THE CITY OF SAN DIEGO

MITIGATED NEGATIVE DECLARATION

Project No. 445629
SCH No. N/A

SUBJECT: **CARDENAS RESIDENCE SDP/CDP**

I. PROJECT DESCRIPTION: See attached Initial Study.

II. ENVIRONMENTAL SETTING: See attached Initial Study.

III. DETERMINATION:

The City of San Diego conducted an Initial Study which determined that the proposed project could have a significant environmental effect in the following areas(s): **HISTORICAL RESOURCES (ARCHAEOLOGY)**. Subsequent revisions in the project proposal create the specific mitigation identified in Section V of this Mitigated Negative Declaration. The project as revised now avoids or mitigates the potentially significant environmental effects previously identified, and the preparation of an Environmental Impact Report will not be required.

UPDATE: **Please Note that changes within this document are identified in ~~strikeout~~ and added language is within an underlined format as it relates to the DRAFT document.**

Effective October 17, 2016. Revisions were made to the Greenhouse Gas Emission Sections, incorporating the provisions of the Climate Act Plan (CAP) Consistency Checklist (Adopted July 12, 2016). It was determined that this project is subject to the provisions of the checklist and any requirements will be incorporated as such. There were no new significant factors which were identified within this checklist the affects the prior CEQA determination for the project as detailed under Section 15162 of CEQA.

For reference, in December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development

projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

The Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

IV. DOCUMENTATION: The attached Initial Study documents the reasons to support the above Determination.

V. MITIGATION, MONITORING AND REPORTING PROGRAM:

A. GENERAL REQUIREMENTS – PART I
Plan Check Phase (prior to permit issuance)

1. Prior to the issuance of a Notice To Proceed (NTP) for a subdivision, or any construction permits, such as Demolition, Grading or Building, or beginning any construction related activity on-site, the Development Services Department (DSD) Director's Environmental Designee (ED) shall review and approve all Construction Documents (CD), (plans, specification, details, etc.) to ensure the MMRP requirements are incorporated into the design.

2. In addition, the ED shall verify that the MMRP Conditions/Notes that apply ONLY to the construction phases of this project are included VERBATIM, under the heading, "**ENVIRONMENTAL/MITIGATION REQUIREMENTS**."

3. These notes must be shown within the first three (3) sheets of the construction documents in the format specified for engineering construction document templates as shown on the City website:

http://www.sandiego.gov/development-services/industry/standtemp.shtml

4. The **TITLE INDEX SHEET** must also show on which pages the "Environmental/Mitigation Requirements" notes are provided.

5. **SURETY AND COST RECOVERY –** The Development Services Director or City Manager may require appropriate surety instruments or bonds from private Permit Holders to ensure the long term performance or implementation of required mitigation measures or programs. The City is authorized to recover its cost to offset the salary, overhead, and expenses for City personnel and programs to monitor qualifying projects.

B. GENERAL REQUIREMENTS – PART II
Post Plan Check (After permit issuance/Prior to start of construction)

1. PRE CONSTRUCTION MEETING IS REQUIRED TEN (10) WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT. The PERMIT HOLDER/OWNER is responsible to arrange and perform this meeting by contacting the CITY RESIDENT ENGINEER (RE) of the Field Engineering Division and City staff from MITIGATION MONITORING COORDINATION (MMC). Attendees must also include the Permit holder's Representative(s), Job Site Superintendent and the following consultants:

Qualified Archeologist, Native American Monitor

Note:
Failure of all responsible Permit Holder's representatives and consultants to attend shall require an additional meeting with all parties present.

CONTACT INFORMATION:

a) The PRIMARY POINT OF CONTACT is the **RE** at the **Field Engineering Division – 858-627-3200**

b) For Clarification of ENVIRONMENTAL REQUIREMENTS, it is also required to call **RE and MMC at 858-627-3360**

2. MMRP COMPLIANCE: This Project, Project Tracking System (PTS) # 445629 and /or Environmental Document # 445629, shall conform to the mitigation requirements contained in the associated Environmental Document and implemented to the satisfaction of the DSD's Environmental Designee (MMC) and the City Engineer (RE). The requirements may not be reduced or changed but may be annotated (i.e. to explain when and how compliance is being met and location of verifying proof, etc.). Additional clarifying information may also be added to other relevant plan sheets and/or specifications as appropriate (i.e., specific locations, times of monitoring, methodology, etc

Note:
Permit Holder's Representatives must alert RE and MMC if there are any discrepancies in the plans or notes, or any changes due to field conditions. All conflicts must be approved by RE and MMC BEFORE the work is performed.

3. OTHER AGENCY REQUIREMENTS: Evidence of compliance with all other agency requirements or permits shall be submitted to the RE and MMC for review and acceptance prior to the beginning of work or within one week of the Permit Holder obtaining documentation of those permits or

requirements. Evidence shall include copies of permits, letters of resolution or other documentation issued by the responsible agency.

Not Applicable

4. MONITORING EXHIBITS

All consultants are required to submit , to RE and MMC, a monitoring exhibit on a 11x17 reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline's work, and notes indicating when in the construction schedule that work will be performed. When necessary for clarification, a detailed methodology of how the work will be performed shall be included.

NOTE:

Surety and Cost Recovery – When deemed necessary by the Development Services Director or City Manager, additional surety instruments or bonds from the private Permit Holder may be required to ensure the long term performance or implementation of required mitigation measures or programs. The City is authorized to recover its cost to offset the salary, overhead, and expenses for City personnel and programs to monitor qualifying projects.

5. OTHER SUBMITTALS AND INSPECTIONS:

The Permit Holder/Owner's representative shall submit all required documentation, verification letters, and requests for all associated inspections to the RE and MMC for approval per the following schedule:

Document Submittal/Inspection Checklist		
Issue Area	**Document Submittal**	**Associated Inspection/Approvals/ Notes**
General	Consultant Qualification Letters	Prior to Preconstruction Meeting
General	Consultant Construction Monitoring Exhibits	Prior to Preconstruction Meeting
Historical Resources (Archeology)	Monitoring Report(s)	Archeological/Historic Site Observation
Bond Release	Request for a Bond Release Letter	Final MMRP Inspections Prior to Bond Release Letter

C. SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS

HISTORICAL RESOURCES (ARCHAEOLOGY)

I. Prior to Permit Issuance

A. Entitlements Plan Check

1. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits or a Notice to Proceed for Subdivisions, but prior to the first preconstruction meeting, whichever is

applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to ADD
    1. The applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.
    2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.
    3. Prior to the start of work, the applicant must obtain written approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search
    1. The PI shall provide verification to MMC that a site specific records search (1/4 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
    2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
    3. The PI may submit a detailed letter to MMC requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings
    1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.
        a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.
    2. Identify Areas to be Monitored
        a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
        b. The AME shall be based on the results of a site specific records search as well as

information regarding existing known soil conditions (native or formation).

3. When Monitoring Will Occur
    a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
    b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate site conditions such as depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

III. During Construction

A. Monitor(s) Shall be Present During Grading/Excavation/Trenching

1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.**
2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.
3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.
4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance
   1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
      a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
      b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) which has been reviewed by the Native American consultant/monitor, and obtain written approval from MMC. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume. **Note: If a unique archaeological site is also an historical resource as defined in CEQA, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.**
      c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification
   1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.
   2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site
   1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenance of the remains.
   2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenance.
   3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains **ARE** determined to be Native American

1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.
4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:
    a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission; OR;
    b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN,
    c. In order to protect these sites, the Landowner shall do one or more of the following:
        (1) Record the site with the NAHC;
        (2) Record an open space or conservation easement on the site;
        (3) Record a document with the County.
    d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are **NOT** Native American
1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

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V. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract
1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.
2. The following procedures shall be followed.

a. No Discoveries
In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.
b. Discoveries
All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.
c. Potentially Significant Discoveries
If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.
d. The PI shall immediately contact MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction
1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Preparation and Submittal of Draft Monitoring Report
1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC for review and approval within 90 days following the completion of monitoring. **It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe resulting from delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.**
a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program shall be included in the Draft Monitoring Report.
b. Recording Sites with State of California Department of Parks and Recreation
The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.
2. MMC shall return the Draft Monitoring Report to the PI for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC for approval.

4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts
1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
3. The cost for curation is the responsibility of the property owner.

C. Curation of artifacts: Accession Agreement and Acceptance Verification
1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
2. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.
3. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection 5.

D. Final Monitoring Report(s)
1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC that the draft report has been approved.

2. The RE shall, in no case, issue the Notice of Completion and/or release of the Performance Bond for grading until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

The above mitigation monitoring and reporting program will require additional fees and/or deposits to be collected prior to the issuance of building permits, certificates of occupancy and/or final maps to ensure the successful completion of the monitoring program.

VI. PUBLIC REVIEW DISTRIBUTION:

Draft copies or notice of this Mitigated Negative Declaration were distributed to:

STATE OF CALIFORNIA
Coastal Commission (48)

CITY OF SAN DIEGO
Mayor's Office
Councilmember Lightner - District 1
City Attorney's Office (93C)

Development Services:
LDR - Engineering Review
LDR - EAS
LDR - Geology
LDR - Landscaping
LDR - Planning Review

Facilities Financing (93B)
Water Review (86A)
San Diego Central Library (81A)
La Jolla - Riford Library (81L)
Historical Resources Board (87)

OTHER ORGANIZATIONS AND INTERESTED PARTIES
Carmen Lucas (206)
South Coastal Information Center (210)
San Diego Archaeological Center (212)
Save Our Heritage Organization (214)
Ron Christman (215)
Clint Linton (215B)
Frank Brown, Inter-Tribal Cultural Resources Council (216)
Campo Band of Mission Indians (217)
San Diego County Archaeological Society, Inc. (218)
Kumeyaay Cultural Heritage Preservation (223)
Kumeyaay Cultural Repatriation Committee (225)
Native American Distribution - Public Notice and Location Map Only (225A-S)
La Jolla Village News (271)
La Jolla Shores Association (272)
La Jolla Town Council (273)
La Jolla Historical Society (274)
La Jolla Community Planning Association - Cindy Greatrex - Chair (275)
UCSD Physical & Community Planning (277)
Brad Werdick – Director La Jolla Shores PDO Advisory Board (279)
La Jolla Light (280)
Patricia K. Miller (283)
Joseph and Machelle Cardenas, Owner(s)

VII. RESULTS OF PUBLIC REVIEW:

( ) No comments were received during the public input period.

(X) Comments were received but did not address the accuracy or completeness of the draft environmental document. No response is necessary and the letters are incorporated herein.

( ) Comments addressing the accuracy or completeness of the draft environmental document were received during the public input period. The letters and responses are incorporated herein.

Copies of the draft Mitigated Negative Declaration, the Mitigation, Monitoring and Reporting Program and any Initial Study material are available in the office of the Entitlements Division for review, or for purchase at the cost of reproduction.

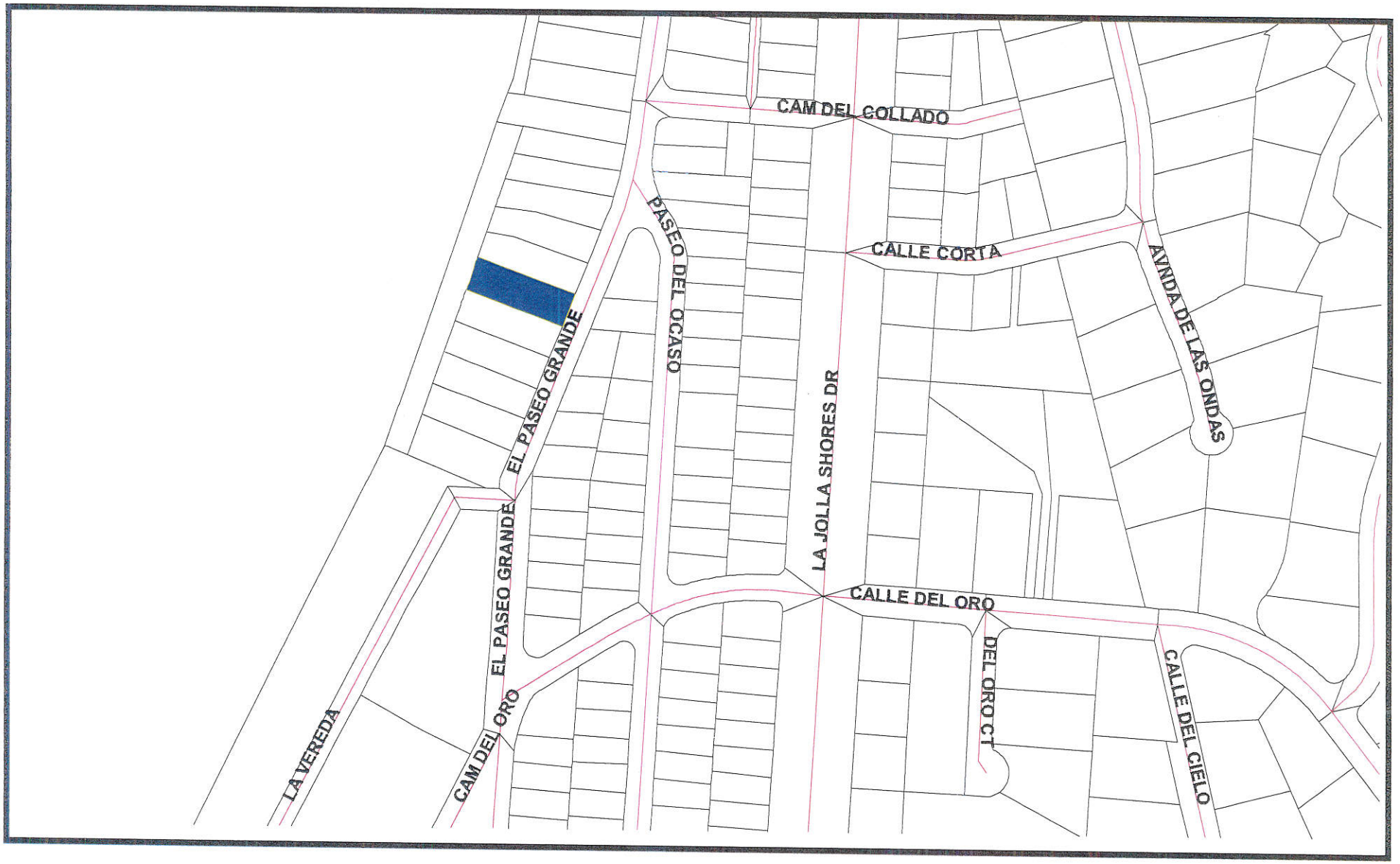
MARK BRUNETTE
SENIOR PLANNER
Development Services Department

September 26, 2016
Date of Draft Report

10/24/16
Date of Final Report

Analyst: CHRIS TRACY, AICP, ASSOCIATE PLANNER

Attachments: Figure 1 – Location Map
Figure 2 – Site Plan
Letter A and Response
Letter B and Response
Initial Study Checklist

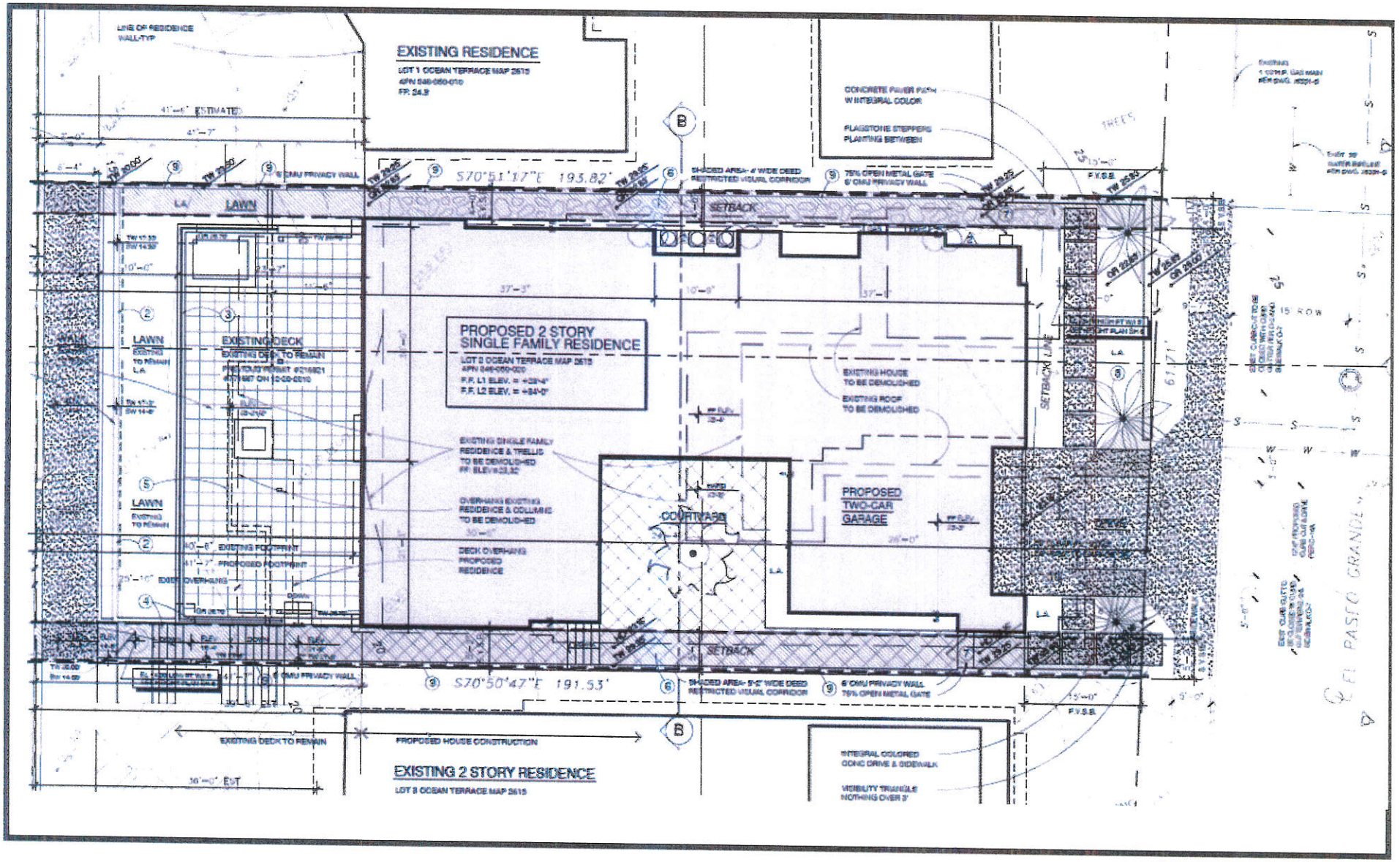


Location Map

Cardenas Residence SDP-CDP/Project No. 445629 Address - 8466 El Paseo Grande

City of San Diego – Development Services Department

FIGURE No. 1



Site Plan

Cardenas Residence SDP-CDP/Project No. 445629 Address - 8466 El Paseo Grande

City of San Diego – Development Services Department

FIGURE

No. 2

Letter A

San Diego County Archaeological Society, Inc.

Environmental Review Committee

13 October 2016

To: Mr. Chris Tracy
Development Services Department
City of San Diego
1222 First Avenue, Mail Station 501
San Diego, California 92101

Subject: Draft Mitigated Negative Declaration
Cardenas Residence CDP/SDP
Project No. 445629

Dear Mr. Tracy:

I have reviewed the subject DMND on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the initial study and DMND, we agree with the implementation of the archaeological monitoring program presented in the DMND.

SDCAS appreciates being included in the public review of this DMND.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President
File

P.O. Box 81106 San Diego, CA 92138-1106 (858) 538-0935

Letter A - Response

Comment Noted.

Letter B

RINCON BAND OF LUISEÑO INDIANS
Cultural Resources Department
1 W. Tribal Road · Valley Center, California 92082
(760) 297-2330 Fax:(760) 297-2339

October 10, 2016

Chris Tracy
The City of San Diego
Development Services Department
1222 First Avenue, MS 501
San Diego, CA 92101

Re: Cardenas Residence CDP/SDP Project No. 445629

Dear Mr. Tracy:

This letter is written on behalf of the Rincon Band of Luiseño Indians. Thank you for inviting us to submit comments on the Cardenas Residence CDP/SDP Project No. 445629. Rincon is submitting these comments concerning your projects potential impact on Luiseño cultural resources.

The Rincon Band has concerns for the impacts to historic and cultural resources and the finding of items of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is not within the Luiseño Aboriginal Territory. We recommend that you locate a tribe within the project area to receive direction on how to handle any inadvertent findings according to their customs and traditions.

If you would like information on tribes within your project area, please contact the Native American Heritage Commission and they will assist with a referral.

Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,

Vincent Whipple
Manager
Rincon Cultural Resources Department

Letter B - Response

Comment Noted. A qualified Native American Monitor will be required to monitor all grading activities on-site as detailed within Mitigation Measures and Monitoring Plan (MMRP) for this project and will notify any and all affected tribes to receive direction with any discovered items.

INITIAL STUDY CHECKLIST

1. Project title/Project number: 445629

2. Lead agency name and address: City of San Diego, 1222 First Avenue, MS-501, San Diego, California 92101

3. Contact person and phone number: Chris Tracy, AICP, Associate Planner / (619) 446-5381

4. Project location: 8466 El Paseo Grande, La Jolla, CA 92037

5. Project Applicant/Sponsor's name and address: Bill Hayer, Hayer Architecture, 915 Camino Del Mar, Suite#100, Del Mar, CA 92014

6. General/Community Plan designation n: Residential/Very Low Density Residential (0 - 5 dwelling units per acre).

7. Zoning: LJSPD-SF (La Jolla Shores Planned District- Single-Family)

8. Description of project (Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation.):

   COASTAL DEVELOPMENT PERMIT and SITE DEVELOPMENT PERMIT to demolish an existing one-story single-family residence and to construct a two-story 6,071 square-foot (sq. ft.) single-family residence, inclusive of a 627 sq.ft. garage and 1,458 sq.ft. of exterior decks and covered porch areas, on a 11,878 sq.ft. lot. The project would also construct various site improvements, including associated hardscape and landscaping.

   The proposed project is located at 8466 El Paseo Grande, in the Single Family (SF) Zone of the La Jolla Shores Planned District, within the La Jolla Community Plan and Local Coastal Program, La Jolla Shores Precise Plan, La Jolla Shores Design Manual, Coastal Overlay Zone (Appealable Area), Coastal Height Limit Overlay Zone, Sensitive Coastal Overlay Zone, La Jolla Archaeological Study Area, First Public Roadway, Parking Impact Overlay Zone (Beach Impact Area), Residential Tandem Parking Overlay Zone, and Council District 1. (LEGAL DESCRIPTION: Lot 2 of Ocean Terrace, Map No. 2615.). The site is not included on any Government Code listing of hazardous waste sites.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):

None required.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Greenhouse Gas Emissions	☐	Population/Housing
☐	Agriculture and Forestry Resources	☐	Hazards & Hazardous Materials	☐	Public Services
☐	Air Quality	☐	Hydrology/Water Quality	☐	Recreation
☐	Biological Resources	☐	Land Use/Planning	☐	Transportation/Traffic
☒	Cultural Resources	☐	Mineral Resources	☐	Utilities/Service System
☐	Geology/Soils	☐	Noise	☐	Mandatory Findings Significance

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial evaluation:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or (MITIGATED) NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or (MITIGATED) NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact answer should be explained where it is based on project specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses", as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or (mitigated) negative declaration. *Section 15063(c)(3)(D).* In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated", describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

    a. The significance criteria or threshold, if any, used to evaluate each question; and

    b. The mitigation measure identified, if any, to reduce the impact to less than significant.

	Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I)	AESTHETICS – Would the project:				
	a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

The project site is presently developed with an existing single-family residence. A public view to scenic coastal resource (a scenic vista) presently exists along El Paseo Grande. Any adverse impacts from the development of this proposal with respect to the degradation of a scenic vista, will be reduced to below a level of significance with the implementation of the following project Conditions: LDR-Planning Conditions:

"Prior to the issuance of any construction permits, the Owner/Permittee shall record a View Corridor Easement that is 4-feet wide along the northern side setback, and 5-feet, 2-inches wide along the southern side setback, as shown on Exhibit "A," in accordance with SDMC section 132.0403."

"Open fencing and landscaping may be permitted within the side setback visual corridors provided such improvements do not significantly obstruct public views to the ocean. Landscaping shall be planted and maintained not to exceed 3-feet in height in order to preserve public views."

	b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒

The project is situated within a developed residential neighborhood. No such scenic resources or state scenic highways are located on, near, or adjacent to the project site. Therefore, no impacts would result.

	c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐

The project site is developed with an existing single-family residence. The construction of a single-family residence with an attached garage is compatible with the surrounding development, and permitted by the community plan and zoning designation. The project would not substantially degrade the existing visual character or quality of the site or the surrounding area. Any impacts would be reduced to below a level of significance with the implementation the two project conditions from LDR-Planning as described further within Response I(a) above. No impacts are anticipated.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

The project will comply with all current lighting and material glare standards and no significant impacts would occur.

II. AGRICULTURAL AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. – Would the project:

a) Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

The project is consistent with the community plan's land use designation, and is located within a developed residential neighborhood. As such, the project site does not contain, and is not adjacent to, any lands identified as Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland),as show on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency. Therefore, the project would not result in the conversion of such lands to non-agricultural use. No significant impacts would occur, and no mitigation measures are required.

b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?	☐	☐	☐	☒

Refer to response to ll(a) above. There are no Williamson Act Contract lands on or within the vicinity of the project site. The project is consistent with the existing land use and the underlying zone. The project does not conflict with any agricultural use. No impacts would result.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 1220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. No designated forest land or timberland occur onsite as the project is consistent with the community plan, and the underlying zone. No impacts would result.

d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Refer to response ll(c) above. Additionally, the project would not contribute to the conversion of any forested land to non-forest use, as surrounding land uses are built out. No impacts would result.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

No Impact, Refer to ll(a) and (c) above.

III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations – Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

The San Diego Air Pollution Control District (SDAPCD) and San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the San Diego Air Basin (SDAB). The County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis (most recently in 2009). The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards for ozone (03). The RAQS relies on information from the California Air Resources Board (CARB) and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in the county, to project future emissions and then determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by San Diego County and the cities in the county as part of the development of their general plans.

The RAQS relies on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and by the county as part of the development of their general plans. As such, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the RAQS. However, if a project proposes development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the RAQS and may contribute to a potentially significant cumulative impact on air quality.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

The project would construct a single-family residence with an attached garage within a developed neighborhood of similar residential uses. The project is consistent with the General Plan, community plan, and the underlying zoning for residential development. Therefore, the project would be Consistent at a sub-regional level with the underlying growth forecasts in the RAQS, and would not obstruct implementation of the RAQS. As such, no impacts would result.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐

Short-term Emissions (Construction)

Project construction activities would potentially generate combustion emissions from on-site heavy duty construction vehicles and motor vehicles transporting the construction crew and necessary construction materials. Exhaust emissions generated by construction activities would generally result from the use of typical construction equipment that may include excavation equipment, forklift, skip loader, and/or dump truck. Variables that factor into the total construction emissions potentially generated include the level of activity, length of construction period, number of pieces and types of equipment in use, site characteristics, weather conditions, number of construction personnel, and the amount of materials to be transported on or off-site. It is anticipated that construction equipment would be used on-site for four to eight hours a day; however, construction would be short-term and impacts to neighboring uses would be minimal and temporary.
Fugitive dust emissions are generally associated with land clearing and grading operations. Due to the nature and location of the project, construction activities are expected to create minimal fugitive dust, as a result of the disturbance associated with grading. The project would demolish an existing single-family residence and construct a single-family residence with attached garage. Construction operations would include standard measures as required by the City of San Diego grading permit to reduce potential air quality impacts to less than significant. Therefore, impacts associated with fugitive dust are considered less than significant, and would not violate an air quality standard or contribute substantially to an existing or projected air quality violation. Impacts related to short term emissions would be less than significant.

Long-term Emissions (Operational)

Long-term air emission impacts are those associated with stationary sources and mobile sources related to any change caused by a project. The project would produce minimal stationary source emissions. Once construction of the project is complete, long-term air emissions would potentially result from such sources as fireplaces, heating, ventilation, and cooling (HVAC) systems, and other motorized equipment typically associated with residential uses. The project is compatible with the surrounding development and is permitted by the community plan and zone designation. Based on the residential land use, project emissions over the long-term are not anticipated to violate any air quality standard or contribute substantially to an existing or projected air quality violation. Impacts would be less than significant.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Overall, the project is not expected to generate substantial emissions that would violate any air quality standard or contribute to an existing or projected air quality violation; therefore, impacts would be less than significant.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐

As described above in response lll(b), construction operations may temporarily increase the emissions of dust and other pollutants. However, construction emissions would be temporary and short-term in durat ion. Implementation of Best Management Practices (BMP's) would reduce potential impacts related to construction activities to a less than significant level. Therefore, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under applicable federal or state ambient air quality standards. Impacts would be less than significant.

d) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

Short-term (Construction)

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors are temporary and generally occur at magnitudes that would not affect a substantial number of people. Therefore, impacts would be less than significant.

Long-term (Operational)

Typical long-term operational characteristics of the project are not associated with the creation of such odors nor anticipated to generate odors affecting a substantial number of people. The project would construct a single-family residence with attached garage. Residential dwelling units, in the long-term operation, are not typically associated with the creation of such odors nor are they anticipated to generate odors affecting a substantial number or people. Therefore, project operations would result in less than significant impacts.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

The project site is located in a developed urban setting fronting La Jolla Shores Beach and the Pacific Ocean. No biological resource impacts would be expected as construction would take place on the existing pad area. No impacts are anticipated, and as such, no mitigation measures are required.

b) Have a substantial adverse effect on any riparian habitat or other community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒

Refer to response IV (a) above. The project site is urban developed and currently supports non native landscaping. Additionally, the project site is presently developed with an existing single-family residence and located within a residential neighborhood. The project site does not contain any riparian habitat or other identified community. No impacts would result.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒

The project site does not contain any federally protected wetlands as defined by Section 404 of the Clean Water Act. The project site is located within a developed residential neighborhood. No impacts would result. Also refer to response IV (a) above.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒

No formal and/or informal wildlife corridors are on or near the project site, as the project site is located within a developed residential neighborhood. Therefore, no impacts would result. Also refer to response IV (a) above.

e) Conflict with any local policies or	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
ordinances protecting biological resources, such as a tree preservation policy or ordinance?				

The project would not conflict with any local policies and/or ordinances protecting biological resources such as a tree preservation policy or ordinance. No impacts would result.

f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Refer to response IV(e) above. The project site is located within a developed urban neighborhood and is not within, nor adjacent to, the City's Multi-Habitat Planning Area (MHPA). Therefore no impacts would result.

V. CULTURAL RESOURCES – Would the project:

a)	Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	☐	☒	☐	☐

The purpose and intent of the Historical Resources Regulations of the Land Development Code (Chapter 14, Division 3, and Article 2) is to protect, preserve and, where damaged, restore the historical resources of San Diego. The regulations apply to all proposed development within the City of San Diego when historical resources are present on the premises. Before approving discretionary projects, CEQA requires the Lead Agency to identify and examine the significant adverse environmental effects which may result from that project. A project that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (Sections 15064.5(b) and 21084.1). A substantial adverse change is defined as demolition, destruction, relocation, or alteration activities, which would impair historical significance (Sections 15064.5(b)(1)). Any historical resource listed in, or eligible to be listed in the California Register of Historical Resources, including archaeological resources, is considered to be historically or culturally significant.

Archaeological Resources

Many areas of San Diego County, including mesas and the coast, are known for intense and diverse prehistoric occupation and important archaeological resources. The region has been inhabited by various cultural groups spanning 10,000 years or more. The project site is located on the City of San Diego's Historical Resources Sensitivity map. Furthermore, the project site is located within an area of La Jolla Shores that requires special considerations due to the area's archaeological sensitivity with respect to the Spindrift archaeological site and the high potential for project grading to impact unknown prehistoric resources including human remains.

A record search of the California Historic Resources Information System (CHRIS) digital database was reviewed by qualified archaeological City staff to determine presence or absence of potential resources within the project site. Although no recorded archaeological sites were located within or

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

adjacent to the project site, there is a potential for the project to impact archaeological resources due to the project's location within the Spindrift archaeological site and redevelopment of the site. Therefore, mitigation measures related to historical resources (archaeology) is required.

All potential impacts related to the presence of archeological resources at the site would be reduced and addressed through the purview of a qualified Native American monitor. Monitoring by this individual would occur at all stages of ground-disturbing activities at the site. Furthermore, a Mitigation, Monitoring, and Reporting Program (MMRP), as detailed within Section V of the Mitigated Negative Declaration (MND), would be implemented to address this issue specifically. With implementation of the historical resources monitoring program, potential impacts on historical resources would be reduced to less than significant.

Built Environment

The City of San Diego reviews projects requiring the demolition of structures 45 years or older for historic significance in compliance with the California Environmental Quality Act (CEQA). CEQA Section 21084.1 states that "A project that may cause a substantial adverse change in the significance of an historical resource is a project that may cause a significant effect on the environment." Historic property (built environment) surveys are required for properties which are 45 years of age or older and which have integrity of setting, location, design, materials, workmanship, feeling, and association.

The existing structure on the project site was identified as 54 years in age. Therefore, building records and a photographic survey for the project site were submitted and reviewed by Plan-Historic staff. City staff determined that the property and/or structure is not an individually designated resource and is not located within a designated historic district. In addition, the property does not meet designation criteria as a significant resource under any adopted criteria. Therefore, no impacts would result.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐

Refer to response V (a) above.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

According to the "Geology of the San Diego Metropolitan Area, California, La Jolla, 7.5 Minute Quadrangle Maps" (Kennedy and Peterson, 1975), and the "Faulting and Bluff Geologic Evaluation Report - Proposed Lusardi Residence" (CET, Inc., February 12, 2007), the project site is primarily underlain with alluvium slopewash and the highly sensitive Bay Point Formation.

According to the Grading and Drainage Plan, Sheet A 0.2a, grading operations would entail approximately 130 cubic yards of cut with a maximum cut depth of two feet below existing grade Additionally, the project would require 180 cubic yards of fill and 50 cubic yards of import with a

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

maximum fill depth of three feet.

As a guideline dependent on grading history, paleontological monitoring may be required if project grading meets or exceeds the City's Thresholds of 1,000 cubic yards to 10 feet in depth. This project falls below this threshold; therefore, the project does not have the potential to disturb or destroy paleontological resources and therefore, does not exceed the threshold for paleontological monitoring. No impacts would occur.

d) Disturb and human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Refer to response V (a) above. Although no known burial sites are known to be on the site, there is a potential for buried archaeological resources, including human remains, to be on-site. Please see Section V of the MND and the Initial Study.

VI. GEOLOGY AND SOILS – Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐

The project site contains a known earthquake fault, which is the Scripps Fault. The project would be required to comply with seismic requirement of the California Building Code, utilize proper engineering design and utilization of standard construction practices, to be verified at the building permit stage, in order to ensure that potential impacts based on regional geologic hazards would remain less than significant. Additional background on this subject area is as follows:

Per "Addendum 03 – Response to City of San Diego Cycle Review Comments, Cycle Type 4 – Submitted (Multi-Discipline): LDR-Geology, for Proposed Cardenas Residence, 8466 El Paseo Grande, La Jolla, California (CTE, June 10 , 2016):

From review of the previous investigations and/or reports, it appears that geologic hazards at the site are primarily limited to those caused by violent shaking from earthquake generated motion waves, and potential differential settlement of the Quaternary undocumented fill and unsuitable Quaternary Slopewash soils at the site.

However, it is our professional opinion that these potential geologic hazards will be mitigated, provided the recommendations in the above referenced reports are incorporated into the design and construction of the project, and grading and construction of site improvements are conducted

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

in accordance with the 2013 California Building Code (CBC)."

And, information concerning this issue area was documented under PTS 191344 "Cardenas Residence":

"The eastern half of the site is located in Geological Hazard Zones 12 (potentially active faults (Scripps Fault)), while the western portion is in Zone 48 (generally stable broad beach areas) and the middle portion in Zone 52 (favorable geologic structure, low risk to development) per the City of San Diego Seismic Safety Study. Two geotechnical reports (Preliminary Geotechnical Evaluation -March 2006; and Faulting and Bluff Geologic Evaluation - February 2007; both by CTE, Inc.); were provided for the previous Lusardi Residence and a third report was created specifically for the Cardenas Residence (CTE, November, 2, 2009) to answer City Geology Staff questions and to determine if a concealed portion of the Scripps Fault is present on-site. It was determined that existing and proposed development is not located on a fault. The site was also determined to be outside the defined Sensitive Coastal Bluff Zone per the City's Coastal Bluffs and Beaches & Steep Slopes Guidelines. Compliance with the City's Geological Engineering Staff would ensure that new structures would be built to reduce the potential for geologic impacts from regional hazards to a level below significance."

There was no new information that was provided that changed this prior determination related to this issue area. All geologic issues would be less than significant and mitigation is not required with the incorporation of proper engineering design features.

ii) Strong seismic ground shaking?	☐	☐	☒	☐

Refer to VI(a).

iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

Refer to VI(a).

iv) Landslides?	☐	☐	☒	☐

Refer to VI(a).

b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

Refer to VI(a).

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Refer to VI(a).

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐

Refer to VI(a).

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

Not Applicable, as the project does not propose such structures.

VII. GREENHOUSE GAS EMISSIONS – Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

~~The construction of a single dwelling unit is consistent with the land use and designated zone and would not be expected to have a significant impact related to greenhouse gases. Potential impacts from greenhouse gas emissions are considered less than significant. No mitigation measures are required~~. Per the Climate Action Plan (CAP) Consistency Checklist, the proposed project will have a less-than-significant impact on the environment, either directly or indirectly, because the proposed project is consistent with the existing General Plan and Community Plan land use and underlying zoning designations. The proposed project is located in the SF Zone (Single Family Zone) of the La Jolla Shores Planned District and meets all the criteria for consistency with the General Plan, Community Plan land use and zoning designations. The proposed project will provide roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under the California Green Building Standards Code; Provide plumbing fixtures and fittings provided as part of the project, the low-flow fixtures and appliances; Provide an energy budget that meets a 15% improvement over current code as compared to the Title 24, Part 6 Energy Budget for the Proposed Design Building for demonstrating compliance with the residential provisions of the 2013 California Building Energy Efficiency Standards, and provide for the future installation of electric vehicle supply equipment to provide an electric vehicle charging station for the use of the resident. As such, potential impacts from greenhouse gas emissions are considered less than significant and no mitigation measures are required; however, the improvements described within this checklist will required as a part of required "project design" features.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
gases?				

~~The project as proposed would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions in that it would be constructed in an established urban area with services and facilities available. In addition, the project is consistent with the underlying zone and land use designation.~~ Please see response VII(a). Per the Climate Action Plan (CAP) Consistency Checklist, the project as proposed would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions.

VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:

a) Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

The project would demolish an existing single-family residence and construct a single-family residence with an attached garage. Construction of the project may require the use of hazardous material(fuel, lubricants, solvents, etc.) that would require proper storage, handling, use and disposal. Although minimal amounts of such substances may be present during construction, they are not anticipated to create a significant public hazard. Once constructed, the routine transport, use, or disposal of hazardous materials on or through the project site is not anticipated. Therefore, impacts would be less than significant, and no mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐

Refer to response Vlll(a) above. Construction of a single-family residence with an attached garage within a neighborhood of similar uses would not be associated with such impacts. Therefore, no significant impacts related to this issue were identified, and no mitigation measures are required.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐

Refer to responses Vlll(a) and VIII (b) above. The project site is not within one quarter mile of a school . Future risk of releases of hazardous substances would not occur as a result of project operations because it is anticipated that future on-site operations would not require the routine use or transport of acutely hazardous materials.

Construction of the project may require the use of hazardous materials (fuels, lubricants, solvents, etc.), which would require proper storage, handling, use and disposal. Further, the project would be required to comply with all federal, state and local requirements associated with hazardous materials; therefore, impacts would be less than significant.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

A hazardous waste site records search was completed in February 2016, using Geotracker; the records search showed that no hazardous waste sites exist onsite or in the surrounding area. No impacts would result.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two mile of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Activities associated with the necessary grading, demolition, and construction would not increase the potential to result in a safety hazard for people residing or working in areas surrounding the project site. Long-term operation of the residential unit would not interfere with the operations of any airport. The project site is not located within any airport land use plan, the airport environs overlay zone, or airport approach overlay zone. The project site is also not located within two miles of any airport. Therefore, no significant impacts would occur, and no mitigation measures are required.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Refer to response Vlll(e) above. The project site is not in proximity to any private airstrip. Therefore, no significant impacts will occur, and no mitigation measures are required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

The project would not impair the implementation of, or physically interfere with an adopted emergency response plan or evacuation plan. No roadway improvements are proposed that would interfere with circulation or access, and all construction would take place on-site. No impacts would occur, and no mitigation measures are required.

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
areas or where residences are intermixed with wildlands?				

The project site is located within a developed residential neighborhood. There are no wildland areas or other areas prone to wildfire within the vicinity of the project site. Therefore, the project would not expose people or structures to wildland fires. No impacts would occur, and no mitigation measures are required.

IX. HYDROLOGY AND WATER QUALITY - Would the project:

a) Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐

The project would comply with all storm water quality standards during and after construction, and appropriate Best Management Practices (BMP's) must be utilized. Implementation of theses BMP's would preclude any violations of existing standards and discharge regulations. The project is within the La Jolla Area of Special Biological Significance (ASBS) and is subject to all requirements of the Final Compliance Plan for La Jolla ASBS dated September 20, 2014 related to storm water quality standards. This will be addressed through the project's Conditions of Approval; therefore, impacts would be less than significant, and no mitigation measures are required.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒

The project does not require the construction of wells. The project is located within a developed residential neighborhood with existing public water supply infrastructure. No impacts would result.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	☐	☐	☒	☐

The project would not substantially alter the existing drainage pattern of the site or the area. There are no streams or rivers located on-site and thus, no such resources would be impacted through the proposed grading activities. Although grading would be required for the project, the project would implement BMPs to ensure that substantial erosion or siltation on or off-site would not occur. See IX(a) for additional discussion. Impacts would be less than significant, and no mitigation measures are required.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☐	☐	☒	☐

The project would implement low impact development principles ensuring that a substantial increase in the rate or amount of surface runoff resulting in flooding on or off-site, or a substantial alteration to the existing drainage pattern would not occur. Streams or rivers do not occur on or adjacent to the project site. Impacts would be less than significant, and no mitigation measures are required.

e) Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐

The project would comply with all City storm water quality standards during and after construction. Appropriate BMP's would be implemented to ensure that water quality is not degraded; therefore, ensuring that the project runoff is directed to appropriate drainage systems. Due to the nature of the project, any runoff from the site is not anticipated to exceed the capacity of existing storm water systems or provide substantial additional sources of polluted runoff that would require new or expanded facilities. See IX(a) for additional discussion. Impacts would be less than significant, and no mitigation measures are required.

f) Otherwise substantially degrade water quality?	☐	☐	☒	☐

The project would comply with all City storm water quality standards during and after construction. Appropriate BMP's would be implemented to ensure that water quality is not degraded. Impacts would be less than significant, and no mitigation measures are required.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐

The developed portion of the project is identified to lie within Flood Zone “X” and the project would incorporate design features to address any concerns related to this issue area. Type “X” Areas are determined to be outside 500-year floodplain determined to be outside the 1% and 0.2% annual chance floodplains. As such, impacts would be less than significant, and no mitigation measures are required.

h) Place within a 100-year flood hazard	☐	☐	☒	☐

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
area, structures that would impede or redirect flood flows?				

See Response (IX)((g). As such, impacts would be less than significant, and no mitigation measures are required.

X. LAND USE AND PLANNING – Would the project:

a) Physically divide an established community?	☐	☐	☐	☒

The project is does not have the scale or features that would physically divide the community. The project site is an infill site located within a developed residential neighborhood and surrounded by similar residential development. Therefore, the project would not physically divide an established community. No impacts would result.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

The project is consistent with the General Plan's and Community Plan's land use designation. The project site is located within a developed residential neighborhood and surrounded by similar residential development. Construction of a single-family residence with attached garage would not affect adjacent properties and is consistent with surrounding land uses. No impacts would result.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

See response X (b) above. The project is compatible with the area designated for residential development by the General Plan and Community Plan, and is consistent with the existing underlying zone and surrounding land uses. Construction of the project would occur within an urbanized neighborhood with similar development. Furthermore, the project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, community plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. No conflict would occur and thus, no impacts would result.

XI. MINERAL RESOURCES – Would the project?

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

There are no known mineral resources located on the project site. The urbanized and developed nature of the project site and vicinity would preclude the extraction of any such resources. No impacts would result.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

See response Xl (a) above. The project site has not been delineated on a local general plan, specific plan, or other land use plan as a locally important mineral resource recovery site, and no such resources would be affected with project implementation. Therefore, no significant impacts were identified, and no mitigation measures are required.

XII. NOISE – Would the project result in:

a) Generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐

Short Term

Short-term noise impacts would be associated with onsite demolition, grading, and construction activities of the project. Construction-related short-term noise levels would be higher than existing ambient noise levels in the project area, but would no longer occur once construction is completed. Sensitive receptors (e.g. residential uses) occur in the immediate area and may be temporarily affected by construction noise; however, construction activities would be required to comply with the construction hours specified in the City's Municipal Code (Section 59.5.0404, Construction Noise), which are intended to reduce potential adverse effects resulting from construction noise. With compliance to the City's construction noise requirements, project construction noise levels would be reduced to less than significant, and no mitigation measures are required.

Long Term

For the long-term, typical noise levels associated with residential uses are anticipated, and the project would not result in an increase in the existing ambient noise level. The project would not result in noise levels in excess of standards established in the City of San Diego General Plan or Noise Ordinance. No significant long-term impacts would occur, and no mitigation measures are required.

b) Generation of, excessive ground borne vibration or ground borne noise levels?	☐	☐	☐	☒

See response XII (a) above. Potential effects from construction noise would be reduced through compliance with City restrictions. Pile driving activities that would potentially result in ground borne vibration or ground borne noise are not anticipated with construction of the project. No impacts

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
would result.				
A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒

The project would not significantly increase long-term (ambient) noise levels. The project would not introduce a new land use or significantly increase the intensity of the allowed land use. Post-construction noise levels and traffic would be generally unchanged as compared to noise with the existing residential use. Therefore, no substantial permanent increase in ambient noise levels is anticipated. A less than significant impact would result.

c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing without the project?	☐	☐	☒	☐

The project would not expose people to a substantial increase in temporary or periodic ambient noise levels. Construction noise would result during grading, demolition, and construction activities, but would be temporary in nature. Construction-related noise impacts from the project would generally be higher than existing ambient noise levels in the project area, but would no longer occur once construction is completed. In addition, the project would be required to comply with the San Diego Municipal Code, Article 9.5, Noise Abatement and Control. Implementation of these standard measures would reduce potential impacts from an increase in ambient noise level during construction to a less than significant level, and no mitigation measures are required.

d) For a project located within an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport would the project expose people residing or working in the area to excessive noise levels?	☐	☐	☐	☒

The project site is not located within an airport land use plan. The project site is also not located within two miles of a public airport or public use airport. No impacts would result.

e) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The project site is not located within the vicinity of a private airstrip. No impacts would result, and no mitigation measures are required.

XIII. POPULATION AND HOUSING – Would the project:

a) Induce substantial population growth in	☐	☐	☒	☒

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				

The project site is located in a developed residential neighborhood, and is surrounded by similar residential development. The project site currently receives water and sewer service from the City, and no extension of infrastructure to new areas is required. As such, the project would not substantially increase housing or population growth in the area. No roadway improvements are proposed as part of the project. No impacts would result.

b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The project site is currently developed with an existing single-family residence, and no such displacement would occur in that the project would construct a single-family residence with attached garage. No impacts would result.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☒	☒

See response Xlll(b) above. No impacts would result.

XIV. PUBLIC SERVICES

a) Would the project result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times or other performance objectives for any of the public services:

i) Fire Protection	☐	☐	☒	☐

The project site is located in an urbanized and developed area where fire protection services are already provided. The project site is currently developed with a single-family residence. Construction of the project would not adversely affect existing levels of fire protection services to the area, and would not require the construction of new, or expansion of, existing governmental facilities and

ii) Police Protection	☐	☐	☒	☐

The project site is located in an urbanized and developed area within the City of San Diego where police protection services are already provided. Construction of the project would not adversely affect existing levels of police protection services to the area or create significant new demand for such services. Additionally, the project would not require the construction of new, or expansion of, existing governmental facilities. Any impacts would be less than significant, and no mitigation measures are required.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) Schools	☐	☐	☒	☐

The project site is located in an urbanized and developed area where public school services are available. The project would not significantly increase the demand on public schools over that which currently exists. Construction of the project is not anticipated to result in a significant increase in demand for public educational services. Any impacts would be less than significant, and no mitigation measures are required.

v) Parks	☐	☐	☒	☐

The project site is located in an urbanized and developed area where City-operated parks are available. The project would not significantly increase the demand on existing neighborhood or regional parks, or other recreational facilities, over that which presently exists. Construction of the project is not anticipated to result in a significant increase in demand for parks or other offsite recreational facilities. Any impacts would be less than significant, and no mitigation measures are required.

vi) Other public facilities	☐	☐	☐	☒

The project site is located in an urbanized and developed area where City services are already available. Construction of the project would not require the construction of new, or expansion of, existing governmental facilities. No impacts would result.

XV. RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

The project would construct a single-family residence with attached garage and therefore, not adversely affect the availability of and/or need for new or expanded recreational resources. The project would not adversely affect existing levels of public services, and would not require the construction or expansion of an existing governmental facility. The project would not significantly increase the use of existing neighborhood or regional parks or other recreational facilities. Therefore, the project is not anticipated to result in the use of available parks or facilities such that substantial deterioration occurs, or that would require the construction or expansion of recreational facilities to satisfy demand. As such, no significant impacts related to recreational facilities have been identified, and no mitigation measures are required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☒	☐

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

See response to XIV(a) above. The project does not propose recreation facilities, nor does it require the construction or expansion of any such facilities. No impacts would result.

XVI. TRANSPORTATION/TRAFFIC – Would the project?

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐

Construction of the project would not change existing circulation patterns on area roadways; however, a temporary minor increase in traffic may occur during construction. The project would not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. The project is not expected to cause a significant short-term or long-term increase in traffic volumes, and thus, would not adversely affect existing levels of service along area roadways. Therefore, impacts are considered less than significant, and no mitigation measures are required.

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

Refer to response XVI(a) above. Construction of the project would not generate additional vehicular traffic nor would it adversely affect any mode of transportation in the area. Therefore, the project would not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. Impacts are considered less than significant, and no mitigation measures are required.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

The project would not result in a change to air traffic patterns in that the structures would be less than 30 feet in height, due to height restrictions within the Coastal Zone. Therefore, the project would not create a safety risk. The project site is not located within any ALCUPs or near any private airstrips. No impacts would result.

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒

The project would not alter existing circulation patterns on El Paseo Grande. No design features or incompatible uses that would increase potential hazards are proposed. The project would not affect emergency access to the project site or adjacent properties. Access would be provided to the project site via El Paseo Grande. Driveway design for the project is consistent with City design requirements to ensure safe ingress/egress from the properties. Additionally, the project site is located within an existing residential neighborhood and is not an incompatible use that would create hazardous conditions. No impacts would result.

e) Result in inadequate emergency access?	☐	☐	☐	☒

The project is consistent with the underlying zone and would not result in inadequate emergency access. The project design would be subject to City review and approval for consistency with all design requirements to ensure that no impediments to emergency access occur. No impacts would result.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

The project would not alter the existing conditions of the project site or adjacent facilities with regard to alternative transportation. Construction of the project would not result in design measures or circulation features that would conflict with existing policies, plan, or programs supporting alternative transportation. No impacts would result.

XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐

Implementation of the project would not interrupt existing sewer service to the project site or other surrounding uses. No increase in demand for wastewater disposal or treatment would be created by the project, as compared to current conditions. The proposed residential unit is not anticipated to generate significant amounts of wastewater. Wastewater facilities used by the project would be operated in accordance with the applicable wastewater treatment requirements of the Regional Water Quality Control Board (RWQCB). Additionally, the project site is located in an urbanized and developed area. Adequate services are already available to serve the project. Impacts would be less than significant, and no mitigation measures are required.

b) Require or result in the construction of new water or wastewater treatment	☐	☐	☒	☐

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				

See response XVll(a) above. Adequate services are available to serve the project site. Additionally, the proposed residential unit would not significantly increase the demand for water or wastewater treatment services and thus, would not trigger the need for new treatment facilities. Impacts would be less than significant, and no mitigation measures are required.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

The project would not exceed the capacity of the existing storm water drainage systems and therefore, would not require construction of new or expansion of existing storm water drainage facilities of which could cause significant environmental effects. The project was reviewed by qualified City staff who determined that the existing facilities are adequately sized to accommodate the proposed development. No impacts would result.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐

The project does not meet the CEQA significance threshold requiring the need for the project to prepare a water supply assessment. The existing project site currently receives water service from the City, and adequate services are available to serve the proposed residential dwelling units without requiring new or expanded entitlements. Impacts would be less than significant.

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

Construction of the project would not adversely affect existing wastewater treatment services. Adequate services are available to serve the project site without requiring new or expanded entitlements. Impacts would be less than significant, and no mitigation measures are required.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐

Construction debris and waste would be generated from the demolition of the existing single-family residence and the construction of the single-family residence with attached garage. All construction waste from the project site would be transported to an appropriate facility, which would have

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

adequate capacity to accept the limited amount of waste that would be generated by the project.

Long-term operation of the proposed residential unit is anticipated to generate typical amounts of solid waste associated with residential use. Furthermore, the project would be required to comply with the City's Municipal Code for diversion of both construction waste during the demolition phase and solid waste during the long-term, operational phase. Impacts are considered to be less than significant, and no mitigation measures are required.

g) Comply with federal, state, and local statutes and regulation related to solid waste?	☐	☐	☒	☐

The project would comply with all Federal, State, and local statutes and regulations related to solid waste. The project would not result in the generation of large amounts of solid waste, nor generate or require the transport of hazardous waste materials, other than minimal amounts generated during the construction phase. All demolition activities would comply with any City of San Diego requirements for diversion of both construction waste during the demolition phase and solid waste during the long-term, operational phase. Impacts would be less than significant, and no mitigation measures are required.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

As documented in this Initial Study, the project may have the potential to degrade the quality of the environment, notably with respect to Historical Resources (Archaeology). As such, mitigation measures have been incorporated to reduce impacts to less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable futures projects)?	☐	☒	☐	☐

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

As documented in this Initial Study, the project may have the potential to degrade the quality of the environment, notably with respect to Historical Resources (Archaeology), which may have cumulatively considerable impacts. As such, mitigation measures have been incorporated to reduce impacts to less than significant. Other future projects within the surrounding neighborhood or community would be required to comply with applicable local, State, and Federal regulations to reduce the potential impacts to less than significant, or to the extent possible. As such, the project is not anticipated to contribute potentially significant cumulative environmental impacts.

c)	Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

The demolition of the existing single-family residence and construction of a single-family residence with attached garage is consistent with the setting and with the use anticipated by the City. It is not anticipated that demolition or construction activities would create conditions that would significantly directly or indirectly impact human beings. Impacts would be less than significant.

INITIAL STUDY CHECKLIST

REFERENCES

I. Aesthetics / Neighborhood Character

_X_ City of San Diego General Plan.

_X_ Community Plans: La Jolla Community Plan and Local Coastal Land Use Plan, La Jolla Shores Precise Plan, La Jolla Shores Design Manual

_X_ Site Specific Report: Proposed Site Exhibit, Architectural Drawings

II. Agricultural Resources & Forest Resources

_X_ City of San Diego General Plan

_X_ U.S. Department of Agriculture, Soil Survey - San Diego Area, California, Part I and II, 1973

___ California Agricultural Land Evaluation and Site Assessment Model (1997)

___ Site Specific Report:

III. Air Quality

___ California Clean Air Act Guidelines (Indirect Source Control Programs) 1990

_X_ Regional Air Quality Strategies (RAQS) - APCD

___ Site Specific Report:

IV. Biology

_X_ City of San Diego, Multiple Species Conservation Program (MSCP), Subarea Plan, 1997

_X_ City of San Diego, MSCP, "Vegetation Communities with Sensitive Species and Vernal Pools" Maps, 1996

_X_ City of San Diego, MSCP, "Multiple Habitat Planning Area" maps,1997

___ Community Plan - Resource Element

___ California Department of Fish and Game, California Natural Diversity Database, "State and Federally-listed Endangered, Threatened, and Rare Plants of California," January 2001

____ California Department of Fish & Game, California Natural Diversity Database, "State and Federally-listed Endangered and Threatened Animals of California, "January 2001

____ City of San Diego Land Development Code Biology Guidelines

____ Site Specific Report:

V. Cultural Resources (includes Historical Resources)

_X_ City of San Diego Historical Resources Guidelines

_X_ City of San Diego Archaeology Library

____ Historical Resources Board List

____ Community Historical Survey:

____ Site Specific Report:

VI. Geology/Soils

_X_ City of San Diego Seismic Safety Study

____ U.S. Department of Agriculture Soil Survey - San Diego Area, California, Part I and II, December 1973 and Part III, 1975

_X_ Site Specific Report(s): "Addendum 03 – Response to City of San Diego Cycle Review Comments, Cycle Type 4 – Submitted (Multi-Discipline): LDR-Geology, for Proposed Cardenas Residence, 8466 El Paseo Grande, La Jolla", CTE Inc, June 10, 2016.

_X_ Preliminary Geotechnical Investigation, "Proposed Lusardi Residence, 8466 El Paseo Grande", CTE Inc, March 24, 2006.

_X_ Faulting and Geologic Evaluation, "Proposed Lusardi Residence, 8466 El Paseo Grande", CTE Inc, February 12, 2007.

_X_ Site Specific Report(s): "Cardenas Residence, Coastal Development Permit And Site Development Permit Mitigated Negative Declaration Project No. 191344/ SAP No. 24000089" April 21, 2010.

VII. Greenhouse Gas Emissions

_X_ Site Specific Report: Climate Action Plan (CAP) Consistency Checklist, Cardenas Residence

VIII. Hazards and Hazardous Materials

____ San Diego County Hazardous Materials Environmental Assessment Listing

____ San Diego County Hazardous Materials Management Division

____ FAA Determination

____ State Assessment and Mitigation, Unauthorized Release Listing, Public Use Authorized

_X_ State Water Resources Control Board GeoTracker: http://geotracker.waterboards.ca.gov/

____ Airport Land Use Compatibility Plan

____ Site Specific Report:

IX. Hydrology/Water Quality

____ Flood Insurance Rate Map (FIRM)

_X_ Federal Emergency Management Agency (FEMA), National Flood Insurance Program-Flood Boundary and Floodway Map

____ Clean Water Act Section 303(b) list, http://www.swrcb.ca.gov/tmdl/303d_lists.html

_X_ Site Specific Report: Drainage Study "Cardenas Residence", prepared by Christensen Engineering and Surveying, July 26, 2015 (Revised June 10, 2016)

_X_ Site Specific Report: "Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP) for 8466 El Paseo Grande – Cardenas, PTS 445629", Christensen Engineering & Survey, July 10, 2016, Revised July 22, 2016.

X. Land Use and Planning

_X_ City of San Diego General Plan

_X_ Community Plans: La Jolla Community Plan and Local Coastal Land Use Plan, La Jolla Shores Precise Plan, La Jolla Shores Design Manual

____ Airport Land Use Compatibility Plan

_X_ City of San Diego Zoning Maps

____ FAA Determination

____ Other Plans:

XI. Mineral Resources

____ California Department of Conservation - Division of Mines and Geology, Mineral Land Classification

____ Division of Mines and Geology, Special Report 153 - Significant Resources Maps

____ Site Specific Report:

XII. Noise

_X_ City of San Diego General Plan

____ Community Plan

____ San Diego International Airport - Lindbergh Field CNEL Maps

____ Brown Field Airport Master Plan CNEL Maps

____ Montgomery Field CNEL Maps

____ San Diego Association of Governments - San Diego Regional Average Weekday Traffic Volumes

____ San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG

____ Site Specific Report:

XIII. Paleontological Resources

_X_ City of San Diego Paleontological Guidelines

_X_ Deméré, Thomas A., and Stephen L. Walsh, "Paleontological Resources City of San Diego," Department of Paleontology San Diego Natural History Museum, 1996

_X_ Kennedy, Michael P., and Gary L. Peterson, "Geology of the San Diego Metropolitan Area, California. Del Mar, La Jolla, Point Loma, La Mesa, Poway, and SW 1/4 Escondido 7 1/2 Minute Quadrangles," California Division of Mines and Geology Bulletin 200, Sacramento, 1975

____ Kennedy, Michael P., and Siang S. Tan, "Geology of National City, Imperial Beach and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California," Map Sheet 29, 1977

____ Site Specific Report:

XIV. Population / Housing

_X_ City of San Diego General Plan

_X_ Community Plans: La Jolla Community Plan and Local Coastal Land Use Plan, La Jolla Shores Precise Plan, La Jolla Shores Design Manual

____ Series 11/Series 12 Population Forecasts, SANDAG

____ Other:

XV. Public Services

_X_ City of San Diego General Plan

_X_ Community Plans: La Jolla Community Plan and Local Coastal Land Use Plan, La Jolla Shores Precise Plan, La Jolla Shores Design Manual

XVI. Recreational Resources

_X_ City of San Diego General Plan

_X_ Community Plans: Community Plans: La Jolla Community Plan and Local Coastal Land Use Plan, La Jolla Shores Precise Plan, La Jolla Shores Design Manual

____ Department of Park and Recreation

____ City of San Diego - San Diego Regional Bicycling Map

____ Additional Resources:

XVII. Transportation / Circulation

_X_ City of San Diego General Plan

_X_ Community Plans: Community Plans: La Jolla Community Plan and Local Coastal Land Use Plan, La Jolla Shores Precise Plan, La Jolla Shores Design Manual

____ San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG

____ San Diego Region Weekday Traffic Volumes, SANDAG

____ Site Specific Report:

XVIII. Utilities

_X_ City of San Diego General Plan

____ Site Specific Report:

XIX. Water Conservation

Sunset Magazine, New Western Garden Book, Rev. ed. Menlo Park, CA: Sunset Magazine

CONSTRUCTION TESTING & ENGINEERING, INC.
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PRELIMINARY GEOTECHNICAL INVESTIGATION
PROPOSED LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

PREPARED FOR:

LUSARDI CONSTRUCTION
ATTENTION: MR MIKE RAMSEY
1570 LINDA VISTA DRIVE
SAN MARCOS, CALIFORNIA 92078

PREPARED BY:

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CTE JOB NO. 10-8264G MARCH 24, 2006

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FIGURES

APPENDICES

1.0 INTRODUCTION AND SCOPE OF SERVICES

1.1 Introduction

Construction Testing & Engineering, Inc. (CTE) has completed this preliminary geotechnical investigation for the proposed Lusardi residence, located at 8466 El Paseo Grande, in La Jolla, California. Figure 1 is an index map showing the approximate location of the site.

Our investigation included field exploration, laboratory testing, geologic hazard evaluation, and engineering analysis. Specific recommendations for site grading and structure design for the proposed improvements are presented in this report. Cited references are presented in Appendix A.

1.2 Scope of Services

The scope of services provided included:

- A review of available geologic and soils reports pertinent to the site and adjacent areas.
- An exploration of subsurface conditions to the depths influenced by the proposed construction.
- Laboratory testing of representative soil samples to provide data to evaluate the geotechnical design characteristics of the soils.
- Definition of the general geology and evaluation of potential geologic hazards at the site.
- Soil engineering design criteria for the proposed improvements.
- Preparation of this summary report of the investigations performed including geotechnical construction recommendations.

2.0 SITE DESCRIPTION

Based upon available site plans, proposed improvements for the currently developed residential site include razing of the existing structure in order to construct a new two-story, single-family residence and associated improvements. The residential structure is expected to be supported by

conventional shallow spread foundations with slabs-on-grade construction. Grading is expected to be limited to the elevation of the proposed structure. However, overexcavation and recompaction will be required. Figure 2 shows the general location and limits of the subject site.

3.0 FIELD AND LABORATORY INVESTIGATIONS

3.1 Field Investigations

Field explorations, conducted on February 9, 2006 included site reconnaissance and the excavation of two subsurface exploratory borings using a limited access portable drill-rig to a maximum depth of just less than twenty feet below grade (fbg). A geologist visually classified and logged soils in the field using the Unified Soil Classification system.

The field descriptions have been modified, where appropriate, to reflect laboratory test results. Exploration logs, including descriptions of the soil, are included in Appendix B. Approximate exploration locations are shown on Figure 2.

Bulk and ring soil samples were collected from the borings for geotechnical laboratory analysis. Samples collected in this manner were placed in sealed plastic bags and containers and transported to the CTE geotechnical laboratory for analysis.

3.2 Laboratory Investigation

Laboratory tests were conducted on representative soil samples for classification purposes and to evaluate physical properties and engineering characteristics. Laboratory tests performed on the soil samples included In-Place Moisture and Density, Particle-Size Analysis, Chemical Analysis,

Atterberg Limits, Consolidation, Modified Proctor and Expansion Index Testing. Test method descriptions and laboratory results are included in Appendix C.

4.0 GEOLOGY

4.1 General Setting

San Diego is located with the Peninsular Ranges physiographic province that is characterized by its northwest-trending mountain ranges, intervening valleys, and predominantly northwest trending active regional faults. The San Diego Region can be further subdivided into the coastal plain area, a central mountain–valley area and the eastern mountain valley area. The project site is located in the coastal plain area, and is characterized by Quaternary and Tertiary-aged sedimentary deposits. The site is situated at an approximate elevation of 15 feet above mean sea level, with the general topography of the area sloping moderately towards the west.

4.2 Site Geologic Conditions

According to mapping by Tan and Kennedy (1996), soils at the site consist of units of Quaternary-aged slopewash deposits. From our investigation it appears that the soils at the site consist of slopewash deposits overlying the Quaternary Bay Point Formation.

4.2.1 Slopewash

Slopewash deposits were encountered at the surface within each of our subsurface explorations to a depth of approximately 17 fbg. These soils generally consist of stiff or medium dense, moist, medium grayish brown clayey SANDS and sandy CLAYS. Shallow, less competent slopewash material will require removal during site grading. Laboratory testing indicates that this material possess low to medium expansion potential.

4.2.3 Bay Point Formation

Quaternary-aged sedimentary deposits identified as the Bay Point Formation were encountered within our subsurface explorations beneath the slopewash. These soils generally consist of dense, saturated, medium gray and brown clayey SANDS. This material is considered adequate for support of the proposed improvements and additional engineered fill material, as recommended herein.

4.3 Groundwater Conditions

Perched groundwater was encountered within our subsurface explorations at a depth of approximately 18 fbg. Although groundwater conditions will likely vary, especially during periods of sustained precipitation, it is not expected to affect the proposed development if recommendations regarding site drainage are carried out during design and construction.

4.4 Geologic Hazards

According to the San Diego Seismic Safety Study, the project site is located within Geologic Hazard Category 52. Area 52 is characterized as level areas with favorable geologic structure, where geologic hazards are considered a low risk.

4.4.1 General Geologic Hazards Observation

From our investigation it appears that geologic hazards at the site are primarily limited to those caused by violent shaking from earthquake generated ground motion waves. The potential for damage from displacement or fault movement beneath the proposed structure should be considered low.

4.4.2 Local and Regional Faulting

The site is not located within a state of California defined Alquist-Priolo Fault Zone. However, based on our preliminary review of the city of San Diego Seismic Safety Study, it appears that a concealed segment of the Scripps Fault is mapped across the extreme northwest corner of the property. As indicated, the fault segment is mapped as concealed; therefore trenching at the site to attempt to locate the fault is not feasible. Nevertheless, based on the available information, the approximate location of the fault segment does not appear to intersect any portion of the proposed structure. Therefore, structural setbacks and/or additional design or construction restrictions due to the subject fault segment are not recommended.

The Rose Canyon Fault, approximately 0.6 kilometers to the southwest, is the closest known active fault. According to the California Division of Mines and Geology, a fault is zoned active if it displays evidence of activity in the last 11,000 years (Hart and Bryant, 1997). Other principal active regional faults include the Coronado Bank, Elsinore Fault System, Newport-Inglewood, Earthquake Valley, San Jacinto Fault System, and San Andreas Fault System.

4.4.3 Site Near Source Factors and Seismic Coefficients

In accordance with the 2001 California Building Code, Volume 2, Figure 16-2, the referenced site is located within seismic zone 4 and has a seismic zone factor of Z=0.4. The nearest active fault, the Rose Canyon Fault, is approximately 0.6 kilometers to the southwest and is considered a Type B seismic source. Based on the distance from the site

to the nearest fault, near source factors of N_V=1.6 and N_a=1.3 are appropriate. Based on the subsurface explorations and our knowledge of the area, the site has a soil profile type of S_D and seismic coefficients of C_V=1.02 and C_a=0.57.

4.4.4 Liquefaction and Seismic Settlement Evaluation

Liquefaction occurs when saturated fine-grained sands or silts lose their physical strengths during earthquake induced shaking and behave as a liquid. This is due to loss of point-to-point grain contact and transfer of normal stress to the pore water. Liquefaction potential varies with water level, soil type, material gradation, relative density, and probable intensity and duration of ground shaking.

The site is underlain by generally dense sedimentary materials with a relatively deep groundwater table. Therefore, it is our opinion that the potential for damage resulting at the site due to liquefaction or seismic settlement is negligible.

4.4.5 Tsunamis and Seiche Evaluation

Potential tsunami damage is not considered a significant factor at the site due to existing seawall improvements and its minimum elevation (approximately 12 feet above mean sea level). In addition, the site is not near any significant bodies of water that could induce seiche damage. However, according to McCulloch (1985) the tsunami potential in the San Diego County coastal area for one-in-100 and one-in-500 year tsunami waves are approximately four and six feet. This suggests that there is a low probability of site damage due to the elevation of the site (a minimum of approximately 12 feet above msl).

4.4.6 Landsliding or Rocksliding

The site materials are considered marginally susceptible to landsliding (Tan and Giffen, 1995). However, based upon the conditions observed during our investigation at the subject site, landsliding is not considered a significant hazard. Therefore, it is our opinion that landslides will not adversely affect the proposed improvements or adjacent properties.

4.4.7 Compressible and Expansive Soils

Based on observation and laboratory testing, it is our opinion that underlying Bay Point Formational materials are not subject to significant compressibility. Shallow slopewash deposits shall be removed and properly recompacted during site grading to eliminate compressibility.

Based on geologic observation and laboratory testing, the near surface materials at the site have low expansion characteristics (EI less than 40).

4.4.8 Corrosive Soils

We have laboratory tested soil samples for chemical composition. Based on the results, we anticipate onsite soils will have a low potential to attack Portland cement concrete improvements. In addition, resistivity testing indicates soils are moderately corrosive to buried ferrous metal improvements. Therefore, plastic piping is generally preferred, where feasible.

CTE does not practice corrosion engineering; therefore, a qualified corrosion specialist may be consulted to provide additional recommendations for protection, if deemed necessary. A summary of the laboratory chemical testing is presented in Appendix C.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 General

We conclude that the proposed construction on the site is feasible from a geotechnical standpoint, provided the recommendations in this report are incorporated into the design and construction of the project. Recommendations for the design and construction of the proposed improvements are included herein.

5.2 Grading and Earthwork

CTE should continuously observe any grading and earthwork operations for the project. Such observations are essential to identify field conditions that differ from those predicted by this investigation, to adjust designs to actual field conditions, and to verify that the grading is in overall accordance with the recommendations of this report. Our personnel should perform adequate observation and sufficient testing of fills during grading to support our professional opinion regarding compliance with compaction requirements and specifications.

5.3 Site Preparation

Before grading, the site should be cleared of any topsoil, existing debris, and other deleterious materials. In order to mitigate excessive potential differential settlements across the proposed building due to loose or otherwise unsuitable materials, all proposed improvement locations and

where possible five feet laterally beyond, shall be over-excavated to a depth of five feet below existing and proposed grades and a minimum two feet below the bottom of all proposed foundations. However, locally deeper removals may be necessary due to additional loose or unsuitable underlying soils.

Over-excavations should extend a minimum of five feet beyond the limits of the proposed improvements, or as far as possible. Before placing fill, exposed over-excavated areas should be observed by the geotechnical representative to verify that proper preparation has occurred. We anticipate onsite material will be suitable for use as properly placed compacted fill. However, organic materials deemed unsuitable for structural backfill should be disposed of off-site or placed in non-structural planter or landscape areas.

5.4 Site Excavations

Excavations in site materials should generally be accomplished with heavy-duty construction equipment under normal conditions. Irreducible materials greater than three inches encountered during excavations should not be used in shallow structural fills on the site. Larger oversized materials may generally be placed at depth, if proposed, in general accordance with Appendix D. Before placing fill, the exposed bottom of all excavations should be scarified, properly moisture conditioned and recompacted.

5.5 Fill Placement and Compaction

The geotechnical consultant should verify that the proper site preparation and required over-excavation have occurred before fill placement occurs. As indicated herein, areas to receive fill

or improvements should be scarified, properly moisture conditioned and recompacted. Fill and backfill should be compacted to a minimum of 93% relative compaction as evaluated by ASTM D1557 at moisture contents a minimum two percent above optimum.

The optimum lift thickness for backfill soil will be dependent on the type of compaction equipment used. Generally, backfill should be placed in uniform lifts not exceeding eight inches in loose thickness. Backfill placement and compaction should be done in overall conformance with geotechnical recommendations and local ordinances.

5.6 Fill Materials

Existing fill soils derived from on-site sources are considered suitable for reuse on the site as compacted fill, provided they are screened of organic materials and materials greater than three inches in maximum dimension. If proposed, fill slopes should be properly keyed and benched into competent underlying materials.

Imported fill beneath structures, pavements and walks should have an expansion index less than or equal to 30 (per UBC 18-I-B) with less than 35 percent passing the no. 200 sieve. Imported fill soils for use in structural or slope areas should be evaluated by the soils engineer to determine strength characteristics before placement on the site.

5.7 Temporary Construction Slopes

Provided below are slope recommendations for unshored temporary excavations. The recommended slopes should be relatively stable against deep-seated failure, but may experience

localized sloughing. The recommended slopes are based on the assumption that excavation sidewalls will consist of non-cemented silty sands and sandy silts. Shallow onsite soils are to be considered Type C with recommended slope ratios as set forth in Table 1 below.

TABLE 1
RECOMMENDED TEMPORARY SLOPE RATIOS

SOIL TYPE	SLOPE RATIO (Horizontal: vertical)	MAXIMUM HEIGHT
C (Slopewash)	1.5: 1 (MAXIMUM)	10 FEET

A "competent person" must verify actual field conditions and soil type designations while temporary excavations exist according to Cal-OSHA regulations. In addition, the above sloping recommendations do not allow for surcharge loading at the top of slopes by vehicular traffic, equipment or materials. Appropriate surcharge setbacks must be maintained from the top of all unshored slopes.

5.8 Foundations and Slab Recommendations

The following recommendations are for preliminary planning purposes only. These recommendations should be reviewed after completion of earthwork to verify that conditions exposed are as anticipated. As indicated, moderately or more expansive site soils are not generally anticipated at finish grades. Post-tension foundations are well suited, but not required for this site. If post-tension foundations are preferred, our office shall be contacted for design recommendations.

5.8.1 Foundations

Continuous and isolated spread footings are suitable for use at the site. Based on the expected as-graded conditions, all building footings will bear entirely in competent engineered fill materials. Foundation dimensions and reinforcement should be based on allowable bearing values of 2,000 pounds per square foot (psf) for footings embedded a minimum of 24 inches and bearing upon at least two feet of engineered fill materials. The allowable bearing value may be increased by one third for short duration loading which includes the effects of wind or seismic forces.

For the anticipated construction, minimum footing reinforcement for continuous footings should consist of four #4 reinforcing bars, two placed near the top, and two near the bottom of the footing or as per the structural engineer. The structural engineer should design isolated footing reinforcement. All isolated footings shall be connected together and/or to adjacent continuous footings via minimum 12-inch wide by 12-inch deep tie beams containing minimal reinforcing.

5.8.2 Foundation Settlement

In general, for the anticipated loads and recommended bearing pressure, the maximum total post construction settlement is anticipated to be less than 1.5 inches. Maximum differential settlements are anticipated to be less than 0.5 inches over a distance of 50 feet. Dynamic settlement is not anticipated to affect the proposed improvements.

5.8.3 Foundation Setback

Footings for structures should be designed such that the horizontal distance from the face of nearby slopes to the outer edge of the footing is at least 10 feet. Locally deepening foundations may be an adequate means of attaining the prescribed setback. Upon request and once project foundation plans have been developed, CTE can review affected footings on a case-by-case basis to determine if the required setbacks may be reduced.

5.8.4 Interior Concrete Slabs

Lightly loaded concrete slabs-on-grade should be designed for the anticipated loading, but should be a minimum five inches thick. To minimize the effects of concrete shrinkage cracking and differential soil movements, we recommend that concrete slabs be reinforced with #4 reinforcing bars spaced no greater than 18-inches on centers, each way. All slab reinforcement should be properly supported to ensure placement near mid-height of the concrete.

If elastic slab design is utilized, a 175-pci subgrade modulus of reaction is appropriate. If moisture sensitive floor areas are proposed, a vapor barrier consisting of a minimum ten-mil polyethylene sheeting or equivalent membrane (with all laps sealed or taped) should underlie such slabs. A maximum four-inch bed of consolidated aggregate base (SE>30) may also be placed beneath slabs-on-grade.

5.9 Lateral Resistance and Earth Pressures

Lateral loads acting against structures may be resisted by friction between the footings and the supporting soil or passive pressure acting against structures. If frictional resistance is used, we

recommend allowable coefficients of friction of 0.30 (total frictional resistance equals the coefficient of friction times the dead load) for concrete cast directly against competent materials. A design passive resistance value of 250 pounds per square foot per foot of depth (with a maximum value of 1,500 pounds per square foot) may be used. The allowable lateral resistance can be taken as the sum of the frictional resistance and the passive resistance, provided the passive resistance does not exceed two-thirds of the total allowable resistance.

If proposed, retaining and basement walls up to ten feet high and backfilled using generally granular onsite soils may be designed using the equivalent fluid weights given in Table 2 below.

TABLE 2
EQUIVALENT FLUID UNIT WEIGHTS
(Pounds per cubic foot)

WALL TYPE	LEVEL BACKFILL	SLOPE BACKFILL 2:1 (HORIZONTAL: VERTICAL)
CANTILEVER WALL (YIELDING)	38	58
RESTRAINED WALL	55	78

The above values assume non-expansive backfill and free draining conditions. Soils with an expansion index generally less than 30 should be used as retaining wall backfill material. Measures should be taken to prevent a moisture buildup behind all retaining walls. Drainage measures should include free draining backfill materials and perforated drains. Drains should discharge to an appropriate offsite location.

5.10 Exterior Flatwork

To reduce the potential for distress to exterior flatwork caused by minor settlement of foundation soils, we recommend that such flatwork be installed with crack-control joints at appropriate spacing as designed by the project architect. The proposed driveway can either be designed with the same recommendations as the slab-on-grade for the proposed structure or should be a minimum of six inches thick if it is not reinforced. Flatwork, which should be installed with crack control joints, includes driveways, sidewalks, and architectural features. All subgrade should be prepared according to the earthwork recommendations previously given before placing concrete.

5.11 Drainage

Foundation performance depends greatly on how well the runoff waters drain from the site. This is true both during construction and over the entire life of the structure. The ground surface around structure should be graded so that water flows rapidly away from the structures without ponding. The surface gradient needed to do this depends on the landscaping type. In general, pavements and flowerbeds within five feet of the building should slope away at gradients of at least two percent. Densely vegetated areas should have minimum gradients of five percent away from buildings if doing so is practical.

Planters should be constructed so that water from them will not seep into the foundation areas or beneath slabs and pavement. In any event, the site maintenance personnel should be instructed to limit irrigation to the minimum actually necessary to sustain the landscaping plants properly. Should excessive irrigation, waterline breaks, or unusually high rainfall occur, saturated zones

and groundwater may develop. Consequently, the site should be graded so that water drains away readily without saturating the foundation or landscaped areas or cascading over slope faces. A potential source of water, such as water pipes, drains the like should be frequently examined for signs of leakage or damage. Any such leakage or damage should be repaired promptly. The project Civil Engineers should thoroughly evaluate the on-site drainage and make provisions as necessary to keep surface waters from affecting the site.

5.12 Slopes

Based on anticipated soil strength characteristics, fill slopes will be constructed at slope ratios of 2:1 (horizontal: vertical) or flatter. These fill slope inclinations will exhibit factors of safety greater than 1.5 (i.e., scopes will be grossly stable). All proposed fill slopes should be properly keyed and benched into competent underlying materials.

Although graded and existing slopes on this site should be grossly stable, the soils will be somewhat erodible. Therefore, runoff water should not be permitted to drain over the edges of slopes unless that water is confined to properly designed and constructed drainage facilities. Erosion resistant vegetation should be maintained on the face of all slopes.

Typically, soils along the top portion of a fill slope face will tend to creep laterally. We do not recommend distress sensitive hardscape improvements be constructed within five feet of slope crests in fill areas.

5.13 Construction Observation

The recommendations provided in this report are based on preliminary design information for the proposed construction and the subsurface conditions found in our exploratory test pit locations. The interpolated subsurface conditions should be checked in the field during construction to verify that conditions are as anticipated.

Recommendations provided in this report are based on the understanding and assumption that CTE will provide the observation and testing services for the project. All earthworks should be observed and tested to verify that grading activity has been performed according to the recommendations contained within this report.

5.14 Plan Review

CTE should review the project grading and foundation plans before commencement of earthwork to identify potential conflicts with the recommendations contained in this report.

6.0 LIMITATIONS OF INVESTIGATION

The field evaluation, laboratory testing and geotechnical analysis presented in this report have been conducted according to current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations and opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction.

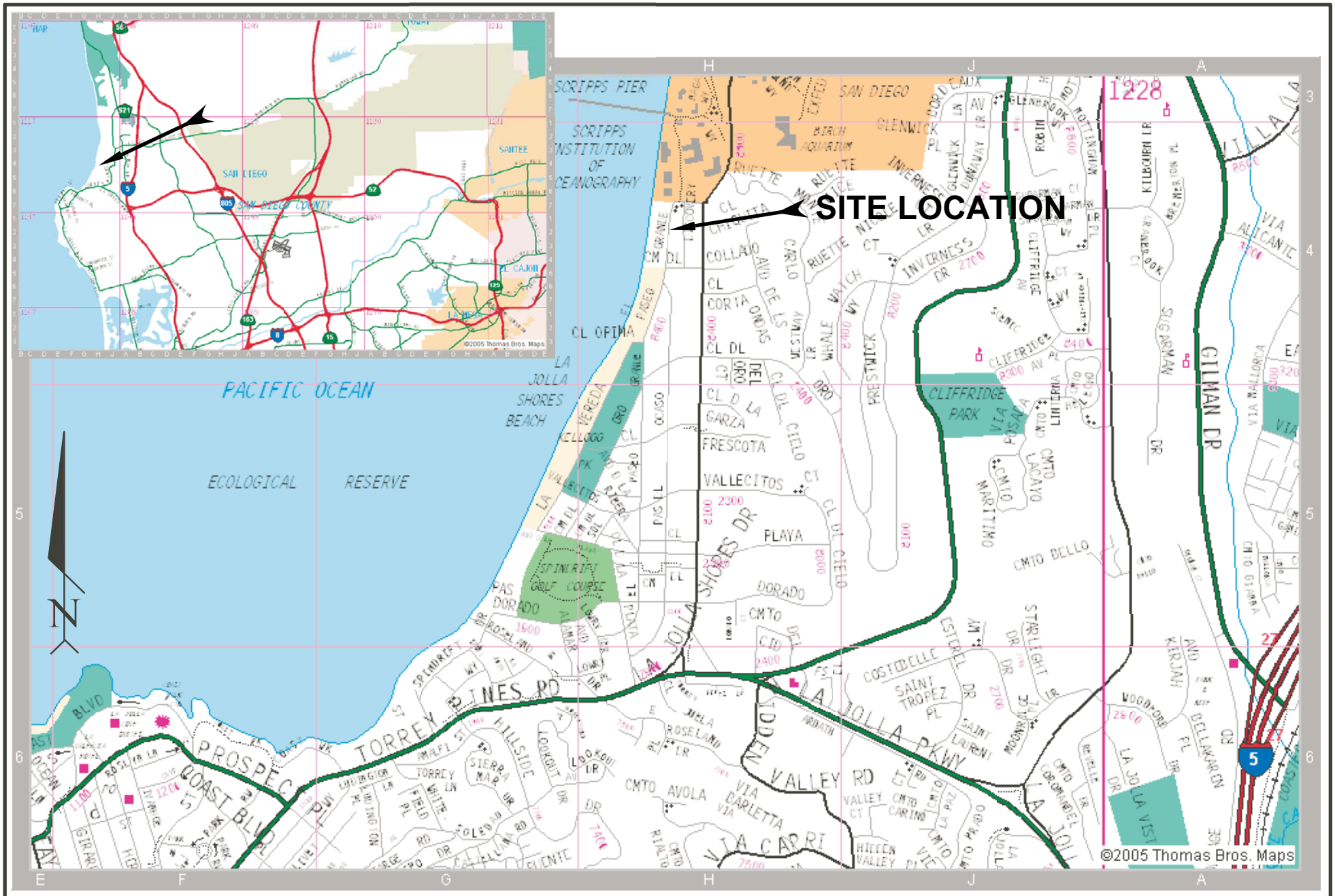
Our conclusions and recommendations are based on an analysis of the observed conditions. If conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if required, will be provided upon request. We appreciate this opportunity to be of service on this project. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Respectfully submitted,
CONSTRUCTION TESTING & ENGINEERING, INC.

Dan T. Math, GE#2665
Principal Engineer

Jay F. Lynch, CEG#1890
Senior Engineering Geologist

Steve Hnat
Project Geologist



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SITE INDEX MAP

PROPOSED LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

CTE JOB NO:	10-8264G
SCALE:	NO SCALE
DATE: 3/06	FIGURE: 1

APPENDIX A

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REFERENCES CITED

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APPENDIX B

EXPLORATION LOGS

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DEFINITION OF TERMS

PRIMARY DIVISIONS			SYMBOLS	SECONDARY DIVISIONS
COARSE GRAINED SOILS MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVELS MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS < 5% FINES	GW	WELL GRADED GRAVELS, GRAVEL-SAND MIXTURES LITTLE OR NO FINES
			GP	POORLY GRADED GRAVELS OR GRAVEL SAND MIXTURES, LITTLE OF NO FINES
		GRAVELS WITH FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES, NON-PLASTIC FINES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES, PLASTIC FINES
	SANDS MORE THAN HALF OF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE	CLEAN SANDS < 5% FINES	SW	WELL GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES	SM	SILTY SANDS, SAND-SILT MIXTURES, NON-PLASTIC FINES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES, PLASTIC FINES
FINE GRAINED SOILS MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS LIQUID LIMIT IS LESS THAN 50		ML	INORGANIC SILTS, VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS, SLIGHTLY PLASTIC CLAYEY SILTS
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY, SANDY, SILTS OR LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT IS GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SANDY OR SILTY SOILS, ELASTIC SILTS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTY CLAYS
HIGHLY ORGANIC SOILS			PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

GRAIN SIZES

BOULDERS	COBBLES	GRAVEL		SAND			SILTS AND CLAYS
		COARSE	FINE	COARSE	MEDIUM	FINE	

12" 3" 3/4" 4 10 40 200

CLEAR SQUARE SIEVE OPENING U.S. STANDARD SIEVE SIZE

ADDITIONAL TESTS

(OTHER THAN TEST PIT AND BORING LOG COLUMN HEADINGS)

MAX- Maximum Dry Density
GS- Grain Size Distribution
SE- Sand Equivalent
EI- Expansion Index
CHM- Sulfate and Chloride Content , pH, Resistivity
COR - Corrosivity
SD- Sample Disturbed
PM- Permeability
SG- Specific Gravity
HA- Hydrometer Analysis
AL- Atterberg Limits
RV- R-Value
CN- Consolidation
CP- Collapse Potential
HC- Hydrocollapse
REM- Remolded
PP- Pocket Penetrometer
WA- Wash Analysis
DS- Direct Shear
UC- Unconfined Compression
MD- Moisture/Density
M- Moisture
SC- Swell Compression
OI- Organic Impurities

FIGURE: BL1

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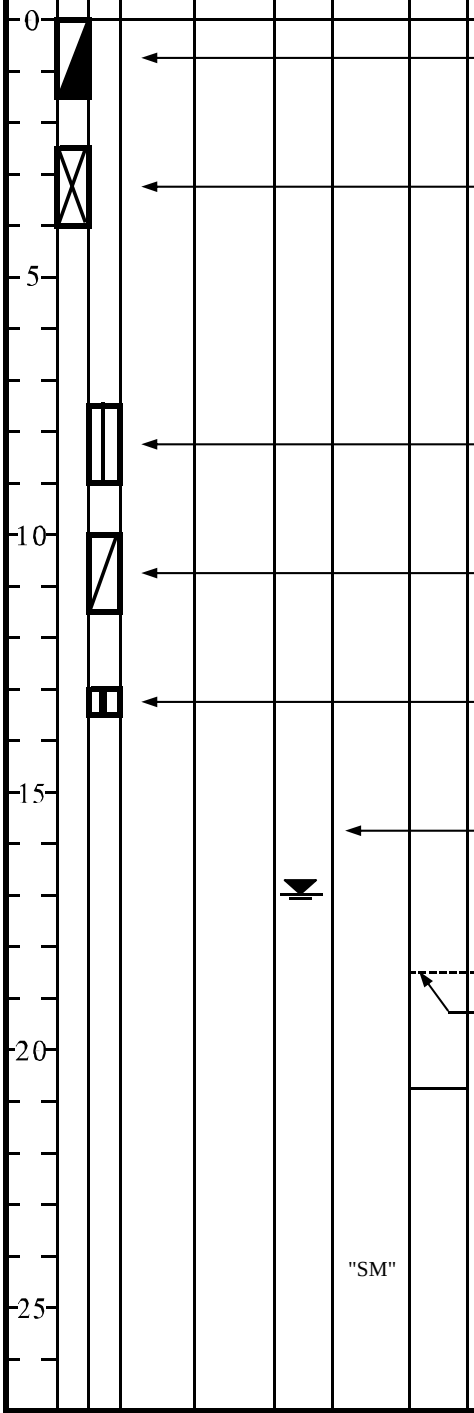
PROJECT: DRILLER: SHEET: of
CTE JOB NO: DRILL METHOD: DRILLING DATE:
LOGGED BY: SAMPLE METHOD: ELEVATION:

BORING LEGEND

Depth (Feet) | Bulk Sample | Driven Type | Blows/Foot | Dry Density (pcf) | Moisture (%) | U.S.C.S. Symbol | Graphic Log | DESCRIPTION | Laboratory Tests



Block or Chunk Sample

Bulk Sample

Standard Penetration Test

Modified Split-Barrel Drive Sampler (Cal Sampler)

Thin Walled Army Corp. of Engineers Sample

Groundwater Table

Soil Type or Classification Change

? — ? — ? — ? — ? — ? — ?

Formation Change [(Approximate boundaries queried (?)]

"SM" Quotes are placed around classifications where the soils exist in situ as bedrock

FIGURE: BL2

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	TRIPOD DRILL RIG	DRILLING DATE:	2/9/2006
LOGGED BY:	STEVE H.	SAMPLE METHOD:	BULK AND RING	ELEVATION:	~

BORING: B-1

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC	Qsw	SLOPEWASH (Qsw): Medium dense, very moist, medium to dark grayish brown clayey SAND (SC).	WA MAX
			3 4 5			CL		Stiff, moist, medium grayish brown sandy CLAY (CL).	WA, MD AL
5									
			6 8 12			SC		Dense, moist, medium to dark brown, fine to medium-grained clayey SAND (SC).	WA
10									
15							Qbp	BAY POINT FORMATION (Qbp): Dense, saturated, medium gray and brown, fine to medium-grained clayey SAND (SC).	WA
			8 11 15						
20								Total Depth 20' Perched Groundwater at 17'	
25									

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PROJECT:	LUSARDI RESIDENCE		DRILLER:	PACIFIC DRILLING	SHEET:	1 of	1
CTE JOB NO:	10-8264G		DRILL METHOD:	TRIPOD DRILL RIG	DRILLING DATE:		2/9/2006
LOGGED BY:	STEVE H.		SAMPLE METHOD:	BULK AND RING	ELEVATION:		~

BORING: B-2

Depth (Feet)	Sample: Bulk	Sample: Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC	Qsw	SLOPEWASH (Qsw): Medium dense, moist, medium yellowish brown fine to medium-grained clayey SAND (SC).	
						CL		Stiff, moist, medium brown sandy CLAY (CL).	
			3 4 6						EI CHEM
5									MD
			5 5 7						
10						SC		Medium dense, moist, medium to dark brown fine to medium-grained clayey SAND (SC).	
			6 9 13						
15							Qbp	BAY POINT FORMATION (Qbp): Dense, saturated, medium grayish brown, fine to medium-grained clayey SAND (SC).	
			8 10 17						
20								Total Depth 19'	
25									

APPENDIX C

LABORATORY METHODS AND RESULTS

APPENDIX C
LABORATORY METHODS AND RESULTS

Laboratory tests were performed on representative soil samples to detect their relative engineering properties. Tests were performed following test methods of the American Society for Testing Materials or other accepted standards. The following presents a brief description of the various test methods used. Laboratory results are presented in the following section of this Appendix.

Classification

Soils were classified visually according to the Unified Soil Classification System. Visual classifications were supplemented by laboratory testing of selected samples according to ASTM D2487.

Particle-Size Analysis

Particle-size analyses were performed on selected representative samples according to ASTM D422.

Expansion Index

Expansion testing was performed on selected samples of the matrix of the onsite soils according to Building Code Standard No. 29-2.

In-Place Moisture/Density

The in-place moisture content and dry unit weight of selected samples were determined using relatively undisturbed chunk soil samples.

Modified Proctor

Laboratory maximum dry density and optimum moisture content were performed according to ASTM D1557, Method A. A mechanically operated rammer was used during the compaction process.

Sand Equivalent

Laboratory determinations of the sand equivalent for soils were performed according to ASTM D 2419.

Atterberg Limits

The procedure of ASTM D4518-84 was used to measure the liquid limit, plastic limit and plasticity index of representative samples.

Chemical Analysis

Soil materials were collected with sterile sampling equipment and tested for Sulfate and Chloride content, pH, Corrosivity, and Resistivity.

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200 WASH ANALYSIS

LOCATION	DEPTH (feet)	PERCENT PASSING	CLASSIFICATION
B-1	0-3	47.7	SC-CL
B-1	5	59.2	CL
B-1	10	56.7	CL
B-1	20	44.5	SC

EXPANSION INDEX TEST

LOCATION	DEPTH (feet)	EXPANSION INDEX	EXPANSION POTENTIAL
B-2	2-6	26	LOW

IN-PLACE MOISTURE AND DENSITY

LOCATION	DEPTH (feet)	% MOISTURE	DRY DENSITY
B-1	5	24.1	98.9
B-2	10	20.3	108.6

SULFATE

LOCATION	DEPTH (feet)	RESULTS ppm
B-2	2-6	49

CHLORIDE

LOCATION	DEPTH (feet)	RESULTS ppm
B-2	2-6	6

p.H.

LOCATION	DEPTH (feet)	RESULTS
B-2	2-6	10.60

CONDUCTIVITY

LOCATION	DEPTH (feet)	RESULTS uS/cm
B-2	2-6	112

RESISTIVITY

LOCATION	DEPTH (feet)	RESULTS ohms/cm
B-2	2-6	7550

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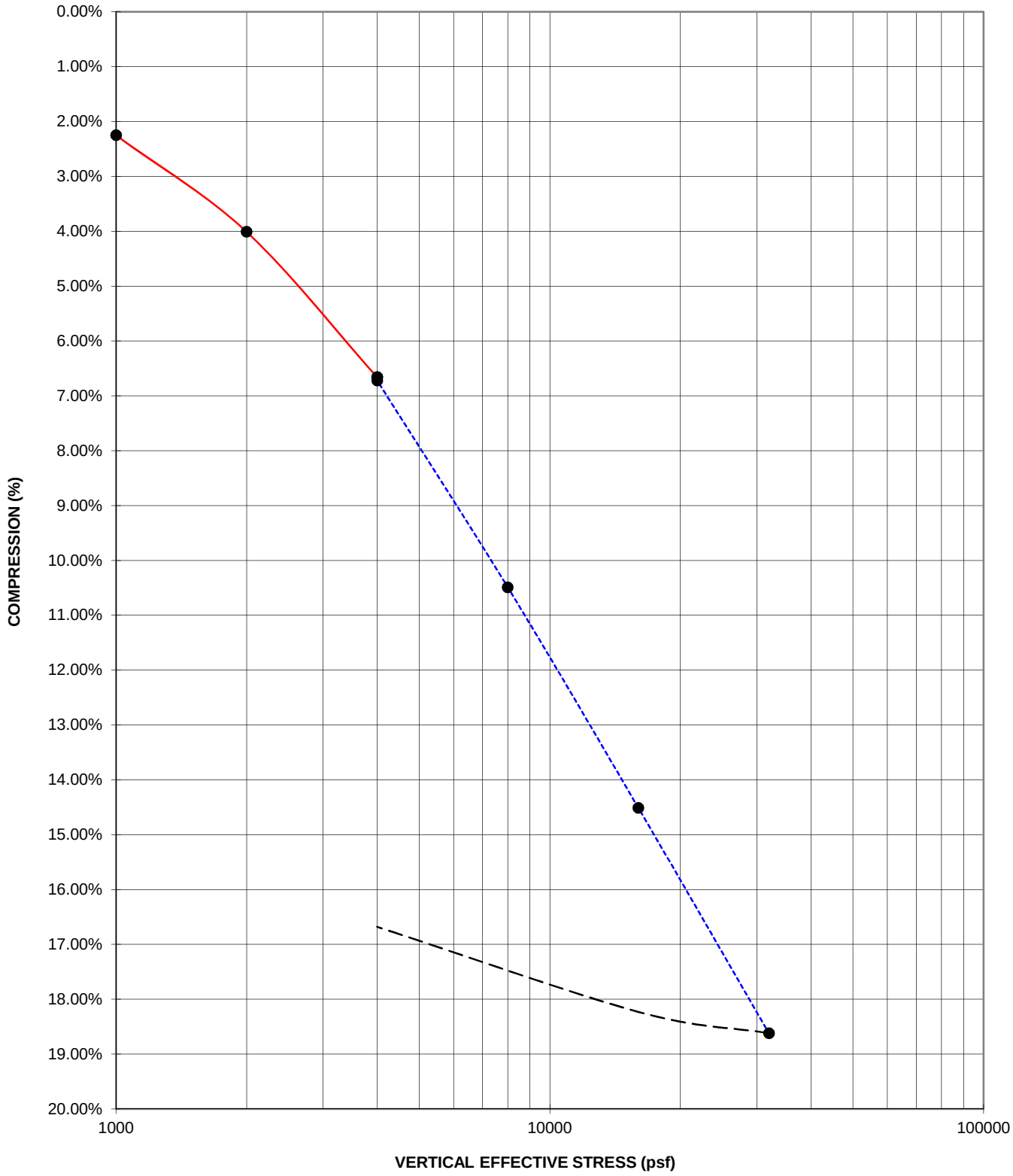
ATTERBERG LIMITS

LOCATION	DEPTH (feet)	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
B-1	4-7	37	24	CL

MODIFIED PROCTOR

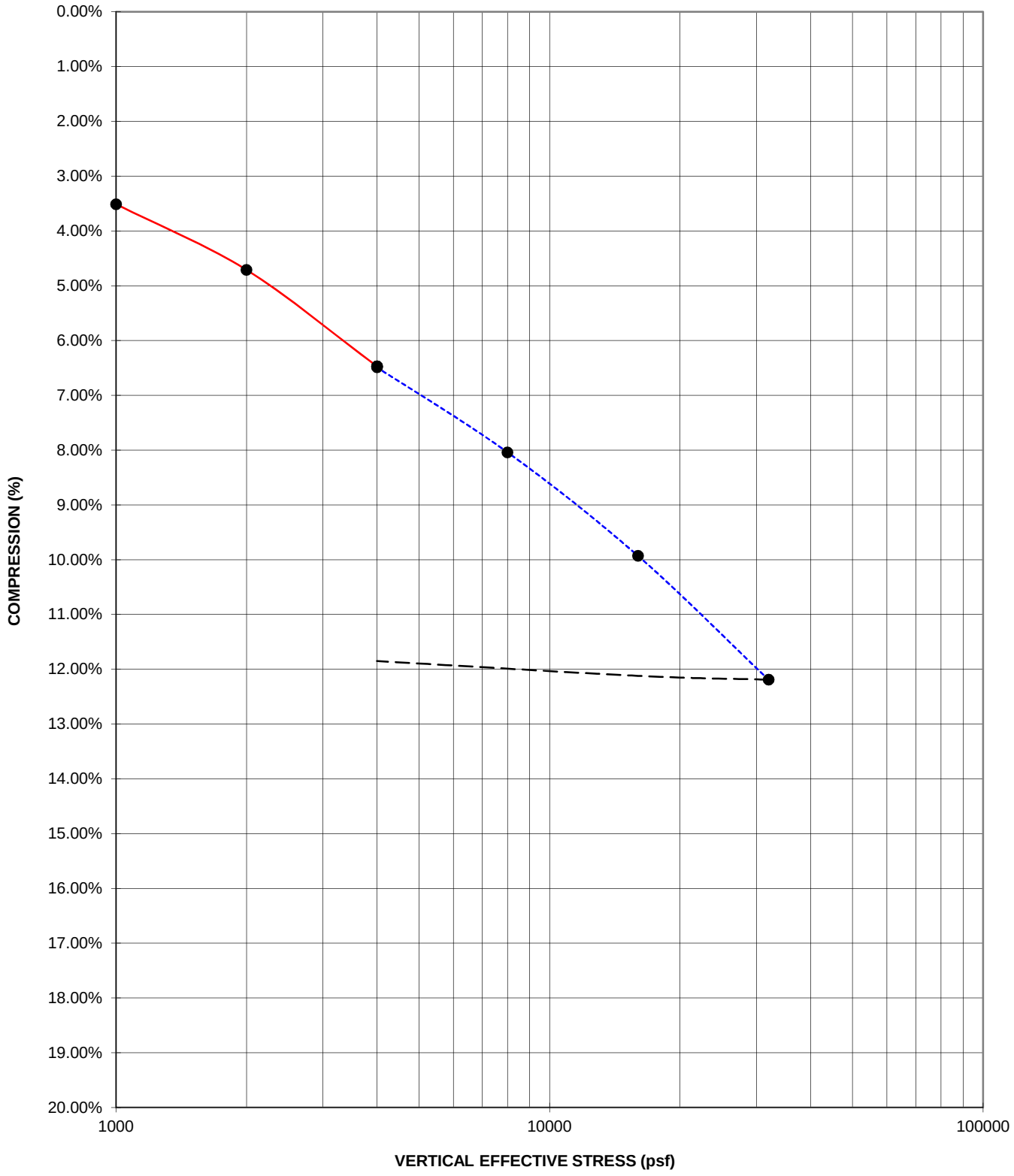
LOCATION	DEPTH (feet)	MAXIUM DRY DENSITY (PSF)	OPTIMUM MOISTURE (%)
B-1	0-3	127.3	10.4



SWELL/COMPRESSION TEST

Sample Designation	Depth (ft)	Symbol	Legend
B1	5'	●	FIELD MOISTURE SAMPLE SATURATED REBOUND

Initial Moisture (%):		Initial Dry Density (pcf)	CTE JOB NO: 10-8264G
Final Moisture (%):	19.00%	Final Dry Denstiy (pcf)	FIGURE NO: C-1



SWELL/COMPRESSION TEST

Sample Designation	Depth (ft)	Symbol	Legend
B2	10'	●	FIELD MOISTURE SAMPLE SATURATED REBOUND

Initial Moisture (%):		Initial Dry Density (pcf)	CTE JOB NO: 10-8264G
Final Moisture (%):	13.60%	Final Dry Denstiy (pcf)	FIGURE NO: C-2

APPENDIX D

STANDARD SPECIFICATIONS FOR GRADING

Section 1 - General

The guidelines contained herein and the standard details attached hereto represent Construction Testing & Engineering's standard recommendations for grading and other associated operations on construction projects. These guidelines should be considered a portion of the project specifications. Recommendations contained in the body of the previously presented soils report shall supersede the recommendations and or requirements as specified herein. The project geotechnical consultant shall interpret disputes arising out of interpretation of the recommendations contained in the soils report or specifications contained herein.

Section 2 - Responsibilities of Project Personnel

The geotechnical consultant should provide observation and testing services sufficient to assure that geotechnical construction is performed in general conformance with project specifications and standard grading practices. The geotechnical consultant should report any deviations to the client or his authorized representative.

The Client should be chiefly responsible for all aspects of the project. He or his authorized representative has the responsibility of reviewing the findings and recommendations of the geotechnical consultant. He shall authorize or cause to have authorized the Contractor and/or other consultants to perform work and/or provide services. During grading the Client or his authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.

The Contractor should be responsible for the safety of the project and satisfactory completion of all grading and other associated operations on construction projects, including, but not limited to, earth work in accordance with the project plans, specifications and controlling agency requirements.

Section 3 - Preconstruction Meeting

A preconstruction site meeting shall be arranged by the owner and/or client and shall include the grading contractor, the design engineer, the geotechnical consultant, owner’s representative and representatives of the appropriate governing authorities.

Section 4 - Site Preparation

The client or contractor should obtain the required approvals from the controlling authorities for the project prior, during and/or after demolition, site preparation and removals, etc. The appropriate approvals should be obtained prior to proceeding with grading operations.

Clearing and grubbing should consist of the removal of vegetation such as brush, grass, woods, stumps, trees, root of trees and otherwise deleterious natural materials from the areas to be

graded. Clearing and grubbing should extend to the outside of all proposed excavation and fill areas.

Demolition should include removal of buildings, structures, foundations, reservoirs, utilities (including underground pipelines, septic tanks, leach fields, seepage pits, cisterns, mining shafts, tunnels, etc.) and other man-made surface and subsurface improvements from the areas to be graded. Demolition of utilities should include proper capping and/or rerouting pipelines at the project perimeter and cutoff and capping of wells in accordance with the requirements of the governing authorities and the recommendations of the geotechnical consultant at the time of demolition.

Trees, plants or man-made improvements not planned to be removed or demolished should be protected by the contractor from damage or injury.

Debris generated during clearing, grubbing and/or demolition operations should be wasted from areas to be graded and disposed off-site. Clearing, grubbing and demolition operations should be performed under the observation of the geotechnical consultant.

Section 5 - Site Protection

Protection of the site during the period of grading should be the responsibility of the contractor. Unless other provisions are made in writing and agreed upon among the concerned parties, completion of a portion of the project should not be considered to preclude that portion or adjacent areas from the requirements for site protection until such time as the entire project is complete as identified by the geotechnical consultant, the client and the regulating agencies.

Precautions should be taken during the performance of site clearing, excavations and grading to protect the work site from flooding, ponding or inundation by poor or improper surface drainage. Temporary provisions should be made during the rainy season to adequately direct surface drainage away from and off the work site. Where low areas cannot be avoided, pumps should be kept on hand to continually remove water during periods of rainfall.

Rain related damage should be considered to include, but may not be limited to, erosion, silting, saturation, swelling, structural distress and other adverse conditions as determined by the geotechnical consultant. Soil adversely affected should be classified as unsuitable materials and should be subject to overexcavation and replacement with compacted fill or other remedial grading as recommended by the geotechnical consultant.

The contractor should be responsible for the stability of all temporary excavations. Recommendations by the geotechnical consultant pertaining to temporary excavations (e.g., backcuts) are made in consideration of stability of the completed project and, therefore, should not be considered to preclude the responsibilities of the contractor. Recommendations by the geotechnical consultant should not be considered to preclude requirements that are more restrictive by the regulating agencies. The contractor should provide during periods of extensive rainfall plastic sheeting to prevent unprotected slopes from becoming saturated and unstable.

When deemed appropriate by the geotechnical consultant or governing agencies the contractor shall install checkdams, desilting basins, sand bags or other drainage control measures.

In relatively level areas and/or slope areas, where saturated soil and/or erosion gullies exist to depths of greater than 1.0 foot; they should be overexcavated and replaced as compacted fill in accordance with the applicable specifications. Where affected materials exist to depths of 1.0 foot or less below proposed finished grade, remedial grading by moisture conditioning in-place, followed by thorough recompaction in accordance with the applicable grading guidelines herein may be attempted. If the desired results are not achieved, all affected materials should be overexcavated and replaced as compacted fill in accordance with the slope repair recommendations herein. If field conditions dictate, the geotechnical consultant may recommend other slope repair procedures.

Section 6 - Excavations

6.1 Unsuitable Materials

Materials that are unsuitable should be excavated under observation and recommendations of the geotechnical consultant. Unsuitable materials include, but may not be limited to, dry, loose, soft, wet, organic compressible natural soils and fractured, weathered, soft bedrock and nonengineered or otherwise deleterious fill materials.

Material identified by the geotechnical consultant as unsatisfactory due to its moisture conditions should be overexcavated; moisture conditioned as needed, to a uniform at or above optimum moisture condition before placement as compacted fill.

If during the course of grading adverse geotechnical conditions are exposed which were not anticipated in the preliminary soil report as determined by the geotechnical consultant additional exploration, analysis, and treatment of these problems may be recommended.

6.2 Cut Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent cut slopes should not be steeper than 2:1 (horizontal: vertical).

The geotechnical consultant should observe cut slope excavation and if these excavations expose loose cohesionless, significantly fractured or otherwise unsuitable material, the materials should be overexcavated and replaced with a compacted stabilization fill. If encountered specific cross section details should be obtained from the Geotechnical Consultant.

When extensive cut slopes are excavated or these cut slopes are made in the direction of the prevailing drainage, a non-erodible diversion swale (brow ditch) should be provided at the top of the slope.

6.3 Pad Areas

All lot pad areas, including side yard terrace containing both cut and fill materials, transitions, located less than 3 feet deep should be overexcavated to a depth of 3 feet and replaced with a uniform compacted fill blanket of 3 feet. Actual depth of overexcavation may vary and should be delineated by the geotechnical consultant during grading.

For pad areas created above cut or natural slopes, positive drainage should be established away from the top-of-slope. This may be accomplished utilizing a berm drainage swale and/or an appropriate pad gradient. A gradient in soil areas away from the top-of-slopes of 2 percent or greater is recommended.

Section 7 - Compacted Fill

All fill materials should have fill quality, placement, conditioning and compaction as specified below or as approved by the geotechnical consultant.

7.1 Fill Material Quality

Excavated on-site or import materials which are acceptable to the geotechnical consultant may be utilized as compacted fill, provided trash, vegetation and other deleterious materials are removed prior to placement. All import materials anticipated for use on-site should be sampled tested and approved prior to and placement is in conformance with the requirements outlined.

Rocks 12 inches in maximum and smaller may be utilized within compacted fill provided sufficient fill material is placed and thoroughly compacted over and around all rock to effectively fill rock voids. The amount of rock should not exceed 40 percent by dry weight passing the 3/4-inch sieve. The geotechnical consultant may vary those requirements as field conditions dictate.

Where rocks greater than 12 inches but less than four feet of maximum dimension are generated during grading, or otherwise desired to be placed within an engineered fill, special handling in accordance with attached Plates and described below. Rocks greater than four feet should be broken down or disposed off-site.

7.2 Placement of Fill

Prior to placement of fill material, the geotechnical consultant should inspect the area to receive fill. After inspection and approval, the exposed ground surface should be scarified to a depth of 6 to 8 inches. The scarified material should be conditioned (i.e. moisture added or air dried by continued discing) to achieve a moisture content at or slightly above optimum moisture conditions and compacted to a minimum of 90 percent of the maximum density or as otherwise recommended in the soils report or by appropriate government agencies.

Compacted fill should then be placed in thin horizontal lifts not exceeding eight inches in loose thickness prior to compaction. Each lift should be moisture conditioned as needed,

thoroughly blended to achieve a consistent moisture content at or slightly above optimum and thoroughly compacted by mechanical methods to a minimum of 90 percent of laboratory maximum dry density. Each lift should be treated in a like manner until the desired finished grades are achieved.

The contractor should have suitable and sufficient mechanical compaction equipment and watering apparatus on the job site to handle the amount of fill being placed in consideration of moisture retention properties of the materials and weather conditions.

When placing fill in horizontal lifts adjacent to areas sloping steeper than 5:1 (horizontal: vertical), horizontal keys and vertical benches should be excavated into the adjacent slope area. Keying and benching should be sufficient to provide at least six-foot wide benches and a minimum of four feet of vertical bench height within the firm natural ground, firm bedrock or engineered compacted fill. No compacted fill should be placed in an area after keying and benching until the geotechnical consultant has reviewed the area. Material generated by the benching operation should be moved sufficiently away from the bench area to allow for the recommended review of the horizontal bench prior to placement of fill.

Within a single fill area where grading procedures dictate two or more separate fills, temporary slopes (false slopes) may be created. When placing fill adjacent to a false slope, benching should be conducted in the same manner as above described. At least a 3-foot vertical bench should be established within the firm core of adjacent approved compacted fill prior to placement of additional fill. Benching should proceed in at least 3-foot vertical increments until the desired finished grades are achieved.

Prior to placement of additional compacted fill following an overnight or other grading delay, the exposed surface or previously compacted fill should be processed by scarification, moisture conditioning as needed to at or slightly above optimum moisture content, thoroughly blended and recompacted to a minimum of 90 percent of laboratory maximum dry density. Where unsuitable materials exist to depths of greater than one foot, the unsuitable materials should be over-excavated.

Following a period of flooding, rainfall or overwatering by other means, no additional fill should be placed until damage assessments have been made and remedial grading performed as described herein.

Rocks 12 inch in maximum dimension and smaller may be utilized in the compacted fill provided the fill is placed and thoroughly compacted over and around all rock. No oversize material should be used within 3 feet of finished pad grade and within 1 foot of other compacted fill areas. Rocks 12 inches up to four feet maximum dimension should be placed below the upper 5 feet of any fill and should not be closer than 11 feet to any slope face. These recommendations could vary as locations of improvements dictate. Where practical, oversized material should not be placed below areas where structures or deep utilities are proposed. Oversized material should be placed in windrows on a clean,

overexcavated or unyielding compacted fill or firm natural ground surface. Select native or imported granular soil (S.E. 30 or higher) should be placed and thoroughly flooded over and around all windrowed rock, such that voids are filled. Windrows of oversized material should be staggered so those successive strata of oversized material are not in the same vertical plane.

It may be possible to dispose of individual larger rock as field conditions dictate and as recommended by the geotechnical consultant at the time of placement.

The contractor should assist the geotechnical consultant and/or his representative by digging test pits for removal determinations and/or for testing compacted fill. The contractor should provide this work at no additional cost to the owner or contractor's client.

Fill should be tested by the geotechnical consultant for compliance with the recommended relative compaction and moisture conditions. Field density testing should conform to ASTM Method of Test D 1556-82, D 2922-81. Tests should be conducted at a minimum of 2 vertical feet or 1,000 cubic yards of fill placed. Actual test intervals may vary as field conditions dictate. Fill found not to be in conformance with the grading recommendations should be removed or otherwise handled as recommended by the geotechnical consultant.

7.3 Fill Slopes

Unless otherwise recommended by the geotechnical consultant and approved by the regulating agencies, permanent fill slopes should not be steeper than 2:1 (horizontal: vertical).

Except as specifically recommended in these grading guidelines compacted fill slopes should be over-built and cut back to grade, exposing the firm, compacted fill inner core. The actual amount of overbuilding may vary as field conditions dictate. If the desired results are not achieved, the existing slopes should be overexcavated and reconstructed under the guidelines of the geotechnical consultant. The degree of overbuilding shall be increased until the desired compacted slope surface condition is achieved. Care should be taken by the contractor to provide thorough mechanical compaction to the outer edge of the overbuilt slope surface.

At the discretion of the geotechnical consultant, slope face compaction may be attempted by conventional construction procedures including backrolling. The procedure must create a firmly compacted material throughout the entire depth of the slope face to the surface of the previously compacted firm fill intercore.

During grading operations, care should be taken to extend compactive effort to the outer edge of the slope. Each lift should extend horizontally to the desired finished slope surface or more as needed to ultimately established desired grades. Grade during construction should not be allowed to roll off at the edge of the slope. It may be helpful

to elevate slightly the outer edge of the slope. Slough resulting from the placement of individual lifts should not be allowed to drift down over previous lifts. At intervals not exceeding four feet in vertical slope height or the capability of available equipment, whichever is less, fill slopes should be thoroughly dozer trackrolled.

For pad areas above fill slopes, positive drainage should be established away from the top-of-slope. This may be accomplished using a berm and pad gradient of at least 2 percent.

Section 8 - Trench Backfill

Utility and/or other excavation of trench backfill should, unless otherwise recommended, be compacted by mechanical means. Unless otherwise recommended, the degree of compaction should be a minimum of 90 percent of the laboratory maximum density.

Within slab areas, but outside the influence of foundations, trenches up to one foot wide and two feet deep may be backfilled with sand and consolidated by jetting, flooding or by mechanical means. If on-site materials are utilized, they should be wheel-rolled, tamped or otherwise compacted to a firm condition. For minor interior trenches, density testing may be deleted or spot testing may be elected if deemed necessary, based on review of backfill operations during construction.

If utility contractors indicate that it is undesirable to use compaction equipment in close proximity to a buried conduit, the contractor may elect the utilization of light weight mechanical compaction equipment and/or shading of the conduit with clean, granular material, which should be thoroughly jetted in-place above the conduit, prior to initiating mechanical compaction procedures. Other methods of utility trench compaction may also be appropriate, upon review of the geotechnical consultant at the time of construction.

In cases where clean granular materials are proposed for use in lieu of native materials or where flooding or jetting is proposed, the procedures should be considered subject to review by the geotechnical consultant. Clean granular backfill and/or bedding are not recommended in slope areas.

Section 9 - Drainage

Where deemed appropriate by the geotechnical consultant, canyon subdrain systems should be installed in accordance.

Typical subdrains for compacted fill buttresses, slope stabilization or sidehill masses, should be installed in accordance with the specifications of the accompanying attached plates.

Roof, pad and slope drainage should be directed away from slopes and areas of structures to suitable disposal areas via non-erodible devices (i.e., gutters, downspouts, and concrete swales) as shown in the attached plates.

For drainage in extensively landscaped areas near structures, (i.e., within four feet) a minimum of 5 percent gradient away from the structure should be maintained. Pad drainage of at least 2 percent should be maintained over the remainder of the site.

Drainage patterns established at the time of fine grading should be maintained throughout the life of the project. Property owners should be made aware that altering drainage patterns could be detrimental to slope stability and foundation performance.

Section 10 - Slope Maintenance

10.1 - Landscape Plants

To enhance surficial slope stability, slope planting should be accomplished at the completion of grading. Slope planting should consist of deep-rooting vegetation requiring little watering. Plants native to the southern California area and plants relative to native plants are generally desirable. Plants native to other semi-arid and arid areas may also be appropriate. A Landscape Architect should be the best party to consult regarding actual types of plants and planting configuration.

10.2 - Irrigation

Irrigation pipes should be anchored to slope faces, not placed in trenches excavated into slope faces.

Slope irrigation should be minimized. If automatic timing devices are utilized on irrigation systems, provisions should be made for interrupting normal irrigation during periods of rainfall.

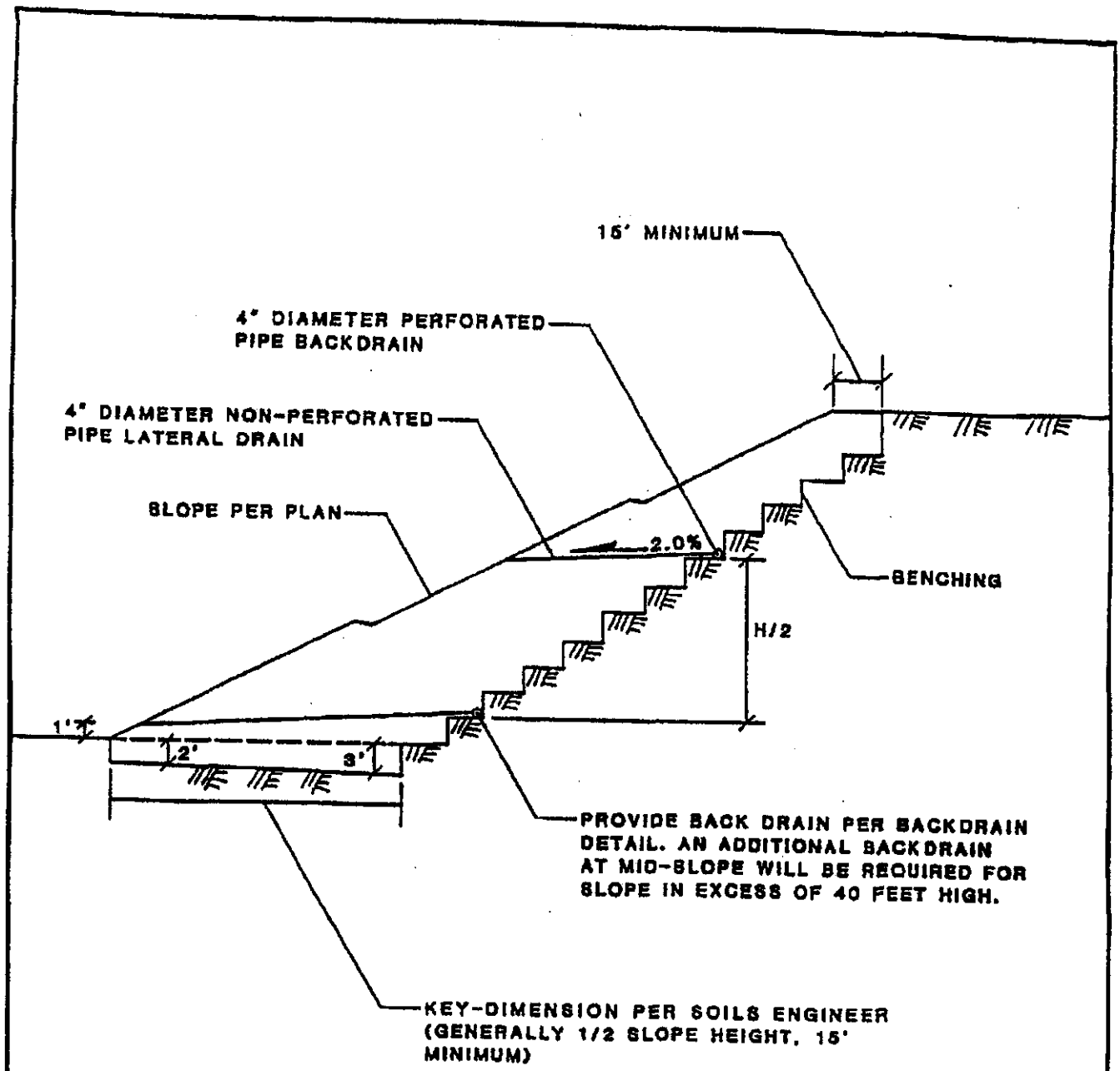
10.3 - Repair

As a precautionary measure, plastic sheeting should be readily available, or kept on hand, to protect all slope areas from saturation by periods of heavy or prolonged rainfall. This measure is strongly recommended, beginning with the period prior to landscape planting.

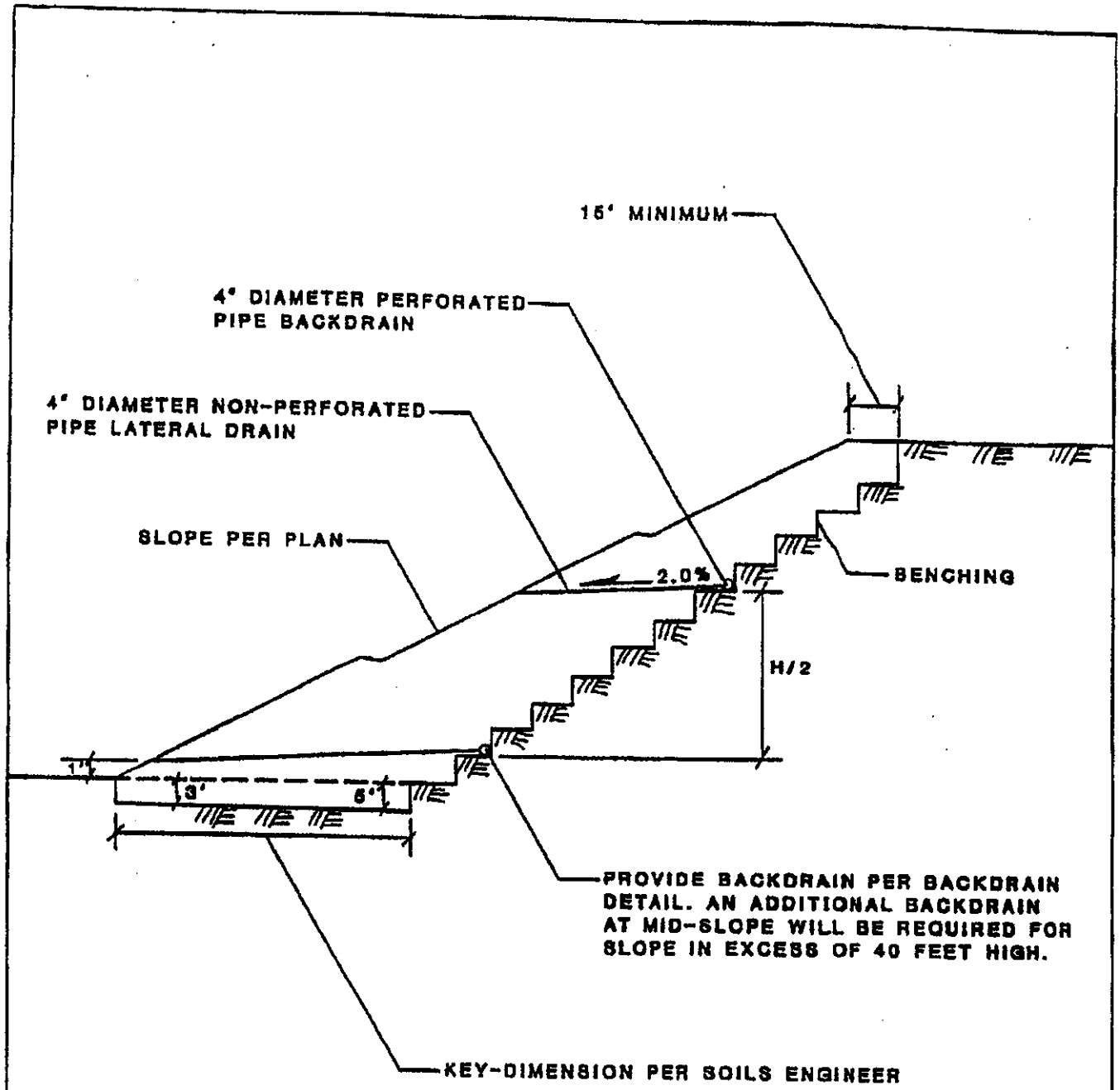
If slope failures occur, the geotechnical consultant should be contacted for a field review of site conditions and development of recommendations for evaluation and repair.

If slope failures occur as a result of exposure to period of heavy rainfall, the failure areas and currently unaffected areas should be covered with plastic sheeting to protect against additional saturation.

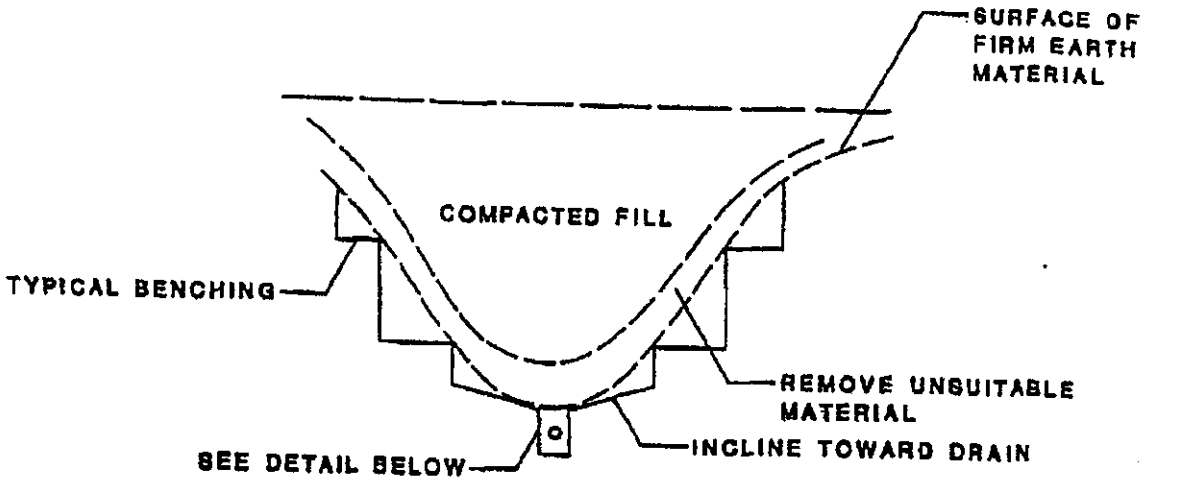
In the accompanying Standard Details, appropriate repair procedures are illustrated for superficial slope failures (i.e., occurring typically within the outer one foot to three feet of a slope face).



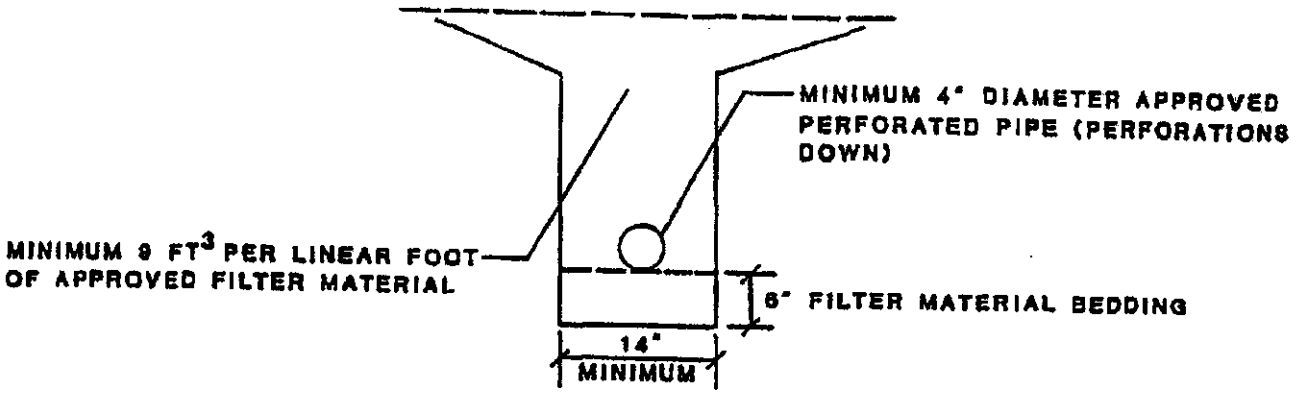
TYPICAL STABILIZATION FILL DETAIL



TYPICAL BUTTRESS FILL DETAIL



DETAIL



FILTER MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

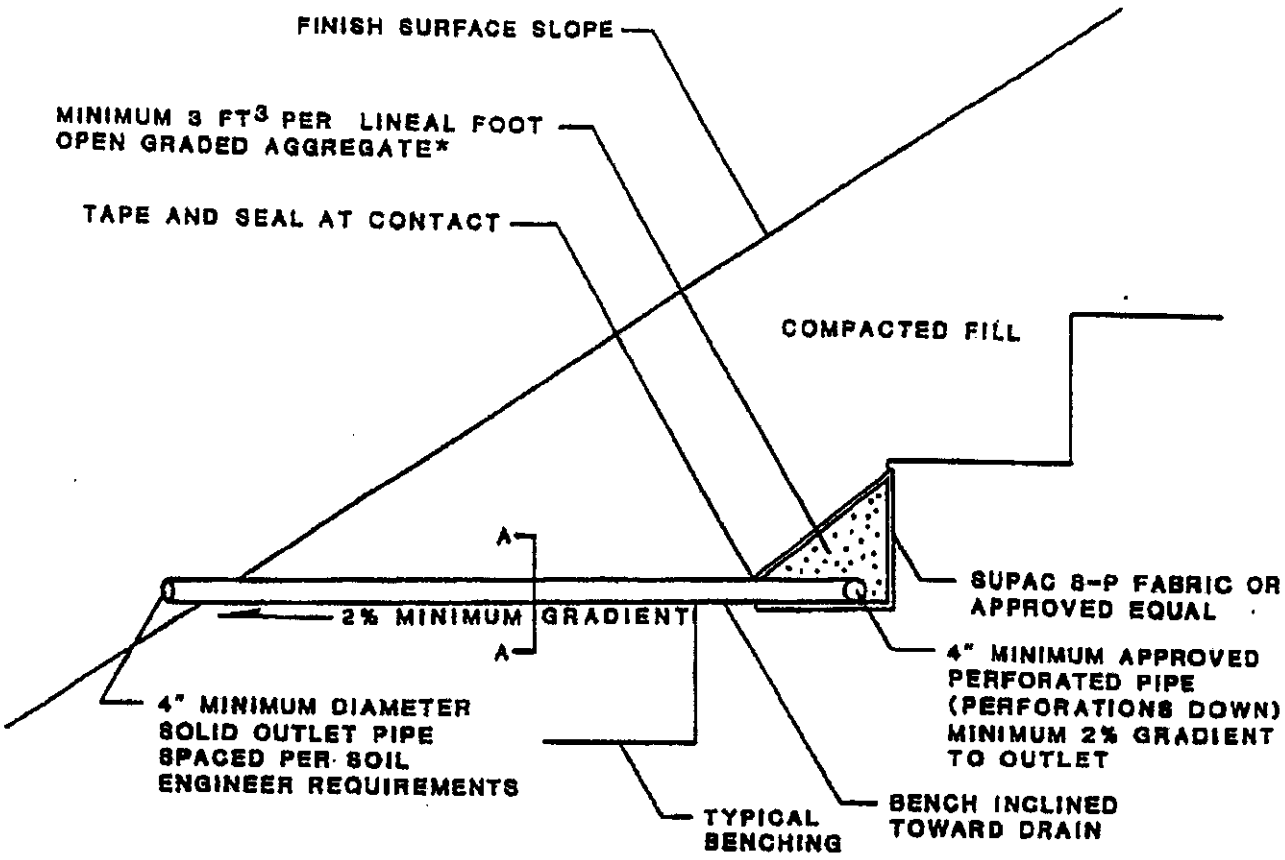
SIEVE SIZE	PERCENTAGE
1"	100
3/4"	90-100
3/8"	40-100
NO.4	25-40
NO.30	5-15
NO.50	0-7
NO.200	0-3

APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi

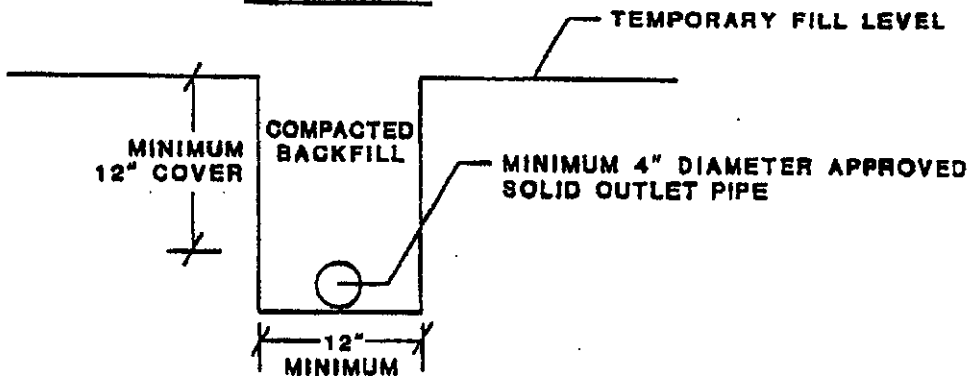
PIPE DIAMETER TO MEET THE FOLLOWING CRITERIA, SUBJECT TO FIELD REVIEW BASED ON ACTUAL GEOTECHNICAL CONDITIONS ENCOUNTERED DURING GRADING

LENGTH OF RUN	PIPE DIAMETER
UPPER 500'	4"
NEXT 1000'	6"
> 1500'	8"

TYPICAL CANYON SUBDRAIN DETAIL



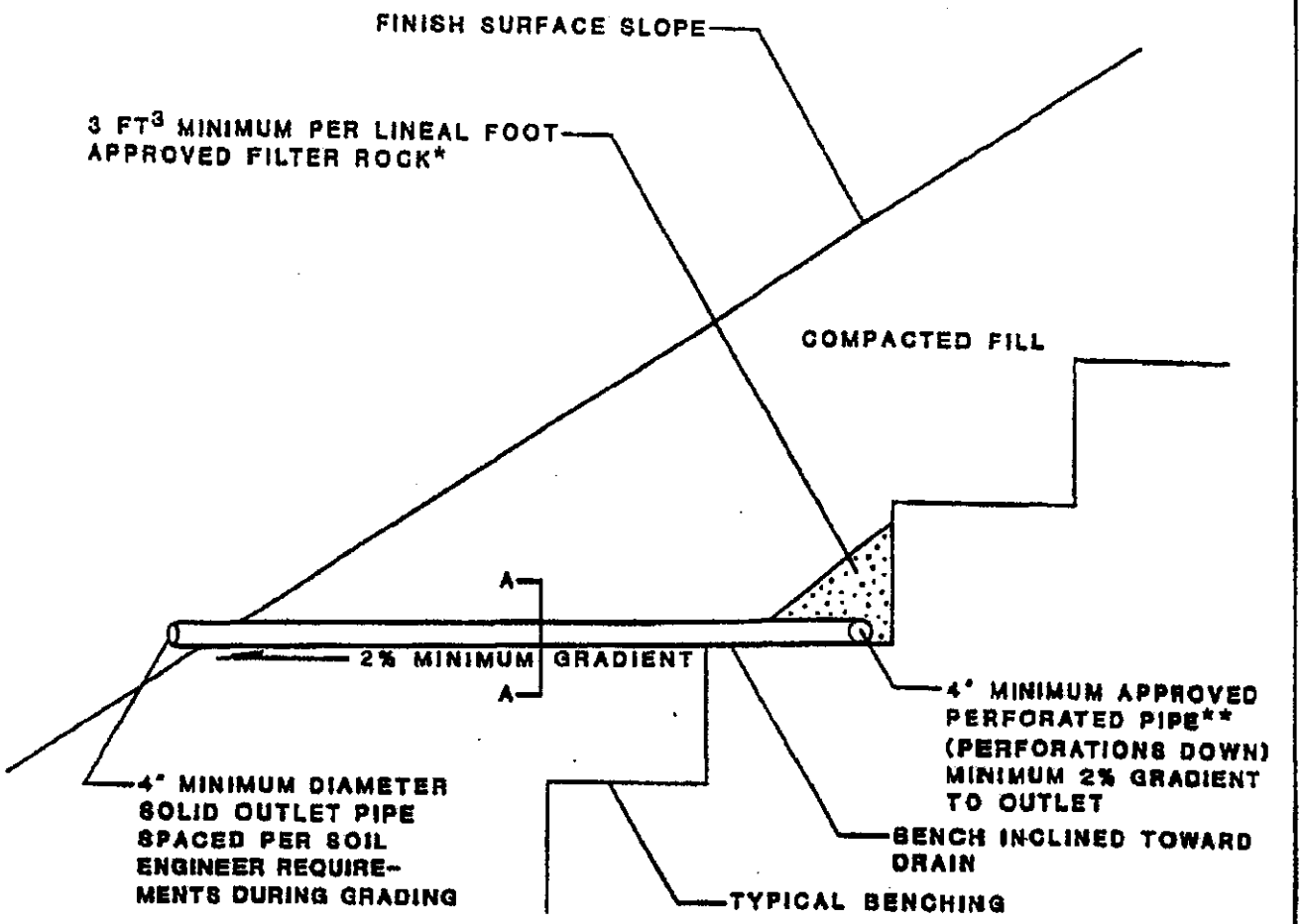
DETAIL A-A



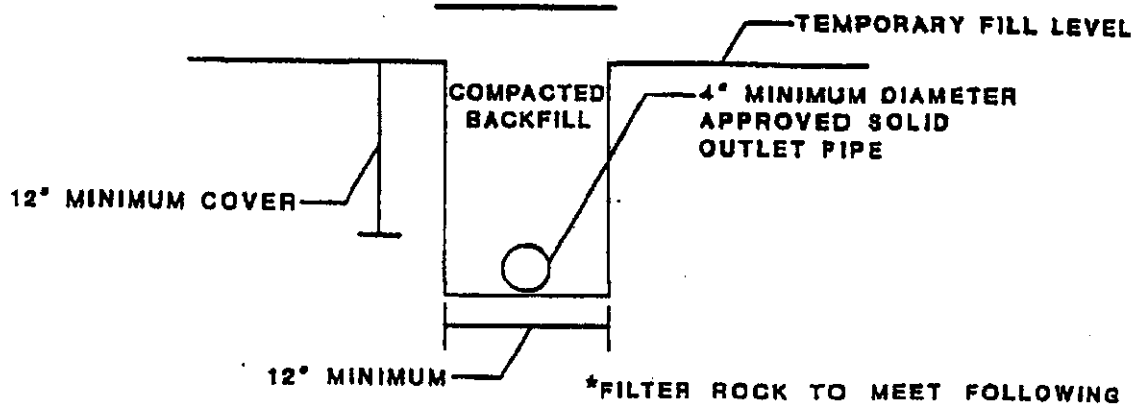
*NOTE: AGGREGATE TO MEET FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1 1/2"	100
1"	5-40
3/4"	0-17
3/8"	0-7
NO. 200	0-3

BACKDRAIN DETAIL (GEOFABRIC)



DETAIL A-A



*FILTER ROCK TO MEET FOLLOWING SPECIFICATIONS OR APPROVED EQUAL:

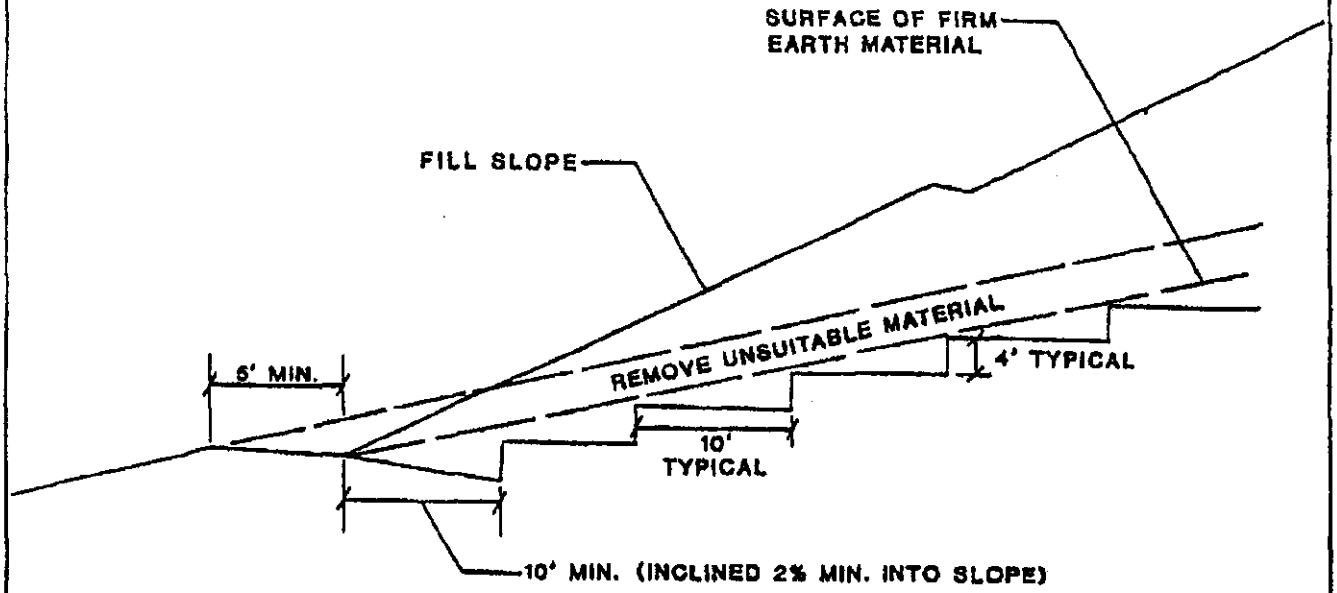
SIEVE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO.4	25-40
NO.30	5-15
NO.50	0-7
NO.200	0-3

**APPROVED PIPE TYPE:

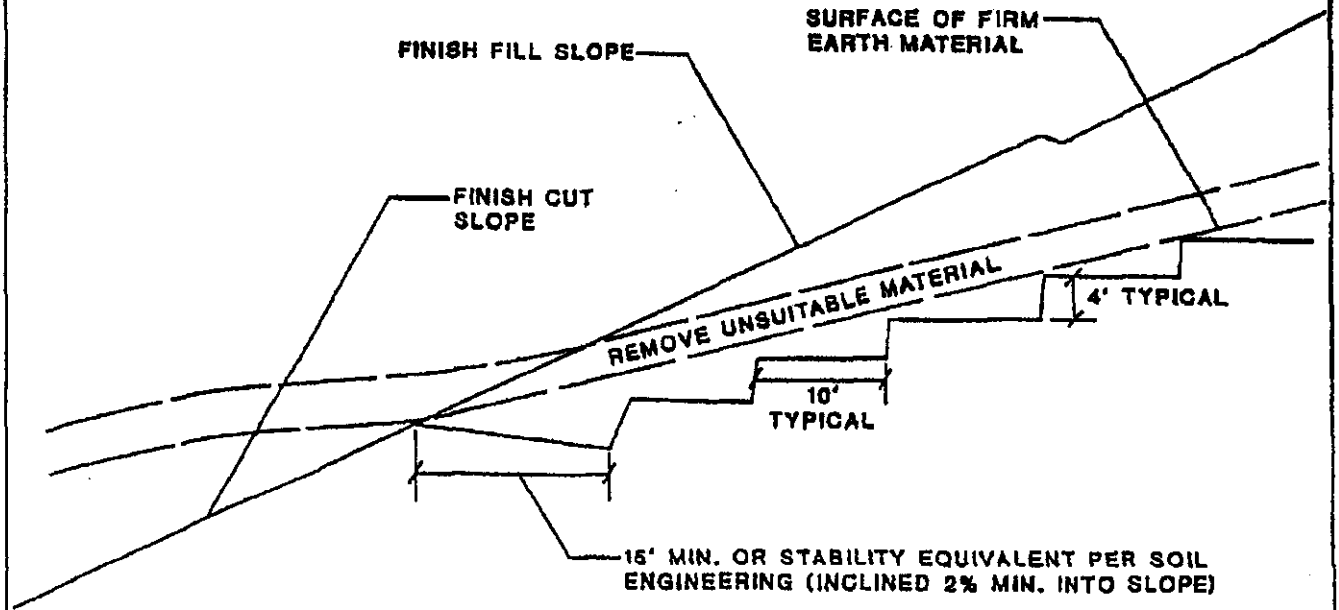
SCHEDULE 40 POLYVINYL CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 PSI.

TYPICAL BACKDRAIN DETAIL

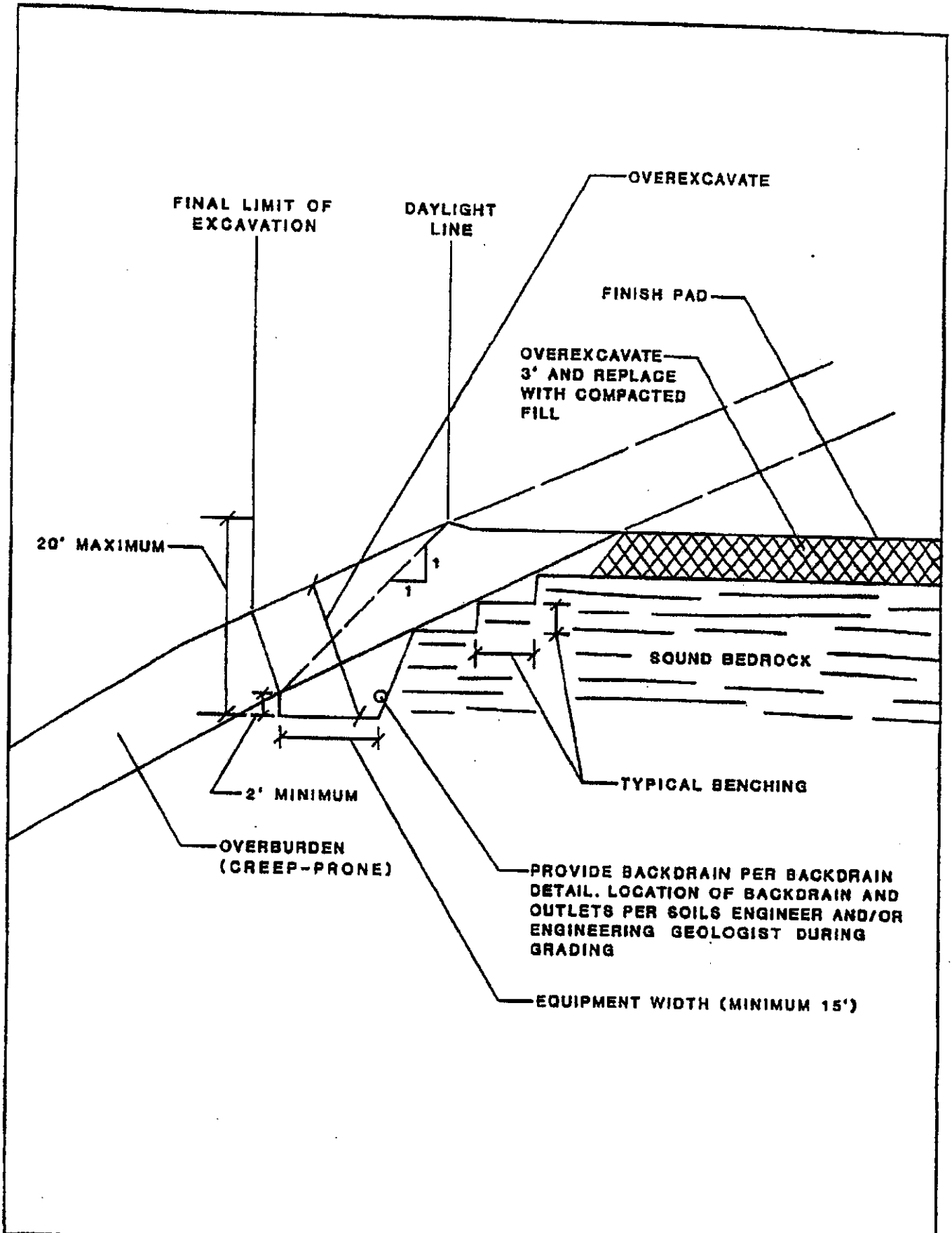
BENCHING FILL OVER NATURAL



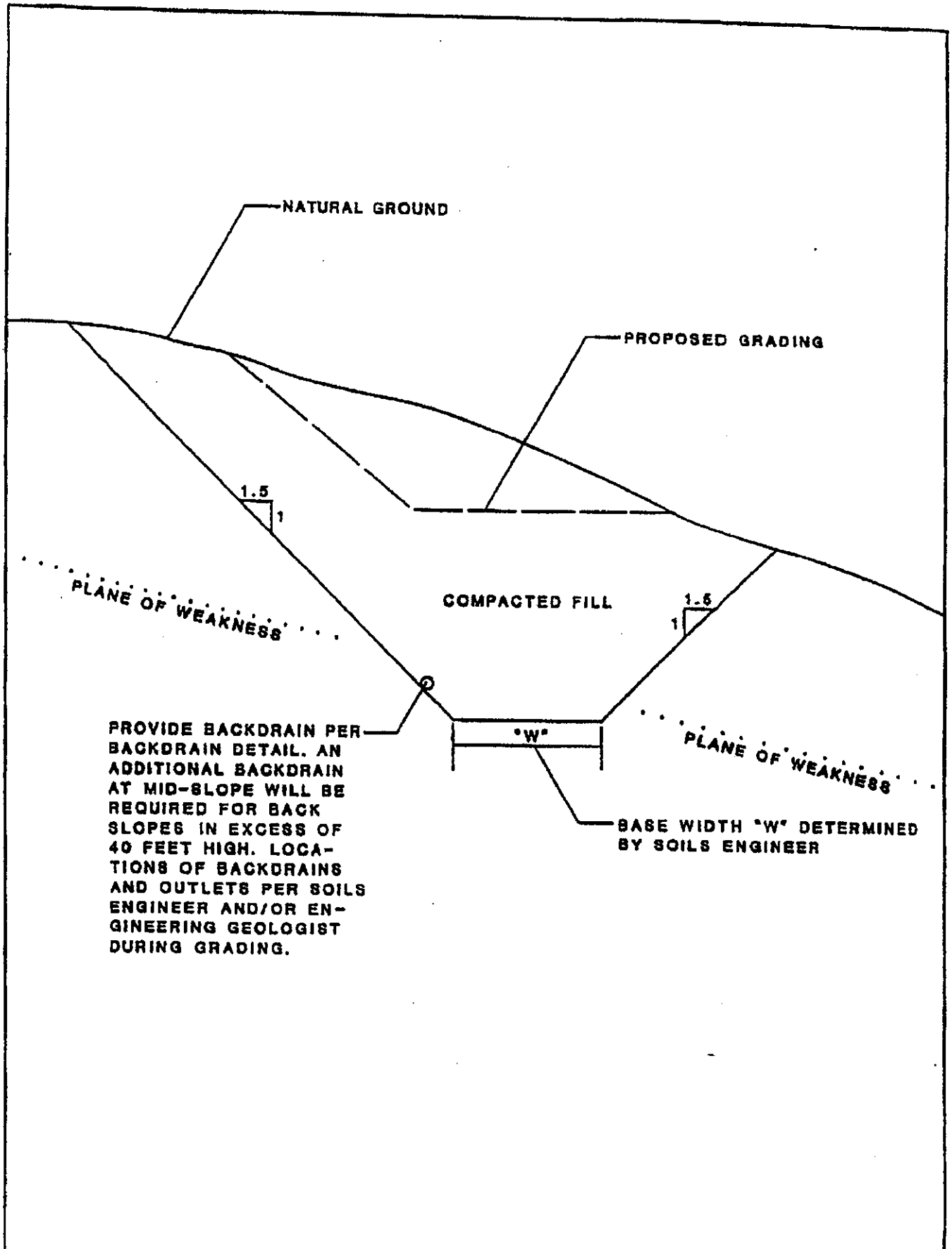
BENCHING FILL OVER CUT



BENCHING FOR COMPACTED FILL DETAIL

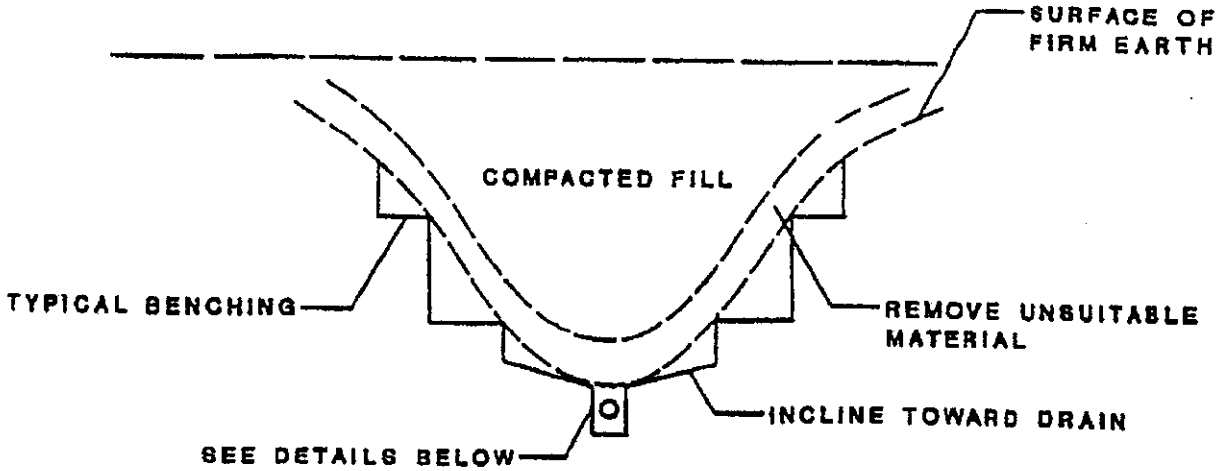


DAYLIGHT SHEAR KEY DETAIL

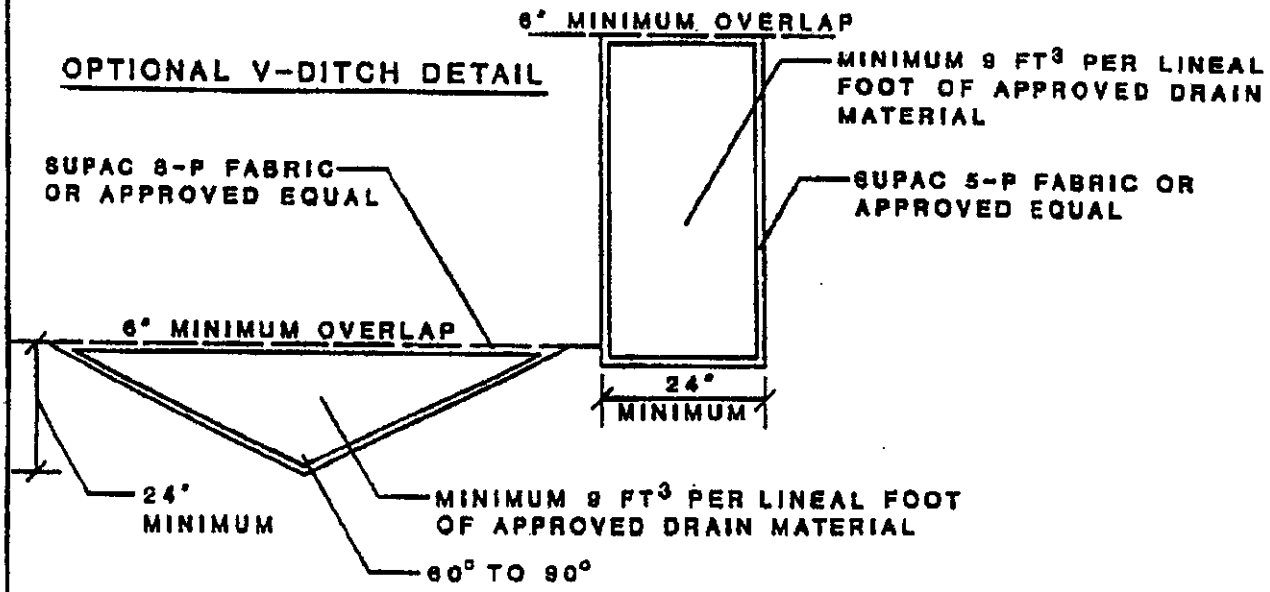


TYPICAL SHEAR KEY DETAIL

CANYON SUBDRAIN DETAILS



TRENCH DETAIL



OPTIONAL V-DITCH DETAIL

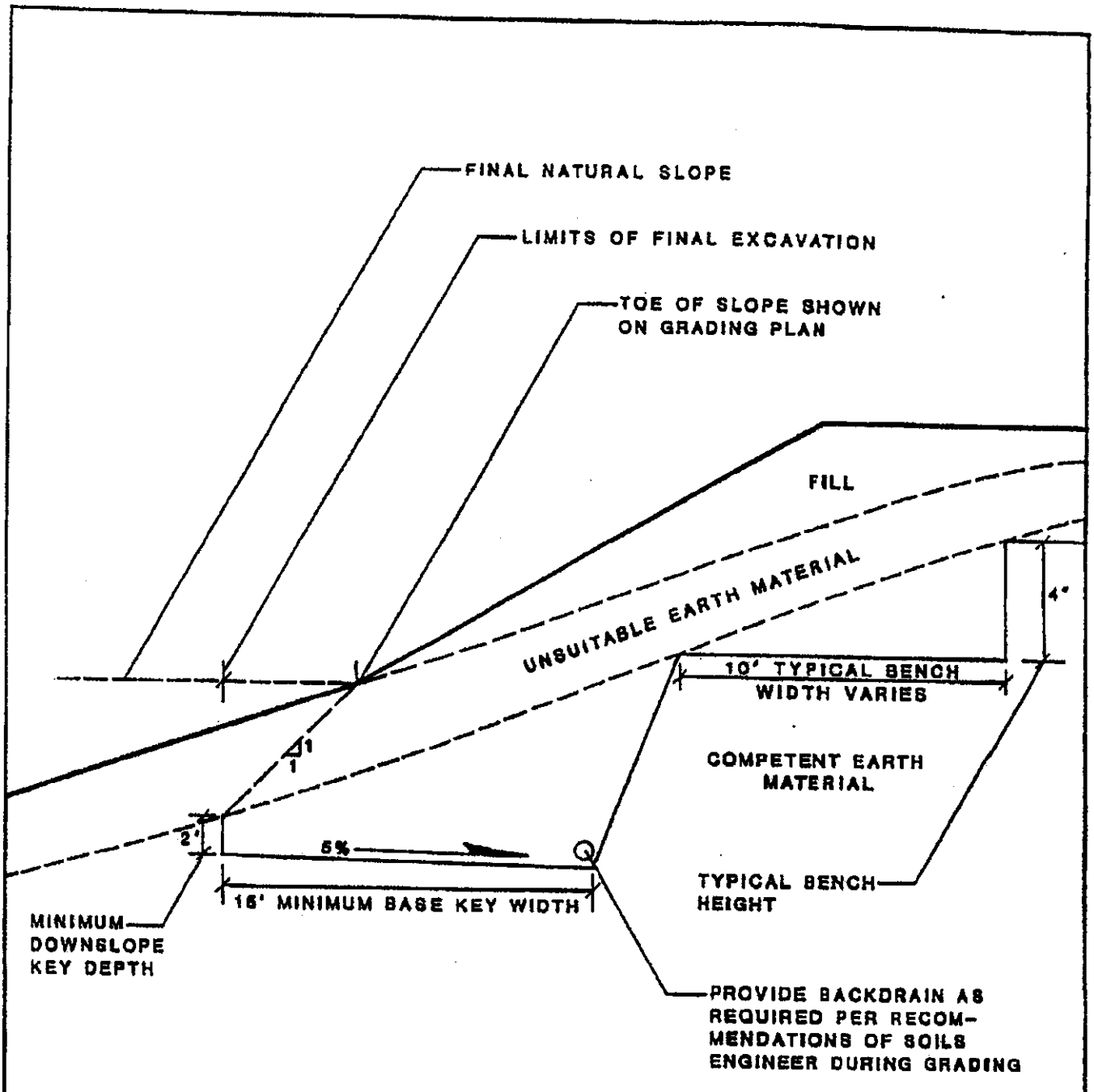
DRAIN MATERIAL TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUAL:

SIEVE SIZE	PERCENTAGE PASSING
1 1/2"	88-100
1"	5-40
3/4"	0-17
3/8"	0-7
NO.200	0-3

ADD MINIMUM 4" DIAMETER APPROVED PERFORATED PIPE WHEN GRADIENT IS LESS THAN 2%

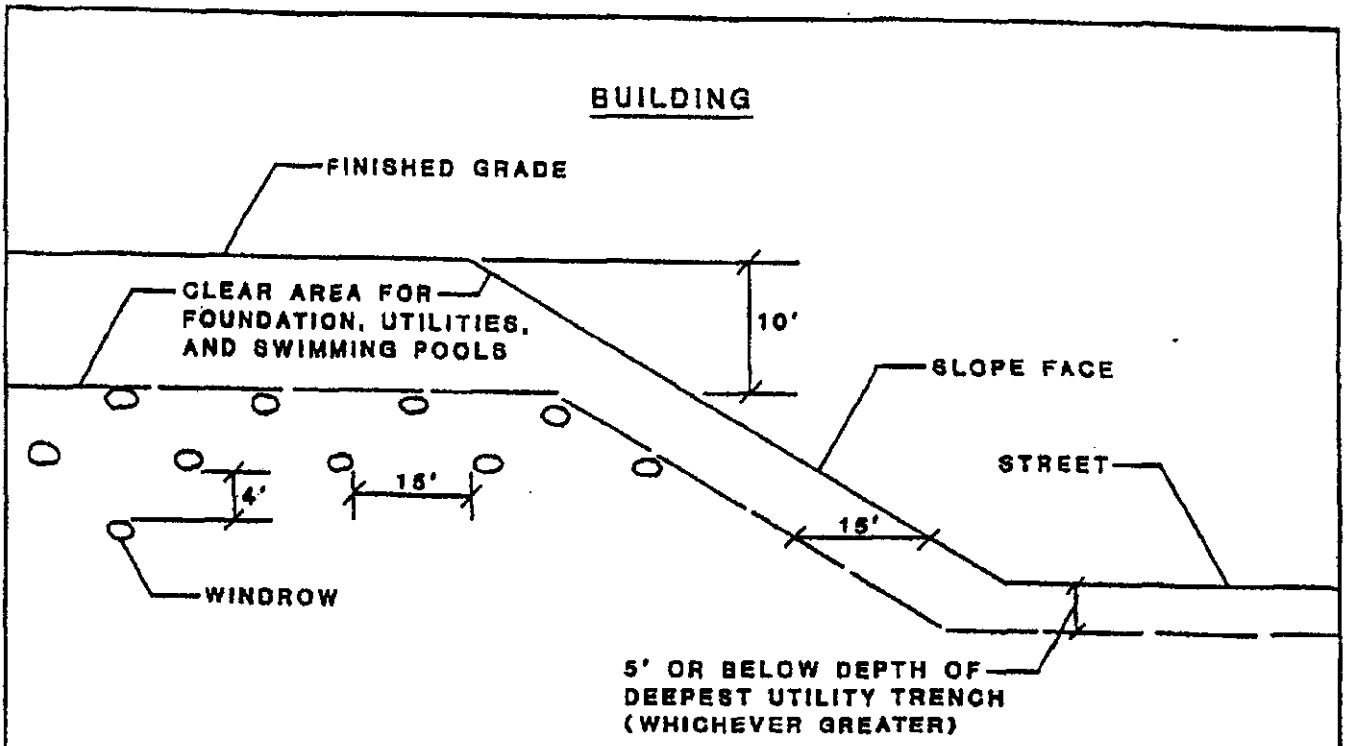
APPROVED PIPE TO BE SCHEDULE 40 POLY-VINYL-CHLORIDE (P.V.C.) OR APPROVED EQUAL. MINIMUM CRUSH STRENGTH 1000 psi.

GEOFABRIC SUBDRAIN

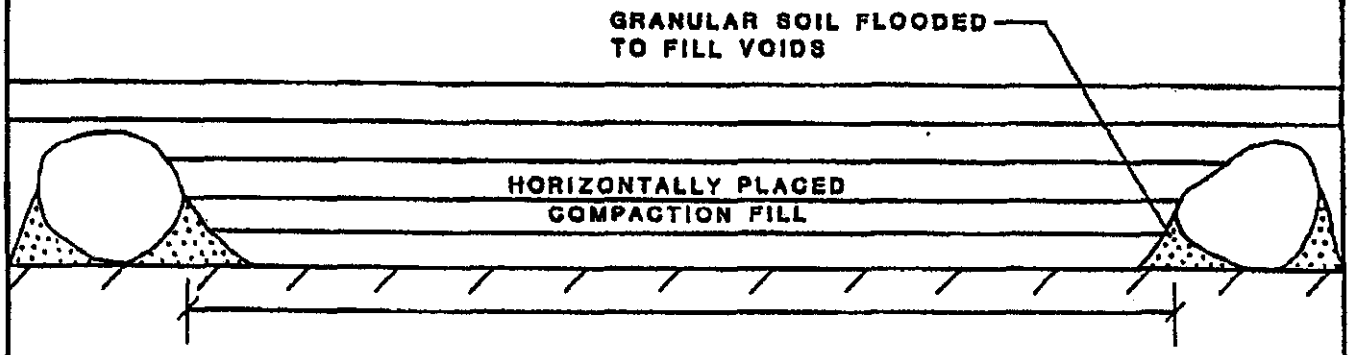


WHERE NATURAL SLOPE GRADIENT IS 5:1 OR LESS, BENCHING IS NOT NECESSARY. HOWEVER, FILL IS NOT TO BE PLACED ON COMPRESSIBLE OR UNSUITABLE MATERIAL.

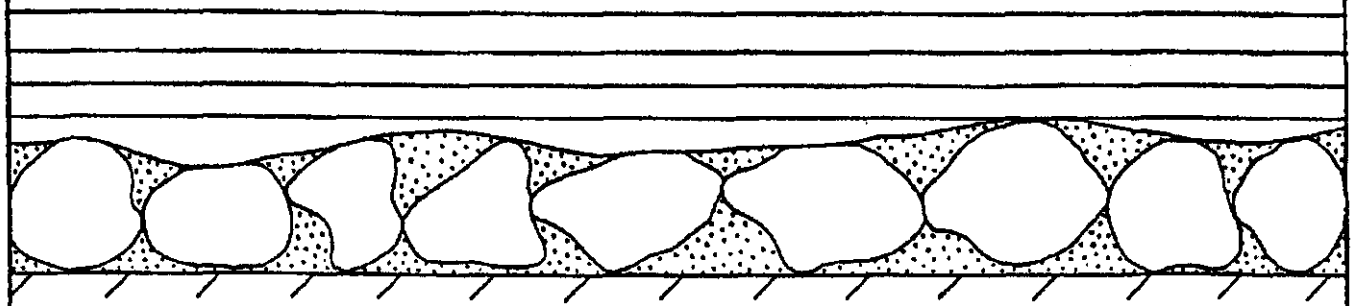
FILL SLOPE ABOVE NATURAL GROUND DETAIL



TYPICAL WINDROW DETAIL (EDGE VIEW)



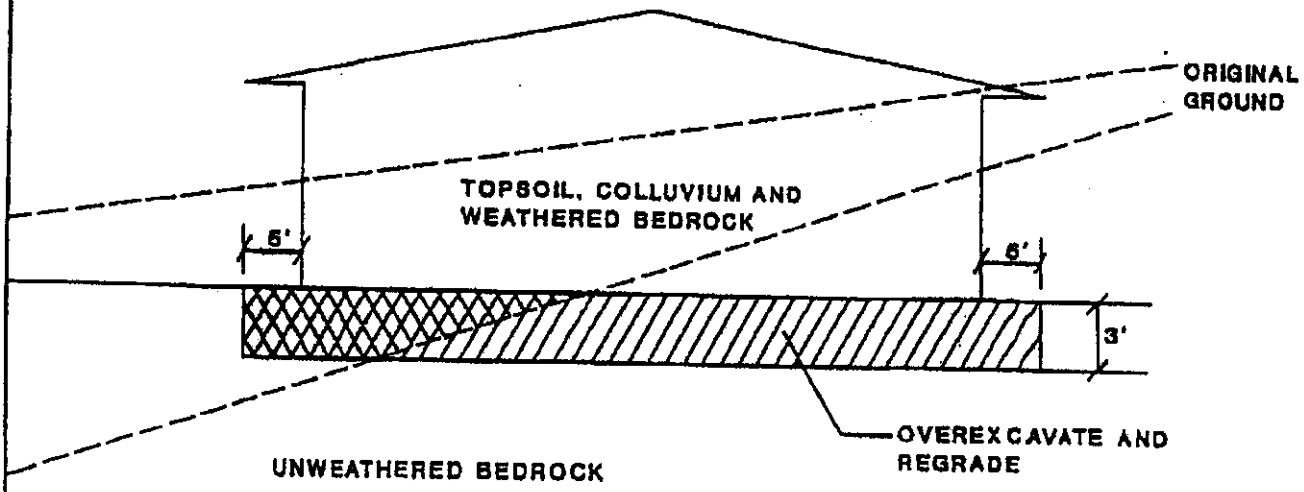
PROFILE VIEW



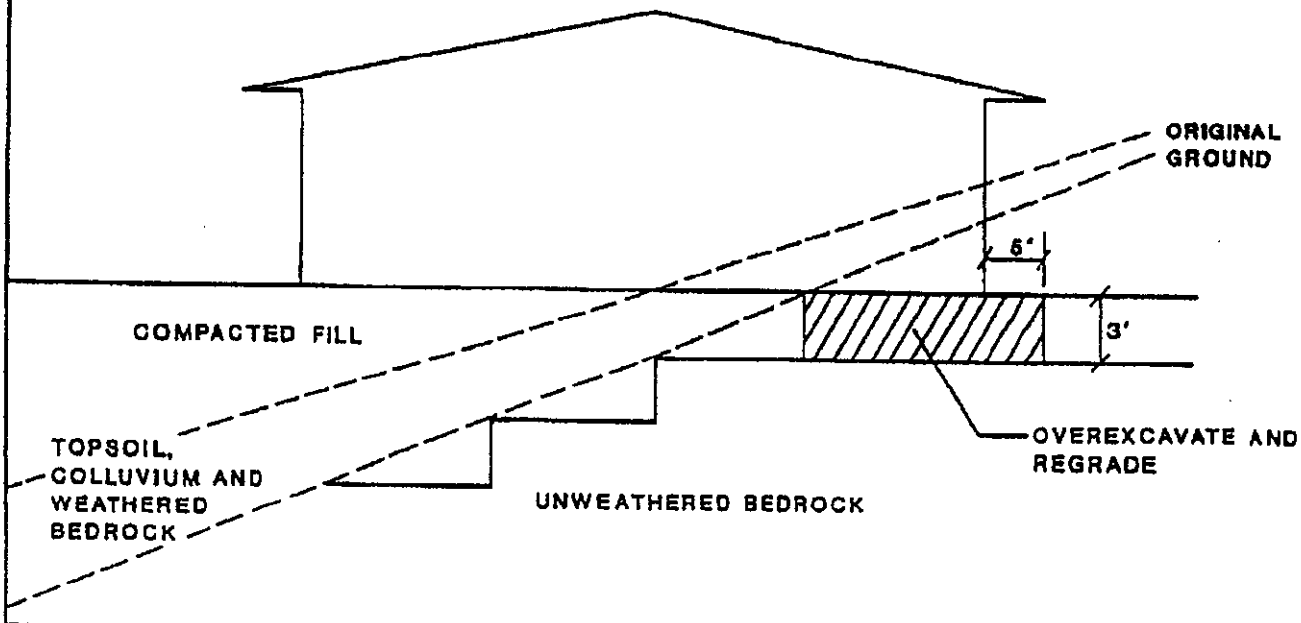
ROCK DISPOSAL DETAIL

GENERAL GRADING RECOMMENDATIONS

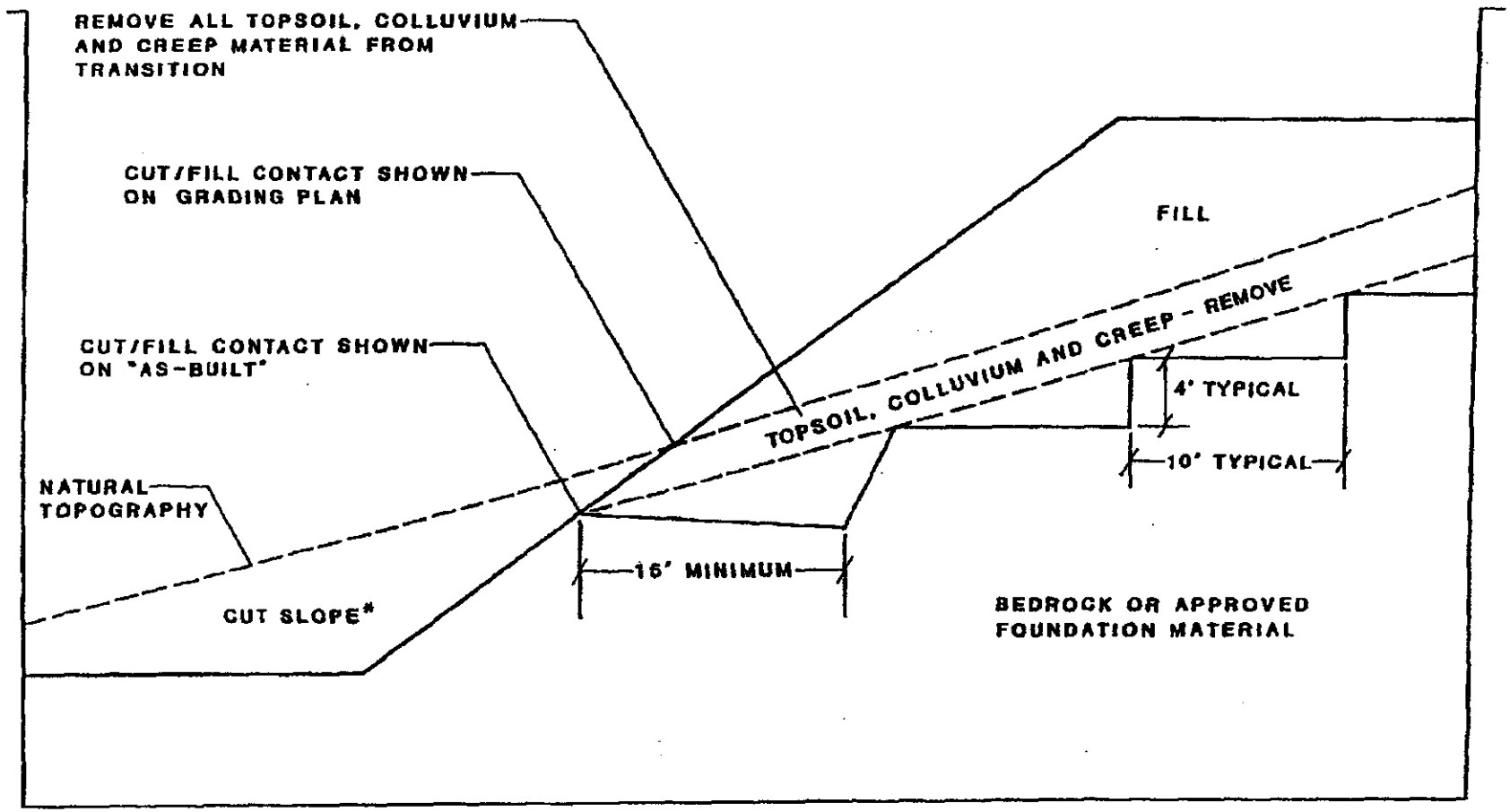
CUT LOT



CUT/FILL LOT (TRANSITION)

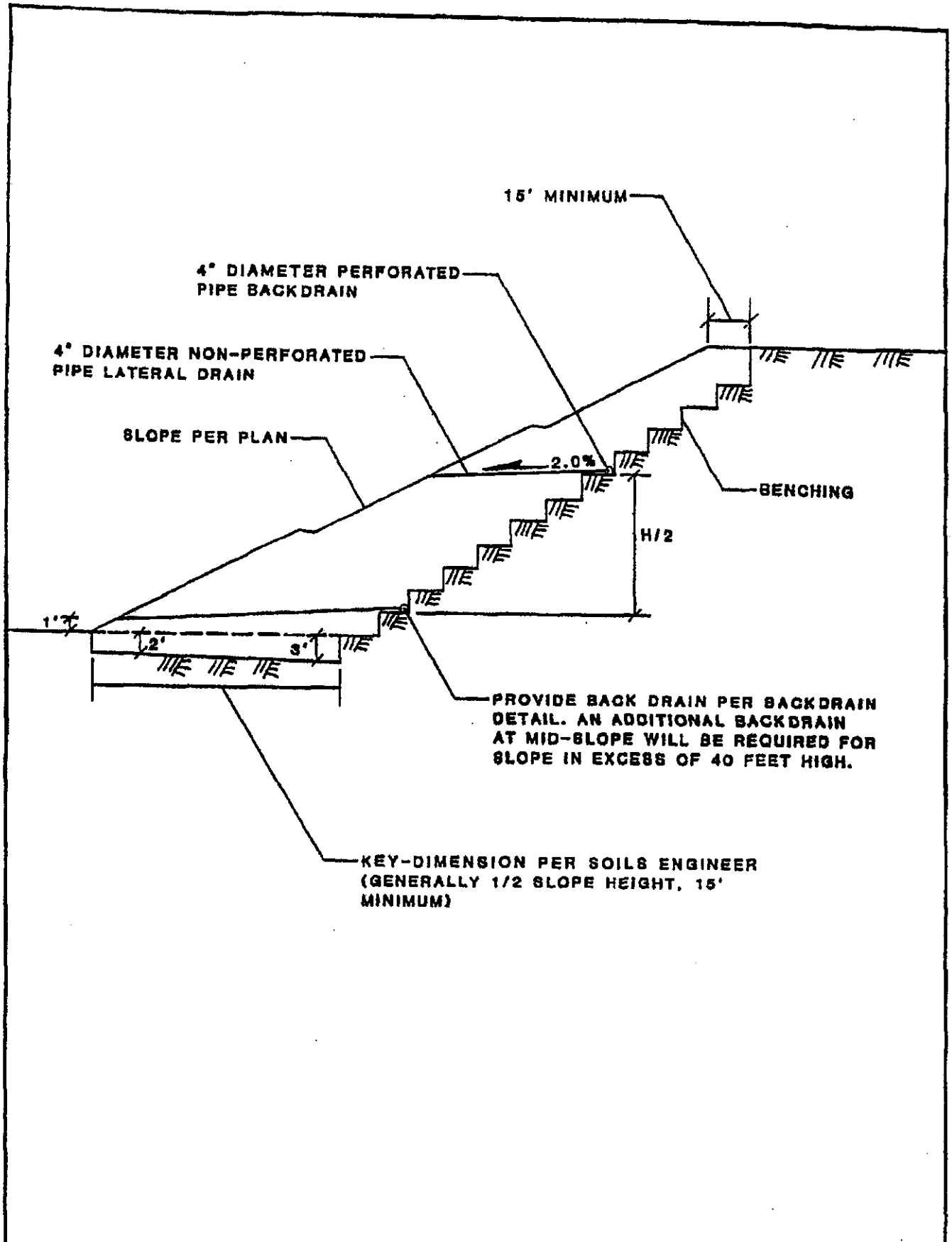


TRANSITION LOT DETAIL



* NOTE: CUT SLOPE PORTION SHALL BE MADE PRIOR TO PLACEMENT OF FILL

FILL SLOPE ABOVE CUT SLOPE DETAIL



TYPICAL STABILIZATION FILL DETAIL

FAULTING AND BLUFF GEOLOGIC EVALUATION
PROPOSED LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

PREPARED FOR:

LUSARDI CONSTRUCTION
ATTENTION: MR MIKE RAMSEY
1570 LINDA VISTA DRIVE
SAN MARCOS, CALIFORNIA 92078

PREPARED BY:

CONSTRUCTION TESTING & ENGINEERING, INC.
1441 MONTIEL ROAD, SUITE 115
ESCONDIDO, CALIFORNIA 92026

CTE JOB NO. 10-8264G

FEBRUARY 12, 2007

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FIGURES

APPENDICES

1.0 INTRODUCTION AND SCOPE OF SERVICES

1.1 Introduction

Construction Testing & Engineering, Inc. (CTE) has completed the requested fault and bluff evaluation for the proposed Lusardi residence, located at 8466 El Paseo Grande, in La Jolla, California. Figure 1 is an index map showing the approximate location of the site. It is our understanding that the proposed project calls for the demolition of the existing residence, and the construction of a new two-story residential structure, and associated improvements, including a retaining wall along the western side of the property landward of the existing seawall. It is also our understanding that the existing seawall is to remain as constructed.

A portion of the subject site is situated within the City of San Diego Seismic Safety Study, Hazard Category 12 for fault zones, and Category 48 for Coastal Bluffs. The remaining portion of the site is zoned as other terrain, Category 52. Figure 2 shows the location of the site and associated zone boundaries. The Category 12 zones are for faults considered potentially active, inactive, or activity level unknown, and a zone has been established around the interpreted location of the Scripps Fault that transects the northwestern corner of the site (Figure 2). A surface rupture hazard evaluation was requested by the City of San Diego for the subject site in their cycle review comments dated, July, 19, 2006.

Category 48 is a zone delineating generally stable broad beach areas. Category 52 zones are classified as other level areas, gently sloping to steep terrain with favorable geologic structure, and low risk.

The City of San Diego has published the "Coastal Bluffs and Beaches Guidelines", and the "Steep Hillside Guidelines" documents to assists in the interpretation and implementation of the Environmentally Sensitive Lands Regulations regarding proposed developments. Combined, these documents provide the criteria used to classify and establish appropriate regulations for the low lying cliffs delineating the boundary between the coastal beach and other terrain.

The purpose of our investigation and evaluation was to: 1) establish if faulting associated with Scripps fault transected the subject site, and if so, is there a surface rupture hazard and are associated structural setbacks required for the site; 2) Evaluate if the western margin (landward of the coastal beach) classifies as a sensitive coastal bluff, coastal bluff, or does not meet the criteria of either following the definitions of the Environmentally Sensitive Lands Regulations, the criteria outlined in the Coastal Bluffs and Beaches, and Steep Hillside Guidelines.

Based on the data available for review and the data from our investigation, it is our professional opinion that the site is not underlain by active faults and there is no indication of faulting from potentially active faults to the depths of our investigation. Therefore, we are not recommending any structural setbacks from the interpreted location of the Scripps fault at the northwest corner of the property.

Based on our interpretation of the height and location of the bluffs prior to previous site development, as well as our review and understanding of the Coastal Bluffs and Beaches and Steep Hillside Guidelines, it is our professional opinion that the site does not fall under the

jurisdiction of the Sensitive Coastal Bluffs and does not classify as a Coastal Bluff (Steep Hillside).

CTE previously completed a preliminary geotechnical investigation of the site and presented the findings and geotechnical recommendations in our report, dated March 24, 2006. The Preliminary Geotechnical Investigation report included previous field exploration, laboratory testing, geologic hazard evaluation, and engineering analysis. Specific recommendations for site grading and structure design for the proposed improvements were presented in our previous report. Information from our preliminary geotechnical investigation was used to supplement our current fault and bluff evaluation. The additional field exploration and laboratory testing completed for this report can also be used to supplement the findings from our preliminary investigation. However, the specific recommendations for site grading and structure design for the proposed improvements previously presented remain unchanged.

1.2 Scope of Services

The scope of services provided included:

- A review of available geologic and soils reports pertinent to the site and adjacent areas. References reviewed are presented in Appendix A.
- Evaluate potential faulting by establishing structural and stratigraphic continuity across the site, or lack thereof.
- Establish the geomorphology and topographic relief of the site area, prior to the construction of the seawall, to establish the bluff geometries prior to modification resulting from past construction.
- Laboratory testing of representative soil samples to provide data to substantiate field classifications and evaluate the geotechnical design characteristics of the soils.
- Preparation of this summary report of the investigations performed including at least three geologic cross-sections perpendicular to the bluff face.

2.0 SITE DESCRIPTION

2.1 General Conditions

The site is located at 8466 El Paseo Grande, in La Jolla, California. The property consists of an ocean front parcel located north of Kellogg Park on the west side of El Paseo Grande (Figure 1). Based upon available site plans, proposed improvements for the currently developed residential site include razing of the existing structure in order to construct a new two-story, single-family residence and associated improvements. The residential structure is expected to be supported by conventional shallow spread foundations with slabs-on-grade construction. Grading is expected to be limited to the elevation of the proposed structure. However, overexcavation and recompaction will be required.

It is our understanding that proposed design plans have been drawn under the assumption that the site does not classify as a sensitive coastal bluff, or coastal bluff based on previously completed projects of similar scope to the north and south of the subject site.

2.2 Site Topography

The site is situated at approximate elevations ranging from 25-feet above mean sea level near El Paseo Grande, to approximately 14–feet above mean sea level along the sidewalk behind the existing seawall. The property parcel extends across the coastal beach to the mean low water, with beach elevations ranging from approximately eight-feet below mean sea level at the base of the seawall to sea level. The present surface, east of the seawall, is generally flat with a slight westward slope ranging between two to three degrees. The beach profile at the time of this study

also has a gentle westward slope of approximately three degrees. A more detailed discussion of the site topography is presented in Section 6.1.

3.0 FIELD AND LABORATORY INVESTIGATIONS

3.1 Field Investigations

Field explorations were conducted on February 9, 2006 as part of the preliminary geotechnical investigation, and included site reconnaissance and the excavation of two subsurface exploratory borings, Borings B-1 and B-2, using a limited access portable drill-rig. The borings were advanced to a maximum depth of just less than twenty feet below grade (fbg), and sampled on approximately five-foot intervals.

Field explorations conducted as part of this study were completed from October 2 through October 12, 2006 and included the advancement of 13 additional borings (B-3 through B-15) that were either continuously sampled or sampled at select intervals to define the subsurface stratigraphy. The borings were advanced to maximum depths ranging between 11 and 41 feet below exiting grade. A geologist visually classified and logged soils in the field using the Unified Soil Classification System.

The field descriptions have been modified, where appropriate, to reflect laboratory test results. Exploration logs, including descriptions of the soil, are included in Appendix B. Approximate exploration locations are shown on Figure 2.

As shown on Figure 2, the borings were located around the perimeter of the existing structures with a distribution that provided the correlation of subsurface stratigraphy along three east-west oriented cross-section lines, A-A', B-B', and C-C' (Figures, 3, 4, and 5 respectively), and two additional cross-sections, D-D', along a north-south orientation, and E-E' along a northwest-southeast orientation (Figures 6 and 7, respectively).

Bulk and ring soil samples were collected from the borings, B-1 and B-2, for geotechnical laboratory analysis. Borings B-3 through B-15 were sampled with a Standard Penetration Sampler (SPT). Select soil samples were collected and placed in sealed plastic bags and transported to the CTE geotechnical laboratory for analysis.

3.2 Laboratory Investigation

Select soil samples were collected as part of this investigation for classification purposes and to provide supplemental data of the physical properties and engineering characteristics that were characterized during the preliminary investigation. The laboratory tests performed on the soil samples collected for this investigation included, Particle-Size Analysis, Atterberg Limits, Hydrometer, and Expansion Index Testing. Test method descriptions and laboratory results are included in Appendix C. Previous Laboratory tests were reported in the Preliminary Geotechnical Investigation dated March 24, 2006

4.0 GEOLOGY

4.1 General Geologic Setting

San Diego is located within the Peninsular Ranges physiographic province that is characterized by its northwest-trending mountain ranges, intervening valleys, and predominantly northwest-trending active regional faults. The San Diego Region can be further subdivided into the coastal plain area, a central mountain–valley area and the eastern mountain valley area. The project site lies within the coastal plain area of low relief that slopes gently toward the Pacific Ocean.

The coastal plain is characterized by geomorphic landforms known as marine terraces, which are ancient erosion surfaces or abrasion platforms cut by ocean –wave processes along past coastlines. These surfaces are recognized today as the relatively flat-lying mesas and terraces that range in elevation across the coastal plain of San Diego. The elevation differences of these marine terraces are the result of sea level changes that are associated with glacial retreat and advance throughout the Pleistocene, and uplift associated with activity on the Rose Canyon Fault Zone over the past two million years. The mesas or terraces have been incised by westward flowing drainages that have adjusted to the relative sea level changes in elevation. The combined effect of these processes is that older marine terraces are found at progressively higher elevations. Several distinct marine terraces present in the San Diego area include the Linda Vista Mesa (cut approximately 1.3 million years ago), the Nestor Terrace (cut approximately 120,000 years ago), and the Bird Rock Terrace (cut approximately 80,000 years ago). The marine terraces are typically covered with marine sediments, overlain by younger non-marine terrestrial deposits.

4.2 Site Geologic Conditions

According to mapping by Kennedy (1975), soils at the site consist of units of Quaternary Beach Deposits, Undifferentiated Quaternary-aged Alluvium and Slopewash deposits, and deposits of the Quaternary Bay Point Formation. The findings from our investigation were consistent with the mapping completed by Kennedy (1975). The sequence of deposits observed at the site included from the existing surface downward; Fill and disturbed material, Quaternary Slopewash (Qsw), a transitional unit between the slopewash and underlying Bay Point Formation (Qsw/QBp-1), and Quaternary Bay Point Formation.

4.2.1 Fill

This unit consists loose to medium stiff, re-worked Quaternary Slopewash as described below, with loose, silty sand, abundant organics, roots, and topsoil from turf and planter areas, with minor debris. Based on our aerial photograph review, the area behind the existing seawall consists of fill material. However, this area was not drilled during our investigation. Fill thicknesses are interpreted to typically range between two and five feet, with thicknesses up to eleven feet behind the seawall.

Depths of fill material ranging up to ten feet were reported in the geotechnical investigation completed for the residence just south of the subject site at 8450 El Paseo Grande by Earthworks Engineering, Inc., dated December 18, 2000. The description of this material appears to correlate with the base of the material we interpreted as Slopewash deposits.

4.2.2 Quaternary Slopewash (Qsw)

Quaternary Slopewash deposits were encountered near surface and in gradational contact with the overlying Fill material. The thickness of this deposit ranged between four to eight feet, and extended from the fill to depths of approximately 10 feet below existing grade. The lower contact is gradational with the underlying Bay Point Formation. Our current interpreted base of the slopewash material differs from our initial investigation, where the base of the slopewash material was the top of a distinctive "beach' sand. This "beach" sand is presently considered a unit within the underlying Quaternary Bay Point Formation, Unit Qbp- 4 on the geologic cross-sections.

The Quaternary Slopewash consists of a homogeneous deposit of loose to stiff, moist to wet, yellowish –gray brown to yellowish - olive brown, slightly mottled, silty to sandy Clay, varying to sandy clayey Silt, with rootlets, locally developed pinhole structure, some carbonate near the upper contact, and occasional carbon fragments. The unit is massive with locally developed weak discontinuous laminations. Upper and lower contacts are gradational.

4.2.3 Transitional (?) Quaternary Slopewash/Bay Point Formation; (Qsw / QBp-1)

Map Unit Qsw /QBp-1 is considered a transitional unit between the overlying Quaternary Slopewash and underlying Quaternary Bay Point Formation. The upper and lower contacts are both gradational. The stratigraphic position of unit, above a moderately well developed paleosol, the higher sand content and scattered pebbles indicate that this unit is the basal unit to the Quaternary Slopewash material. However, an overall increased

density, change in color, degree of mottling, locally weak soil development, and gradational nature of the lower contact suggest it is part of the Bay Point Formation. Regardless of the interpretation, the unit could be mapped and correlated as distinct stratigraphic layer across the site.

Qsw /Bp1: consists of medium stiff to stiff, locally loose when saturated, moist to wet, dark gray brown, light brown, orange brown, black, variably mottled, sandy Clay with visually estimated medium to coarse grained sand percentages up 30 percent, scattered pebbles, abundant organics (carbon fragments and disseminated carbon) throughout. Upper contact is locally gradational to distinct, and the lower contact is gradational with Bp2.

4.2.3 Bay Point Formation; (QBp-2 to QBp-4)

Quaternary-aged sedimentary deposits identified as the Bay Point Formation were encountered within our subsurface explorations beneath the slopewash. These soils were divided into three, map units based on lithologic differences, and degree of soil development. Contacts were gradational with overlying and underlying units. The units are described below and depicted on the geologic-cross-sections (Figures 3 through 7).

Map Unit (Bp2): Bp2 consists of stiff to very stiff, locally hard, moist to wet, dark reddish brown, dark gray-brown, black, dark orange-brown, extensively mottled, silty to sandy Clay, with distinctive coarse-red sand grains throughout, scattered organics (carbon

fragments, disseminated carbon, massive to moderate, subangular- blocky soil structure, with clay films. Soil horizonation Btb to Btvb. Diffuse upper and lower contacts.

Map Unit (Bp3): Bp3 is a transitional unit between the overlying (Bp2) clay and sands of the underlying unit (Bp4). Bp3 is stiff to very stiff silty sandy Clay to medium dense clayey Sand, moist to wet, mottled brown, orange-brown, gray, with black, weaker soil structure than overlying unit Bp2, granular to massive, with locally moderate subangular-blocky soil structure.

Unit (Bp4): Bp4 consists of a distinctive change in lithology from the clay and silt of the overlying units to medium dense to dense, wet, gray to black, fine-to coarse-grained silty to clayey Sand that grades downward into a poorly graded Sand with silt, abundant mafic mineral concentrations consisting primarily of black (biotite) mica. Unit is interpreted as a paleo-beach sand.

4.3 Groundwater Conditions

Groundwater was encountered within our subsurface explorations at the time of drilling at elevations consistent with the contact between map units Bp-3 and Bp-4 at an approximate elevation ranging between -2 feet below mean sea level to mean sea level. Perched groundwater was encountered during drilling locally along the top of map unit Bp-2 (paleosol) at approximate elevations ranging between 7- to 10- feet above mean sea level. The deposits above Bp-2, within Qsw/Bp-1 were loose to soft where the perched groundwater was observed. Although groundwater conditions will likely vary, especially during periods of sustained precipitation, and

tidal fluctuations it is not expected to affect the proposed development if recommendations regarding site drainage are carried out during design and construction.

5.0 LOCAL AND REGIONAL FAULTING

5.1 Regional Faulting

According to the California Geologic Survey, a fault is considered active if it displays evidence of activity in the last 11,000 years (Hart and Bryant, revised 1997). A potentially active fault displays evidence of activity prior to 11,000 years, but within the last 1.6 million years; or when supporting geologic evidence indicates timing of faulting as potentially active or non-active, but direct geologic evidence is lacking that could unequivocally prove timing of activity.

The onshore portion of the Rose Canyon Fault Zone (RCFZ) is located approximately 0.6 kilometers to the southwest of the subject site, and is the closest known active fault. The RCFZ generally extends southeastward along the eastern slopes of Mount Soledad, and along the eastern shore of Mission Bay. Further to the south, north of downtown San Diego, the fault appears to diverge into three distinct strands, the Coronado, Spanish Bight, and Silver Strand faults. These strands generally extend to the south and southwest, through San Diego Bay, into Coronado, and eventually to the Pacific Ocean.

Evidence of Holocene (within the last 11,000 years) surface rupture on strands of the RCFZ has been discovered and summarized in Treiman, 1993. In addition, several recent studies, including; Woodward-Clyde Consults [WCC] 1994; Rockwell and Murbach, 1998; Leighton and

Associates, 1998; Kleinfelder, 1999 and 2001 have further substantiated activity along the RCFZ.

Other principal active faults in this region include the Elsinore, Coronado Banks, San Jacinto, and San Andreas faults as shown on the Regional Fault Map, Figure 8. Epicenters of earthquakes with magnitudes greater than 5.0 that occurred between 1800 to 1999 are shown on Figure 8, (Toppazada and others, 2000).

5.2 Site Specific Faulting

The site is not located within a State of California defined Alquist-Priolo Earthquake Fault Zone. However, based on our review of the City of San Diego Seismic Safety Study, it appears that a concealed segment of the Scripps Fault is mapped across the extreme northwest corner of the property (Figure 9). The Scripps fault is considered to be a potentially active fault, and has been zoned as a Category 12 seismic hazard, according to the City of San Diego Seismic Safety Study. Category 12 zones are for faults considered potentially active, inactive, or activity level unknown. A surface rupture hazard evaluation was requested by the City of San Diego for the subject site in their cycle review comments dated, July, 19, 2006.

Excavation of fault trenches is considered to be the best method to investigate faulting. However, fault trench excavations were not feasible at the subject site due to limited access, and groundwater elevations that would prohibit trenching to the anticipated depths needed to expose the stratigraphy of sufficient age to evaluate the timing of faulting. Given these restraints, the faulting was evaluated by advancing and continuous sampling borings to sufficient depths to

establish stratigraphic and structural continuity across the site. This is considered a standard of practice methodology according the Note 49, "Guidelines For Evaluating Surface Rupture" (California Geological Survey, 2002).

A total of 15 borings were advanced at the site (B-1 through B-15) to depths ranging from 11 to 41 feet below existing grades. As shown on Figure 2, the borings were located around the perimeter of the existing structures with a distribution that provided the correlation of subsurface stratigraphy along three east-west oriented cross-section lines, A-A', B-B', and C-C' (Figures, 3, 4, and 5, respectively), and two additional cross-sections, D-D', along a north-south orientation, and E-E' along a northwest-southeast oriented (Figures 6 and 7, respectively). Lithostratigraphic (similar lithology) and a chronostratigraphic (time boundary) horizon could be correlated across the entire site. The cross-sections were correlated at there intersection points to provide internal consistency of the geologic interpretations. The lithostratigraphic horizons include the contact between map units Qsw and Qsw/Bp1, Bp-2 and Bp-3, Bp-3 and Bp-4. The chronostratigraphic horizon is the contact between map units Qsw/Bp-1 and Bp-2. This is based on the buried soil profile (paleosol) that represents the top of unit Bp-2. The correlations of these units are depicted on the Geologic cross-section A-A' through E-E' (Figures 3 through 7, respectively).

Based on our interpretation, the subsurface stratigraphy is laterally continuous and displays structural and stratigraphic continuity across the entire site. The mapped units have a slight westward dip of approximately three degrees, similar to the present slope of the coastal beach

and terrace surface. This slope is probably best represented by the contact between units Qsw/Bp-1 and Bp-2, with the top of Bp-2 at average elevation of 12 feet above mean sea level at the eastern end of the property, sloping westward to approximately mean sea level at the western end of the property adjacent to the seawall. This is a distance of approximately 160 feet with 12 feet of fall that equates to a gradient of 0.075, or approximately three degrees from horizontal. All the mapped contacts had similar gradients and therefore this gradient was taken as the average slope used to estimate the bluff edge (discussed below).

The Bay Point Formation is considered to have formed approximately 120,000 to 80,000 years before present in this area (Kennedy, 1975). Kuhn, 1984, reported that a fossil horse bone was found to the north within the alluvial bluffs, and yielded an age of 55,000 years as determined by amino acid dating techniques (Bada, et al. 1974). In addition, based on Carbon -14 dating, 5,460 to 7,370 year old remains from Indian burial sites were discovered in the bluffs north of the Scripps Biology buildings (Shumway et.al. 1961; as reported in Kuhn, 1984). These bluffs, referred to as the low-lying alluvial bluffs, extend from just north of Scripps to Kellogg Park, and include the bluffs present at the subject site.

Based on the lateral and vertical stratigraphic and structural continuity of the deposits across the site, as depicted in Figures 3 through 7, and the age-constraints discussed above, it is clear that active faults do not cross the site. The existence of potentially active faults (faults older than 10,000 years and younger than 1.6 million years) could be present at depths below the limits of our investigation. However, there is no indication of faulting within the depths explored and it is

our professional opinion that the risk of surface rupture is very low to nil. Furthermore, because we found no evidence of faulting, such as offset lithology, structural warping, thickness changes or steps in lithologic units, we are not recommending any structural setbacks from the interpreted trace of the Scripps fault along the northwest property corner.

6.0 BLUFF EVALUATION

6.1 Review of Historic Topography

A series of topographic maps of the La Jolla Quadrangle were collected from EDR Environmental Data Resources, Inc., and from the County of San Diego Public Works. The topographic maps reviewed are presented in the table below.

TABLE I

Quadrangle	Year	Series	Scale
La Jolla	1930	15 minute	1:62500
La Jolla	1953	7.5 minute	1:24000
La Jolla	1967	7.5 minute	1:24000
La Jolla	1975	7.5 minute	1:24000
La Jolla	1977	1" = 200'	1:2400
La Jolla	1996	7.5 minute	1:24000

Based on our review, it appears that the site surface elevation was lower than 25 feet msl, and possibly lower than 20 feet msl on the 1930 and 1953 maps. The 1967, 1975, and 1996 maps indicate the surface elevation was between 20 to 25 feet msl. The 1977 map at a smaller scale than the other maps reviewed, indicated the surface elevation was between 15 to 25 feet from west to east across the site. The present surface elevations, as shown on Figure 2, range from 14 feet on the sidewalk behind the seawall, then approximately 17 feet msl from behind the retaining wall to 24 feet msl at the eastern end of the existing structures. Copies of the topographic maps are presented in Appendix D.

6.2 Review of Historic Photography

Aerial and surface photographs of the site and surrounding area were reviewed to help re-construct the site development history and provide correlative data with the review of the historic topographic maps. Aerial photographs were collected from the California Coastal Records Project (www.californiacoastline.org), (Appendix E), and a data search completed by EDR Environmental Data Resources Inc., (Appendix F), and historic surface photographs of the general site area were collected from Kuhn and Shepard, 1984 (Appendix G).

6.2.1 Aerial Photographs

Oblique aerial photographs of the La Jolla Shores area available from the California Coastal Project included photographs from 1972, 1979, 1987, 1989, 1995, and 2004. Aerial photographs from the EDR data search included photographs from 1948, 1953, 1963, 1974, 1989, 1994, and 2002.

Review of the aerial photographs shows the seawall and the residences south of the intersection of El Paseo Grande and Paseo Del Ocaso were constructed between the years of 1948 to 1953. It appears that some grading occurred at the subject site prior to or during 1948. Interpretation of the 1948 photograph suggests that the grading was to create beach access for the construction of the seawall. Parcels north of the subject site appeared to have been affected more from the grading, and only the western portion of the subject site appears to have been graded. It is apparent that the seawall was constructed on the coastal beach, seaward of the bluff face as it existed at that time. Indicating that fill was placed behind the seawall and in front of the bluff face.

6.2.2 Historic Area Photographs

Historic photographs of the area were collected from Kuhn and Sheppard, 1984. These photographs show the general La Jolla Shores area and particularly a section of the bluffs north of the subject site (approximately eight houses/parcels north of the subject site). A series of photographs at this location were taken in 1936, and during the winter storms of 1978, and subsequently in 1979. The 1936 photographs shows that the bluffs were steeply faced, with steps, gullies, and uneven surface topography, with a slope decreasing in elevation toward the south, consistent with historic and present day topography. Portions of the seawall were destroyed, but the seawall to the south remained intact. The step in the seawall in the 1979 photograph is a good reference point for location of the area in the more recent photographs collected from the California Coastal Records Protect Photographs.

According to Kuhn (1984), climatic conditions prior to 1978 were milder and the bluff faces became rounded and more vegetated than the steep faces show in the 1936 photograph. This implies the gradient of the bluff faces decreased during this time of mild climatic conditions.

6.3 Bluff Profiles

Three cross-sections were constructed perpendicular to the bluff, Cross-Section A-A', B-B' and C-C' (Figures 4, 5, and 6). The locations of the sections are shown on the Site Exploration and Location Map (Figure 3). Estimates of the coastal bluff edge were made following the Coastal Bluffs and Beaches Guidelines, and estimates of the toe of bluff were interpreted based on information from the western most boring on each section, the estimated location of the present day abrasion platform, and estimates of the width of fill placed behind the constructed seawall based on our aerial photograph and literature reviews. Additionally, it is our understanding, substantiated from conversations with the representatives of the City of San Diego Land Development Review Department, that the coastal bluff height criteria is not an elevation above mean sea level, but the actual vertical relief of the bluff between the toe of bluff and bluff edge.

Previous studies along the San Diego coastline have established the toe of bluff at the intersection of the bluff face with the top of present day beach deposits. Based on our review of historical topography, the coastal beach deposits within the site vicinity typically range in elevation from 7 to 10 feet above msl. During typical years, the vertical relief of the bluff – as measured from the top of the coastal beach deposits intersection with the bluff face to the top of bluff edge – varies from 2 to 5 feet.

In an atypical year, such as in severe storm years, like those in 1978, the beach deposits may be removed to the elevation of the abrasion platform. In such years, the vertical relief of the bluff as measured from the intersection of the present day abrasion platform with the bluff face to the top of the bluff would be approximately 10-feet along the western margin of the property.

6.4 Regulations

As previously mentioned, The City of San Diego Land Development documents "Coastal Bluffs and Beaches Guidelines", and the "Steep Hillside Guidelines" classify and establish appropriate regulations for the low-lying cliffs delineating the boundary between the coastal beach and other terrain at the site.

The subject site is located immediately adjacent to the La Jolla Shoes beach and is within The City of San Diego Seismic Safety Category 48, "Generally stable, board beach areas, coastal harbors". As a designated Coastal Beach area, the site first falls under the Coastal Bluffs and Beach Guidelines. The Steep Hillside guidelines apply to coastal bluffs that are not sensitive coastal bluffs and landforms that meet different criterion for steep hillsides than the coastal bluff criterion.

6.4.1 Coastal Beach

The Environmentally Sensitive Lands Regulations define a Coastal Beach as:

Coastal Beach means the land between the edge of the sea and the first line of terrestrial vegetation or development or the toe of an adjacent sensitive coastal bluff, whichever is most seaward.

In addition, the Coastal Bluffs and Beaches Guidelines state that "if a seawall exists, the landward limit of the beach is still the toe of the bluff. The seawall would represent encroachment onto the beach".

The subject site parcel extends from El Paseo Grande on the east to the mean low water line on the west, and therefore a portion of the site contains a coastal beach. Based on our interpretation, the eastward extent of the coastal beach is approximately five to seven feet east of the seawall. A line connecting the interpreted toe of bluff along the site is depicted on Figure 3. This line delineates the boundary between the City of San Diego Seismic Safety Study Category 48 (coastal beach) and Category 52 (other terrain).

6.4.2 Coastal Bluff verses Sensitive Coastal Bluff

As Shown on Figure 4, 5, and 6, an escarpment exists between the coastal beach and other terrain boundary at the site. To address the questions of whether this escarpment classifies as a Coastal Bluff, Steep Hillside, or a Sensitive Coastal Bluff the pre-modified (pre-grading, pre-seawall construction) geometry of the escarpment was required to be established and compared to the geometric criteria as defined in the Coastal Bluff and Beach and Steep Hillside Guidelines.

An escarpment located along the shoreline and adjacent to coastal beaches must qualify as a coastal bluff before it can qualify as a sensitive coastal bluff.

6.4.2.1 Definition of Coastal Bluff

The Environmentally Sensitive Lands Regulations define a Coastal Bluff as:

Coastal Bluff means an escarpment or steep face of rock, decomposed rock, or soil resulting from erosion, faulting, or folding of the land mass that has a vertical relief of 10 feet or more and is located in the coastal zone.

In addition, a "coastal bluff is a naturally formed precipitous landform that generally has a gradient of at least 200 percent (1:2 slope) with a vertical elevation of at least 10 feet."

Based on our analysis, the vertical relief along the escarpment varies from 2 to 5 feet if measured from the top of the coastal beach deposits intersection with the bluff face to the top of bluff edge or approximately 10 feet if measured from the abrasion platform along the western (seaward) portion of the property. The elevation change across the entire parcel ranges from sea level (measured from the abrasion platform) to approximately 25 feet above mean sea level.

For the escarpment to meet the classification of a coastal bluff, some portion of the vertical relief along the site has to have a gradient of at least 200 percent. To address this criterion, the site gradient was calculated across the area of the bluff face, between the abrasion platform and the bluff edge. This area is the potential steep hillside (discussed below), or coastal bluff portion of the site. As shown on Cross –Sections A-A', B-B' and C-C' (Figures 4, 5 and 6, respectively) the

gradients range from approximately 154 percent on Cross-Section A-A', to 166 percent on Cross-Section B-B', and 182 percent along Cross-Section C-C'. The average gradient across the entire site, from the base of the seawall to the eastern property limit, is approximately 17 percent.

The above calculated gradients across the site do not meet the criteria for a coastal bluff.

6.4.2.2 Definition of Sensitive Coastal Bluff

The Environmentally Sensitive Lands Regulations define a Sensitive Coastal Bluff as: "*Sensitive Coastal Bluff means a coastal bluff that is designated within Hazard Category Numbers 41 through 47, inclusive, on the City's Geologic Hazard Maps, plus an additional 100-foot landward strip located and contiguous to the coastal bluff edge.*"

Also according to the Coastal Bluff and Beach Guidelines, "[s]ensitive coastal bluffs are a form of coastal bluffs that are generally located along the shoreline and adjacent to coastal beaches.

As previously mentioned, our review of the City's Geologic Hazard Maps show the site falls within Hazard Categories 48 and 52, "coastal beaches" and "other terrain", respectively. Based on the City of San Diego classification of the site area as Categories 48 and 52, the escarpment at the site does not classify as a

sensitive coastal bluff, and therefore not as a coastal bluff, based on the site's location adjacent to a coastal beach. The City of San Diego Geologic Hazard Categories in the site area are shown on Figure 9.

Our interpretation that the escarpment at the site does not meet the criteria of a coastal bluff, based on the findings of our site specific investigation, is consistent with City of San Diego's more general classification of the site area that the escarpment is not a sensitive coastal bluff.

6.4.2.3 Definition of Steep Hillsides

According to the Environmentally Sensitive Lands Regulations, there are two criteria used to establish when steep hillside regulations are applicable to a proposed development. The first criterion is applicable if any portion of the site contains a natural gradient of at least 200 percent (200 feet of vertical distance for every 100 feet of horizontal distance) and a vertical elevation (vertical relief) of at least 10 feet. This is the same criteria for a coastal bluff, as described in the Coastal Bluff and Beach Guidelines, and discussed above in section 6.4.2.2.

The second criterion is when a development is proposed on a site containing any portions with a natural gradient of 25 percent (25 feet of vertical distance for every 100 feet of horizontal distance) and a vertical elevation of at least 50. This criterion is not applicable to the subject site, because the site elevation has been

and is presently today below 25 feet in elevation based on our review of historical topographic maps, and the present surveyed site topography.

Therefore, it is our professional opinion that the site does not classify as a steep hillside and is not subject to the steep hillside regulations. This finding is consistent with previous findings and rulings by the City of San Diego for similar projects to the north and south of the subject site.

7.0 CONCLUSION AND RECOMMENDATIONS

Based on the data available for review, as well as the data from our investigations, it is our professional opinion that the site is not underlain by active faults and there is no indication of faulting from potentially active faults to the depths of our investigation. Therefore, we are not recommending any structural setbacks from the interpreted location of the Scripps fault at the northwest corner of the property.

Based on the information obtained from our investigations, our interpretation of the height and location of the bluffs prior to development of the site, the calculated site gradients, and our review and understanding of the Coastal Bluffs and Beaches and Steep Hillside Guidelines, it is our professional opinion that the site does not fall under the jurisdiction of the Sensitive Coastal Bluffs and does not classify as a Coastal Bluff or Steep Hillside. These site specific findings support the regional Seismic Safety Study Category boundaries established City of San Diego for the site area.

8.0 LIMITATIONS OF INVESTIGATION

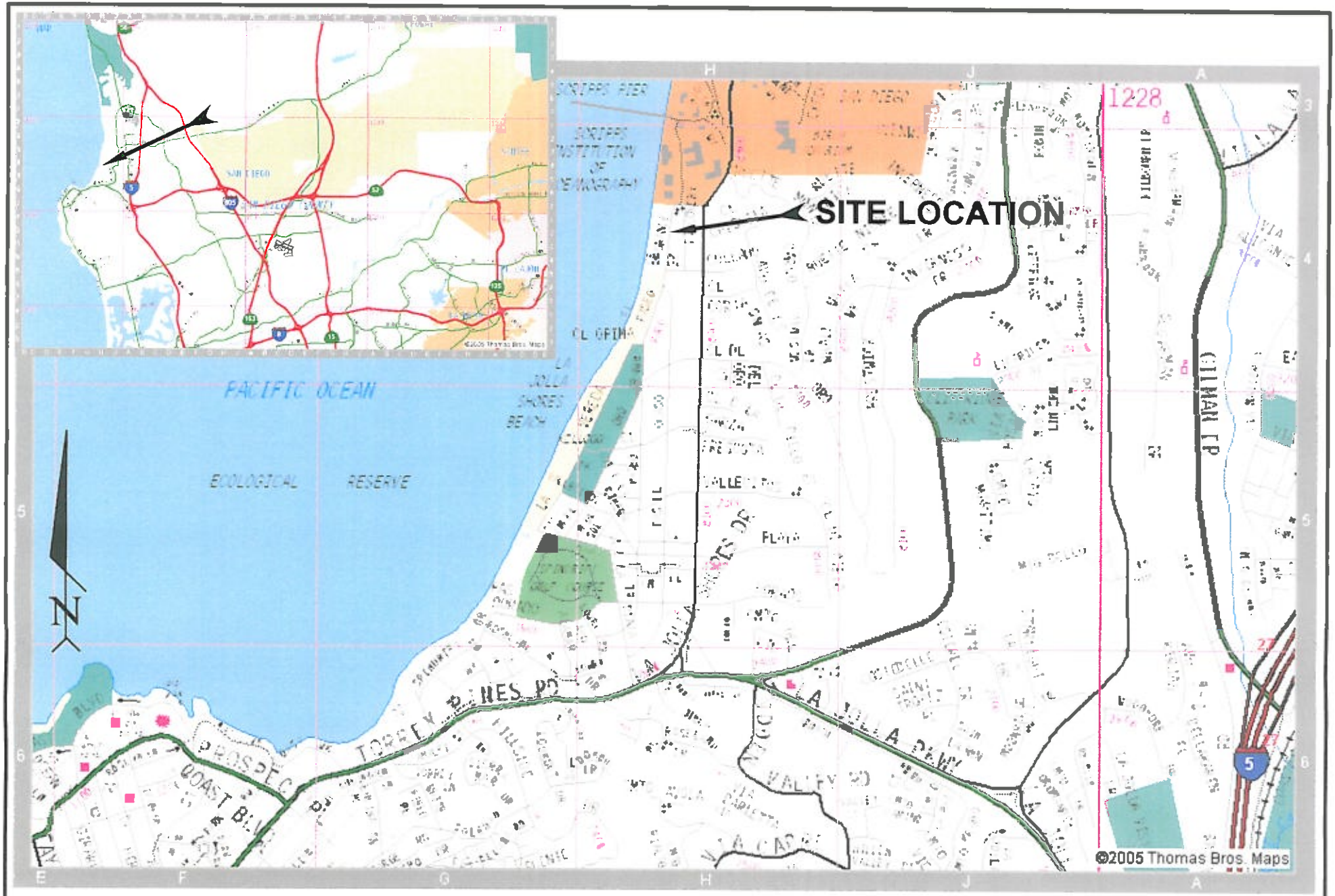
The field evaluation, laboratory testing and geotechnical and geologic analysis presented in this report have been conducted according to current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, expressed or implied, is made regarding the conclusions, recommendations and opinions expressed in this report. Variations may exist and conditions not observed or described in this report may be encountered during construction.

Our conclusions and recommendations are based on an analysis of the observed conditions. If conditions different from those described in this report are encountered, our office should be notified and additional recommendations, if required, will be provided upon request. We appreciate this opportunity to be of service on this project. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Respectfully submitted,
CONSTRUCTION TESTING & ENGINEERING, INC.

Martin E. Siem CEG #2311
Senior Engineering Geologist

Dan T. Math, GE#2665
Principal Engineer



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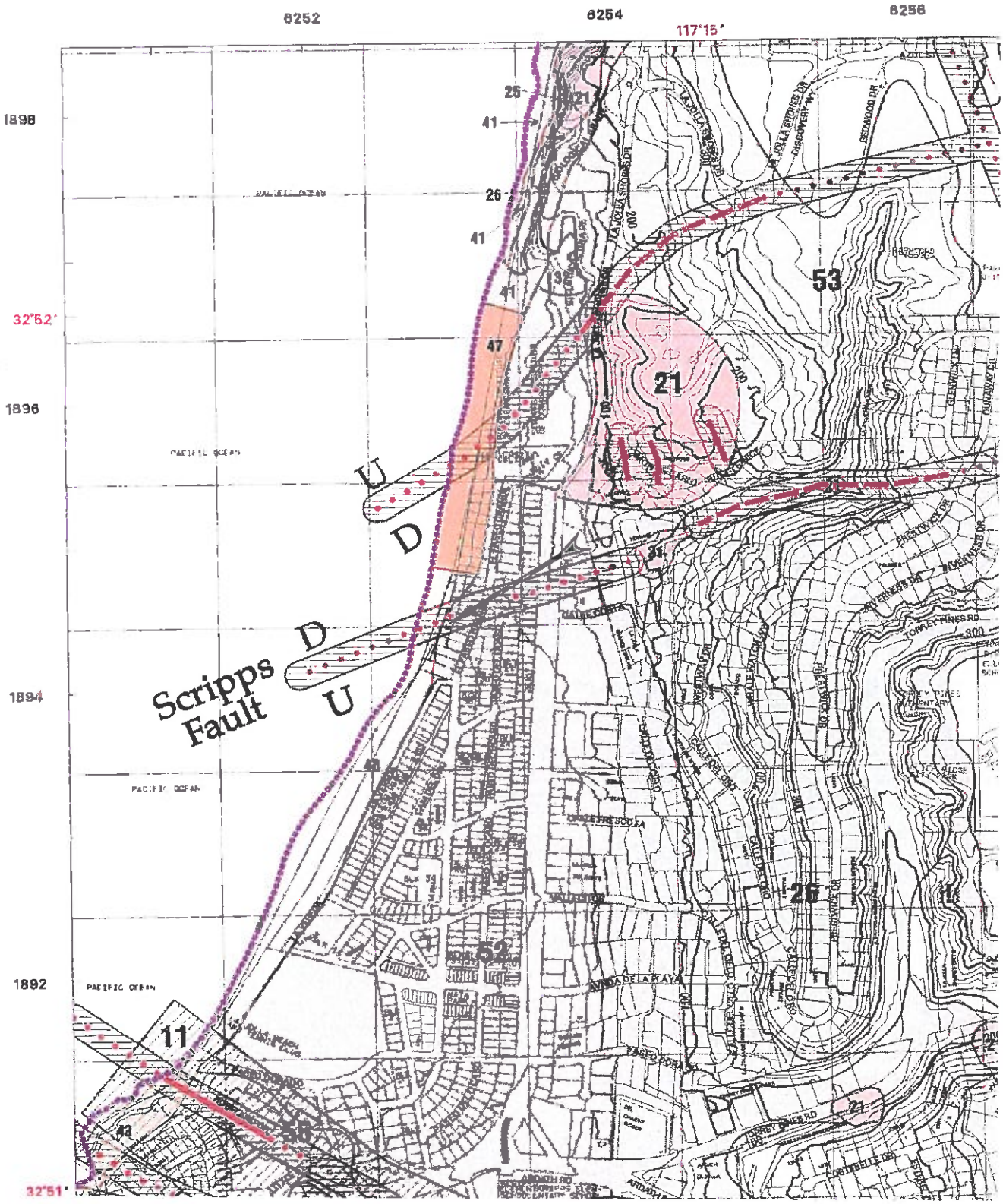
SITE INDEX MAP
PROPOSED LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

CTE JOB NO	10-8264G
SCALE	NO SCALE
DATE	1/07
FIGURE	1



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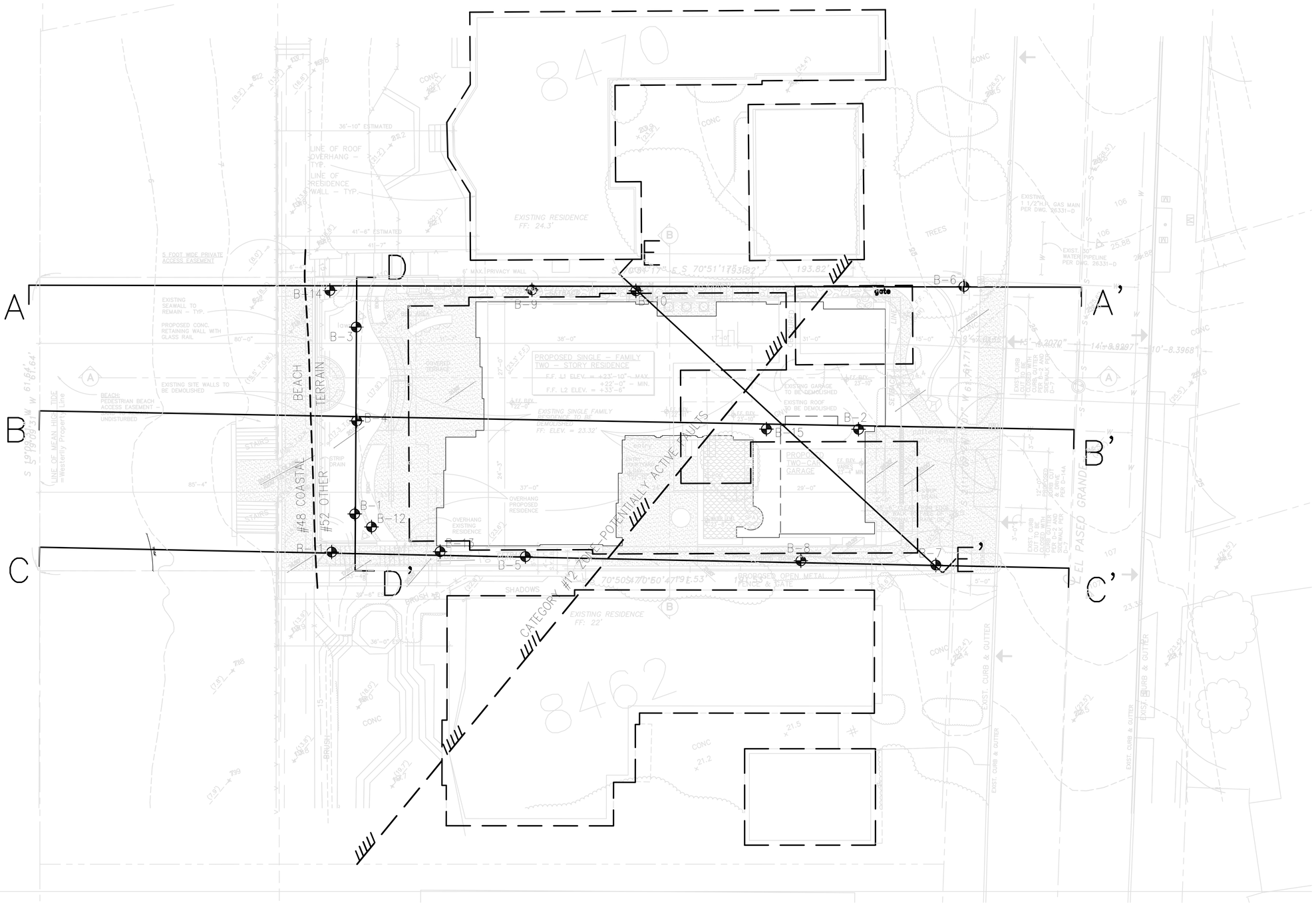
SEISMIC SAFETY STUDY MAP

LUSARDI RESIDENCE
LA JOLLA, CALIFORNIA

CTE JOB NO:	10-8264G
SCALE:	NO SCALE
DATE:	1/07
FIGURE:	2



LEGEND

B-1 APPROXIMATE BORING LOCATION

A A' LOCATION OF GEOLOGIC CROSS SECTION

CITY OF SAN DIEGO SEISMIC SAFETY HAZARD CATEGORY BOUNDARY
#48 COASTAL BEACH
#52 OTHER TERRAIN

#12 POTENTIALLY ACTIVE FAULTS
ZONED ON HATCHERED SIDE OF BOUNDARY LINE

NOTE:SOURCE DRAWING FROM HAYER ARCHITECTURE

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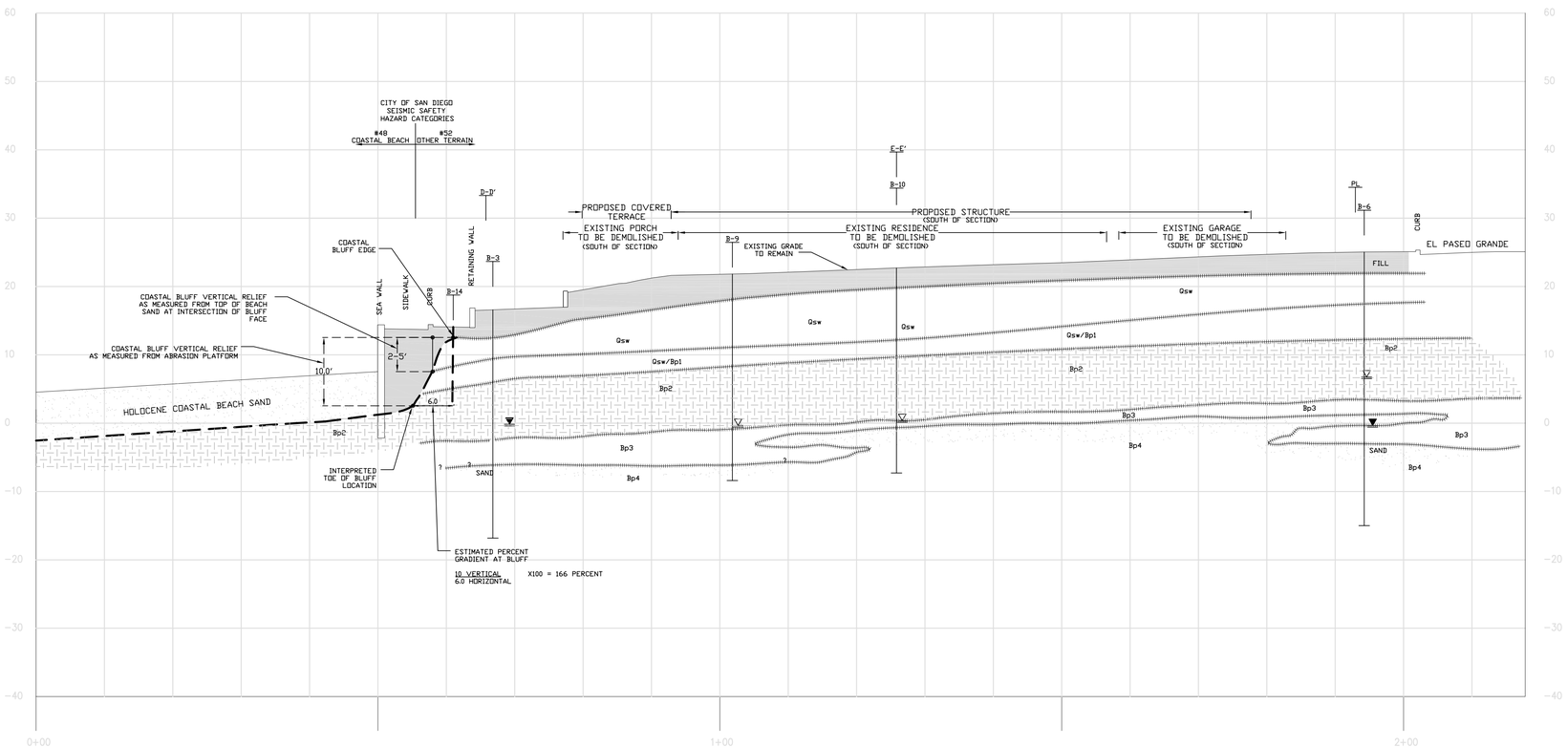
SITE EXPLORATION LOCATION MAP

LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

SCALE:	DATE:
1"=10'	01/07
CTE Job No.:	FIGURE:
10-8264G	3

VIEW LOOKING NORTH



Explanation

Fill: Consists of loose to medium stiff, reworked Quaternary Slope Wash as described below, with loose, silty sand, abundant organics, roots, topsoil form turf and planter areas, minor debris.

Quaternary Slope Wash (Qsw): consists of loose to stiff, moist to wet, yellowish -gray brown to yellowish - olive brown, slightly mottled, silty to sandy Clay, varying to sandy clayey Silt, with rootlets, locally developed pinhole structure, some carbonate near the upper contact, and occasional carbon fragments. The unit is massive with locally developed weak discontinuous laminations. Upper and lower contacts are gradational.

Unit 1 (Qsw/Bp1): consists of medium stiff to stiff, locally loose when saturated, moist to wet, dark gray brown, light brown, orange brown, black, variably mottled, sandy Clay with visually estimated medium to coarse grained sand percentages up 30 percent, scattered pebbles, abundant organics (carbon fragments and disseminated carbon) throughout. Upper contact is locally gradational to distinct, and the lower contact is gradational with Bp2.

Quaternary Bay Point Formation

Unit 2 (Bp2): Bp2 consists of stiff to very stiff, locally hard, moist to wet, dark reddish brown, dark gray-brown, black, dark orange-brown, extensively mottled, silty to sandy Clay, with distinctive coarse-red sand grains throughout, scattered organics (carbon fragments, disseminated carbon, massive to moderate, subangular- blocky soil structure, with clay films Soil horizonation Btb to Btvb. Diffuse upper and lower contacts.

Unit 3 (Bp3): Bp3 consists appears to be a transitional unit between the overlying (Bp2) clay and sands of the underlying unit (**Bp4**). Bp3 is stiff to very stiff silty sandy Clay to medium dense clayey Sand, moist to wet, mottled brown, orange-brown, gray, with black, weaker soil structure than overlying unit Bp2, granular to massive, with locally moderate subangular-blocky soil structure.

Unit 4 (Bp4): Bp4 consists of a distinctive change in lithology from the clay and silt of the overlying units to medium dense to dense, wet, gray to black, fine-to coarse-grained silty to clayey Sand that grades downward into a poorly graded Sand with silt, abundant black mica. Unit is interpreted as a paleo-beach sand.

- Gradation contact between mapped units.
- Approximate location or inferred (?) location of geologic contacts
- Zones of carbonate accumulation
- Existing Grade
- Proposed Final grade
- Perched groundwater observed
- Groundwater at time of drilling

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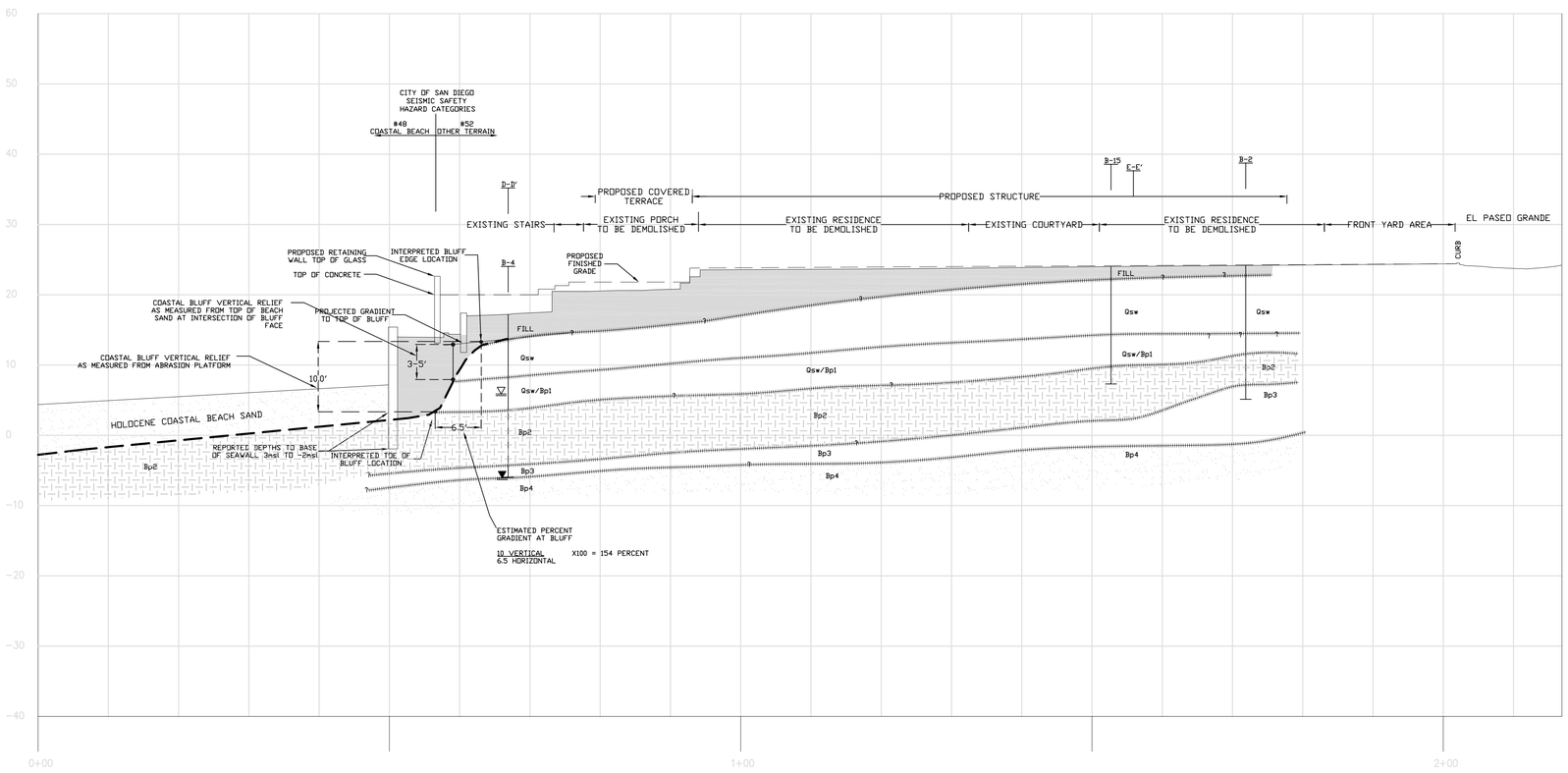
CROSS SECTION A-A'

LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

SCALE:	DATE:
1"=10'	01/07
CTE Job No.:	FIGURE:
10-8264G	4

VIEW LOOKING NORTH



Explanation

Fill: Consists of loose to medium stiff, reworked Quaternary Slope Wash as described below, with loose, silty sand, abundant organics, roots, topsoil form turf and planter areas, minor debris.

Quaternary Slope Wash (Qsw): consists of loose to stiff, moist to wet, yellowish -gray brown to yellowish - olive brown, slightly mottled, silty to sandy Clay, varying to sandy clayey Silt, with rootlets, locally developed pinhole structure, some carbonate near the upper contact, and occasional carbon fragments. The unit is massive with locally developed weak discontinuous laminations. Upper and lower contacts are gradational.

Unit 1 (Qsw/Bp1): consists of medium stiff to stiff, locally loose when saturated, moist to wet, dark gray brown, light brown, orange brown, black, variably mottled, sandy Clay with visually estimated medium to coarse grained sand percentages up 30 percent, scattered pebbles, abundant organics (carbon fragments and disseminated carbon) throughout. Upper contact is locally gradational to distinct, and the lower contact is gradational with Bp2.

Quaternary Bay Point Formation

Unit 2 (Bp2): Bp2 consists of stiff to very stiff, locally hard, moist to wet, dark reddish brown, dark gray-brown, black, dark orange-brown, extensively mottled, silty to sandy Clay, with distinctive coarse-red sand grains throughout, scattered organics (carbon fragments, disseminated carbon, massive to moderate, subangular- blocky soil structure, with clay films Soil horizonation Btb to Btvb. Diffuse upper and lower contacts.

Unit 3 (Bp3): Bp3 consists appears to be a transitional unit between the overlying (Bp2) clay and sands of the underlying unit (Bp4). Bp3 is stiff to very stiff silty sandy Clay to medium dense clayey Sand, moist to wet, mottled brown, orange-brown, gray, with black, weaker soil structure than overlying unit Bp2, granular to massive, with locally moderate subangular-blocky soil structure.

Unit 4 (Bp4): Bp4 consists of a distinctive change in lithology from the clay and silt of the overlying units to medium dense to dense, wet, gray to black, fine-to coarse-grained silty to clayey Sand that grades downward into a poorly graded Sand with silt, abundant black mica. Unit is interpreted as a paleo-beach sand.

- Gradation contact between mapped units.
- Approximate location or inferred (?) location of geologic contacts
- Zones of carbonate accumulation
- Existing Grade
- Proposed Final grade
- Perched groundwater observed
- Groundwater at time of drilling

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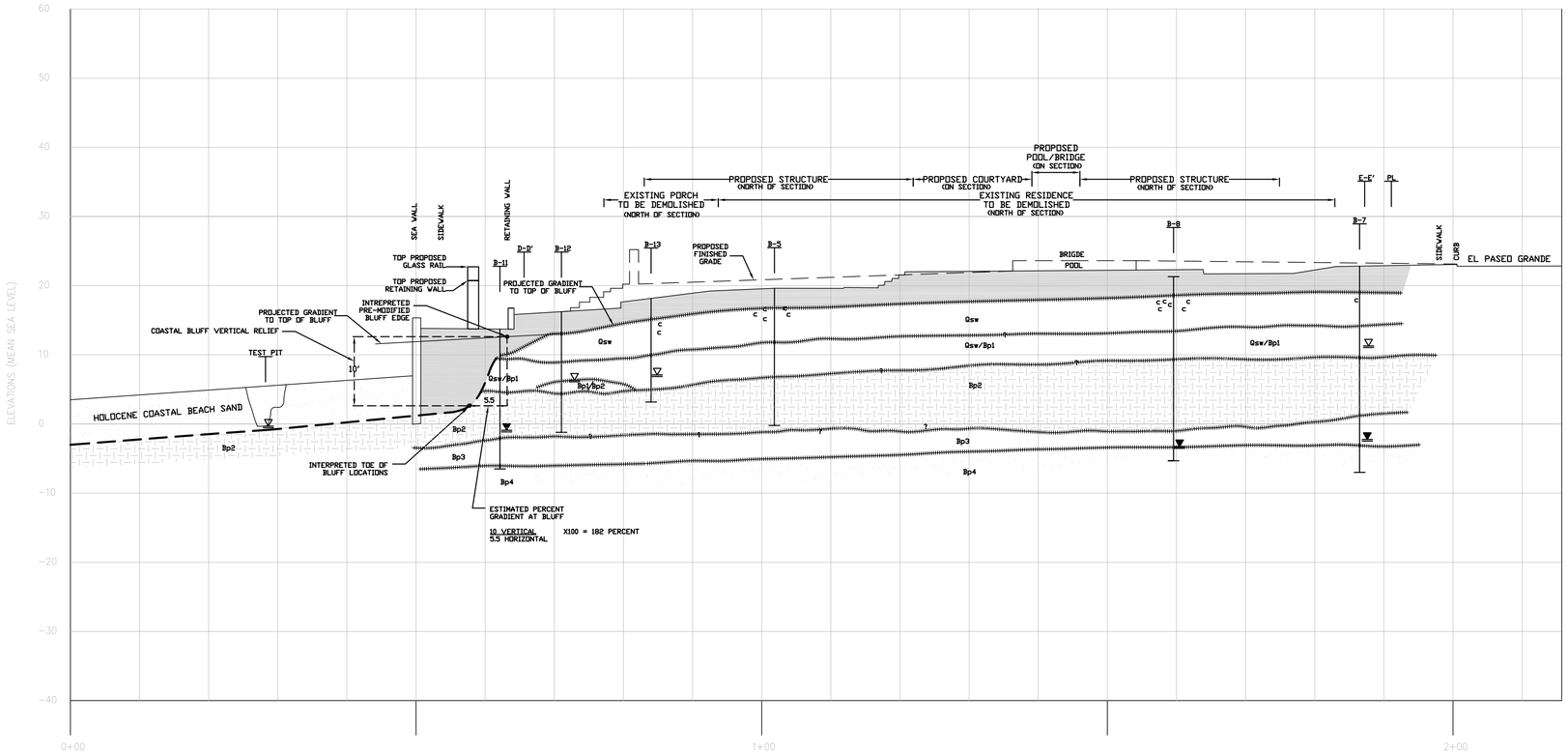
CROSS SECTION B-B'
LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

SCALE:	DATE:
1"=10'	01/07
CTE Job No.:	FIGURE:
10-8264G	5



Explanation

Fill: Consists of loose to medium stiff, reworked Quaternary Slope Wash as described below, with loose, silty sand, abundant organics, roots, topsoil form turf and planter areas, minor debris.

Quaternary Slope Wash (Qsw): consists of loose to stiff, moist to wet, yellowish -gray brown to yellowish - olive brown, slightly mottled, silty to sandy Clay, varying to sandy clayey Silt, with rootlets, locally developed pinhole structure, some carbonate near the upper contact, and occasional carbon fragments. The unit is massive with locally developed weak discontinuous laminations. Upper and lower contacts are gradational.

Unit 1 (Qsw/Bp1): consists of medium stiff to stiff, locally loose when saturated, moist to wet, dark gray brown, light brown, orange brown, black, variably mottled, sandy Clay with visually estimated medium to coarse grained sand percentages up 30 percent, scattered pebbles, abundant organics (carbon fragments and disseminated carbon) throughout. Upper contact is locally gradational to distinct, and the lower contact is gradational with Bp2.

Quaternary Bay Point Formation

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Unit 4 (Bp4): Bp4 consists of a distinctive change in lithology from the clay and silt of the overlying units to medium dense to dense, wet, gray to black, fine-to coarse-grained silty to clayey Sand that grades downward into a poorly graded Sand with silt, abundant black mica. Unit is interpreted as a paleo-beach sand.

- Gradation contact between mapped units.
- Approximate location or inferred (?) location of geologic contacts
- c c c c — Zones of carbonate accumulation
- Existing Grade
- Proposed Final grade
- Perched groundwater observed
- Groundwater at time of drilling

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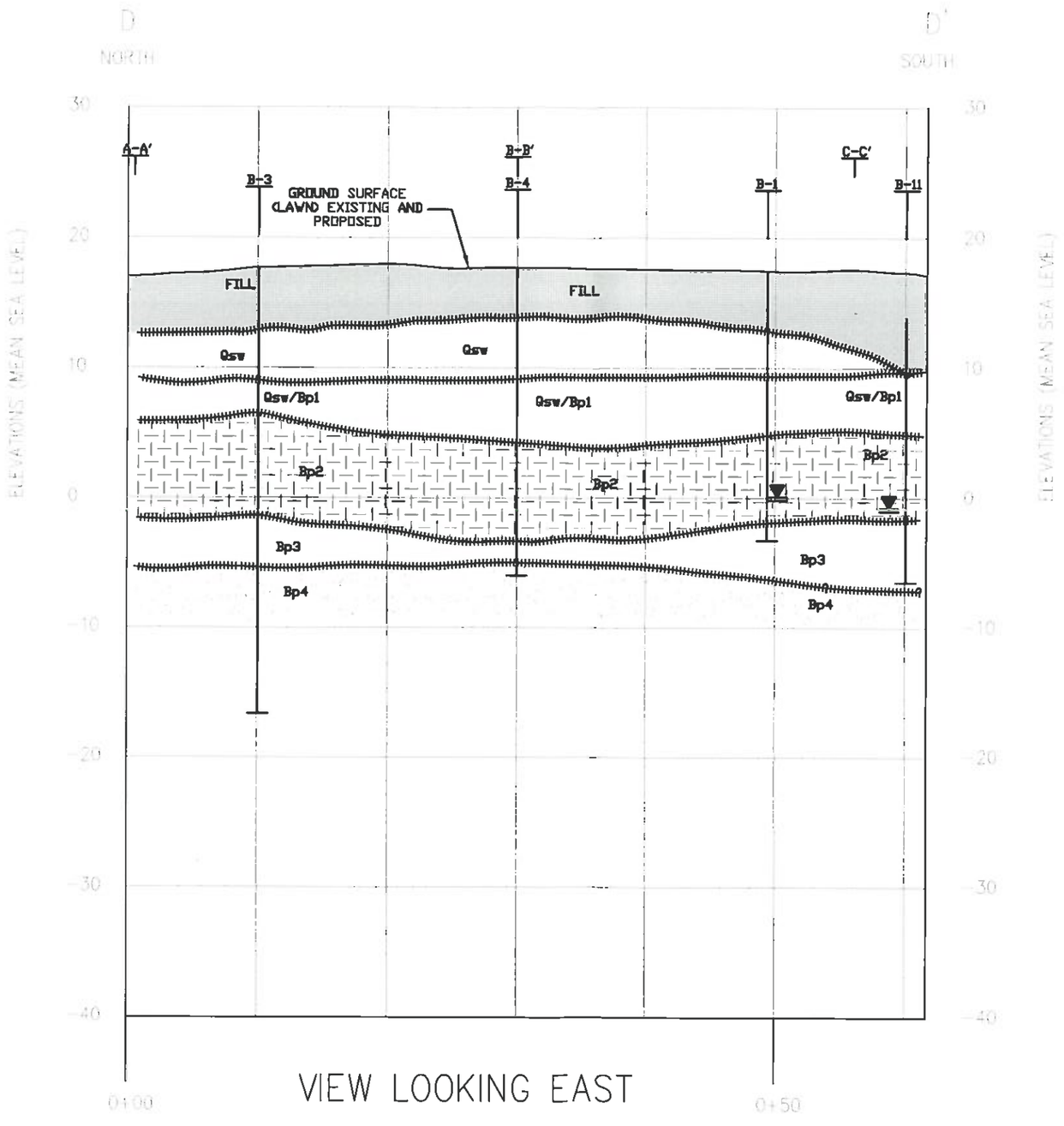
CROSS SECTION C–C'
LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

SCALE:	DATE:
1"=10'	01/07
CTE Job No.:	FIGURE:
10-8264G	6



VIEW LOOKING EAST

SEE FIGURE 3 FOR EXPLANATION

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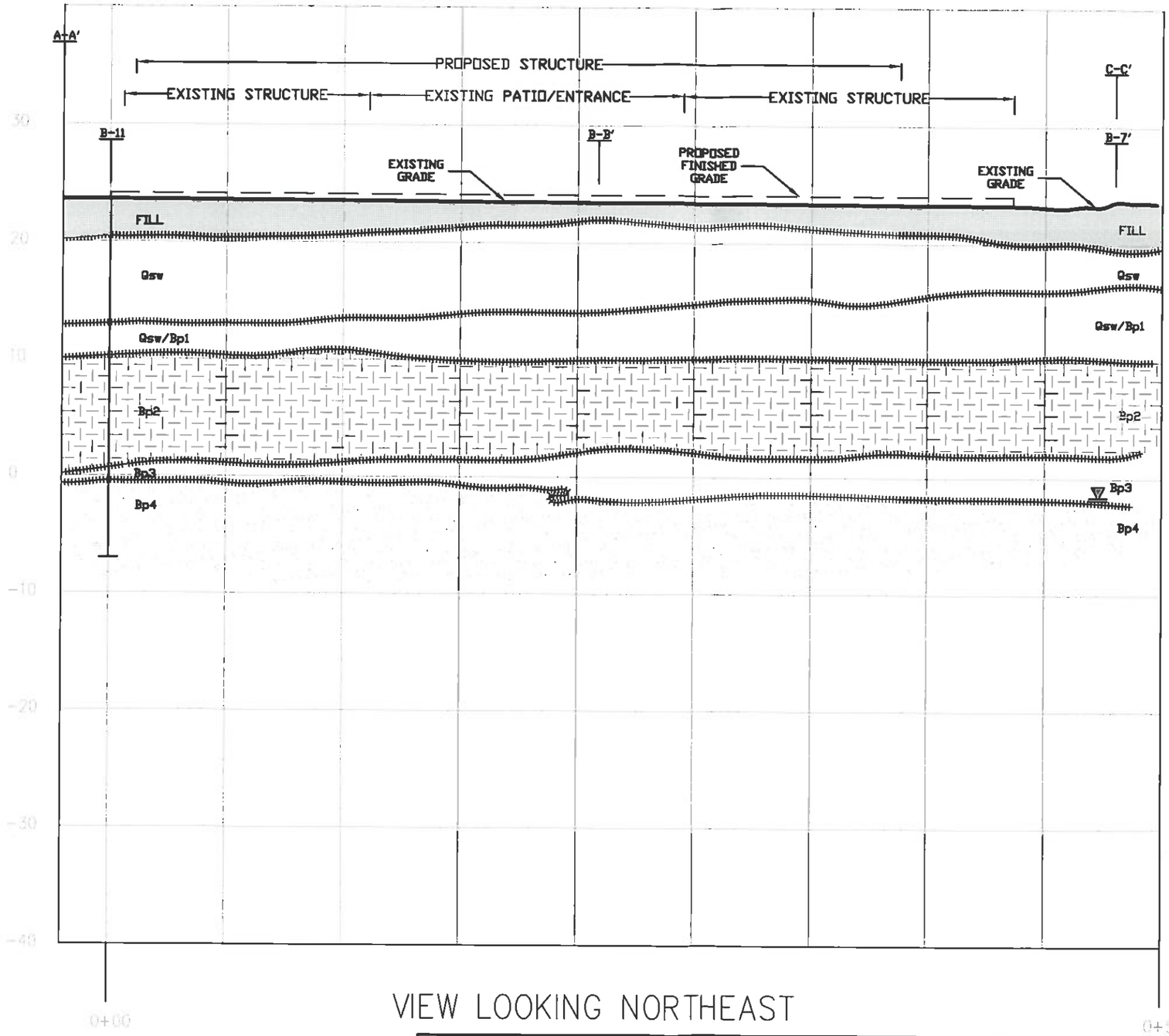
CROSS SECTION D–D'

LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

CTE JOB NO:	10-8264G
SCALE:	1"=10'
DATE:	01/07
FIGURE:	7



VIEW LOOKING NORTHEAST

SEE FIGURE 3 FOR EXPLANATION

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CROSS SECTION E-E'

LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

CTE JOB NO:	10-8264G
SCALE:	1"=10'
DATE:	01/07
FIGURE:	8

LEGEND

HOLOCENE (ACTIVE) FAULT MOVEMENT

HISTORIC FAULT MOVEMENT

/// LINEAR ALIGNED EARTHQUAKE EPICENTERS

QUATERNARY FAULT (YOUNGER THAN 1.6 MILLION YEARS) DISPLACEMENT, AGE UNDIFFERENTIATED

PRE-QUATERNARY (OLDER THAN 1.6 MILLION YEARS) DISPLACEMENT FAULT

0 1 2

SCALE 1" = 12 MILES

PERIOD	1800-1868	1869-1931	1932-1999
MAGNITUDE ≥ 7.0			
6.5-6.9			
5.5-5.9			
5.0-5.4			

40 LAST TWO DIGITS OF M ≥ 6.5 EARTHQUAKE YEAR

APPROXIMATE SITE LOCATION

NOTES: FAULT MAP ADAPTED AFTER JENNINGS, 1994, CDMG MAP NO. 6; REFERENCE FOR ADDITIONAL EXPLANATION

EPICENTERS OF AND AREAS DAMAGED BY M>5 CALIFORNIA EARTHQUAKES, 1800-1999 ADAPTED AFTER TOPPOZADA, BRANUM, PETERSEN, HALLSTORM, CRAMER, AND REICHLE, 2000, CDMG MAP SHEET 49

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REGIONAL FAULT AND SEISMICITY MAP

LUSARDI RESIDENCE
8466 EL PASEO GRANDE
LA JOLLA, CALIFORNIA

CTE JOB NO:	10-8284G
SCALE:	1 inch = 12 miles
DATE:	01/07
FIGURE:	9

APPENDIX A

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REFERENCES CITED

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2. Martin, Ross, 2000, "Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Southern Region," California Division of Mines and Geology, CD 2000-003.

3. Tan, S.S. and Giffen, D.G., 1995, "Landslide Hazards in the Southern Part of the San Diego Metropolitan Area, San Diego County, California," California Division of Mines and Geology, Landslide Hazard Identification Map No. 33.

4. Tan, S. S. and M. P. Kennedy, 1975, "Geology of the San Diego Metropolitan Area, California", La Jolla Quadrangle, California Division of Mines and Geology, DMG Bulletin 200.

APPENDIX B

EXPLORATION LOGS

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GEOTECHNICAL | CONSTRUCTION ENGINEERING TESTING AND INSPECTION
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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	TRIPOD DRILL RIG	DRILLING DATE:	2/9/2006
LOGGED BY:	STEVE H.	SAMPLE METHOD:	BULK AND RING	ELEVATION:	~

BORING: B-1

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC	Fill	Medium dense, very moist, medium to dark grayish brown clayey SAND (SC).	WA MAX
			7			CL	Qsw	Stiff, moist, medium grayish brown sandy CLAY (CL).	WA, MD AL
5						SC	Qsw	Dense, moist, medium to dark brown, fine to medium-grained clayey SAND (SC).	
			20				BP_1		WA
10								? ? ? ? ?	
							BP_2	Based on cross-section correlations.	
15									
									WA
			26				BP_3	Dense, saturated, medium gray and brown, fine to medium-grained clayey SAND (SC).	
20								Total Depth 20' Groundwater Observed at 18'	
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	TRIPOD DRILL RIG	DRILLING DATE:	2/9/2006
LOGGED BY:	STEVE H.	SAMPLE METHOD:	BULK AND RING	ELEVATION:	~23

BORING: B-2

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests
0						SC	Fill	Medium dense, moist, medium yellowish brown fine to medium-grained clayey SAND (SC).	
						CL	Qsw	SLOPEWASH (Qsw): Stiff, moist, medium brown sandy CLAY (CL).	
5			10						EI CHEM
									MD
								? ? ? ? ?	
10			12				Qsw BP_1		
						SC		Medium dense, moist, medium to dark brown fine to medium-grained clayey SAND (SC).	
							BP_2		
15			22						
							BP_2	Dense, saturated, medium grayish brown, fine to medium-grained clayey SAND (SC).	
			27						
20								Total Depth 19' Groundwater Not Observed	
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1	of	2
CTE JOB NO:	10-8264G	DRILL METHOD:	TRIPOD, SOLID STEM	DRILLING DATE:			10/2/2006
LOGGED BY:	D. RIES	SAMPLE METHOD:	BULK AND CONTINUES SPT	ELEVATION:			17.5

BORING: B-3

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0								0-0.3' TURF:	Hand Augered to 1.5 feet
						CL		0.3'-1.5': Soft, very moist, (irrigation), grayish brown fine sandy CLAY (CL) with silt, fine roots.	
			3			SC	Fill	1.5'-2.5': Soft to loose, moist to very moist, grayish brown clayey fine SAND (SC) with thin rootlets, occasional fine gravel, (possible fill).	
								2.5'-3': Soft, moist, yellowish grayish brown, CLAY (CL), trace fine sand, no roots, pinholes, porous.	EI
			5					3'-3.3': Continues soft to loose, moist to very moist, clayey fine SAND (SC) with thin rootlets, occasional fine gravel, (possible fill).	
5			4			CL		3.3'-6': Soft, moist, yellowish gray brown, CLAY (CL), trace fine sand, no roots, pinholes porous.	
			7				Qsw	6'-7': medium stiff, moist, yellowish gray brown CLAY (CL), at 7' becomes dark brown, less porous.	GA AL
							Qsw		
			10				BP_1	8.5'-10': Stiff, moist, dark yellow, gray, brown, orange, mottling, silty CLAY (CL) with trace fine to medium grained sand, scattered coarse grains, and organics.	
10			14					10'-11.5': Stiff, moist, mottled dark gray, brown, with dark orange brown blotches, silty CLAY (CL), with fine sand, scattered medium to coarse sand, trace fine gravel.	
			8			CL	BP_2	11.5'-15': Increasing sand content, grading to fine sandy CLAY (CL), mottled.	
			10						
15			18					15'-16.5': Becomes very stiff.	
					▼			Groundwater at 17'	
			12					17'-18.5': Stiff, wet, mottled dark reddish brown and dark gray dark brown, fine sandy CLAY (CL).	
			17			CL-SC	BP_3	18.5'-20': Grades to very stiff to medium dense, wet, mottled gray brown, orange brown, sandy CLAY to clayey fine SAND (SC), with medium to coarse grains.	
20			24			CL-ML		20'-21.5': Very stiff, wet, mottled gray, gray orange brown sandy silty CLAY to clayey sandy SILT.	GA
			18			SM	BP_4	22'-24': Medium dense, wet, yellowish brown, silty fine SAND (SM) with CLAY.	
			24			SP		24'-24.5': Medium dense, wet, dark brownish gray, SAND (SP), silt to clay, fine to medium grained, at 24.2' a 1/2" thick clay trace layer.	
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	2 of 2
CTE JOB NO:	10-8264G	DRILL METHOD:	TRIPOD, SOLID STEM	DRILLING DATE:	10/2/2006
LOGGED BY:	D. RIES	SAMPLE METHOD:	BULK AND CONTINUES SPT	ELEVATION:	17.5

BORING: B-3

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
25			38			SP-SM		25'-26.5': Dense, wet, dark brown gray and black poorly graded, SAND with silt (SP-SM), fine to medium grained with occasional coarse sand grains, light and dark laminations.	GA
			16					26.5'-27.8': Becomes medium dense.	
			9			SM		27.8'-28': Medium dense, wet, brown silty SAND (SM).	
						SP-SM		28'-29': Medium dense, wet, dark brown, gray, black, poorly graded SAND with silt (SP-SM).	
30						SP		29'-29.5': Loose, wet, brown silty SAND (SM).	
			46					30.5': Dense, wet, grading from last sample to yellow gray clean medium grained SAND (SP).	
			40					32': Dense, wet, yellow, gray, SAND (SP).	
35								Total Depth 33.5' Groundwater at 17' Backfill with Bentonite	
40									
45									
50									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	17.5

BORING: B-4

Depth (Feet)	Bulk Sample / Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0							0-0.3' TURF:	
					CL		0.3'-1.5': Soft, very moist, gray brown fine sandy CLAY with silt and roots.	
		4				Fill	1.5'-2.5': Same as above.	
		3			CL	Qsw	3': Soft, moist, yellow, gray, brown, black silty CLAY (CL), lots of roots, weak laminations.	AL
5		4					Becomes mottled yellow, gray, brown silty CLAY with small roots, porous. 5'-7.5': Soft, moist, mottled yellow, gray, brown silty CLAY with small roots, porous.	
		5			ML		7.5'-8': Medium stiff, moist, gray brown clayey SILT (ML) with rootlets, porous.	
		8			CL	Qsw	8'-9.5': Stiff, moist, mottled faint orange to orange tint, dark brown,	
						BP_1	gray silty CLAY, porous, with sand (increasing content with depth).	
10		7		▽			9.5'-11': Medium stiff, moist, dark gray with light gray brown patches silty CLAY with fine to medium grained sand, porous, noroots, small concretions of fine orange SAND.	
		12					11': No recovery	
						BP_2	13'-14': Stiff, moist, mottled orange, reddish brown, gray, dark gray with black abundant organics, silty CLAY.	
		12					14'-14.5': Hard clay seam with stiff, moist, orange gray silty CLAY.	
15		17			CL		15'-16.5': Very stiff, moist, mottled dark brown, dark red, dary gray red brown, black silty CLAY with trace sand, organics, roots, black root casts.	
		17			ML-CL		17'-18.5': Very stiff, moist, mottled dark brown dark red, dark gray red brown, gray, silty CLAY to clayey SILT with sand.	
		24			SM-ML		18.5'-20': Very stiff, slightly moist, mottled reddish, light brown, gray silty CLAY to sandy SILT and small red inclusions.	
20		16			SC	BP_3	20'-20.5': Very stiff to stiff to medium dense, moist, orange brown, brown gray sandy CLAY to clayey SAND with organic fragments. 20.5'-21.5': Pockets of gray sandy CLAY occasional fine gravel, root casts.	
		23		▼	SP-SM SC	BP_4	21.9'-22.5: Dense, wet, black, gray, yellow SAND (SP) with silt. 22.5'-23': Dense, wet, yellow, gray, brown, black clayey SAND (SC).	
25							End of Boring at 23' Perched Groundwater at 11' Groundwater observed during drilling at 22'	

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	20.5

BORING: B-5

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0								Cored Cement	
			7			CL	Fill	1.5'-2.75': Medium stiff, moist, yellow gray brown, silty CLAY with trace sand, no roots, porous.	
			12				Qsw	3'-4.5': Medium stiff, moist, gray brown CLAY, non-porous, with carbonate.	
5			8			CL		5.5'-7.5': Stiff, moist, yellow brown silty CLAY with fine to medium grained sand, occasional coarse black grains, faint laminations.	HA
			11			ML	Qsw	7.5'-8': Stiff, moist, red brown clayey SILT with trace sand.	
							BP_1		
10					▽			Groundwater at 13'	
			16			CL-SC	BP_2	13'-14.5': Very stiff, slightly moist, mottled orange gray brown sandy CLAY to clayey SAND with layers of red brown sandy SILT.	
15			18					15.5'-17': Very stiff, slightly moist, mottled orange brown gray with areas of red brown sandy CLAY to clayey SAND and coarse black grains organics.	
			34			CL		18.5'-20': Hard, slightly moist, mottled red, gray, brown, sandy CLAY lots of coarse black grains, roots near 20'.	
20								Total Depth 20' bgs Groundwater Observed 13' bgs	
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 2
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	24.5

BORING: B-6

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0						SM		0-0.33': Medium dense, slightly moist, yellow gray silty fine to medium SAND (SM).	
						ML		0.33'-0.5': Becomes red brown.	
						CL	Fill	0.5'-2.5': Slightly moist, brown SILT with clay (ML), occasional roots.	
								2.5': Moist, yellow brown CLAY with fine SAND.	
			4					3'-4.5': Stiff, moist, mottled yellow gray brown, fine to medium sandy CLAY, porous, visible bedding.	
5			5				Qsw	4.5'-6': Medium stiff, slightly moist, mottled yellow gray, CLAY, occasional rootlets.	
			11					6'-8': Becomes stiff.	
			11				Qsw	8'-9': Stiff, slightly moist, dark gray light gray brown, fine sandy CLAY with occasional pebbles and coarse grain size charcoal.	
			14				BP_1	9'-10.5': Stiff, moist, dark gray brown, silty CLAY with trace sand.	
10									
			16			ML		11'-12.5': Very stiff, moist, brown to black, abundant organics, sandy SILT to sandy CLAY.	
						ML/CL			
			17				BP_2	12.5'-17' Very stiff, moist, mottled dark brown, reddish orange brown, dark gray, orange gray, brown siltyCLAY to clayey SILT with trace sand and oxidized orange red coarse sand grains.	
15			21			CL-SC			
			17						
					▼	SC		18'-19.5': Very stiff, wet, mottled dark gray dark red orange gray, clayey SAND with organics.	
			21						
20								20'-21.5': Becomes hard.	
			32						
						CL	BP_3	22'-23': Hard, moist, mottled orange brown, gray, black with organics, sandy CLAY with red oxidized coarse pebbles.	
			25			SM		23': Medium dense, wet, gray silty fine to coarse silty SAND with clay lense.	
							BP_4		
							BP_3	24.5'-25.5': Stiff, slightly moist, mottled orange gray brown, black organics, sandy CLAY with bright red coarse grains.	
25			26						

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	2 of 2
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	24.5

BORING: B-6

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
25									
			22			CL	BP_3	26'-27.5': Medium dense, moist, mottled orange brown, brown gray, sandy CLAY with black organics.	
			44			SC	BP_4	28'-28.75': Very dense, wet, mottled orange black brown, clayey SAND. 28.75'-29.5': Very dense, wet, black yellow clayey medium grained SAND with occasional pebbles.	
30			49			SP-SM		29.5'-31.5': Very dense, wet, black yellow clayey medium grained, poorly graded SAND (SP-SM) with SILT and occasional fine gravel.	GA
35			54					@ 35' Becomes very dense.	
								End of Boring at 36.5' Groundwater Observed during Drillat at 18' and 23'	
40									
45									
50									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 2
CTE JOB NO.	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S C.	SAMPLE METHOD:	SPT	ELEVATION:	-23.5

BORING: B-7

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0						CL		0-1.5': Excavates medium stiff, moist, yellow gray brown, fine to medium-grained sandy CLAY (CL).	
						SC	Fill	@ 1.5' Clayey SAND (SC).	
						CL		@ 2' Sandy CLAY (CL). 2.5'-4': Medium stiff, moist, yellow gray CLAY with roots, trace sand.	
			6					Medium stiff, moist, yellow gray CLAY with carbonate.	
5			5				Qsw	5'-6.5': Becoming brown with depth.	
								? ? ? ? ?	
							Qsw BP1		
10					▼	SC		10'-11.5': Loose, wet, yellow gray brown, with black organics clayey fine to coarse SAND with pebbles, and red coarse grains.	
			7					11.5'-13': Loose, moist, yellow brown sandy SILT with organics.	
			7					? ? ? ? ?	
15							BP2		
						CL			
			21					18'-19.5': Medium dense, moist, mottled dark red, brown, gray sandy CLAY with red coarse grains.	
20			18						
						ML-CL	BP3	20.75'-21': Stiff, moist, mottled orange brown, gray, orange brown clayey sandy SILT to sandy CLAY.	
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	2 of 2
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	-23.5

BORING: B-7

Depth (Feet)	Sample: Bulk	Sample: Driven	Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
25				18		▼	CL-SC		Medium dense, moist to wet, mottled yellow gray brown with black organics.	
									Dug to 30', caved in up to 24'	
30									End of Boring at 30' Peached Groundwater at 10' Groundwater Observed during drilling at 25'	
35										
40										
45										
50										

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C	SAMPLE METHOD:	SPT	ELEVATION:	21 8

BORING: B-8

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0									
			8			SC ML CL	Fill	UNDOCUMENTED FILL: 0.5': Loose, dry, light brown clayey medium grained SAND. 0.5'-1': Soft, slightly moist, brown, SILT. 1'-2.5': Stiff, slightly moist, brown silty CLAY with occasional fine gravel.	
			5				Qsw	2.5'-3': Medium stiff, slightly moist, mottled yellow gray, brown silty CLAY with roots, occasional black organics, carbonate stringers.	
5			5						
			8				Qsw	7.5'-8': Stiff, moist, yellow brown, CLAY, occasional organics. 8'-9': Stiff, moist, brown CLAY with silt.	
			8				BP_1	9'-10.5': Stiff, moist, yellow gray CLAY with sand and organics.	
10			18			CL		10.5'-11.75': Very stiff, moist, brown, sandy fine to medium CLAY.	
						CL	BP_2	11.75-17': Very stiff, moist, mottled orange, gray, brown with black organics sandy CLAY.	
15									
			17					17-17.75': Medium dense, moist, mottled orange, gray, brown, black organics clayey SAND.	
			12			CL		17.75'-18.5': Very stiff, slightly moist, mottled dark gray, dark reddish brown sandy CLAY. 18.5': Becomes stiff.	GA
20									
					▼	SC	BP_3	23'-24.5': Hard medium dense, moist to wet, mottled orange, gray, brown clayey fine to medium-grained silty SAND.	
			16						
25			16				BP_4	24.5.5-26': Medium dense, wet, mottled orange, gray, brown, black clayey sandy SILT to fine to coarse-grained silty SAND with silt layers/patches.	
								End of Boring at 26' Observed Groundwater at time of Drilling 22.4'	

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 2
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	22

BORING: B-9

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0									
			7			CL	Fill	1'-2.5': Medium stiff, moist, yellow brown sandy CLAY with fine gravel.	
			4					2.5'-4': Becomes soft.	
			12					4'-5.5': Stiff, slightly moist, yellow gray, fine sandy CLAY.	
5			7			CL	Qsw	5.5'-7': 0.75' Becomes medium stiff.	
10			10			CL	BP_1	10'-13': Stiff, slightly moist, orange to dark brown, with black organics, sandy CLAY.	
			12						
								? ? ? ? ?	
15							BP_2	Upper BP_2 contact based on cross-section intrpretation.	
			27					18'-19.5': Very stiff, moist, mottled dark red brown with, black organics fine sandy CLAY.	
20			28			CL-SC		19.5'-21: Very stiff, moist, dark red brown, with black organics fine sandy CLAY to clayey SAND.	
						CL		21'-21.5': Very stiff, moist, mottled orange, dark red brown, with black organics fine sandy CLAY.	
			30		▼	SC		21.5'-22.5': Dense, wet, mottled, orange gray brown, clayey SAND, with red coarse grain-fine gravel size inclusions.	
25									

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1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4853

PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	2 of 2
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	22

BORING: B-9

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
25								21.5'-22.5': Dense, wet, mottled, orange gray brown, clayey SAND, with red coarse grain-fine gravel size inclusions.	
			25			SC		27.5'-29': Very stiff, wet, light brown, gray, with black organics sandy CLAY with silt. Approaching silty SAND with clay. ~ 30' Cave in	
30								Total Depth 30' Groundwater Observed during Drilling at 22'	
35									
40									
45									
50									

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1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	23.5

BORING: B-10

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0									
			7			CL	Fill	1'-2.5': Medium stiff, moist, brown sandy SILT to silty SAND, with roots with coarse oxidized red grains	
			11				Qsw	3': Stiff, moist, yellow brown sandy SILT with CLAY.	
5			7			SC		6.5'-6.75': Medium stiff, moist, yellow brown gray, clayey fine to medium grainded SAND, with trace fine gravel.	
			9			CL		6.75'-7': Stiff, moist, gray brown fine sandy CLAY to sandy SILT. 7.5'-9': Becomes yellow brown.	
10			12			CL		9'-10.5': Stiff, moist, mottled yellow gray brown, fine sandy CLAY occasional black organics.	
			18				BP_1	10.5'-12': Very stiff, moist, slightly mottled dark brown to brown with distinctive orange fine gravel and black organics, sandy CLAY.	
								? ? ? ? ?	
							BP_2		
15							BP_4		
			14			CL		18-19.5': Stiff, slightly moist, mottled dark brown dark red brown gray with black organics, sandy CLAY.	GS AL
20			19					19.5'-21': Becomes increasing organic precentage very stiff.	
			16					21'-22.5': Less organics.	
					▼	CL	BP_3	Medium dense, wet, mottled, orange, dark red brown fine sandy CLAY.	
			15			SC	BP_4	23'-24.5': Medium dense, wet, orange, gray black clayey medium grained SAND.	
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	~14.5

BORING: B-11

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0						SC	Fill	SLOPEWASH: 1'-2.5': Wet, brown clayey fine SAND with gravel.	
			2						
			2					2.5'-4': No recovery.	
			6				BP_1	4'-5.5': Medium stiff, moist, brown to mottled orange brown black, organics, fine sandy CLAY, last two inches are medium stiff, moist, dark brown	
5						CL		CLAY. 5.5'-6.25': Medium stiff, moist, mottled light to dark gray brown sandy CLAY with black organic fragments (charcoal).	
			5					7'-8': Medium stiff, moist, mottled dark gray, brown with black organics, sandy CLAY, trace coarse sand and pebbles.	
			9			SC-CL		8'-8.5': Stiff, moist, dark brown sandy CLAY, to clayey SAND with coarse orange grains	
			18			CL		8.5'-9.5': Stiff to very stiff, moist, mottled brown to orange brown sandy CLAY with coarse orange grains and with wood chips.	
10							BP_2	9.5'-10': Very stiff, moist, heavily mottled orange reddish brown sandy CLAY with fine gravel.	
			11					10'-13': Stiff, moist, mottled dark brown orange brown, dark gray sandy CLAY, with abundant black organics.	
			13						
			13		▼			13'-14.5': Stiff, moist, mottled dark reddish brown, dark brown, gray sandy CLAY, with black organics	
15						CL-SC		14.5'-16': Very stiff, moist to wet, mottled dark brown, dark red, orange gray brown with black organics, sandy CLAY, with coarse red grains.	
			17						
			16			SC	BP_3	16'-19.5': Grades to stiff to very stiff, mottled orange brown, brown, gray, clayey SAND.	
			11						
						SC	BP_4	Hole cave back to 10'. Clayey sands at bottom.	
20									
								End of Boring 20.5' Groundwater Observed during Drilling at 14.5'	
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	~17.5

BORING: B-12

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0						SC	Fill	0-1.8': Loose, moist, orange brown clayey fine to medium SAND with small roots. @ 1.8': Loose, moist, gray brown clayey fine SAND. 2'-2.5': Soft, slightly moist, yellow brown clayey fine SAND with roots.	
			3					2.5'-3.5': Very soft, moist, yellow gray clayey fine to coarse SAND with gravel and roots (orange oxidation on gravel).	
			5			CL	Qsw	4'-7': Medim stiff, slightly moist, yellow gray fine sandy CLAY, black root casts.	
5			9			CL-SC		7'-7.5': Medium stiff, moist, brown to spotty yellow sandy CLAY to clayey SAND.	
			14			CL	Qsw / BP_1	7.6'-9': Stiff, moist, mottled yellow orange, gray-brown fine sandy CLAY with occasional coarse sand grains and black organics, roots.	
			9		▼	CL	BP_1	9'-9.5': Stiff, moist to wet, dark brown with brick red grains silty CLAY with sand.	
10			18			CL	BP_2	10.5'-12.5': Very stiff, moist, mottled brown, orange gray sandy CLAY.	
			18				BP_2	12.5': Very stiff, slightly moist, red brown clayey SAND to sandy CLAY.	
			15						
15			14			CL		15'-16.5': Very stiff to stiff, moist, mottled dark brown, dark gray to red sandy to silty CLAY with organics (charcoal) abundant organics at 15' interval.	
								End of Boring at 16.5' Groundwater Observed at 9.5'	
20									
25									

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1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.745.4556

PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	19

BORING: B-13

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0								0-1'	
			3			SC	Fill	@ 1' Loose, slightly moist, yellow light gray, clayey SAND with micas. 1'-1.5': Very loose, slightly moist, yellow gray clayey fine to medium SAND.	
								1.5'-2.5': Very soft, slightly moist, yellow gray sandy CLAY.	
			5					3'-6': Medium stiff, slightly moist, yellow gray fine sandy CLAY with rootlets.	
5			4			CL	Qsw	4.5'-6': With carbonate.	
			5					6'-8.25': Becomes soft.	
			3						
			9				Qsw BP_1	8.25'-10': Moist, dark gray orange brown dark green, gray fine to coarse sandy CLAY, with occassional pebbles.	
10			9			CL		10.5': Stiff, moist to wet, mottled dark orange brown, light brown to dark brown, gray, sandy SILT with clay to sandy CLAY, grading downward to clayey fine to coarse-grained SAND.	
			12		▼	SC			
			20			CL	BP_2	13.5': Vert stiff, moist, mottled dark brown dark red orange gray brown sandy CLAY.	
15								End of Boring at 15'	
								Groundwater Observed during Drilling at 13.5'	
20									
25									

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1441 MONTIEL ROAD, SUITE 115 | ESCONDIDO, CA 92026 | 760.746.4955

PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO:	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C	SAMPLE METHOD:	SPT	ELEVATION:	14.5

BORING: B-14

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0									
						SC	Fill	0-1' TOPSOIL: @ 1' Loose, moist, yellow gray, clayey SAND with roots.	
						CL		1.5'-3': Very soft, moist, yellow gray fine sandy CLAY.	
			2				Qsw	3'-3.75': Becomes soft.	
			5					3.75'-6': Medium stiff, moist, gray brown sandy CLAY.	
5			5						
			11			CL	Qsw BP_1	6'-7.25': Stiff, moist, dark gray silty CLAY with sand.	
			11					7.25'-7.5': Stiff, slightly moist, orange brown sandy CLAY. 7.5'-8': Becomes mottled orange to gray brown. 8'-9': Becomes mottled orange to gray brown..	
						SC-CL	BP_2	9'-10.5': Very stiff, slightly moist, mottled red gray brown, clayey SAND to sandy CLAYwith gravel size pieces of charoal.	
10			17						
								End of Boring at 10.5' Groundwater Not Observed	
15									
20									
25									

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PROJECT:	LUSARDI RESIDENCE	DRILLER:	PACIFIC DRILLING	SHEET:	1 of 1
CTE JOB NO.	10-8264G	DRILL METHOD:	6" TRIPOD	DRILLING DATE:	9/3/2006
LOGGED BY:	S.C.	SAMPLE METHOD:	SPT	ELEVATION:	~23

BORING: B-15

Depth (Feet)	Bulk Sample	Driven Type	Blows/Foot	Dry Density (pcf)	Moisture (%)	U.S.C.S. Symbol	Graphic Log	DESCRIPTION	Laboratory Tests/Comments
0						SC	Fill	0-1.5': Loose, moist, brown, clayey SAND with roots.	
						CL	Qsw	2'-3.5': Soft, moist, yellow brown, fine sandy CLAY with roots.	
			3						
			9					3.5'-5': Medium stiff, moist, gray brown sandy CLAY with occasional charcoal.	
5			3					5'-6.5': Soft, moist, yellow gray sandy CLAY with occasional orange grains.	
			6					6.5'-8': Becomes medium stiff.	
			5						
10			9			CL-SC	Qsw	9.25'-9.5': Medium stiff, moist, dark brown, fine to coarse sandy CLAY to clayey SAND.	
						CL	BP_1	9.5'-10.25': Stiff, moist, dark brown sandy CLAY.	
						SC		10.25'-11': Stiff, moist, mottled orange ,gray, brown clayey SAND.	
								? ? ? ? ?	
15			15			CL	BP_2	15'-16.5': Very stiff, moist, mottled dark orange reddish orange dark gray, dark brown, sandy CLAY with some black charcoal fragments.	
								End of Boring at 16.5' Groundwater Not Observed during Drilling	
20									
25									

APPENDIX C

LABORATORY METHODS AND RESULTS

APPENDIX C
LABORATORY METHODS AND RESULTS

Laboratory tests were performed on representative soil samples to detect their relative engineering properties. Tests were performed following test methods of the American Society for Testing Materials or other accepted standards. The following presents a brief description of the various test methods used. Laboratory results are presented in the following section of this Appendix.

Classification

Soils were classified visually according to the Unified Soil Classification System. Visual classifications were supplemented by laboratory testing of selected samples according to ASTM D2487.

Particle-Size Analysis

Particle-size analyses were performed on selected representative samples according to ASTM D422.

Expansion Index

Expansion testing was performed on selected samples of the matrix of the onsite soils according to Building Code Standard No. 29-2.

Atterberg Limits

The procedure of ASTM D4518-84 was used to measure the liquid limit, plastic limit and plasticity index of representative samples.

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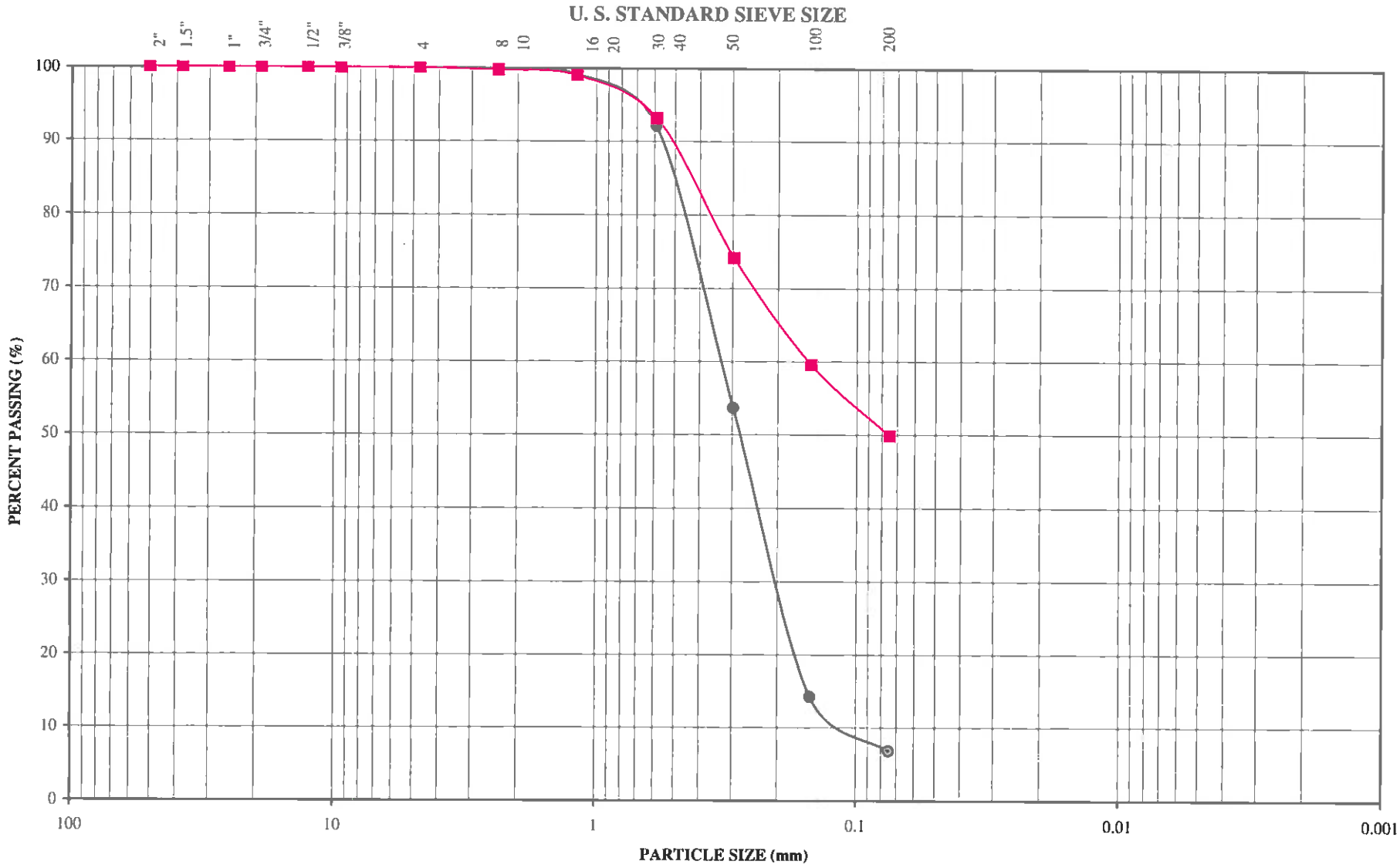
EXPANSION INDEX TEST

UBC 18-2

LOCATION	DEPTH (feet)	EXPANSION INDEX	EXPANSION POTENTIAL
B-3	2-7	41	LOW

ATTERBERG LIMITS

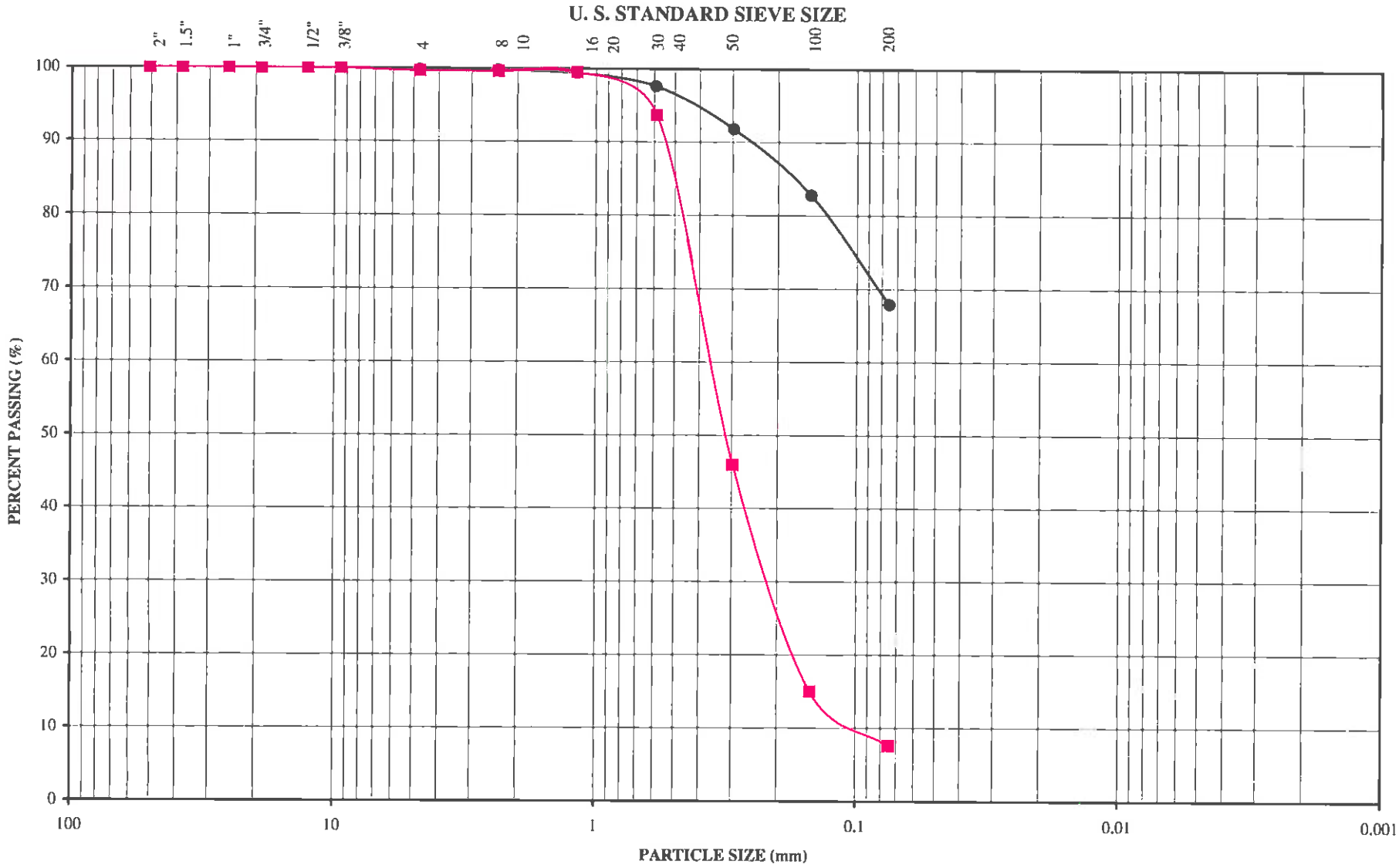
LOCATION	DEPTH	LIQUID LIMIT	PLASTICITY INDEX	CLASSIFICATION
B-3	6-7.5	37	26	CL
B-4	3-4.5	41	29	CL
B-10	18-19.5	27	16	CL



PARTICLE SIZE ANALYSIS

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA. 92029 (760) 746-4955

Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
B-3	25-26.5	●	-	-	SP-SM
B-3	20-21.5	■	-	-	CL-SC
CTE JOB NUMBER:		10-8264G		FIGURE:	C-1

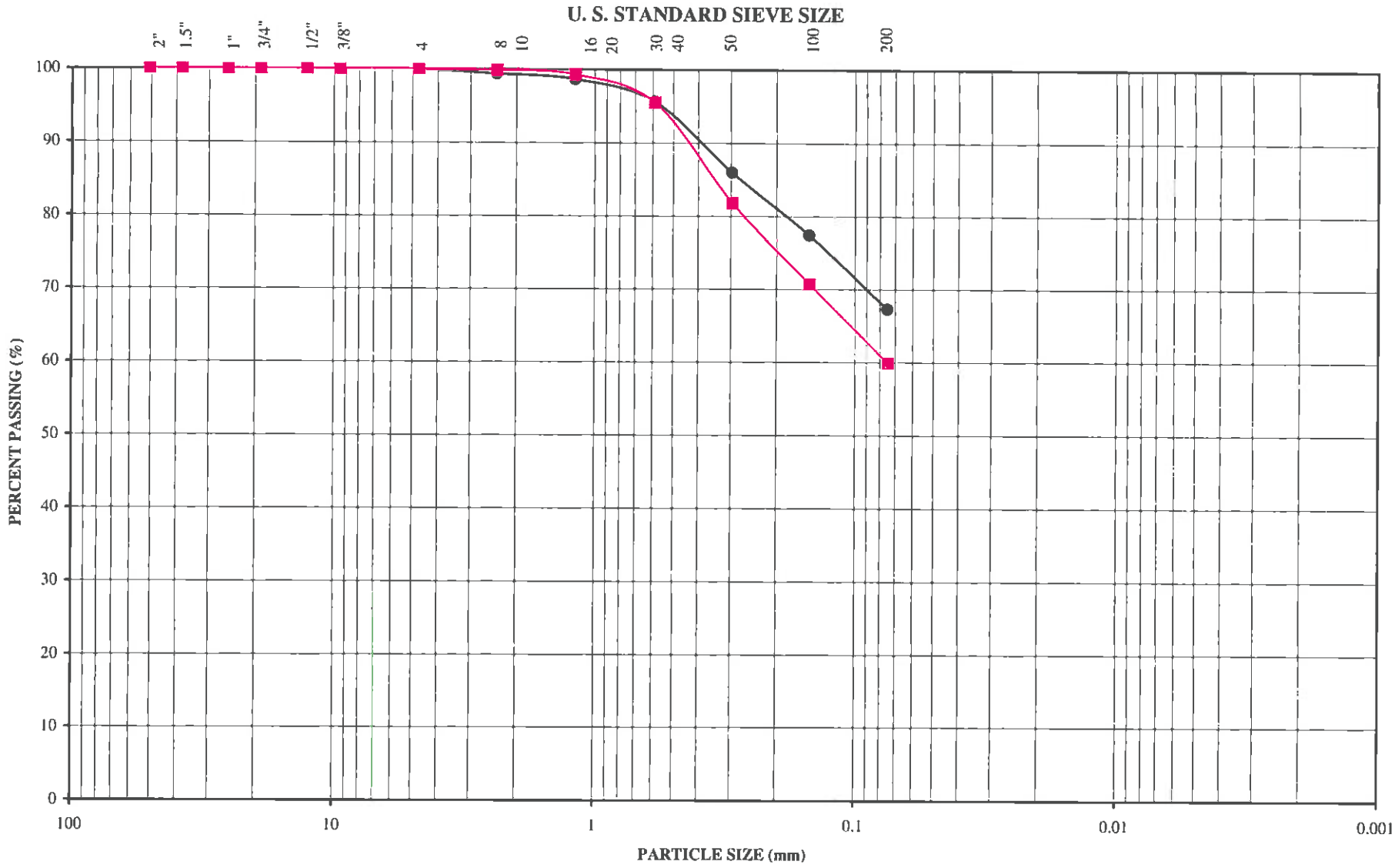


PARTICLE SIZE ANALYSIS

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
2414 VINEYARD AVENUE, SUITE G ESCONDIDO CA 92029 (760) 746-4955

Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
B-3	6-7.5	●	-	-	CL
B-6	29.5-31.5	■	-	-	SP-SM

CTE JOB NUMBER: 10-8264G FIGURE: C-2



PARTICLE SIZE ANALYSIS

CONSTRUCTION TESTING & ENGINEERING, INC.
GEOTECHNICAL AND CONSTRUCTION ENGINEERING TESTING AND INSPECTION
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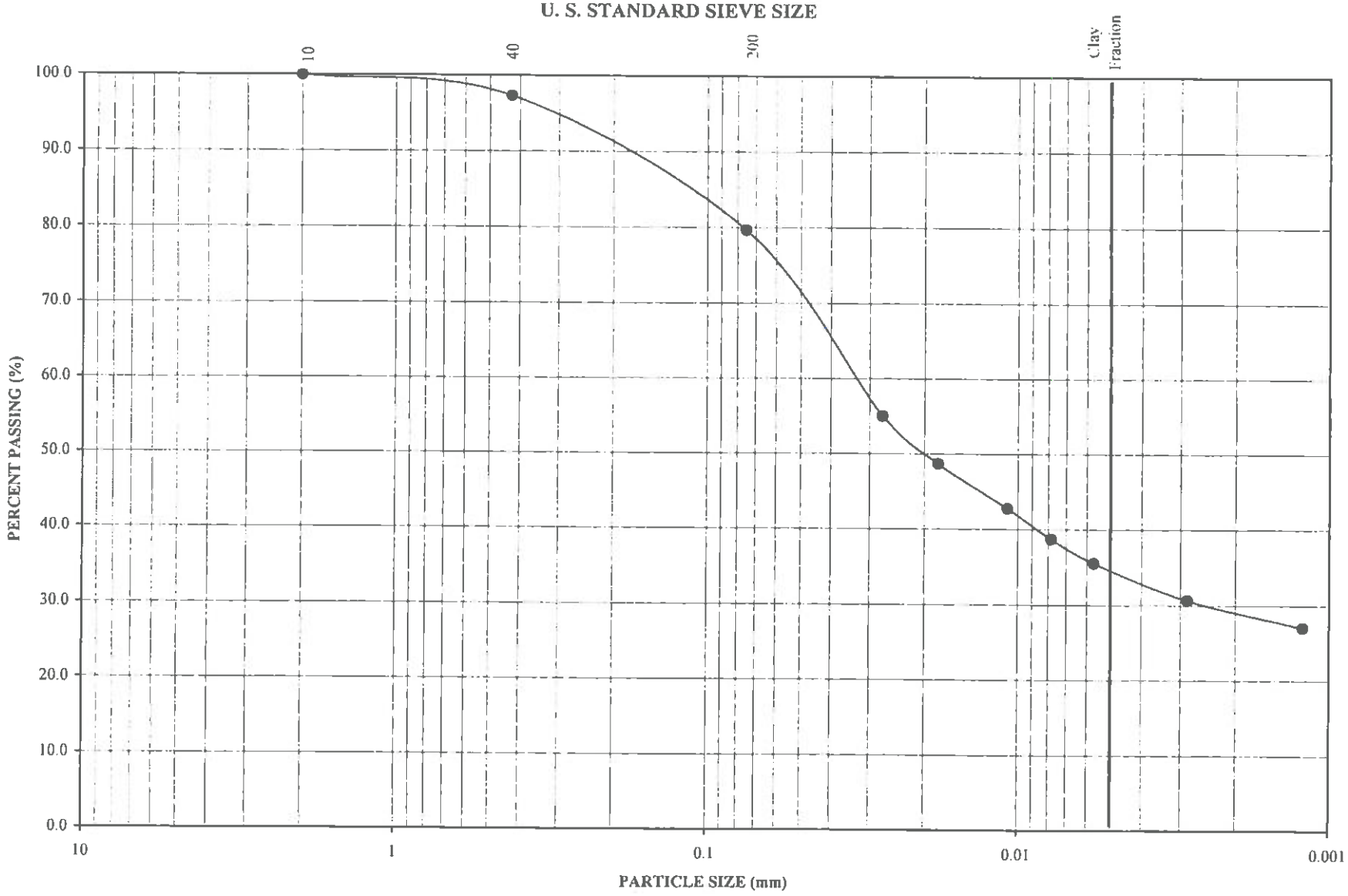
Sample Designation	Sample Depth (feet)	Symbol	Liquid Limit (%)	Plasticity Index	Classification
B-8	17-18.5	●	-	-	CL
B-10	18-19.5	■	-	-	Cl

CTE JOB NUMBER: 10-8264G FIGURE: C-3

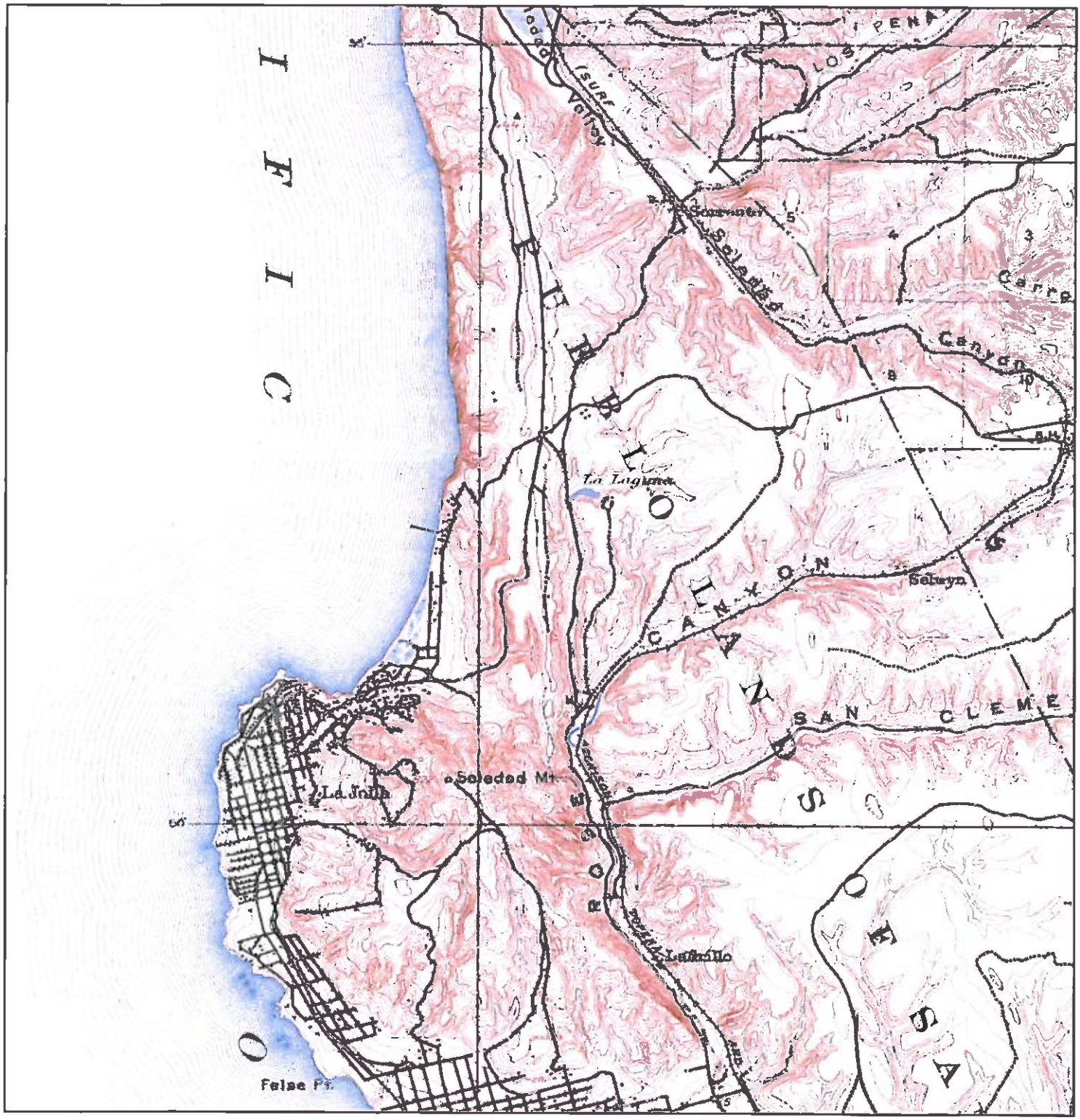
Lusardi Residence
10-8264G
Lab#16769 B5@5.5-7.0'



APPENDIX D

HISTORIC TOPOGRAPHIC MAPS

Historical Topographic Map



N

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LA JOLLA 15' QUAD. 1930
LUSARDI RESIDENCE
LA JOLLA, CALIFORNIA

CTE JOB NO.	10-8264G
SCALE	1:62500
DATE	12/06
FIGURE	D-1

Historical Topographic Map

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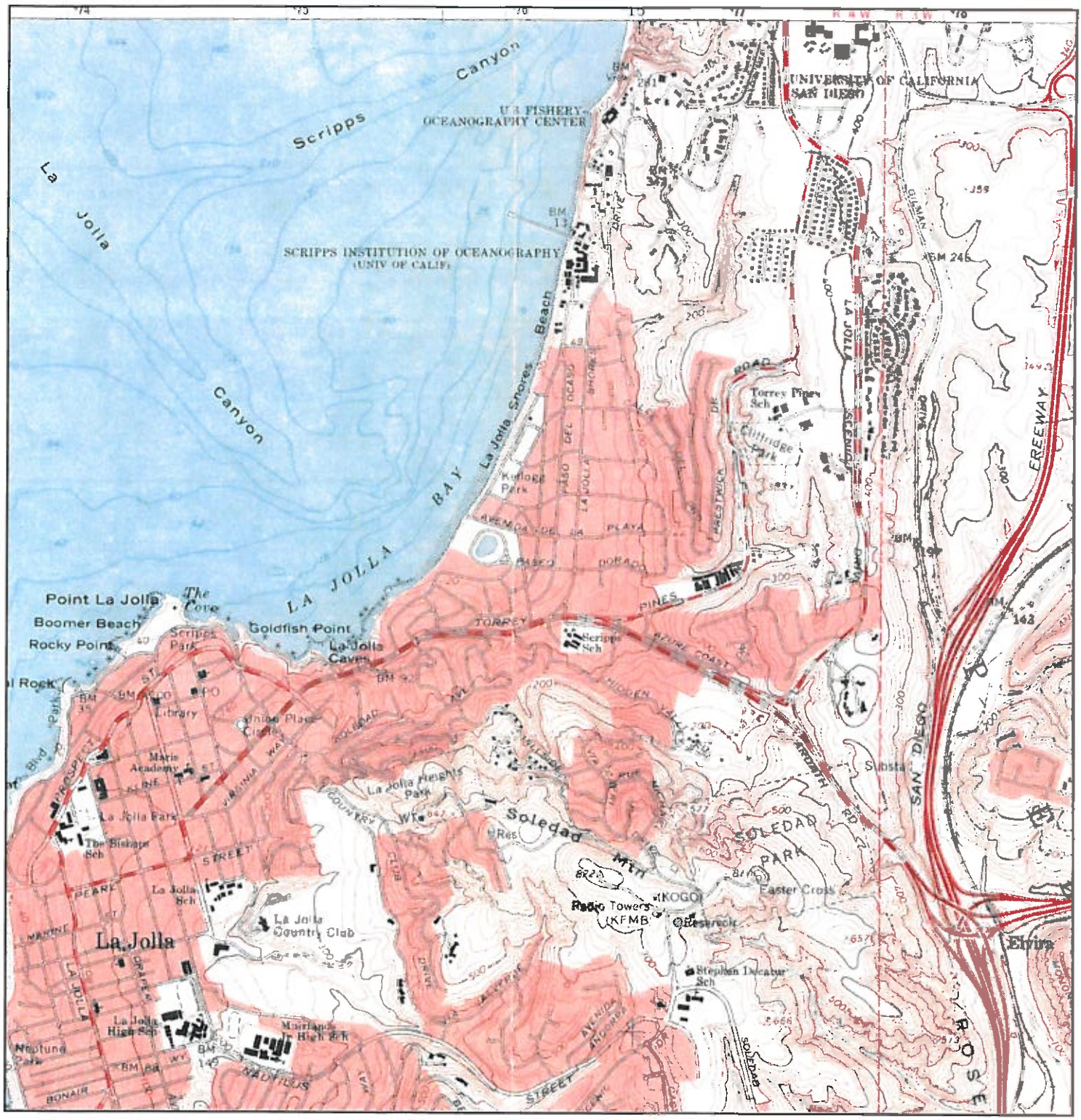
LA JOLLA 7.5' QUAD. 1953
LUSARDI RESIDENCE
LA JOLLA, CALIFORNIA

CTE JOB NO	10-8264G
SCALE	1:24000
DATE	12/06
FIGURE	D-2

Historical Topographic Map



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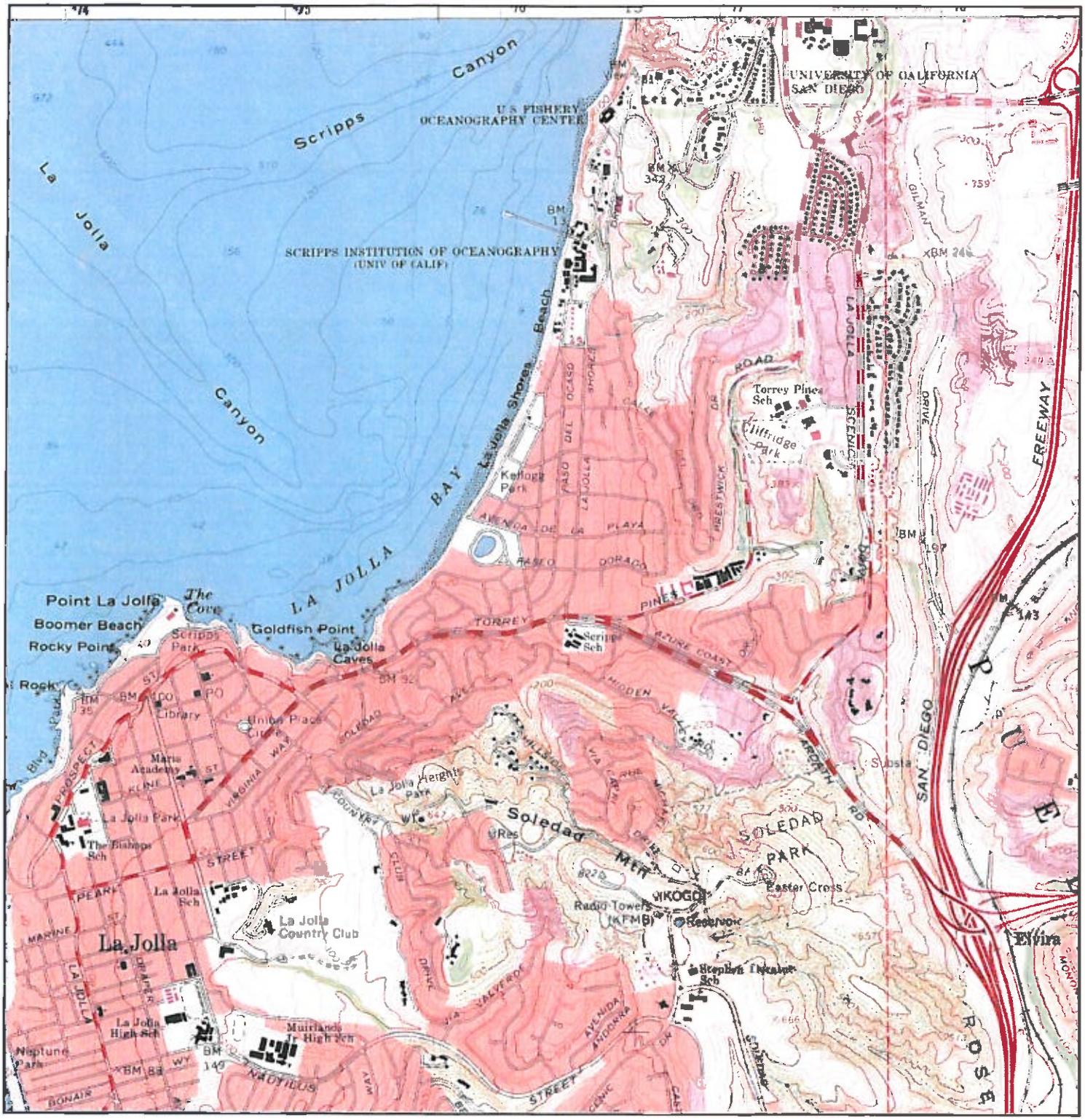
LA JOLLA 7.5' QUAD. 1967
LUSARDI RESIDENCE
LA JOLLA, CALIFORNIA

CTE JOB NO	10-8264G
SCALE	1:24000
DATE	12/06
FIGURE	D-3

Historical Topographic Map



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LA JOLLA 7.5' QUAD. 1975
LUSARDI RESIDENCE
LA JOLLA, CALIFORNIA

CTE JOB NO.	10-8264G
SCALE	1:24000
DATE	12/06
FIGURE	D-4

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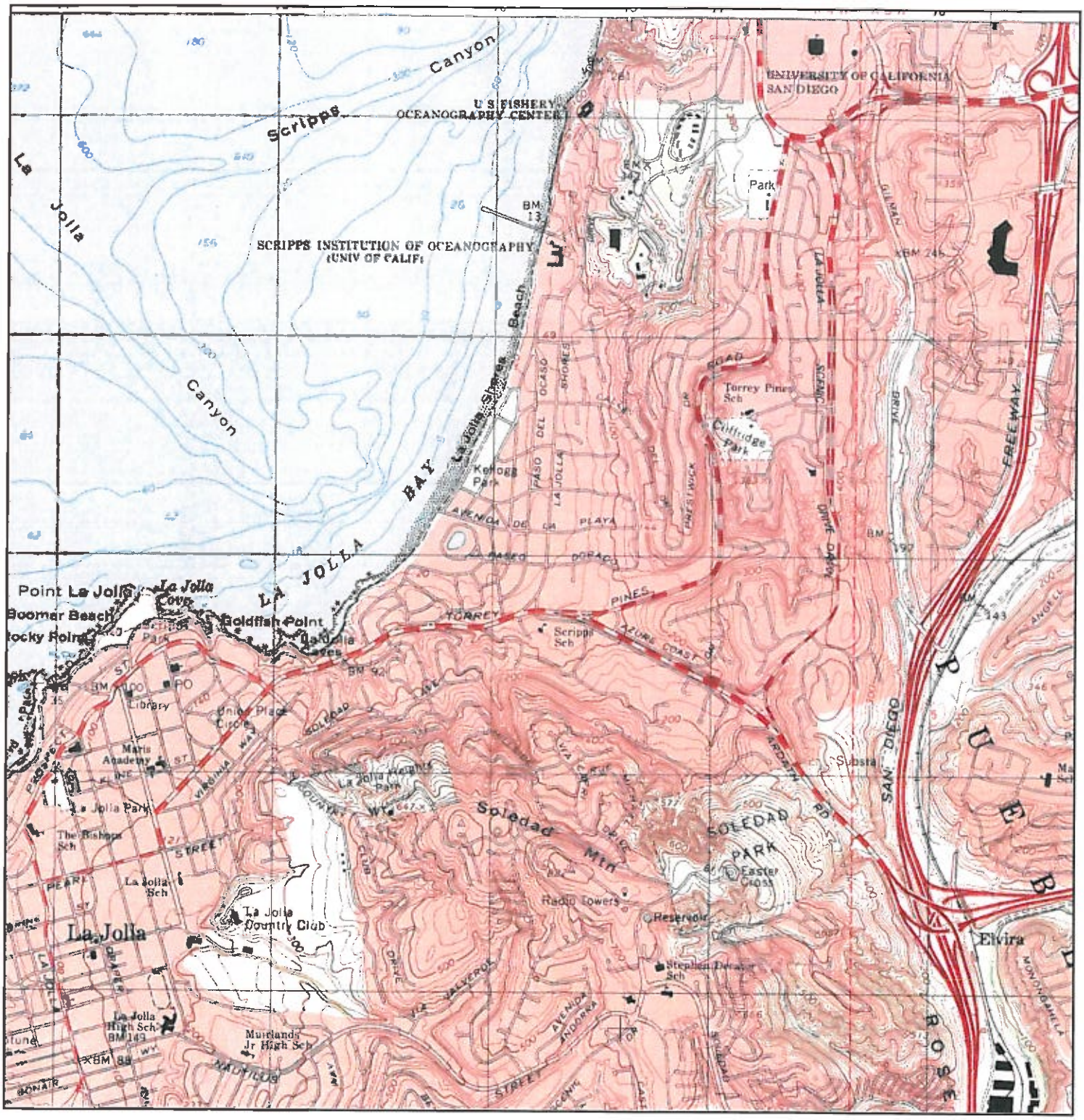
LA JOLLA QUAD. 1977
LUSARDI RESIDENCE
LA JOLLA, CALIFORNIA

CTE JOB NO.	10-8264G
SCALE:	1:2400
DATE:	12/06
FIGURE:	D-5

Historical Topographic Map



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LA JOLLA 7.5' QUAD. 1996
LUSARDI RESIDENCE
LA JOLLA, CALIFORNIA

CTE JOB NO	10-8264G
SCALE	1:24000
DATE	12/06
FIGURE	D-6

APPENDIX E

CALIFORNIA COASTAL RECORDS PROJECT PHOTOGRAPHS

1972

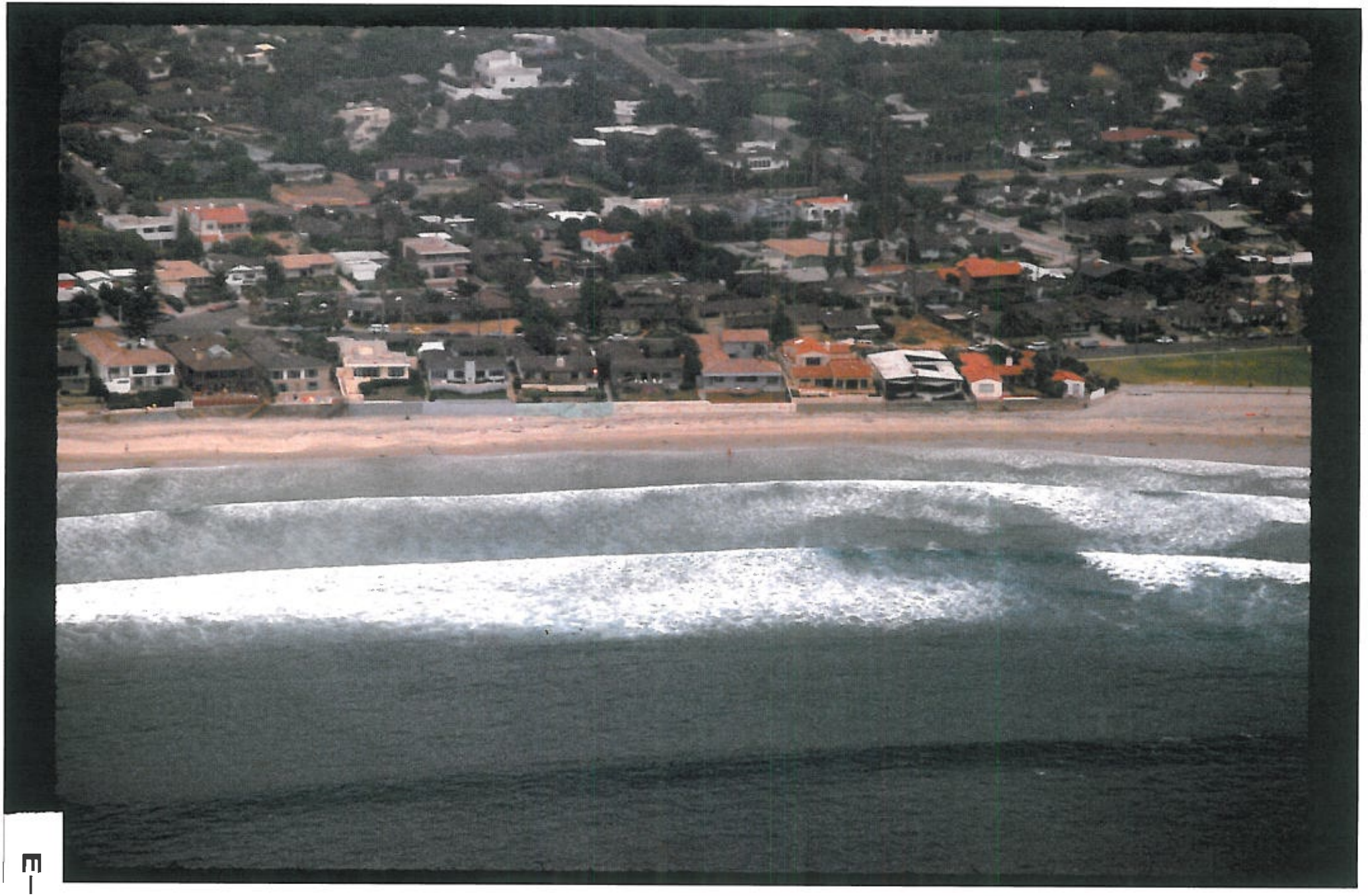
E-1

1979

E-2

E-3

1979



E-4

1987

E-5

1989

1995

E-6

E-7

2004

APPENDIX F

EDR HISTORICAL AERIAL PHOTOGRAPHS

Date EDR Searched Historical Sources:

Aerial Photography August 28, 2006

Target Property:

8466 El Paseo Grande
La Jolla, CA 92037

Year	*Scale*	*Details*	*Source*
1948	Aerial Photograph. Scale: 1"=666'	Flight Year: 1948	Pacific Air
1953	Aerial Photograph. Scale: 1"=555'	Flight Year: 1953	Park
1963	Aerial Photograph. Scale: 1"=555'	Flight Year: 1963	Cartwright
1974	Aerial Photograph. Scale: 1"=600'	Flight Year: 1974	AMI
1989	Aerial Photograph. Scale: 1"=666'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=666'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=666'	Flight Year: 2002	USGS

INQUIRY #: 1743767.2

YEAR: 1948

= 666'

N

F-2

INQUIRY #: 1743767.2

YEAR: 1953

= 555'

N

F-3


INQUIRY #: 1743767.2
YEAR: 1963
= 555'
N
F-4

INQUIRY #: 1743767.2

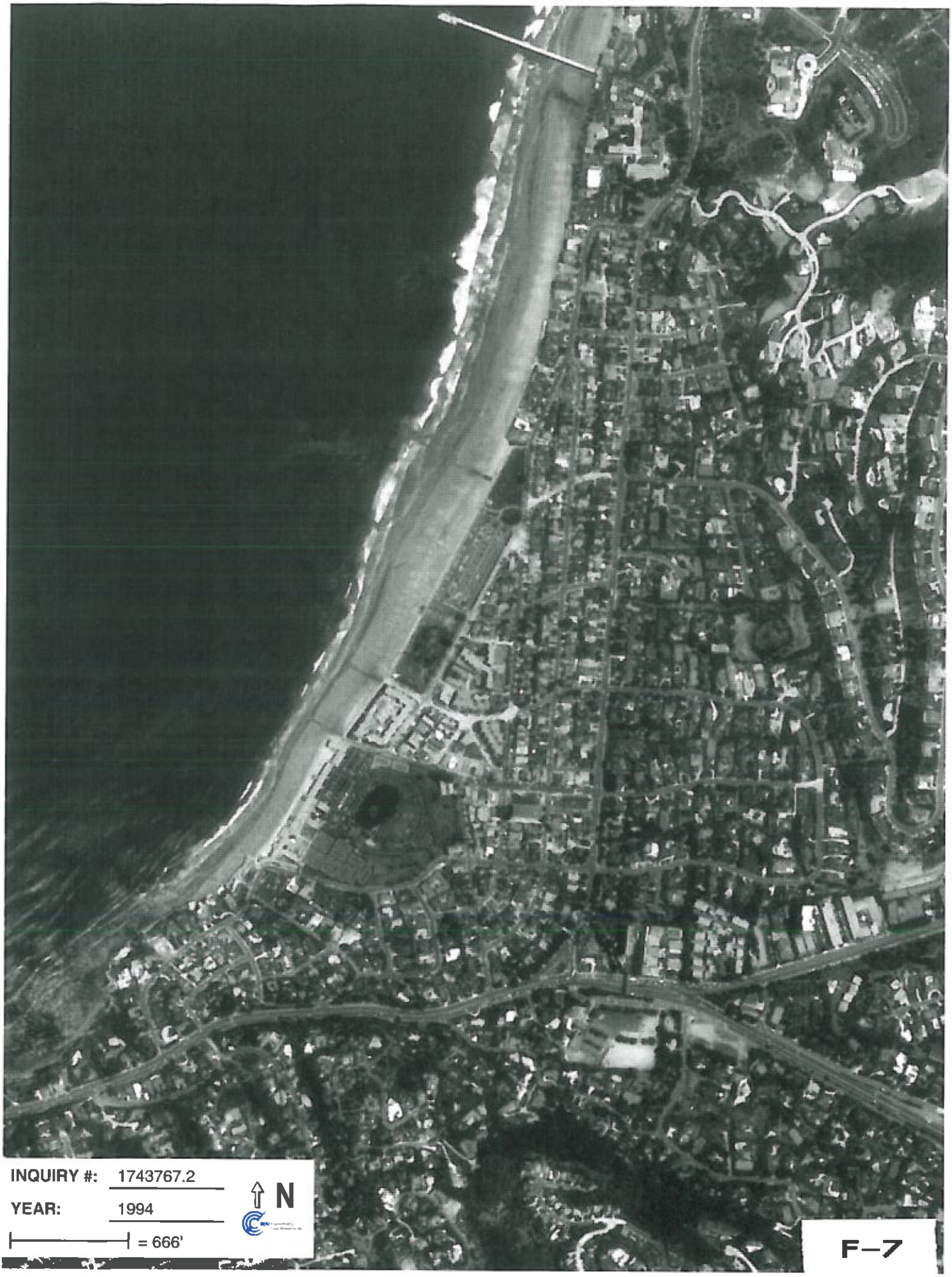
YEAR: 1974

= 600'

N

F-5

F-6



INQUIRY #: 1743767.2

YEAR: 1994

= 666'

N

F–7

F-8

APPENDIX G

PUBLISHED HISTORICAL PHOTOGRAPHS

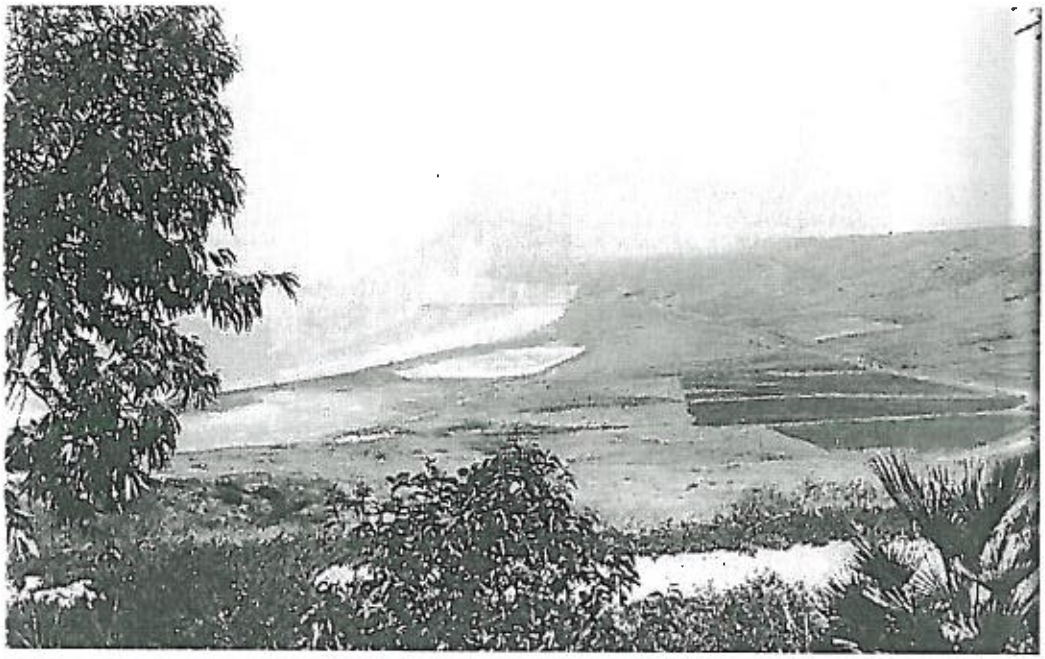


Photo #1: La Jolla Shores 1930 (T. Shepard Collection; in Kuhn, 1984)

Photo #2: View of low-lying alluvial cliffs 1936 (approximate location at 8516 El Paseo Grande Cliff erosion rate at that time estimated at one foot per year (photo from U.S. Grant View Kuhu, 1984)

Photo #3: View at same location as Photo #2 during heavy storms of 1978 (Kuhn, 1984)

Photo #4: Same Location as Photo #3 1978 (Kuhn, 1984)

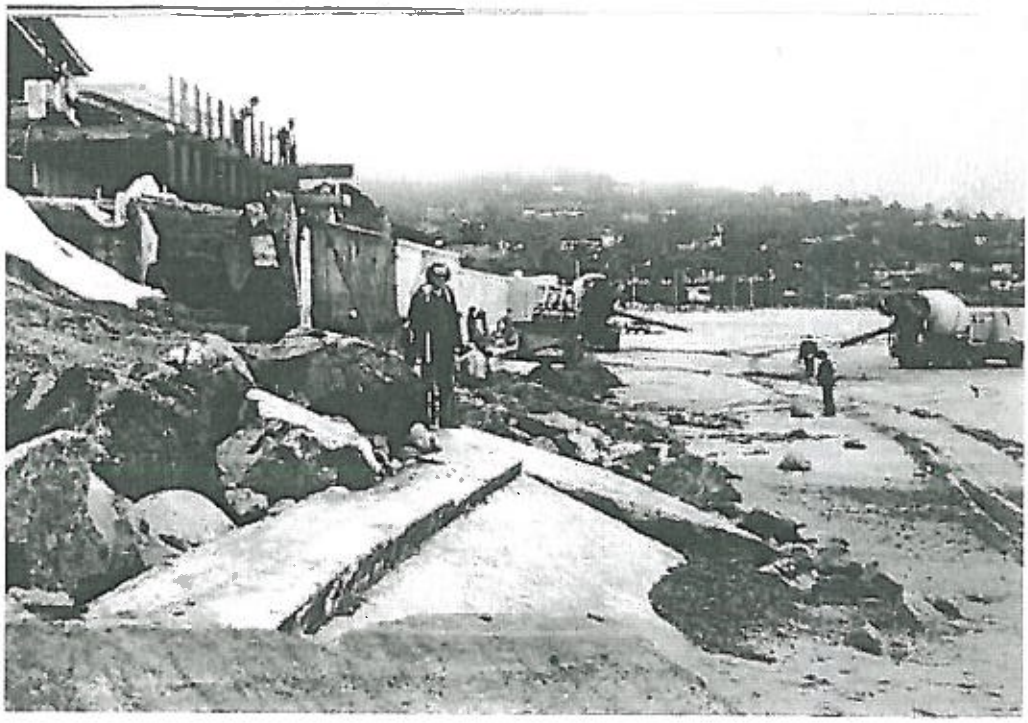


Photo #5: Same location as Photo #2-#5, showing partial collapse of seawall in 1978 (Kuhn, 1984)

Photo #6: Up to 15 feet local retreat in general area as Photo #5 (Kuhn, 1984)

Photo #7: 1979 view at 8516 El Paseo Grande with new seawall constructed (Kuhn, 1984)

City of San Diego
Development Services

ENTITLEMENTS DIVISION
(619) 446-5460

FINAL
MITIGATED NEGATIVE DECLARATION

PTS. No. 191344
SAP No. 24000089
SCH. No. N/A

SUBJECT: **Cardenas Residence.** COASTAL DEVELOPMENT PERMIT and SITE DEVELOPMENT PERMIT for Environmentally Sensitive Lands for expansion of a rear deck and retaining walls for an existing single family residence on a 0.27 acre site. The site is located at 8466 El Paseo Grande (APN No. 346-050-0200, Lot 2 of Ocean Terrace Map No. 2645). The site is within the single-family (SF) Zone of La Jolla Shores Planned District within the La Jolla Community Plan, Coastal Overlay (appealable), 30- foot Coastal Height Limit, First Public Roadway, Residential Tandem Parking Area and Council District 1. **Applicant:** Neil Dixon, Marengo Morton Architects

I. PROJECT DESCRIPTION: See attached Initial Study.

II. ENVIRONMENTAL SETTING: See attached Initial Study.

III. DETERMINATION: The City of San Diego conducted an Initial Study which determined that the proposed project could have a significant environmental affect in the following area: historical resources (archaeological). Subsequent revisions in the project proposal create the specific mitigation identified in Section V of this Mitigated Negative Declaration (MND). The project, as revised, now avoids or mitigates the potentially significant environmental effects previously identified, and the preparation of an Environmental Impact Report will not be required.

IV. DOCUMENTATION: The attached Initial Study documents the reasons to support the above Determination.

V. MITIGATION, MONITORING AND REPORTING PROGRAM: To ensure that site development would avoid significant environmental impacts, a Mitigation, Monitoring, and Reporting Program (MMRP) is required. Compliance with the

mitigation measures shall be the responsibility of the applicant. The mitigation measures are described below.

A. **GENERAL REQUIREMENTS – PART I**
Plan Check Phase (prior to permit issuance)

1. Prior to the issuance of a Notice To Proceed (NTP) for a subdivision, or any construction permits, such as Demolition, Grading or Building, or beginning any construction related activity on-site, the Development Services Department (DSD) Director's Environmental Designee (ED) shall review and approve all Construction Documents (CD), (plans, specification, details, etc.) to ensure the MMRP requirements are incorporated into the design.

2. In addition, the ED shall verify that the MMRP Conditions/Notes that apply ONLY to the construction phases of this project are included VERBATIM, under the heading, "**ENVIRONMENTAL/MITIGATION REQUIREMENTS.**"

3. These notes must be shown within the first three (3) sheets of the construction documents in the format specified for engineering construction document templates as shown on the City website:

   http://www.sandiego.gov/development-services/industry/standtemp.shtml

4. The **TITLE INDEX SHEET** must also show on which pages the "Environmental/Mitigation Requirements" notes are provided.

5. **SURETY AND COST RECOVERY** – The Development Services Director or City Manager may require appropriate surety instruments or bonds from private Permit Holders to ensure the long term performance or implementation of required mitigation measures or programs. The City is authorized to recover its cost to offset the salary, overhead, and expenses for City personnel and programs to monitor qualifying projects.

B. GENERAL REQUIREMENTS – PART II
Post Plan Check (After permit issuance/Prior to start of construction)

1. **PRE CONSTRUCTION MEETING IS REQUIRED TEN (10) WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT.** The PERMIT HOLDER/OWNER is responsible to arrange and perform this meeting by contacting the CITY RESIDENT ENGINEER (RE) of the Field Engineering Division and City staff from MITIGATION MONITORING COORDINATION (MMC).

Attendees must also include the Permit holder's Representative(s), Job Site Superintendent and the following consultants:

Archaeologist and Native American Monitor

Note: Failure of all responsible Permit Holder's representatives and consultants to attend shall require an additional meeting with all parties present.

CONTACT INFORMATION:

a) The PRIMARY POINT OF CONTACT is the **RE** at the **Field Engineering Division – 858-627-3200**

b) For Clarification of ENVIRONMENTAL REQUIREMENTS, it is also required to call **RE and MMC at 858-627-3360**

2. **MMRP COMPLIANCE:** This Project, Project Tracking System (PTS) 191344, shall conform to the mitigation requirements contained in the associated Environmental Document and implemented to the satisfaction of the DSD's Environmental Designee (MMC) and the City Engineer (RE). The requirements may not be reduced or changed but may be annotated (i.e. to explain when and how compliance is being met and location of verifying proof, etc.). Additional clarifying information may also be added to other relevant plan sheets and/or specifications as appropriate (i.e., specific locations, times of monitoring, methodology, etc

   Note:
   Permit Holder's Representatives must alert RE and MMC if there are any discrepancies in the plans or notes, or any changes due to field conditions. All conflicts must be approved by RE and MMC BEFORE the work is performed.

3. **OTHER AGENCY REQUIREMENTS:** Evidence of compliance with all other agency requirements or permits shall be submitted to the RE and MMC for review and acceptance prior to the beginning of work or within one week of the Permit Holder obtaining documentation of those permits or requirements. Evidence shall include copies of permits, letters of resolution or other documentation issued by the responsible agency.

   Not Applicable for this project.

4. **MONITORING EXHIBITS:** All consultants are required to submit, to RE and MMC, a monitoring exhibit on a 11x17 reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline's work, and notes indicating when in the construction schedule that work will be performed. When

necessary for clarification, a detailed methodology of how the work will be performed shall be included.

NOTE: Surety and Cost Recovery – When deemed necessary by the Development Services Director or City Manager, additional surety instruments or bonds from the private Permit Holder may be required to ensure the long term performance or implementation of required mitigation measures or programs. The City is authorized to recover its cost to offset the salary, overhead, and expenses for City personnel and programs to monitor qualifying projects.

5. **OTHER SUBMITTALS AND INSPECTIONS:** The Permit Holder/Owner's representative shall submit all required documentation, verification letters, and requests for all associated inspections to the RE and MMC for approval per the following schedule:

Document Submittal/Inspection Checklist

Issue Area	*Document submittal*	*Assoc Inspection/Approvals/lNote .*
General	Consultant Qualification Letters	Prior to Pre-construction Meeting
General	Consultant Const. Monitoring Exhibits	Prior to or at the Pre-Construction meeting
Archaeology	Archaeology Reports	Archaeology/Historic site observation
Bond Release	Request for Bond Release letter	Final MMRP inspections prior to Bond Release Letter

C. SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS

HISTORICAL RESOURCES (ARCHAEOLOGY)

1. Prior to Permit Issuance

A. Entitlements Plan Check

1. Prior to Notice to Proceed (NTP) for any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, but prior to the first preconstruction meeting, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for

Archaeological Monitoring and Native American monitoring have been

noted on the appropriate construction documents.

B. Letters of Qualification have been submitted to ADD
   1. The applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project.
   3. Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the monitoring program.

2. Prior to Start of Construction

A. Verification of Records Search
   1. The PI shall provide verification to MMC that a site specific records search (1/4 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coast Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
   2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
   3. The PI may submit a detailed letter to MMC requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings
   1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.
      a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Identify Areas to be Monitored
   a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
   b. The AME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).
3. When Monitoring Will Occur
   a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
   b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate site conditions such as depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

3. During Construction

A. Monitor(s) Shall be Present During Grading/Excavation/Trenching
   1. The Archaeological Monitor shall be present full-time during grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. The Native American monitor shall determine the extent of their presence during construction related activities based on the AME and provide that information to the PI and MMC. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**
   2. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered may reduce or increase the potential for resources to be present.
   3. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process
   1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery

and immediately notify the RE or BI, as appropriate.

2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

C. Determination of Significance

1. The PI and Native American monitor shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
   a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
   b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval from MMC. Impacts to significant resources must be mitigated before ground disturbing activities in the area of discovery will be allowed to resume.
   c. If resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

4. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and the following procedures as set forth in the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification

1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS).
2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.
2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.
3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains **ARE** determined to be Native American

1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.

3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with the California Public Resource and Health & Safety Codes.
4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains shall be determined between the MLD and the PI, IF:
    a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission; OR;
    b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner.
    c. In order to protect these sites, the Landowner shall do one or more of the following:
        (1) Record the site with the NAHC;
        (2) Record an open space or conservation easement on the site;
        (3) Record a document with the County.
    d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are **NOT** Native American
1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner and the Museum of Man.

5. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract
1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.
2. The following procedures shall be followed.
    a. No Discoveries

In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.

b. Discoveries
All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains.

c. Potentially Significant Discoveries
If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction shall be followed.

d. The PI shall immediately contact MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction
1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
2. The RE, or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

6. Post Construction

A. Preparation and Submittal of Draft Monitoring Report
1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC for review and approval within 90 days following the completion of monitoring,
a. For significant archaeological resources encountered during monitoring, the

Archaeological Data Recovery Program shall be included in the Draft Monitoring Report.

b. Recording Sites with State of California Department of Parks and Recreation
The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC for approval.

4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts
1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
3. The cost for curation is the responsibility of the property owner.

C. Curation of artifacts: Accession Agreement and Acceptance Verification
1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
2. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)
1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC that the draft report has been approved.
2. The RE shall, in no case, issue the Notice of Completion and/or release of the Performance Bond for grading until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

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VI. PUBLIC REVIEW DISTRIBUTION: Draft copies or notice of this Mitigated Negative Declaration were distributed to:

City of San Diego
Councilmember Lightner-District 1
City Attorney's Office- (MS 59)
Development Services (501)
EAS, Martha Blake
Engineering, Julius Ocen-Odoge
Permits, Conan Murphy
Landscaping, Glenn Spindell
Geology, Jim Quinn
EAS, Myra Herrmann
EAS, Holly Smit Kicklighter
Project Management (401) – Will Zounes

CPCI (MS 4A) – Trish Olsen
San Diego Central Library (81)
La Jolla – Riford Library (81L)
EAS File (MS 501)

Archaeology Distribution
Historical Resources Board (87)
Carmen Lucas (206)
South Coastal Information Center (210)
San Diego Archaeological Center (212)
Save Our Heritage Organisation (214)
Ron Christman (215)
Louie Guassac (215A)
Clint Linton (215B)
San Diego County Archaeological Society, Inc. (218)
Kumeyaay Cultural Repatriation Committee (225)
Native American Distribution (225 A-R) (Public Notice Only)
San Diego Historical Society (211)

Others
La Jolla Community Planning Association (275)
La Jolla Town Council (273)
La Jolla Historical Society (274)
La Jolla Light (142)
La Jolla Village News (271)
La Jolla Shores Association (272)
La Jolla Shores PDO Advisory Board (279)

Applicant: Neil Dixon, Marengo Morton Architects
Owner: Machelle Cardenas

VII. RESULTS OF PUBLIC REVIEW:

( ) No comments were received during the public input period.

(x) Comments were received but did not address the draft Mitigated Negative Declaration finding or the accuracy/completeness of the Initial Study. No response is necessary. The letters are attached.

( ) Comments addressing the findings of the draft Mitigated Negative Declaration and/or accuracy or completeness of the Initial Study were received during the public input period. The letters and responses follow.

Copies of the Draft Mitigated Negative Declaration and any Initial Study material are available in the office of the Land Development Review Division for review, or for purchase at the cost of reproduction.

Martha Blake, Senior Planner, AICP
Development Services Department

March 29, 2010
Date of Draft MND Report

April 21, 2010
Date of Final MND Report

Analyst: Smit Kicklighter

San Diego County Archaeological Society, Inc.

Environmental Review Committee

9 April 2010

To: Ms. Holly Smit Kicklighter
Development Services Department
City of San Diego
1222 First Avenue, Mail Station 501
San Diego, California 92101

Subject: Draft Mitigated Negative Declaration
Cardenas Residence
Project No. 191344

Dear Ms. Kicklighter:

I have reviewed the subject DMND on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the DMND and initial study for the project, and the letter report prepared by RECON, we agree with the impact analysis and the DMND's mitigation measures for archaeological and Native American monitoring.

We note that the "Recommended Finding" paragraph on the front page of the public notice is the wording for a negative declaration, not a mitigated negative declaration. It should be corrected before the final DMND is issued.

Thank you for providing this project's environmental documents to SDCAS for our review and comment.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: RECON
SDCAS President
File

1222 First Avenue, Mail Station 501
San Diego, CA 92101
(619) 446-5461

INITIAL STUDY
PTS. No. 191344
SAP No. 24000089
SCH. No. N/A

SUBJECT: **Cardenas Residence.** COASTAL DEVELOPMENT PERMIT and SITE DEVELOPMENT PERMIT for Environmentally Sensitive Lands for expansion of a rear deck and retaining walls for an existing single family residence on a 0.27 acre site. The site is located at 8466 El Paseo Grande, in La Jolla, CA, 92037 (APN No. 346-050-0200, Lot 2 of Ocean Terrace Map No. 2645). The site is within the single-family (SF) Zone of La Jolla Shores Planned District within the La Jolla Community Plan, Coastal Overlay (appealable), 30- foot Coastal Height Limit, First Public Roadway, Residential Tandem Parking Area and Council District 1. **Applicant:** Neil Dixon, Marengo Morton Architects

I. PURPOSE AND MAIN FEATURES: The proposed Coastal Development Permit and Site Development Permit would allow 459 square feet of deck area to be added to the west side of an existing 892-square-foot deck area. The expansion would create a total deck area of 1,351 square feet. The deck would be abutted to the west by a 8.5-foot high support wall. West of the deck abutting the beach access area would be a 479-square-foot lawn area with a 5-foot solid support wall with 2-foot of open cable rail on top. Additional improvements to the site would include enhanced paving, an under-deck storage area, landscaping including multiple raised planters, and enhanced sideyards including new gates and a dog run (Figures 1 and 2).

Earthwork on-site would include grading over 1,084 square feet (9.1%) with excavation of 33.6 cubic yards of soil with 9.7 cubic yards to be used as fill on-site and 23.9 cubic yards exported to an approved disposal site. Maximum depth of cut would be 6 feet and maximum depth of fill would be 2.6 feet. The maximum wall height on site would be 9.84 feet to hold up the proposed deck along the north elevation to provide support and screening for a new hot tub area. The wall would be placed at the building line rather than the property line which would reduce the appearance of bulk. The longest wall would be along the west elevation at the beach front. This wall would be 51.27 linear feet and would be 5 feet in height topped with 2 feet of open cable rail. Total length of all walls proposed on-site would be 176.2 linear feet.

II. ENVIRONMENTAL SETTING: The project site is located at 8466 El Paseo Grande, in the Single Family (SF) Zone of La Jolla Shores Planned District within the La Jolla Community Plan Area. The project site is also in the Coastal Overlay Zone (appealable), the Coastal Height Limit Zone (30 feet), the First Public Roadway Area, the Residential Tandem Parking Area, and in Council District 1. The project site is currently developed with an approximate 3,113-square-foot, one-story, single-family residence. The project site is located in an established urban neighborhood and is

supplied with all utilities. The land supports no native vegetation and is not in or adjacent to the City's Multiple Habitat Planning Area. The western side of the residence abuts La Jolla Shores Beach. Topographically the site ranges from approximately 25 feet above mean sea level (AMSL) near El Paseo Grande to 14 feet AMSL on the western beach side behind the existing seawall. According to one of the geology reports for the site (CTE, Inc February 12, 2007), the property parcel extends across the coastal beach to the mean low water line with beach elevations from 8 feet below sea level, to sea level.

The site is located in a single-family zoned developed neighborhood primarily developed circa the 1950's- 1970's, with on-going individual redevelopment projects. The surrounding residences are predominantly two-story residences. On El Paseo Grande, between Kellogg Park and Paseo Del Ocaso, 17 out of the 22 houses are two to three-stories tall. Five of the 22 of the houses are one-story, including the existing Cardenas Residence.

III. ENVIRONMENTAL ANALYSIS: See attached Initial Study checklist.

IV. DISCUSSION: All reports and documents mentioned in this document are available for public review in the Land Development Review Division on the Fifth Floor of 1222 First Avenue, San Diego.

The following environmental issues were considered during review of the project and determined to be significant:

Historical Resources

Historical resources include all properties (historic, archaeological, landscapes, traditional, etc.) eligible or potentially eligible for the National Register of Historic Places, as well as those that may be significant pursuant to state and local laws and registration programs such as the California Register of Historical Resources or the City of San Diego Historical Resources Register. Historical resources include buildings, structures, objects, archaeological sites, districts, landscaping, and traditional cultural properties possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to be used. The California Environmental Quality Act (CEQA) requires that before approving discretionary projects the Lead Agency must identify and examine the significant adverse environmental effects which may result from that project. Pursuant to Section 21084.1 of the State CEQA Guidelines, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.

Historic Resources – The existing residence was built in 1950. City Staff reviewed the structure and determined that it did not constitute a significant historical resource. Therefore the expansion of the deck area and landscape improvements would not result in any impacts to historical structures.

Prehistoric Archaeological Resources –The project site is located in the northern portion of the mapped boundaries of a known archaeological site considered to be part of the Spindrift

Site, CA-SDI-39/17372 (SDMM-W-1). The Spindrift site encompasses a large habitation area known to its Kumeyaay inhabitants as *Mut kula xuy/Mut lah hoy ya* (place of many caves). The site is composed of several large middens, temporary camps, pottery and lithic scatters, various shell scatters, and burials. The site area is composed of multiple, consecutive layers representative of different cultural phases found in the San Diego region. This area of La Jolla was originally investigated and recorded by Malcolm Rogers during the late 1920's, and by James Moriarty in the 1960's, and has been associated with occupations by groups from the La Jolla Complex and the Late Prehistoric Complex, Yuman Kumeyaay. This area of La Jolla has undergone extensive development due to intensive grading for homes, streets, and utilities over the past 80 years. As a result, specific boundaries for the Spindrift Site cannot be easily defined, but are being expanded as each subsequent project is reviewed and new information is obtained.

In accordance with the City of San Diego's Historical Resources Regulations and Guidelines an archaeological records search and survey was required to determine/confirm the presence or absence of archaeological resources on the project site. An Historical Resources Survey (RECON, September 27, 2007) was prepared for a previous project at the site and submitted to the City addressing the potential site significance issue. According to this Historical Resources Survey report, a geologic evaluation was conducted by Construction Testing and Engineering in February and October 2006 that showed areas of fill across the project site (CTE 2007). The fill was described as reworked Quaternary slope wash and its origin was not discussed. There is the possibility that this fill originated somewhere in the La Jolla Shores area.

As existing conditions on the site have not changed, the City allowed the previous historical document accepted for the prior project (Lusardi Residence) to be resubmitted for this project. This report was reviewed by City EAS Staff and determined to be written in compliance with the Public Resources Code Section 21083.2, CEQA Section 15064.5, and the City's Historical Resources Guidelines. The report was completed in compliance with the City's 2007 Spindrift Archaeology Procedures and Map as the project site lies within the area that always requires a survey and monitoring; and if the survey is positive - a testing program. The survey results were negative and therefore no upfront testing has been performed, however monitoring would be required during project construction. The archaeological mitigation, identified in Section V of the MND, is required with project implementation and would mitigate potential impacts to unknown archaeological resources to below a level of significance.

The following environmental issues were considered during review of the project and determined not to be significant:

Geology

The eastern half of the site is located in Geological Hazard Zones 12 (potentially active faults (Scripps Fault)), while the western portion is in Zone 48 (generally stable broad beach areas) and the middle portion in Zone 52 (favorable geologic structure, low risk to development) per the City of San Diego Seismic Safety Study. Two geotechnical reports (Preliminary Geotechnical Evaluation -March 2006; and Faulting and Bluff Geologic Evaluation - February 2007; both by CTE, Inc.); were provided for the

previous Lusardi Residence and a third report was created specifically for the Cardenas Residence (CTE, November, 2, 2009) to answer City Geology Staff questions and to determine if a concealed portion of the Scripps Fault is present on-site. It was determined that existing and proposed development is not located on a fault. The site was also determined to be outside the defined Sensitive Coastal Bluff Zone per the City's Coastal Bluffs and Beaches & Steep Slopes Guidelines. Compliance with the City's Geological Engineering Staff would ensure that new structures would be built to reduce the potential for geologic impacts from regional hazards to a level below significance.

V. RECOMMENDATION:

On the basis of this initial evaluation:

__ The proposed project would not have a significant effect on the environment, and a NEGATIVE DECLARATION should be prepared.

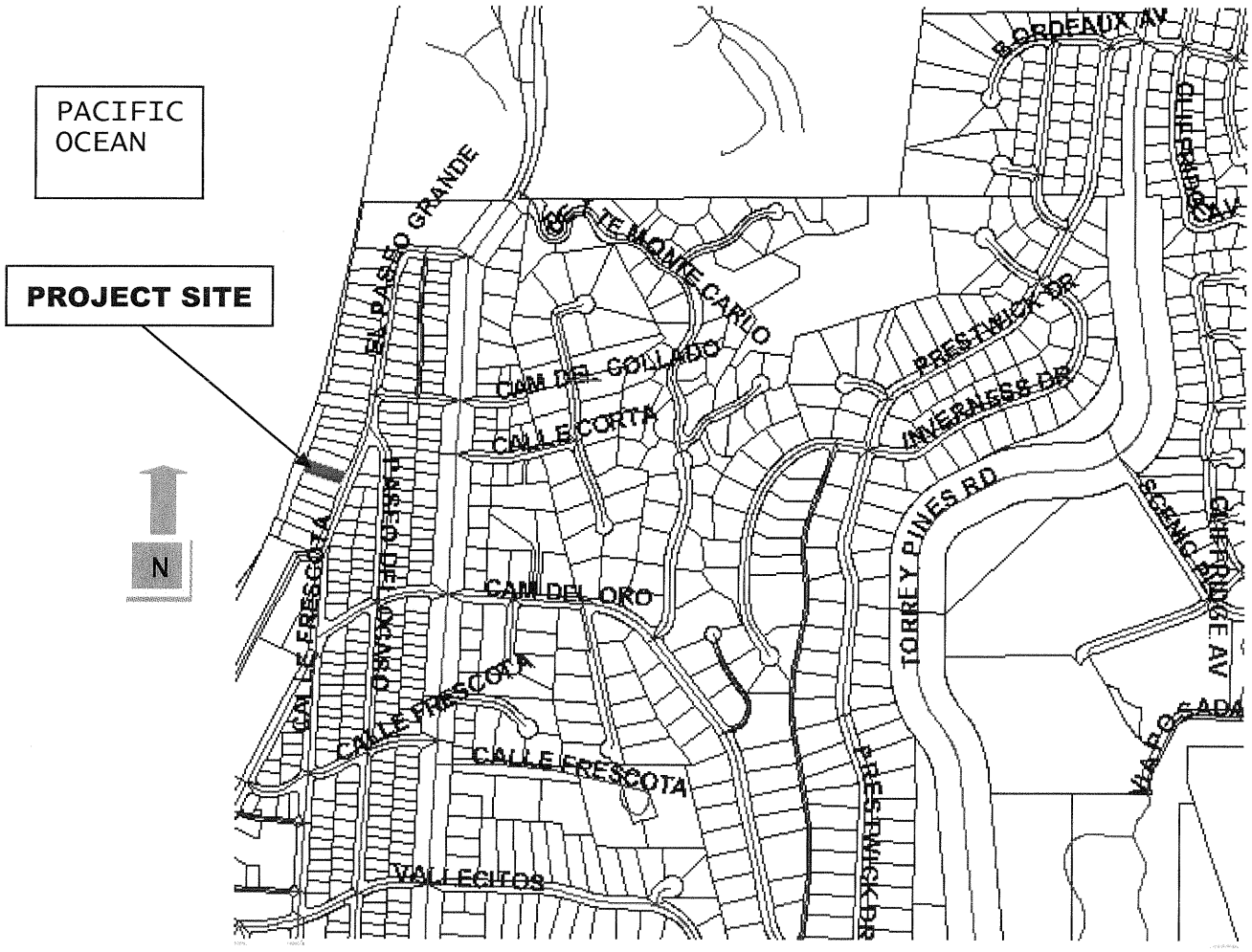
X Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section IV above have been added to the project. A MITIGATED NEGATIVE DECLARATION should be prepared.

__ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT should be required.

PROJECT ANALYST: Smit Kicklighter

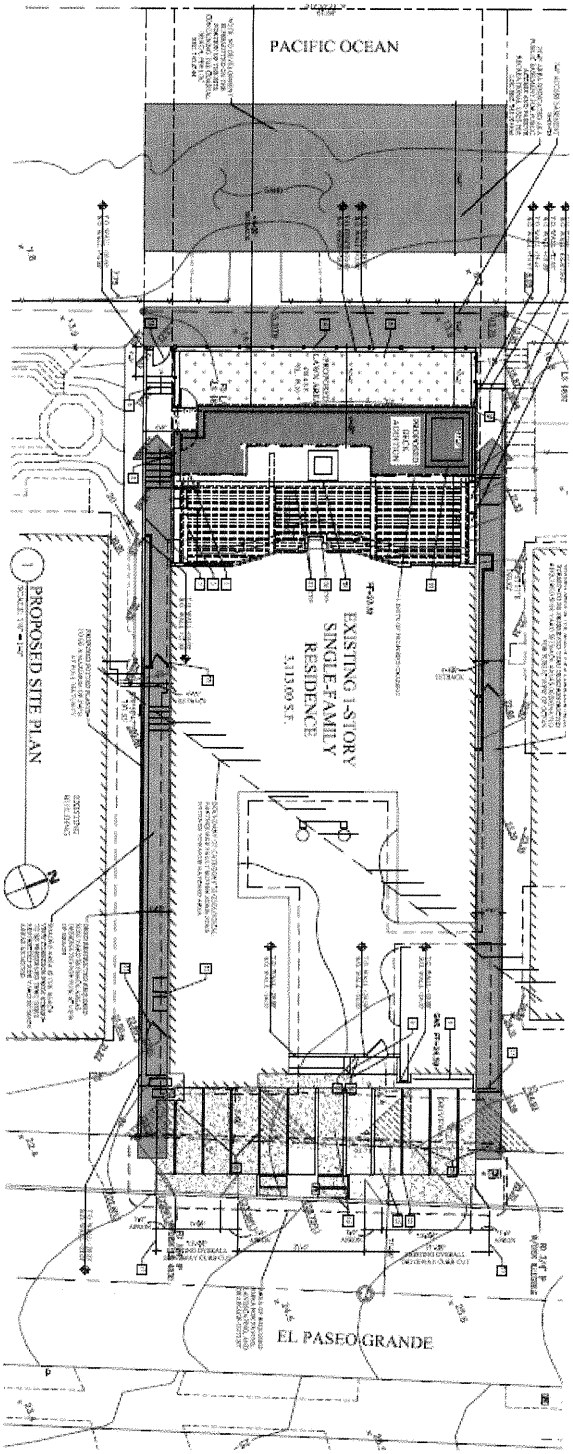
Attachments: Figure 1 - Location Map
Figure 2 - Site Plan
Initial Study Checklist

FIGURE 1 - LOCATION MAP (DARKENED PARCEL AND PARCEL ABUTTING TO THE EAST)



CARDENAS RESIDENCE
Environmental Analysis Section - Project No. 191344
CITY OF SAN DIEGO · DEVELOPMENT SERVICES

FIGURE 2 – SITE PLAN



CARDENAS RESIDENCE
Environmental Analysis Section - Project No. 191344
CITY OF SAN DIEGO · DEVELOPMENT SERVICES

Initial Study Checklist

Date: November 15, 2009

Project No.: 191344

Name of Project: Cardenas Residence

III. ENVIRONMENTAL ANALYSIS:

The purpose of the Initial Study is to identify the potential for significant environmental impacts which could be associated with a project pursuant to Section 15063 of the State CEQA Guidelines. In addition, the Initial Study provides the lead agency with information which forms the basis for deciding whether to prepare an Environmental Impact Report, Negative Declaration or Mitigated Negative Declaration. This Checklist provides a means to facilitate early environmental assessment. However, subsequent to this preliminary review, modifications to the project may mitigate adverse impacts. All answers of "yes" and "maybe" indicate that there is a potential for significant environmental impacts and these determinations are explained in Section IV of the Initial Study.

	Yes	Maybe	No
I. AESTHETICS / NEIGHBORHOOD CHARACTER – Will the proposal result in:			
A. The obstruction of any vista or scenic view from a public viewing area? The deck and landscape additions to the single family home would not result in the obstruction of any public view or scenic vista. There are no identified public viewing areas in this portion of El Paseo Grande disclosed in the La Jolla Community Plan.	_	_	X
B. The creation of a negative aesthetic site or project? The deck and landscape additions to the single family home are not expected to generate a negative aesthetic as required heights, setbacks and articulations required per the City's Land Development Code would be adhered to.	_	_	X
C. Project bulk, scale, materials, or style which would be incompatible with surrounding development? The project would comply with City required fence/wall setbacks and fence/wall heights. Where possible fences/walls would be stepped to follow the topography and placement would	_	_	X

	Yes	Maybe	No
be at the building lines rather than property lines to reduce apparent bulk and scale.			
D. Substantial alteration to the existing character of the area? The proposed project would add 459 square feet of deck area to the west side of an existing single story structure existing deck area. The total deck area would be 1,351 square feet. A 479-square-foot lawn area would also be added west of the deck. Additional improvements to the site would include enhanced paving, an under-deck storage area, landscaping including multiple raised planters, and enhanced sideyards including new gates and a dog run. These additions are not expected to substantially alter the existing character of the area.	_	_	X
E. The loss of any distinctive or landmark tree(s), or a stand of mature trees? No such trees have been identified on-site.	_	_	X
F. Substantial change in topography or ground surface relief features? The development area was previously graded into a relatively flat pad. The current proposal would not substantially change elevation of the area surrounding the home.	_	_	X
G. The loss, covering or modification of any unique geologic or physical features such as a natural canyon, sandstone bluff, rock outcrop or hillside with a slope in excess of 25 percent? The site is currently developed and does not feature these types of natural landforms on or near the site.	_	_	X
H. Substantial light or glare? The residential deck expansion and landscaping improvement project would comply with all current lighting and material glare standards and no significant impacts would occur.	_	_	X
I. Substantial shading of other properties? The residential deck expansion and landscaping improvement project would not generate	_	_	X

	Yes	Maybe	No
substantial shading of other properties. The project would comply with City setback standards and height limits for the zone. See also IA.			
II. AGRICULTURE RESOURCES / NATURAL RESOURCES / MINERAL RESOURCES – Would the proposal result in:			
A. The loss of availability of a known mineral resource (e.g., sand or gravel) that would be of value to the region and the residents of the state? The project site is located in an existing residential neighborhood. The site is not designated for, or suitable for sand/gravel extraction.	_	_	X
B. The conversion of agricultural land to nonagricultural use or impairment of the agricultural productivity of agricultural land? The project site is developed and has not had agricultural use on it, nor is it located in a "Prime Agricultural Land" area or other agriculturally sensitive area.	_	_	X
III. AIR QUALITY – Would the proposal:			
A. Conflict with or obstruct implementation of the applicable air quality plan? No such conflict or obstruction would result. Standard dust abatement measures would be implemented during construction. The proposed project would be consistent with, and not conflict or obstruct the implementation of the *Regional Air Quality Strategy* (RAQS) or the *State Implementation Plan* (SIP).	_	_	X
B. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? The proposed project would not generate substantial quantities of operational emissions. Construction emissions would be generated during grading activities; however, these emissions would be temporary and would not exceed applicable significance thresholds.	_	_	X

	Yes	Maybe	No
C. Expose sensitive receptors to substantial pollutant concentrations? The proposed project would not emit substantial concentrations of air pollutants and would not expose sensitive receptors to such pollutants.	_	_	X
D. Create objectionable odors affecting a substantial number of people? The proposed project would consist of a deck expansion and landscaping improvements and therefore is not expected to generate objectionable odors.	_	_	X
E. Exceed 100 pounds per day of Particulate Matter 10 (dust)? The grading amounts required for project implementation would not exceed 100 pounds per day of particulate matter. It is estimated that one graded acre produces 26.4 pounds of particulate matter. Proposed grading of a maximum of 1,084 square feet and 33.6 cubic yards for the entire project would not meet the 100 pound per-day threshold and would not produce significant amounts of particulate matter.	_	_	X
F. Alter air movement in the area of the project? The residential deck expansion and landscaping improvement project is relatively low profile and is not expected to alter air movement in the area.	_	_	X
G. Cause a substantial alteration in moisture, or temperature, or any change in climate, either locally or regionally? The proposed project would consist of enhancing the outdoor areas for an existing single-family residence. This project would not be expected to substantially alter micro- or macro-climatic conditions.	_	_	X
IV. BIOLOGY – Would the proposal result in:			
A. A reduction in the number of any unique, rare, endangered, sensitive, or fully protected species of plants or animals? The project site is located in a developed urban setting fronting La Jolla Shores Beach and the Pacific Ocean. No biological resources rather than	_	_	X

	Yes	Maybe	No
transitory bird use along the beach shoreline remain on the site. No biological resource impacts would be expected as construction would take place on the existing pad area and nesting birds are not expected on the heavily utilized beach area, in addition, no sensitive plants or animals were noted on, or adjacent to the site.			
B. A substantial change in the diversity of any species of animals or plants? As no sensitive or protected species are on or adjacent to the project site, no impacts on species diversity would result from the project.	—	—	X
C. Introduction of invasive species of plants into the area? The site is adjacent to developed urban lots and compliance with City Landscape Regulations would preclude the use of prohibited species.	—	—	X
D. Interference with the movement of any resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors? No waterways affecting migratory fish are located on the site and the project would not substantially affect the adjacent Pacific Ocean. No wildlife corridors cross the site or would be affected by the project.	—	—	X
E. An impact to a sensitive habitat, including, but not limited to streamside vegetation, aquatic, riparian, oak woodland, coastal sage scrub or chaparral? None of these habitats exist on the urbanized site and therefore the project will not impact sensitive habitat.	—	—	X
F. An impact on City, State, or federally regulated wetlands (including, but not limited to, coastal salt marsh, vernal pool, lagoon, coastal, etc.) through direct removal, filling, hydrological interruption or other means? The project site does not contain any City, State or Federal Wetlands.	—	—	X
G. Conflict with the provisions of the City's Multiple Species Conservation Program Subarea Plan or other			

		Yes	Maybe	No
	approved local, regional or state habitat conservation plan? The site is not within the MHPA and does not directly abut or link to any sensitive habitat.	_	_	X
V.	ENERGY – Would the proposal:			
	A. Result in the use of excessive amounts of fuel or energy (e.g. natural gas)? Excessive amounts of fuel would not likely be used during construction or operation of the single-family residence improvement project.	_	_	X
	B. Result in the use of excessive amounts of power? Standard residential consumption is expected at build-out. Please also see V-A.	_	_	X
VI.	GEOLOGY/SOILS – Would the proposal:			
	A. Expose people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards? See Initial Study Discussion.	_	_	X
	B. Result in substantial increase in wind or water erosion of soils, either on or off the site? Potential erosion impacts could occur during construction activities. Erosion control measures would be implemented during the construction period. The site would be landscaped in accordance with City requirements and all storm water requirements would be met.	_	_	X
	C. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? Please see Initial Study.	_	_	X
VII.	GREEN HOUSE GASES – Would the proposal:			
	A. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? The residential deck expansion and landscaping improvement project would not be expected to have	_	_	X

	Yes	Maybe	No
a significant effect on the generation of greenhouse gas.			
B. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? The residential deck expansion and landscaping improvement project would be compatible with the City's General Plan and the La Jolla Community Plan and there are no additional plans that the project has been identified to be in conflict with.	_	_	X
VIII. HISTORICAL RESOURCES – Would the proposal result in:			
A. Alteration of or the destruction of a prehistoric or historic archaeological site? There is a potential for significant archaeological resources to occur on-site under the existing development. Mitigation is required, please Section V of the MND and the Initial Study Discussion – Historic Resources.	_	X	_
B. Adverse physical or aesthetic effects to a prehistoric or historic building, structure, object, or site? Please see VII-A and Initial Study discussion for archaeological resources. As far as historical buildings, the existing home was built in 1950 and will not be altered. The structure was also reviewed by City Staff the existing residence is not historically or architecturally significant.	_	_	X
C. Adverse physical or aesthetic effects to an architecturally significant building, structure, or object? No such buildings, structures, or objects exist on the project site.	_	_	X
D. Any impact to existing religious or sacred uses within the potential impact area? There is a potential for archaeological resources on-site and while no known sacred uses are within the project site, due to the potential for archaeological resources mitigation is required.	_	X	_

	Yes	Maybe	No
Please see Section V of the MND and the Initial Study.			
E. The disturbance of any human remains, including those interred outside of formal cemeteries? Although no known burial sites are known to be on the site, there is a potential for buried archaeological resources, including human remains, to be on-site. Mitigation is required. Please see Section V of the MND and the Initial Study.	_	X	_
IX. HUMAN HEALTH / PUBLIC SAFETY / HAZARDOUS MATERIALS: Would the proposal:			
A. Create any known health hazard (excluding mental health)? The residential deck expansion and landscaping improvement project would not create a health hazard.	_	_	X
B. Expose people or the environment to a significant hazard through the routine transport, use or disposal of hazardous materials? The residential deck expansion and landscaping improvement project would not be expected to expose people or the environment to health hazards related to transport or disposal of such materials.	_	_	X
C. Create a future risk of an explosion or the release of hazardous substances (including but not limited to gas, oil, pesticides, chemicals, radiation, or explosives)? No future risk of explosions or releases of hazardous substances would occur as a result of project implementation. The project consists of outdoor improvements to an existing single family residence.	_	_	X
D. Impair implementation of, or physically interfere with an adopted emergency response plan or emergency evacuation plan? The proposed project is consistent with adopted land use plans and would not interfere with emergency response and/or evacuation plans.	_	_	X
E. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result,			

	Yes	Maybe	No
create a significant hazard to the public or environment? The project site is not listed on the County of San Diego Department of Environmental Health's Site Assessment and Mitigation Case Listing.	_	_	X
F. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? The proposed project would not involve the use of hazardous materials (See VIII-A above).	_	_	X
X. HYDROLOGY/WATER QUALITY – Would the proposal result in:			
A. An increase in pollutant discharges, including down stream sedimentation, to receiving waters during or following construction? Consider water quality parameters such as temperature dissolved oxygen, turbidity and other typical storm water pollutants. The project would be required to comply with all storm water quality standards during and after construction, and appropriate Best Management Practices (BMPs) must be utilized to the satisfaction of the City Engineer.	_	_	X
B. An increase in impervious surfaces and associated increased runoff? The project site at buildout would be similar in impervious surfaces to current conditions. Run-off from impervious surfaces (pavement or structures) would occur but would be treated by BMPs on-site.	_	_	X
C. Substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes? The residential deck expansion and landscaping improvement project would not substantially alter existing drainage pattern, flow rate, or volume and thus, would not adversely affect on- and off-site drainage patterns.	_	_	X
D. Discharge of identified pollutants to an already impaired water body (as listed on the Clean Water Act Section 303(b) list)?	_	_	X

		Yes	Maybe	No
	The off-shore environment of the Pacific Ocean is impaired by bacterial indicators. Outdoor improvements to the single family residence would not be expected to introduce significant bacteria into the watershed. In addition, required compliance with City Stormwater Regulations would preclude discharge.			
E.	A potentially significant adverse impact on ground water quality? No such impact would occur as all site runoff would be directed into existing storm drains in the adjacent streets rather than to ground water storage areas and there are no known ground water storage areas in the vicinity.	_	_	X
F.	Cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses? The project is not expected to make a significant contribution to water quality degradation. Storm water standards per the City's RWQCB permit would be adhered to which would preclude impacts to surface/groundwater.	_	_	X
XI.	LAND USE – Would the proposal result in?			
A.	A land use which is inconsistent with the adopted community plan land use designation for the site or conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over a project? The project is consistent with the land use designation and applicable policies of the Community Plan.	_	_	X
B.	A conflict with the goals, objectives and recommendations of the community plan in which it is located? The project does not conflict with community plan goals, objectives and recommendations.	_	_	X
C.	A conflict with adopted environmental plans, including applicable habitat conservation plans adopted for the purpose of avoiding or mitigating an environmental effect for the area?	_	_	X

		Yes	Maybe	No
	The project does not conflict with any adopted environmental plans such as the MSCP.			
D.	Physically divide an established community? The project site is currently developed and the proposed deck addition and landscape improvement project would not alter the existing development patterns.	_	_	X
E.	Land uses which are not compatible with aircraft accident potential as defined by an adopted Airport Land Use Comprehensive Plan? The project site is not located in an ALUCP zone.	_	_	X
XII.	NOISE – Would the proposal result in:			
A.	A significant increase in the existing ambient noise levels? The proposed construction and project would comply with the City's Noise Ordinance. The proposed use (residential) is not expected to generate noise levels that would result in a significant increase in ambient noise.	_	_	X
B.	Exposure of people to noise levels which exceed the City's adopted noise ordinance? The project itself would comply with the City's Noise Ordinance during construction and use and would not be subject to an adjacent sources of significant noise from traffic.	_	_	X
C.	Exposure of people to current or future transportation noise levels which exceed standards established in the Transportation Element of the General Plan or an adopted Airport Land Use Comprehensive Plan? No such traffic noise impacts have been identified in the area. The project site is not in any identified airport environs overlay or ALUCP zones.	_	_	X
XIII.	PALEONTOLOGICAL RESOURCES: Would the proposal impact a unique paleontological resource or site or unique geologic feature? According to "Geology of San Diego Metropolitan Area, California, La Jolla, 71/2 Minute Quadrangle"	_	_	X

	Yes	Maybe	No
(Kennedy and Peterson, 1975), the project site is underlain with low sensitivity alluvium/slopewash and high sensitivity Baypoint Formation; however limited grading of 34 cubic yards to depths of 6 feet are proposed on-site. Although the "Paleontological Resources of San Diego County (Demere and Walsh, 1993)" describes the Baypoint formation as having a high potential for yielding fossil resources including marine invertebrates; given the minor amount of grading, no paleontological monitoring would be required. The City's threshold for determining potential impacts to high paleontological resource areas is 1,000 cubic yards of excavation at depths of 10 feet or more. As impacts to paleontological resources are not identified at this time, no CEQA mitigation for this issue area is required.			
XIV. POPULATION AND HOUSING – Would the proposal:			
A. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? The proposed project is consistent with the Community Plan and would add outdoor decking and lawn to an existing one-story, single-family dwelling unit. The project would have no impact on population growth.	_	_	X
B. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? The project would not displace any housing.	_	_	X
C. Alter the planned location, distribution, density or growth rate of the population of an area? The proposed project would not alter the areas existing or future population.	_	_	X
XV. PUBLIC SERVICES – Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:			

	Yes	Maybe	No
The project would expand an existing deck and improve landscaping on-site. These actions would not be expected to impact the following public services and no new living space would be added and the project is limited in scope.			
A. Fire protection? The area is considered to be adequately served.	_	_	X
B. Police protection? The area is considered adequately served.	_	_	X
C. Schools? The area is considered to be adequately served.	_	_	X
D. Parks or other recreational facilities? The area is considered to be adequately served.	_	_	X
E. Maintenance of public facilities, including roads? The area is considered to be adequately served.	_	_	X
F. Other governmental services? The project is located in an established community and all services currently exist.	_	_	X
XVI. RECREATIONAL RESOURCES – Would the proposal result in:			
A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? The deck and yard enhancement project would not adversely affect the availability of and/or need for new or expanded recreational resources.	_	_	X
B. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? No facilities are proposed or would be required for the deck addition and landscape improvements to a single-family-dwelling unit.	_	_	X
XVII. TRANSPORTATION/CIRCULATION – Would the proposal result in:			
A. Traffic generation in excess of specific/			

	Yes	Maybe	No
community plan allocation? The residential deck expansion and landscaping improvement project is not expected to generate excessive traffic and no traffic study was required.	_	_	X
B. An increase in projected traffic which is substantial in relation to the existing traffic load and capacity of the street system? The project would not intensify use of the site over current conditions.	_	_	X
C. An increased demand for off-site parking? The residential deck expansion and landscaping improvement project would continue to provide the required parking spaces for the residence on-site per the zone.	_	_	X
D. Effects on existing parking? The residential deck expansion and landscaping improvement project would generate similar parking needs to the current residential development. Please also see XVI – C.	_	_	X
E. Substantial impact upon existing or planned transportation systems? Project is consistent with all transportation systems.	_	_	X
F. Alterations to present circulation movements including effects on existing public access to beaches, parks, or other open space areas? The residential deck expansion and landscaping improvement project would not alter circulation movement from current conditions. See also XIV B and D above.	_	_	X
G. Increase in traffic hazards for motor vehicles, bicyclists or pedestrians due to a proposed, non-standard design feature (e.g., poor sight distance or driveway onto an access-restricted roadway)? The residential deck expansion and landscaping improvement project would include no modifications to existing patterns of travel. There are currently no known transportation hazards associated with the project and no new ones would arise.	_	_	X

	Yes	Maybe	No
H. A conflict with adopted policies, plans or programs supporting alternative transportation models (e.g., bus turnouts, bicycle racks)? The residential improvement project would be compatible with these elements.	_	_	X
XVIII. UTILITIES – Would the proposal result in a need for new systems, or require substantial alterations to existing utilities, including:			
A. Natural gas? Adequate services are available to serve site.	_	_	X
B. Communications systems? Please see XVII-A.	_	_	X
C. Water? Please see XVII-A.	_	_	X
D. Sewer? Please see XVII-A.	_	_	X
E. Storm water drainage? Existing facilities would be utilized.	_	_	X
F. Solid waste disposal? Please see XVII-A.	_	_	X
XIX. WATER CONSERVATION – Would the proposal result in:			
A. Use of excessive amounts of water? The proposed project would not result in the use of excessive amounts of water. Standard residential consumption and City-wide restrictions are expected and would apply to the project.	_	_	X
B. Landscaping which is predominantly non-drought resistant vegetation? Landscaping and irrigation would be in compliance with the City's Land Development Code.	_	_	X
XX. MANDATORY FINDINGS OF SIGNIFICANCE:			
A. Does the project have the potential to degrade the quality of the environment, substantially reduce the			

	Yes	Maybe	No
habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? There is a potential for significant archaeological resources to be on-site; and monitoring is required. Please see Section V of the MND and the Initial Study Discussion .	_	X	_
B. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts would endure well into the future.) No such impacts have been identified for the residential deck expansion and landscaping improvement project.	_	_	X
C. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.) The proposed project would not have considerable incremental impacts as it would only expand the deck/landscaped area for a existing residence.	_	_	X
D. Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly? The proposed project is not expected to have either direct or indirect substantial adverse effects on humans.	_	_	X

INITIAL STUDY CHECKLIST

REFERENCES

I. Aesthetics / Neighborhood Character

X City of San Diego General Plan

X Community Plan.

___ Local Coastal Plan.

_ Site Specific Plan –

II. Agricultural Resources / Natural Resources / Mineral Resources – N/A

___ City of San Diego General Plan.

_ U.S. Department of Agriculture, Soil Survey - San Diego Area, California, Part I and II, 1973.

_ California Department of Conservation - Division of Mines and Geology, Mineral Land Classification.

_ Division of Mines and Geology, Special Report 153 - Significant Resources Maps.

_ Site Specific Report:

III. Air

_ California Clean Air Act Guidelines (Indirect Source Control Programs) 1990.

X Regional Air Quality Strategies (RAQS) - APCD.

_ Site Specific Report:

IV. Biology

X City of San Diego, Multiple Species Conservation Program (MSCP), Subarea Plan, 1997

X City of San Diego, MSCP, "Vegetation Communities with Sensitive Species and Vernal Pools" maps, 1996.

X City of San Diego, MSCP, "Multiple Habitat Planning Area" maps, 1997.

_ Community Plan - Resource Element.

_ California Department of Fish and Game, California Natural Diversity Database, "State and Federally-listed Endangered, Threatened, and Rare Plants of California," January 2001.

_ California Department of Fish & Game, California Natural Diversity Database, "State and Federally-listed Endangered and Threatened Animals of California," January 2001.

_ City of San Diego Land Development Code Biology Guidelines.

_ Site Specific Report:

V. Energy – N/A

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VI. Geology/Soils

X City of San Diego Seismic Safety Study.

X U.S. Department of Agriculture Soil Survey - San Diego Area, California, Part I and II, December 1973 and Part III, 1975.

X Site Specific Report(s) – Geotechnical Response to Cardenas Residence Assessment Letter, CTE Inc, November 2, 2009; Preliminary Geotechnical Investigation, Proposed Lusardi Residence, 8466 El Paseo Grande, CTE Inc, March 24, 2006

VII. Greenhouse Gases

_ Site Specific Report(s)

VIII. Historical Resources

X City of San Diego Historical Resources Guidelines.

X City of San Diego Archaeology Library.

_ Historical Resources Board List.

_ Community Historical Survey:

X Site Specific Report(s): Historical Resources Survey of the Lusardi Property, RECON October 15, 2007.

IX. Human Health / Public Safety / Hazardous Materials

X San Diego County Hazardous Materials Environmental Assessment Listing.

_ San Diego County Hazardous Materials Management Division

_ FAA Determination

_ State Assessment and Mitigation, Unauthorized Release Listing, Public Use Authorized

_ Airport Land Use Comprehensive Plan (ALUCP).

_ Site Specific Report:

X. Hydrology/Water Quality

_ Flood Insurance Rate Map (FIRM).

_ Federal Emergency Management Agency (FEMA), National Flood Insurance Program - Flood Boundary and Floodway Map.

X Clean Water Act Section 303(b) list, http://www.swrcb.ca.gov/tmdl/303d_lists.html).

X Site Specific Reports: Water Quality Study – Cardenas Residence, 8466 El Paseo Grande, Marengo Morton Architects, Inc, - undated.

XI. Land Use

X City of San Diego General Plan -2008

X Community Plan.

__ Airport Land Use Comprehensive Plan (ALUCP).

X City of San Diego Zoning Maps

_ FAA Determination

__ Site Specific Reports:

XII. Noise

__ Community Plan

__ San Diego International Airport - Lindbergh Field CNEL Maps.

__ Brown Field Airport Master Plan CNEL Maps.

__ Montgomery Field CNEL Maps.

X Miramar MCAS CNEL Maps.

__ San Diego Association of Governments - San Diego Regional Average Weekday Traffic Volumes.

__ San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG.

X City of San Diego General Plan.

_ Site Specific Report:

XIII. Paleontological Resources

X City of San Diego Paleontological Guidelines.

X Demere, Thomas A., and Stephen L. Walsh, "Paleontological Resources City of San Diego," Department of Paleontology San Diego Natural History Museum, 1996.

X Kennedy, Michael P., and Gary L. Peterson, "Geology of the San Diego Metropolitan Area, California. Del Mar, La Jolla, Point Loma, La Mesa, Poway, and SW 1/4 Escondido 7 1/2 Minute Quadrangles," California Division of Mines and Geology Bulletin 200, Sacramento, 1975.

__ Kennedy, Michael P., and Siang S. Tan, "Geology of National City, Imperial Beach and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area, California," Map Sheet 29, 1977.

__ Site Specific Report:

XIV. Population / Housing

_ City of San Diego General Plan

X Community Plan.

_ Population Forecasts, SANDAG.

_ Other:

XV. Public Services

_ City of San Diego General Plan

X Community Plan.

XVI. Recreational Resources

_ City of San Diego General Plan

X Community Plan.

_ Department of Park and Recreation

_ City of San Diego - San Diego Regional Bicycling Map

_ Additional Resources:

XVII. Transportation / Circulation

_ City of San Diego General Plan

X Community Plan.

_ San Diego Metropolitan Area Average Weekday Traffic Volume Maps, SANDAG.

_ San Diego Region Weekday Traffic Volumes, SANDAG.

_ Site Specific Report:

XVIII. Utilities

_ City of San Diego General Plan

X Community Plan

XIX. Water Conservation

_ City of San Diego General Plan

_ Sunset Magazine, New Western Garden Book. Rev. ed. Menlo Park, CA: Sunset Magazine.

CLIMATE ACTION PLAN CONSISTENCY CHECKLIST INTRODUCTION

In December 2015, the City adopted a Climate Action Plan (CAP) that outlines the actions that City will undertake to achieve its proportional share of State greenhouse gas (GHG) emission reductions. The purpose of the Climate Action Plan Consistency Checklist (Checklist) is to, in conjunction with the CAP, provide a streamlined review process for proposed new development projects that are subject to discretionary review and trigger environmental review pursuant to the California Environmental Quality Act (CEQA).[1]

Analysis of GHG emissions and potential climate change impacts from new development is required under CEQA. The CAP is a plan for the reduction of GHG emissions in accordance with CEQA Guidelines Section 15183.5. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

This Checklist is part of the CAP and contains measures that are required to be implemented on a project-by-project basis to ensure that the specified emissions targets identified in the CAP are achieved. Implementation of these measures would ensure that new development is consistent with the CAP's assumptions for relevant CAP strategies toward achieving the identified GHG reduction targets. Projects that are consistent with the CAP as determined through the use of this Checklist may rely on the CAP for the cumulative impacts analysis of GHG emissions. Projects that are not consistent with the CAP must prepare a comprehensive project-specific analysis of GHG emissions, including quantification of existing and projected GHG emissions and incorporation of the measures in this Checklist to the extent feasible. Cumulative GHG impacts would be significant for any project that is not consistent with the CAP.

The Checklist may be updated to incorporate new GHG reduction techniques or to comply with later amendments to the CAP or local, State, or federal law.

Questions pertaining to the Checklist should be directed to Development Services Department at 619-446-5000.

[1] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

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CAP CONSISTENCY CHECKLIST SUBMITTAL APPLICATION

- The Checklist is required only for projects subject to CEQA review.[2]
- If required, the Checklist must be included in the project submittal package. Application submittal procedures can be found in Chapter 11: Land Development Procedures of the City's Municipal Code.
- The requirements in the Checklist will be included in the project's conditions of approval.
- The applicant must provide an explanation of how the proposed project will implement the requirements described herein to the satisfaction of the Planning Department.

Application Information

Contact Information

Project No./Name: CARDENAS RESIDENCE CDP# 445629

Property Address: 8466 EL PASEO GRANDE LA JOLLA CA

Applicant Name/Co.: BILL HATER / HATER ARCHITECTURE

Contact Phone: 858.792.2800 Contact Email: B HATER @ HATERARCHITECTURE.

Was a consultant retained to complete this checklist? ☐ Yes ☒ No If Yes, complete the following

Consultant Name: _____ Contact Phone: _____

Company Name: _____ Contact Email: _____

Project Information

1. What is the size of the project (acres)? .273 AC (11,878 SF)
2. Identify all applicable proposed land uses:
   - ☒ Residential (indicate # of single-family units): 1 SINGLE FAMILY
   - ☐ Residential (indicate # of multi-family units): _____
   - ☐ Commercial (total square footage): _____
   - ☐ Industrial (total square footage): _____
   - ☐ Other (describe): _____
3. Is the project located in a Transit Priority Area? ☐ Yes ☒ No
4. Provide a brief description of the project proposed: DEMOLISH EXISTING SINGLE FAMILY RESIDENCE AND BUILD NEW TWO STORY 6,698 SF SINGLE FAMILY RESIDENCE WITH 2 CAR GARAGE, SITE WALLS + LANDSCAPING.

[2] Certain projects seeking ministerial approval may be required to complete the Checklist. For example, projects in a Community Plan Implementation Overlay Zone may be required to use the Checklist to qualify for ministerial level review. See Supplemental Development Regulations in the project's community plan to determine applicability.

CAP CONSISTENCY CHECKLIST QUESTIONS

Step 1: Land Use Consistency

The first step in determining CAP consistency for discretionary development projects is to assess the project's consistency with the growth projections used in the development of the CAP. This section allows the City to determine a project's consistency with the land use assumptions used in the CAP.

Step 1: Land Use Consistency		
Checklist Item (Check the appropriate box and provide explanation and supporting documentation for your answer)	Yes	No
1. Is the proposed project consistent with the existing General Plan and Community Plan land use and zoning designations?;[3] OR,		
2. If the proposed project is not consistent with the existing land use plan and zoning designations, does the project include a land use plan and/or zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?; OR,	☒	☐
3. If the proposed project is not consistent with the existing land use plan and zoning designations, and includes a land use plan and/or zoning designation amendment that would result in an increase in GHG emissions when compared to the existing designations, would the project be located in a Transit Priority Area (TPA) and implement CAP Strategy 3 actions, as determined in Step 3 to the satisfaction of the Development Services Department?	SEE ATTACHED EXPLANATION PAGE	

If "***Yes***," proceed to Step 2 of the Checklist. For questions 2 and 3 above, provide estimated project emissions under both existing and proposed designation(s) for comparison. For question 3 above, complete Step 3.

If "***No***," in accordance with the City's Significance Determination Thresholds, the project's GHG impact is significant. The project must nonetheless incorporate each of the measures identified in Step 2 to mitigate cumulative GHG emissions impacts unless the decision maker finds that a measure is infeasible in accordance with CEQA Guidelines Section 15091. Proceed and complete Step 2 of the Checklist.

[3] This question may also be answered in the affirmative if the project is consistent with SANDAG Series 12 growth projections, which were used to determine the CAP projections, as determined by the Planning Department.

Step 2: CAP Strategies Consistency

The second step of the CAP consistency review is to review and evaluate a project's consistency with the applicable strategies and actions of the CAP. Step 2 only applies to development projects that involve permits that would require a certificate of occupancy from the Building Official or projects comprised of one and two family dwellings or townhouses as defined in the California Residential Code and their accessory structures.[4] All other development projects that would not require a certificate of occupancy from the Building Official shall implement Best Management Practices for construction activities as set forth in the Greenbook (for public projects).

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 1: Energy & Water Efficient Buildings			
1. *Cool/Green Roofs.* ◉ Would the project include roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under California Green Building Standards Code (Attachment A)?; OR • Would the project roof construction have a thermal mass over the roof membrane, including areas of vegetated (green) roofs, weighing at least 25 pounds per square foot as specified in the voluntary measures under California Green Building Standards Code?; OR • Would the project include a combination of the above two options? Check "N/A" only if the project does not include a roof component.	☒ SEE ATTACHED EXPLANATION PAGE	☐	☐
2. *Plumbing fixtures and fittings* With respect to plumbing fixtures or fittings provided as part of the project, would those low-flow fixtures/appliances be consistent with each of the following: Residential buildings: • Kitchen faucets: maximum flow rate not to exceed 1.5 gallons per minute at 60 psi; • Standard dishwashers: 4.25 gallons per cycle; • Compact dishwashers: 3.5 gallons per cycle; and • Clothes washers: water factor of 6 gallons per cubic feet of drum capacity? Nonresidential buildings: • Plumbing fixtures and fittings that do not exceed the maximum flow rate specified in Table A5.303.2.3.1 (voluntary measures) of the California Green Building Standards Code (See Attachment A); and • Appliances and fixtures for commercial applications that meet the provisions of Section A5.303.3 (voluntary measures) of the California Green Building Standards Code (See Attachment A)? Check "N/A" only if the project does not include any plumbing fixtures or fittings.	☒ SEE ATTACHED EXPLANATION PAGE	☐	☐

[4] Actions that are not subject to Step 2 would include, for example: 1) discretionary map actions that do not propose specific development, 2) permits allowing wireless communication facilities, 3) special events permits, 4) use permits that do not result in the expansion or enlargement of a building, and 5) non-building infrastructure projects such as roads and pipelines. Because such actions would not result in new occupancy buildings from which GHG emissions reductions could be achieved, the items contained in Step 2 would not be applicable.

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
Strategy 2: Clean & Renewable Energy			
3. *Energy Performance Standard / Renewable Energy* Is the project designed to have an energy budget that meets the following performance standards when compared to the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the California Energy Commission (percent improvement over current code): (•) Low-rise residential – 15% improvement? • Nonresidential with indoor lighting OR mechanical systems, but not both – 5% improvement? • Nonresidential with both indoor lighting AND mechanical systems – 10% improvement?[5] The demand reduction may be provided through on-site renewable energy generation, such as solar, or by designing the project to have an energy budget that meets the above-mentioned performance standards, when compared to the Title 24, Part 6 Energy Budget for the Proposed Design Building (percent improvement over current code). Note: For Energy Budget calculations, high-rise residential and hotel/motel buildings are considered non-residential buildings. Check "N/A" only if the project does not contain any residential or non-residential buildings.	☒	☐	☐ SEE ATTACHED EXPLANATION PAGE
Strategy 3: Bicycling, Walking, Transit & Land Use			
4. *Electric Vehicle Charging* (•) Single-family projects: Would the required parking serving each new single-family residence and each unit of a duplex be constructed with a listed cabinet, box or enclosure connected to a raceway linking the required parking space to the electrical service, to allow for the future installation of electric vehicle supply equipment to provide an electric vehicle charging station for use by the resident? • Multiple-family projects of 10 dwelling units or less: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official, to allow for the future installation of electric vehicle supply equipment to provide electric vehicle charging stations at such time as it is needed for use by residents? • Multiple-family projects of more than 10 dwelling units: Would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official? Of the total listed cabinets, boxes or enclosures provided, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use by residents?	☒	☐	☐ SEE ATTACHED EXPLANATION PAGE

[5] CALGreen defines mechanical systems as equipment, appliances, fixtures, fittings and/or appurtenances, including ventilating, heating, cooling, air-conditioning and refrigeration systems, incinerators and other energy-related systems.

Step 2: CAP Strategies Consistency

Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
• Non-residential projects: If the project includes new commercial, industrial, or other uses with the building or land area, capacity, or numbers of employees listed in Attachment A, would 3% of the total parking spaces required, or a minimum of one space, whichever is greater, be provided with a listed cabinet, box or enclosure connected to a conduit linking the parking spaces with the electrical service, in a manner approved by the building and safety official? Of the total listed cabinets, boxes or enclosures provided, would 50% have the necessary electric vehicle supply equipment installed to provide active electric vehicle charging stations ready for use? Check "N/A" only if the project is does not include new commercial, industrial, or other uses with the building or land area, capacity, or numbers of employees listed in Attachment A.			
Strategy 3: Bicycling, Walking, Transit & Land Use (Complete this section if project includes non-residential or mixed uses)			
5. *Bicycle Parking Spaces* Would the project provide more short- and long-term bicycle parking spaces than required in the City's Municipal Code (Chapter 14, Article 2, Division 5)?[6] Check "N/A" only if the project is a residential project. SEE ATTACHED EXPLANATION PAGE	☐	☐	☒
6. *Shower facilities* If the project includes nonresidential development that would accommodate over 10 tenant occupants (employees), would the project include changing/shower facilities in accordance with the voluntary measures under the California Green Building Standards Code as shown in the table below? Check "N/A" only if the project is a residential project, or if it does not include nonresidential development that would accommodate over 10 tenant occupants (employees).	☐ SEE ATTACHED EXPLANATION PAGE	☐	☒

Number of Tenant Occupants (Employees)	Shower/Changing Facilities Required	Two-Tier (12" X 15" X 72") Personal Effects Lockers Required
0-10	0	0
11-50	1 shower stall	2
51-100	1 shower stall	3
101-200	1 shower stall	4
Over 200	1 shower stall plus 1 additional shower stall for each 200 additional tenant-occupants	1 two-tier locker plus 1 two-tier locker for each 50 additional tenant-occupants

[6] Non-portable bicycle corrals within 600 feet of project frontage can be counted towards the project's bicycle parking requirements.

Step 2: CAP Strategies Consistency

Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
7. *Designated Parking Spaces* If the project includes an employment use in a TPA, would the project provide designated parking for a combination of low-emitting, fuel-efficient, and carpool/vanpool vehicles in accordance with the following table?	☐	☐	☒

Number of Required Parking Spaces	Number of Designated Parking Spaces
0-9	0
10-25	2
26-50	4
51-75	6
76-100	9
101-150	11
151-200	18
201 and over	At least 10% of total

This measure does not cover electric vehicles. See Question 4 for electric vehicle parking requirements.

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces. The required designated parking spaces are to be provided within the overall minimum parking requirement, not in addition to it.

Check "N/A" only if the project is a residential project, or if it does not include an employment use in a TPA.

SEE ATTACHED EXPLANATION PAGE

8. *Transportation Demand Management Program* If the project would accommodate over 50 tenant-occupants (employees), would it include a transportation demand management program that would be applicable to existing tenants and future tenants that includes: At least one of the following components: • Parking cash out program • Parking management plan that includes charging employees market-rate for single-occupancy vehicle parking and providing reserved, discounted, or free spaces for registered carpools or vanpools • Unbundled parking whereby parking spaces would be leased or sold separately from the rental or purchase fees for the development for the life of the development And at least three of the following components: • Commitment to maintaining an employer network in the SANDAG iCommute program and promoting its RideMatcher service to tenants/employees • On-site carsharing vehicle(s) or bikesharing • Flexible or alternative work hours • Telework program • Transit, carpool, and vanpool subsidies	☐	☐	☒

SEE ATTACHED EXPLANATION PAGE

Step 2: CAP Strategies Consistency			
Checklist Item (Check the appropriate box and provide explanation for your answer)	Yes	No	N/A
• Pre-tax deduction for transit or vanpool fares and bicycle commute costs • Access to services that reduce the need to drive, such as cafes, commercial stores, banks, post offices, restaurants, gyms, or childcare, either onsite or within 1,320 feet (1/4 mile) of the structure/use? Check "N/A" only if the project is a residential project or if it would not accommodate over 50 tenant-occupants (employees).			☒

Step 3: Project CAP Conformance Evaluation (if applicable)

The third step of the CAP consistency review only applies if Step 1 is answered in the affirmative under option 3. The purpose of this step is to determine whether a project that is located in a TPA but that includes a land use plan and/or zoning designation amendment that would result in an increase in GHG emissions when compared to the existing designations, is nevertheless consistent with the assumptions in the CAP because it would implement CAP Strategy 3 actions. The following questions must each be answered in the affirmative and fully explained.

1. **Would the proposed project implement the General Plan's City of Villages strategy in an identified Transit Priority Area (TPA) that will result in an increase in the capacity for transit-supportive residential and/or employment densities?**
   Considerations for this question:
   - Does the proposed land use and zoning designation associated with the project provide capacity for transit-supportive residential densities within the TPA?
   - Is the project site suitable to accommodate mixed-use village development, as defined in the General Plan, within the TPA?
   - Does the land use and zoning associated with the project increase the capacity for transit-supportive employment intensities within the TPA?

2. **Would the proposed project implement the General Plan's Mobility Element in Transit Priority Areas to increase the use of transit?**
   Considerations for this question:
   - Does the proposed project support/incorporate identified transit routes and stops/stations?
   - Does the project include transit priority measures?

3. **Would the proposed project implement pedestrian improvements in Transit Priority Areas to increase walking opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system provide multiple and direct pedestrian connections and accessibility to local activity centers (such as transit stations, schools, shopping centers, and libraries)?
   - Does the proposed project urban design include features for walkability to promote a transit supportive environment?

4. **Would the proposed project implement the City of San Diego's Bicycle Master Plan to increase bicycling opportunities?**
   Considerations for this question:
   - Does the proposed project circulation system include bicycle improvements consistent with the Bicycle Master Plan?
   - Does the overall project circulation system provide a balanced, multimodal, "complete streets" approach to accommodate mobility needs of all users?

5. **Would the proposed project incorporate implementation mechanisms that support Transit Oriented Development?**
   Considerations for this question:
   - Does the proposed project include new or expanded urban public spaces such as plazas, pocket parks, or urban greens in the TPA?
   - Does the land use and zoning associated with the proposed project increase the potential for jobs within the TPA?
   - Do the zoning/implementing regulations associated with the proposed project support the efficient use of parking through mechanisms such as: shared parking, parking districts, unbundled parking, reduced parking, paid or time-limited parking, etc.?

6. **Would the proposed project implement the Urban Forest Management Plan to increase urban tree canopy coverage?**
   Considerations for this question:
   - Does the proposed project provide at least three different species for the primary, secondary and accent trees in order to accommodate varying parkway widths?
   - Does the proposed project include policies or strategies for preserving existing trees?
   - Does the proposed project incorporate tree planting that will contribute to the City's 20% urban canopy tree coverage goal?

Climate Action Plan
CAP Consistency Checklist
Submittal Application Explanations

Re: Cardenas Residence / CDP / SDP # 445629
8466 El Paseo Grande / La Jolla, Ca 92037
Applicant: Bill Hayer / Hayer Architecture
858-792-2800 / bhayer@hayerarchitecture
For El Paseo Grande, LLC, Owner

Project Description: Discretionary Coastal Development Permit and Site Development Permit to demolish an existing single family residence and construct a new two story 6,698 SF single family residential dwelling unit with an attached 2 car garage, site walls and landscaping located on an 11,878 Sf site at 8466 El Paseo Grande in the La Jolla Community Planning Area.

The following explanations are in response to the CAP Consistency Checklist and supplement the actual application form.

Step 1 - Land Use Consistency

1. Yes, the proposed project is consistent with the existing General Plan and Community Plan land use and zoning designations. The project is located in the SF Zone (Single Family Zone) of the La Jolla Shores Planned District and meets all the criteria for consistency with the General Plan, Community Plan land use and zoning designations.

Step 2 – CAP Strategies Consistency

Strategy 1- Energy & Water Efficient Buildings
1. Cool / Green Roofs. Answer: Yes, the project will provide roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under the California Green Building Standards Code.

2. Plumbing Fixtures and Fittings. Answer: With respect to plumbing fixtures and fittings provided as part of the project, the low-flow fixtures and appliances would be consistent with the following for residential projects:

- The project will provide kitchen faucets with a maximum flow rate not to exceed 1.5 gallons per minute at 60 psi.
- The project will provide standard dishwashers not to exceed 4.25 gallons per cycle.
- The project will provide compact dishwashers not to exceed 3.5 gallons per cycle.
- The project will provide clothes washers with a water factor of 6 gallons per cubic feet of drum capacity.

Strategy 2 – Clean & Renewable Energy

3. Energy Performance Standard / Renewable Energy. Answer: Yes, as a low rise single family single dwelling unit the project will be designed to have an energy budget that meets a 15% improvement over current code as compared to the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the California Energy Commission, utilizing the approved versions for demonstrating compliance with the residential provisions of the 2013 California Building Energy Efficiency Standards. The demand reduction will be provided by designing the project to have an energy budget the performance standards.

Strategy 3 – Bicycling, Walking, Transit & Land Use

4. Single Family Residence projects - Answer: Yes, the required parking serving the new single family residence will be constructed with a listed cabinet , box or enclosure connected to a raceway linking the parking space to the electrical service. This will allow for the future installation of electric vehicle supply equipment to provide an electric vehicle charging station for the use of the resident.

5. Bicycle Parking Spaces - Answer: N/A - This is a residential project.

6. Shower facilities – Answer: N/A – This is a residential project.

7. Designated Parking Spaces – Answer: N/A – This is a residential project.

8. Transportation Demand Management Program – Answer: N/A – This is a residential project.

Climate Action Plan

CAP Consistency Checklist

Submittal Application Explanations

Re: Cardenas Residence / CDP / SDP # 445629

8466 El Paseo Grande / La Jolla, Ca 92037

Applicant: Bill Hayer / Hayer Architecture

858-792-2800 / bhayer@hayerarchitecture

For El Paseo Grande, LLC, Owner

Project Description: Discretionary Coastal Development Permit and Site Development Permit to demolish an existing single family residence and construct a new two story 6,698 SF single family residential dwelling unit with an attached 2 car garage, site walls and landscaping located on an 11,878 Sf site at 8466 El Paseo Grande in the La Jolla Community Planning Area.

The following explanations are in response to the CAP Consistency Checklist and supplement the actual application form.

Step 1 - Land Use Consistency

1. Yes, the proposed project is consistent with the existing General Plan and Community Plan land use and zoning designations. The project is located in

the SF Zone (Single Family Zone) of the La Jolla Shores Planned District and meets all the criteria for consistency with the General Plan, Community Plan land use and zoning designations.

Step 2 – CAP Strategies Consistency

Strategy 1- Energy & Water Efficient Buildings

1. Cool / Green Roofs. Answer: Yes, the project will provide roofing materials with a minimum 3-year aged solar reflection and thermal emittance or solar reflection index equal to or greater than the values specified in the voluntary measures under the California Green Building Standards Code.

2. Plumbing Fixtures and Fittings. Answer: With respect to plumbing fixtures and fittings provided as part of the project, the low-flow fixtures and appliances would be consistent with the following for residential projects:

- **The project will provide kitchen faucets with a maximum flow rate not to exceed 1.5 gallons per minute at 60 psi.**
- **The project will provide standard dishwashers not to exceed 4.25 gallons per cycle.**
- **The project will provide compact dishwashers not to exceed 3.5 gallons per cycle.**
- **The project will provide clothes washers with a water factor of 6 gallons per cubic feet of drum capacity.**

Strategy 2 – Clean & Renewable Energy

3. Energy Performance Standard / Renewable Energy. Answer: Yes, as a low rise single family single dwelling unit the project will be designed to have an energy budget that meets a 15% improvement over current code as compared to the Title 24, Part 6 Energy Budget for the Proposed Design Building as calculated by Compliance Software certified by the California Energy Commission, utilizing the approved versions for demonstrating

compliance with the residential provisions of the 2013 California Building Energy Efficiency Standards. The demand reduction will be provided by designing the project to have an energy budget that meets the above referenced 15% improvement over current code.

Strategy 3 – Bicycling, Walking, Transit & Land Use
4. Single Family Residence projects - Answer: Yes, the required parking serving the new single family residence will be constructed with a listed cabinet , box or enclosure connected to a raceway linking the parking space to the electrical service. This will allow for the future installation of electric vehicle supply equipment to provide an electric vehicle charging station for the use of the resident.

5. Bicycle Parking Spaces - Answer: N/A - This is a residential project.

6. Shower facilities – Answer: N/A – This is a residential project.

7. Designated Parking Spaces – Answer: N/A – This is a residential project.

8. Transportation Demand Management Program – Answer: N/A – This is a residential project.

Drainage Study
CARDENAS RESIDENCE

LOT 2, MAP NO. 2615
APN 346-050-02-00

Prepared for:
Joseph & Machelle Cardenas
8466 El Paseo Grande
La Jolla, CA 92037

Prepared by:
Christensen Engineering & Surveying
7888 Silverton Avenue, Suite "J"
San Diego, CA 92126
(858) 271-9901

PTS No. 445629

July 26, 2015
Revised June 10, 2016

Introduction

This project involves the demolition of the existing residence on Lot 2 of Map 2615 at 8466 El Paseo Grande (except for the existing deck and drainage improvements, including sump pump) and construction of a new residence and improvements.

The attached drainage area maps are from a topographic survey by K & S Engineering, Inc, prepared in December 2003. A small offsite area conveys runoff onsite while a small onsite area conveys runoff offsite. The majority of the site conveys runoff to the deck and landscaped area where it is collected and conveyed to an existing sump pump. From there it is pumped in a PCV pipe along the southerly boundary to an area near the easterly boundary where it terminates, above ground, and permits runoff to flow over the surface of the ground to El Paseo Grande. The remainder of the site conveys its runoff westerly. Following construction the same general pattern will persist with the offsite runoff now be maintained on the adjacent property northerly, The small area of onsite runoff that was previously conveyed to the southerly property will now be collected and conveyed to the existing sump pump. From there it will now be conveyed to a Filterra Biofiltration unit and then to catch basin with pump and to a gravity catch basin onsite and from there it will flow by gravity through a sidewalk underdrain to El Paseo Grande. The remainder of the site will continue to flow westerly.

The area of imperviousness remains nearly the same (6,019 sf pre-construction, 6,458 post-construction) before and after construction. The imperviousness changes from 50.7 % to 54.4%. A runoff coefficient of 0.63 was selected from the County of San Diego Hydrology Manual, Page 3-6 for 50% imperviousness and Soil Type "D".

Since the project is a priority project due to being located in a Water Quality Sensitive Area.

The Rational Method was used to calculate the anticipated flow for the 100-year storm return frequency event using the method outlined in the City of San Diego Drainage Design Manual.

Antony K. Christensen
RCE 54021 Exp. 12-31-17

06-10-16
Date

JN A2015-38

Calculations

1. *Intensity Calculation*

(From the City of San Diego Drainage Design Manual, Page 86)
Tc = Time of concentration

$Tc = (1.8\ (1.1-C)D^{1/2})/S^{1/3}$

Since the difference in elevation is 12' (26'-14') and the distance traveled is 158', S=7.6%. C = 0.63
Tc = 5.4 minutes.

From table on Page 83

I_{100} = 4.3 inches

2. *Coefficient Determination*

Pre-Construction and Post-Construction:

From Page 3-6 from the County Hydrology Manual with 50% imperviousness and Soil Type "D"

C= 0.63

Percent imperiousness
Pre Construction = 50.7%
Post-Construction = 54.4%

3. *Volume calculations*

Q = CIA

Areas of Drainage

The area of this study is set to the same location occupied by the proposed improvements because the rest of the area will remain unchanged and will not affect runoff. Runoff from the area

northerly of the site, conveyed to it by the 18" and 36" drain will not change.

Pre-Construction

Area offsite draining onsite	A = 0.004 Ac
Area onsite draining offsite southerly	B = 0.005 Ac
Area onsite draining to sump	C = 0.183 Ac
Area onsite draining westerly	D = 0.085 Ac

Post-Construction

Area onsite draining to sump	E = 0.188 Ac
Area onsite draining westerly	D = 0.085 Ac

Pre-Construction

Q_{100A} = (0.63) (4.3) (0.004)
Q_{100B} = (0.63) (4.3) (0.005)
Q_{100C} = (0.63) (4.3) (0.183)
Q_{100D} = (0.63) (4.3) (0.085)

Q_{100A} = 0.01 cfs
Q_{100B} = 0.01 cfs
Q_{100C} = 0.50 cfs
Q_{100D} = 0.23 cfs

Post-Construction

Q_{100E} = (0.63) (4.3) (0.188)
Q_{100D} = (0.63) (4.3) (0.085)

Q_{100E} = 0.51 cfs
Q_{100D} = 0.23 cfs

Water Quality Flow Rate

For Proprietary BMPs for treating impervious surface runoff flow rate use I = 0.2 in/hr and multiply Q by 1.5 to arrive at the flow rate to be treated.

$Q = C*I*A*(1.5)$

$Q_{WQX} = (0.63)\ (0.2)\ (0.188)\ (1.5)$

$Q_{WQX} = .036$ cfs

The 6 x4 Filterra unit is capable of conveying 0.055 cfs and so is adequate. The 4 x 4 unit is capable of conveying 0.037 cfs but the 6 x 4 unit is selected for this project to provide a factor of safety to treatment.

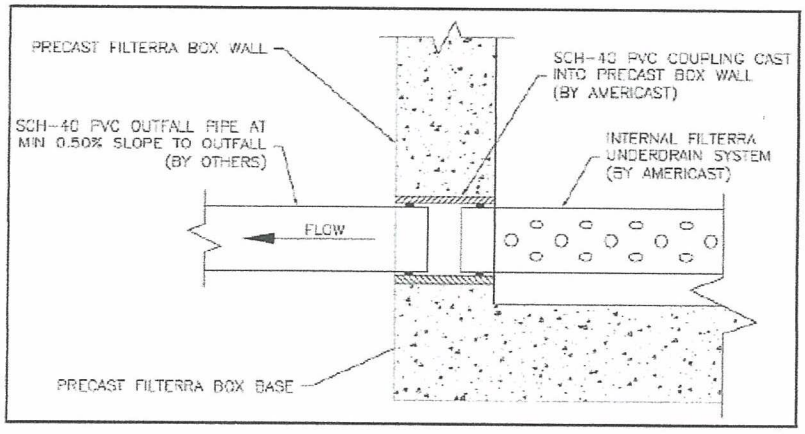
4. Discussion

Some offsite runoff that flows onto the site before construction will be retained on the neighboring property, from which it originates, following construction. A portion of the site that flows offsite, before construction will be retained onsite, following construction. The total runoff that flows from the site to El Paseo Grande before and after construction will remain unchanged. The flow to the west will remain unchanged. Following construction, runoff that currently is pumped from the existing sump is discharged onto the surface of property at the southeast corner. Following construction that discharge will be directed to a Filterra Biofiltration unit and then to a catch basin with pump that will convey the treated runoff to a gravity catch basin, that will allow it to flow to a sidewalk underdrain and then onto El Paseo Grande.

APPENDIX

Filterra® Piping Technical Details

Filterra® is supplied with an internal underdrain system that exits a wall in a perpendicular direction. Most efficient drainage is accomplished when the drain exits on the lower side of the Filterra®, i.e. nearest the overflow bypass. This is more important when using the larger sized Filterra® Systems.



Drawing DP1:
Section View through Filterra Precast Box Wall at Outfall Pipe Connection

All units are supplied with the drainage pipe coupling precast into the wall, at a depth of 3.50 feet (INV to TC). Drawing DP1 is a detail of the coupling. The coupling used is SCH-40 PVC.

Typically, a minimum slope of 0.5% is adequate to accommodate the flow of treated water from the Filterra®, but each site may present unique conditions based on routing of the outfall pipe (elbows). The pipe must not be a restricting point for the successful operation of Filterra®. All connecting pipes must accommodate freefall flow. Table 3 lists approved treatment sizing flow rates of the various size Filterra® units. A safety factor of at least two should be used to size piping from the Filterra based on these conservative approved treatment flow rates.

Table 3: Filterra Flow Rates & Pipe Details

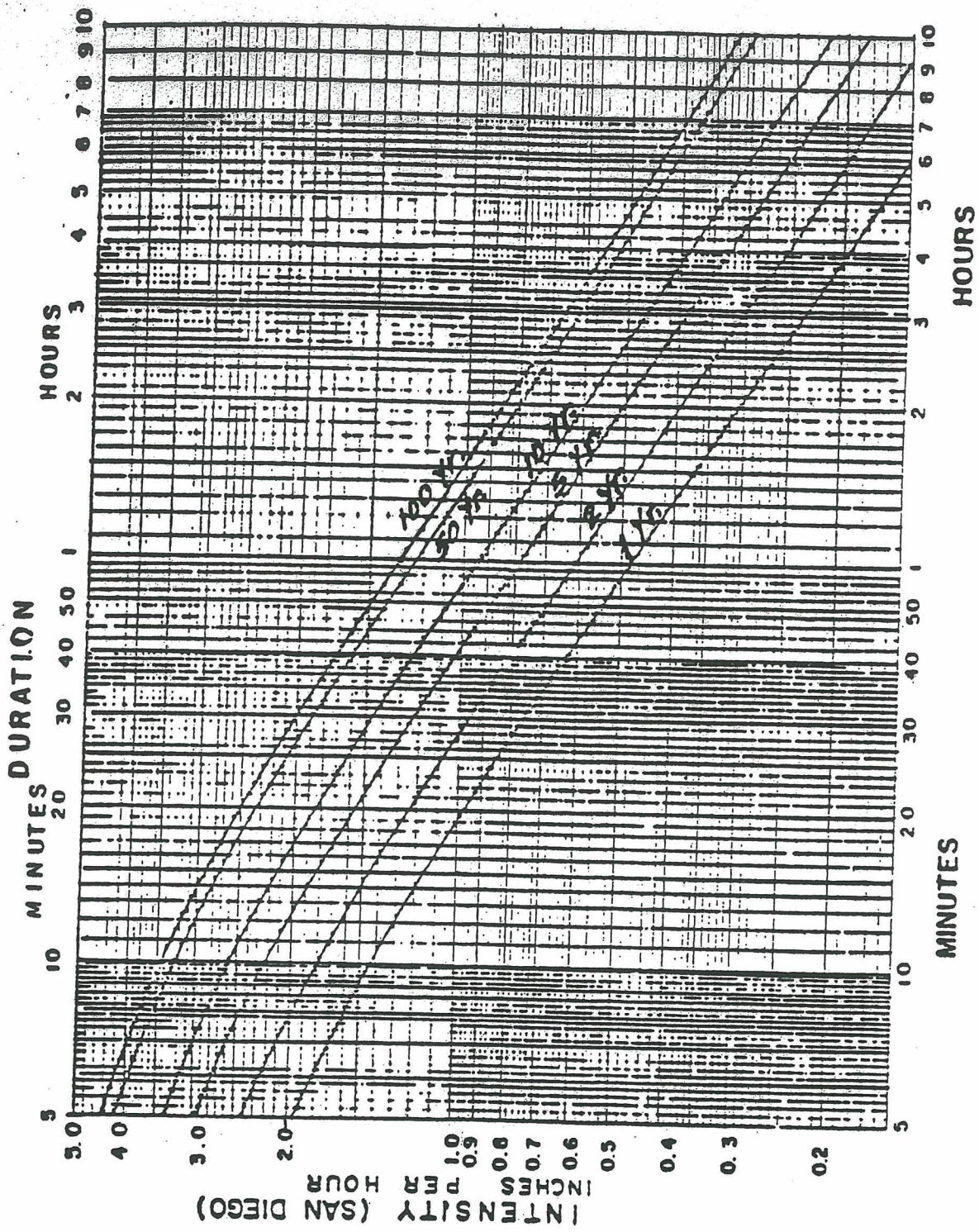
Important Note: Actual flow rate may be more than double rates below.

Filterra® Size (feet)	Expected Flow Rate (cubic feet/second)	Connecting Drainage Pipe
4x4	0.037	4" SCH-40 PVC
4 x 6 or 6 x 4	0.055	4" SCH-40 PVC
4x6.5 or 6.5x4	0.061	4" SCH-40 PVC
4 x 8 or 8 x 4	0.075	4" SCH-40 PVC
4x16 or 16x4	0.150	6" SCH-40 PVC
6 x 6	0.084	4" SCH-40 PVC
6 x 8 or 8 x 6	0.112	4" SCH-40 PVC
6 x 10 or 10 x 6	0.140	6" SCH-40 PVC
6 x 12 or 12 x 6	0.168	6" SCH-40 PVC
8x12 or 12x8	0.224	6" SCH-40 PVC
8x16 or 16x8	0.297	6" SCH-40 PVC
8x18 or 18x8	0.337	6" SCH-40 PVC
8x20 or 20x8	0.374	6" SCH-40 PVC

Table 3-1
RUNOFF COEFFICIENTS FOR URBAN AREAS

Land Use		Runoff Coefficient "C"				
			Soil Type			
NRCS Elements	County Elements	% IMPER.	A	B	C	D
Undisturbed Natural Terrain (Natural)	Permanent Open Space	0*	0.20	0.25	0.30	0.35
Low Density Residential (LDR)	Residential, 1.0 DU/A or less	10	0.27	0.32	0.36	0.41
Low Density Residential (LDR)	Residential, 2.0 DU/A or less	20	0.34	0.38	0.42	0.46
Low Density Residential (LDR)	Residential, 2.9 DU/A or less	25	0.38	0.41	0.45	0.49
Medium Density Residential (MDR)	Residential, 4.3 DU/A or less	30	0.41	0.45	0.48	0.52
Medium Density Residential (MDR)	Residential, 7.3 DU/A or less	40	0.48	0.51	0.54	0.57
Medium Density Residential (MDR)	Residential, 10.9 DU/A or less	45	0.52	0.54	0.57	0.60
Medium Density Residential (MDR)	Residential, 14.5 DU/A or less	50	0.55	0.58	0.60	0.63
High Density Residential (HDR)	Residential, 24.0 DU/A or less	65	0.66	0.67	0.69	0.71
High Density Residential (HDR)	Residential, 43.0 DU/A or less	80	0.76	0.77	0.78	0.79
Commercial/Industrial (N. Com)	Neighborhood Commercial	80	0.76	0.77	0.78	0.79
Commercial/Industrial (G. Com)	General Commercial	85	0.80	0.80	0.81	0.82
Commercial/Industrial (O.P. Com)	Office Professional/Commercial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (Limited I.)	Limited Industrial	90	0.83	0.84	0.84	0.85
Commercial/Industrial (General I.)	General Industrial	95	0.87	0.87	0.87	0.87

*The values associated with 0% impervious may be used for direct calculation of the runoff coefficient as described in Section 3.1.2 (representing the pervious runoff coefficient, Cp, for the soil type), or for areas that will remain undisturbed in perpetuity. Justification must be given that the area will remain natural forever (e.g., the area is located in Cleveland National Forest).
DU/A = dwelling units per acre
NRCS = National Resources Conservation Service



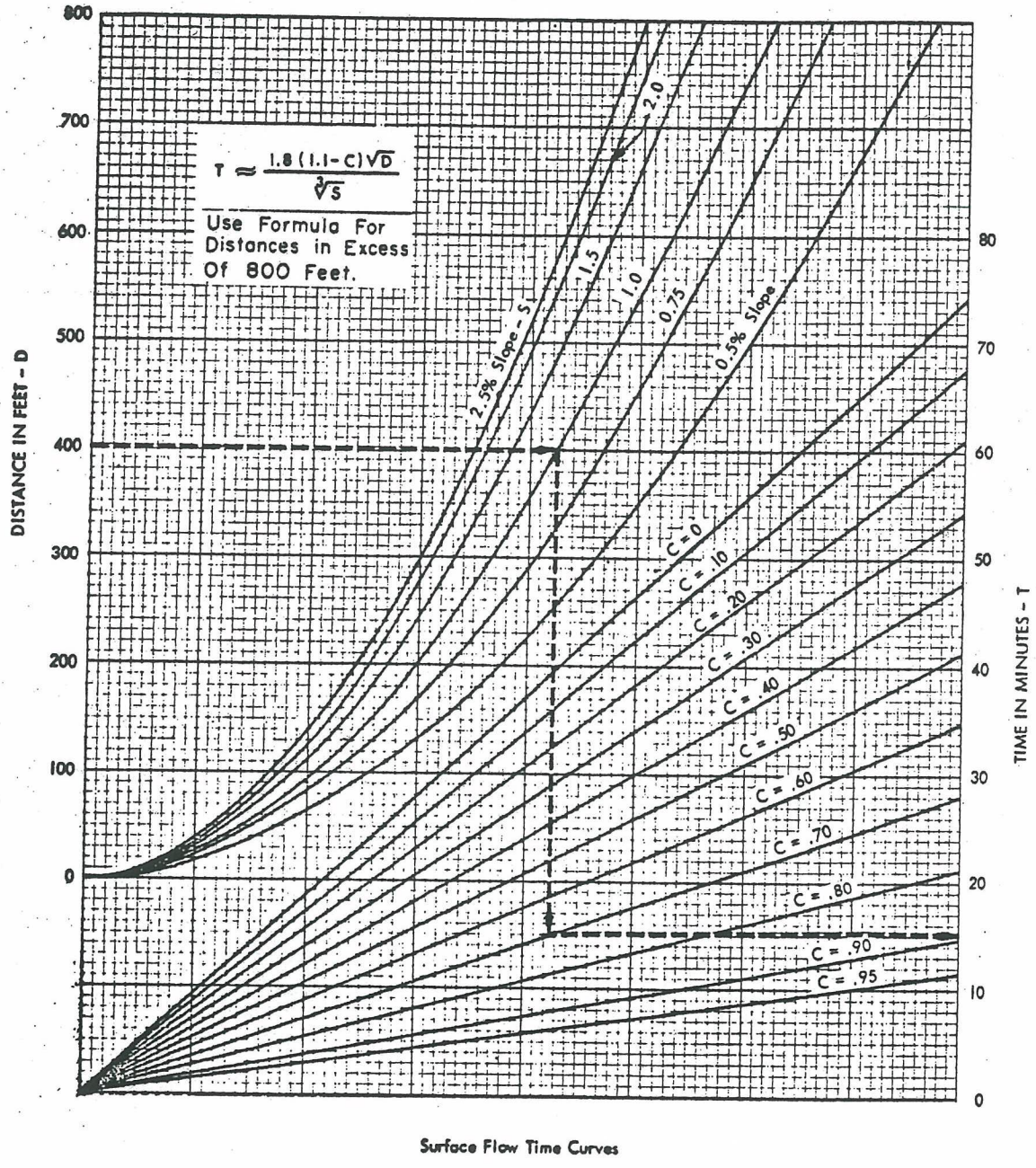
ELEV.	FACTOR
0–1500	1.00
1500–3000	1.23
3000–4000	1.42
4000–3000	1.60
3000–6000	1.70
DESERT	1.25

To obtain correct intensity, multiply intensity on chart by factor for design elevation.

RAINFALL
INTENSITY - DURATION - FREQUENCY
CURVES
for
COUNTY OF SAN DIEGO

APPENDIX I

URBAN AREAS OVERLAND TIME OF FLOW CURVES



Surface Flow Time Curves

EXAMPLE:

GIVEN: LENGTH OF FLOW = 400 FT.
SLOPE = 1.0 %
COEFFICIENT OF RUNOFF C = .70

READ: OVERLAND FLOWTIME = 15 MINUTES

DRAINAGE AREA MAPS

PRE-DEVELOPMENT DRAINAGE AREA MAP

PRE-CONSTRUCTION DRAINAGE AREA MAP

AREA "D"
0.085

AREA "A"
0.004

AREA "C"
0.183

AREA "B"
0.005

8470
HT 15.4'

8462
HT 15.6'

8458
HT 14.0'

S 19°09'31" W 61.64'

S 70°51'17" E 193.82'

S 70°50'47" E 191.53'

S 21°17'07" W 61.71'

OBSCURED

TREES

CONC

STAIRS

BRUSH

SHADOWS

GMW

EXIST. CURB & GUTTER

POST-DEVELOPMENT DRAINAGE AREA MAP

POST-CONSTRUCTION DRAINAGE AREA MAP

AREA "D"
0.085

AREA "E"
0.188

7' WIDE EXISTING PRIVATE ACCESS EASEMENT

OVERHANG - TYP.

LINE OF RESIDENCE WALL - TYP.

EXISTING RESIDENCE
LOT 1 OCEAN TERRACE MAP 2615
APN 346-050-010
FF: 24.3'

20.0 TW
14.0 BW

23.5 TW
17.5 BW

26.5 TW
20.5 BW

29.25 TW
22.0 BW
22.83 FG

28.2 TW
21.5 BW

S 70°51'17" E
193.82'

29.25 TW
23.5 BW
22.83 FG

FLAGSTONE STEPPERS
PLANTING BETWEEN

CONCRETE PAVER PATH
W INTEGRAL COLOR

OPEN METAL GATE
6' CMU PRIVACY WALL

29.25 TW
24.5 BW
22.83 FG

TREES

25.83TW
22.83 BW
25.3 FG

25.35 TC
25.20 FL
MATCH EX

EXISTING SEAWALL TO REMAIN - TYP.

17.33 TW
14.5 BW

SETBACK

DS

23.33 FINISH FLOOR
22.67 PAD

EXISTING HOUSE
TO BE DEMOLISHED

EXISTING DECK, GLASS RAILS & SITE WALLS TO REMAIN

WALK

LAWN

EXISTING DECK
EXISTING DECK TO REMAIN
(TRELLIS TO BE REMOVED)

23.2 FS

BEACH:
PEDESTRIAN BEACH ACCESS EASEMENT -
SAND TO REMAIN UNDISTURBED

LINE OF MEAN HIGH TIDE
=Westerly Property Line

S 19°09'31" W
61.64'

EXISTING SINGLE FAMILY RESIDENCE & TRELLIS TO BE DEMOLISHED
FF: ELEV=-23.32'

23.16 FS
COURTYARD

PROPOSED
TWO-CAR
GARAGE

23.25 GFF

PLANTER

6' CMU WALL

RD

EXISTING CONCRETE STAIRS & WALLS TO REMAIN

S 70°50'47" E
191.53'

29.25 TW
23.16 BW

OPEN METAL FENCE & GATE

29.25 TW
21.5 BW
23.16 FS

25.83 TW
23.0 BW
23.16 FS

INTEGRAL COLORED CONCRETE DRIVEWAY W/ SANDBLAST FINISH

20.0 TW
14.0 BW

23.5 TW
17.5 BW
16.33 FS

27.0 TW
19.5 BW
21.0 FS

EX WALL TO BE REBUILT AS NEEDED

EXISTING RESIDENCE
LOT 3 OCEAN TERRACE MAP 2615
APN 346-050-030
FF: 22.2'

BRUSH

CONC

S 21°47'07" W
61.71'

25.83 TW
24.66 BW

23.67 FL

23.14 TC
22.92 FL
MATCH EX

EL PASEO GRANDE

EX 8" AC WATER PER DWG 18880-D

EX 8" PVC SEWER PER DWG 28331-D

EX 4" HP GAS SHOWN ON DWG 28331-D

EXIST. CURB & GUTTER

EXIST. CURB & GUTTER

3+00

2+00

10'
15'
15'
25'
25'
50'