures A-1 through A-4.

TABLE A-II
SUMMARY OF SLOPE STABILITY ANALYSES

Cross Section	File Name	Condition of Slope Stability Analyses	Calculated Factor of Safety	Figure Number
A-A′	A-A Case 1	Temporary 1:1 back cut slope, potential critical failure, auto search-mode analysis, static condition	1.41	A-1
A-A′	A-A Case 2	Alternative No. 2 (modified), post construction, potential critical failure, auto search-mode analysis, static condition	1.73	A-2
A-A′	A-A′ Case 3	Alternative No. 2 (modified), post construction, potential failure in upper slope, auto search-mode analysis, static condition	2.39	A-3
A-A′	A-A Case 3A	Alternative 2 (modified), post construction, potential critical failure, auto search-mode analysis, pseudo-static condition	1.23	A-4

Rancho Mission Landslide
Project No. G1200-52-05
Section A-A'
Name: A-A Case 1_Pre-fill_Temp Backcut.gsz
Date: 1/15/2013 Time: 2:47:14 PM

Method: Spencer
Slip Surface Option: Auto-Search
Description: Qcf Cohesion: 250 psf Phi: 25deg. Wt: 120pcf
Description: Qc Cohesion: 350 psf Phi: 25deg. Wt: 120pcf
Description: Tf Cohesion: 300 psf Phi: 30deg. Wt: 125pcf
Description: Tst Cohesion: 300 psf Phi: 35deg. Wt: 125 pcf

Temporary Back Cut

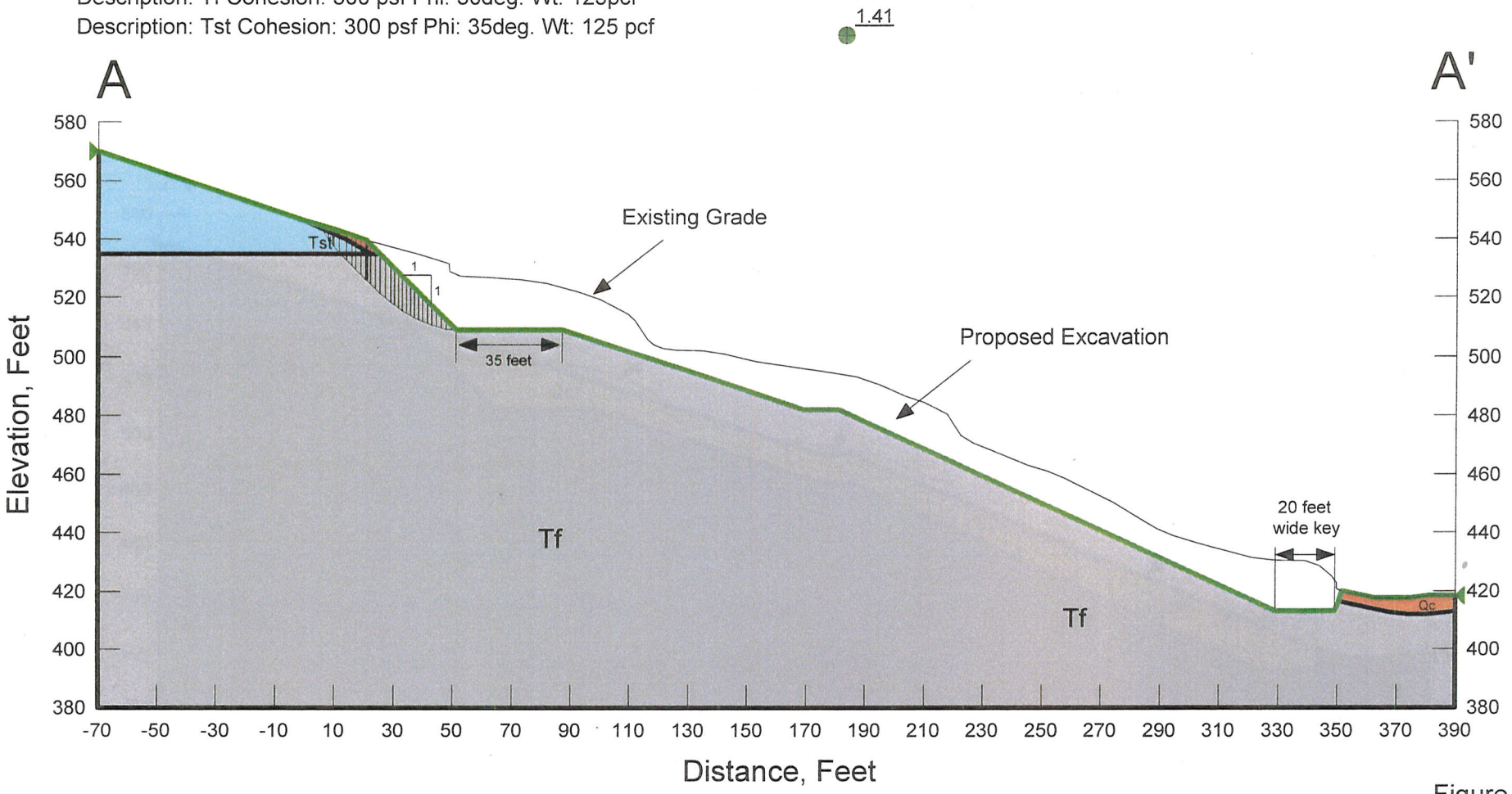


Figure A-1

X:\Engineering and Geology\ENGINEER PROGRAMS, GUIDES, ETC\EngrgPrg\GEO-SLOPE2007\Projects\G1200-52-05 Rancho Mission Landslide\12_21_12 Analyses\ A-A Case 1_Pre-fill_Temp Backcut.gsz

Rancho Mission Landslide
Project No. G1200-52-05
Section A-A'
Name: A-A Case 2_Post-fill_Alt 2.gsz
Date: 1/17/2013 Time: 8:52:46 AM

Method: Spencer
Slip Surface Option: Grid and Radius
Description: Qcf Cohesion: 250 psf Phi: 25deg. Wt: 120pcf
Description: Qc Cohesion: 350 psf Phi: 25deg. Wt: 120pcf
Description: Tf Cohesion: 300 psf Phi: 30deg. Wt: 125pcf
Description: Tst Cohesion: 300 psf Phi: 35deg. Wt: 125 pcf

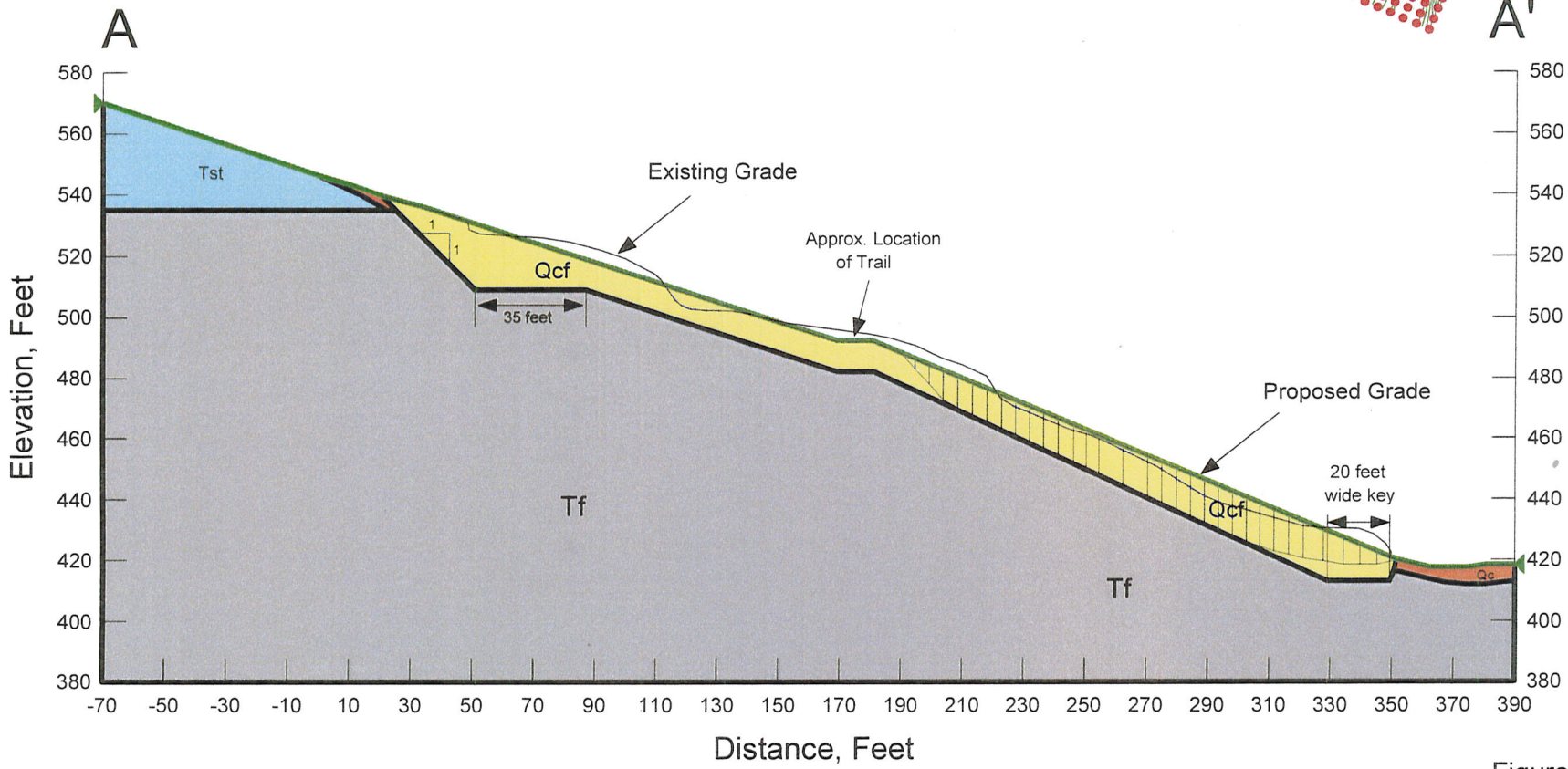
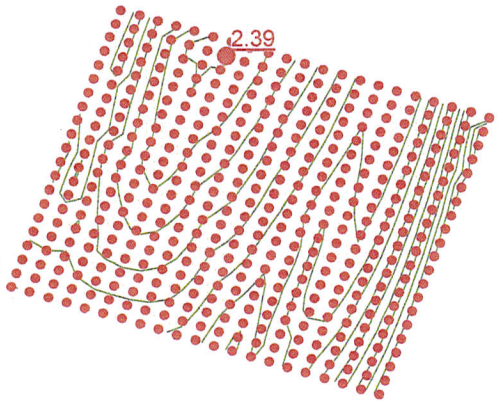


Figure A-2

X:\Engineering and Geology\ENGINEER PROGRAMS, GUIDES, ETC\EngrgPrg\GEO-SLOPE2007\Projects\G1200-52-05 Rancho Mission Landslide\12_21_12 Analyses\ A-A Case 2_Post-fill_Alt 2.gsz



Rancho Mission Landslide
Project No. G1200-52-05
Section A-A'
Name: A-A Case 3_Post-fill_1 to 1 Cut.gsz
Date: 1/17/2013 Time: 4:46:48 PM

Method: Spencer
Slip Surface Option: Grid and Radius
Description: Qcf Cohesion: 250 psf Phi: 25deg. Wt: 120pcf
Description: Qc Cohesion: 350 psf Phi: 25deg. Wt: 120pcf
Description: Tf Cohesion: 300 psf Phi: 30deg. Wt: 125pcf
Description: Tst Cohesion: 300 psf Phi: 35deg. Wt: 125 pcf

Alternative 2 - FS at 1:1 Backcut

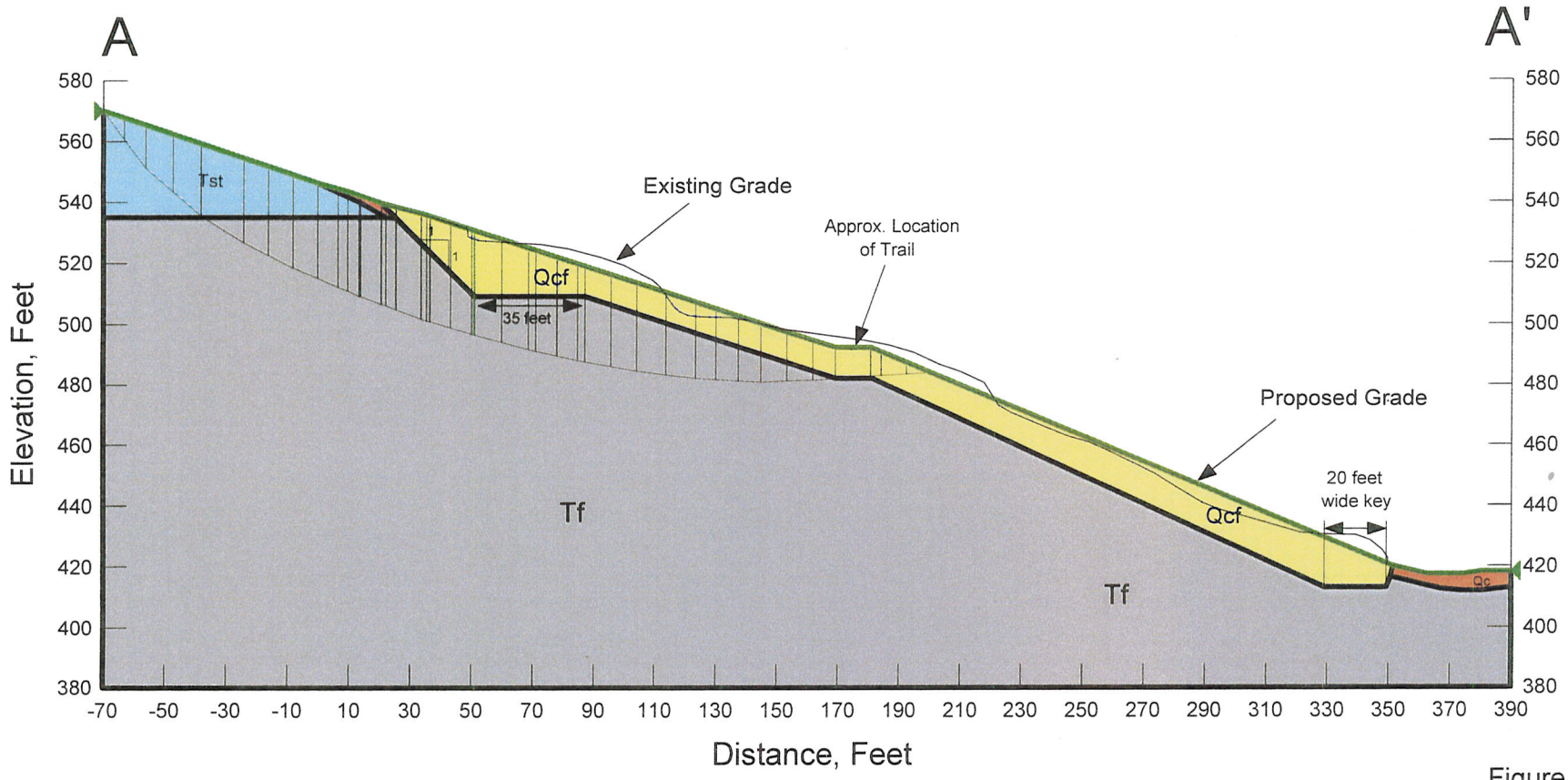


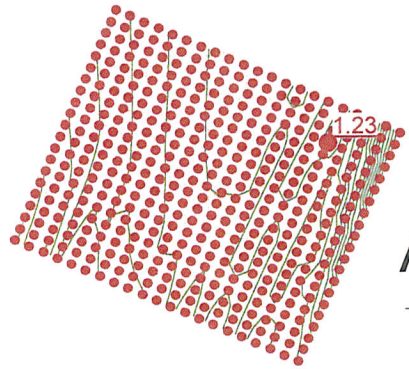
Figure A-3

X:\Engineering and Geology\ENGINEER PROGRAMS, GUIDES, ETC\EngrgPrg\GEO-SLOPE2007\Projects\G1200-52-05 Rancho Mission Landslide\12_21_12 Analyses\ A-A Case 3_Post-fill_1 to 1 Cut.gsz

Rancho Mission Landslide
Project No. G1200-52-05
Section A-A'
Name: A-A Case 4_Post-fill_Alt 2_Seismic.gsz
Date: 1/16/2013 Time: 3:02:58 PM

Method: Spencer
Slip Surface Option: Grid and Radius
Description: Qcf Cohesion: 250 psf Phi: 25deg. Wt: 120pcf
Description: Qc Cohesion: 350 psf Phi: 25deg. Wt: 120pcf
Description: Tf Cohesion: 300 psf Phi: 30deg. Wt: 125pcf
Description: Tst Cohesion: 300 psf Phi: 35deg. Wt: 125 pcf

Alternative 2 - With Seismic Loading



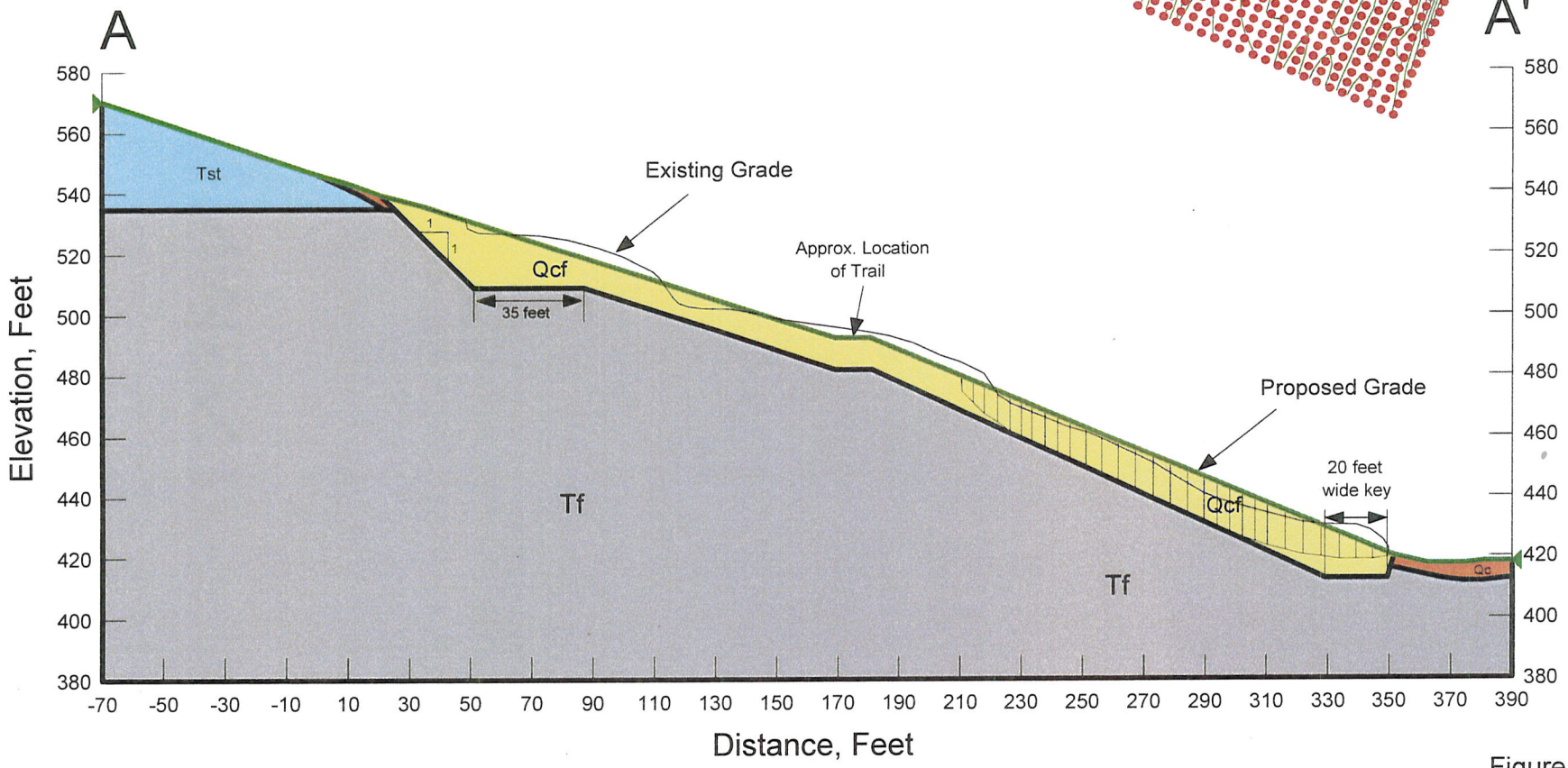


Figure A-4

X:\Engineering and Geology\ENGINEER PROGRAMS, GUIDES, ETC\EngrgPrg\GEO-SLOPE2007\Projects\G1200-52-05 Rancho Mission Landslide\12_21_12 Analyses\ A-A Case 4_Post-fill_Alt 2_Seismic.gsz

EXHIBIT L

NOTICE OF EXEMPTION

REVISED NOTICE OF EXEMPTION

(Check one or both)

TO: __X__ RECORDER/COUNTY CLERK
P.O. BOX 1750, MS A-33
DEPARTMENT
1600 PACIFIC HWY, ROOM 260
SAN DIEGO, CA 92101-2422

_____ OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET, ROOM 121
SACRAMENTO, CA 95814

FROM: CITY OF SAN DIEGO
DEVELOPMENT SERVICES
1222 FIRST AVENUE, MS 501
SAN DIEGO, CA 92101

PROJECT INTERNAL ORDER NO. **WBS NO. B-13015** PROJECT TITLE: **RANCHO MISSION CANYON PARK SLOPE EMERGENCY REPAIR**

PROJECT LOCATION-SPECIFIC: The proposed project is located on the slope north of Town View lane and south of the residences located at 7908 and 7916 Deerfield Drive in the Navajo Community Planning Area.

PROJECT LOCATION-CITY/COUNTY: San Diego/San Diego

DESCRIPTION OF NATURE AND PURPOSE OF THE PROJECT: This emergency project requires the repair of a landslide, part of which lies within the City's Multi-Habitat Planning Area (MHPA), that threatens down slope residences and public infrastructure. The repair includes removal of the slope movement debris in its entirety, with export and disposal of the landslide material. The removal will include the highly weathered portion of the Friars Formation within the slide and extend at least 10 feet beyond the lateral limits of the landslide. The resulting excavation will be re-graded and re-contoured to blend into the surrounding topography to create positive drainage and reduce the potential for ponding water. Some compacted fill may be required to be placed in the middle section of the slope to accommodate the trail connection. The repaired slope will also be revegetated. Access to the slope will occur from an easement through one of the properties on Deerfield Drive. The area where emergency repair work will be conducted is partially within the City's Multi-Habitat Planning Area; sensitive vegetation has been mapped here and could be impacted during construction related activities. As a result, it is subject to review under the Environmentally Sensitive Lands Regulation of the City of San Diego and therefore may require subsequent permitting pursuant to the Land Development Code **§143.0126 - Emergency Authorization to Impact Environmentally Sensitive Lands** which states "(a) If the emergency work involves only temporary impacts to *environmentally sensitive lands*, a Neighborhood Development Permit or Site Development Permit is not required provided the *environmentally sensitive lands* are restored, in a timely manner to their natural state, to the satisfaction of the City Manager. Restoration shall be in accordance with a restoration plan that conforms with the Biology Guidelines and is approved by the City Manager. The restoration plan shall be submitted to the City Manager within 60 days of completion of the emergency work and work on the approved restoration plan shall be initiated within 90 days of project completion or prior to the beginning of the next rainy season, whichever is greater. (b) if the emergency work results in permanent impacts to *environmentally sensitive lands*, a subsequent Neighborhood Development Permit or Site Development Permit is required in accordance with all regulations of this division.

NAME OF PUBLIC AGENCY APPROVING PROJECT: City of San Diego

NAME OF PERSON OR AGENCY CARRYING OUT PROJECT: Debbie Van Martin, Engineering and Capital Projects Department
1010 Second Avenue, San Diego, CA 92101, Phone: 619-533-5414.

EXEMPT STATUS: (CHECK ONE)

( ) MINISTERIAL (SEC. 21080(b)(1); 15268);
( ) DECLARED EMERGENCY (SEC. 21080(b)(3); 15269(a));
(X) STATUTORY EXEMPTION - EMERGENCY PROJECT (SEC. 21080(b)(4); 15269 (b)(c))
( ) CATEGORICAL EXEMPTION:

REASONS WHY PROJECT IS EXEMPT: This emergency determination is based on the expert opinion and findings by the City Engineer and other qualified City staff involved with the investigation of this landslide that the slope has continued to move subsequent to its initial failure on March 25, 2011 and has been steadily moving since that time which poses a significant threat to private property and public infrastructure. If left unrepaired, a moderate to significant rain event could exacerbate the landslide, causing further property damage and potential risk to life and property. Therefore, immediate action is necessary to prevent further slope failure by winterizing the site in order to prevent greater environmental damage to life, property and sensitive biological resources on the slope and within the canyon. Furthermore, the project meets the criteria set forth in CEQA Section 15269 which allows for specific actions necessary to prevent or mitigate an emergency.

LEAD AGENCY CONTACT PERSON: Herrmann TELEPHONE: (619) 446-5372

IF FILED BY APPLICANT:

1. ATTACH CERTIFIED DOCUMENT OF EXEMPTION FINDING.
2. HAS A NOTICE OF EXEMPTION BEEN FILED BY THE PUBLIC AGENCY APPROVING THE PROJECT?
   ( ) YES ( ) NO

IT IS HEREBY CERTIFIED THAT THE CITY OF SAN DIEGO HAS DETERMINED THE ABOVE ACTIVITY TO BE EXEMPT FROM CEQA

SENIOR PLANNER — October 30, 2012

SIGNATURE/TITLE — DATE

CHECK ONE:

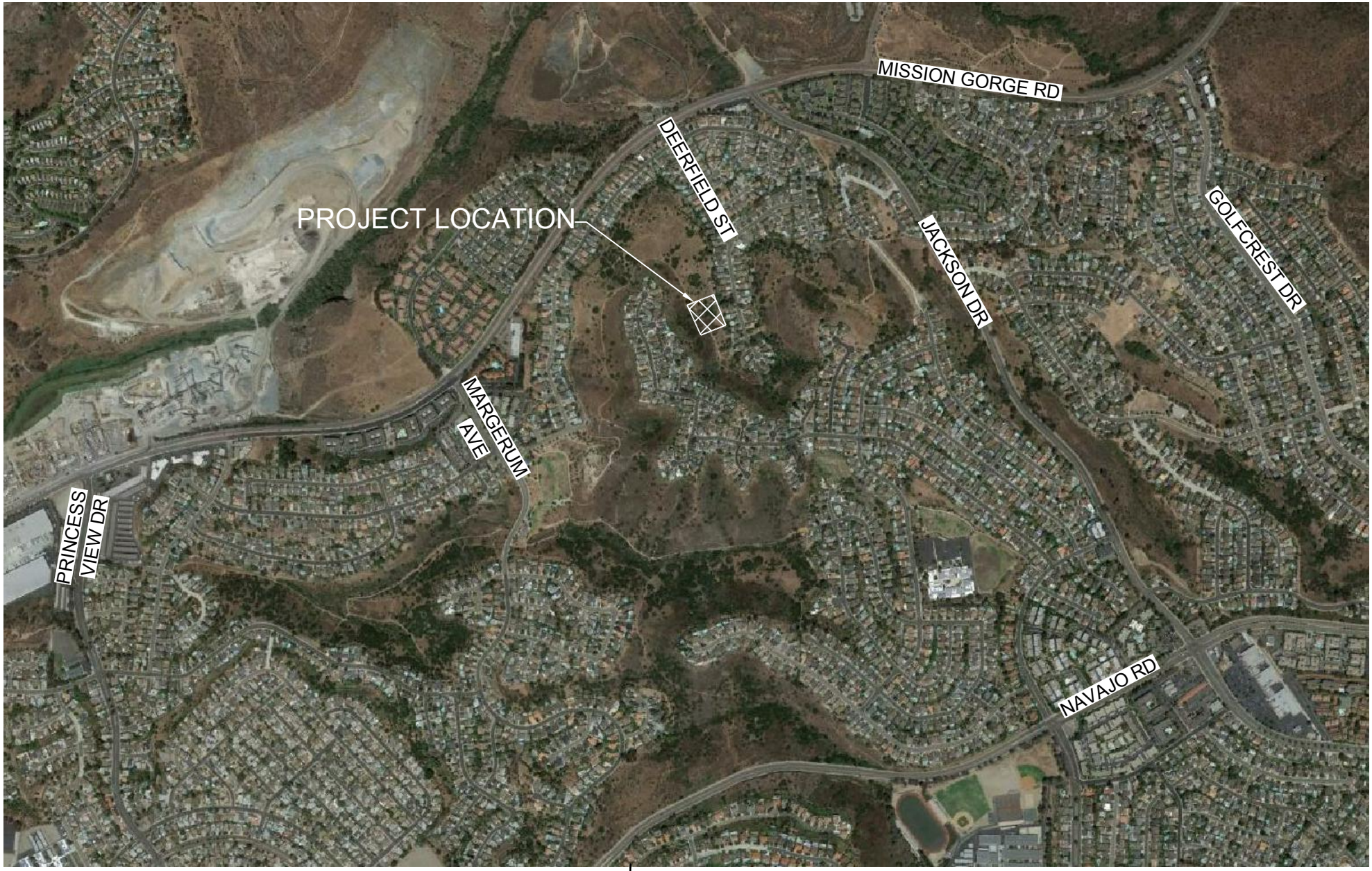
(X) SIGNED BY LEAD AGENCY

( ) SIGNED BY APPLICANT

DATE RECEIVED FOR FILING WITH COUNTY CLERK OR OPR:

EXHIBIT M

PROJECT PHOTOS, LOCATION MAP



LOCATION MAP EXHIBIT

RBF CONSULTING A Baker Company

EXHIBIT N

PUBLIC NOTICE SAMPLES

THE CITY OF SAN DIEGO

Public Works Department

May 28th, 2013

«Title» «FirstName» «LastName»
«Address1»
«City», «State» «PostalCode»

«Title» «FirstName» «LastName»,

The City of San Diego has upcoming construction for an important planned infrastructure project in your neighborhood. This notice of upcoming construction provides you with all the pertinent information about this construction project.

What do you need to know?

Project Name:	Rancho Mission Slope Repair
Scope:	Removal of slope debris and reconstruction of canyon slopes in the Ranch Mission Canyon Park's open space; street resurfacing on Deerfield Street between Mission George Road and the cul-de-sac.
Construction Schedule:	**June to October 2013**
Construction Hours:	**7:30 a.m. – 4:00 p.m.**
Project Benefits:	*Slope stabilization, revegetation of native plants replacement*

How will this project impact your community?

- Construction equipment noise
- Additional traffic on Deerfield Street
- Street parking restriction at project site. No parking signs around the area will be displayed 72 hours in advance.

Contact Information

Should you have any questions, please contact the CIP Construction Project Public Information line:

Telephone: (619) 533-4207
Email: engineering@sandiego.gov.

CONSTRUCTION NOTICE

Rancho Mission Slope Repair

The work will consist of:

- *County of San Diego State of California:* Removal of slope debris and reconstruction of canyon slopes in the Ranch Mission Canyon Park's open space; street resurfacing on Deerfield Street between Mission George Road and the cul-de-sac.

How your neighborhood may be impacted:

- Traffic delays due to lane closure.
- Two-way traffic will be maintained at all times.
- No parking signs around the area will be displayed 72 hours in advance.

Anticipated Construction Schedule

- The entire slope repair job is now scheduled to start in June and to be complete in October of 2013.

Hours and Days of Operation

7:30 a.m. to 4 p.m., Monday to Friday

For questions related to this work
Call: (619) 533-4207
Email: engineering@sandiego.gov
Visit: sandiego.gov/CIP

CITY OF SAN DIEGO PUBLIC WORKS DEPARTMENT

This information is available in alternative formats upon request.

CONSTRUCTION NOTICE

Rancho Mission Slope Repair

The work will consist of:

- *County of San Diego State of California:* Removal of slope debris and reconstruction of canyon slopes in the Ranch Mission Canyon Park's open space; street resurfacing on Deerfield Street between Mission George Road and the cul-de-sac.

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Call: (619) 533-4207
Email: engineering@sandiego.gov
Visit: sandiego.gov/CIP

CITY OF SAN DIEGO PUBLIC WORKS DEPARTMENT

This information is available in alternative formats upon request.

GRADING PLANS FOR:
RANCHO MISSION SLOPE REPAIR

GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.

2. THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CITY OF SAN DIEGO DOES NOT AUTHORIZE THE SUBDIVIDER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES, INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT OF 1973 AND AMENDMENTS THERETO (16 USC SECTION 1531 ET.SEQ.)

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A LAND SURVEYOR SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE MONUMENTS. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT, SECTION 8771 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

4. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A ''PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-422-4133, TWO DAYS BEFORE YOU DIG.

5. CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD AND THE CITY OF SAN DIEGO MUNICIPAL CODE AND STORM WATER STANDARDS MANUAL.

6. ALL EXISTING AND/OR PROPOSED PUBLIC UTILITY SYSTEM AND SERVICE FACILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH SECTION 144.0240 OF THE MUNICIPAL CODE.

7. PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN DIEGO FIELD ENGINEERING DIVISION (858) 627-3200.

8. DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.

9. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT BY THE CITY OF SAN DIEGO.

10. AN AS-GRADED GEOTECHNICAL REPORT AND A SET OF THE REDLINE GRADING PLANS SHALL BE SUBMITTED AT AREA 3 ON THE THIRD FLOOR OF DEVELOPMENT SERVICES WITHIN 30 CALENDAR DAYS OF THE COMPLETION OF GRADING. AN ADDITIONAL SET SHALL BE PROVIDED TO THE RESIDENT ENGINEER OF THE FIELD ENGINEERING DIVISION AT 9485 AERO DR.

11. THE AREA WHICH IS DEFINED AS A NON GRADING AREA AND WHICH IS NOT TO BE DISTURBED SHALL BE STAKED AND DELINEATED WITH HIGH VISIBILITY FENCE PRIOR TO START OF THE WORK. THE PERMIT APPLICANT AND ALL OF THEIR REPRESENTATIVES OR CONTRACTORS SHALL COMPLY WITH THE REQUIREMENTS FOR PROTECTION OF THIS AREA AS REQUIRED BY ANY APPLICABLE AGENCY. ISSUANCE OF THE CITY'S GRADING PERMIT SHALL NOT RELIEVE THE APPLICANT OR ANY OF THEIR REPRESENTATIVES OR CONTRACTORS FROM COMPLYING WITH ANY STATE OR FEDERAL REQUIREMENTS BY AGENCIES INCLUDING BUT NOT LIMITED TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, CALIFORNIA DEPARTMENT OF FISH AND GAME. COMPLIANCE MAY INCLUDE OBTAINING PERMITS, OTHER AUTHORIZATIONS, OR COMPLIANCE WITH MANDATES BY ANY APPLICABLE STATE OR FEDERAL AGENCY.

12. ALL ONSITE, PRIVATE IMPROVEMENTS SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. THE CITY ENGINEERS'S APPROVAL OF THE DRAWING, IN NO WAY CONSTITUTES AN APPROVAL OF SAID PRIVATE IMPROVEMENTS. A SEPARATE PERMIT FOR SUCH IMPROVEMENTS MAY BE REQUIRED.

13. CONTRACTOR SHALL COORDINATE WITH ADJACENT PROPERTY OWNERS FOR ACCESS AND COMMENCEMENT OF CONSTRUCTION.

14. CONTRACTOR TO ENSURE CONSTRUCTION DOES NOT EXCEED HOURS OF CONSTRUCTION BETWEEN 8:00AM AND 3:30PM.

SPECIAL NOTES

THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTION TO THE CONTRACTOR BY THE ENGINEER OF WORK. THE CITY ENGINEER'S SIGNATURE ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF THESE NOTES AND THE CITY WILL NOT BE RESPONSIBLE FOR THEIR ENFORCEMENT.

1. THE ENGINEER OF WORK SHALL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NOR SHALL THE ENGINEER BE REQUIRED TO SUPERVISE CONDUCT OF THE WORK OF THE CONSTRUCTION PROCEDURES AND SAFETY PROCEDURES FOLLOWED BY THE CONTRACTOR OR SUBCONTRACTORS OR THEIR RESPECTIVE EMPLOYEES OR BY ANOTHER PERSON AT THE JOB SITE OTHER THAN THAT OF THE ENGINEER'S EMPLOYEES.

2. THE LOCATIONS OF ANY UNDERGROUND STRUCTURES AS SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR THE BENEFIT OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT ALL UNDERGROUND OR OVERHEAD STRUCTURES WHETHER SHOWN OR NOT ON THESE DRAWINGS

3. THE CONTRACTOR SHALL VERIFY THE LOCATION OF AND PROTECT ALL EXISTING IMPROVEMENTS BEFORE AND DURING CONSTRUCTION.

4. CONTRACTOR SHALL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF LOCATION OF EXISTING FACILITIES.

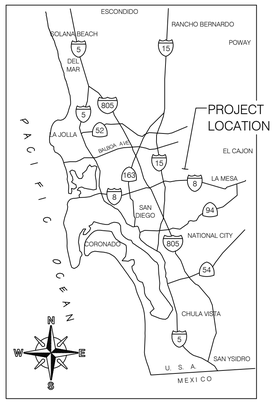
5. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN PROFESSIONAL.

GRADING NOTES

1. GRADING SHOWN ON THESE PLANS SHALL BE IN CONFORMANCE WITH CURRENT STANDARD SPECIFICATIONS AND CHAPTER 14, ARTICLE 2, DIVISION 1, OF THE SAN DIEGO MUNICIPAL CODE.

2. GRADED, DISTURBED, OR ERODED AREAS THAT WILL NOT BE PERMANENTLY PAVED, COVERED BY STRUCTURE, OR PLANTED FOR A PERIOD OVER 90 DAYS, SHALL BE TEMPORARILY RE-VEGETATED WITH A NON-IRRIGATED HYDROSEED MIX, GROUND COVER, OR EQUIVALENT MATERIAL. SEE SHEET 10 FOR MIX AND SPECIFICATIONS.

3. THE PRECISE LOCATION OF SUBDRAINS SHALL BE ACCURATELY LOCATED AND SHOWN ON THE FINAL AS-GRADED PLANS.



VICINITY MAP

NO SCALE

GRADING AND GEOTECHNICAL SPECIFICATIONS

1. ALL GRADING SHALL BE DONE UNDER OBSERVATION AND TESTING BY A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND, IF REQUIRED, BOTH A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND AN ENGINEERING GEOLOGIST. ALL GRADING MUST BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY ORDINANCE AND THE RECOMMENDATIONS AND SPECIFICATIONS SET FORTH IN THE SOILS REPORT OR GEOLOGICAL/GEOTECHNICAL INVESTIGATION ENTITLED:

LIMITED GEOTECHNICAL INVESTIGATION FOR RANCHO MISSION SLOPE MOVEMENT
PREPARED BY: GEOCON INCORPORATED DATED: 10/10/2011

2. ALL FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MOST RECENT VERSION OF A.S.T.M. D-1557 OR AN APPROVED ALTERNATIVE STANDARD.

3. AT THE COMPLETION OF THE GRADING OPERATIONS FOR THE EARTHWORK SHOWN ON THIS PLAN, AN AS-GRADED SOILS REPORT, OR IF REQUIRED, AN AS-GRADED SOILS AND GEOLOGICAL REPORT WILL BE PREPARED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE CITY OF SAN DIEGO TECHNICAL GUIDELINES FOR GEOTECHNICAL REPORTS. THE FINAL "AS-GRADED" GEOTECHNICAL REPORT WILL BE SUBMITTED TO THE FIELD ENGINEERING SECTION OF PUBLIC WORKS AND A SECOND COPY TO THE GEOLOGY SECTION OF THE DEVELOPMENT SERVICES DEPARTMENT WITHIN 15 DAYS OF THE COMPLETION OF GRADING. WHERE GEOLOGIC INSPECTION IS INDICATED IN THE PERMIT OR PROJECT PLANS, REPORTS OR SPECIFICATIONS, THE FINAL REPORT MUST ALSO BE REVIEWED AND SIGNED BY A CALIFORNIA CERTIFIED ENGINEERING GEOLOGIST.

4. IF THE GEOTECHNICAL CONSULTANT OF RECORD IS CHANGED FOR THE PROJECT, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT HAS AGREED IN WRITING TO ACCEPT THE RESPONSIBILITY WITHIN THE AREA OF THEIR TECHNICAL COMPETENCE FOR APPROVAL UPON COMPLETION OF THE WORK. IT SHALL BE THE DUTY OF THE PERMITTEE TO NOTIFY THE CITY ENGINEER AND THE LDR GEOLOGY SECTION OF THE DEVELOPMENT SERVICES DEPARTMENT IN WRITING OF SUCH CHANGE PRIOR TO THE RECOMMENCEMENT OF GRADING.

5. THESE GRADING PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN THE REFERENCED GEOTECHNICAL REPORT(S) PREPARED FOR THIS PROJECT.

SIGNATURE	NUMBER	EXPIRATION DATE	R.C.E. OR G.E.	DATE

SIGNATURE	NUMBER	EXPIRATION DATE	C.E.G.	DATE

GEOCON INCORPORATED PHONE NO. (858)558-6900

6. FOR SOIL FILE SEE CITY RECORD S - XXXXXX

REGISTERED PROFESSIONAL ENGINEER — ROBERT R. GEHRKE — No. 45717 Exp. 12/31/14 CIVIL — STATE OF CALIFORNIA

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

ROBERT R. GEHRKE R.C.E. No. 45717 DATE

OWNER

CITY OF SAN DIEGO
600 B STREET SUITE 800
SAN DIEGO, CA 92101

REFERENCE DRAWINGS

15301-D

TOPOGRAPHY SOURCE

CITY OF SAN DIEGO PRELIMINARY SURVEY FIELD NOTES;
MAP: 7417, RANCHO MISSION
DATE: 6/30/2011
REVISED: 10/16/2012

BENCHMARK

SD GPS 149 (ROS 14492). MISSION GORGE @ ECHO DEL
ELEVATION 341.97 MSL. BASED ON NGVD 29 GPS OBSERVED.

SITE ADDRESS

7908 DEERFIELD STREET
SAN DIEGO, CA, 92120

ASSESSOR PARCEL NUMBER

456-460-29

LEGAL DESCRIPTION

RANCHO MISSION POR LOT 70 OF MAP CC 15191

GRADING QUANTITIES

GRADED AREA	0.83 [ACRES]	MAX. CUT DEPTH 22 [FT]
CUT QUANTITIES	10,500 [CYD]	MAX CUT SLOPE RATIO (2: 1MAX)
FILL QUANTITIES	12,600 [CYD]	MAX. FILL DEPTH 22 [FT]
EXPORT	10,500 [CYD]	
IMPORT	12,600 [CYD]	

THIS PROJECT PROPOSES TO EXPORT 10,500 CUBIC YARDS OF MATERIAL FROM THIS SITE. ALL EXPORT MATERIAL SHALL BE DISCHARGED TO A LEGAL DISPOSAL SITE. THE APPROVAL OF THIS PROJECT DOES NOT ALLOW PROCESSING AND SALE OF THE MATERIAL. ALL SUCH ACTIVITIES REQUIRE A SEPARATE CONDITIONAL USE PERMIT. THIS PROJECT ALSO REQUIRES AN IMPORT OF 12,600 CUBIC YARDS OF SELECT MATERIAL THAT IS TO BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO FINAL GRADING.

TRUCK HAUL NOTES

THE CONTRACTOR SHALL SUBMIT A TRUCK HAUL ROUTE PLAN (11X17) FOR APPROVAL PRIOR TO STARTING EXPORT OR IMPORT OF MATERIAL. THE PLAN SHOULD BE SUBMITTED TO THE TRAFFIC CONTROL PERMIT COUNTER, 3RD FLOOR, BOOTH 22, BUILDING, SAFETY & CONSTRUCTION DIVISION, DEVELOPMENT SERVICES CENTER, 1222 FIRST AVENUE, SAN DIEGO, (619) 446-5750. CONTRACTOR SHALL OBTAIN A TRAFFIC CONTROL PERMIT A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO STARTING WORK.

TRAFFIC CONTROL NOTES

THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN (11X17) FOR APPROVAL PRIOR TO STARTING WORK. THE PLAN SHOULD BE SUBMITTED TO THE TRAFFIC CONTROL PERMIT COUNTER, 3RD FLOOR, BOOTH 22, DEVELOPMENT SERVICES CENTER, 1222 FIRST AVENUE, SAN DIEGO, (619) 446-5150. CONTRACTOR SHALL OBTAIN A TRAFFIC CONTROL PERMIT A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO STARTING WORK, AND A MINIMUM OF FIVE (5) DAYS IF WORK WILL AFFECT A BUS STOP OR AN EXISTING TRAFFIC SIGNAL, OR IF WORK WILL REQUIRE A ROAD OR ALLEY CLOSURE.

SHEET INDEX

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PANS AND SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF SAN DIEGO.

STANDARD SPECIFICATIONS:

DOCUMENT NO.	DESCRIPTION
PITS070112-01	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2012 EDITION
PITS070112-02	CITY OF SAN DIEGO STANDARD SPECIFICATIONS FOR PUBLICWORKS CONSTRUCTION (WHITEBOOK), 2012 EDITION
PITS070112-04	CALIFORNIA DEPARTMENT OF TRANSPORTATION MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2012 EDITION
PITS070112-06	CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S CUSTOMARY STANDARD SPECIFICATIONS, 2010 EDITION

STANDARD DRAWINGS:

DOCUMENT NO.	DESCRIPTION
PITS070112-03	CITY OF SAN DIEGO STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION
PITS070112-05	CALIFORNIA DEPARTMENT OF TRANSPORTATION U.S CUSTOMARY STANDARD PLANS, 2010 EDITION

LEGEND

ITEM	STANDARD DRAWING	SYMBOL
PROPOSED IMPROVEMENTS		
PROPERTY LINE/MHPA		
RIGHT OF WAY		
LIMIT OF WORK		
DAYLIGHT LINE/GRADING LIMIT		
FINISH CONTOUR		420
FINISH CONTOUR	SDRSD SDG-151	
CONCRETE SIDEWALK	SDRSD SDG-151	
TEMPORARY ACCESS PATH		
STORM DRAIN		
PERFORATED STORM DRAIN PIPE		
SEWER TYPE CLEANOUT (S.C.O.)	SDRSD SC-01	
DEBRIS RACK	DETAIL 1 & 3 SHEET C-1	
STORM DRAIN CUT-OFF WALL	SDRSD SDS-115	
BROW DITCH TYPE 'A'	SDRSD SDD-106	
EXISTING BROW DITCH REMOVAL		
TRENCHING LOCATIONS	SEE GEOTECHNICAL REPORT	
EXISTING IMPROVEMENTS		
EXISTING EASEMENT LINE		
EXISTING CONTOUR		(100)
EXISTING FENCE LINE		
EXISTING STORM DRAIN		
EXISTING STORM DRAIN MANHOLE		
EXISTING WATER LINE		
EXISTING SEWER LINE		
EXISTING BROW DITCH		
EXISTING TREE		
EXISTING BUILDING		

RANCHO MISSION SLOPE REPAIR

G-1

RBF CONSULTING — A Baker Company
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1333
858.614.5000 FAX 858.614.5001

TITLE SHEET:
RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 1 OF 15 SHEETS

WATER WBS
SEWER WBS

APPROVED: FOR CITY ENGINEER DATE
SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER
CCS27 COORDINATE
CCS83 COORDINATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RBF			

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-XX-D

TEMPORARY BMP CONSTRUCTION SITE STORM WATER PRIORITY: HIGH ____ MEDIUM ____ LOW____

SPEC. NO.

AS-BUILT INFORMATION

MATERIALS	MANUFACTURER
--	-
--	-
	-
	-
--	-
--	-

REGISTERED PROFESSIONAL ENGINEER — ROBERT R. GEHRKE — No. 45717 Exp. 12/31/14 CIVIL — STATE OF CALIFORNIA

CONSTRUCTION CHANGE / ADDENDUM

CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

WARNING
0 1
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

CITY OF SAN DIEGO
PUBLIC WORKS PROJECT

THE CITY OF SAN DIEGO • STATE OF CALIFORNIA • THE BIRTHPLACE OF AVIATION

H:\PDATA\25105711\CADD\LAND\DLV\GRADING\ROUGHLTT-01.DWG PITAL, TRAVIS 2/8/2013 12:21 PM

100% SUBMITTAL

SWPPP NOTES

1. DISCHARGING SEDIMENT-LADEN WATER WHICH WILL CAUSE OR CONTRIBUTE TO AN EXCEEDANCE OF THE APPLICABLE RWQCB'S BASIN PLANS FROM A DEWATERING SITE OR SEDIMENT BASIN/TRAP INTO ANY RECEIVING WATER OR STORM DRAIN WITHOUT FILTRATION OR EQUIVALENT TREATMENT IS PROHIBITED.

2. THE DISCHARGER SHALL AMEND THE SWPPP WHENEVER THERE IS A CHANGE IN CONSTRUCTION OR OPERATIONS, WHICH MAY AFFECT THE DISCHARGE OF POLLUTANTS TO SURFACE WATERS, GROUNDWATER, OR A MUNICIPAL STORM DRAIN SYSTEM. THE SWPPP SHALL ALSO BE AMENDED IF THE DISCHARGER VIOLATES ANY CONDITION OF THE GENERAL PERMIT OR HAS NOT ACHIEVED THE GENERAL OBJECTIVE OF REDUCING OR ELIMINATING POLLUTANTS IN STORM WATER DISCHARGES. ALL AMENDMENTS SHOULD BE DATED AND DIRECTLY ATTACHED TO THE SWPPP.

3. TEMPORARY ON-SITE DRAINAGE TO CARRY CONCENTRATED FLOW SHALL BE SELECTED TO COMPLY WITH CITY REQUIREMENTS TO CONTROL EROSION, TO RETURN FLOWS TO THEIR NATURAL DRAINAGE COURSES, AND TO PREVENT DAMAGE TO DOWNSTREAM PROPERTIES.

4. DISCHARGES ORIGINATING FROM OFF-SITE, WHICH FLOW ACROSS OR THROUGH AREAS DISTURBED BY CONSTRUCTION THAT MAY CONTAIN POLLUTANTS, SHOULD BE REPORTED TO THE RWQCB.

5. DISCHARGERS WHO ARE PRESENTLY COVERED UNDER NPDES GENERAL PERMIT NO. CAS000002 FOR DISCHARGE OF STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY MAY SUBMIT A NOTICE OF TERMINATION WHEN THEY MEET ONE OF THE FOLLOWING CRITERIA.

A. THE CONSTRUCTION PROJECT HAS BEEN COMPLETED AND THE FOLLOWING CONDITIONS HAVE BEEN MET: ALL ELEMENTS OF THE STORM WATER POLLUTION PREVENTION PLAN HAVE BEEN COMPLETED; CONSTRUCTION MATERIALS AND EQUIPMENT MAINTENANCE WASTE HAVE BEEN DISPOSED OF PROPERLY; THE SITE IS IN COMPLIANCE WITH ALL LOCAL STORM WATER MANAGEMENT REQUIREMENTS INCLUDING EROSION/SEDIMENT CONTROL REQUIREMENTS AND THE APPROPRIATE USE PERMITS HAVE BEEN OBTAINED; AND A POST-CONSTRUCTION STORM WATER OPERATION AND MANAGEMENT PLAN IS IN PLACE.

B. CONSTRUCTION ACTIVITIES HAVE BEEN SUSPENDED, EITHER TEMPORARILY OR INDEFINITELY AND THE FOLLOWING CONDITIONS HAVE BEEN MET: ALL ELEMENTS OF THE STORM WATER POLLUTION PREVENTION PLAN HAVE BEEN COMPLETED; CONSTRUCTION MATERIALS AND EQUIPMENT MAINTENANCE WASTE HAVE BEEN DISPOSED OF PROPERLY; ALL DENUDED AREAS AND OTHER AREAS OF POTENTIAL EROSION ARE STABILIZED; AN OPERATION AND MAINTENANCE PLAN FOR EROSION AND SEDIMENT CONTROL IS IN PLACE; AND THE SITE IS IN COMPLIANCE WITH ALL LOCAL STORM WATER MANAGEMENT REQUIREMENTS INCLUDING EROSION/SEDIMENT CONTROL REQUIREMENTS. THE DATE CONSTRUCTION ACTIVITIES WERE SUSPENDED, AND THE EXPECTED DATE CONSTRUCTION ACTIVITIES WILL START UP AGAIN SHOULD BE PROVIDED.

C. CONSTRUCTION SITE CAN NOT DISCHARGE STORM WATER TO WATERS OF THE UNITED STATES. PLEASE INDICATE IF ALL STORM WATER IS RETAINED ON SITE OR IF STORM WATER IS COLLECTED OFFSITE.

D. DISCHARGE OF CONSTRUCTION STORM WATER FROM THE SITE IS NOW SUBJECT TO ANOTHER NPDES GENERAL PERMIT OR AN INDIVIDUAL NPDES PERMIT. THE GENERAL PERMIT OR INDIVIDUAL PERMIT NPDES NUMBER AND DATE COVERAGE BEGAN SHOULD BE PROVIDED.

E. THERE IS A NEW OWNER OF THE IDENTIFIED SITE. IF OWNERSHIP OR OPERATION OF THE FACILITY HAS BEEN TRANSFERRED THEN THE PREVIOUS OWNER MUST SUBMIT A NOTICE OF TERMINATION AND THE NEW OWNER MUST SUBMIT A NOTICE OF INTENT FOR COVERAGE UNDER THE GENERAL PERMIT. THE DATE OF TRANSFER AND INFORMATION ON THE NEW OWNER SHOULD BE PROVIDED. NOTE THAT THE PREVIOUS OWNER MAY BE LIABLE FOR DISCHARGE FROM THE SITE UNTIL THE NEW OWNER FILES A NOTICE OF INTENT FOR COVERAGE UNDER THE GENERAL PERMIT.

6. SEDIMENT CONTROL BMP'S ARE REQUIRED AT APPROPRIATE LOCATIONS ALONG THE SITE PERIMETER AND AT ALL OPERATIONAL INTERNAL INLETS TO THE STORM DRAIN SYSTEM AT ALL TIMES.

7. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ADEQUATE SEDIMENT CONTROL MATERIALS ARE AVAILABLE TO CONTROL SEDIMENT DISCHARGES AT THE DOWNGRADE PERIMETER AND OPERATIONAL INLETS (WEATHER AND STORM PREDICTIONS CAN BE OBTAINED BY CALLING THE NATIONAL WEATHER SERVICE AT (858) 675-8700 OR BY VISITING THE NATIONAL WEATHER SERVICE WEB SITE AT HTTP: //WWW.WRH.NOAA.GOV/SANDIEGO/INDEX.SHTML. FOR WEATHER INFORMATION AND CURRENT SATALITE/RADAR FEEDS).

8. THE OUTLETS OF ALL SEDIMENT BASINS, TRAPS, AND LOCATIONS OF ARTIFICIALLY CONCENTRATED FLOW SHALL BE PROVIDED WITH OUTLET PROTECTION TO PREVENT EROSION AND SCOUR.

9. INSPECTIONS SHALL BE PERFORMED BEFORE AND AFTER STORM EVENTS AND ONCE EACH 24-HOUR PERIOD DURING EXTENDED STORM EVENTS TO IDENTIFY BMP EFFECTIVENESS AND IMPLEMENT REPAIRS OR DESIGN CHANGES AS SOON AS FEASIBLE, DEPENDING ON FIELD CONDITIONS. EQUIPMENT, MATERIALS, AND WORKERS MUST BE AVAILABLE FOR RAPID RESPONSE TO FAILURES AND EMERGENCIES. ALL CORRECTIVE MAINTENANCE TO BMP'S SHALL BE PERFORMED AS SOON AS POSSIBLE AFTER THE CONCLUSION OF EACH STORM, DEPENDING UPON WORKER SAFETY.

10. FOR EACH INSPECTION, A QUALIFIED PERSON SHALL COMPLETE AN INSPECTION CHECKLIST CONTAINING THE FOLLOWING MINIMUM INFORMATION: INSPECTION DATE, WEATHER INFORMATION (BEGINNING/END OF STORM EVENT, DURATION, TIME SINCE LAST STORM, APPROXIMATE RAINFALL IN INCHES), DESCRIPTION OF INADEQUATE BMP'S, LIST OF OBSERVATIONS OF ALL BMP'S AND VISIBLE INSPECTION OF OUTFALLS, DISCHARGE POINTS, DOWNSTREAM LOCATIONS, AND PROJECTED REQUIRED MAINTENANCE ACTIVITIES, CORRECTIVE ACTIONS REQUIRED, INCLUDING CHANGES TO THE SWPPP AND IMPLEMENTATION DATES, INSPECTOR'S NAME, TITLE, SIGNATURE, AND QUALIFICATIONS.

11. INDIVIDUALS RESPONSIBLE FOR SWPPP, IMPLEMENTATION, AND PERMIT COMPLIANCE SHALL BE APPROPRIATELY TRAINED. THIS INCLUDES THOSE PERSONNEL RESPONSIBLE FOR INSTALLATION, INSPECTION, MAINTENANCE, AND REPAIR OF BMP'S. THOSE RESPONSIBLE FOR OVERSEEING, REVISING, AND AMENDING THE SWPPP SHALL ALSO DOCUMENT THEIR TRAINING. THE QUALIFIED PERSON SHALL ATTEND THE PRE-CONSTRUCTION MEETING. THE QUALIFIED PERSON SHALL HAVE KNOWLEDGE AND TRAINING OF THE INTENT AND ENFORCEMENT OF SWPPP'S AND BMP'S AND BE PROPERLY TRAINED TO CONDUCT INSPECTIONS AND PREPARE REPORTS OF THE CONSTRUCTION SITE WITH RESPECT TO THE CITY'S MUNICIPAL CODE/ORDINANCES AND THE SWPPP.

12. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE SWPPP AT THE CONSTRUCTION SITE, WHICH SHALL BE PROVIDED, UPON REQUEST, TO THE RWQCB OR CITY PERSONNEL. THE SWPPP IS CONSIDERED A REPORT THAT SHALL BE AVAILABLE TO THE PUBLIC BY THE RWQCB UNDER SECTION 308(B) OF THE CLEAN WATER ACT.

13. RECORDS OF ALL INSPECTIONS, COMPLIANCE CERTIFICATIONS, NONCOMPLIANCE REPORTING, SWPPP AND ANY OTHER DOCUMENTS GENERATED AS PART OF SWPPP, MUST BE RETAINED FOR A PERIOD OF AT LEAST THREE YEARS FROM THE DATE GENERATED.

14. A CONCRETE WASHOUT SHALL BE INSTALLED FOR ALL PROJECTS THAT PROPOSE CONCRETE TO BE MIXED ON SITE OR DELIVERED FROM A BATCH PLANT. THE CONCRETE WASHOUT SHALL BE LOCATED A MINIMUM OF 50' FROM ANY DRAINAGE INFRASTRUCTURE OR NATURAL DRAINAGE FEATURES OR WATER BODIES AND INCORPORATE AN IMPERMEABLE LINER (6 MIL MIN) TO CONTAIN THE REQUIRED VOLUME. ALL DRIED CONCRETE WASTE SHALL BE BROKEN INTO MANAGEABLE PIECES AND DISPOSED OF IN A PROPER MANNER. THE CONTRACTOR OR QUALIFIED PERSON SHALL LOCATE CONCRETE WASHOUTS IN THIS PRESCRIBED MANNER AS CONSTRUCTION PROGRESSES.

15. THE QUALIFIED PERSON SHALL CONDUCT REGULAR INSPECTIONS OF THE PROJECT SITE IN ACCORDANCE WITH RECOMMENDATIONS OUTLINED IN THE SWPPP. EACH INSPECTION SHALL BE DOCUMENTED IN THE FORM OF WRITTEN REPORTS RETAINED ON-SITE. ALL REPORTS SHALL BE MADE AVAILABLE TO THE CITY OF SAN DIEGO AND RWQCB REPRESENTATIVES UPON REQUEST.

16. THE CONTRACTOR SHALL HAVE EMERGENCY MATERIALS AND EQUIPMENT ON HAND FOR UNFORESEEN SITUATIONS, SUCH AS DAMAGE TO UNDERGROUND WATER AND SEWER UTILITIES WHEREBY FLOWS MAY GENERATE EROSION AND SEDIMENT POLLUTION.

17. ''THE PERMITTEE OR DESIGNEE SHALL PROVIDE EVIDENCE OF COVERAGE UNDER THE GENERAL CONSTRUCTION NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT, IN THE FORM OF A NOTICE OF INTENT (NOI) FILED WITH THE STATE WATER RESOURCES CONTROL BOARD, PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMITS."

SWPPP NOTES (CONTINUED)

18. SEDIMENT AND EROSION CONTROLS MAY BE REMOVED ONLY WHEN CONTRIBUTORY UPSTREAM AREAS BECOME STABILIZED OR ARE MANAGED UPSTREAM (I.E., SINGLE-LOT SEDIMENT CONTROLS) AND AS LONG AS SEDIMENT LADEN RUNOFF WILL NOT DISCHARGE FROM THE SITE.

19. WHEN FUTURE WORK BY THE DEVELOPER NOT SHOWN ON THIS PLAN IS TO BE PERFORMED, THE SWPPP SHALL BE AMENDED TO INCLUDE SAID WORK AND ANY ADDITIONAL WATER QUALITY CONTROL MEASURES REQUIRED.

20. WHEN OWNERSHIP CHANGES FOR PORTIONS OF THE SITE OR THE LIMITS OR NATURE OF WORK ARE ALTERED, THE DEVELOPER SHALL FILE A CHANGE OF INFORMATION (COI) OR A REVISED NOTICE OF INTENT (NOI), RESPECTIVELY, WITH THE RWQCB AND SWRCB, RESPECTIVELY.

21. THIS PLAN SHALL BE IN EFFECT UNTIL ALL DISTURBED AREAS ARE PERMANENTLY STABILIZED, TRANSFERRED TO NEW OWNERSHIP, OR DEVELOPED UNDER FUTURE PLANS WITH AN NEW NOI, SWPPP, AND WDID NUMBER.

PERMANENT POST-CONSTRUCTION BMP NOTES

1. OPERATION AND MAINTENANCE SHALL BE SECURED BY AN EXECUTED AND RECORDED STORM WATER MANAGEMENT AND DISCHARGE CONTROL MAINTENANCE AGREEMENT (SWMDCMA), OR ANOTHER MECHANISM APPROVED BY THE CITY ENGINEER, THAT ASSURES ALL PERMANENT BMP'S WILL BE MAINTAINED IN PERPETUITY, PER THE LAND DEVELOPMENT MANUAL, STORM WATER STANDARDS.

2. PERMANENT POST CONSTRUCTION BMP DEVICES SHOWN ON PLAN SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY ENGINEER OR RESIDENT ENGINEER AND THE ENGINEER OF WORK.

EROSION AND SEDIMENT CONTROL NOTES

TEMPORARY EROSION/SEDIMENT CONTROL, PRIOR TO COMPLETION OF FINAL IMPROVEMENTS, SHALL BE PERFORMED BY THE CONTRACTOR OR QUALIFIED PERSON AS INDICATED BELOW:

1. ALL REQUIREMENTS OF THE CITY OF SAN DIEGO ''LAND DEVELOPMENT MANUAL, STORM WATER STANDARDS" MUST BE INCORPORATED INTO THE DESIGN AND CONSTRUCTION OF THE PROPOSED GRADING/IMPROVEMENTS CONSISTENT WITH THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND/OR WATER POLLUTION CONTROL PLAN (WPCP) FOR CONSTRUCTION LEVEL BMP'S AND FOR PERMANENT POST CONSTRUCTION TREATMENT CONTROL PERMANENT BMP'S, THE WATER QUALITY TECHNICAL REPORT (WQTR) IF APPLICABLE.

2. FOR STORM DRAIN INLETS, PROVIDE A GRAVEL BAG SILT BASIN IMMEDIATELY UPSTREAM OF INLET AS INDICATED ON DETAILS.

3. FOR INLETS LOCATED AT SUMPS ADJACENT TO TOP OF SLOPES, THE CONTRACTOR SHALL ENSURE THAT WATER DRAINING TO THE SUMP IS DIRECTED INTO THE INLET AND THAT A MINIMUM OF 1.00' FREEBOARD EXISTS AND IS MAINTAINED ABOVE THE TOP OF THE INLET. IF FREEBOARD IS NOT PROVIDED BY GRADING SHOWN ON THESE PLANS, THE CONTRACTOR SHALL PROVIDE IT VIA TEMPORARY MEASURES, I.E. GRAVEL BAGS OR DIKES.

4. THE CONTRACTOR OR QUALIFIED PERSON SHALL BE RESPONSIBLE FOR CLEANUP OF SILT AND MUD ON ADJACENT STREET(S) AND STORM DRAIN SYSTEM DUE TO CONSTRUCTION ACTIVITY.

5. THE CONTRACTOR OR QUALIFIED PERSON SHALL CHECK AND MAINTAIN ALL LINED AND UNLINED DITCHES AFTER EACH RAINFALL.

6. THE CONTRACTOR SHALL REMOVE SILT AND DEBRIS AFTER EACH MAJOR RAINFALL.

7. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.

8. THE CONTRACTOR SHALL RESTORE ALL EROSION/SEDIMENT CONTROL DEVICES TO WORKING ORDER TO THE SATISFACTION OF THE CITY ENGINEER OR RESIDENT ENGINEER AFTER EACH RUN-OFF PRODUCING RAINFALL.

9. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES AS MAY BE REQUIRED BY THE RESIDENT ENGINEER DUE TO UNCOMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES, WHICH MAY ARISE.

10. THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE A HAZARDOUS CONDITION.

11. ALL EROSION/SEDIMENT CONTROL MEASURES PROVIDED PER THE APPROVED GRADING PLAN SHALL BE INCORPORATED HEREON. ALL EROSION/SEDIMENT CONTROL FOR INTERIM CONDITIONS SHALL BE DONE TO THE SATISFACTION OF THE RESIDENT ENGINEER.

12. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.

13. ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN RAIN IS IMMINENT.

14. THE CONTRACTOR SHALL ONLY GRADE, INCLUDING CLEARING AND GRUBBING FOR THE AREAS FOR WHICH THE CONTRACTOR OR QUALIFIED PERSON CAN PROVIDE EROSION/SEDIMENT CONTROL MEASURES.

15. THE CONTRACTOR SHALL ARRANGE FOR WEEKLY MEETINGS DURING OCTOBER 1ST TO APRIL 30TH FOR PROJECT TEAM (GENERAL CONTRACTOR, QUALIFIED PERSON, EROSION CONTROL SUBCONTRACTOR IF ANY, ENGINEER OF WORK, OWNER/DEVELOPER AND THE RESIDENT ENGINEER) TO EVALUATE THE ADEQUACY OF THE EROSION/SEDIMENT CONTROL MEASURES AND OTHER RELATED CONSTRUCTION ACTIVITIES.

MINIMUM POST-CONSTRUCTION MAINTENANCE PLAN

AT THE COMPLETION OF THE WORK SHOWN, THE FOLLOWING PLAN SHALL BE FOLLOWED TO ENSURE WATER QUALITY CONTROL IS MAINTAINED FOR THE LIFE OF THE PROJECT:

1. STABILIZATION: ALL PLANTED SLOPES AND OTHER VEGETATED AREAS SHALL BE INSPECTED PRIOR TO OCTOBER 1 OF EACH YEAR AND AFTER MAJOR RAINFALL EVENTS (MORE THAN ¼ INCH) AND REPAIRED AND REPLANTED AS NEEDED UNTIL A NOTICE OF TERMINATION (NOT) IS FILED.

2. STRUCTURAL PRACTICES: DESILTING BASINS, DIVERSION DITCHES, DOWNDRAINS, INLETS, OUTLET PROTECTION MEASURES, AND OTHER PERMANENT WATER QUALITY AND SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED PRIOR TO OCTOBER 1ST OF EACH YEAR AND AFTER MAJOR RAINFALL EVENTS (MORE THAN ¼ INCH). REPAIRS AND REPLACEMENTS SHALL BE MADE AS NEEDED AND RECORDED IN THE MAINTENANCE LOG IN PERPETUITY.

3. OPERATION AND MAINTENANCE, FUNDING: POST-CONSTRUCTION MANAGEMENT MEASURES ARE THE RESPONSIBILITY OF THE DEVELOPER UNTIL THE TRANSFER OF RESPECTIVE SITES TO HOME BUILDERS, INDIVIDUAL OWNERS, HOMEOWNERS ASSOCIATIONS, SCHOOL DISTRICTS, OR LOCAL AGENCIES AND/OR GOVERNMENTS. AT THAT TIME, THE NEW OWNERS SHALL ASSUME RESPONSIBILITY FOR THEIR RESPECTIVE PORTIONS OF THE DEVELOPMENT.

BRUSH MANAGEMENT CONSTRUCTION NOTE

IT SHALL BE THE THE RESPONSIBILITY OF THE OWNER/PERMITTEE TO SCHEDULE A PRECONSTRUCTION MEETING ON SITE WITH THE CONTRACTOR AND THE DEVELOPMENT SERVICES DEPARTMENT TO DISCUSS AND OUTLINE THE IMPLEMENTATION OF THE BRUSH MANAGEMENT PROGRAM.

PRIVATE NOTE

ALL ONSITE, PRIVATE IMPROVEMENTS SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. THE CITY ENGINEER'S APPROVAL OF THIS DRAWING, IN NO WAY CONSTITUTES AN APPROVAL OF SAID PRIVATE IMPROVEMENTS. A SEPARATE PERMIT FOR SUCH IMPROVEMENTS MAY BE REQUIRED.

WATER NOTES

1. EACH LOT SHALL RECEIVE A 1-INCH WATER SERVICE, UNLESS INDICATED ON THE PLANS OR SPECIAL SPECIFICATIONS. LOCATIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER OF WORK. THE ''AS-BUILT" LOCATIONS SHALL BE SHOWN ON THESE PLANS AND THE SEWER LATERAL TABLE COMPLETED PRIOR TO ACCEPTANCE OF THE WATER FACILITIES.

2. LOCATE WATER SERVICE HOUSE CONNECTIONS OUT OF DRIVEWAYS. THE SEWER HOUSE CONNECTIONS SHALL BE A MINIMUM OF 5 FEET DOWNHILL FROM THE WATER SERVICE.

3. ALL CONNECTIONS TO EXISTING WATER MAINS ARE TO BE DONE BY THE CITY'S DEPARTMENT FOR WHICH THE FOLLOWING FEES WILL BE CHARGED. IF THE WATER CONNECTIONS ARE NOT READY TO BE MADE AND THE FEES PAID BEFORE %%u %%u, THE CITY RESERVES THE RIGHT TO ADJUST THE FEES ACCORDING TO THE FEE SCHEDULE IN EFFECT AT THE TIME THE CONNECTIONS ARE MADE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXPOSE THE EXISTING MAIN AT THE CONNECTION POINT AND TO INSTALL THE NEW MAIN AT THE ALIGNMENT AND GRADE WHICH WILL PERMIT THE CITY TO MAKE A ''STRAIGHT-IN" CONNECTION WITHOUT USING MORE THAN 10 LINEAL FEET OF PIPE.

	COST	TYPE OF CONNECTION	SHEET
ITEM NO.1:	$254.00	2" WET TAP	5
ITEM NO.2:	$245.00	2" KILL SERVICE (INSPECTION ONLY)	5

CONTRACTOR TO SET SADDLE/TAPPING SLEEVE AND CORPORATION STOP/TAPPING VALVE FOR ALL WET TAPS APPROVAL BY THE SHUTDOWN COMMITTEE IS REQUIRED FOR ALL MAJOR PIPELINES 16" AND LARGER. SHUTDOWN WINDOW PERIOD IS BETWEEN NOVEMBER 1 TILL APRIL 1 OF THE FOLLOWING YEAR, WHEN WATER DEMAND IS LOWER.

4. PROVIDING WATER FOR THIS DEVELOPMENT IS DEPENDENT UPON PRIOR CONSTRUCTION OF CERTAIN WATER FACILITIES IN PREVIOUSLY APPROVED DEVELOPMENTS. IF THESE FACILITIES HAVE NOT BEEN CONSTRUCTED AND ACCEPTED BY THE CITY AT THE TIME OF CONNECTION, THEN CERTAIN PORTIONS OF THESE PREVIOUSLY APPROVED OR PLANNED WATER FACILITIES, AS REQUIRED BY THE CITY ENGINEER, WILL BECOME OFF-SITE IMPROVEMENTS AS PART OF THIS DEVELOPMENT. PRIOR TO CONNECTION TO PUBLIC WATER FACILITIES, THESE OFF-SITE IMPROVEMENTS MUST BE CONSTRUCTED AND ACCEPTED BY THE CITY AND DOCUMENTED AS A CONSTRUCTION CHANGE TO THE ORIGINAL APPROVED WYLARS FOR THIS DEVELOPMENT. THIS DEVELOPMENT'S WATER FACILITIES ARE DEPENDENT UPON THE COMPLETION AND ACCEPTANCE OF THE FOLLOWING APPROVED WATER FACILITIES: N/A

5. ALL VALVES WILL BE FLANGED TO CROSSES AND TEES. ONLY GATE VALVES SHALL BE USED IN FIRE HYDRANT INSTALLATIONS. ALL BURIED DUCTILE AND GRAY CAST IRON PIPE, FITTINGS, VALVES AND APPURTENANCES SHALL BE COATED WITH A DIELECTRIC COATING: A LIQUID EPOXY COATING SYSTEM PER AWWA C-210 AT 24 MILS MINIMUM DRY FILM THICKNESS (MDFT), OR A COLD APPLIED THREE PART SYSTEM PETROLEUM WAX TAPE PER AWWA C-217, OR A 100% POLYURETHANE COATING OF 24 MILS MDFT SUITABLE FOR BURIED USE.

6. ALL PROPOSED WATER FACILITY INSTALLATIONS SHALL BE CONSTRUCTED WITH MATERIALS CURRENTLY LISTED IN THE MOST CURRENT EDITION OF THE CITY OF SAN DIEGO WATER UTILITIES DEPARTMENT APPROVED MATERIALS LIST AS REFERENCED IN THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. RECENT REVISIONS INCLUDE BUT IS NOT LIMITED TO THE REQUIREMENT FOR POLYMER CONCRETE WATER METER BOXES INSTEAD OF THE STANDARD PRECAST WATER METER BOXES.

7. ALL HORIZONTAL AND VERTICAL SEPARATION DIMENSIONS SHOWN BETWEEN WATER AND SEWER MAINS SHALL BE MEASURED FROM THE NEAREST EDGE OF EACH PIPELINE PER STATE OF CALIFORNIA, DEPARTMENT OF HEALTH SERVICES, BASIC SEPARATION STANDARDS. MINIMUM SEPARATION BETWEEN WATER AND SEWER MAINS SHALL BE 10 FOOT HORIZONTAL AND 1 FOOT VERTICAL.

RANCHO MISSION SLOPE REPAIR

G-2

GENERAL NOTES:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 2 OF 15 SHEETS

WATER WBS
SEWER WBS

APPROVED: FOR CITY ENGINEER — DATE

SUBMITTED BY: PROJECT MANAGER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RBF			

CHECKED BY: PROJECT ENGINEER

CCS27 COORDINATE

CCS83 COORDINATE

CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED

XXXXX-XX-D

RBF CONSULTING
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REGISTERED PROFESSIONAL ENGINEER
ROGER R. SCHMIT
No. 45717
Exp. 12/31/14
CIVIL
STATE OF CALIFORNIA

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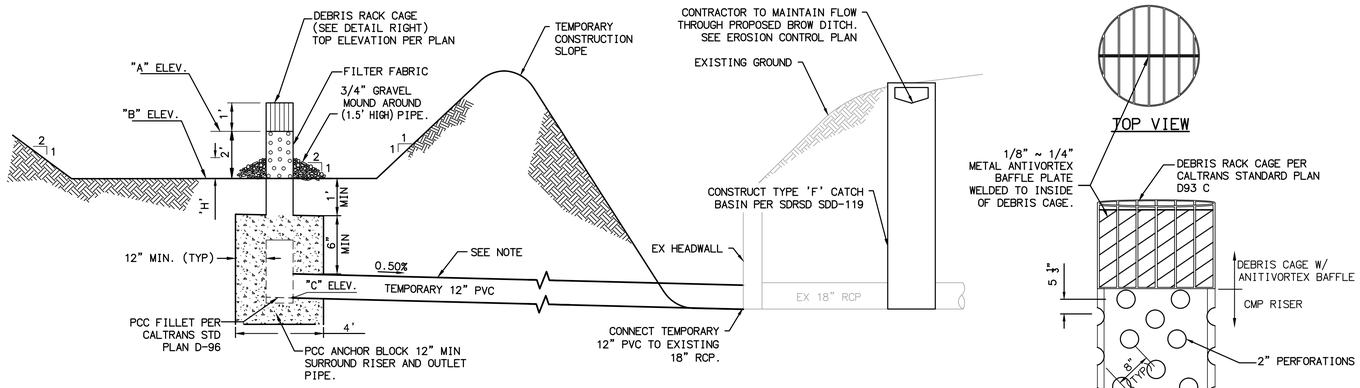


MAINTENANCE

SEDIMENT SHALL BE REMOVED WHENEVER STORAGE CAPACITY (AT DEPTH H) HAS BEEN ACHIEVED. SEDIMENT SHALL BE DISPOSED OF IN SUCH A MANNER THAT WILL PREVENT ITS RETURN TO THE DESILTING BASIN OR MOVEMENT INTO DOWNSTREAM AREAS DURING SUBSEQUENT RUNOFF.

C.M.P. RISER HOT-DIPPED GALVANIZED 12 GAUGE 2-2/3"x1/2" CORRUGATIONS.

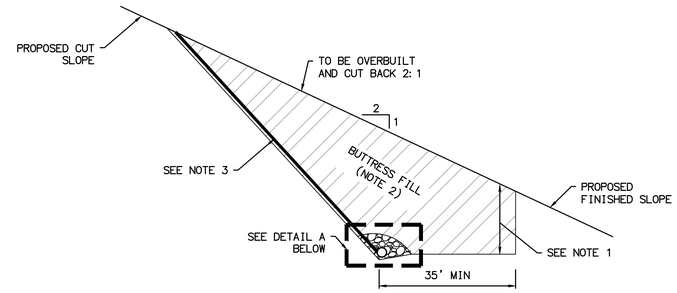
NOTE: TRENCH BACKFILL SHALL CONSIST OF NATIVE MATERIALS, APPROVED BY THE SOILS ENGINEER PRIOR TO PLACEMENT. OPEN-GRADED, HIGHLY PERMEABLE MATERIAL SHALL NOT BE USED AS BACKFILL.

1 TEMPORARY CONTROL DESILTING/DETENTION BASIN

N.T.S.

DETAIL: DEBRIS RACK CAGE

N.T.S.



NOTES:

1. THE OUTSIDE EDGE OF THE BUTTRESS FILL KEY SHOULD BE AT LEAST 10 FEET BELOW FINISHED SLOPE SURFACE.

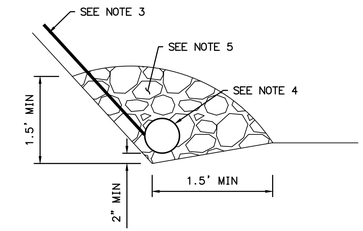
2. BUTTRESS FILL TO BE COMPOSED OF PROPERLY COMPACTED GRANULAR SOIL APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO USE.

3. CHIMNEY DRAINS IN THE FORM OF APPROVED PREFABRICATED PANELS (MIRADRAIN, TENSAR OR EQUIVALENT) SPACED APPROXIMATELY 20 FEET CENTER TO CENTER. A MINIMUM OF 4 FEET IN WIDTH, CHIMNEY DRAINS SHOULD EXTEND TO 10 FEET BELOW THE TOP OF THE SLOPE WHERE UTILIZED, NO BENCHING IS REQUIRED.

4. HEEL DRAIN TO BE 4-INCH MINIMUM DIAMETER, PERFORATED, THICK-WALLED SCHEDULE 40 OR ABS SDR 35 SLOPED TO DRAIN AT 1% MINIMUM AND CONNECTED TO STORM DRAIN.

5. FILTER MATERIAL TO BE 3 CUBIC FEET PER FOOT OR HEEL DRAIN, OPEN GRADED CRUSHED ROCK, ENCLOSED IN MIRAFI 140 OR EQUIVALENT FILTER FABRICS.

6. EXCAVATE BACK SLOPE AT 1:1 INCLINATION SUCH THAT THE KEYWAY WILL BE A MINIMUM OF 35 FEET IN WIDTH.



DETAIL A

2 STABILITY FILL DETAIL

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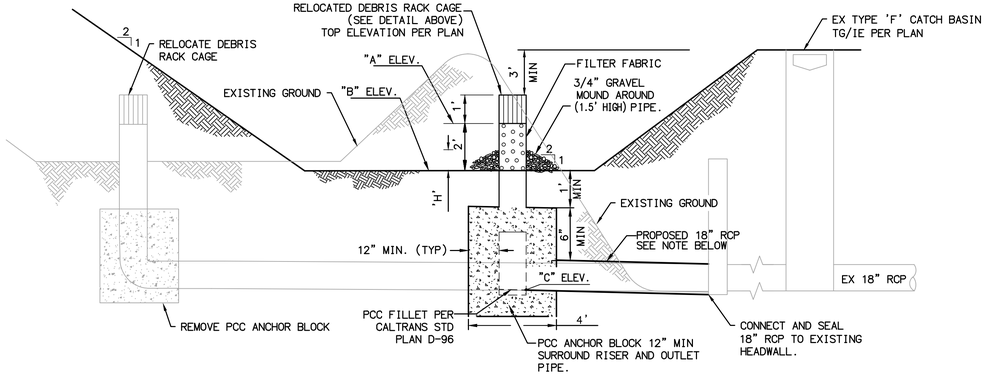

MAINTENANCE

SEDIMENT SHALL BE REMOVED WHENEVER STORAGE CAPACITY (AT DEPTH H) HAS BEEN ACHIEVED. SEDIMENT SHALL BE DISPOSED OF IN SUCH A MANNER THAT WILL PREVENT ITS RETURN TO THE DESILTING BASIN OR MOVEMENT INTO DOWNSTREAM AREAS DURING SUBSEQUENT RUNOFF.

C.M.P. RISER HOT-DIPPED GALVANIZED 12 GAUGE 2-2/3"x1/2" CORRUGATIONS.

NOTE: TRENCH BACKFILL SHALL CONSIST OF NATIVE MATERIALS, APPROVED BY THE SOILS ENGINEER PRIOR TO PLACEMENT. OPEN-GRADED, HIGHLY PERMEABLE MATERIAL SHALL NOT BE USED AS BACKFILL.

3 PERMANENT CONTROL DESILTING/DETENTION BASIN

N.T.S.

RANCHO MISSION SLOPE REPAIR

C-1

DETAIL SHEET:

RANCHO MISSION SLOPE
REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 3 OF 15 SHEETS

WATER WBS
SEWER WBS

APPROVED: FOR CITY ENGINEER — DATE

SUBMITTED BY: PROJECT MANAGER

CHECKED BY: PROJECT ENGINEER

CCS27 COORDINATE

CCS83 COORDINATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RBF			

CONTRACTOR — DATE STARTED

INSPECTOR — DATE COMPLETED

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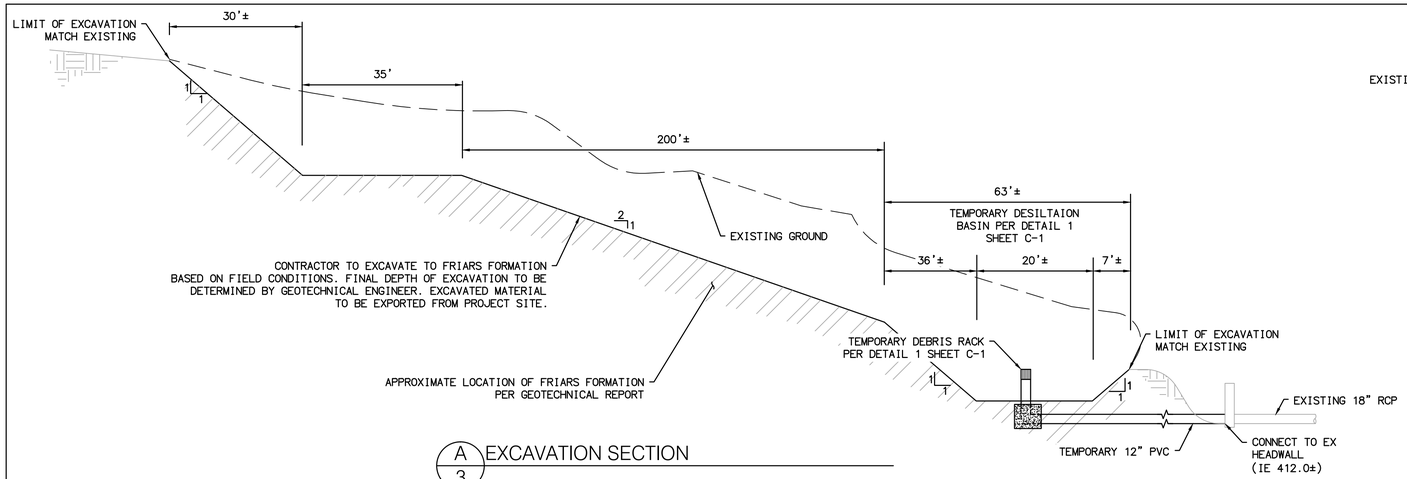
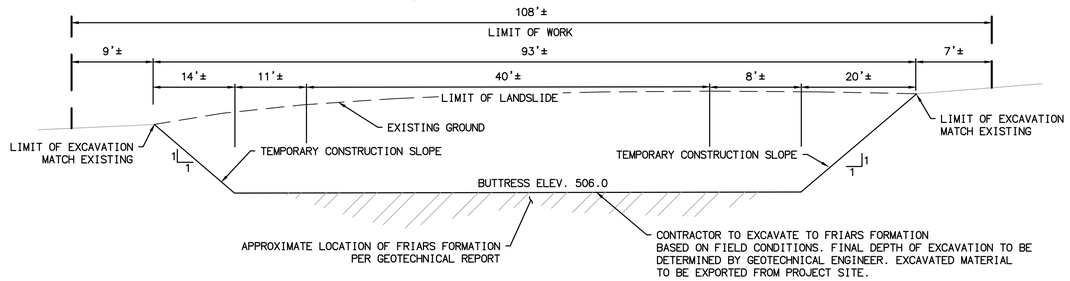
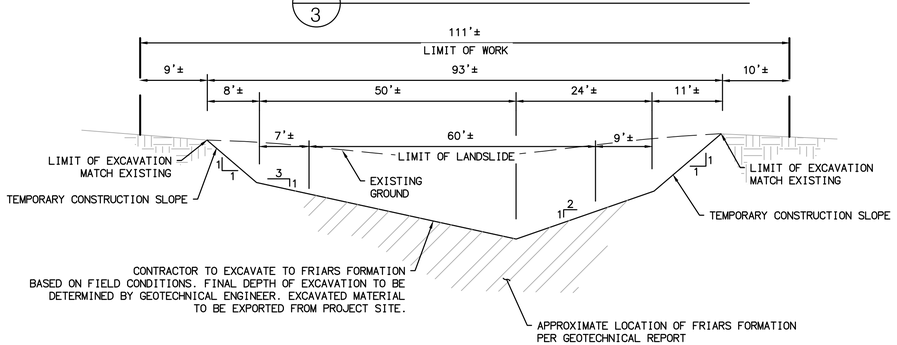


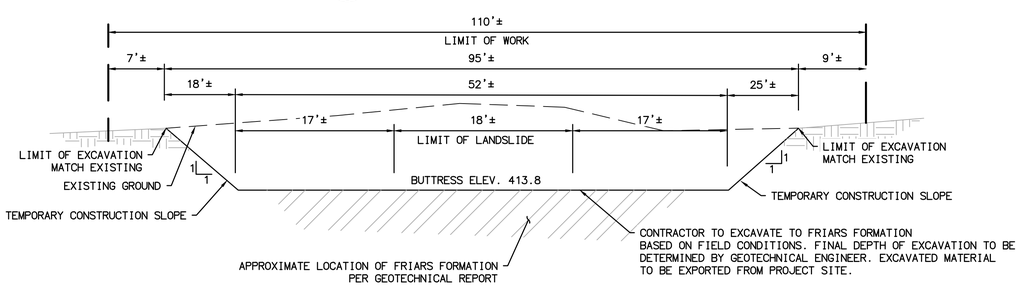
A/3 EXCAVATION SECTION



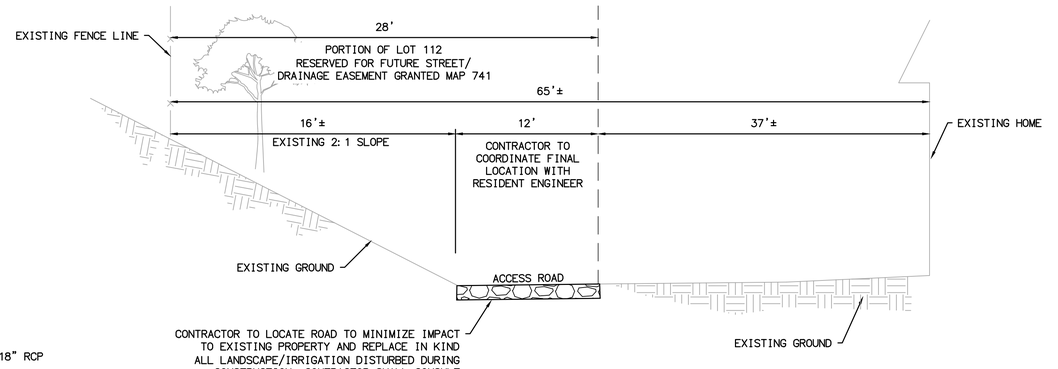
B/3 EXCAVATION SECTION



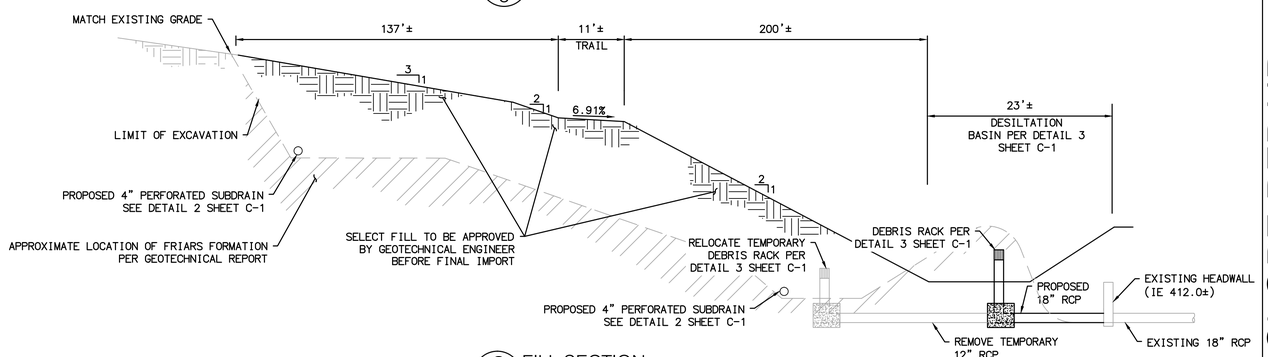
C/3 EXCAVATION SECTION



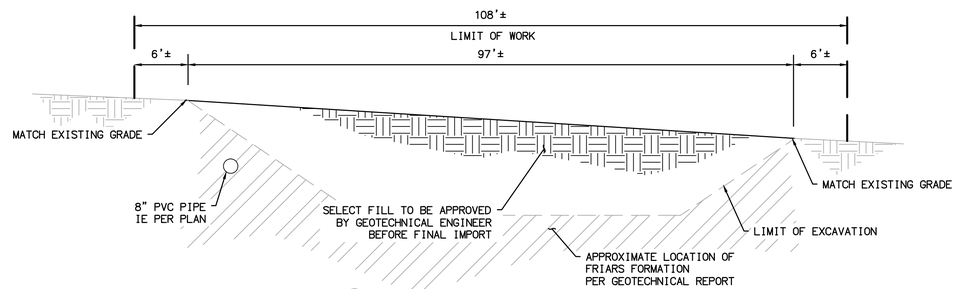
D/3 EXCAVATION SECTION



E/3 ACCESS ROAD



G/3 FILL SECTION



F/3 FILL SECTION

RANCHO MISSION SLOPE REPAIR

C-2

CROSS SECTIONS:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 4 OF 15 SHEETS

WATER WBS
SEWER WBS

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CCS83 COORDINATE

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

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RBF CONSULTING
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REGISTERED PROFESSIONAL ENGINEER
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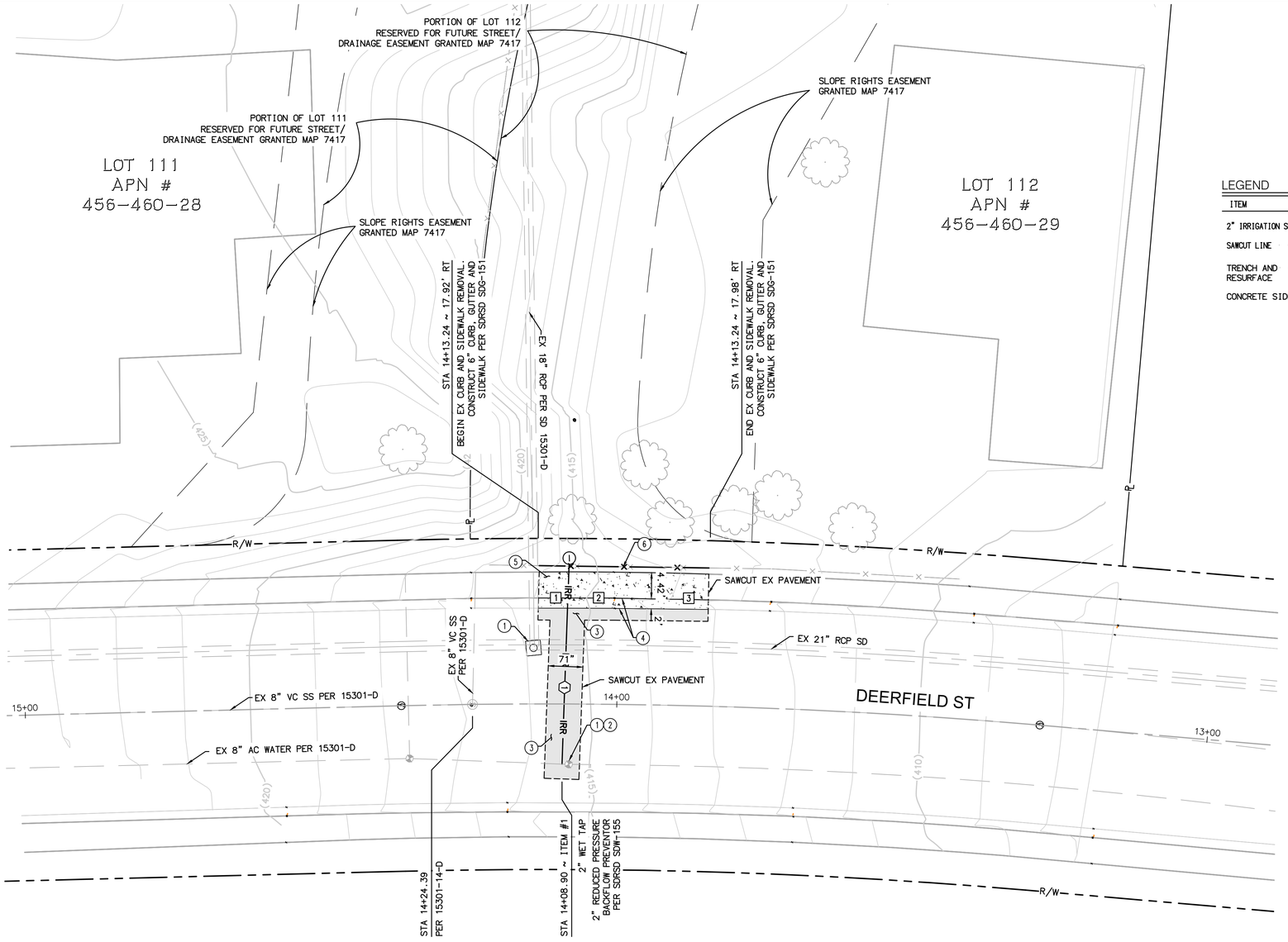
No. 45717
Exp. 12/31/14
CIVIL
STATE OF CALIFORNIA



LEGEND

ITEM	STD DWG	SYMBOL
2" IRRIGATION SERVICE	SDW-149	IRR
SAWCUT LINE		
TRENCH AND RESURFACE	SDG-107	
CONCRETE SIDEWALK	SDG-151	

GENERAL NOTES:

1. CONTRACTOR TO SLURRY SEAL EXISTING AC PAVEMENT ALONG DEERFIELD STREET FROM CUL DE SAC TO MISSION GORGE ROAD.

2. CONTRACTOR TO COORDINATE FINAL LOCATION OF ACCESS ROAD WITH RESIDENT ENGIEER PRIOR TO CONSTRUCTION.

3. CONTRACTOR TO PROVIDE 2" IRRIGATION KILL SERVICE AFTER IRRIGATION/ MAINTENANCE PERIOD HAS ENDED. SEE SHEET G-2, ITEM No. 2 OF WATER NOTES.

IMPROVEMENT NOTES:

1. PROTECT IN PLACE.
2. ADJUST TO GRADE.
3. TRENCH RESURFACING PER SDRSD SDG-107.
4. REMOVE EXISTING AND REPLACE NEW CURB AND GUTTER PER SDRSD SDG-151.
5. REMOVE EXISTING AND REPLACE NEW SIDEWALK PER SDRSD SDG-151.
6. REPLACE EX WOOD FENCE UPON PROJECT COMPLETION.

CURB AND GUTTER DATA TABLE

NO	BEARING/DELTA	RADIUS	LENGTH	TANGENT	DESCRIPTION
1	N 16°24'21" W	--	8.75'	--	6" CURB AND GUTTER
2	N 16°24'21" W	--	4.13'	--	6" CURB AND GUTTER B-1
3	N 15°26'18" W	--	15.87'	--	6" CURB AND GUTTER B-1

WATER DATA TABLE

NO	BEARING/DELTA	RADIUS	LENGTH	TANGENT	DESCRIPTION
1	N 75°30'49" E	--	34.86'	--	2" COPPER PIPE TYPE 'K'

10 0 10 20 30

SCALE: 1"=10'

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CIVIL
STATE OF CALIFORNIA

RANCHO MISSION SLOPE REPAIR

C-3

IMPROVEMENT PLAN:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 5 OF 15 SHEETS

WATER WBS
SEWER WBS

APPROVED: FOR CITY ENGINEER — DATE

SUBMITTED BY: PROJECT MANAGER

CHECKED BY: PROJECT ENGINEER

CCS27 COORDINATE

CCS83 COORDINATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RBF			

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INSPECTOR — DATE COMPLETED

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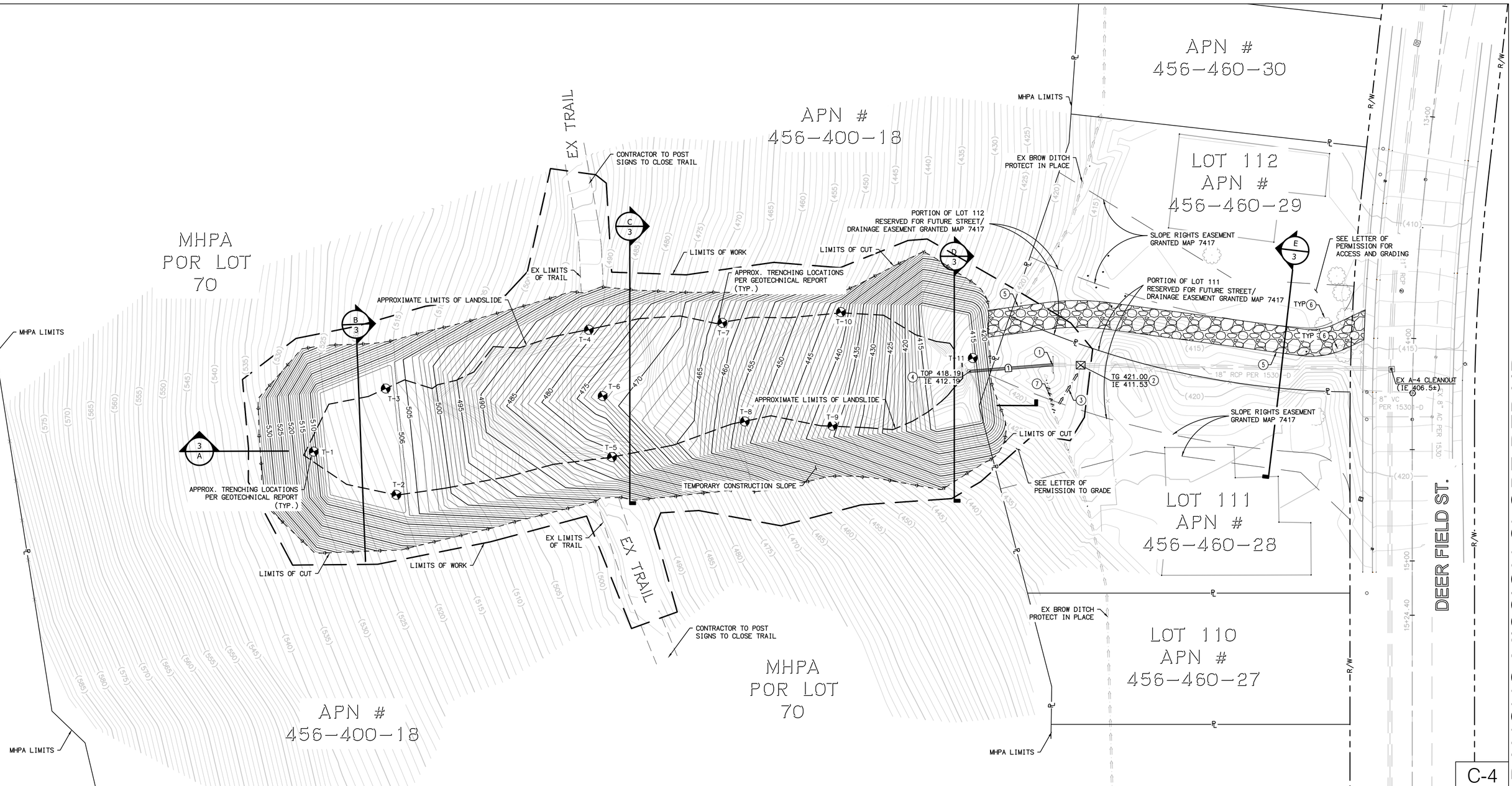

GENERAL NOTES:

1. PROPOSED GRADING IS BASED ON GEOTECHNICAL RECOMMENDATIONS PER GEOTECHNICAL REPORT DATED OCTOBER 10, 2011.
2. FINAL EXCAVATION DEPTH TO BE DETERMINED IN FIELD BY GEOTECHNIAL ENGINEER.
3. CONTRACTOR TO REPAIR SURROUNDING PROPERTY IN KIND INCLUDING IRRIGATION AND LANDSCAPING.
4. CONTRACTOR TO CLEAR, GRUB, AND SALVAGE TOPSOIL BETWEEN LIMITS OF LANDSLIDE AND DAYLIGHT LINE. SEE LANDSCAPE PLANS.
5. CONTRACTOR TO STORE TOPSOIL PER LANDSCAPE PLANS AND COORDINATE OFFSITE LOCATION WITH THE CITY OF SAN DIEGO.
6. CONTRACTOR TO STAY WITHIN BRUSH MANAGEMENT ZONE (BMZ). SEE LANDSCAPE PLANS.
7. CONTRACTOR TO REPLACE IN KIND ALL EXISTING IMPROVEMENTS DAMAGED THROUGHOUT CONSTRUCTION UPON PROJECTS COMPLETION.
8. CONTRACTOR TO SLURRY SEAL EXISTING AC PAVEMENT ALONG DEERFIELD STREET FROM CUL DE SAC TO MISSION GORGE ROAD.

EXCAVATION NOTES:

1. CONNECT TEMPORARY 12" PVC TO EXISTING 18" RCP. PROTECT FLOW THROUGH 18" RCP DURING CONSTRUCTION. SEE EROSION CONTROL PLAN.
2. INSTALL TYPE 'F' CATCH BASIN TO EXISTING 18" RCP PER SDRSD SDD-119.
3. INSTALL BROW DITCH TYPE 'A' PER SDRSD SDD-106.
4. INSTALL TEMPORARY DESILTING/DETENTION BASIN PER DETAIL 1 SHEET C-1.
5. CONSTRUCT TEMPORARY ACCESS ROAD. SEE SHEET C-2 & C-3.
6. REMOVE ALL TREES AND VEGETATION WITHIN ACCESS LIMITS.
7. REMOVE EXISTING BROW DITCH.

STORM DRAIN DATA TABLE

#	BEARING/DELTA	RADIUS	LENGTH	DESCRIPTION
1	N 67°31'39" E	—	38.01'	12" PVC

20 0 20 40 60
SCALE: 1"=20'

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EXCAVATION PLAN:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 6 OF 15 SHEETS

WATER WBS
SEWER WBS

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DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RBF			

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C-4

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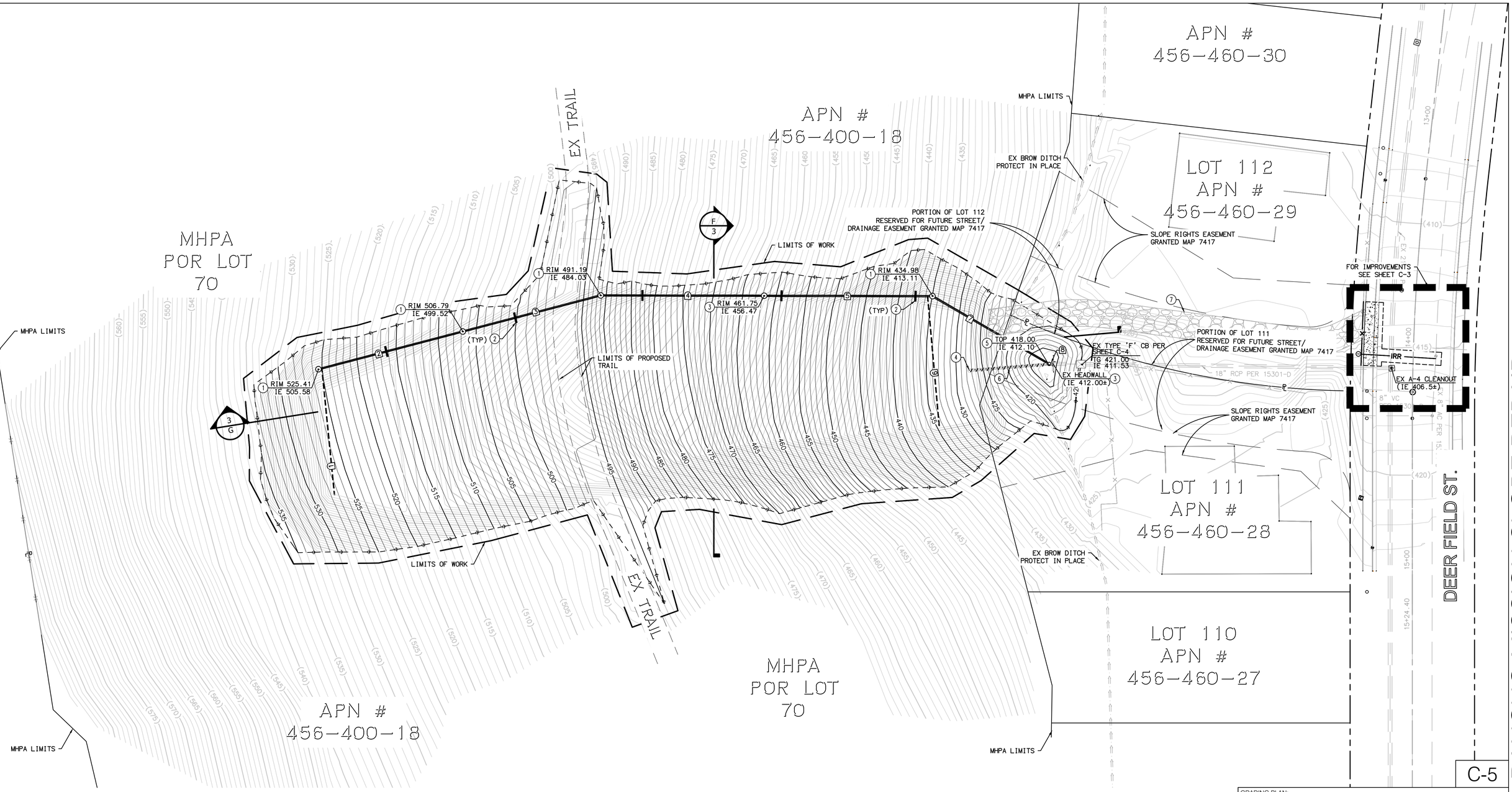

GENERAL NOTES:

1. CONTRACTOR TO REPAIR SURROUNDING PROPERTY IN KIND INCLUDING IRRIGATION AND LANDSCAPING.
2. CONTRACTOR TO REPLACE IN KIND ALL EXISTING IMPROVEMENTS DAMAGED THROUGHOUT CONSTRUCTION UPON PROJECTS COMPLETION.
3. CONTRACTOR TO CLEAR, GRUB AND SALVAGE TOPSOIL BETWEEN LIMITS OF THE LANDSLIDE AND DAYLIGHT LINE. SEE LANDSCAPE PLANS.
4. CONTRACTOR TO STORE TOPSOIL PER LANDSCAPE PLANS AND COORDINATE OFFSITE LOCATION WITH THE CITY OF SAN DIEGO.
5. CONTRACTOR TO STAY WITHIN BRUSH MANAGEMENT ZONE (BMZ). SEE LANDSCAPE PLANS.
6. CONTRACTOR TO INSTALL HIGH VISIBILITY FENCE AT LIMIT OF WORK WITH IN THE MHPA AREA.
7. CONTRACTOR TO SLURRY SEAL EXISTING AC PAVEMENT ALONG DEERFIELD STREET FROM CUL DE SAC TO MISSION GORGE ROAD.

CONSTRUCTION NOTES:

1. INSTALL SEWER TYPE CLEANOUT PER PER SDRSD SC-01.
2. INSTALL STORM DRAIN CUTOFF WALL PER SDRSD SDS-115.
3. CONNECT AND SEAL 18" RCP TO EXISTING HEADWALL.
4. REMOVE AND SALVAGE TEMPORARY DESILTING/DETENTION BASIN FOR FUTURE USE.
5. INSTALL SALVAGED DESILTING/DETENTION BASIN PER DETAIL 3 SHEET C-1.
6. REMOVE TEMPORARY 12" PVC STORM DRAIN.
7. REMOVE TEMPORARY DG ACCESS ROAD AND RESTORE TO EXISTING CONDITIONS UPON FINAL CONSTRUCTION.

STORM DRAIN DATA TABLE

#	BEARING/DELTA	RADIUS	LENGTH	DESCRIPTION
1	N 23°38'53" W	---	57.25'	4" PERF PVC
2	N 57°23'32" E	---	67.09'	8" PVC
3	N 57°23'32" E	---	64.34'	8" PVC
4	N 72°09'56" E	---	73.48'	8" PVC
5	N 72°09'56" E	---	75.90'	8" PVC
6	N 23°04'02" W	---	58.55'	4" PERF PVC
7	N 77°48'09" W	---	60.72'	8" PVC
8	N 72°31'48" E	---	1.87'	18" RCP

20 0 20 40 60
SCALE: 1"=20'

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REGISTERED PROFESSIONAL ENGINEER ROBERT R. SCHMIT No. 45717 Exp. 12/31/14 CIVIL STATE OF CALIFORNIA

GRADING PLAN:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 7 OF 15 SHEETS

WATER WBS
SEWER WBS

APPROVED
FOR CITY ENGINEER DATE

SUBMITTED BY:
PROJECT MANAGER

CHECKED BY:
PROJECT ENGINEER

CCS27 COORDINATE

CCS83 COORDINATE

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ORIGINAL	RBF			

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INSPECTOR DATE COMPLETED

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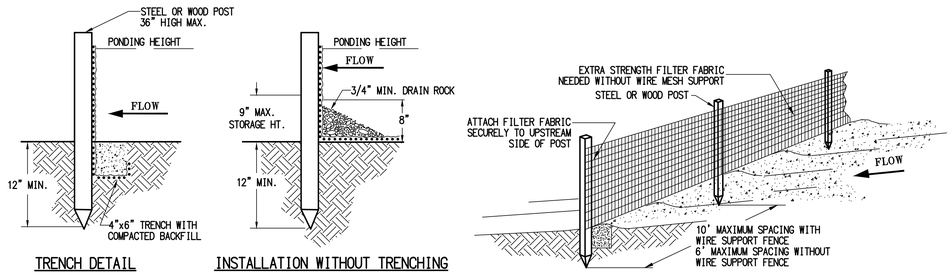


TRENCH DETAIL

INSTALLATION WITHOUT TRENCHING

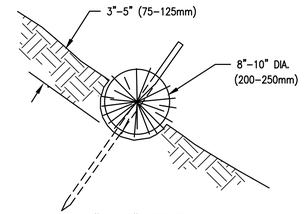
NOTES:

1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

NOTES:

PREFABRICATED SILT FENCE MAY BE USED IN LIEU OF IN PLACE CONSTRUCTION.

1 SILT FENCE
N.T.S.



1" X 1" STAKE

NOTES:

1. A TRENCH, 3"-5" (75-125mm) DEEP, DUG ON PLACEMENT AND SECURE STAKING OF THE ROLL IN 1. FIBER ROLL INSTALLATION REQUIRES THE UNDER OR AROUND ROLL. CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN.
2. FIBER ROLL SHALL BE PLACED AT THE TOE OF SLOPES ALONG CHANNELS THAT ARE BEING CONSTRUCTED.
3. FIBER ROLL SHALL BE PLACE ON ALL SLOPES GREATER THEN OR EQUAL TO 5:1 AND NO MORE THEN 10 FOOT VERTICAL BETWEEN

4 FIBER ROLL BARRIER
N.T.S.

EROSION CONTROL LEGEND

SILT FENCE

FIBER ROLL — F

GRAVEL BAGS

CATCH BASIN/INLET PROTECTION (SC-10)

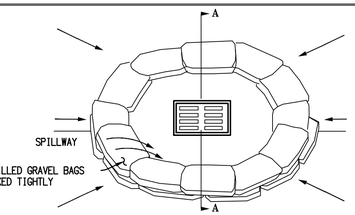
STABILIZED CONSTRUCTION ENTRANCE/EXIT

BMP STENCIL PLACEMENT NOTES

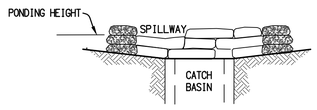
A. ALL STORM DRAIN INLETS AND CATCH BASINS WITHIN THE PROJECT AREA SHALL HAVE A STENCIL OR TILE PLACED WITH PROHIBITIVE LANGUAGE (SUCH AS: "NO DUMPING - I LIVE IN THE SAN DIEGO RIVER") AND/OR GRAPHICAL ICONS TO DISCOURAGE ILLEGAL DUMPING.

B. SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS, WHICH PROHIBIT ILLEGAL DUMPING, MUST BE POSTED AT PUBLIC ACCESS POINTS ALONG CHANNELS AND CREEKS WITHIN THE PROJECT AREA.

C. LEGIBILITY OF STENCILS, TILES AND SIGNS MUST BE MAINTAINED AND TILES MUST BE PLACED FLUSH WITH THE TOP OF CONCRETE TO REDUCE TRIPPING BY PEDESTRIANS.



PLAN VIEW

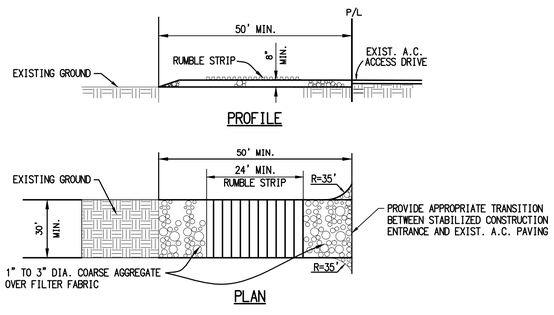


SECTION A-A

NOTES:

1. GRAVEL BAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
2. LEAVE ONE GRAVEL BAGS GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

2 CATCH BASIN / INLET PROTECTION
N.T.S.



PROFILE

PLAN

3 TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT
N.T.S.

RANCHO MISSION SLOPE REPAIR

C-6

EROSION CONTROL NOTES AND DETAILS:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 8 OF 15 SHEETS

WATER WBS
SEWER WBS

APPROVED
FOR CITY ENGINEER
DATE

SUBMITTED BY:
PROJECT MANAGER

CHECKED BY:
PROJECT ENGINEER

CCS27 COORDINATE

CCS83 COORDINATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RBF			

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

XXXXX-XX-D

RBF CONSULTING
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9755 CLAIREMONT MESA BOULEVARD, SUITE 100
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858.614.5000 FAX 858.614.5001

REGISTERED PROFESSIONAL ENGINEER
ROBERT R. GEORGE
No. 45717
Exp. 12/31/14
CIVIL
STATE OF CALIFORNIA

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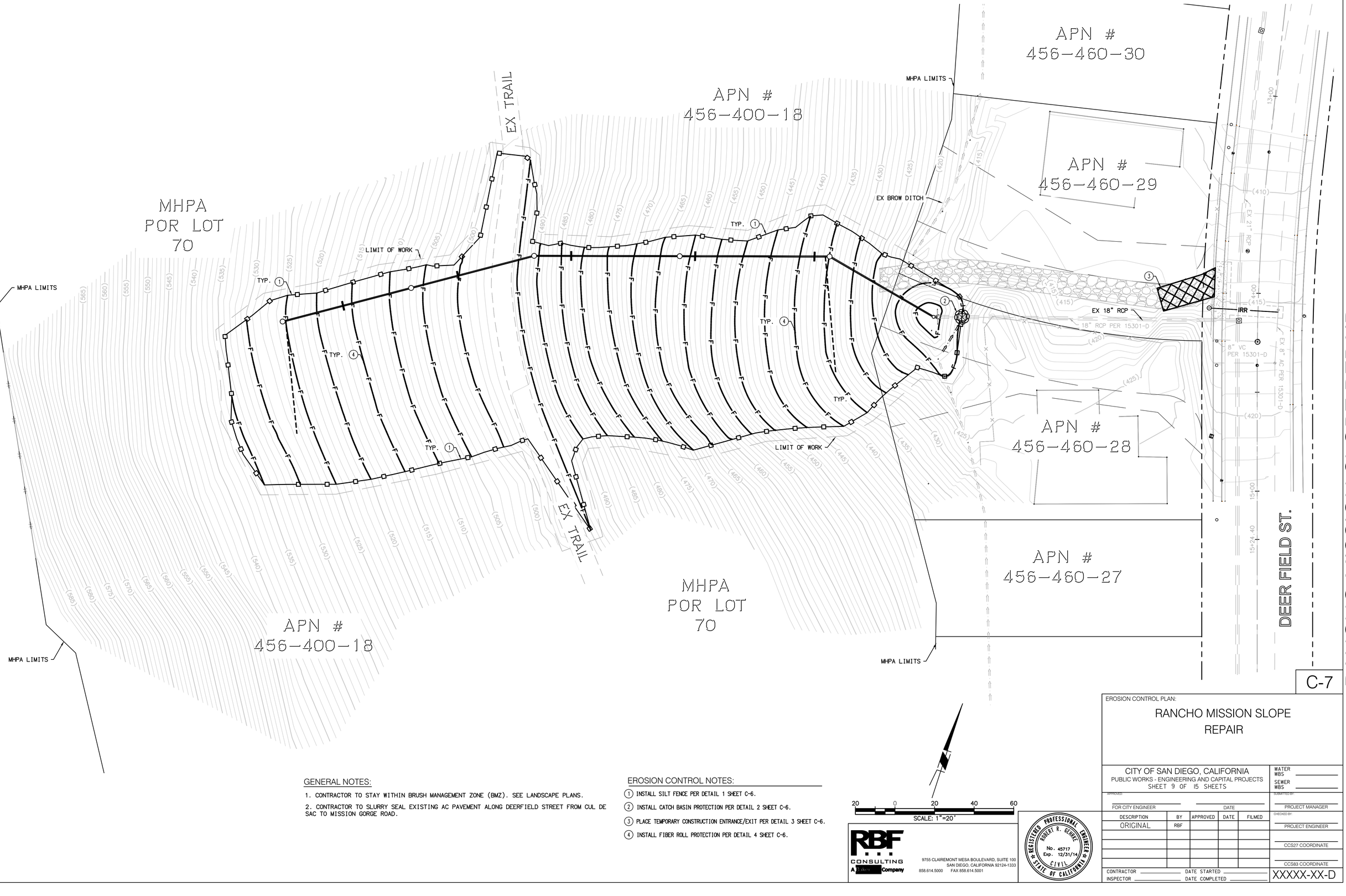

GENERAL NOTES:

1. CONTRACTOR TO STAY WITHIN BRUSH MANAGEMENT ZONE (BMZ). SEE LANDSCAPE PLANS.
2. CONTRACTOR TO SLURRY SEAL EXISTING AC PAVEMENT ALONG DEERFIELD STREET FROM CUL DE SAC TO MISSION GORGE ROAD.

EROSION CONTROL NOTES:

1. INSTALL SILT FENCE PER DETAIL 1 SHEET C-6.
2. INSTALL CATCH BASIN PROTECTION PER DETAIL 2 SHEET C-6.
3. PLACE TEMPORARY CONSTRUCTION ENTRANCE/EXIT PER DETAIL 3 SHEET C-6.
4. INSTALL FIBER ROLL PROTECTION PER DETAIL 4 SHEET C-6.

20 0 20 40 60
SCALE: 1"=20'

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No. 45717
Exp. 12/31/14
CIVIL
STATE OF CALIFORNIA

C-7

EROSION CONTROL PLAN:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 9 OF 15 SHEETS

WATER WBS
SEWER WBS

APPROVED
FOR CITY ENGINEER DATE

SUBMITTED BY
PROJECT MANAGER

CHECKED BY:
PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	RBF			

CCS27 COORDINATE

CCS83 COORDINATE

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

XXXXX-XX-D

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IRRIGATION LEGEND

SYMBOL	DESCRIPTION	PSI	RADIUS	GALLONS PER MINUTE 360°	270°	210°	180°	120°	90°	MANUFACTURER	MODEL	DETAIL	DRAWING NO.
	12" RISER GEAR DRIVE SHRUB HEAD QUARTER SPRAY	30	21'	–	–	–	–	–	1.30	HUNTER	PGJ-00-V-1.5	A	L-3
	12" RISER GEAR DRIVE SHRUB HEAD HALF SPRAY	30	27'	–	–	–	2.5	–	–	HUNTER	PGJ-00-V-3.0	A	L-3
	12" RISER GEAR DRIVE SHRUB HEAD FULL SPRAY	30	27'	2.5	–	–	–	–	–	HUNTER	PGJ-00-V-3.0	A	L-3
	AUTOMATIC CONTROLLER - CUSTOM POLE MOUNT - SIZE AS INDICATED ON PLAN CONTROLLER TO INCLUDE PROGRAMMABLE RAIN SHUT OFF FEATURE CUSTOM DESIGN ENCLOSURE APPROVED BY AGENCY - DESIGNED FOR USE WITH 12 STATION CONTROLLER									HUNTER	XCH-1200 SPXCH *458200	-	-
	MASTER CONTROL VALVE (NORMALLY OPEN FOR USE WITH FLOW SENSOR) (MINIMUM RATE OF .01 GPM) - SIZE AS INDICATED ON PLAN									SUPERIOR	#3300 (OPEN 1 GPM)	I-10	SDRSD
P	PRESSURE REDUCING VALVE & WYE STRAINER. SIZE AS INDICATED ON PLAN. FACTORY SET AT 100 PSI. WYE STAINER WITH 60 MESH SCREEN									WILKINS WILKINS	#500 YSBR / #600 YSBR #YB w/ 60 MESH SCREEN	WR-01	SDRSD
	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER - SIZE AS INDICATED ON PLAN STAINLESS STEEL BACKFLOW PREVENTER ENCLOSURE									WILKINS STRONG BOX	#975XLS SBBC-30SS	C	L-3
	QUICK COUPLING VALVE - 1" W/ LOCKING CAP - VALVE BOX AS REQUIRED BY AGENCY									RAINBIRD	#44LRC	I-5, I-33	SDRSD
	BALL VALVE - SIZE AS INDICATED ON PLAN									SPEARS	TRU - UNION	I-11	SDRSD
	REMOTE CONTROL VALVE -PLASTIC - SIZE AS INDICATED ON PLAN									RAINBIRD	#PEB	1-14, 1-32, 1-33	SDRSD
	PRESSURE REGULATING REMOTE CONTROL VALVE - SIZE AS INDICATED ON PLAN									GRISWOLD	DW-PRV	1-14, 1-32, 1-33	SDRSD
	MAIN PRESSURE LINE (COPPER) INSTALLED BETWEEN P.O.C. AND BACKFLOW (MINIMUM DEPTH 18")									SEAMLESS TYPE K HARD DRAWN TUBING		1-14, 1-32, 1-33	SDRSD
	MAIN PRESSURE LINE PIPE (CLASS 315 PVC FOR 2" & LARGER) (SCHEDULE 40 PVC FOR PIPE 1-1/2" & SMALLER) (MINIMUM DEPTH 18") - BURIED.									PW EAGLE OR APPROVED EQUAL		1-14, 1-32, 1-33	SDRSD
	UV RESISTANT NON-PRESSUE LINE SCHEDULE 40 FOR ABOVE GRADE INSTALLATION (3/4" MINIMUM SIZE)									PACIFIC PLASTICS OR APPROVED EQUAL		I-20, I-23, I-24	SDRSD
	PIPE SLEEVES SCHEDULE 40 PVC (2 SIZES LARGER THAN MAIN OR LATERAL LINE)									PW EAGLE OR APPROVED EQUAL		I-25, I-26	SDRSD
PB	PULL BOX									BROOKS OR CARSON		-	-
	DIRECT BURIAL CONTROL WIRE (SOLID COPPER - COLOR CODED)									PEN-TITE		I-16	SDRSD
	WIRE CONNECTION											B	L-3

MHPA NOTE

1. WORK WITH MECHANIZED EQUIPMENT SHOULD OCCUR OUTSIDE OF THE GENERAL AVIAN BREEDING SEASON (FEB 15-AUGUST) OR CONTRACTOR IS TO USE NOISE ATTENUATION MEASURES IN ACCORDANCE WITH THE MHPA (MULTIPLE HABITAT PLANNING AREA) RESTRICTIONS. NO NITE-TIME LIGHTING SHALL BE USED. NO DISCHARGES TO THE MHPA SHALL OCCUR. (SEE SHEET L-5 FOR MHPA BOUNDARY LINE)

IRRIGATION NOTES

1. SYSTEMS ARE DESIGNED FOR 112 PSI AT POINT OF CONNECTION. MINIMUM PRESSURE IS 30 PSI AT ROTOR HEADS.
2. SYSTEMS ARE DESIGNED FOR TEMPORARY ABOVE GRADE INSTALLATION.
3. STATIC PRESSURE AT THE POINT OF CONNECTION IS APPROXIMATELY 134 +or-10 PSI RECORDED 12-20-12 BY MELISSA LITCHFORD, WITH THE CITY OF SAN DIEGO WATER UTILITIES.
4. CONTRACTOR SHALL VERIFY EXISTING WATER PRESSURE BEFORE INSTALLING IRRIGATION SYSTEM.
5. BACKFLOW PREVENTER SHALL BE TESTED FOR PERFORMANCE AND CONFORMANCE WITH CODE REQUIREMENTS. SCREEN BACKFLOW PREVENTER WITH PLANT MATERIAL.
6. INSTALL ALL VALVES PERPENDICULAR AND ADJACENT TO WALKS AND CURBS.
7. INSTALL ALL VALVES IN PLANTING AREAS, AND ADJACENT TO PAVING, WHERE POSSIBLE. PLACE NO MORE THAN THREE RCV BOXES TOGETHER AS INDICATED ON PLAN.
8. ADJUST SPRINKLER HEADS TO KEEP SPRAY OFF WALKS, WALLS, WINDOWS, BUILDINGS AND UTILITIES.
9. CONTROLLER SHALL BE PROGRAMMED SO THAT WATER APPLICATION SHALL NOT EXCEED SOIL INFILTRATION RATE OR CAUSE RUN-OFF. APPLICATION RATE SHALL BE SUFFICIENT TO PREVENT ROOT STRESS.
10. INSTALL RAIN CUP FOR RAIN SHUTOFF DEVICE IN AN OPEN AREA AS APPROVED BY THE OWNERS REPRESENTATIVE AND LANDSCAPE ARCHITECT. DO NOT INSTALL BELOW BUILDING EAVES OR WHERE INACCESSIBLE TO RAINFALL. CUP MAY BE INSTALLED ON TOP OF A 6 FOOT GALVANIZED POST (PAINTED BLACK).

GENERAL IRRIGATION NOTES

1. LOCATION OF IRRIGATION EQUIPMENT IS SHOWN DIAGRAMMATICALLY ONLY. PIPING, VALVES, AND OTHER IRRIGATION FIXTURES SHALL BE LOCATED IN PLANTING AREAS WHENEVER POSSIBLE.
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FAMILIARIZE HIM OR HERSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS AND OTHER OBSTRUCTIONS. CONTRACTOR SHALL COORDINATE WORK WITH THE WORK OF OTHER TRADES FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES AND OTHER OBSTRUCTIONS.
3. LANDSCAPE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF PVC ELECTRICAL CONDUIT ELL (FOR CONTROL WIRE FOR IRRIGATION CONTROLLER) WITH ELECTRICIAN.
4. CONTROL WIRES UNDER PAVING SHALL BE INSTALLED IN PVC SLEEVES. COORDINATE SLEEVE INSTALLATION WITH OTHER TRADES TO ENSURE PROPER AND TIMELY INSTALLATION IN LOCATIONS REQUIRED.
5. CONTRACTOR SHALL NOT WILLFULLY INSTALL THE SYSTEM AS DESIGNED WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT KNOWN DURING DESIGN PHASE. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING CONDITIONS ON SITE AND CONTACTING THE OWNERS REPRESENTATIVE AND LANDSCAPE ARCHITECT. CONTRACTOR SHALL MAKE APPROPRIATE ADJUSTMENTS TO ENSURE THAT IRRIGATION COVERAGE IS 100% IN ALL PLANTING AREAS AS ACCEPTED BY THE OWNERS REPRESENTATIVE AND LANDSCAPE ARCHITECT.
6. THE CONTRACTOR SHALL PROVIDE AN UP-TO-DATE AND COMPLETE "AS-BUILT" RECORD SET OF PRINTS WHICH SHALL BE CORRECTED AND SHOW EVERY CHANGE FROM THE ORIGINAL DRAWINGS. BEFORE THE TIME OF THE FINAL OBSERVATION, THE CONTRACTOR SHALL TRANSFER ALL INFORMATION FROM THE "AS-BUILT" SET TO A REPRODUCIBLE BOND COPY OR MYLAR, PROCURED FROM THE LANDSCAPE ARCHITECT. ALL WORK SHALL BE NEAT AND LEGIBLE.

GENERAL IRRIGATION NOTES CONTINUED

7. SPECIMEN PLANT LOCATIONS TAKE PRECEDENCE OVER IRRIGATION PIPING. STAKE SPECIMEN PLANT LOCATIONS PRIOR TO TRENCHING FOR PIPE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING, RELOCATING AND READJUSTING IRRIGATION EQUIPMENT, CUTTING AND CAPPING OF EXISTING IRRIGATION PIPE. PRIOR TO BIDDING THE PROJECT.
9. THE CONTRACTOR BIDDING SHALL VERIFY ON-SITE THE WORK TO BE DONE AND THE LIMIT OF WORK LINE FOR THOSE AREAS. CONTACT OWNERS REPRESENTATIVE AND LANDSCAPE ARCHITECT.
10. THE CONTRACTOR SHALL PROVIDE ALL IRRIGATION LINES AND APPURTENANCES TO FUNCTION AUTOMATICALLY AND IN ACCORDANCE WITH THE PLAN (SHEET L-2) AND MAKE ANY ADJUSTMENTS NECESSARY TO MEET THE SUCCESS CRITERIA PER PROJECT BIOLOGIST RECOMMENDATIONS.
11. TEMPORARY IRRIGATION SHALL BE PROVIDED BY THE CONTRACTOR FOR A PERIOD SUFFICIENT TO ESTABLISH PLANT MATERIAL AND TO PROVIDE VEGETATIVE COVER THAT PREVENTS SOIL EROSION. THE AMOUNT OF IRRIGATION MUST BE ADJUSTED WHEN WARRANTED BY SITE CONDITIONS. PROJECT BIOLOGIST AND LANDSCAPE CONTRACTOR SHALL MONITOR TO DETERMINE SUCCESS AND ADDED REQUIREMENT FOR TEMPORARY IRRIGATION.
12. IRRIGATION SHALL BE SCHEDULED IN A MANNER THAT AVOIDS RUNOFF, SEEPAGE AND OVER-SPRAY ONTO ADJACENT PROPERTIES, NON-IRRIGATED AREAS, WALLS, ROADWAYS OR STRUCTURES.
13. THE WATER DELIVERY RATE SHALL BE MATCHED TO THE SLOPE GRADIENT AND THE PERCOLATION RATE OF THE SOIL.
14. OVER-WATERING AS EVIDENCED BY SOGGY SOILS, CONTINUALLY WET PAVEMENT, STANDING WATER, RUNOFF IN STREET GUTTERS AND OTHER SIMILAR CONDITIONS SHALL BE MANAGED AND PREVENTED. THE IRRIGATION AMOUNT, TIMING AND DURATIONS SHOULD BE ADAPTED TO NATURAL WEATHER PATTERNS -USING MORE DURING DRY HOT WEATHER. WHEN USED, IRRIGATION SHOULD SATURATE THE SOIL AND NOT RESULT IN EXCESSIVE RUNOFF. ADDITIONAL RUN TIME MAY BE NECESSARY TO ACHIEVE ADEQUATE SOIL MOISTURE. THE PURPOSE IS TO MIMIC NATURAL RAINFALL EVENTS WHICH WOULD DROP ABOUT .25-.4 INCHES OF RAIN.
15. TEMPORARY IRRIGATION MATERIALS SHALL BE PLACED SO THAT THEY CAN BE DRIVEN OVER OR DO NOT IMPEDE ACCESS TO UTILITIES (I.E. MANHOLES)

RANCHO MISSION SLOPE REPAIR

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Garbini & Garbini
LANDSCAPE ARCHITECTURE
URBAN DESIGN
715 "J" STREET, SUITE 307
SAN DIEGO, CALIFORNIA 92101
619) 232-4747 FAX(619)232-4510

LICENSED LANDSCAPE ARCHITECT
GAIL BECKER GARBINI
NO. 002198
RENEWAL 12/19/12
STATE OF CALIFORNIA
LICENSE EXPIRATION DATE 5/31/2013

L-1

IRRIGATION LEGEND & NOTES:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 10 OF 15 SHEETS

APPROVED:
FOR CITY ENGINEER _____ DATE _____

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	XX/XX			

WATER WBS _____
SEWER WBS _____
SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER
CCS27 COORDINATE
CCS83 COORDINATE
CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

XXXXX-XX-D

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RANCHO MISSION SLOPE REPAIR

L-2

IRRIGATION PLAN:

RANCHO MISSION SLOPE
REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 11 OF 15 SHEETS

	FOR CITY ENGINEER	DATE		
APPROVED				
DESCRIPTION	BY	APPROVED	DATE	FILED
ORIGINAL	XX/XX			
PROJECT ENGINEER				
CHECKED BY				
PROJECT MANAGER				
SUBMITTED BY				

WATER MBS
SEWER MBS

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

XXXXX-XX-D

CCS83 COORDINATE				
CCS27 COORDINATE				

LICENSE EXPIRATION DATE 5/31/2013

LICENSED LANDSCAPE ARCHITECT
CALL LICENSE NO. 002198
12/19/12
STATE OF CALIFORNIA

Garbini & Garbini
LANDSCAPE ARCHITECTURE
URBAN DESIGN
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SCALE: 1"=20'
20 0 20 40 60

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SAN DIEGO, CALIFORNIA 92124-1333
858.614.5000 FAX 858.614.5001

NOTES:

WATER METER LOCATION PER CIVIL DRAWINGS. CONTRACTOR TO VERIFY LOCATION OF WATER METER BEFORE CONSTRUCTION.

LOCATION OF IRRIGATION EQUIPMENT IS SHOWN DIAGRAMMATICALLY FOR CLARITY. LOCATE EQUIPMENT WITHIN PLANTING AREAS WHEREVER POSSIBLE.

IRRIGATION SYSTEMS ARE DESIGNED FOR TEMPORARY ABOVE GRADE INSTALLATION.

CONVENTIONAL RCV

CONTROLLER LETTER AND STATION NUMBER
SIZE OF REMOTE CONTROL VALVE
GALLONS PER MINUTE PER SYSTEM

POINT OF CONNECTION EQUIPMENT

2"	METER - SEE CIVIL
3"	POINT OF CONNECTION AT METER. (INSTALL 2" COPPER LINE BETWEEN METER & BACKFLOW PREVENTER.)
1"	REDUCED PRESSURE BACKFLOW PREVENTER
1-1/4"	PRESSURE REDUCING VALVE SET AT 100 PSI
2"	MASTER CONTROL VALVE

INSTALL FLOW SENSOR IN-LINE, ONE PER WATER METER. INSTALL FLOW SENSOR TEN (10) PIPE DIAMETERS UPSTREAM OR DOWNSTREAM FROM ANY VALVE AND FITTING.

THE FLOW SENSOR SHALL BE INSTALLED WITH (A) TEN (10) DIAMETERS OF SENSOR SIZED PIPE UPSTREAM OF FLOW SENSOR AND (B) FIVE (5) DIAMETERS OF SENSOR SIZED PIPE DOWNSTREAM OF PIPE. INSTALL AS SHOWN IN DETAIL SDI-112.

DIMENSION (A) MINIMUM LENGTH = 30 INCHES
DIMENSION (B) MINIMUM LENGTH = 15 INCHES

PIPE SIZE SHALL MATCH THE FLOW SENSOR SIZE.

PROPERTY LINE
EX TRAIL
RANCHO MISSION POR LOT 70
MAP 7417
LOT 111 7908 DEERFIELD ST
LOT 112 7916 DEERFIELD ST
LOT 113
DEERFIELD STREET
TEMPORARY ACCESS PATH
3" MAINLINE
AUTOMATIC CONTROLLER (2) 12 STATIONS
PRESSURE REGULATING RCV
RESIDUAL PRESSURE 44.7 PSI
RP 45.4 PSI
RP 24.7 PSI
RP 17.5 PSI
RP 31.1 PSI
RP 11 PSI
RP 15.1 PSI
RP 13.7 PSI
RP 12.2 PSI
RP .5 PSI
RP 5.1 PSI
RP 5.8 PSI
RP 3.2 PSI
RP .9 PSI
RP -2 PSI
RP .6 PSI
1" BV
2" BV
PVC LATERAL PIPE SIZE AS INDICATED TYPICAL SYMBOL
LIMIT OF WORK TYPICAL SYMBOL

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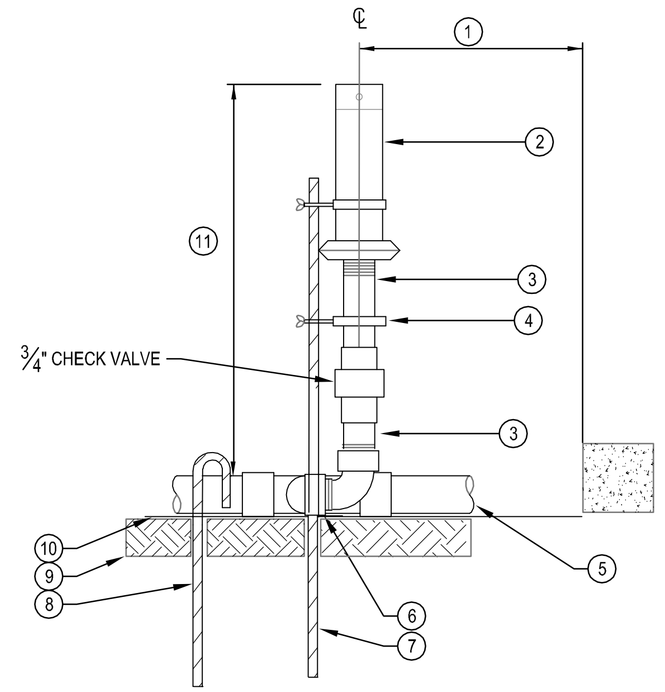


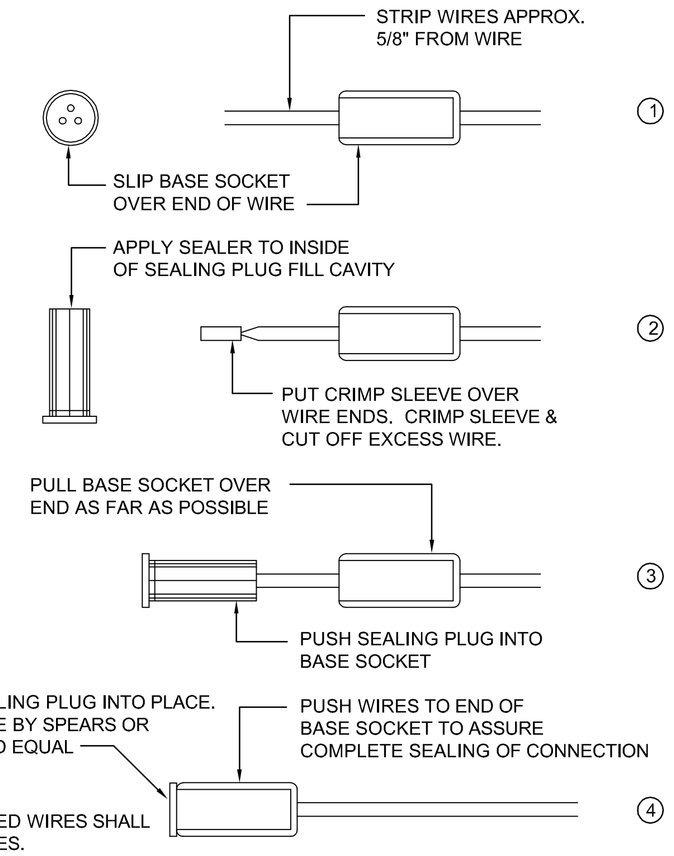
DESCRIPTION ITEM

1. 18" (MIN.) FROM EDGE OF CURB HEADER, WALKS, TRAILS, ETC. (WHERE APPLICABLE)
2. GEAR DRIVEN ROTOR HEAD (SEE LEGEND)
3. 2-4" MINIMUM LENGTH SCH. 80 PVC RISER
4. USE STAINLESS STEEL BANDS TO SECURE HEAD AND RISER TO STAKE (TYP.)
5. PVC LATERAL LINE ON GRADE
6. SWING JOINT ASSEMBLY ATTACHED TO PVC FITTING (2" MARLEX STREET ELLS)
7. 32" #3 REBAR STAKE (MIN 18" INTO GRADE)
8. NO. 3 REBAR J-STAKE AT 10' O.C. (MAX.) AND AT PIPE ENDS. (STAKES TO EXTEND MIN. 12" INTO SUBGRADE)
9. COMPACTED SUBGRADE
10. FINISH GRADE
11. 18" MIN. ABOVE FINISH GRADE

NOTE: SET HEAD PERPENDICULAR TO FINISH GRADE ON ALL SLOPES

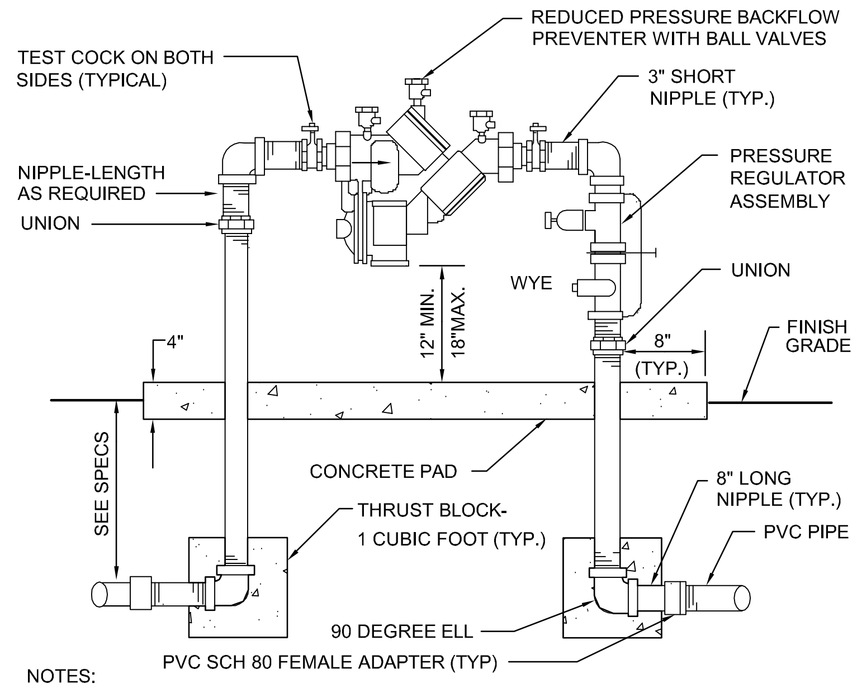
A SHRUB ROTOR ABOVE GRADE DETAIL

NO SCALE



B WIRE CONNECTOR

NO SCALE



NOTES:

1. ADJUST SHRUB PLANTING TO SCREEN BACKFLOW PREVENTER ASSEMBLY.
2. ALL EQUIPMENT INCLUDING UNIONS, ELBOWS AND NIPPLES SHALL BE BRASS.
3. CLOSE NIPPLES SHALL NOT BE USED.
4. TEFLON TAPE 3/4" WIDE SHALL BE USED ON ALL THREADED CONNECTIONS.
5. CONCRETE PAD SHALL BE 18" WIDE AND SHALL BE SET 1" ABOVE FINISH GRADE IN LAWN AREAS AND 2" ABOVE FINISH GRADE IN SHRUB AREAS.
6. BACKFLOW PREVENTER ASSEMBLY SHALL BE TESTED UPON INSTALLATION BY A CERTIFIED BACKFLOW DEVICE TESTER. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN TEST RESULTS COMPLETED BY CERTIFIED BACKFLOW TESTER PRIOR TO THE BACKFLOW PREVENTER ASSEMBLY'S ACCEPTANCE BY THE LANDSCAPE ARCHITECT.

C REDUCED PRESSURE BACKFLOW PREVENTER WITH PRESSURE REGULATOR ASSEMBLY

NO SCALE

RANCHO MISSION SLOPE REPAIR

L-3

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LICENSED LANDSCAPE ARCHITECT GAIL DECKER GARBINI STATE OF CALIFORNIA
NO. 002198
12/19/12
DATE
LICENSE EXPIRATION DATE 5/31/2013

RBF CONSULTING
A Baker Company
9755 CLAIREMONT MESA BOULEVARD, SUITE 100
SAN DIEGO, CALIFORNIA 92124-1333
858.614.5000 FAX 858.614.5001

IRRIGATION DETAILS:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 12 OF 15 SHEETS

APPROVED: FOR CITY ENGINEER DATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	XX/XX			

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

WATER WBS
SEWER WBS
SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER
CCS27 COORDINATE
CCS83 COORDINATE
XXXXX-XX-D

PLANT MATERIAL LEGEND

CALLOUT SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	MINIMUM HEIGHT AND SPREAD	REMARKS	DETAIL	SHEET
ART. CAL.	ARTEMISIA CALIFORNICA	COASTAL SAGEBRUSH	1 GAL.	10" x 8"	SHRUB FORM, FULL AND BUSHY, GOOD COLOR AND VIGOR.	A	L-5
BAC. SAR.	BACCHARIS SAROTHROIDES	BROOM BACCHARIS	1 GAL.	10" x 8"	SHRUB FORM, FULL AND BUSHY TO GROUND, GOOD COLOR.	A	L-5
ERI. FAS.	ERIOGONUM FASCICULATUM	CALIFORNIA BUCKWHEAT	1 GAL.	10" x 8"	SPREADING FORM, FULL AND VIGOROUS, GOOD COLOR.	A	L-5
HET. ARB.	HETEROMELES ARBUTIFOLIA	TOYON	1 GAL.	10" x 14"	SHRUB FORM, FULL AND BUSHY TO GROUND, GOOD COLOR.	A	L-5
ISO. MEN.	ISOCOMIA MENZIESII	GOLDENBUSH	1 GAL.	10" x 8"	FULL CLUMPS, GOOD COLOR, VIGOROUS	A	L-5
LOT. SCO.	LOTUS SCOPARIUS	DEERWEED	1 GAL.	8" x 6"	SHRUB FORM; FULL AND BUSHY, GOOD COLOR AND VIGOR.	A	L-5
MAL. LAU.	MALOSMA LAURINA	LAUREL SUMAC	1 GAL.	10" x 8"	SHRUB FORM, FULL AND BUSHY TO GROUND, GOOD COLOR.	A	L-5
OPU. LIT.	OPUNTIA LITTORALIS	PRICKLY PEAR	1 GAL.	12" x 12"	FULL CLUMPS, GOOD COLOR, VIGOROUS	A	L-5
RHA. CRO.	RHAMNUS CROCEA	SPINY REDBERRY	1 GAL.	8" x 4"	SHRUB FORM, FULL AND BUSHY, GOOD COLOR AND VIGOR.	A	L-5
RHU. INT.	RHUS INTEGRIFOLIA	LEMONADEBERRY	1 GAL.	10" x 8"	FULL & BUSHY TO GROUND, GOOD COLOR.	A	L-5
SAL. MEL.	SALVIA MELLIFERA	BLACK SAGE	1 GAL.	10" x 8"	FULL & BUSHY TO GROUND, GOOD COLOR.	A	L-5

PLANTING PLAN SYMBOL KEY:

QUANTITY	CALLOUT SYMBOL
SIZE	

HYDROSEED MIX - RANCHO MISSION SLOPE REPAIR

SYMBOL	BOTANICAL NAME	COMMON NAME	BULK #'s/ACRE	MIN % PLS*
36,980 S.F.	MIX			
	ARTEMISIA CALIFORNICA	CALIFORNIA SAGEBRUSH	3.00	10
	COLLINSIA HETEROPHYLLA	CHINESE HOUSES	2.00	85
	ENCELIA CALIFORNICA	BUSH SUNFLOWER	6.00	25
	ERIGONUM FASCICULATUM	CALIFORNIA BUCKWHEAT	8.00	10
	LOTUS SCOPARIUS	DEERWEED	6.00	85
	LUPINUS SUCCULENTUS	ARROYO LUPINE	4.00	90
	NASSELLA PULCHRA	PURPLE NEEDLEGRASS	4.00	75
	SALVIA MELLIFERA	BLACK SAGE	2.00	40
	SISYRINCHIUM BELLUM	BLUE-EYED GRASS	3.00	80
	VULPIA MICROSTACHYS	SMALL FESCUE	8.00	85
			46.00	

* MIN % PLS (PURE LIVE SEED) = SEED PURITY X GERMINATION RATE

SEED MIX PROVIDED BY S&S SEEDS, INC.
POINT OF CONTACT: JODY MILLER (805) 684-0436

SUMMARY & SCHEDULE FOR: MAINTENANCE, MONITORING & REPORTING FOR PROJECT

PERIOD	ACTIVITY FOR PROJECT BIOLOGIST / CONTRACTOR	BIOLOGIST SITE VISIT FREQUENCY	SUBMITTALS/ CHECKLIST	REPORTING FREQUENCY
REVEGETATION INSTALLATION	PROJECT BIOLOGIST WILL BE RESPONSIBLE FOR MONITORING/ LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION & MAINTENANCE	AS NEEDED OR AT LEAST ONCE EVERY TWO WEEKS.	REPORTS PREPARED BY THE BIOLOGIST (BASED ON THE REVEGETATION PLAN CRITERIA).	AT SUCCESSFUL INSTALLATION (AS DETERMINED BY PROJECT BIOLOGIST)
120 DAY PEP PEP**	PROJECT BIOLOGIST WILL BE RESPONSIBLE FOR MONITORING/ LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION & MAINTENANCE	MONTHS 1 & 2 BIWEEKLY, MONTHS 3 &4 - AT LEAST ONCE A MONTH	REPORTS PREPARED BY THE BIOLOGIST (BASED ON THE REVEGETATION PLAN CRITERIA).	AT THE END OF EVERY 3 MONTHS
25 MONTH LONG FOR TERM MAINTENANCE MONTHS & MONITORING	PROJECT BIOLOGIST WILL BE RESPONSIBLE FOR MONITORING/ LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLATION & MAINTENANCE	EVERY 3 MONTHS	REPORTS PREPARED BY THE BIOLOGIST (BASED ON THE REVEGETATION PLAN CRITERIA).	1 YEAR** 25 MONTHS

HYDROSEED NOTES

IRRIGATED HYDROSEED MULCH AND FERTILIZERS:

1. SPRAY-ON BLANKET EROSION CONTROL MATTING SHALL BE COCOFLEX ET-FGM MANUFACTURED BY PROFILE PRODUCTS LLC. OR APPROVED EQUAL.

FLAT TO 3:1	3000 LBS/ACRE
3:1 TO 2:1 SLOPES	3500 LBS/ACRE
2:1 TO 1:1 SLOPES	4000 LBS/ACRE
GREATER THAN 1:1	4500 LBS/ACRE

2. FERTILIZER/SOIL AMENDMENTS:
   PER RESULTS OF SOILS TEST/SOILS ANALYSIS REPORT.
3. EQUIPMENT USED FOR THE APPLICATION OF SLURRY SHALL HAVE A BUILT-IN AGITATION SYSTEM TO SUSPEND AND HOMOGENEOUSLY MIX THE SLURRY. THE EQUIPMENT MUST HAVE A PUMP CAPABLE OF APPLYING SLURRY UNIFORMLY.

SEED NOTE:
SEED TAGS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER AND THE PROJECT BIOLOGIST PRIOR TO APPLICATION OF SEED.

PLANTING NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES.
2. THE LANDSCAPE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND STRUCTURES. LANDSCAPE AREAS SHALL BE FINISH GRADED AT A MINIMUM OF 2%.
3. CONTAINER PLANTS SHALL BE PROCURED FROM A NURSERY QUALIFIED TO PROPAGATE AND CARE FOR PLANT SPECIES. SOURCE FOR ANY NATIVE CONTAINER PLANT MATERIAL SHALL ORIGINATE WITHIN 25 -MILES FROM THE VICINITY WITH SAN DIEGO COUNTY TO THE EXTENT PRACTICAL (E.G. WITHIN 25 MILE RADIUS), OR APPROVED BY THE RESIDENT ENGINEER AND PROJECT BIOLOGIST.
4. CONTAINER PLANT MATERIAL MUST BE DELIVERED TO THE PROJECT SITE AT THE APPROPRIATE TIME, IN A HEALTHY AND VIGOROUS CONDITION AND LABELED CLEARLY. THE PROJECT BIOLOGIST WILL REJECT PLANT MATERIAL DELIVERED PRIOR TO ITS PLANTING DATE. SPECIMENS SHOWING EVIDENCE OF DISEASE, MISHANDLING, DEFECTS OR DAMAGE, OVER OR UNDER-WATERING, OR OTHER DEFICIENCY AT THE TIME OF DELIVERY WILL BE REJECTED.
5. SOIL SHALL BE PRESOAKED WITHIN 3 DAYS OF SEEDING TO A DEPTH OF 6 INCHES, OR AS RECOMMENDED BY THE SOILS ANALYSIS REPORT AND THE PROJECT BIOLOGIST.
6. CONTAINER PLANTS WILL BE PLACED BY THE CONTRACTOR FOR THE REVIEW AND APPROVAL BY THE PROJECT BIOLOGIST IN THE REVEGETATION AREA. THE SUGGESTED CONTAINER PLANT INSTALLATION PROCEDURE SHALL BE AS DIRECTED BY THE RESIDENT ENGINEER AND PROJECT BIOLOGIST.
7. AFTER THE PLANTING PITS HAVE BEEN PRESOAKED, THE CONTRACTOR SHALL BACKFILL THE HOLE TO APPROPRIATE PLANTING DEPTH AND SET PLANTS IN THE CENTER OF THE HOLE, APPLY APPROPRIATE FERTILIZER PER SOILS TEST ANALYSIS, BACKFILL HALF OF THE HOLE, AND THOROUGHLY APPLY MORE WATER. ONCE THE WATER HAS SETTLED, THE REMAINDER OF THE PLANTING HOLE SHALL BE BACKFILLED AND TAMPED DOWN TO REMOVE AIR POCKETS. IMMEDIATELY AFTER PLANTING, THE CONTRACTOR SHALL WATER EACH CONTAINER PLANT UNTIL THE SOIL AROUND THE ROOTS IS MOIST FROM THE BOTTOM OF THE HOLE TO THE TOP OF THE GROUND. A WATERING BASIN, APPROXIMATELY TWICE THE SIZE OF THE PLANT CANOPY SHALL BE CREATED AND A MULCH LAYER APPLIED TO RETAIN SOIL MOISTURE IN THE PLANTING BASIN.

CONTAINER PLANT NOTE:
CONTAINER PLANT TAGS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER AND PROJECT BIOLOGIST PRIOR TO THE INSTALLATION OF CONTAINER STOCK.

MAINTENANCE AND MONITORING

1. IF 25 MONTH SUCCESS CRITERIA ARE NOT MET, THE MAINTENANCE AND MONITORING (M&M) PROGRAM WILL BE EXTENDED AS REQUIRED. QUARTERLY MAINTENANCE AND MONITORING WITH YEARLY REPORTING SHALL CONTINUE AS NEEDED.
2. CONTRACTOR SHALL CORRECT ALL SOIL EROSION, AND SHALL REPAIR AND/OR REPLACE ALL ABOVE GROUND EROSION CONTROL BMPs DAMAGED DURING THE 120 DAY PEP AND THROUGHOUT THE 25 MONTH MAINTENANCE AND MONITORING PERIOD. ALL HAY/STRAW PRODUCTS SHALL BE UN-DECAYING, CLEAN AND FREE OF WEEDS, SEEDS & DEBRIS.
3. IN THE EVENT ORNAMENTALS ARE IMPACTED, 1:1 REPLACEMENT OF ORNAMENTALS (IN KIND) SHALL BE MONITORED AND MAINTAINED FOR A PERIOD OF NO LESS THAN 90 DAYS TO ENSURE SUCCESSFUL ESTABLISHMENT OF PLANTING PER CONTRACT SPECIFICATIONS.
4. ORANGE CONSTRUCTION FENCE SHALL BE INSTALLED AND MAINTAINED BY CONTRACTOR A THE INSTALLATION OF ALL REVEGETATION PLANT MATERIALS THROUGH THE 120 DAY PEP, AND UNTIL THE END OF THE 25 MONTH MAINTENANCE AND MONITORING PERIOD.
5. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY IRRIGATION LINES AND APPURTENANCES FOLLOWING ACCEPTANCE OF REVEGETATION BY THE RE AND THE CITY REPRESENTATIVE. CONTRACTOR SHALL REMOVE ALL TRASH AND/OR DEBRIS FROM THE REVEGETATION SITE PRIOR TO AND FOLLOWING THE REVEG. INSTALLATION, AND UNTIL THE END OF THE 25 MONTH MAINTENANCE AND MONITORING PERIOD. ANY ABOVE GROUND EROSION CONTROL MEASURES SUCH AS BUT NOT LIMITED TO SILT FENCING, GRAVEL BAGS, FIBER ROLLS AND/OR HAY BALES SHALL BE REMOVED BY THE CONTRACTOR FOLLOWING ACCEPTANCE OF THE 25 MONTH MAINTENANCE AND MONITORING PERIOD BY THE RESIDENT ENGINEER AND PROJECT BIOLOGIST.
6. WEEDING VISITS SHOULD BE DONE FREQUENTLY TO ENSURE NO NON-NATIVE PLANTS BECOME ESTABLISHED OR SET SEED. THE STANDARD IN NOT TO ALLOW ANY NON-NATIVE PLANT PRODUCE A FLOWER, SET SEED, OR GROW TALLER THAN 6 INCHES IN HEIGHT. ALL WEED MATERIAL SHOULD BE HAULED OFF SITE FOR PROPER DISPOSAL FOLLOWING THE MAINTENANCE VISITS. NON-NATIVE GRASSES MAY REMAIN IN PLACE AS THEY PROVIDE VALUABLE COVER FOR EROSION AND SHOULD NOT OUT COMPETE NATIVE SHRUBS THAT ARE ESTABLISHING. HERBICIDE MAY BE USED TO CONTROL WEEDS.

SUCCESS CRITERIA

SLOPE % VEGETATION COVER		PLANT SURVIVAL
120 DAYS:	100 PERCENT	100 PERCENT
1 YEAR:	90 PERCENT	100 PERCENT
25 MONTHS:	80 PERCENT	

REVEGETATION NOTES

1. REFER TO SPECIFICATIONS (L-6) FOR REVEGETATION AND EROSION CONTROL WORK.
2. THE CONTRACTOR SHALL PROVIDE A SOILS TEST AFTER ROUGH GRADING HAS BEEN COMPLETED AND A MINIMUM OF 4 WEEKS BEFORE HYDROSEEDING AND PLANT OPERATIONS BEGIN. RESULTS AND TESTING LAB RECOMMENDATIONS SHALL BE SUBMITTED TO AND APPROVED BY THE RESIDENT ENGINEER. REFER TO SPECIFICATIONS (L-6).
3. REVEGETATION SHALL BE COMPLETED PER SPECIFICATIONS WITHIN NINETY (90) CALENDAR DAYS OF THE COMPLETION OF FINAL GRADING AND GROUND DISTURBANCE.
4. HYDROSEEDING SHALL BE COMPLETED PER SPECIFICATIONS WITHIN NINETY (90) CALENDAR DAYS OF THE COMPLETION OF FINAL GRADING.
5. TEMPORARY EROSION CONTROL SHALL BE INSTALLED IMMEDIATELY UPON INITIATION OF GROUND DISTURBANCE AND SHALL FOLLOW THE EROSION CONTROL PLAN. SEE CIVIL DRAWINGS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES.
7. TOPSOIL SHALL BE APPROVED FOR USE BY THE RESIDENT ENGINEER AND PROJECT BIOLOGIST. SEE SPECIFICATIONS (SHEET L-6)
8. EXISTING PLANT MATERIAL SHALL BE PROTECTED IN PLACE IN AREAS IMMEDIATELY OUTSIDE OF THE LIMIT OF WORK. ALL PLANT MATERIAL DAMAGED BY CONSTRUCTION SHALL BE REPLACED AS FOLLOWS:

   NATIVE VEGETATION DAMAGED DURING CONSTRUCTION BEYOND THE LIMIT OF WORK LINE SHALL BE PLANTED WITH THE SAME SPECIES OF PLANT BY THE CONTRACTOR. REPLACEMENT SIZE SHALL BE 1 GALLON. SIZE SHALL BE DEPENDENT ON THE SPECIES OF PLANT. SIZE AND QUANTITY OF PLANT MATERIAL SHALL BE DETERMINED BY THE PROJECT BIOLOGIST.
9. LIMITS OF PLANTING SHALL BE APPROVED BY THE RESIDENT ENGINEER PRIOR TO PLANTING WORK. SEE SPECIFICATIONS (SHEET L-6).
10. ALL PLANT MATERIAL INCLUDING SEED SHALL BE APPROVED BY THE PROJECT BIOLOGIST AT THE PROJECT SITE PRIOR TO PLANTING. SEE SPECIFICATIONS (THIS SHEET).
11. FINISH SOIL SHALL BE 2" BELOW TOP OF PAVING IN ALL PLANTING AREAS.
12. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND STRUCTURES. LANDSCAPE AREA SHALL BE FINISH GRADED AT A MINIMUM OF 2%.
13. FOR ANY ENVIRONMENTALLY SENSITIVE AREAS - DO NOT DISTURB. NOTIFY THE RESIDENT ENGINEER 48 HOURS PRIOR TO ALL CONSTRUCTION ACTIVITIES WITHIN 250 FEET OF SENSITIVE ENVIRONMENTAL AREA.
14. ALL SLOPE AREAS THAT ARE 4:1 GRADIENT AND STEEPER THAT RECEIVE HYDROSEED MIX SHALL ALSO RECEIVE STORMWATER AND EROSION CONTROL FIBER ROLLS. SEE CIVIL DRAWINGS.

GENERAL REVEGETATION MONITORING

1. REFER TO THE "WHITEBOOK" SECTION 800 FOR THE MINIMUM REQUIRED QUALIFICATIONS FOR REVEGETATION MONITORS.
2. SEE "WHITEBOOK" SECTION 800 FOR BIOLOGICAL MONITORING AND REPORTING DURING INSTALLATION PLANT ESTABLISHMENT PERIOD AND THE REVEGETATION MAINTENANCE & MONITORING PERIOD.

RANCHO MISSION SLOPE REPAIR

L-4

Garbini & Garbini
LANDSCAPE ARCHITECTURE
URBAN DESIGN
715 "J" STREET, SUITE 307
SAN DIEGO, CALIFORNIA 92101
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858.614.5000 FAX 858.614.5001

LICENSED LANDSCAPE ARCHITECT — GAIL BECKER GARBINI — NO. 002198 — EXPIRES 12/19/12 — STATE OF CALIFORNIA
LICENSE EXPIRATION DATE 5/31/2013

PLANTING LEGEND & NOTES:
RANCHO MISSION SLOPE REPAIR

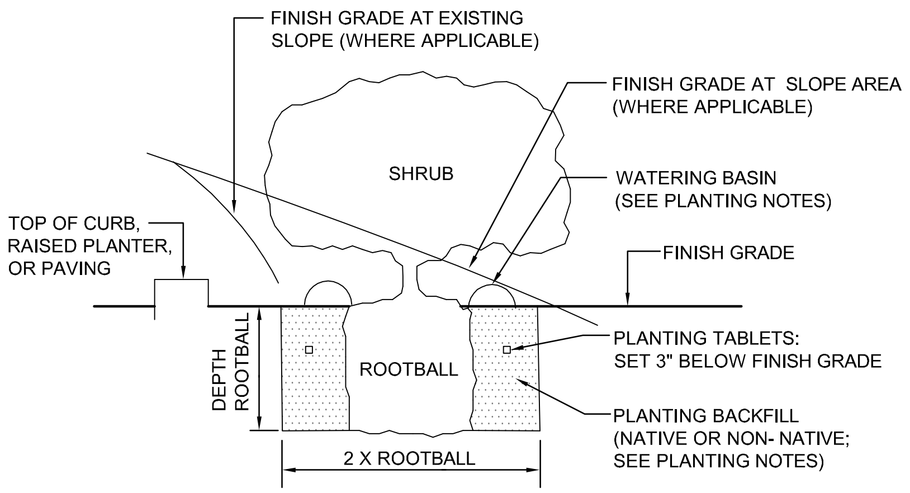
CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 13 OF 15 SHEETS

APPROVED: FOR CITY ENGINEER — DATE

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	XX/XX			

WATER WBS
SEWER WBS
SUBMITTED BY: PROJECT MANAGER
CHECKED BY: PROJECT ENGINEER
CCS27 COORDINATE
CCS83 COORDINATE
CONTRACTOR — DATE STARTED
INSPECTOR — DATE COMPLETED
XXXXX-XX-D

H:\DGN V8--PROJECTS\1275 RANCHO MISSION LANDSLIDE\1275 DESIGN DRAWINGS\1275 LAND\1275 PLANTING.DWG MATTHEW CLEMENS 2/7/2013 5:45 PM



A SHRUB PLANTING DETAIL

NO SCALE

BRUSH MANAGEMENT ZONE

1. INCLUDES ALL AREA 100 FEET FROM ANY STRUCTURE.
2. PLANT COVERAGE FOR PLANTS OVER 24 INCHES SHALL NOT EXCEED 50% COVERAGE AT MATURITY.

ML	21	MAL. LAU.
	1 GAL.	
Op Li	23	OPU. LIT.
	1 GAL.	
Ri	73	RHU. INT.
	1 GAL.	
Sa m	78	SAL. MEL.
	1 GAL.	
R Cr	64	RHA. CRO.
	1 GAL.	
Ha	28	HET. ARB.
	1 GAL.	
Bsar	48	BAC. SAR.
	1 GAL.	
	HYDROSEED MIX	
	TYPICAL SYMBOL	
	36,980 SF	
Iso m	64	ISO. MEN.
	1 GAL.	
Ach	22	ART. CAL.
	1 GAL.	

IRRIGATION HEAD (TYP. SYM.)
(SHOWN FOR REFERENCE ONLY)
REFER TO L-2 FOR IRRIGATION PLAN

LIMIT OF WORK
TYPICAL SYMBOL

EXISTING VEGETATION 'PROTECT IN PLACE'

EX TRAIL

RANCHO MISSION POR LOT 70

MHPA BOUNDARY

BRUSH MANAGEMENT ZONE BOUNDARY

PROPERTY LINE

LOT 113

MAP 7417
7916 DEERFIELD ST

LOT 112

TEMPORARY ACCESS PATH

LOT 111
7908 DEERFIELD ST

MAP 7417
LOT 110

DEERFIELD STREET

RANCHO MISSION POR LOT 70

20 0 20 40 60
SCALE: 1"=20'

RANCHO MISSION SLOPE REPAIR

L-5

PLANTING PLAN & DETAILS:

RANCHO MISSION SLOPE REPAIR

Garbini & Garbini
LANDSCAPE ARCHITECTURE
URBAN DESIGN
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LICENSED LANDSCAPE ARCHITECT
GAIL DECKER GARBINI
NO. 002198
EXPIRES 12/19/12
STATE OF CALIFORNIA

LICENSE EXPIRATION DATE 5/31/2013

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 14 OF 15 SHEETS

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XXXXX-XX-D

LANDSCAPE SPECIFICATIONS

SUPPLEMENTARY SPECIAL PROVISIONS (SSP) FOR RANCHO MISSION SLOPE REPAIR

THESE SUPPLEMENTARY SPECIAL PROVISIONS SUPPLEMENT AND /OR MODIFY, AS INDICATED HEREIN, THE FOLLOWING SPECIFICATIONS:

- THE "GREENBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2009 EDITION
- THE "WHITEBOOK" STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR THE CITY OF SAN DIEGO, 2010 EDITION.

SECTION 212 - LANDSCAPE AND IRRIGATION MATERIALS

212-1.1.1 GENERAL. TO THE "GREENBOOK", DELETE THE FIRST SENTENCE OF THE FIRST PARAGRAPH IN ITS ENTIRETY AND SUBSTITUTE WITH THE FOLLOWING:

TOPSOIL SHALL BE DESIGNATED AS CLASS C TOPSOIL AS SPECIFIED HEREIN, UNLESS CLASS A TOPSOIL IS REQUIRED PER THE RESULTS OF THE SOILS REPORT OR BY THE PROJECT BIOLOGIST AS SPECIFIED IN SECTION 800-1.8.1 TOPSOIL.

212-1.2.3 COMMERCIAL FERTILIZER. DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

ALL SOIL AMENDMENTS AND THEIR RATES OF APPLICATION, INCLUDING COMMERCIAL FERTILIZER, SHALL PER THE RECOMMENDATIONS OF THE SOILS REPORT SPECIFICALLY FOR THE TYPES OF PLANTS AS INDICATED ON THE PLANTING PLAN(S) AND LEGEND(S). THE FOLLOWING ARE FOR BIDDING PURPOSES ONLY:

PRE-PLANT FERTILIZER: COMMERCIAL GRADE, 100% ORGANIC, SLOW RELEASE, NON-BURNING FERTILIZER. GRO POWER PLUS (5-3-1) OR APPROVED EQUAL.

POST-PLANT FERTILIZER: MIXED, COMMERCIAL GRADE, WITH PERCENTAGES OF NITROGEN, PHOSPHORIC ACID, AND POTASH AT 5-10-5, RESPECTIVELY. FERTILIZER SHALL BE UNIFORM IN COMPOSITION, DRY, AND FREE FLOWING.

FERTILIZER TABLETS: AS INDICATED ON THE LABEL IN WHICH THE FERTILIZER TABLETS ARE SUPPLIED IN OR THE MANUFACTURER'S SUPPLEMENTAL INSTRUCTIONS.

212-1.2.4 ORGANIC SOIL AMENDMENT. DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

THE RECOMMENDATIONS OF THE SOILS REPORT SHALL SUPERSEDE REQUIREMENTS LISTED HEREIN FOR ORGANIC SOIL AMENDMENTS. THE CONTRACTOR SHALL PROVIDE A PLANT LIST TO THE SOILS LAB. THE SOILS REPORT RECOMMENDATIONS AND QUANTITIES SHALL BE SPECIFICALLY FOR THE TYPES OF PLANTS AS INDICATED ON THE PLANTING PLAN(S) AND LEGEND(S). THE FOLLOWING ARE FOR BIDDING PURPOSES ONLY:

1. COMPOST

a. GENERAL GUIDELINES

(1) COMPOST SHALL BE PRODUCED BY A CA STATE LICENSED FACILITY USING THE PATHOGEN REDUCTION PROCESS, TITLE 14 REGULATIONS

(2) COMPOST SHALL BE AEROBIC WITHOUT MALODOROUS PRESENCE OF DECOMPOSITION PRODUCTS.

(3) MAXIMUM PARTICLE SIZE SHALL BE 0.5 INCH, 80% OR MORE SHALL PASS A NO. 4 SCREEN FOR SOIL AMENDING. MAXIMUM PARTICLE SIZE SHALL BE 0.25 INCH FOR HYDROSEEDING.

(4) HUMIC COMPOST FROM AGRI SERVICE, OR APPROVED EQUAL.

b. ACCEPTABLE TYPES

(1) ACCEPTABLE TYPES: COMPOSTS LOW IN SALTS, LOW IN HEAVY METALS, PATHOGEN REDUCTION COMPLETED AND FREE FROM WEED SEEDS, FREE OF PATHOGENS AND OTHER DELETERIOUS MATERIALS.

(2) CONDITIONALLY ACCEPTABLE TYPES: FULLY COMPOSTED WOOD PRODUCTS, STABLE HUMUS MUST BE PRESENT.

(3) NOT ACCEPTABLE: SLUDGE-BASED MATERIALS OR WOOD BASED PRODUCTS BASED ON REDWOOD OR CEDAR.

c. SPECIFIC CRITERIA

ACID-SOLUBLE ASH:	5% - 20%.
SILICON CONTENT (ACID-INSOLUBLE ASH):	< 50%
ORGANIC MATTER, DRY WEIGHT BASIS:	> 50%
PH:	6 - 7.5
ECE (SALT CONTENT):	<10 MILLIMHO/CM, 25°C, SATURATED PASTE EXTRACT
CALCIUM CARBONATE:	NON-DETECTABLE, IF APPLIED ON ALKALINE SOILS
BORON:	<1.0 PARTS PER MILLION IN SATURATED EXTRACT
CARBON : NITROGEN RATIO:	<25:1

d. MAXIMUM TOTAL PERMISSIBLE POLLUTANT CONCENTRATIONS:

(PARTS PER MILLION ON A DRY WEIGHT BASIS)

ARSENIC	10	MOLYBDENUM	15	COBALT	20	SILVER	5	MERCURY	5
CADMIUM	10	NICKEL	50	COPPER	100	VANADIUM	400		
CHROMIUM	100	SELENIUM	20	LEAD	200	ZINC	250		

212-1.4.1 GENERAL. TO THE "GREENBOOK", ADD THE FOLLOWING:

AT LEAST THREE PLANTS OF EACH PLANT SPECIES DELIVERED TO THE PROJECT SITE SHALL CONTAIN A NURSERY LABEL INDICATING THE NURSERY SOURCE, GENUS, SPECIES, VARIETY (IF APPLICABLE) AND COMMON NAME OF THE DELIVERED PLANT. IF FIFTEEN OR MORE PLANTS OF A SPECIES ARE DELIVERED AT ONE TIME, AT LEAST 20 PERCENT OF THE PLANTS SHALL INCLUDE NURSERY LABELS. IF A PLANT APPEARS TO BE IMPROPERLY LABELED OR THE WRONG SPECIES OR VARIETY, AS DETERMINED BY THE ENGINEER, THE ENTIRE LOT OF PLANTS MAY BE REJECTED.

212-1.4.1 GENERAL. TO THE "WHITEBOOK", ADD THE FOLLOWING:

ANY PLANTS NOT CONFORMING TO THE REQUIREMENTS OF THE PROJECT SPECIFICATIONS, OR THAT ARE DEEMED BY THE ENGINEER AS NOT ACCEPTABLE, WHETHER IN PLACE OR NOT, SHALL BE CONSIDERED DEFECTIVE AND IMMEDIATELY REMOVED FROM THE PROJECT SITE AND REPLACED. THE ENGINEER RESERVES THE RIGHT TO REJECT ENTIRE LOTS OF PLANTS FOUND TO BE DEFECTIVE.

TO THE "WHITEBOOK" ADD: 212-2.1.3.3 PLASTIC PIPE AND FITTINGS FOR ABOVE GRADE INSTALLATION.

NON-PRESSURE LATERAL PIPING INSTALLED ABOVE GRADE SHALL BE UV RESISTANT SCHEDULE 40 PVC WITH SCH. 40 UV RESISTANT SOLVENT WELD FITTINGS, AS PER THE CITY OF SAN DIEGO'S LAND DEVELOPMENT CODE LANDSCAPE STANDARDS FOR ACCEPTABLE PIPE MATERIALS. THE PIPE AND FITTINGS INCLUDED IN THE LATEST ADOPTED VERSION OF THE CITY OF SAN DIEGO'S LAND DEVELOPMENT CODE, LANDSCAPE STANDARDS SHALL SUPERSEDE THOSE LISTED HEREIN.

212-2.2.7 VALVE BOXES. TO THE "GREENBOOK", DELETE IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

VALVE BOXES AND COVERS SHALL BE PLASTIC WITH LOCKABLE LIDS. COVERS SHALL BE PERMANENTLY AND LEGIBLY LABELED WITH 100% ACRYLIC EPOXY WHITE OR YELLOW WATER PROOF PAINT ON TOP OF THE BOX INDICATING THE COMPONENT CONTAINED IN THE BOX.

WEATHERPROOF PLASTIC IDENTIFICATION TAGS SHOWING THE IRRIGATION CONTROLLER AND STATION SHALL BE AFFIXED TO THE COLORED CONDUCTOR WIRE IN EACH VALVE AND PULL BOX.

SECTION 308 - LANDSCAPE AND IRRIGATION INSTALLATION

308-2.2 TRENCH EXCAVATION AND BACKFILL. TO THE "WHITEBOOK", REVISE THE ITEM C) TO READ AS FOLLOWS:

C) LATERAL SPRINKLER LINES - ON GRADE.

308-2.3.1 GENERAL. TO THE "WHITEBOOK", DELETE THE FIRST SENTENCE OF THE FIRST PARAGRAPH IN ITS ENTIRETY AND SUBSTITUTE WITH THE FOLLOWING:

THE UPPER EIGHT INCHES (8") OF TOPSOIL FROM THE SITE SHALL BE SALVAGED, IF SOIL IS REMOVED, AND/OR AS DIRECTED BY THE ENGINEER AND PROJECT BIOLOGIST. PROJECT BIOLOGIST SHALL ENSURE THAT SOIL WILL BE STOCKPILED WITHIN THE LIMITS OF THE PROJECT, NO MORE THAN THREE FEET HIGH WHERE POSSIBLE. BMPS, SILT FENCING, AND/OR COVER SHALL BE INSTALLED AROUND THE STOCKPILE TO PREVENT EROSION AND AS A BARRIER TO PRECLUDE ANY UNAUTHORIZED ACCESS, OR AS RECOMMENDED BY THE PROJECT BIOLOGIST.

PRIOR TO REVEGETATION AND/OR PLANT INSTALLATION, THE PROJECT BIOLOGIST SHALL PROVIDE WRITTEN RECOMMENDATIONS TO THE ENGINEER AS TO THE SALVAGED SOIL RELOCATION, RE-COMPACTION (E.G. MAX 75 PERCENT WITHIN THE TOP 8 INCHES), AND/OR PREPARATION FOR REVEGETATION PURPOSES TO BE DONE BY THE CONTRACTOR. IF TOPSOIL CANNOT BE SALVAGED, CLEAN AND WEED-FREE CLASS "A" TOPSOIL SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.

308-2.3.1 GENERAL. TO THE "WHITEBOOK", DELETE THE FOLLOWING WORDS FROM THE THIRD PARAGRAPH:

"FOR SUBGRADE FOR CLASS A OR B TOPSOIL"

308-4.1 GENERAL. TO THE "GREENBOOK", CHANGE THE WORD "SPECIFICATIONS" IN THE FIRST SENTENCE OF THE FIRST PARAGRAPH AND SUBSTITUTE WITH THE WORD "PLANTING PLANS AND SPECIFICATIONS".

308-4.5 TREE AND SHRUB PLANTING. TO THE "GREENBOOK", DELETE THE FOURTH PARAGRAPH IN ITS ENTIRETY AND SUBSTITUTE WITH THE FOLLOWING:

THE RATIO OF NATIVE SOIL TO ORGANIC SOIL AMENDMENTS FOR THE PREPARED BACKFILL MIX FOR CONTAINER PLANTINGS SHALL BE AS PER THE RECOMMENDATIONS OF THE SOILS REPORT. THE ORGANIC SOIL AMENDMENT AND RATIO OF AMENDMENTS SHALL BE APPROVED BY THE ENGINEER BEFORE INCORPORATION OF ORGANIC SOIL AMENDMENTS INTO THE BACKFILL MIX.

308-4.5 TREE AND SHRUB PLANTING. TO THE "WHITEBOOK", FROM THE THIRD SENTENCE OF ITEM "E", REPLACE THE WORDS "TYPE 1, 2, 3 OR 4 MULCH" WITH THE FOLLOWING:

"A HARDWOOD MULCH, EXCLUDING REDWOOD AND CEDAR"

308-4.7 GROUND COVER AND VINE PLANTING. TO THE "WHITEBOOK", DELETE THE LAST SENTENCE IN ITS ENTIRETY AND REPLACE WITH THE FOLLOWING:

THE SPECIFIED MULCH SHALL BE PLACED WITHIN WATERING BASINS ONLY, AS INDICATED HEREIN. MULCH SHALL NOT BE SPREAD OVER AREAS TO BE HYDROSEEDED.

308-5.2.1 GENERAL. TO THE "WHITEBOOK", ADD THE FOLLOWING:

THRUST BLOCKS SHALL BE INSTALLED AS PER APPLICABLE SAN DIEGO REGIONAL STANDARD DRAWING AND IN ANY LOCATIONS AS INDICATED BY THE ENGINEER.

SECTION 800 - REVEGETATION, MAINTENANCE, AND MONITORING

800-1.1 TERMS AND RESPONSIBILITIES. TO THE "WHITEBOOK", DELETE IN ITS ENTIRETY THE REVEGETATION CONTRACTOR PARAGRAPH AND REPLACE WITH THE FOLLOWING:

RE-VEGETATION CONTRACTOR - THE PLANTING AND PLANT ESTABLISHMENT WORK SHALL BE PERFORMED BY A QUALIFIED REVEGETATION CONTRACTOR. THE RE-VEGETATION CONTRACTOR SHALL IMPLEMENT THE PLANTING AND RE-VEGETATION PLAN IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED BY THE PROJECT BIOLOGIST AND ENGINEER. THE RE-VEGETATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLANT AND HYDROSEED INSTALLATION, THE SPECIFIED PLANT ESTABLISHMENT PERIOD (PEP) AND THE SPECIFIED 25 MONTH RE-VEGETATION MAINTENANCE AND MONITORING PERIOD. THE RE-VEGETATION CONTRACTOR SHALL HAVE THE FOLLOWING MINIMUM QUALIFICATIONS:

a) C-27 CALIFORNIA LANDSCAPE CONTRACTOR'S LICENSE

b) CERTIFIED AS A CALIFORNIA PEST CONTROL APPLICATOR

c) PRIOR SUCCESSFUL EXPERIENCE WITH AT LEAST THREE LOCAL NATIVE HABITAT REVEGETATION PROJECTS IN SOUTHERN CALIFORNIA. AT LEAST ONE OF THESE PROJECTS MUST HAVE INCLUDED A HYDRAULICALLY APPLIED EROSION CONTROL PRODUCT EQUIVALENT TO THE PRODUCT(S) SPECIFIED IN THE HYDROSEED LEGEND AND/OR NOTES FOR THIS PROJECT.

THE RE-VEGETATION CONTRACTOR SHALL DEMONSTRATE KNOWLEDGE OF NATIVE VEGETATION AND INVASIVE WEED IDENTIFICATION ASSOCIATED WITH UPLAND AND WETLAND VEGETATION COMMUNITIES AND NON-NATIVE INVASIVE PLANTS. THE RE-VEGETATION CONTRACTOR AND THE PERSONNEL WORKING IN THE RE-VEGETATION SITES SHALL BE FAMILIAR WITH RE-VEGETATION SITE BOUNDARIES, THE REQUIREMENTS OF THE RE-VEGETATION EFFORT AS IT PERTAINS TO THEM, AND ANY OTHER INFORMATION THAT THE PROJECT BIOLOGIST DETERMINES IS NECESSARY FOR THE SUCCESS OF THE RE-VEGETATION PROGRAM (SUCH AS PROTECTION OF EXISTING ADJACENT UPLAND AND WETLAND AREAS). IN THE EVENT THE APPLICATION OF PESTICIDES OR HERBICIDES IS REQUIRED, IT SHALL BE DONE BY AN INDIVIDUAL OR FIRM POSSESSING THE PESTICIDE AND HERBICIDE LICENSE.

800-1.8.1 TOPSOIL. TO THE "WHITEBOOK", CHANGE THE WORDS "CLASS B TOPSOIL FROM A COMPARABLE SITE" TO "CLASS A TOPSOIL".

800-2.5 PLANTING. TO THE "WHITEBOOK", DELETE THE FIRST SENTENCE OF THE FIRST PARAGRAPH.

800-2.8 HYDRO SEEDING. TO THE "WHITEBOOK", DELETE THE SECOND, THIRD, AND FOURTH PARAGRAPHS (TYPE 11 MULCH, WOOD FIBER, AND STABILIZING EMULSION), IN THEIR ENTIRETY AND SUBSTITUTE THE FOLLOWING:

HYDROSEED MIXTURE SHALL CONSIST OF:

a) WATER - WATER SHALL BE FREE OF IMPURITIES, EXCESS CHLORINE AND SALTS. THE USE OF PURIFIED WATER OR FILTERS MAY BE REQUIRED WHEN DIRECTED. GENERAL PRECAUTIONS SHOULD BE OBSERVED WHEN DRAWING WATER FROM SOURCES OTHER THAN THE IRRIGATION MAIN LINE.

b) SEED - ALL SEED SHALL COMPLY WITH SSPWC SUBSECTION 212-1.3 AND ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REGULATIONS. SEED SHALL BE THOROUGHLY MIXED BY THE DEALER. THE CONTRACTOR SHALL FURNISH DEALER'S GUARANTEED GERMINATION PERCENTAGE OF EACH VARIETY.

c) ADDITIONAL SLURRY COMPONENTS- ALL SLURRY COMPONENTS; INCLUDING, BUT NOT LIMITED TO COMPOST, BINDER, MYCORRHIZAL INOCULUM AND FERTILIZER, SHALL BE AS PER THE HYDROSEED MIX LEGEND AND HYDROSEED NOTES. WATER, SEED AND SLURRY MIX SHALL BE HOMOGENOUSLY BLENDED AS PER THE MANUFACTURER'S INSTRUCTIONS.

800-2.9 CONTAINER PLANTING.

TO THE "WHITEBOOK", DELETE THE FIRST SENTENCE OF THE THIRD PARAGRAPH IN ITS ENTIRETY AND SUBSTITUTE THE FOLLOWING:

PITS FOR CONTAINER-GROWN TREES, 15 GALLON AND LARGER, SHALL BE AS PER SAN DIEGO REGIONAL STANDARD DRAWING L-1, WITHOUT THE STANDPIPE. PITS FOR CONTAINER-GROWN PLANTS LESS THAN 15 GALLON IN SIZE, SHALL BE AS PER SAN DIEGO REGIONAL STANDARD DRAWING L-2.

800-2.9 CONTAINER PLANTING. TO THE "WHITEBOOK", DELETE IN ITS ENTIRETY, THE SENTENCE THAT READS "NATIVE BACKFILL MATERIAL SHALL BE PLACED INTO THE BOTTOM OF THE HOLE, MOISTENED AND TAMPED, AND MOUNDED SLIGHTLY."

800-2.9 CONTAINER PLANTING. TO THE "WHITEBOOK", DELETE IN ITS ENTIRETY, THE SENTENCE THAT READS "TWO 21 GRAM PLANT TABLETS SHALL BE ADDED ON OPPOSITE SIDES OF THE PLANTING HOLE." SUBSTITUTE THE FOLLOWING:

REFER TO 212-1.2.3 FOR PLANT TABLET APPLICATION.

RANCHO MISSION SLOPE REPAIR

L-6

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LICENSED LANDSCAPE ARCHITECT
GAIL DECKER GARBINI
LIC. NO. 002198
SIGNED 12/19/12
DATE
STATE OF CALIFORNIA
LICENSE EXPIRATION DATE 5/31/2013

LANDSCAPE SPECIFICATIONS:

RANCHO MISSION SLOPE REPAIR

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS - ENGINEERING AND CAPITAL PROJECTS
SHEET 15 OF 15 SHEETS

APPROVED: FOR CITY ENGINEER — DATE

SUBMITTED BY: PROJECT MANAGER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	XX/XX			

CHECKED BY: PROJECT ENGINEER

CCS27 COORDINATE

CCS83 COORDINATE

CONTRACTOR — DATE STARTED

INSPECTOR — DATE COMPLETED

WATER WBS

SEWER WBS

XXXXX-XX-D