

# City of San Diego

CONTRACTOR'S NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
TELEPHONE NO.: \_\_\_\_\_ FAX NO.: \_\_\_\_\_  
CITY CONTACT **JIM HAGHGOUY, 600 B St. Suite 800 MS 908A, San Diego, CA 92101**  
**Email: Jhaghgouv@sandiego.gov, Phone: 619-533-4657, Fax: 619-533-5176**

CA/AR/JE

## CONTRACT DOCUMENTS FOR

### BALBOA TERRACE TRUNK SEWER



VOLUME 1 OF 2

BID NO.: \_\_\_\_\_ **K-12-5468-DBB-3-C**  
SAP NO. (WBS/IO/CC): \_\_\_\_\_ **B-00478**  
CLIENT DEPARTMENT: \_\_\_\_\_ **2011**  
COUNCIL DISTRICT: \_\_\_\_\_ **6**  
PROJECT TYPE: \_\_\_\_\_ **JB**

**THIS CONTRACT IS SUBJECT TO THE FOLLOWING:**

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

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

  
Professional Engineer or Licensed Architect

Seal:



(((((((((((((((((((( **ATTENTION** ))))))))))))))))

The 2010 edition of the City of San Diego Standard Specifications for Public Works Construction (“The WHITEBOOK”) now contains the following distinct Contract Documents:

- 1) **Equal Opportunity Contracting Program Requirements** - This Contract Document sets forth the standard requirements for the City’s equal opportunity contracting program. When additional requirements by the funding source e.g., federal or state agencies are physically included in the contract documents or by reference and there is a discrepancy, the funding source requirements shall govern unless specified otherwise in the Special Provisions.
  
- 2) **City Supplement** – The City Supplement shall be used in conjunction with the Standard Specifications for Public Works Construction (“The GREENBOOK”), 2009 Edition. The specifications contained in City Supplement take precedence over the specifications contained in The GREENBOOK, 2009 Edition.

Certain parts of the City Supplement have been highlighted in yellow for the convenience of the users only and shall not affect the interpretation of the Contract.

To obtain The GREENBOOK contact the publisher at: <http://www.bnibooks.com>

The WHITEBOOK is available only in electronic format under Engineering Documents and References at: <http://www.sandiego.gov/engineering-cip/>



## TABLE OF CONTENTS

<b>DESCRIPTION</b>	<b>PAGE NUMBER</b>
1. REQUIRED DOCUMENTS SCHEDULE.....	4-5
2. SPECIAL NOTICE SLBE AND ELBE PROGRAM.....	6-12
3. INVITATION TO BID(S).....	13-15
4. INSTRUCTION TO BIDDER(S).....	16-23
5. CONTRACT FORMS	
• Agreement/Contract .....	24-25
• Performance Bond and Labor and Materialmen’s Bond .....	26-27
6. CONTRACTOR CERTIFICATION	
• Drug-Free Workplace.....	28
• American with Disabilities Act (ADA) Compliance.....	29
• Contractor Standards - Pledge of Compliance .....	30
• Affidavit of Disposal .....	31
• Phased Funding Schedule.....	32
7. SUPPLEMENTARY SPECIAL PROVISIONS .....	33-85
8. APPENDICES:	
• APPENDIX A - Mitigated Negative Declaration / Site Development Permit .....	86-141
• APPENDIX B - Fire Hydrant Meter Program .....	142-156
• APPENDIX C -Materials Typically Accepted by Certificate of Compliance .....	157-158
• APPENDIX D - Sample City Invoice .....	159-160
• APPENDIX E - Hydrostatic Discharge Form .....	161-162
• APPENDIX F - Caltrans Permit.....	163-174
• APPENDIX G - Preformed Loop Construction .....	175-176
• APPENDIX H - Hazardous Label/Forms.....	177-182
• APPENDIX I - Long-Term Revegetation Maintenance Contract.....	183-200
• APPENDIX J - Agreement for Application of Emulsion-Aggregate Slurry.....	201-209
• APPENDIX K - Revegetation Plans .....	210-219
• APPENDIX L - Updated Standard Drawings .....	220-232

## REQUIRED DOCUMENTS SCHEDULE

This table is intended to serve as a convenient tool for listing forms and documents required at different times. It is neither exhaustive nor must be considered a Contract Document by itself. Therefore, the users must review the entire Contract Documents and become familiar with the required documentation and the submittal schedule associated with each document.

Bidder's attention is directed to the City's Municipal Code §22.0807(e),(3)-(5) for important information regarding required documentation.

The specified EOC forms are all available for download from the EOC Program's web site at:

<http://www.sandiego.gov/eoc/forms/index.shtml>

ITEM	WHEN	BY	WHAT
1.	BID DUE DATE/TIME	ALL BIDDERS	Proposal (Bid)
2.	BID DUE DATE/TIME	ALL BIDDERS	Bid Bond
3.	BID DUE DATE/TIME	ALL BIDDERS	Non-collusion Affidavit to be Executed By Bidder and Submitted with Bid under 23 USC 112 and PCC 7106
4.	BID DUE DATE/TIME	ALL BIDDERS	Contractors Certification of Pending Actions
5.	BID DUE DATE/TIME	ALL BIDDERS	Equal Benefits Ordinance Certification of Compliance
6.	BID DUE DATE/TIME	ALL BIDDERS	Form AA35 - List of Subcontractors
7.	BID DUE DATE/TIME	ALL BIDDERS	Form AA40 - Named Equipment/Material Supplier List
8.	WITHIN 3 WORKING DAYS OF BID OPENING	ALL BIDDERS	Proof of Valid DBE-MBE-WBE-DVBE Certification Status e.g., Certs.
9.	WITHIN 3 WORKING DAYS OF BID OPENING	ALL BIDDERS	SLBE-ELBE Good Faith Documentations
10.	WITHIN 3 WORKING DAYS OF BID OPENING	ALL BIDDERS	Form AA60 – List of Work Made Available
11.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Pre-Award Schedule (Phased Funded Contracts Only)
12.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Phased Funding Schedule Agreement (when required)
13.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Names of the principle individual owners of the Apparent Low Bidder - In the event the firm is employee owned or publicly held, then the fact should be stated and the names of the firm's principals and officers shall be provided.

## REQUIRED DOCUMENTS SCHEDULE

ITEM	WHEN	BY	WHAT
14.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	If the Contractor is a Joint Venture, the following information must be submitted: <ul style="list-style-type: none"> <li>o Joint Venture Agreement</li> <li>o Joint Venture License</li> </ul>
15.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Form BB05 - Work Force Report
16.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms - Agreement
17.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms - Payment and Performance Bond
18.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Certificates of Insurance and Endorsements
19.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - Drug-Free Workplace
20.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - American with Disabilities Act
21.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractors Standards - Pledge of Compliance
22.	BY 5th OF EACH MONTH	CONTRACTOR	Form CC20 - Monthly Employment Report
23.	BY 5th OF EACH MONTH	CONTRACTOR	Form CC25 - Monthly Invoicing Report
24.	PRIOR TO ACCEPTANCE	CONTRACTOR	Form CC10 - Contract Change Order (CCO)
25.	PRIOR TO ACCEPTANCE	CONTRACTOR	Form CC15 - Final Summary Report
26.	PRIOR TO ACCEPTANCE	CONTRACTOR	Affidavit of Disposal

SPECIAL NOTICE  
SMALL LOCAL BUSINESS ENTERPRISES (SLBE)  
AND  
EMERGING LOCAL BUSINESS ENTERPRISES (ELBE)  
PROGRAM

1. **INTRODUCTION.** This contract is subject to the requirements of the SLBE Program as specified in the SLBE-ELBE section of the City’s EOC Requirements included in The WHITEBOOK.

1.1. The Bidders are required to review The WHITEBOOK and become familiar with the detailed specifications including the required documentation and the submittal schedule as related to SLBE-ELBE program.

2. **AMENDMENTS TO THE CITY’S GENERAL EOC REQUIREMENTS.**

**III. Equal Employment Opportunity Outreach Program (A).** **DELETE** in its entirety and **SUBSTITUTE** with the following:

A. Competitive Bids. If a contract is competitively solicited, the Apparent Low Bidder shall submit a *Work Force Report (Form BB05)* or an Equal Employment Opportunity (EEO) Plan, within 10 Working Days after receipt by the Bidder of Contract forms to the City for approval as specified in the Notice of Intent to Award letter from the City.

3. **AMENDMENTS TO THE CITY’S EOC SLBE-ELBE REQUIREMENTS.**

**VIII. Subcontracting Efforts Review and Evaluation (2b).** **DELETE** in its entirety and **SUBSTITUTE** with the following:

b) “Make information of forthcoming opportunities available to SLBE-ELBE firms and arrange time for contracts and establish delivery schedules, where requirements permit, in a way that encourages and facilitates participation by SLBE-ELBE firms in the competitive process. This includes posting solicitations for bids or proposals for a minimum of 10 Working Days before the Bid or Proposal due date.”

**VIII. Subcontracting Efforts Review and Evaluation (3) and (4).** **DELETE** in its entirety and **SUBSTITUTE** with the following:

3. Good Faith Effort Documentation Requirements

If the stated SLBE-ELBE subcontractor participation percentages are not met, the Bidder shall submit, within 3 Working Days of the Bid opening, information necessary to establish adequate good faith efforts were taken to meet the contract subcontractor participation percentages. The required documentation includes the following:

A. **ADVERTISEMENT REQUIREMENTS**

Advertisements for subcontract work must comply with the following requirements:

1. Advertisements must be published at least 10 Working Days prior to bid opening. Provide the names and dates of each publication of where the advertisement was published.

Note: The advertisement is not required to be published everyday for the 10 Working Days prior to bid opening.

2. There must be at least 2 advertisements published, 1 advertisement in a trade publication and 1 in a focus group publication. Additional advertising for SLBE-ELBE participation may be placed in newspapers, trade papers and on the Internet. For a listing of publications accepting advertisements, please visit the City's EOC home page at <http://www.sandiego.gov/eoc/>

- 2.1. Newspaper advertisements must be in the Bids Wanted, Legal Notices section of the Classified Ads, Subcontracting Opportunities or Business Opportunities **NOT** the Employment Opportunities Section.

3. Advertisements must state which items or portions of work the Bidder is requesting subcontractor pricing.

- 3.1. It is the Bidder's responsibility to demonstrate that enough work sufficient to meet the SLBE-ELBE subcontractor participation percentage was made available to SLBE-ELBE firms. The Bidder shall make as many items of Work available as possible to meet specified subcontracting participation percentage and at a minimum an amount of work equal to the specified subcontracting participation amount. If necessary to reach the specified subcontracting participation percentage, the Work shall include those items normally performed by the Bidder with its own forces or supplies and even items with a dollar value below 1/2 of 1% of the total Bid. Bidders shall utilize Form AA60 to demonstrate compliance with this requirement and submit the completed form with Good Faith Effort documentation.

4. Advertisements must state that Plans and Specifications are available at no cost to interested SLBE-ELBE firms and how to obtain them.

5. Advertisements must state that assistance is available from the Bidder for SLBE-ELBE Subcontractors in obtaining necessary equipment, supplies, or materials.

6. Advertisements must state that assistance is available from the Bidder for SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance.
7. Bidders MUST provide proof of publication of each advertisement by providing the publication affidavit which must include a legible copy of the entire advertisement and the original ENTIRE page of the publication in which the advertisement appears.

**B. SLBE-ELBE WRITTEN SOLICITATION REQUIREMENTS**

Bidders must directly solicit SLBE-ELBE firms on the City's approved SLBE-ELBE list. Solicitations for Subcontractor or Supplier work must comply with the following requirements:

1. The solicitation must be dated and list the name of the SLBE-ELBE firm. Solicitations must be made to the SLBE-ELBE firms at least 10 Working Days prior to bid opening.
2. Solicitation must state which items or portions of work the Bidder is requesting subcontractor pricing.
  - 2.1. It is the Bidder's responsibility to demonstrate that enough work sufficient to meet the SLBE-ELBE subcontractor participation percentage was made available to SLBE-ELBE firms. The Bidder shall make as many items of Work available as possible to meet the specified subcontractor participation percentage and at a minimum an amount of work equal to the subcontractor participation amount. If necessary to reach the specified subcontracting participation percentage, the Work shall include those items normally performed by the Bidder with its own forces, supplies and even items with a dollar value below 1/2 of 1% of the total Bid. Bidders shall utilize Form AA60 to demonstrate compliance with this requirement and submit the completed form with Good Faith Effort documentation.
3. Solicitation must state that Plans and Specifications are available at no cost to interested SLBE-ELBE firms and how to obtain them.
4. Solicitations must state that assistance is available from the Bidder for SLBE-ELBE subcontractors in obtaining necessary equipment, supplies, or materials.

5. Solicitations must state that assistance is available from the Bidder for SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance.
6. Bidder must solicit **ALL** SLBE-ELBE firms on the City's approved list, who have the NAICS code for the subcontract work sought by the Contractor.
7. Bidders must provide copies of **ALL** solicitations with one of the following forms of verification that the solicitations were sent:
  - a) If mailed: provide copies of the metered envelopes or certified mail receipts.
  - b) If faxed: provide copies of the fax transmittal confirmation sheet(s).
  - c) If emailed: provide copies of the email delivery confirmation sheet(s).

No credit shall be given for error messages, busy, cancelled, undeliverable, etc.

C. **SLBE-ELBE WRITTEN SOLICITATION FOLLOW-UP REQUIREMENTS**

Bidders must follow-up with all SLBE – ELBE firms that were notified of the subcontracting opportunities to determine their level of interest and commitment to bid the Project. When following up with the SLBE – ELBE firms, the Bidder must do the following:

1. Follow up communications must start no less than 5 Working Days prior to bid opening.
2. Bidders must follow up with all SLBE-ELBE firms in writing. Bidders must provide copies of **ALL** written follow up notices with one of the following forms of verification that the follow up notices were sent:
  - a) If mailed: provide copies of the metered envelopes or certified mail receipts.
  - b) If faxed: provide copies of the fax transmittal confirmation sheet(s).
  - c) If emailed: provide copies of the email delivery confirmation sheet(s).

No credit shall be given for error messages, busy, cancelled, undeliverable, etc.

3. Bidders must make at least 3 follow-up telephone calls to each SLBE – ELBE firm at least 5 days prior to bid opening date. Bidders must submit a telephone log as identified below.
  - 3.1. Submit a telephone log, as proof of telephone call, with the following requirements: project name, name of person making the phone call, name of firm contacted, contact person's name, date of call, time of call, and details of conversation.

D. SUBCONTRACT AWARD SUMMARY

Bidders must act in good faith with interested SLBE-ELBE firms and may only reject bids for legitimate business reasons. The Bidder must submit the following documentation:

1. A **DETAILED** summary sheet which includes Bid item number, scope of work, Subcontractor or Supplier name, bid amount, certification type, Subcontractor or Supplier selection and reason for selection or non-selection of all the Subcontractor or Supplier that responded.
2. Copies of all Subcontractor or Suppliers bids received including bids for areas of work that were not included in the outreach and quotes from both certified and non-certified Subcontractors or Suppliers. Subcontractor bid amounts **MUST** match the bid-listed dollar amounts on form AA35 and AA40 submitted with Bidders sealed bid and the summary sheet dollar amounts **MUST** also match these amounts. If the Bidder decides to self-perform a scope of work, the Bidder **MUST** submit a detailed quote to show that the Bidder's price is competitive to the price of the subcontractors that responded to outreach efforts. All dollar amounts and scopes of work on the Subcontractor or Supplier bid must not be altered by the prime Bidder. If a revision is necessary, a revised quote must be obtained and provided. All verbal quotes **MUST** be substantiated by corresponding written quote from the Subcontractor or Supplier.

E. OUTREACH ASSISTANCE REQUIREMENTS

Written notice of subcontractor opportunities must be forwarded to local organizations or groups to assist with outreach efforts. When contacting local organizations or groups, the Bidder **must do** the following:

1. Contact a minimum of 5 local organizations or groups to provide assistance in contacting, recruiting and using SLBE-ELBE firms by written notice. For a listing of organizations or groups offering assistance, please visit the City's EOC home page at <http://www.sandiego.gov/eoc/>



2. Written notice must indicate the date of the notice and name of the local organization or group. Written notices must be forwarded to the organizations or groups at least 10 Workings Days prior to bid opening.
3. Written notice must state which items or portions of work the Bidder is requesting subcontractor pricing.
  - 3.1. It is the Bidder's responsibility to demonstrate that enough work sufficient to meet the SLBE-ELBE subcontractor participation percentage was made available to SLBE-ELBE firms. The Bidder shall make as many items of Work available as possible to meet the subcontractor participation percentage, and at a minimum an amount of work equal to the subcontracting participation amount. If necessary to reach the subcontractor participation percentage, the work should include those items normally performed by the Bidder with its own forces, supplies and even items with a dollar value below 1/2 of 1% of the total bid. Bidders shall utilize Form AA60 to demonstrate compliance with this requirement and submit the completed form with Good Faith Effort documentation.
4. Written notice must state that Plans and Specifications are available at no cost to interested SLBE-ELBE firms and how to obtain them.
5. Written notice must state that assistance is available from the Bidder for SLBE-ELBE Subcontractors in obtaining necessary equipment, supplies, or materials.
6. Written notice must state that assistance is available from the Bidder for SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance.
7. Bidders must provide copies of **ALL** notices with one of the following forms of verification that the notices were sent:
  - a) If mailed: provide copies of the metered envelopes or certified mail receipts.
  - b) If faxed: provide copies of the fax transmittal confirmation sheet(s).
  - c) If emailed: provide copies of the email delivery confirmation sheet(s)..

No credit shall be given for error messages, busy, cancelled, undeliverable, etc.

4. **SUBCONTRACTING PARTICIPATION PERCENTAGES.** The Bidders are encouraged to take positive steps to diversify and expand their subcontractor solicitation base and to offer contracting opportunities to all certified SLBE and ELBE Subcontractors.
- 4.1. The City has incorporated **mandatory** SLBE-ELBE subcontractor participation percentages to enhance competition and maximize subcontracting opportunities. For the purpose of achieving the mandatory subcontractor participation percentages, a recommended breakdown of the SLBE and ELBE subcontractor participation percentages based upon certified SLBE and ELBE firms has also been provided to achieve the mandatory subcontractor participation percentages:
- |                                  |              |
|----------------------------------|--------------|
| 1. SLBE participation            | <b>7.2%</b>  |
| 2. ELBE participation            | <b>15.1%</b> |
| 3. Total mandatory participation | <b>22.3%</b> |
- 4.2. For the purpose of achieving the subcontractor participation level (percentage), Additive, Deductive, and Allowance Bid Items will not be included in the calculation.
5. **PRE-BID CONFERENCE.** A Pre-Bid Conference is scheduled for this contract as specified in the Invitation to Bids. The purpose of this meeting is to inform Bidders of the submittal requirements and provisions relative to the SLBE Program. Bidders are strongly encouraged to attend the Pre-Bid Conference to better understand the Good Faith Effort requirements of this contract.
6. **MANDATORY CONDITIONS.** Bid will be declared **non-responsive** if the Bidder fails the following mandatory conditions.
- 6.1. Bidder's inclusion of SLBE-ELBE certified subcontractors at the overall mandatory participation percentage identified in this document; OR
- 6.2. Bidder's submission of Good Faith Effort documentation demonstrating the Bidder made a good faith effort to outreach to and include SLBE-ELBE Subcontractors required in this document within 3 Working Day of the Bid opening if the overall mandatory participation percentage is not met.
7. **BID DISCOUNT.** This contract **is not** subject to the Bid Discount program as described in The WHITEBOOK, SLBE-ELBE Program Requirements, Section IV(2).
8. **RESOURCES.** The current list of certified SLBE-ELBE firms can be found on the EOC Department website.

# CITY OF SAN DIEGO, CALIFORNIA

## INVITATION TO BIDS

1. **RECEIPT AND OPENING OF BIDS:** Bid(s) will be received at the Public Works Contracting Group at **1200 THIRD AVENUE, SUITE 200, SAN DIEGO, CA 92101 UNTIL 2:00 PM on APRIL 18, 2012** for performing work on the following project (Project):

### **BALBOA TERRACE TRUNK SEWER**

2. **DESCRIPTION OF WORK:** The Work involves furnishing all labor, materials, equipment, services, and other incidental works and appurtenances for the construction of the Project as described below:

**Construction consists of the installation of 21", 15" and 8" sewer pipe via tunneling and open trench installation, and appurtenances in accordance with these specifications.**

The Work shall be performed in accordance with:

- Bid No. **K-12-5468-DBB-3-C** and Plans numbered **30360-01-D** through **30360-38-D** and **30360-T01-D** through **30360-T10-D**, inclusive.

3. **ENGINEER'S ESTIMATE:** The Engineer's estimate of the most probable price for this contract is in the range of **\$7,000,001 to \$8,000,000**.
4. **LOCATION OF WORK:** The location of Work is Citywide unless specified otherwise as follows:

**Clairemont Mesa Community, vicinity of Balboa Avenue and Balboa Terrace**

5. **CONTRACT TIME:** The Contract Time for completion of the Work shall be **180 Working Days**.
6. **SUPPLEMENTAL AGREEMENTS:** Supplemental agreements attached to this contract for the items of Work such as extended re-vegetation maintenance and monitoring and emulsion aggregate slurry shall be signed upon the request from the Engineer and prior to Acceptance. The signed agreements shall be accompanied by the evidence of separate bond (i.e., labor and materials) and insurance (i.e., Commercial General Liability Insurance, Commercial Automobile Liability Insurance, and Workers' Compensation Insurance) as specified in 2-4, "CONTRACT BONDS," 7-3, "LIABILITY INSURANCE," and 7-4 WORKERS' COMPENSATION INSURANCE. Bonds shall be in amount of the Contract Price for the Work included in the supplemental agreements.
7. **CONTRACTOR'S LICENSE CLASSIFICATION:** In accordance with the provisions of California Law, the Contractor shall possess valid appropriate license(s) at the time that the Bid is submitted. Failure to possess the specified license(s) shall render the Bid as **non-responsive** and shall act as a bar to award of the Contract to any Bidder not possessing required license(s) at the time of Bid.

The City has determined the following licensing classification(s) for this contract:

Option	Classification(s)
1	CLASS A
2	CLASS C34
3	CLASS C42

The Bidder shall satisfy the licensing requirement by meeting **at least** one of the listed options.

- 8. PRE-BID CONFERENCE:** There will be a Pre-Bid Conference to discuss the scope of the Project, bidding requirements, and Equal Opportunity Contracting Program requirements and reporting procedures in the Public Works Contracting Group, Conference Room at 1200 Third Avenue, Suite 200, San Diego, CA 92101 **at 10:00 AM, on MARCH 29, 2012.**

All potential bidders are encouraged to attend.

To request a copy of the agenda on an alternative format, or to request a sign language or oral interpreter for this meeting, call the Public Works Contracting Group at (619) 236-6000 at least 5 Working Days prior to the Pre-Bid Conference to ensure availability.

- 9. CITY PROJECT MANAGER CONTACT INFORMATION:** See the cover of the Contract Documents.

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

1. STANDARD SPECIFICATIONS

Document No.	Filed	Description
PITS0504091	05-04-09	Standard Specifications for Public Works Construction (The GREENBOOK), 2009 Edition
PITS090110-1	09-01-10	City of San Diego Standard Specifications for Public Works Construction (The WHITEBOOK), 2010 Update *
AEC1231064	12-31-06	California Department of Transportation, Manual of Uniform Traffic Control Devices (MUTCD 2006)
769023	09-11-84	Standard Federal Equal Employment Opportunity Construction Contract Specifications and the Equal Opportunity Clause

NOTE: The City of San Diego Supplement, 2010 Update now consolidates various City Public Works Construction Standard Specifications which in the past were included in the Supplementary Special Provisions. The Bidders' attention is directed to this edition of the City Supplement for a close review to ensure no important information is missed for the preparation of the Bids.

2. STANDARD DRAWINGS

Document No.	Filed	Description
AEC1230163	12-31-06	City of San Diego Standard Drawings*
N/A	Varies	City Standard Drawings - Updates Approved For Use (when specified)*
AEC0925061	09-25-06	Caltrans 2006 U.S. Customary Unit Standard Plans

NOTE: \*Available online under Engineering Documents and References at: <http://www.sandiego.gov/engineering-cip>.

**11. WAGE RATES:** Prevailing wages are not applicable to this project unless specified otherwise on the cover page of these specifications and when included in these specifications. See Funding Agency Provisions that follow this Invitation to Bid for more information.

**12. INSURANCE REQUIREMENTS:** Upon receipt of the City’s Notice of Intent to Award letter, the Contractor will be asked to submit all certificates of insurance and endorsements to the City.

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

You must ensure all required insurance certificates and endorsements are submitted accurately and on time. Failure to provide the requisite insurance documents by the date stated in the City’s Notice of Intent to Award will result in delay of contract award and may result in annulment of the contract award or other more severe sanctions as provided in the City’s Municipal Code §22.0807(e),(3)-(5).

**13. PHASED FUNDING:** The Apparent Low Bidder will be required to provide a Pre-award Schedule in accordance with sections 9-3 and 6-1 of the Supplementary Special Provisions (SSP) prior to award of Contract.

Tony Heinrichs  
 Director  
 Public Works Department

## INSTRUCTIONS TO BIDDERS

- 1. PREQUALIFICATION OF CONTRACTORS:** The contractor(s) who intend to submit Bid or Proposal in response to this invitation to bid, or RFP's for GRC or As-Needed Design-Build Task Orders valued over \$50,000, must be pre-qualified for total amount proposed, inclusive of all alternate bid items or the specified Task Order limits prior to the date of Bid submittal.

Bids from contractors who have not been pre-qualified as applicable, and Bids that exceed the maximum dollar amount at which contractors are pre-qualified, will be deemed **non-responsive** and ineligible for award or a Task Order authorization. Complete information and prequalification questionnaires are available at:

<http://www.sandiego.gov/engineering-cip/services/consultcontract/prequal.shtml>

The completed questionnaire, financial statement, and bond letter or a copy of the contractor's SLBE-ELBE certification and bond letter, must be submitted no later than 2 weeks prior to the bid opening to the Public Works Department - Engineering & Capital Project, Prequalification Program, 1010 Second Avenue, Suite 1200, San Diego, CA 92101. For additional information or the answer to questions about the prequalification program, please contact David Stucky at 619-533-3474 or [dstucky@sandiego.gov](mailto:dstucky@sandiego.gov).

- 2. CONTRACTOR REGISTRATION:** Prospective bidder(s) as well as existing contractors and suppliers are required to register with the City's EOCP. Refer to 2-17, "CONTRACTOR REGISTRATION" for details.
- 3. CITY'S RESPONSES AND ADDENDA:** The City at its option, may respond to any or all questions submitted in writing, via letter, or FAX in the form of an addendum. No oral comment shall be of any force or effect with respect to this solicitation. The changes to the Contract Documents through addendum are made effective as though originally issued with the Bid. The Bidders shall acknowledge the receipt of Addenda on the form provided for this purpose in the Bid.
- 4. CITY'S RIGHTS RESERVED:** The City reserves the right to cancel the Invitation to Bids at any time, and further reserves the right to reject submitted Bids, without giving any reason for such action, at its sole discretion and without liability. Costs incurred by the Bidder(s) as a result of preparing Bids under the Invitation to Bid shall be the sole responsibility of each bidder. The Invitation to Bid creates or imposes no obligation upon the City to enter a contract.
- 5. CONTRACT PRICING FORMAT:** This solicitation is for a Lump Sum contract with Unit Price provisions as set forth in the Bid Proposal Form(s), Volume 2 unless specified otherwise such as as-needed contracts e.g., GRC in the Contract Documents.
- 6. SUBMITTAL OF "OR EQUAL" ITEMS:** See 4-1.6, "Trade Names or Equals."
- 7. AWARD PROCESS:** The Award of this contract is contingent upon the Contractor's compliance with all conditions precedent to Award, including the submittal of acceptable insurance and surety bonds pursuant to San Diego Municipal Code § 22.3007.

If the responsible Bid does not exceed the City's engineering estimate, the City will, in most cases, prepare contract documents for execution within 3 weeks of the date of the Bid opening and award the Contract within 5 Working Days of receipt of properly executed Contract, bond, and insurance documents.

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

8. **SUBCONTRACT LIMITATIONS:** The Bidder's attention is directed to Standard Specifications for Public Works Construction, Section 2-3, "SUBCONTRACTS" which requires the Contractor to perform not less than the amount therein stipulated with its own forces. Failure to comply with these requirements may render the Bid **non-responsive** and ineligible for award.
9. **AVAILABILITY OF PLANS AND SPECIFICATIONS:** Contract Documents may be obtained by visiting the City's website: <http://www.sandiego.gov/engineering-cip/services/consultcontract/advertising.shtml>. Plans and Specifications for this contract are also available for review in the office of the City Clerk or Public Works Contracting Group.
10. **QUESTIONS:** Questions about the meaning or intent of the Contract Documents as related to the scope of Work and of technical nature shall be directed to the Project Manager prior to Bid opening. Interpretations or clarifications considered necessary by the Project Manager in response to such questions will be issued by Addenda, which will be uploaded to eBidboard (or mailed or delivered to all parties recorded by the City as having received the Contract Documents for Minor Construction contracts).

The Director (or designee), Public Works Department is the officer responsible for opening, examining, and declaring of competitive Bids submitted to the City for the acquisition, construction and completion of any public improvement except when otherwise set forth in these documents. Questions in these areas of responsibility (e.g., i.e. Pre-qualification, EOCP information, bidding activities, bonds and insurance, etc. as related to this contract shall be addressed to the Contract Administration, Public Works Contracting Group, 1200 Third Avenue, Suite 200, San Diego, California, 92101, Telephone No. (619) 236-6000.

Questions received less than 14 days prior to the date for opening of Bids may not be answered. Only questions answered by formal written addenda will be binding. Oral and other interpretations or clarifications will be without legal effect. It is the Bidder's responsibility to become informed of any addenda that have been issued and to include all such information in its Bid.

11. **ELIGIBLE BIDDERS:** No person, firm, or corporation shall be allowed to make, file, or be interested in more than 1 Bid for the same work unless alternate Bids are called for. A person, firm or corporation who has submitted a sub-proposal to a Bidder, or who has quoted prices on materials to a Bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from submitting a Bid in its own behalf.
12. **SAN DIEGO BUSINESS TAX CERTIFICATE:** All Contractors, including Subcontractors, not already having a City of San Diego Business Tax Certificate for the work contemplated shall secure the appropriate certificate from the City Treasurer, Civic Center Plaza, first floor, before the Contract can be executed.
13. **PROPOSAL FORMS:** Bid shall be made only upon the Bidding Documents i.e., Proposal form attached to and forming a part of the specifications. The signature of each person signing shall be in longhand.

The entire specifications for the bid package do not need to be submitted with the bid. Bidder shall complete and submit, only, all pages in the "Bidding Document" Section (see Volume 2) as their Bid per the schedule given under "Required Documents Schedule," (see Volume 1). Bidder is requested to retain for their reference other portions of the Contract Documents that are not required to be submitted with the Bid.

The City may require any Bidder to furnish a statement of experience, financial responsibility, technical ability, equipment, and references.

Bids and certain other specified forms and documents shall be enclosed in a sealed envelope and shall bear the title of the work and name of the Bidder and the appropriate State Contractors License designation which the Bidder holds.

Bids may be withdrawn by the Bidder prior to, but not after, the time fixed for opening of Bids.

**14. BIDDERS' GUARANTEE OF GOOD FAITH (BID SECURITY):**

With the exception of the contracts valued \$5,000 or less, GRC and Design-Build contracts, and contracts subject to the Small and Local Business Program of \$250,000 or less e.g., ELBE contracts, each Bidder shall accompany its Bid with either a cashier's check upon some responsible bank, or a check upon such bank properly certified or an approved corporate surety bond payable to the City of San Diego, for an amount of not less than 10% of the aggregate sum of the Bid, which check or bond, and the monies represented thereby shall be held by the City as a guarantee that the Bidder, if awarded the contract, will in good faith enter into such contract and furnish the required final bonds.

The Bidder agrees that in case of Bidder's refusal or failure to execute this contract and give required final bonds, the money represented by a cashier's or certified check shall remain the property of the City, and if the Bidder shall fail to execute this contract, the Surety agrees that it will pay to the City damages which the City may suffer by reason of such failure, not exceeding the sum of 10% of the amount of the Bid.

A Bid received without the specified bid security will be rejected as being **non-responsive**.

**15. AWARD OF CONTRACT OR REJECTION OF BIDS:**

This contract may be awarded to the lowest responsible and reliable Bidder (for Design-Build contracts refer to the RFP for the selection and award information). Bidders shall complete the entire Bid schedule (e.g., schedule of prices). Incomplete price schedules will be rejected as being **non-responsive**.

The City reserves the right to reject any or all Bids, and to waive any informality or technicality in Bids received and any requirements of these specifications as to bidding procedure.

Bidders will not be released on account of their errors of judgment. Bidders may be released only upon receipt by the City from the Bidder within 3 Working Days, excluding Saturdays, Sundays, and state holidays, after the opening of Bids, of written notice which includes proof of honest, credible, clerical error of material nature, free from fraud or fraudulent intent, and of evidence that reasonable care was observed in the preparation of the Bid.

A non-selected Bidder may protest award of the Contract to the selected Bidder by submitting a written "Notice of Intent to Protest" including supporting documentation which shall be received by Public Works Contracting Group no later than 10 days after the City's announcement of the selected Bidder or no later than 10 days from the date that the City issues notice of designation of a Bidder as non-responsive in accordance with San Diego Municipal Code Chapter 2, § 22.3029, "Protests of Contract Award."

The City of San Diego will not discriminate with regard to race, religious creed, color, national origin, ancestry, physical handicap, marital status, sex or age, in the award of contracts.



Each Bid package properly executed as required by these specifications shall constitute a firm offer, which may be accepted by the City within the time specified in the Invitation to Bids.

The City reserves the right to evaluate all Bids and determine the lowest Bidder (or winner for Design-Build contracts) on the basis of any proposed alternates, additive items or options, at its discretion.

- 16. BID RESULTS:** The Bid opening by the City shall constitute the public announcement of the Apparent Low Bidder (or Apparent Winner in case of Design-Build contracts). In the event that the Apparent Low Bidder (or Apparent Winner in case of Design-Build contracts) is subsequently deemed non-responsive or non-responsible, a public announcement will be posted in the City's web page, with the name of the newly designated Apparent Low Bidder (or Apparent Winner in case of Design-Build contracts).

To obtain Bid results, either attend Bid opening, review the results on the City's web site, or provide a self-addressed, stamped envelope, referencing Bid number, and Bid tabulation will be mailed to you upon verification of extensions. Due to time constraints, Bid results cannot be given out over the telephone.

- 17. THE CONTRACT:** The Bidder to whom award is made shall execute a written contract with the City of San Diego and furnish good and approved bonds and insurance certificates specified by the City within 10 Working Days after receipt by Bidder of a form of contract for execution unless an extension of time is granted to the Bidder in writing.

If the Bidder takes longer than 10 Working Days to fulfill these requirements, then the additional time taken shall be added to the Bid guarantee. The Contract shall be made in the form adopted by the City, which includes the provision that no claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.

If the Bidder to whom the award is made fails to enter into the contract as herein provided, the award may be annulled and the Bidder's Guarantee of Good Faith will be subject to forfeiture. An award may be made to the next lowest responsible and reliable Bidder who shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made.

For contracts that are not Design-Build, pursuant to the San Diego City Charter section 94, the City may only award a public works contract to the lowest responsible and reliable Bidder. The City will require the Apparent Low Bidder to (i) submit information to determine the Bidder's responsibility and reliability, (ii) execute the Contract in form provided by the City, and (iii) furnish good and approved bonds and insurance certificates specified by the City within 10 Working Days, unless otherwise approved by the City, in writing after the Bidder receives notification from the City, designating the Bidder as the Apparent Low Bidder and formally requesting the above mentioned items.

The award of the Contract is contingent upon the satisfactory completion of the above mentioned items and becomes effective upon the signing of the Contract by the Mayor or designee. If the Apparent Low Bidder does not execute the Contract or submit required documents and information, the City may award the Contract to the next lowest responsible and reliable Bidder who shall fulfill every condition precedent to award. A corporation designated as the Apparent Low Bidder shall furnish evidence of its corporate existence and evidence that the officer signing the Contract and bond for the corporation is duly authorized to do so.

**18. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK:** The Bidder shall examine carefully the Project Site, the Plans and Specifications, the GRC Unit Price Books if applicable, other materials as described in the Special Provisions, Section 2-7, and the proposal forms (e.g., Bidding Documents) therefore. The submission of a Bid or GRC Task Order Proposal shall be conclusive evidence that the Bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and scope of Work, the quantities of materials to be furnished, and as to the requirements of the Bidding Documents Proposal, Plans, and Specifications.

**19. DRUG-FREE WORKPLACE:**

a) General:

City projects are subject to City of San Diego Resolution No. R-277952 adopted on May 20, 1991. Bidders shall become aware of the provisions of Council Policy 100-17 which was established by Resolution No. R-277952. The policy applies equally to the Contractor and Subcontractors. The elements of the policy are outlined below.

b) Definitions:

"Drug-free workplace" means a site for the performance of work done in connection with a contract let by City of San Diego for the construction, maintenance, or repair of any facility or public work by an entity at which employees of the entity are prohibited from engaging in the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance in accordance with the requirements of this section.

"Employee" means the employee of a contractor directly engaged in the performance of work pursuant to a contract as described in Section 3, "City Contractor Requirements."

"Controlled substance" means a controlled substance in schedules I through V of Section 202 of the Controlled Substances Act (21 U.S.C. Sec. 812).

"Contractor" means the department, division, or other unit of a person or organization responsible to the contractor for the performance of a portion of the work under the contract.

c) City Contractor Requirements:

Every person or organization awarded a contract or grant by the City of San Diego for the provision of services shall certify to the City that it will provide a drug-free workplace by doing all following:

- a. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the person's organization's workplace and specifying the actions that will be taken against employees for violations of the prohibition.
- b. Establishing a drug-free awareness program to inform employees about all of the following:
  - i. The dangers of drug abuse in the workplace.
  - ii. The person's or organization's policy of maintaining a drug-free workplace.
  - iii. Any available drug counseling, rehabilitation, and employee assistance programs.

- iv. The penalties that may be imposed upon employees for drug abuse violations.
- c. Posting the statement required by subdivision (1) in a prominent place at contractor's main office. For projects large enough to necessitate a construction trailer at the job site, the required signage would also be posted at the Site.

The Contractor shall include in each subcontract agreement language which indicates the Subcontractor's agreement to abide by the provisions of subdivisions a) through c) above. The Contractors and Subcontractors shall be individually responsible for their own drug-free workplace programs.

Note: The requirements of a drug-free awareness program can be satisfied by periodic tailgate sessions covering the various aspects of drug-abuse education. Although an in-house employee assistance program is not required, contractors should be able to provide a listing of drug rehabilitation and counseling programs available in the community at large.

Questions about the City's Drug-free Workplace Policy shall be referred to the Contract Specialist, Public Works Contracting Group.

**20. AMERICANS WITH DISABILITIES ACT:**

- a) General: City projects are subject to City of San Diego Resolution No. R-282153 adopted on June 14, 1993. The Bidders shall become aware of the provisions of Council Policy 100-04 which was established by Resolution No. R-282153. The policy applies equally to the Contractor and all Subcontractors. The elements of the policy are outlined below.
- b) Definitions:
  - "Qualified individual with a disability" means an individual with a disability who satisfies the requisite skill, experience, education and other job-related requirements of the employment position such individual holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.
  - "Employee" means the employee of the Contractor directly engaged in the performance of Work.
- c) The City Requirements: Every person or organization entering into a contractual agreement with or receiving a grant from the City of San Diego shall certify to the City of San Diego that it will comply with the ADA by adhering to all of the provisions of the ADA listed below.
  - i. The Contractor shall not discriminate against qualified persons with disabilities in any aspects of employment, including recruitment, hiring, promotions, conditions and privileges of employment, training, compensation, benefits, discipline, layoffs, and termination of employment.
  - ii. No qualified individual with a disability may be excluded on the basis of disability, from participation in, or be denied the benefits of services, programs, or activities by the Contractor or Subcontractors providing services for the City.
  - iii. The Contractor shall post a statement addressing the requirements of the ADA in a prominent place at the worksite. The Contractor shall include in

each subcontract agreement, language which indicates the Subcontractor's agreement to abide by the provisions of subdivisions (a) through (c) inclusive of Section 3. The Contractor and Subcontractors shall be individually responsible for their own ADA employment programs. Questions about the City's ADA Policy should be referred to the Contract Administrator.

- 21. CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE:** This contract is subject to City of San Diego Municipal Code §22.3224 as amended 11/24/08 by ordinance O-19808. Bidders shall become aware that the requirements apply to Contractors and Subcontractors for contracts greater than \$50,000 in value.

Upon award, amendment, renewal, or extension of this contract, the Contractors shall complete a Pledge of Compliance attesting under penalty of perjury that they complied with the requirements of this section.

The Contractors shall ensure that their Subcontractors whose subcontracts are greater than \$50,000 in value complete a Pledge of Compliance attesting under penalty of perjury that they complied with the requirements of this section. Subcontractors may access the Pledge of Compliance at:

[http://www.sandiego.gov/purchasing/pdf/contractor\\_standards\\_questionnaire.pdf](http://www.sandiego.gov/purchasing/pdf/contractor_standards_questionnaire.pdf).

The Contractors shall include in each subcontract agreement, language which requires Subcontractors to abide by the provisions of City of San Diego Municipal Code §22.3224. A sample provision is as follows:

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

- 22. NOTICE OF LABOR COMPLIANCE PROGRAM APPROVAL:** The City of San Diego received initial approval as a Labor Compliance Program on August 11, 2003. The Labor Compliance Program Manual is available at:

<http://www.sandiego.gov/eoc/laborcompliance/#manual>.

The limited exemption from prevailing wages pursuant to Labor Code §1771.5(a) does not apply to contracts under jurisdiction of the Labor Compliance Program. Inquiries, questions, or assistance about the Labor Compliance Program should be directed to: Equal Opportunity Contracting Program, 1200 Third Ave., Suite 200 MS56P, San Diego, CA 92101, Tel. 619-236-6000.

- 23. PAYROLL RECORDS:** The Contractor's attention is directed to the City of San Diego Labor Compliance Program, Section IV, pages 4-7, and the State of California Labor Code §§ 1771.5(b) and 1776 (Stats. 1978, Ch. 1249). These require, in part, that the Contractor and Subcontractors maintain and furnish to the City, at a designated time, a certified copy of each weekly payroll containing a statement of compliance signed under penalty of perjury.

The Contractor and Subcontractors shall submit weekly certified payrolls online via Prism® i.e., the City’s web-based labor compliance program. Instructions on how to use the system will be provided to the Contractor after the award.

The Contractor shall be responsible for the compliance with these provisions by Subcontractors. The City shall withhold contract payments when payroll records are

delinquent or inadequate, or when it is established after investigation that underpayment has occurred.

**24. APPRENTICES ON PUBLIC WORKS:** The Contractor shall abide by the requirements of §§1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.

**25. EQUAL BENEFITS:** This Contract Is Subject To The City’s Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 Of The San Diego Municipal Code (SDMC).

In accordance with the EBO, Bidders shall certify they will provide and maintain equal benefits as defined in SDMC §22.4302 for the duration of the Contract (SDMC §22.4304(f)). Failure to maintain equal benefits is a material breach of the Contract (SDMC §22.4304(e)). The Contractor shall notify employees of their equal benefits policy at the time of hire and during open enrollment periods and shall post a copy of the following statement in an area frequented by employees:

“During the performance of a contract with the City of San Diego, this employer will provide equal benefits to its employees with spouses and its employees with domestic partners.”

The Contractor shall give the City access to documents and records sufficient for the City to verify the contractors are providing equal benefits and otherwise complying with EBO requirements.

Full text of the EBO and the Rules Implementing the Equal Benefits Ordinance are posted on the City’s website at [www.sandiego.gov/purchasing/](http://www.sandiego.gov/purchasing/) or can be requested from the Equal Benefits Program at (619) 533-3948.

**26. LIMITED COMPETITION:** When designated as restricted competition on the cover page, this contract may only be bid by the Contractors on the approved SLBE-ELBE Construction Contractors List. For information regarding the SLBE-ELBE Construction Program and registration visit the City’s web site: <http://www.sandiego.gov>.

**27. PRE-AWARD ACTIVITIES:**

- a) Pre-award Submittals - The Apparent Low Bidder (or winner in case of Design-Build contracts) shall provide the information required within the time specified in “Required Documents,” of this bid package. Failure to provide the information within the time specified may result in the Bid being rejected as **non-responsive**.
- b) If the Bid is rejected as non-responsive, the Apparent Low Bidder (or winner in case of Design-Build contracts) shall forfeit the Bid Security required under Invitation to Bids, of this bid package. The decision that the Apparent Low Bidder (or winner in case of Design-Build contracts) is non-responsive for failure to provide the information required within the time specified shall be at the sole discretion of the City.
- c) Pre-award Schedule and Phased Funding - For phased funded contracts, One of the Pre-award Submittals is the Pre-award Schedule which is a cost loaded CPM schedule prepared in accordance with section 6-1.1, “Construction Schedule.” The Apparent Low Bidder (or the apparent winner in case of Design-Build contracts) shall review subsection 6-1.4, “Phased Funding” and submit the required information as specified.

# CONTRACT FORMS AGREEMENT

---

## CONSTRUCTION CONTRACT

This contract is made and entered into between THE CITY OF SAN DIEGO, a municipal corporation, herein called "City", and TC CONSTRUCTION COMPANY, INC., herein called "Contractor" for construction of BALBOA TERRACE TRUNK SEWER; Bid No. K-12-5468-DBB-3-C; in the amount of SIX MILLION SIX HUNDRED NINETY FOUR THOUSAND EIGHT HUNDRED NINETY FOUR DOLLARS AND 00/100 (\$6,694,894.00), which is comprised of the Base Bid alone.

IN CONSIDERATION of the payments to be made hereunder and the mutual undertakings of the parties hereto, City and Contractor agree as follows:

1. The following are incorporated into this contract as though fully set forth herein:
  - (a) The attached Faithful Performance and Payment Bonds.
  - (b) The attached Proposal included in the Bid documents by the Contractor.
  - (c) That certain documents entitled BALBOA TERRACE TRUNK SEWER, on file in the office of the City Clerk as Document No. B-00478, as well as all matters referenced therein.
2. Contractor shall perform and be bound by all the terms and conditions of this contract and in strict conformity therewith shall perform and complete in a good and workmanlike manner BALBOA TERRACE TRUNK SEWER, Bid Number K-12-5468-DBB-3-C, San Diego, California.
3. For such performances, the City shall pay to Contractor the amounts set forth at the times and in the manner and with such additions or deductions as are provided for in this contract, and Contractor shall accept such payment in full satisfaction of all claims incident to such performances.
4. No claim or suit whatsoever shall be made or brought by Contractor against any officer, agent, or employee of the City for or on account of anything done or omitted to be done in connection with this contract, nor shall any such officer, agent, or employee be liable hereunder.
5. This contract is effective as of the date that the Mayor or designee signs the agreement.

**CONTRACT FORMS (continued)  
AGREEMENT**

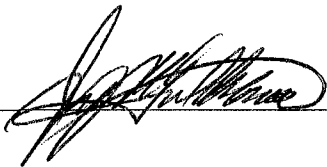
---

IN WITNESS WHEREOF, this agreement is signed by the City of San Diego, acting by and through its Mayor or designee, pursuant to Resolution No. R-307397 authorizing such execution.

**THE CITY OF SAN DIEGO**

**APPROVED AS TO FORM AND LEGALITY**

Jan I. Goldsmith, City Attorney

By 

By 

Print Name: Jay Goldstone  
Chief Operating Officer

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

Date: 7/9/12

Date: 7/10/12

**CONTRACTOR**

By 

Print Name: Austin Cameron

Title: secretary

Date: 06/19/2012

City of San Diego License No.: B1987004773

State Contractor's License No.: 402459

**CONTRACT FORMS (continued)**  
**PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND**

---

**FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:**

TC CONSTRUCTION COMPANY, INC., a corporation, as principal, and Liberty Mutual Insurance Company, a corporation authorized to do business in the State of California, as Surety, hereby obligate themselves, their successors and assigns, jointly and severally, to The City of San Diego a municipal corporation in the sum of SIX MILLION SIX HUNDRED NINETY FOUR THOUSAND EIGHT HUNDRED NINETY FOUR DOLLARS AND 00/100 (\$6,694,894.00) for the faithful performance of the annexed contract, and in the sum of SIX MILLION SIX HUNDRED NINETY FOUR THOUSAND EIGHT HUNDRED NINETY FOUR DOLLARS AND 00/100 (\$6,694,894.00) for the benefit of laborers and materialmen designated below.

**Conditions:**

If the Principal shall faithfully perform the annexed contract **BALBOA TERRACE TRUNK SEWER, Bid Number K-12-5468-DBB-3-C**, San Diego, California then the obligation herein with respect to a faithful performance shall be void; otherwise it shall remain in full force.

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

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

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



**CONTRACT FORMS (continued)**  
**PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND**


---

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

Dated June 14, 2012

Approved as to Form and Legality

TC Construction Company, Inc.

Principal  
By 

Austin Cameron, Secretary  
Printed Name of Person Signing for Principal

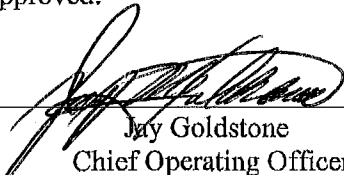
Jan I. Goldsmith, City Attorney

By   
Deputy City Attorney

Liberty Mutual Insurance Company

Surety  
By   
Tara Bacon, Attorney-in-fact

Approved:

  
Jay Goldstone  
Chief Operating Officer

790 The City Drive, Suite 200

Local Address of Surety

Orange, CA 92868

Local Address (City, State) of Surety

(800) 763-9268

Local Telephone No. of Surety

Premium \$ 44,161.00

Bond No. 024046036

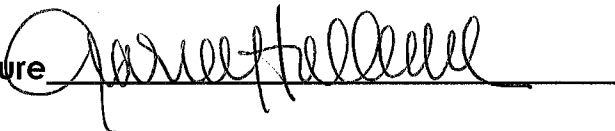
## ACKNOWLEDGMENT

State of California  
County of San Diego

On June 14, 2012 before me, Maria Hallmark, Notary Public, personally appeared Tara Bacon, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

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

WITNESS my hand and official seal.

Signature 



(Seal)

**THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.**

5216691

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. \_\_\_\_\_

American Fire and Casualty Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

Liberty Mutual Insurance Company  
Peerless Insurance Company

**POWER OF ATTORNEY**

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, **DALE G. HARSHAW, BRADLEY R. ORR, GEOFFREY SHELTON, TARA BACON,** .....

all of the city of SAN DIEGO, state of CALIFORNIA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 2nd day of March, 2012.



American Fire and Casualty Company  
The Ohio Casualty Insurance Company  
Liberty Mutual Insurance Company  
Peerless Insurance Company  
West American Insurance Company

By: Gregory W. Davenport  
Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss  
COUNTY OF KING

On this 2nd day of March, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Seattle, Washington, on the day and year first above written.



By: KD Riley  
KD Riley, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company, which resolutions are now in full force and effect reading as follows:

**ARTICLE IV – OFFICERS** – Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

**ARTICLE XIII – Execution of Contracts – SECTION 5. Surety Bonds and Undertakings.** Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

**Certificate of Designation** – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Gregory W. Davenport, Assistant Secretary to appoint such attorney-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

**Authorization** – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, David M. Carey, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 14th day of June, 20 12.



By: David M. Carey  
David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, bank deposit, bank guarantee, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

County of San Diego }

On June 19, 2012 before me, Sandra Weeks, Notary Public

personally appeared Austin Cameron



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

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

WITNESS my hand and official seal.

Signature: Sandra Weeks

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document:

Document Date: Number of Pages:

Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name: Signer's Name:

Corporate Officer - Title(s): Corporate Officer - Title(s):

Individual Individual

Partner - Limited General Partner - Limited General

Attorney in Fact Attorney in Fact

Trustee Trustee

Guardian or Conservator Guardian or Conservator

Other: Other:

Signer Is Representing: Signer Is Representing:

# CONTRACTOR CERTIFICATION

---

## DRUG-FREE WORKPLACE

**PROJECT TITLE: BALBOA TERRACE TRUNK SEWER**

---

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

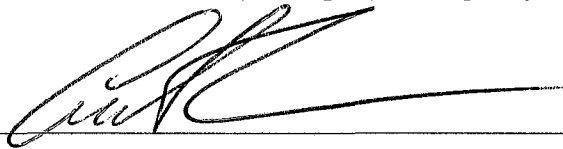
TC Construction Co. Inc.

---

(Name under which business is conducted)

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

Signed \_\_\_\_\_



Printed Name \_\_\_\_\_

Austin Cameron

Title \_\_\_\_\_

Secretary

# CONTRACTOR CERTIFICATION

---

## DRUG-FREE WORKPLACE

PROJECT TITLE: BALBOA TERRACE TRUNK SEWER

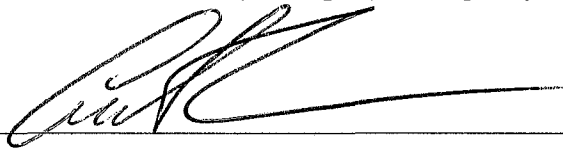
I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outlined in INSTRUCTION TO BIDDERS, "Drug-Free Workplace", of the project specifications, and that;

TC Construction Co. Inc.

(Name under which business is conducted)

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

Signed \_\_\_\_\_



Printed Name \_\_\_\_\_

Austin Cameron

Title \_\_\_\_\_

Secretary

# CONTRACTOR CERTIFICATION

---

## AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

**PROJECT TITLE: BALBOA TERRACE TRUNK SEWER**

---

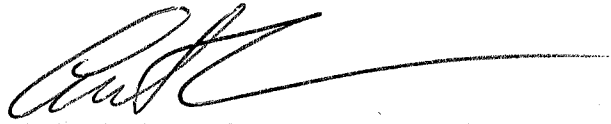
I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-4 regarding the American With Disabilities Act (ADA) outlined in the INSTRUCTION TO BIDDERS, "American With Disabilities Act", of the project specifications, and that;

TC Construction Co, Inc .

(Name under which business is conducted)

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

Signed \_\_\_\_\_



Printed Name \_\_\_\_\_

Austin Cameron

Title \_\_\_\_\_

secretary

# CONTRACTOR CERTIFICATION

## CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

**PROJECT TITLE: BALBOA TERRACE TRUNK SEWER**

I declare under penalty of perjury that I am authorized to make this certification on behalf of TC Construction Co., Inc., as Contractor, that I am familiar with the requirements of City of San Diego Municipal Code § 22.3224 regarding Contractor Standards as outlined in INSTRUCTION TO BIDDERS ("Contractor Standards"), of the project specifications, and that Contractor has complied with those requirements.

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

Dated this 19th Day of June, 2012.

Signed \_\_\_\_\_

Printed Name \_\_\_\_\_

Title \_\_\_\_\_



**AFFIDAVIT OF DISPOSAL**

**WHEREAS**, on the \_\_\_\_\_ DAY OF \_\_\_\_\_, 2\_\_\_\_, the undersigned entered into and executed a contract with the City of San Diego, a municipal corporation, for:

**BALBOA TERRACE TRUNK SEWER**

(Name of Project)

as particularly described in said contract and identified as Bid No. **K-12-5468-DBB-3-C**; SAP No. (WBS/CC/IO) **B-00478**; and **WHEREAS**, the specification of said contract requires the Contractor to affirm that "all brush, trash, debris, and surplus materials resulting from this project have been disposed of in a legal manner"; and **WHEREAS**, said contract has been completed and all surplus materials disposed of:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

Dated this \_\_\_\_\_ DAY OF \_\_\_\_\_.

\_\_\_\_\_ Contractor

by

**ATTEST:**

State of \_\_\_\_\_

County of \_\_\_\_\_

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

Notary Public in and for said County and State

**PHASED FUNDING SCHEDULE AGREEMENT**

**BID NUMBER:** K-12-5468-DBB

**CONTRACT OR TASK TITLE:** BALBOA TERRACE TRUNK SEWER

**CONTRACTOR:** TC CONSTRUCTION COMPANY, INC.

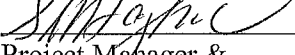
<b>Funding Phase</b>	<b>Phase Description</b>	<b>Phase Start</b>	<b>Phase Finish</b>	<b>Not-to-Exceed Amount</b>
1	Project mobilization, and begin site preparation	NTP	08/15/2012	\$330,000
2	Site preparation, pipe installation and appurtenances, curb ramps, restoring surfaces	08/16/2012	Project Completion	\$6,364,894
Total				\$6,694,894

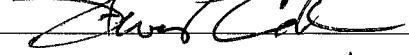
Notes:

- (1) City Supplement 9-3.6, "PHASE FUNDING COMPENSATION" applies.
- (2) The total of all funding phases shall be equal to the TOTAL BID PRICE as shown on BID SCHEDULE 1 - PRICES.
- (3) This PHASE FUNDING SCHEDULE AGREEMENT will be incorporated into the CONTRACT and shall only be revised by a written modification to the CONTRACT.

OWNER: CITY OF SAN DIEGO

CONTRACTOR: TC Construction Co., Inc.

By:   
Project Manager &  
E&CP / Public Works Department

By:   
Steve P. Coker / V.P.

Date: 6-27-2012

Date: 6/22/2012

- END OF PHASE FUNDING SCHEDULE -

## **SUPPLEMENTARY SPECIAL PROVISIONS (SSP)**

**THESE SUPPLEMENTARY SPECIAL PROVISIONS CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (THE GREENBOOK) CURRENTLY ADOPTED BY THE CITY, INCLUDING ITS CURRENT SUPPLEMENT AMENDMENTS (CITY SUPPLEMENTS INCLUDED IN THE WHITEBOOK), EXCEPT FOR THE FOLLOWING:**

### **STYLE OF SPECIFICATIONS**

The City is gradually standardizing the style and language of the standard specifications for the public works construction. The new style and language follows the Federal guidelines for "Plain Language" to the extent possible.

The use of this new style does not change the meaning of a specification not yet using this style. Where used in the Contract Documents, statement or command type phrases (i.e., active voice and imperative mood) refer to and are directed at the Bidder or Contractor as applicable. The specifications are written to the Bidder before award and the Contractor after. Before award, interpret sentences written in the imperative mood as starting with "The Bidder must" and interpret "you" as "the Bidder" and "your" as "the Bidder's." After award, interpret sentences written in the imperative mood as starting with "The Contractor must" and interpret "you" as "the Contractor" and "your" as "the Contractor's." Similarly, interpret "we" and "us" as "the City" and "our" as "the City's."

### **PART 1 – GENERAL PROVISIONS**

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

##### **1-2 TERMS AND DEFINITIONS.**

**Agency** – ADD the following:

Regulatory activities handled by the City of San Diego Developmental Services, Fire and Planning Departments, or any other City Department are not subject to the responsibilities of the City under this contract.

**Contract Documents** – To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

The Agreement, Addendum, Invitation to Bid, Instructions to Bidders, special notice page, funding agency provisions, Bid and documentation accompanying the Bid and any post-bid documentation submitted prior to the Notice of Award when attached as an exhibit to the Contract, Bonds, permits from jurisdictional regulatory agencies, Supplementary Special Provisions (SSP), City's EOCP Requirements, City Supplement, Plans, Standard Plans, Construction Documents, Reference Specifications listed in the Invitation to Bid or the RFP for Design-Build contracts, Request for Qualifications (RFQ), Statement of Qualifications (SOQ), Request for Proposals (RFP), modifications issued after the execution of the Contract e.g., Change Orders, Construction Manager At Risk's Guaranteed Maximum Price including written qualifications, assumptions and conditions thereto and Pre-construction Services Agreement.

**ADD: Limited Notice To Proceed** – A written notice given from the City to the Contractor that authorizes the Contractor to start a limited amount of work that is not Construction Work, such as finalizing subcontract agreements, ordering materials, mobilization, furnishing a field office, and any other preliminary work done prior to performing Construction Work.

**Notice of Completion (NOC)** – ADD the following:

See California Civil Code section 3093.

**Samples** - Physical examples which illustrate materials, equipment or workmanship and establish standards by which the Work will be evaluated.

**Normal Working Hours** - To the City Supplement, ADD the following:

The Normal Working Hours shall be 8:30 AM to 3:30 PM.

**Certificate of Compliance** – To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**Certificate of Compliance** – A written document signed and submitted by a supplier or manufacturer that certifies that the material or assembled material supplied to the Work site complies with the requirements of the Contract Documents.

## **SECTION 2 - SCOPE AND CONTROL OF WORK**

**2-1.2.2 Joint Venture Contractors.** To the City Supplement, last paragraph, DELETE in its entirety and SUBSTITUTE with the following:

The Joint Venture shall designate an on-site representative and an alternate in writing. The on-site representative and the alternate shall have the full authority to bind all Joint Venture partners.

The Joint Venture shall provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 10 Working Days after receipt by the Bidder of Contract forms.

**2-3.1.2 Subcontractor List.** ADD the following:

For Extra Work, the Contractor shall submit Form CC10, “CONTRACT CHANGE ORDER (CCO)” with each CCO proposal. Form CC10 is available for download from the EOCP site at: <http://www.sandiego.gov/eoc/pdf/cc10.pdf>

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

The Contractor shall perform, with its own organization, Contract work amounting to at least **40 percent** of the base bid alone or base bid and any additive or deductive alternate(s) that together when added or deducted form the basis of determining the Apparent Low Bidder as specified. The self performance percentage requirement will be waived for contracts when a “B” License is required or allowed.

**2-3.3 Status of Subcontractors.** ADD the following:

With every request for payment, the Contractor shall submit to the Engineer a breakdown showing monthly and cumulative amounts of the Work performed under Change Order by the Contractor and the Subcontractors. The reporting format shall be approved by the Engineer.

**2-3.4 Subcontract Requirements.** To the City Supplement, ADD the following paragraph:

The Contractor shall ensure that all of its Subcontractors are licensed at the time of the execution of their subcontract agreements. In the event a Subcontractor is not properly licensed, the Contractor shall cease payment to Subcontractor for all work performed when the Subcontractor was improperly licensed. Any payment made by the Contractor to a Subcontractor for work performed when the Subcontractor was unlicensed shall be returned to the City.

Where the Contract Documents require that a particular product be installed or applied by an applicator approved by the manufacturer, it is the Contractor’s responsibility to ensure the Subcontractor or Supplier employed for such work is approved by the manufacturer.

**2-5.2 Precedence of Contract Documents.** To the Cit Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**2-5.2 Precedence of Contract Documents..** If there is a conflict between any of the Contract Documents, the document highest in the order of precedence shall control. The order of precedence, from highest to lowest, shall be as follows:

- 1) Permits (i.e., issued by jurisdictional regulatory agencies)
- 2) Change Orders and Supplemental Agreements; whichever occurs last
- 3) Contract and Agreement
- 4) Addenda
- 5) Bid (e.g., price Proposal for Design-Build contracts)
- 6) Request for Proposal (RFP)
- 7) Invitation to Bid
- 8) Instruction to Bidders
- 9) Request for Qualifications (RFQ)
- 10) Special Provisions (i.e., City's EOCP Requirements, City Supplement, and Supplementary Special Provisions (SSP))
- 11) Plans
- 12) Construction Documents (for Design-Build contracts)
- 13) Standard Drawings
- 14) Reference Specifications (e.g., GREENBOOK)
- 15) Technical Proposal (for Design-Build contracts)
- 16) Statement of Qualifications (SOQ)

When additional requirements by the funding sources are physically or by reference incorporated in the Contract Documents, the funding source's requirements shall govern **unless specified otherwise**.

Figured dimensions shall take precedence over scaled dimensions. Detailed drawings shall take precedence over general drawings.

**2-5.3.1 General.** DELETE in its entirety and SUBSTITUTE with the following:

When required by the Contract Documents or when requested by the Engineer, the Contractor shall provide the submittals as specified in 2-5.3.2, 2-5.3.3, and 2-5.3.4 to the Engineer. Materials shall neither be furnished nor fabricated, nor shall any work for which submittals are required be performed before the required submittals have been reviewed and accepted by the Engineer. The payment for the submittals shall be included in the various Bid items. Neither review nor acceptance of submittals by the Engineer shall relieve the Contractor from responsibility for errors, omissions, or deviations from the Contract Documents, unless such deviations were specifically called to the attention of the Engineer in the letter of transmittal. The Contractor shall be responsible for the correctness of the submittals.

The Contractor shall allow a minimum of 20 working days for review of submittals unless otherwise specified in the Special Provisions. Each submittal shall be accompanied by a letter of transmittal.

**2-5.4.1 General.** ADD the following:

Source Identification e.g., RFI numbers and Change Order numbers as required to identify the source of the change to the Contract Documents shall be noted.

**2-6 WORK TO BE DONE.** ADD the following:

In accordance with the provisions of California Law, the Contractor shall possess or require the Subcontractor(s) to possess valid appropriate license(s) for the Work being performed.

**2-7 SUBSURFACE DATA.** ADD the following:

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

1. Report of Geotechnical Evaluation dated December 2, 2010 revised September 7, 2011 by Ninyo & Moore and Associates.

The report(s) listed above is(are) available for review by contacting the City Project Manager or visiting:

**<ftp://ftp.sannet.gov/OUT/ECP/2-7%20SUBSURFACE%20DATA/>**

**2-10 AUTHORITY OF BOARD AND ENGINEER.** ADD the following:

Regulating agencies of the City, such as Developmental Services, Fire and Planning Departments, enforce Legal Requirements and standards. These enforcement activities are not subject to the responsibilities of the Engineer under this Agreement.

**2-11 INSPECTION.** ADD the following:

The City may utilize field inspectors to assist the Engineer during construction in observing performance of the Contractor. The inspector is for the purpose of assisting the Engineer and shall not be confused with an inspector with a City regulatory agency or with a Special Inspector.

Code compliance testing (including all Geotechnical requirements) and inspections required by codes or ordinances, or by a plan approval authority, shall be the responsibility of and shall be paid by the Contractor, unless otherwise provided in the Contract Documents.

The Contractor's quality control testing and inspections shall be the sole responsibility of the Contractor and paid by the Contractor included in the Bid price.

**2-16 TECHNICAL STUDIES AND DATA.** To the City Supplement, ADD the following:

In preparation of the Contract Documents, the designer has relied upon the following studies, data, reports of explorations, and tests:

1. Biological Resources Report dated October 2011 by LSA Associates.
2. Jurisdictional Delineation Report dated October 2011 by LSA Associates

The report(s) listed above is(are) available for review by contacting the City Project Manager or visiting:

**<ftp://ftp.sannet.gov/OUT/ECP/2-16%20TECHNICAL%20STUDIES%20AND%20DATA/>**

**ADD: 2-17 CONTRACTOR REGISTRATION.** The Contractor, Subcontractors, and Suppliers shall register with the City's EOCP via Prism® i.e., the City's web-based contract compliance portal at: <https://pro.prismscompliance.com/contractor/plugins/pages/contractormenu.aspx>.

The Contractor shall ensure that proposed Subcontractors and Suppliers have completed the registration prior to Notice of Intent to Award. If the Contractor fails to have its Subcontractors and Suppliers registered after the NTP has been issued, the City will withhold a minimum of 10% in addition to the Retention from all invoices submitted until the Contractor and all listed Subcontractors and Suppliers are properly registered in PRISM.

**3-3.2.2 Basis for Establishing Costs (a) Labor**, City Supplement, first and second paragraphs, DELETE in entirety and SUBSTITUTE with the following:

The City reserves the right to request financial records of salaries for an employee, wages, bonuses and deductions to substantiate the actual cost of labor certified by a California licensed Certified Public Accountant. The Contractor shall use the City provided form i.e., "PUBLIC WORKS PAYROLL REPORTING FORM" which is available at <http://www.sandiego.gov/eoc/pdf/payrollreport.pdf> to list the labor rates of its personnel and Subcontractors who work on this Project. An initial submittal shall be made prior to NTP.

The payment for payroll records shall be included in the various Bid item unless a separate Bid item has been provided.

#### **SECTION 4 - CONTROL OF MATERIALS**

**4-1.3.1 General.** First paragraph, ADD the following:

Other standard items or materials typically accepted by Certificate of Compliance shall not require inspection at the source unless specified in the Special Provisions. For a list of these items or materials, the Contractor may refer to the Contract Documents.

**4-1.3.4 Inspection Paid For By the Contractor.** To the City Supplement, ADD the following:

The Contractor shall employ and pay for the services of qualified inspection entity to perform specialty inspection services as specified here:

All specially inspected work related to the construction of the underground vaults, including but not limited to: soil inspection, concrete and reinforcing steel inspection.

**4-1.3.5 Special Inspections.** To the City Supplement, ADD the following:

Special Inspection and testing by the Special Inspectors shall meet the minimum requirements of the prevailing Codes and by the City's Development Services Department (DSD) and reference in <http://www.sandiego.gov/development-services/industry/special.shtml>

**4-1.5 Certificates of Compliance.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**4-1.5 Certificates of Compliance.** DELETE in its entirety and SUBSTITUTE with the following:

Certificates of Compliance shall be furnished to the Engineer prior to the use of any material or assembled material for which these Specifications so require or if so required by the Engineer.

The Engineer may waive the materials testing requirements of the Specifications and accept a Certificate of Compliance. Manufacturing test data may be required by the Engineer to be included with the submittal.

Materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The submission of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the Work which conforms to the requirements of the Contract Documents, and any material not conforming to the requirements will be subject to rejection whether in place or not.

When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the City shall be entitled to rely upon the accuracy and completeness of such calculations and certifications.

**4-1.6 Trade Names or Equals.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

ADD the following:

Whenever materials or equipment are indicated in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the naming of the item is intended to establish the type, function, and quality required. Unless stated otherwise, materials or equipment of other Suppliers may be accepted if sufficient information is submitted to the Engineer for review to determine whether the material or equipment proposed is equivalent or equal to that named.

- a) The Contractor shall submit its list of proposed substitutions for “an equal” (“or equal”) item(s) **no less than 15 Working Days prior to Bid due date** and on a City form when provided by the City.
  - i. The City will respond to the Contractor’s substitution proposal by at least 3 Working Days prior to the Bid due date. If the City fails to respond to the Contractor’s substitution proposal within the specified time period, the substitution proposal will be deemed denied.
  - ii. The Contractor may bring forward a substitution proposal after Award that was denied based on the City’s failure to respond by submitting a “Cost Reduction Proposal” in accordance with 3-1.3.
- b) The request for substitution shall include the following information:
  - i. Whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents to adopt the design to the proposed substitute.
  - ii. Whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty.
  - iii. All variations of the proposed substitute from the items originally specified will be identified.
  - iv. Available maintenance, repair, and replacement service requirements. The manufacturer shall have a local service agency within 50 miles of the site which maintains properly trained personnel and adequate spare parts and is able to respond and complete repairs within 24 hours.
  - v. Certification that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, and be similar and of equal substance to that indicated, and be suited to the same use as that specified.
- c) There is no guaranteed time frame for the City’s review of the substitution requests.
- d) The burden of proof as to the type, function, and quality of any such substitute product, material or equipment shall be upon the Contractor. The Engineer may require at the Contractor's expense additional data about the proposed substitute.
- e) If the Engineer takes no exceptions to the proposed substitution, it shall not relieve the Contractor from responsibility for the efficiency, sufficiency, quality, and performance of the substitute material or equipment, in the same manner and degree as the material and equipment specified by name.



- f) The lack of action(s) on the Engineer's side within the Contractor's requested time shall not constitute acceptance of the substitution.
- g) Acceptance by the Engineer of a substitute item shall not relieve the Contractor of the responsibility for full compliance with the Contract Documents.
- h) For the substitution review process or to have materials listed on the AML, refer to the AML standard review process.
- i) The Bid submittal shall be based on the material and equipment specified by name in the Contract. If the proposal is rejected by the Engineer, the Contractor shall not be entitled to either an extension in Contract Time, increase in the Contract Price, or both.
- j) As applicable, no Shop Drawing or Working Drawing submittals shall be made for a substitute item nor shall any substitute item be ordered, installed, or utilized without the Engineer's prior written.
- k) The Contractor shall reimburse the City for the charges of the Engineer for evaluating each proposed substitute.
- l) For Design-Build contracts, one copy of all designer reviewed submittals shall be provided to the Engineer.

## **SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK**

**6-1.2 Commencement of Work.** To the GREENBOOK and the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Unless specified otherwise, construction shall start within 5 Working Days after NTP and be diligently prosecuted to completion within the Contract Time. The Contractor shall not start any construction activity at the Site until the Pre-construction Meeting is held and the NTP has been issued by the Engineer.

Upon the Contractor's written request, the City may delay the NTP as follows:

- a) Up to 5 Working Days from the Pre-construction Meeting, or
- b) Up to 40 Working Days from the Limited NTP for the preparation, submittal, obtaining approval for and filing of the PRDs in accordance with 801, "STORM WATER POLLUTION CONTROL," or
- c) Up to 60 Working Days from the Limited NTP for the preparation, submittal, and approval of the TCP on "D-sheets" when specified in 7-10.2, "Traffic Control."

The Contractor shall notify SDG&E at least 10 Working Days prior to excavating within 10' of SDG&E Underground High Voltage Transmission Power Lines (i.e., 69 KV and higher).

For areas that do not require engineered TCP on D-sheets, the Contractor may at any time after the Pre-construction Meeting obtain a TCP Permit via Working Drawings or the City's over the counter process and start the Work. If the Contractor decides to commence the construction work before the completion of the D-sheet TCPs, the Contractor shall forfeit the 60 Working Days specified here. The D-sheet TCP shall be done concurrently and no additional time will be granted.

For paving Work, the Contractor shall coordinate the Work to facilitate the installation and protection of the new curb ramps and associated concrete work prior to commencing the asphalt overlay operations. The Work at a specific location shall not commence until all layouts and measurements are agreed upon by both the Contractor and the Engineer.

**6-1.4 Phased Funding.** To the City Supplement, ADD the following:

This contract is subject to Phased Funding.

**ADD: 6-1.8 Pre-construction Meeting.** Within 20 Working Days from the Limited NTP the Engineer will schedule a mandatory pre-construction meeting (Pre-construction Meeting) with the Contractor. The agenda will include items such as NTP, design services and submittal and review process for Design-Build contracts, critical elements of the work schedule, submittal schedule, cost breakdown of major lump sum items, payment requests and processing, environmental and community concerns, coordination with the involved utility firms, the level of record project documents required and emergency telephone numbers for all representatives involved in the course of construction.

**6-2.1 Moratoriums.** To the City Supplement, ADD the following:

No Work shall be allowed in the areas where there is currently a moratorium issued by the City. The areas subject to moratorium are described here:

This project is subject to moratoriums imposed by the environmental determination, see Appendix A. Work within Stevenson Canyon is subject to bird breeding season moratorium from **February 1 through September 15**. Mitigation and monitoring program will be implemented to allow work during this period.

**6-7 TIME OF COMPLETION.** ADD the following:

For the following streets, the total time allowed for the completion of Work shall not exceed 10 Working Days per 500' of pipeline installation:

1. Balboa Avenue

**6-7.1 General.** To the City Supplement, ADD the following:

- d) If weather condition is suitable, the Contractor shall complete each street segment within 15 Working Days from the day the slurry seal or asphalt overlay is placed. Each completed segment shall include other incidental Work items e.g., weed abatement, damaged asphalt pavement replacement, asphalt patching, resurfacing, striping, markings, raised pavement markers, and inlet markers.

**ADD: 6-8.1 Completion.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**6-8.1 Completion.** The Contractor shall submit a written assertion that the Work has been completed. If, in the Engineer's judgment, the Work has been completed in accordance with the Contract Documents, the Engineer will set forth in writing the date the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect and maintain the Work.

**6-8.2 Acceptance.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**6-8.2 Acceptance.** Acceptance will occur after all of the requirements contained in the Contract Documents have been fulfilled. If, in the Engineer's judgment, the Contractor has fully performed the Contract, the Engineer will accept the Contractor's performance of the Contract.

**6-8.3 Warranty.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**6-8.3 Warranty.** Unless specified otherwise, the Work shall be warranted by the Contractor against defective workmanship and materials for a period of 1 year.

- a) The warranty period shall start on the date of completion of the Work as determined by the Engineer.
- b) The Contractor shall provide an unconditional warranty on all installed fiber optic cable for a minimum period of 2 years.
- c) The warranty period for the following items of the Work shall be 3 years:
  1. Work under Section 500 (requires Long Term Warranty Contract (LTWC))
  2. DWT Construction (requires manufacturer's warranty)
  3. LED signal modules (requires manufacturer's warranty)
- d) Private sewer pumps including the alarm panel and all other accessories. The Contractor shall provide the City and property owner a copy of the warranty. (requires manufacturer's warranty)
- e) The Contractor shall involve the manufacturer in the installation and startup as needed to secure any extended warranty required.
- f) The warranty period for specific items covered under manufacturers' or suppliers' warranties shall commence on the date they are placed into service at the direction of or as approved by the Engineer in writing.
- g) All warranties, express or implied, from Subcontractors or Suppliers, of any tier, for the work performed and materials furnished shall be assigned, in writing, to the City, and such warranties shall be delivered to the Engineer prior to acceptance of the Contractor's performance of the Contract.
- h) The Contractor shall replace or repair defective Work in a manner satisfactory to the Engineer, after notice to do so from the Engineer, and within the time specified in the notice. If the Contractor fails to make such replacement or repairs within the time specified in the notice, the City may perform the replacement or repairs at the Contractor's expense. If the Contractor fails to reimburse the City for the actual costs, the Contractor's Surety shall be liable for the cost thereof.
- i) Nothing in this warranty is intended to limit any manufacturer's warranty which provides the City with greater warranty rights than set forth in this section or the Contract Documents.
- j) These specifications are not intended to constitute a period of limitations or waiver of any other rights or remedies City may have regarding the Contractor's other obligations under the Contract Documents or federal or state law.
- k) The Contractor shall respond and initiate corrective action within 24 hours of notice of nonconforming Work that poses an imminent threat to person or property.

**6-9 LIQUIDATED DAMAGES.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

MODIFY to increase the daily value from \$250 to \$1,000 for contracts with a value of over \$100,000.

## **SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR**

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

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

**ADD: 7-3.1 Policies and Procedures.**

- a) You must procure the insurance described below, at your sole cost and expense, to provide coverage against claims for loss including injuries to persons or damage to property, which may arise out of or in connection with the performance of the Work by you, your agents, representatives, officers, employees or subcontractors.
- b) Insurance coverage for property damage resulting from your operations is on a replacement cost valuation. The market value will not be accepted.
- c) You must maintain this insurance for the duration of this contract and at all times thereafter when you are correcting, removing, or replacing Work in accordance with this contract. Your liabilities under this contract, e.g., your indemnity obligations, will is not deemed limited to the insurance coverage required by this contract.
- d) Payment for insurance is included in the various items of Work as bid by you, and except as specifically agreed to by the City in writing, you are not entitled to any additional payment. Do not begin any work under this contract until you have provided and the City has approved all required insurance.
- e) Policies of insurance must provide that the City is entitled to 30 days (10 days for cancellation due to non-payment of premium) prior written notice of cancellation or non-renewal of the policy. Maintenance of specified insurance coverage is a material element of this contract. Your failure to maintain or renew coverage or to provide evidence of renewal during the term of this contract may be treated by the City as a material breach of contract.

**ADD: 7-3.2 Types of Insurance.**

**7-3.2.1 Commercial General Liability Insurance.**

- a) Commercial General Liability Insurance must be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.
- b) The policy must cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
- c) There must be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You must maintain the same or equivalent insurance for at least 10 years following completion of the Work.
- d) All costs of defense must be outside the policy limits. Policy coverage must be in liability limits of not less than the following:

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

**7-3.2.2 Commercial Automobile Liability Insurance.**

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

**7-3.2.3 Commercial Pollution Liability Insurance.**

- a) You must procure and maintain at your expense or require Subcontractor, as described below to procure and maintain, the Contractors Pollution Liability Insurance including contractual liability coverage to cover liability arising out of cleanup, removal, storage, or handling of hazardous or toxic chemicals, materials, substances, or any other pollutants by you or any Subcontractor in an amount not less than \$2,000,000 limit for bodily injury and property damage.
- b) All costs of defense must be outside the limits of the policy. Any such insurance provided by Subcontractor instead of you must be approved separately in writing by the City.
- c) For approval of a substitution of Subcontractor’s insurance, you must certify that all activities for which the Contractors Pollution Liability Insurance will provide coverage will be performed exclusively by the Subcontractor providing the insurance. The deductible must not exceed \$25,000 per claim.
- d) Contractual liability must include coverage of tort liability of another party to pay for bodily injury or property damage to a third person or organization. There must be no endorsement or modification of the coverage limiting the scope of coverage for either “insured vs. insured” claims or contractual liability.
- e) Occurrence based policies must be procured before the Work commences and must be maintained for the Contract Time. Claims Made policies must be procured before the Work commences, must be maintained for the Contract Time, and must include a 12 month extended Claims Discovery Period applicable to this contract or the existing policy or policies must continue to be maintained for 12 months after the completion of the Work without advancing the retroactive date.
- f) Except as provided for under California law, the policy or policies must provide that the City is entitled to 30 days prior written notice (10 days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

#### **7-3.2.4 Contractors Hazardous Transporters Pollution Liability Insurance.**

- a) You must provide at your expense or require Subcontractor to provide, as described below Contractors Hazardous Transporters Pollution Liability Insurance including contractual liability coverage to cover liability arising out of transportation of hazardous or toxic, materials, substances, or any other pollutants by you or any subcontractor in an amount not less than \$2,000,000 limit per occurrence/aggregate for bodily injury and property damage.
- b) All costs of defense must be outside the limits of the policy. The deductible must not exceed \$25,000 per claim. Any such insurance provided by a subcontractor instead of you must be approved separately in writing by the City.
- c) For approval of the substitution of Subcontractor's insurance you must certify that all activities for which Contractors Hazardous Transporters Pollution Liability Insurance will provide coverage will be performed exclusively by the Subcontractor providing the insurance.
- d) Contractual liability must include coverage of tort liability of another party to pay for bodily injury or property damage to a third person or organization. There must be no endorsement or modification of the coverage limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. Occurrence based policies must be procured before the Work commences and must be maintained for the duration of this contract. Claims Made policies must be procured before the Work commences, must be maintained for the duration of this contract, and must include a 12 month extended Claims Discovery Period applicable to this contract or the existing policy or policies must continue to be maintained for 12 months after the completion of the Work under this contract without advancing the retroactive date.
- e) Except as provided for under California law, the policy or policies must provide that the City is entitled to 30 days prior written notice (10 days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

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

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

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

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

**ADD: 7-3.5 Policy Endorsements.**

#### **7-3.5.1 Commercial General Liability Insurance**

#### **7-3.5.1.1 Additional Insured.**

- a) You must provide at your expense policy endorsement written on the current version of the ISO Occurrence form CG 20 10 11 85 or an equivalent form providing coverage at least as broad.
- b) To the fullest extent allowed by law e.g., California Insurance Code §11580.04, the policy must be endorsed to include the City and its respective elected officials, officers, employees, agents, and representatives as additional insured.
  1. The additional insured coverage for projects for which the Engineer's Estimate is \$1,000,000 or more must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) Your products, (c) Your work, e.g., your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you.
  2. The additional insured coverage for projects for which the Engineer's Estimate is less than \$1,000,000 must include liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) Your products, or (c) premises owned, leased, controlled, or used by you.

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

**7-3.5.1.3 Project General Aggregate Limit.** The policy or policies must be endorsed to provide a Designated Construction Project General Aggregate Limit that will apply only to the Work. Only claims payments which arise from the Work must reduce the Designated Construction Project General Aggregate Limit. The Designated Construction Project General Aggregate Limit must be in addition to the aggregate limit provided for the products-completed operations hazard.

#### **7-3.5.2 Commercial Automobile Liability Insurance.**

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

#### **7-3.5.3 Contractors Pollution Liability Insurance Endorsements.**

##### **7-3.5.3.1 Additional Insured.**

- a) The policy or policies must be endorsed to include as an Insured the City and its respective elected officials, officers, employees, agents, and representatives, with respect to liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) your products, (c) your work, e.g., your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you; except that in connection with, collateral to, or affecting any construction contract to which the provisions of subdivision (b) of § 2782 of the California Civil Code apply, this endorsement must not provide any duty of indemnity coverage for the active negligence of the City and its respective elected officials, officers, employees, agents, and representatives in any case where an agreement to indemnify the City and its respective elected officials, officers, employees, agents, and representatives would be invalid under subdivision (b) of §2782 of the California Civil Code.

- b) In any case where a claim or loss encompasses the negligence of the Insured and the active negligence of the City and its respective elected officials, officers, employees, agents, and representatives that is not covered because of California Insurance Code §11580.04, the insurer's obligation to the City and its respective elected officials, officers, employees, agents, and representatives must be limited to obligations permitted by California Insurance Code §11580.04.

**7-3.5.3.2 Primary and Non-Contributory Coverage.** The policy or policies must be endorsed to provide that the insurance afforded by the Contractors Pollution Liability Insurance policy or policies is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives with respect to operations including the completed operations of the Named Insured. Any insurance maintained by the City and its elected officials, officers, employees, agents and representatives must be in excess of your insurance and must not contribute to it.

**7-3.5.3.3 Severability of Interest.** For Contractors Pollution Liability Insurance, the policy or policies must provide that your insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability and must provide cross-liability coverage.

#### **7-3.5.4 Contractors Hazardous Transporters Pollution Liability Insurance Endorsements.**

##### **7-3.5.4.1 Additional Insured.**

- a) The policy or policies must be endorsed to include as an Insured the City and its respective elected officials, officers, employees, agents, and representatives, with respect to liability arising out of: (a) Ongoing operations performed by you or on your behalf, (b) your products, (c) your work, e.g., your completed operations performed by you or on your behalf, or (d) premises owned, leased, controlled, or used by you; except that in connection with, collateral to, or affecting any construction contract to which the provisions of subdivision (b) of §2782 of the California Civil Code apply, this endorsement must not provide any duty of indemnity coverage for the active negligence of the City and its respective elected officials, officers, employees, agents, and representatives in any case where an agreement to indemnify the City and its respective elected officials, officers, employees, agents, and representatives would be invalid under subdivision (b) of §2782 of the California Civil Code.
- b) In any case where a claim or loss encompasses the negligence of the Insured and the active negligence of the City and its respective elected officials, officers, employees, agents, and representatives that is not covered because of California Insurance Code §11580.04, the insurer's obligation to the City and its respective elected officials, officers, employees, agents, and representatives must be limited to obligations permitted by California Insurance Code §11580.04.

**7-3.5.4.2 Primary and Non-Contributory Coverage.** The policy or policies must be endorsed to provide that the insurance afforded by the Contractors Pollution Liability Insurance policy or policies is primary to any insurance or self-insurance of the City and its elected officials, officers, employees, agents and representatives with respect to operations including the completed operations of the Named Insured. Any insurance maintained by the City and its elected officials, officers, employees, agents and representatives must be in excess of your insurance and must not contribute to it.

**7-3.5.4.3 Severability of Interest.** For Contractors Hazardous Transporters Pollution Liability Insurance, the policy or policies must provide that your insurance must apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability and must provide cross-liability coverage.



**ADD: 7-3.6 Deductibles and Self-Insured Retentions.** You are responsible for the payment of all deductibles and self-insured retentions. Disclose deductibles and self-insured retentions to the City at the time the evidence of insurance is provided.

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

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

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

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

- a) For contracts with required engineering services (e.g., Design-Build, preparation of engineered Traffic Control Plans (TCP), etc. by you) for all of your employees or Subcontractors who provide professional engineering services under this contract, you must keep or must require your Subcontractor keep in full force and effect, Professional Liability coverage with a limit of **\$1,000,000** per claim and **\$2,000,000** annual aggregate.
- b) You must ensure both that: (a) the policy retroactive date is on or before the date of commencement of the Project; and (b) the policy will be maintained in force for a period of 3 years after completion of the Project or termination of this contract whichever occurs last. You agree that for the time period specified above, there will be no changes or endorsements to the policy that affect the specified coverage.
- c) If professional engineering services are to be provided solely by the Subcontractor, you must (a) certify this to the City in writing and (b) agree in writing to require the Subcontractor to procure Professional Liability coverage in accordance with the requirements set forth above.

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

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

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

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

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

**7-4.1.1 Waiver of Subrogation.** The policy or policies must be endorsed to provide that the insurer will waive all rights of subrogation against the City, and its respective elected officials, officers, employees, agents, and representatives for losses paid under the terms of the policy or policies and which arise from work performed by the Named Insured for the City.

**7-5 PERMITS, FEES, AND NOTICES.** To the City Supplement, DELETE item e) in its entirety.

To the City Supplement, ADD the following:

The City will obtain, at no cost to the Contractor; the following permits:

- a) Caltrans "parent" permit.

**7-5.2 Caltrans Encroachment Permit.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

- a) The City has applied for the Caltrans Encroachment Permit unless specified otherwise in the SSP.
- b) The Contractor shall pay for and secure the permit prior to construction regardless of which party has applied for it.
- c) The Contractor shall arrange and pay for inspection as required by Caltrans.
- d) The Contractor shall be solely responsible for permit processing delays that result from incomplete or inaccurate information provided by the Contractor to the City or the Caltrans.

**7-8.6 Water Pollution Control.** ADD the following:

- a) The Project is subject to the Storm Water Pollution control requirements listed on the Plans or as specified in these specifications.
- b) For contracts subject to Construction General Permit (CGP), the Contractor's QSD shall verify the City's assessment prior to submittal through SMARTS.
- c) The Contractor's attention is directed to Section 801, "WATER POLLUTION CONTROL" of these specifications for more information.

**7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.** ADD the following:

In any emergency affecting the safety of persons or property, the Contractor shall act, at its discretion, to prevent threatened damage, injury or loss. Any change in Contract Price or Contract Time resulting from emergency work shall be determined as provided in SECTION 3, "CHANGES IN WORK."

**7-10.1 Traffic and Access.** To the City Supplement, DELETE the agency notification listing in its entirety and SUBSTITUTE with the following:

The Contractor shall notify Metropolitan Transit System (MTS), a minimum of 5 Working Days prior to excavation, construction, or traffic control affecting bus stops. The Contractor shall notify the remaining agencies a minimum of two 2 Working Days prior to construction activities affecting the agencies:

Fire Department Dispatch	(Street or alley closure)	(858) 573-1300
Police Department Traffic	(Street or alley closure)	(858) 495-7800
Street Division/Electrical	(Traffic signals)	(619) 527-7500
U.S. Navy	(32nd Street Naval Station)	(619) 556-1319
Underground Service Alert	(Any excavation)	(800) 422-4133
MTS	(Street Closure and Bus Stops)	(619) 238-0100 Ext 6451

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

Engineered “D” size TCP shall be required for the following areas:

- a) D sheets included in plans.

**7-10.6 Traffic Plate Bridging.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Transverse or longitudinal cuts, voids, trenches, holes, and excavations in the right-of-way that cannot be properly completed within 1 Working Day shall be protected by adequately designed barricades and structural steel plates [plates] that will support legal vehicle loads in such a way as to preserve unobstructed traffic flow.

The Contractor shall secure approval, in advance, from authorities concerning the use of any bridging proposed on the Work.

Plates shall conform to the following:

- a) The trench shall be adequately shored to support the bridging and traffic loads.
- b) Plates shall be designed for HS 20-44 truck loading in accordance with Caltrans Bridge Design Specifications Manual.
- c) For the minimum thickness of plates refer to Table 7-10.6(A):

Table 7-10.6(A) - Trench Width / Minimum Plate Thickness

Trench Width	Minimum Plate Thickness
10" (0.25 m)	1/2" (13 mm)
1'-11" (0.58 m)	3/4" (19 mm)
2'-7" (0.80 m)	7/8" (22 mm)
3'-5" (1.04 m)	1" (25 mm)
5'-3" (1.6 m)	1 1/4" (32 mm)

For spans greater than 5'-3" (1.6 m), a structural design shall be prepared by a California Registered Civil Engineer and approved by the Engineer.

- d) Plates shall have a skid-resistant surface with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342.
- e) Plates shall extend a minimum of 12" (300 mm) beyond the edges of the trench.
- f) Plates shall provide complete coverage to prevent any person, bicycle, motorcycle or motor vehicle from being endangered due to plate movement causing separations or gaps.
- g) Plates shall be secured against movement or displacement by using adjustable cleats, shims, welding, or other devices, and shall be installed in a manner that will minimize noise as traffic drives over them. Plates shall be installed using either Method (1) or (2):

- i. Method 1 [For speeds greater than 45 mph (70 Km/hr)]: The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.
- ii. Method 2 [For Speeds less than 45 mph (70 Km/hr)]: Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" (50 mm) into the pavement. Subsequent plates are butted to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5 % with a minimum 12" (305 mm) taper to cover all edges of the plates.

Alternative installation method may be submitted in accordance with 2-5.3, "Submittals" for the Engineer's approval.

- h) The Contractor shall be responsible for maintenance of the plates, shoring, and asphalt concrete ramps or any other approved device used to secure the plates. The Contractor shall immediately mobilize necessary personnel and equipment after being notified by the Engineer, the City's station 38, or a member of the public of a repair needed e.g., plate movement, noise, anchors, and asphalt ramps. Failure to respond to the emergency request within 2 hours will be grounds for the City to perform necessary repairs that will be invoiced at actual cost including overhead or \$500 per incident, whichever is greater. Failure by the Contractor to comply may result in automatic grounds suspension of permit, Contract, or both.
- i) When plates are removed, any damage to the pavement shall be repaired with fine graded asphalt concrete mix or slurry seal satisfactory to the Engineer.

Payment for traffic plate bridging shall be included in the various Bid items unless a Bid Item has been provided for steel plate bridging.

**7-15 INDEMNIFICATION AND HOLD HARMLESS AGREEMENT.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**ADD: 7-15 INDEMNIFICATION AND HOLD HARMLESS AGREEMENT.** The Contractor shall defend, indemnify, protect, and hold harmless the City, its agents, officers, and employees, from and against all claims asserted, or liability established for damages or injuries to any person or property resulting from the Contractor's action or failure to take the necessary measures to prevent such damages and injuries.

The Contractor shall be responsible for payment of any fines resulting from citations issued to the City by either the federal, state, or local environmental and safety enforcement agencies due to the Contractor's failure to abide by applicable safety, health, and environmental standards.

**ADD: 7-16.2.2 Weekly Updates Recipients.** The following recipients shall receive a weekly correspondence with updates, traffic control issues and locations, lane closures, and any other pertinent information (with additional contact names given during award process).

Jim Haghgouy, Project Manager, [JHaghgouy@sandiego.gov](mailto:JHaghgouy@sandiego.gov)

Efren Hernandez, Project Engineer, [EGhernandez@sandiego.gov](mailto:EGhernandez@sandiego.gov)

Resident Engineer, [TBA](#)

**ADD: 7-21 ELECTRONIC COMMUNICATION.** The Contractor shall post all communications addressed to the Engineer concerning construction including RFIs, submittals, daily logs, and transmittals to the Virtual Project Manager (VPM) website established for the Project. The Contractor shall maintain a list of scheduled activities including planned and actual execution dates for all major construction activities and milestones defined in the approved Schedule. The Contractor shall review and act on all communications addressed to the Contractor in the VPM project website. A user's guide to the VPM system is available on the City's website and will be provided to the Contractor at the preconstruction meeting. The payment for electronic communications shall be included in the various Bid items.

## **SECTION 8 - FACILITIES FOR AGENCY PERSONNEL**

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

### **PART 2 - CONSTRUCTION MATERIALS**

#### **SECTION 201 - CONCRETE, MORTAR, AND RELATED MATERIALS**

**201-1.1.3 Concrete Specified by Special Exposure.** To Table 201-1.1.3(A) SUBSTITUTE Moderate Exposure, Cementitious Material Requirement with the following:

100% Type II or V portland cement.

**201-2.2.1 Reinforcing Steel.** ADD the following:

Reinforcing steel shall be Grade 60 steel only conforming to ASTM A 615/615M.

**ADD: 201-2.5 Accessories.** Accessories shall include all necessary chairs, slab bolsters, concrete blocks, tie wires, dips, supports, spacers, and other devices to position reinforcement during concrete placement. Accessories shall be as follows:

- a) All bar supports shall meet the requirements of the CRSI Manual of Standard Practice including special requirements for supporting epoxy coated reinforcing bars. Wire bar supports shall be CRSI Class 1 for maximum protection with a 1/8-inch minimum thickness of plastic coating which extends at least 1/2-inch from the concrete surface. Plastic shall be gray in color.
- b) Concrete blocks (dobies), used to support and position reinforcement steel, shall have the same or higher compressive strength as specified for the concrete in which it is located. Wire ties shall be embedded in concrete block bar supports.
- c) Tie wire shall be a minimum 14 gauge annealed steel wire.

**ADD: 201-2.6 Welded Splices.** Welded splices shall be provided where shown and where approved by the CONSTRUCTION MANAGER. All welded splices of reinforcement steel shall develop a tensile strength which exceeds 125 percent of the yield strength of the reinforcement bars which are connected. All materials required to conform the welded splices to the requirements of AWS D1.4 shall be provided.

**ADD: 201-3.10 PVC Waterstops.** Waterstops shall be extruded from an elastomeric polyvinyl chloride compound containing the plasticizers, resins, stabilizers, and other materials necessary to meet the requirements of these Specifications. No reclaimed or scrap material shall be used. The CONTRACTOR shall obtain from the waterstop manufacturer and shall furnish to the CONSTRUCTION MANAGER for review, current test reports and a written certification of the manufacturer that the material to be shipped to the job meets the physical requirements as outlined in the U.S. Army Corps of Engineers Specification CRD-C572 and those listed herein.

**ADD: 201-3.10.1 Flatstrip and Center-Bulb Waterstops:** Flatstrip and center-bulb waterstops shall be as indicated; provided, that at no place shall the thickness of flat strip waterstops, including the center bulb type, be less than 3/8-inch.

**ADD: 201-3.10.2 Multi-Rib Waterstops:** Multi-rib waterstops, where required, shall be as indicated. Prefabricated joint fittings shall be used at all intersections of the ribbed-type waterstops.

**ADD: 201-3.10.3 Other Types of Waterstops:** When other types of waterstops, not listed above, are required, they shall be subjected to the same requirements as those listed herein.

**ADD: 201-3.10.4 Waterstop Testing Requirements:** When tested in accordance with the specified test standards, the waterstop material shall meet or exceed the following requirements:

<u>Physical Property, Sheet Material</u>	<u>Value</u>	<u>ASTM Std.</u>
Tensile Strength-min (psi)	1750	D 638, Type IV
Ultimate Elongation-min (percent)	350	D 638, Type IV
Low Temp Brittleness-max (degrees F)	-35	D 746
Stiffness in Flexure-min (psi)	400	D 747
Accelerated Extraction (CRD-C572)		
Tensile Strength-min (psi)	1500	D 638, Type IV
Ultimate Elongation-min (percent)	300	D 638, Type IV
Effect of Alkalies (CRD-C572)		
Change in Weight (percent)	+0.25 / -0.10	-----
Change in Durometer, Shore A	+5	D 2240
Finish Waterstop		
Tensile Strength-min (psi)	1400	D 638, Type IV
Ultimate Elongation-min (percent)	280	D 638, Type IV

**ADD: 201-8.1.1 VAULTS.**

All vault bases are to be cast-in-place, no precast bases are allowed unless provided for herein or on the project plans. All below grade vaults shall have exterior water proofing in accordance with Section 201-8.4.1 below.

**ADD: 201-8.4.1 EXTERIOR WATERPROOFING FOR VAULTS.**

Exterior water proofing for vaults shall be coal tar emulsion Kopper-Bitumastic Super Service Black, or approved equal. Application of this material shall be in accordance with the manufacturer's instructions and these specifications.

**ADD: 201-9 FORM AND FALSEWORK.**

**201-9.1 Form and Falsework Materials.** Materials for concrete forms, formwork, and falsework shall conform to the following requirements:

- a) Lumber shall be Douglas Fir or Southern Pine, construction grade or better, in conformance with U.S. Product Standard PS20.
- b) Form materials shall be metal, wood, plywood, or other approved material that will not adversely affect the concrete and will facilitate placement of concrete to the shape, form, line, and grade shown. Metal forms shall be an approved type that will accomplish such results. Wood forms for surfaces to be painted shall be Medium Density Overlaid plywood, MDO Ext. Grade.

**SECTION 207 – PIPE**

**207-17.1 General.** ADD the following:

All House Connection Sewer Laterals shall use acceptable stainless steel shielded couplings manufactured by Mission, Fernco or approved equal.

**ADD: 207-17.2.3 Pipe Manufacturer.** Pipe, fittings, couplings, and joints as manufactured or distributed by J-M Manufacturing Company shall not be used on this contract.

**207-26.1.1 Polymer Concrete Water Meter Boxes.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Boxes and covers to be installed in traffic areas shall have a reinforced polymer concrete frame and cover designed for AASHTO H-20 traffic loading. Boxes and covers to be installed in non-traffic areas shall have reinforced polymer concrete reader lids designed for A-10 traffic loading in accordance with ASTM-C857. Traffic areas are defined as any location in which vehicular traffic is evident or highly likely under normal conditions. Non-traffic areas are locations with no vehicular traffic. Covers shall have a logo reading “PUD WATER” as well as the manufacturer’s name or logo cast in the polymer concrete surface. A cover and lid selected at random shall be tested. The cover and lid shall support without failure a total vertical load of at least 1,000 pounds, when supported in a horizontal position in the meter box. The load shall be applied to the center of the lid by a cylindrical pin, 1.952” in diameter, supported on a 2-thick rubber pad.

Unless provided for as a separate Bid item, payment for Polymer Concrete Box shall be included in the Bid item for water services.

**207-26.1.5 Polyvinyl Chloride Pipe 2” Only.** To the City Supplement, DELETE in its entirety.

**PART 3 – CONSTRUCTION METHODS**

**SECTION 302 – ROADWAY SURFACING**

**302-1.9 Traffic Signal Loop Detectors.** To the City Supplement, DELETE the second paragraph and SUBSTITUTE with the following:

Traffic detector loops shall be reinstalled prior to resurfacing of the related street within 15 days from completion of all preparatory work including milling, cutting and grinding. The Contractor shall contact the City of San Diego's Street Division, Traffic Signal Maintenance at 619-527-8052 north of Interstate 8 or 619-527-8053 south of Interstate 8 to request loop layout.

**ADD: 302-5.2 Pavement Restoration Adjacent to Trench.** Pavement restoration adjacent to trench shall include the replacement of existing pavement adjacent to the proposed trench and outside the trench limits, that was previously broken or displaced.

Prior to the commencement of the Work, the Contractor shall meet with the Engineer and determine the limits of the pavement to be replaced. If the Contractor does not meet with the Engineer before removing the pavement, all replacement outside the limits of the proposed trench resurfacing shall be at the Contractor's expense.

Existing pavement shall be removed in accordance with Section 300-1.3.2. Prior to pavement restoration, existing subgrade shall be prepared in accordance with 301-1, "SUBGRADE PREPARATION." If any existing unsuitable subgrade as determined by the Engineer is encountered, it shall be replaced with imported backfill in accordance with 306-1.3.7, "Imported Backfill" prior to preparation.

**302-5.2.1 Measurement and Payment.** Payment for pavement restoration adjacent to trench will be made on a square foot basis as shown in the Bid in accordance with 302-6.8, "Measurement and Payment." Unless Bid includes separate Bid item(s), the following shall be included in the payment for pavement restoration adjacent to trench:

- a) saw-cutting existing edges,
- b) removal and disposal of existing pavement,
- c) subgrade preparation including imported backfill material,
- d) form work,
- e) placement, curing, and protection of new pavement, and
- f) placing class "F" asphalt where required.

**302-6.1 General.** To the City Supplement, Last paragraph, DELETE in its entirety and SUBSTITUTE with the following:

Prior to placing concrete, existing subgrade shall be prepared in accordance with 301-1, "SUBGRADE PREPARATION."

If any existing unsuitable subgrade, as determined by the Engineer, is encountered it shall be replaced in accordance with 300-2.2, "Unsuitable Material."

**302-6.8 Measurement and payment.** To the City Supplement, DELETE in its entirety.

**303-5.10.2 Payment.** To the City Supplement, 2<sup>nd</sup> paragraph, DELETE in its entirety and SUBSTITUTE the following:

Additional concrete sidewalk and curb quantities *beyond the 15'-0"* will be paid for in accordance with the Contract unit price for additional curb and additional sidewalk.

**302-13.4 Application.** To the City Supplement, DELETE the second paragraph and SUBSTITUTE with the following:

Sealant shall be applied from the bottom of the crack up to the surface in a manner which does not result in sealant bridging or pockets of entrapped air. The sealant shall be applied to a slightly overfilled condition and then leveled with a squeegee. The width of sealant remaining on the surface shall not exceed 1.5" on either side of the crack. Any debris blown onto adjacent gutters, sidewalks, parkways, medians, intersections or other areas shall be removed prior to the end of the Working Day.



## SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

**303-1.3 Forms.** ADD the following:

Forms and falsework to support the roof and floor slabs shall be designed for the total dead load, plus a live load of 30 psf (minimum).

**ADD: 303-1.3.1 Reuse of Forms.** Forms may be reused only if in good condition and only if acceptable to the CONSTRUCTION MANAGER. Light sanding between uses will be required wherever necessary to obtain uniform surface texture on all exposed concrete surfaces. Exposed concrete surfaces are defined as surfaces which are permanently exposed to view. In the case of forms for the inside wall surfaces of hydraulic/water retaining structures, unused tie rod holes in forms shall be covered with metal caps or shall be filled by other methods acceptable to the CONSTRUCTION MANAGER.

**ADD: 303-1.3.2 Maintenance of Forms.** Forms shall be cleaned, treated with a releasing agent, and maintained in accordance with Section 303-1.3 and the following:

- a) The form surfaces shall be treated with a nonstaining mineral oil or other lubricant [compatible with the waterproofing membrane material and] acceptable to the CONSTRUCTION MANAGER.
- b) Any excess lubricant shall be satisfactorily removed before placing the concrete.
- c) Where field oiling of forms is required, the CONTRACTOR shall perform the oiling at least two weeks in advance of their use. Care shall be exercised to keep oil off the surfaces of steel reinforcement and other metal items to be embedded in concrete.

**ADD: 303-1.7.5 Fabrications.** Reinforcement steel shall be accurately formed to the dimensions and shapes shown, and the fabricating details shall be prepared in accordance with ACI 315 and ACI 318, except as indicated. Stirrups and tie bars shall be bent around a pin having a diameter not less than 1-1/2-inch for No. 3 bars, 2-inch for No. 4 bars, and 2-1/2-inch for No. 5 bars. Bends for other bars shall be made around a pin having a diameter not less than 6 times the bar diameter, except for bars larger than 1 inch, in which case the bends shall be made around a pin of 8 bar diameters. Bars shall be bent cold.

The CONTRACTOR shall fabricate reinforcement bars for structures in accordance with bending diagrams, placing lists, and placing drawings.

Fabricating Tolerances: Bars used for concrete reinforcement shall meet the following requirements for fabricating tolerances:

- 1) Sheared length:  $\pm 1$  inch
- 2) Depth of truss bars: + 0, - 1/2 inch
- 3) Stirrups, ties, and spirals:  $\pm 1/2$  inch
- 4) All other bends:  $\pm 1$  inch

**ADD: 303-1.8.10 Construction Tolerances.** Set and maintain concrete forms and perform finishing operations so as to ensure that the completed Work is within the tolerances specified herein. Surface defects and irregularities are defined as finishes and are to be distinguished from tolerances. Tolerance is the specified permissible variation from lines, grades, or dimensions shown. Where tolerances are not stated in the Specifications, permissible deviations will be in accordance with ACI 117.

1. The following construction tolerances are hereby established and apply to finished walls and slab unless otherwise shown:

Item	Tolerance
Variation of the constructed linear outline from the established position in plan.	In 10 feet: 3-inch; In 20 feet or more: 2-inch
Variation from the level or from the grades shown.	In 10 feet: 3-inch; In 20 feet or more: 2-inch
Variation from the plumb.	In 10 feet: 3-inch; In 20 feet or more: 2-inch
Variation in the thickness of slabs and walls.	Minus 3-inch; Plus 2-inch
Variation in the locations and sizes of slabs and wall openings.	Plus or minus 3-inch

**ADD: 303-1.8.11 Splices in Waterstops.** Splices in waterstops shall be performed by heat sealing the adjacent waterstop sections in accordance with the manufacturer's printed recommendations. It is essential that:

- (1) The material not be damaged by heat sealing.
- (2) The splices have a tensile strength of not less than 60 percent of the unspliced materials tensile strength.
- (3) The continuity of the waterstop ribs and of its tubular center axis be maintained.

Butt joints of the ends of 2 identical waterstop sections may be made while the material is in the forms. All joints with waterstops involving more than 2 ends to be jointed together, and all joints which involve an angle cut, alignment change, or the joining of 2 dissimilar waterstop sections shall be prefabricated by the CONTRACTOR prior to placement in the forms, allowing not less than 24-inch long strips of waterstop material beyond the joint. Upon being inspected and approved, such prefabricated waterstop joint assemblies shall be installed in the forms and the ends of the 24-inch strips shall be butt welded to the straight run portions of waterstop in place in the forms. Where a centerbulb waterstop intersects and is jointed with a non-centerbulb waterstop, care shall be taken to seal the end of the centerbulb, using additional PVC material if needed.

**ADD: 303-1.8.12 Setting Waterstops.** Waterstop in vertical wall joints shall stop 6 inches from the top of the wall where such waterstop does not connect with any other waterstop and is not to be connected to for a future concrete placement. Installation shall conform to the following:

- a) In order to eliminate faulty installation that may result in joint leakage, particular care shall be taken of the correct positioning of the waterstops during installation. Adequate provisions must be made to support and anchor the waterstops during the progress of the WORK and to insure the proper embedment in the concrete. The symmetrical halves of the waterstops shall be equally divided between the concrete pours at the joints. The center axis of the waterstops shall be coincident with the joint openings. Maximum density and imperviousness of the concrete shall be insured by thoroughly working it in the vicinity of all joints.
- b) In placing flat-strip waterstops in the forms, means shall be provided to prevent them from being folded over by the concrete as it is placed. Unless otherwise shown, all waterstops shall be held in place with light wire ties on 12-inch centers which shall be passed through the edge of the waterstop and tied to the curtain of reinforcing steel. Horizontal waterstops, with their flat face in a vertical plane, shall be held in place with continuous supports to which the top edge of the waterstop shall be tacked. In placing concrete around horizontal waterstops,

with their flat face in a horizontal plane, concrete shall be worked under the waterstops by hand so as to avoid the formation of air and rock pockets.

- c) In placing centerbulb waterstops in expansion joints, the centerbulb shall be centered on the joint filler material.

**303-5.10.2 Payment.** To the City Supplement, 2<sup>nd</sup> paragraph, DELETE in its entirety and SUBSTITUTE the following:

Additional concrete sidewalk and curb quantities *beyond the 15'-0"* will be paid for in accordance with the Contract unit price for additional curb and additional sidewalk.

### **SECTION 306 – UNDERGROUND CONDUIT CONSTRUCTION**

**306-1.4.8 Televising Sewer Mains and Storm Drains.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**ADD: 306-1.4.8 Televising Sewer Mains, Sewer Laterals, and Storm Drains.**

**306-1.4.8.1 General.** The Contractor in coordination with the Engineer shall televise new sewer mains and storm drains, rehabilitated existing sewer mains when performing parallel replacement to locate existing laterals, and existing sewer pipe segments and laterals after the cleaning process and prior to commencing rehab work. The Contractor shall provide the video records with compressed audio in digital file format on digital video discs (DVD's).

**306-1.4.8.2 Submittals.** The Contractor shall make several submittals during construction as follows:

- a) The Contractor shall provide an initial submittal at the start of televising work demonstrating the typical video and audio quality to be provided for acceptance by the Engineer. This submittal shall note any proposed changes to the specification listed below regarding video format, data processing, compression or other conditions for review and approval by the Engineer.
- b) When televising existing mains proposed to be replaced, the Contractor shall provide the televising DVD(s) and a red-lined set of Plans showing the location of the existing laterals to the Engineer before constructing the new sewer mains. Service lateral video inspection shall be submitted on a separate DVD.
- c) Post Cleaning Videos prior to rehabilitation of mains - The Contractor shall televise the sewer pipe segments after the cleaning process has been completed and prior to commencing rehabilitation work. If point repairs are necessary, the Contractor shall identify the location of the proposed point repairs and submit the post cleaning video within 5 Working Days of completion of the segment cleaning and at least 5 Working Days prior to commencing the rehab work to obtain prior approval by the Engineer. The Engineer will review each video submittal within 10 Working Days of receiving submittal. Each video submittal shall be limited to 20 segments. The post cleaning video for the remainder of the mainline segments shall be submitted in accordance with 2-5.3, "Submittals."
- d) Post Cleaning Videos for rehabilitated laterals or lateral launch videos - The Contractor shall televise the lateral segments after the cleaning process has been completed and prior to commencing any work on laterals. The post cleaning video for service lateral launch shall be submitted within 5 Working Days of segment cleaning. The Engineer will review each video submittal within 10 Working Days of receiving each submittal. Each DVD submittal shall be limited to 20 segments. The video inspection shall include inspection of service lateral a minimum of 30' in length from the mainline or up to the property line unless an obstruction is encountered.

- e) If the property line clean-outs are not known to exist, service lateral video may be obtained with camera equipment designed to launch into the service lateral from the mainline or access from the private property with homeowner's permission. Each service lateral shall be identified by the Facility Sequence Number (FSN) of the mainline (when FSN are included in the Contract Documents) and the address of the property which it serves. Failure to comply with these specifications may result in one or more of the following:
  - i. A delay of the review and approval of the submittal(s).
  - ii. Delay in progress payments.
  - iii. Require the Contractor to re-televising the pipelines at no cost to the City.
- f) Final Televising, Post-Rehabilitation Videos and Red-lines – New sewer mains shall be inspected by CCTV and recorded on DVD not less than 22 working days after completion of permanent trench restoration and finished grading, but prior to final resurfacing. The Contractor shall review the DVD for any discrepancies or deficiencies in the installation of the pipe or liner. The Contractor shall notify the Engineer at least 30 Working Days in advance of the anticipated date that Acceptance will be requested. If the specified advance notice is not given, Acceptance and bond release may be delayed.
- g) Ten Working Days shall be allowed for the Engineer to review each individual video disc of each and every reach documented on that particular videodisc. In the event that any deficiencies are discovered by the Engineer or City, either by the Contractor's televising or the City's re-televising, 5 Working Days shall be allowed for City to judge whether the deficiencies or sags are repairable, in place. If the judgment is made that the deficiencies are non-repairable in place, the affected portion(s) shall be reconstructed at no cost to the City. The Contractor shall not be entitled to Contract Time extension due to delays resulting from correcting deficiencies or sags as determined by televised inspections.
  - i. The City reserves the right to re-televising any new sewer main after the placement of permanent trench restoration and before final acceptance to determine the existence and extent of any foreign material or obstructions such as cement grout, wood, rocks, sand, concrete, or pipe fragments, and any structural deficiencies, or sags precipitated by the permanent trench restoration operations or other items of Work.
 

Post-rehabilitation videos shall be submitted within 30 days of completion of the Work. The final video recording shall clearly show the condition of the liner with ends sealed at the manholes, service lateral and connection seals. The submittal of this final video recording shall also include MS Access database and marked up Field Book pages or Plans as attachments. Failure to deliver the submittal(s) within the time identified or if a total of more than 20 segments are submitted in a single video may result in one or more of the following:

    - 1. A delay of the review and approval of the submittal(s).
    - 2. Delay in progress payments.
    - 3. Require the Contractor to re-televising the sewer main segments.

**306-1.4.8.3 Video Operator Qualifications.** The video operator shall have at least 1 year of experience with a project of a similar nature within the last 3 years.

**306-1.4.8.4 Equipment for Televising.** Camera and lighting quality shall be suitable to provide a clear, continuously in-focus picture of the entire inside periphery of the sewer pipe or storm drain for all conditions encountered during the work. The equipment shall be capable of televising the entire length from manhole to manhole in one direction. When televising storm drains/sewer mains the camera shall be capable of scanning the joints for 360 degrees.

If necessary, the Contractor shall provide a self-propelled camera, capable of extended videotaping lengths and operation in remotely accessed areas without direct vehicular access. The system used to move the camera through the pipe shall not obstruct the camera's view. The remote-reading footage counter device which measures the distance traveled by the camera in the pipe shall be displayed on the television monitor and shall be accurate to plus or minus 1' (0.3 meters) in 1000' (300 meters) (+0.3m:300 meters). The Contractor shall calibrate the measuring device each day with a known distance to the satisfaction of the Engineer prior to starting the inspection and videotaping process.

#### **306-1.4.8.5 Televising Procedures.**

- a) The Engineer shall be notified a minimum of 2 Working Days in advance of televising. The entire televising inspection process shall be done in the presence of the Engineer.
- b) The Contractor shall clean the sewer mains prior to televising as necessary to adequately perform the video recording operations.
- c) The camera shall be moved through the sewer at a uniform rate, stopping when necessary to ensure proper documentation of the condition of the sewer line but in no case shall the television camera be pulled at a speed greater than 30' (9 meter) per minute. The camera shall be moved by means of power cable winches or self propelled tractors at each manhole, and rotating the camera head at each lateral connection, defect, or both to allow for adequate evaluation. The importance of accurate distance measurements is emphasized. Measurement for location of defects shall be above ground by means of a measuring device. Footages shown on the DVD(s) shall coincide with horizontal lengths from stationing as shown on the plans. Footage measurements shall begin at the centerline of the upstream manhole or storm drain access point, unless permission is given by the Engineer to do otherwise. Both pre and post video inspections shall be submitted to the Engineer.
- d) Televising shall be done in one direction for the entire length between manholes. Each section shall be isolated from the remainder of the storm drain or sewer line with the upstream sewage flow bypassed as required. Sufficient water shall be supplied to the isolated section to cause drainage reaching the downstream manhole prior to televising. If existing flows are high, pre-construction video inspection can be done with partial flow. Depth of the flow shall not exceed:
  - i. 6" - 10"(150 mm. - 250 mm) pipes - 20% of the pipe diameter.
  - ii. 12" - 24" (0.3 meters - 0.6 meters) pipes - 25% of the pipe diameter.
  - iii. 27" (0.7 meters) and up pipe - 30% of the pipe diameter.
- e) The Contractor shall televise the pipeline with maximum flow diverted from the pipeline. In the event that the existing flow is interfering with the video operation, a bypass shall be performed by the Contractor to lower the flow volume sufficiently to allow for a clear video picture.
- f) Obstructions may be encountered during the course of the internal inspection that prevents the travel of the camera. If an obstruction is not passable, the Contractor shall withdraw the equipment and begin internal inspection from the opposite end of the sewer reach. Should an additional obstruction be encountered after employment of the equipment from the opposite end of the sewer and no means are available for moving the television camera past the obstruction, the Contractor shall notify the Engineer, and the inspection shall be cancelled or postponed until the obstruction is removed. The Contractor shall remove the obstruction by excavation, repair or any other means approved by the Engineer, at no additional cost to the City.

After the obstruction has been removed, the Contractor shall continue with the CCTV inspection. A reverse setup, if necessary, shall be performed by the Contractor at no additional cost to the City. Should the camera get stuck in the sewer, the Contractor shall be responsible for all costs involved in extracting it. Costs related to difficulties encountered during internal television inspection are incidental to the Contract and claims, therefore, will not be considered.

- g) Defects such as offset joints, cracks in the pipe, and inflow shall be pointed out, quantified verbally, and projected on CCTV video disc. The Contractor shall use the standard owner's video disc introduction, abbreviations, log sheet forms, and severity code with legend when recording the line segment information. The Contractor shall notify the Engineer of any additional damage found and obtain prior approval from the Engineer for additional point repairs.
- h) Original DVD shall be submitted to and shall become the property of the City. DVD's will be reviewed by the Engineer for focus, lighting, sound, clarity of view, and technical quality. Videos recorded while a camera has flipped over in the process of traveling and the viewing of laterals, obstructions or defects that are blocked by cables, skids or other equipment will not be accepted. Sharp focus, proper lighting, and clear distortion-free viewing during the camera operations shall be maintained. Failure to maintain these conditions will result in the rejection of the video disc by the Engineer. Video recordings, if unacceptable to the Engineer, shall be repeated at no additional cost to the City.
- i) The City reserves the right to re-televisé any reach of the pipeline following the cleaning, pipe installation and rehabilitation activities, but before Acceptance, to determine the existence and extent of any foreign material or obstructions such as cement grout, wood, rocks, sand, concrete, or pieces of pipe, and any structural deficiencies, or sags preventing the completion of the Work.
- j) Final CCTV. The Contractor shall clean the line with high pressure water jetting equipment and a sewer ball prior to performing mandrel, air test or both, or as specified by the Engineer. For the final video inspection, the City will require a dry pipe. During the post-video inspection, the camera shall stop at each lateral connection, focus on the bottom of the opening and then make one slow clockwise observation around the perimeter of the lateral which clearly shows the quality of the connection. If the Contractor fails to properly show and document any of the lateral openings, the Contractor will be required to re-televisé that section of pipeline at no additional cost to the City.
- k) The Contractor shall not be entitled to any additional contract time due to delays resulting from the need to correct any deficiencies, either repairable or non-repairable, in place, as determined by televised inspections.

**306-1.4.8.6 DVD and Final Report Requirements.** The Contractor shall provide all video with audio in digital file format on DVD's. Audio and written documentation shall accompany all DVD(s) submitted to the Engineer.

- a) DVD Requirements
  - i. One file shall be provided for each manhole to manhole pipe segment or for each manhole to manhole inspection video.
  - ii. The filename shall incorporate the unique facility identifier provided by the City and the date of the inspection. The facility identifier numbers will be manhole numbers, with adjacent manhole numbers identifying pipe sections. The facility identifier number(s) shall be compatible with the data input features of the reporting software i.e., number of available input digits, fields, or both.

- iii. DVD recordings shall be in color and in MPEG2 format. The minimum video bit rate shall be 4.7 Mega bits per second (Mbps) and minimum audio bit rate shall be 128 Kilo bits per second (Kbps). Out-of-focus video recording or low quality and blurred pictures due to steam or smudged camera lens, or portions thereof, shall be cause for rejection of the video recording.
- iv. The camera source image capture shall provide a high resolution image with a minimum of 640x480 pixels capture. The video shall be at 30 frames per second.
- v. The video will be captured and compressed so as to reduce file size as much as possible while still meeting the needs of the City. The compression shall be in accordance with MPEG2 format. The video files shall be highly compressed, resulting in an anticipated average file size of maximum 10 MB per minute of video.
- vi. The compression shall not significantly degrade the still frame quality of the video or audio signal from the original source video, as judged in a side by side viewing under normal viewing conditions.
- vii. During post-installation CCTV inspections, the Contractor shall utilize one of the following video camera systems: a rotating-lens camera (articulating head) or a pan and tilt camera.
- viii. The Contractor shall use a dual recording system and submit post video inspection discs to the inspector, subsequent to recording.
- ix. The Contractor shall ensure visibility and lighting with minimum glare and without any dark or shadowy regions appearing on the final video disc.
- x. The Contractor shall pan and tilt the camera and pause for at least 15 seconds at each lateral connection to adequately show and document that the saddle has been installed properly for new installations and that the lateral opening has been reestablished for rehabilitation and lining in accordance with 500.1.1.7.a, "Miscellaneous."
- xi. The television camera shall produce a continuously-monitored high-quality picture, capable of discerning all major and minor structural defects in the pipeline. The post-installation CCTV inspection will document all defects which may affect the integrity or the strength of the pipeline, such as cracks, roughness, fins, or folds. The Contractor shall repair or replace all defects, at no additional cost to the City, which in the opinion of the Engineer may affect the hydraulic condition of the pipe liner.
- xii. Each DVD submittal shall include the following:

Visuals

- 1. Adequate view of the upstream and downstream manholes or storm drain access points. The direction of the survey upstream or downstream.
- 2. A pause at and zoom in on the lateral connections for at least 15 seconds for identification of the condition of the connection.
- 3. A pause at and zoom in on the indentified defects sufficient for identification of the type of problem.
- 4. Identified fault conditions or defects, see Appendix for Standardized City Condition and Defect Codes.

5. Each pipe section shall be identified by FSN, manhole numbers and the street name. If shown on the Plans, station numbers and sheet numbers shall also be identified.
6. A continuous read-out of the camera distance from the starting manhole to the end point at all times.
7. Pipe size.
8. Pipe or liner material, see Appendix for Material Description and Code.

#### Audio

1. Date of CCTV inspection.
2. Confirmation of each section to be CCTV inspected i.e., narrative of manholes, storm access points or station numbers, or FSN's and direction upstream or downstream.
3. Description of pipe size lined on post and final videos, material liner type for post and final videos and pipe joint length.
4. Description and location of each defect.
5. Description and location of each service connection.
6. Include brief but informative comments on data of significance, including, but not limited to, the locations of unusual conditions, type and size of connection, collapsed section, the presence of scale and corrosion, and other discernible features.

#### Written Documentation

1. Date of CCTV inspection.
  2. Printed labels on DVD number, location information, date of inspection, and other descriptive information.
  3. Location, size, material, and length of pipe.
  4. Direction of flow and measurement "From" manhole or storm drain access point or station number "To" manhole or storm drain access point or station number or FSN.
  5. File numbers itemizing individual segments.
  6. Sketch showing the street and cross streets where the CCTV inspection was made.
  7. Description and location of each defect or deficiency and a list of all proposed repairs.
  8. Description and location of each connection.
  9. A menu which lists files for each pipe section to be inspected and the date of the inspection.
- b) Final CCTV inspection reports
- i. The Contractor shall provide reports of final inspection results of pipeline televising and conditional assessments utilizing a MS Access database reporting software.



- ii. This information shall be in tabular form, and include but not be limited to the following information: pipeline run from upstream to downstream manhole, location of defects in feet from upstream manhole, description of the defect, and other pertinent information. The reports shall also show all service lateral connection locations. The inspection reports shall incorporate and utilize a standardized City's rating system to be provided for comprehensive evaluation of pipeline, manhole condition, or both, i.e., a standardized listing of facility condition and defect codes. Pipe condition and fault information tied to pipe location shall also be recorded in the Report.
- iii. The file naming convention for video files consists of 32 characters, including the extension. The structure includes the following: "(field book page start)-(manhole ID start)-(field book page end)-(manhole ID end)-(hhddmmyy).wmv" where the field book pages and manholes IDs are 4 characters in length and hhddmmyy signifies the hour, day, month and year of the inspection, respectively. An example filename may be "F18S-0045-F18S-0046-14150604.wmv".
- iv. See Appendix for televising inspection pipe database structure, table formats and standardized city condition, defect codes and digital video filename. Final reports shall follow these requirements.

**306-1.4.8.7 Tolerances.**

- a) For underground sewer or storm drain conduit installations, the maximum operational tolerance for sag shall be 1/2". When televised inspection is used to check for sag, a calibrated 1/4" diameter steel bar, mounted in front of the camera, shall be used to measure the depth of sag.
- b) For rehab work, tolerances shall be in accordance with 500-1.4.9, "DEFECT TOLERANCES".
- c) If the Engineer determines that the deficiencies or sags are non-repairable in place, the affected portion(s) shall be reconstructed in accordance with 6-8, "COMPLETION, ACCEPTANCE, AND WARRANTY."

**306-1.4.8.8 Payment.** The payment for cleaning and televising sewer mains or laterals and storm drains shall be included in the unit price Bid items for cleaning and televising sewer mains and storm drains, televising sewer mains for final acceptance, or lateral launch videos. If a Bid item has not been provided, the payment shall be included in the payment for the proposed pipe.

**306-1.6 Basis of Payment for Open Trench Installations.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Second paragraph, DELETE in its entirety and SUBSTITUTE with the following:

The unit price bid for pipe and conduit in place shall be considered full compensation for all wyes, tees, bends, monolithic catch basin connections, and specials shown on the Plans; the removal or restoration of interfering portions of existing sewers, storm drains, and existing improvements as shown on Plans; the closing or removing of abandoned conduit and structures; the excavations of the trench; the control of ground and surface waters; the preparation of subgrade; placing, joining and testing pipe; backfilling the trench; permanent resurfacing; disposal of excess excavation; temporary resurfacing when not a Bid item; and all other work necessary to install the pipe or conduit, complete in place.

Third paragraph, after the word "backfill" ADD: "disposal of all excess excavation,"

ADD the following:

- a) The Unit Price bid for thrust and anchor blocks shall include the payment for the thrust blocks and anchor blocks for water main 16” and larger.
- b) Thrust blocks and anchor blocks for water mains 12” and smaller shall be included in the Bid item for water mains.
- c) Payment for subsurface investigations e.g., potholing for thrust blocks and anchor blocks for water mains 16” and larger shall be included in the Bid item for water main.
- d) Payment for meter assembly shall be included in the various Bid items unless a pay item has been provided for Meter Assembly. The concrete pad, fence, gate, associated piping, and coordination with City Forces shall be included in the payment for the meter assembly.
- e) Payment for valves, fire hydrant assembly and marker, fire service assembly, fire service connection, and backflow preventer shall be included in the unit price Bid items for Valves, Fire Hydrant Assembly and Marker, Fire Service Assembly and backflow preventer, Fire Service Connection, and Backflow Preventer.
- f) Removal of existing Fire Hydrant and all appurtenant work shall be included in the Bid item for Fire Hydrant and Assembly and Marker.
- g) Payment for underdrains shall be included in the unit Bid item for “Underdrains.”
- h) The quantity of filter fabric to be paid for will be measured in square yards of the area covered, not including additional fabric for overlap. The quantity of permeable material to be paid will be measured by tons.

**306-1.7 House Connection Sewer (Laterals) and Cleanouts.** To the City Supplement, 2<sup>nd</sup> paragraph, DELETE in its entirety and SUBSTITUTE with the following:

Laterals shall be replaced and shall include a cleanout at property line. Lateral connections at the property line shall be made with stainless steel shielded couplings. The Plans show the approximate location of the laterals. Connections at the main shall be made using a “wye” cut-in. Saddle connections shall not be permitted.

**306-5.3 Payment.** ADD the following:

Sewer mains to be abandoned shall be televised prior to pipe slurry and all lateral connections verified inactive. This work shall be included in the unit Bid item price for Cleaning and Televising of Existing Sewer Mains – Before Abandonment.

**ADD: 306-9 GENERAL TUNNELING OPERATIONS.**

**306-9.1 General.** The work is for a complete and operational gravity sewer installed within the tunnel. Required pipe tunnel locations and lengths are shown on the Plans. The Contractor shall in accordance with 2-5.3 submit a proposed plan of tunnel operation which shall include Shop Drawings, calculations, and narrative demonstrating the following details:

- a) Shaft design including calculations by a California PE experienced in the design of shafts incorporating tunnel excavation requirements.
- b) Shaft bottom layout showing equipment and working areas.
- c) Penetration of tunnel into ground
- d) Tunnel initial support system

**306-9.1.1 Description.** The tunneling method selected by the Contractor shall be capable of advancing through the encountered ground types and ground behaviors. The excavation methods shall be capable of being changed based upon encountered ground types and ground behaviors. The shield shall protect the workers, support the excavated ground, and support the face. The tunnel initial ground support system and the shaft shall protect the workers and support the ground. All of the components shall take into account the designed works and the means and methods required to complete construction.

**306-9.1.2 Requirements.**

- a) Carrier pipe shall be installed to within 0.5 inches of design invert and without a reverse grade.
- b) Carrier pipe shall be installed to within 2.0 inches of design line.
- c) Tunnel shield shall, in ground that contains fractions of materials other than Ardath Shale, control the face using doors, breasting, or other methods that prevent unwanted ground movement. Face shall be supported whenever the face is unattended, there is uncontrolled groundwater inflow, or excavation is not advancing.
- d) Tunnel shield shall, in ground consisting of only Ardath Shale, control the face preventing unwanted ground movement. Face shall be supported whenever the face is unattended, there is uncontrolled groundwater inflow, or excavation is not advancing.
- e) Initial ground support system shall protect the workers, resist ground movement, and be installed as the tunnel is advanced.
- f) The tunnel's initial ground support system shall be used along the entire length of tunnel.
- g) Dewatering from the surface along the tunnel alignment shall not be permitted.
- h) Dewatering shall be in accordance with Section 306-3.3 and 805-2.
- i) Shafts shall be designed and constructed utilizing water tight construction methods. Watertight shall be defined as less than 5 gallons per minute of inflow from all sources.
- j) No other excavation shall take place within 100 feet of the shafts and tunnels until tunnel excavation is complete other than excavations for relocating utilities conflicting with the shafts or tunnels, installing surface monitoring points, potholing to locate utilities, and excavations less than 10 feet deep.
- k) Provide City access to the working shaft and tunnel. Provide City access for instrumentation readings.
- l) Shaft shall be protected from traffic using K-rail along the shaft perimeter.
- m) Drill and blast excavation methods are not permitted.

**306-9.1.3 Minimum Soil Cover.**

- a) Tunnel between Stations 18+00 and 26+82: Minimum separation between tunnel initial support system and carrier pipe is 4 inches.
- b) Tunnel between Stations 37+42 and 44+75:
  - 1) The excavated tunnel height may be increased, with City approval, by lowering the tunnel invert.
  - 2) The excavated tunnel height may be decreased, with City approval, by raising the tunnel invert.

#### **306-9.1.4 Surface Description.**

- a) Provide and install surface monitoring points in accordance with the Contract Plans and as specified herein.
- b) The top of the monitoring points shall be capped to prevent damage to the instrument and protect the public.
- c) Establish surface monitoring point arrays oriented perpendicular to the tunnel centerline at approximately 50-foot intervals commencing approximately 25 feet from the nearest shaft. Each array shall consist of three control points: one on the tunnel centerline; and two at 7 feet either side of tunnel centerline. Review surface monitoring point locations in the field during construction with the City and modify locations if required.
- d) Provide up to 10 additional surface monitoring points at locations to be determined in the field by the City.
- e) Determine the elevation of each surface monitoring point to an accuracy of +0.005-foot (1/16-inch). The surface monitoring points shall be surveyed following installation, with a second survey completed before commencing tunneling. The second survey shall not be started until all surface monitoring points for the construction zone have been installed and the first survey completed by at least one working day.
- f) Survey all surface monitoring points twice weekly, at regularly scheduled and equally spaced intervals acceptable to the City, once tunneling commences and until 4 weeks after tunnel is backfilled. Contractor shall provide a cumulative log of all survey data upon completion of each survey. Increase surveying to daily for all points within 200 feet of any point that has attained 0.5 or more inches of settlement until the tunnel has been backfilled or measurement has not changed for two weeks. Resume twice weekly measurements.
- g) Contractor shall stop tunneling when total settlement reaches 0.5 inches at any one point and provide written notice. Contractor shall not resume tunneling until the Contractor provides revised work plan that includes changes to excavation and ground control and an action plan to the City that describes changes made in order to prevent attaining total settlement of 0.75 inches at any one point. Plan shall also include equipment and personnel changes that will occur when total settlement attains 0.75 inches at any one point.
- h) Contractor shall stop tunneling when total settlement attains 0.75 inches at any one point and provide written notice. Contractor shall not resume tunneling until all personnel and equipment changes are implemented.
- i) Contractor shall stop tunneling when total settlement attains 1.0 inches at any one point and provide written notice. Contractor shall verify initial tunnel support design can accommodate ground movement and resubmit design. Contractor shall not resume tunneling until all design changes are implemented. At no time shall settlement exceed 1 inch.

#### **306-9.1.5 Definitions.**

- a) Adapter Ring: A fabricated ring that is mounted on the first pipe of the pipe string. It is intended to transfer the jacking load from the jacking pipe to the shield bearing area.
- b) Annular Space: The volume/space between the outside radius of the jacking pipe and the native material.
- c) Carrier Pipe: A pipe for conveyance of raw sewage.

- d) Casing: A jacking pipe, typically made of steel, used to support a tunnel and within which the product/carrier pipe is later constructed.
- e) Contact Grouting: The injecting of a cementitious material outside of the jacking pipe to fill voids and assure that intimate contact for load transfer between the jacking pipe or initial ground support system and the native host material has been achieved.
- f) Cutterhead: Any rotating tool or system of tools that excavates materials.
- g) Dewatering: Any system of wells and pumps used for the express purpose of lowering the groundwater below a required elevation or removing groundwater from an excavation.
- h) Driller's Mud: A fluid, normally consisting of water, bentonite, and polymers, used to stabilize the hole and, in a closed loop system, for the removal of spoil. Driller's mud is a fluid designed with specific engineering properties which may include density, viscosity, and gel strength.
- i) Emergency Recovery Shaft: A vertical excavation required for the removal of an obstruction or for removal or repair of the trenchless construction equipment. The location of an Emergency Recovery Shaft is determined by construction necessity and typically will not have permanent civil structures constructed in the shaft.
- j) Face: The location where excavation is taking place.
- k) Geologic Contact: An abrupt and distinguishable interface between two geological strata that may or may not necessarily have similar engineering properties or behavior.
- l) Guidance System: System that locates the actual position of the shield relative to the design location.
- m) Inadvertent Return: The loss of drilling fluid, including slurry and lubrication, from the slurry or lubrication system. A common form of inadvertent return, where the fluid reaches the surface or waterway, is commonly called a "frac-out."
- n) Initial Ground Support System: System designed and installed in the excavated tunnel as the tunnel advances to support the ground and provide a safe work area for the workers. Typical systems include jacking pipe, liner plate, segments, and rib and lagging.
- o) Intermediate Jacking Station(s) (IJS): A fabricated steel cylinder fitted with hydraulic jacks, which is incorporated into a pipeline between two casing pipe segments. Its function is to provide additional thrust to overcome resistive skin friction of the shield and pipeline and to distribute the jacking forces over the pipe string on long drives.
- p) Intermediate Shaft Location: A vertical excavation where a permanent civil structure will be placed before or after the tunnel is constructed.
- q) Jacking Frame: A structural component, fitted with hydraulic cylinders that is used to push the shield and casing pipe into the ground. The jacking frame distributes the thrust load to the casing and the reaction load to the shaft wall or thrust block.
- r) Jacking Pipe: A specialty pipe that is engineered and manufactured with a smooth outer wall and watertight joints. The pipe is specifically designed to be jacked through the ground and may also serve as a casing, carrier or product pipe.
- s) Jacking/Launch/Entrance Shaft: A vertical excavation from which trenchless technology equipment and pipe are launched and driven.
- t) Laser: A device commonly incorporated into the guidance system used to maintain alignment and grade during tunnel construction.

- u) Limits of Excavation: The volume within which the excavation takes place.
- v) Liner Plate: Steel plates, as designed and manufactured specifically for initial ground support, joined to form a circular ground support system for the tunnel. Liner plates are typically joined with nuts and bolts and may be gasketed for water tightness.
- w) Lubricant (Lubrication): A fluid, normally bentonite and/or polymers, used to reduce skin friction on the jacked casing or jacking pipe and to fill the annular space between the jacking pipe and the native unexcavated material.
- x) Maximum Allowable Jacking Force: The largest jacking load that the jacked pipe or casing can accept allowing for an appropriate factor of safety.
- y) Maximum Anticipated Jacking Force: The largest theoretical jacking force required to advance the pipe and machine from one location to another.
- z) Microtunnel Boring Machine (MTBM): A remote controlled, steerable, laser guided tunnel boring machine consisting of an articulated boring machine shield and a rotating cutter head. Personnel entry into the MTBM is not required for the routine operation of the MTBM.
- aa) Microtunneling: A remote controlled and guided pipe jacking process that provides earth pressure balance in addition to applying hydrostatic counterbalancing pressure to the face. The jacked pipe provides continuous support to the tunnel.
- bb) Mixed Face: An interface within the excavated tunnel face between two geological units with different engineering properties.
- cc) Mixed Ground: Soil without a defined interface that contains soil fractions with distinctly different sizes and engineering properties, i.e. silt with boulders.
- dd) “N” Value: The number of blows per foot using a standardized hammer weight and drop height required to drive a standard SPT soil sampler in the ground during geotechnical exploration. The value defines the consistency of the in situ soils along the project.
- ee) Obstacle: A foreseen object that lies either within or near the direct path of the MTBM and is to be avoided or removed by other means.
- ff) Overcut: The radial distance between the excavated perimeter of the outermost gauge cutter and the outside radius of the shield.
- gg) Pipe Jacking: Construction of a pipeline by hydraulically jacking consecutive sections of jacking pipe through the ground behind a shield or TBM.
- hh) Pipe String: The succession of joined individual pipes being used to advance the excavation equipment and support the tunnel.
- ii) Principal Dimension: The largest of an object’s three mutually orthogonal measurements.
- jj) Product Pipe: See Carrier Pipe.
- kk) Receiving/Exit Shaft: A vertical excavation from which trenchless technology equipment is received and removed.
- ll) Separation: Measured distance between objects. The distance between two objects as measured between the closest outermost dimensions.
- mm) Shield: A fabricated steel cylinder from within which tunnel excavation is performed. TBMs and MTBMs are shields with increased automation and mechanization.

- nn) Slurry: A fluid, a water/bentonite medium in non-cohesive soils and a water or water/polymer medium in cohesive soils, which is used for the transportation of excavated materials and to balance the naturally occurring hydrostatic pressure during microtunneling. Slurry may or may not contain the materials being transported.
- oo) Slurry Chamber: Located behind the cutter head of a slurry microtunneling machine. Excavated material is mixed with slurry in the chamber for removal to the surface.
- pp) Slurry Line: A series of hoses or pipes that transports spoils and slurry from the face of a slurry microtunneling machine to the ground surface for separation of spoils from the slurry and returns slurry to the cutter face.
- qq) Slurry Pressure Balance Machine: A microtunneling system which uses a low pressure fluid to balance the ground water pressure at the face of the tunnel and to transport the excavated material to the surface.
- rr) Slurry Separation: A process where excavated material is separated from slurry so that the slurry may be reused.
- ss) Specials: The pipe sections immediately ahead of and behind an IJS that have specially manufactured ends that physically accommodates the IJS.
- tt) Spoil(s): Excavated material, also known as muck.
- uu) Sump Pump: A device placed in a shallow well used to collect and remove water incidental to the construction process, shaft leakage, and to prevent the excavation equipment from flooding.
- vv) Surface Settlement Points: Survey control points established at the ground surface along the pipe alignment for monitoring surface movement due to subsurface excavation.
- ww) Thrust Block: An engineered structure located between the jacking frame and the shaft wall which distributes the jacking force developed by the hydraulic jacking frame over a large surface area.
- xx) Thrust Ring: A fabricated ring that is mounted on the face of the jacking frame. It transfers the jacking load from the jacking frame to the thrust bearing area of the pipe section being jacked.
- yy) Trenchless Technology Equipment: Equipment used to install the casing or jacking pipe from the point of origin to the destination without the use of an open trench cut.
- zz) Tunnel Boring Machine (TBM): A controlled, steerable, guided tunnel boring machine consisting of an articulated shield with automated and mechanized excavation methods. Personnel entry into the TBM is required for the routine operation of the TBM.
- aaa) Unanticipated Returns: See inadvertent returns.
- bbb) Water Jetting: Cleansing mechanism of the cutterhead where high-pressure water, water at a pressure 10 psi or greater than the naturally occurring hydrostatic pressure, is sprayed from nozzles in the MTBM cutterhead to help remove cohesive soils.
- ccc) Watertight: Is less than 5 gallons per minute (GPM) of inflow from all sources.

### **306-9.1.6 Submittals.**

#### a) Preconstruction:

##### 1. Qualifications:

The Contractor shall have experience in constructing the proposed shaft and tunnel. Submit a copy of Cal/OSHA Annual Excavation Permit.

The Contractor shall have a California Professional Engineer (CA PE) experienced in shaft and tunnel designs prepare and seal all designs and design calculations.

The Contractor shall have a California licensed land surveyor (CA LS) skilled in underground surveying perform all surveys.

Experience shall be demonstrating previous experience on a project of similar depth, size, and length using similar construction materials and methods in ground of the same type. Submit an experience record that includes name of project, project owner and contact information, and sufficient details to determine similarity.

2. Safety:

Submit completed Cal/OSHA tunnel classification permit.

Submit Cal/OSHA Injury and Illness Prevention Program (IIPP) in compliance with the law and not for review.

3. Site: Submit drawings showing site lay down area with shaft footprint, shaft bottom arrangement, penetration of the shaft wall, and permanent works imposed within the shaft footprint.

4. Materials: Submit manufacturers' written recommendation for handling, installation, testing, and pre-printed material specifications (tear sheets) for all construction materials.

5. Shop Drawings:

Submit shaft design drawings including construction tolerances for member location, vertical nature, allowable deflection, tunnel penetration(s), and design calculations.

Submit tunnel initial ground support drawings including construction tolerances for member location, vertical nature, allowable deflection, and design calculations.

Shaft design and tunnel initial ground support to be signed and stamped by a CA PE.

6. Method statements:

Shaft construction method incorporating tunneling method and watertight requirement.

Launch procedure commencing with modifications to shaft shoring and ending when the tunnel has 20 feet of installed initial support system beyond shaft shoring.

Receiving procedure when the shield is within 10 feet of shaft shoring commencing with modifications to shaft shoring and ending with shield retrieved and initial support system complete.

Contact grouting procedure commencing with preparing batch and ending with flushing hoses at the end of each shift. Plan shall include safe grout injection pressure, communication, and recording of installation pressure and volume at each grout port.

Installation of carrier pipe to ensure proper mating of joints, line and grade control, and preventing damage to the carrier pipe.



Backfill grouting of carrier pipe in tunnel including bulkhead construction, method to prevent pipe from floating, backfill installation pressure, and heat of hydration mitigation. Submit calculations for:

Volume of backfill per lift.

Number of lifts.

Determining fluid pressure on carrier pipe during backfill operations ensuring a minimum factor of safety of 2.0.

Determining effects of heat of hydration on carrier pipe and ensuring a minimum factor of safety of 2.0.

Determining buoyancy of carrier pipe during backfill.

7. Contingency Plans:

The guidance plan shall include laser operational parameters observed, measured, and recorded to determine if the laser has moved or if heat distortion is affecting the guidance system.

The line and grade control plan shall include operational parameters observed, measured, and recorded to determine if the shield is off design line and/or grade. The plan shall include a return to the design line and/or grade over the remaining portion of the drive and at a rate of not more than 1-inch per 25 feet.

The jacking plan shall include operational parameters observed, measured, and recorded to determine if jacking force is increasing at a rate that would exceed Maximum Allowable Jacking Force or jacking force increase at a rate causing reasonable concern for completing the drive.

The jacking pipe failure plan shall include inspection, repair, and removal plans. Repair methods shall be acceptable to manufacturer and City.

The non-cohesive soils operational plan shall include operational modifications to prevent the uncontrolled entry of soils into the shield and controls acceptable to the City.

The groundwater control plan shall include the collection and removal of water from the tunnel and ground water entering from the face.

The encounter of a cemented lenticular concretion within the Ardath Shale. For estimating purposes the lenticular concretion is assumed to be 24-inch by 200-foot with an UCS of 20,000 psi.

The ground movement plan shall include replacing operators and operational modifications deemed important and acceptable to the City.

b) Construction. Submit sample logs for City's comment. Incorporate comments before collecting data and submitting records. All records are to be submitted no later than the day after the event.

1. Daily logs: Daily logs that describe project activities and concerns.

2. Excavation reports: Excavation reports shall have a header that identifies the project, contractor, date, start of shift, pipe number or station, shield operator, and end of shift. Readings shall be taken at regular intervals of approximately 3 feet and include:

- Time of reading
- Line and grade readings
- Steering adjustments
- Thrust force
- Instantaneous advancement rate
- Total advancement in feet
- Observed ground behavior
- Contact grouting or lubrication

3. Survey for line and grade cumulative record: Survey record shall have a header that identifies project, contractor, surveyor, and date. Survey record shall include all measurements and results of all measurements used for guidance. Survey shall also include verification measurements at all locations where prior measurements were recorded.
4. Guidance adjustments cumulative record: Contemporaneous log of all line and grade checks, resets, and adjustments shall be independent of the excavation reports. Guidance record shall have a header that identifies project, contractor, surveyor, and date. The record shall include:

- Date, time, pipe number or station, and person verifying and making adjustments

- Measurements from immediately before adjustment

- Measurements from immediately after adjustment

- Notice of any guidance offsets

- Notice if line and grade exceed

- Survey data if adjustment is performed based upon survey data

- Daily verification of design slope reading and person making verification

5. Survey for surface settlement. Survey record shall have a header that identifies project, contractor, surveyor, and date. Survey record shall be a cumulative record of all measurements.
6. Notices: Provide written notices within 1 working day of the event if verbal notice has been given. Otherwise provide written notice upon event.

c) Post construction:

1. Submit draft As-Built drawings and provide written responses to City's comments and questions
2. Submit final As-built drawings
3. Submit all specified documents for tunnel construction.

**306-9.1.7 Subsurface Conditions.** See Section 2-7.

**306-9.1.8 Site cleanup and Restoration.** The site shall be kept free of trash, debris, and inoperable equipment throughout construction. The site shall be restored to its preconstruction condition.

### **306-9.2 Materials.**

**306-9.2.1 Initial Ground Support.** The initial ground support system for tunnel shall be designed with a minimum factor of safety of 2.0:

- a) Jacking pipe shall provide a water tight joint and provide an annular space not greater than 1.0 inches and shall be contact grouted upon completion of the tunnel. Jacking pipe shall be designed to withstand the jacking forces required to complete the drive.
- b) Segmental liner shall provide a water tight joint between segments, be placed in intimate contact with the native soil and be contact grouted at the end of each shift and after not more than 20 feet of advancement. Segments shall be designed to withstand the jacking force.

### **306-9.2.2 Lubrication.**

- a) High yield sodium bentonite.
- b) Water shall be from a potable water source.
- c) All water shall be tested for pH and treated with soda ash, or approved equal, to adjust the pH of the water as required in the accepted mix design(s).
- d) Bentonite, polymers, and additives shall be NSF/ANSI Standard 060 or equal for clean water testing except for soda ash.

### **306-9.2.3 Contact Grout.**

- a) Grout mix (water/cement) ratios shall be expressed in cubic feet of water per cubic foot of cement (94 pound bag). The water-cement ratio by volume shall be varied as needed to fill the voids outside the jacking pipe. The range of water-cement ratios shall be between 1:1 and 2:1 by volume.
- b) Grout shall consist of Portland cement, not more than 2 percent bentonite by weight of cement, fluidizer as necessary, and water in the proportions specified herein or acceptable to the City. Sand may be added to the grout mix in instances of very high grout takes as approved by the City, but in no case shall the grout mix contain less than six sacks of cement per cubic yard of grout. The addition of sand may require the addition of water or fluidizer to the grout mix.
- c) Grout shall have a minimum unconfined compressive strength of 100 pounds per square inch (psi) in 24 hours, 1,000 psi in 7 days, and 1,500 psi in 28 days.

**306-9.2.4 Carrier Pipe.** Carrier pipe shall be manufactured specifically for use for raw sewage and shall be:

- a) Centrifugally Cast Fiberglass Reinforced Polymer Mortar (CCFRPM) ASTMs D3262, D4161, and D2412.

### **306-9.2.5 Backfill Grout.**

- a) Low density cellular concrete mix shall be designed in accordance with the requirements of this section and ACI 523.1.
- b) Minimum 7-day and 28-day compressive strength shall be 400 pound per square inch (psi) and 500 psi, respectively. Unless otherwise specified, each cellular concrete mix shall be designed and controlled within the following limits:
  - 1. As the point of placement, the wet density unit weight of the cellular concrete shall be not less than 55 pounds per cubic foot (pcf) and shall be within 5 pcf of the density of the approved cellular concrete mix.

2. Preformed foam shall be generated by combining controlled quantities of air, water, and foaming agent under pressure. Foam shall retain its stability until the cement sets to form a self-supporting matrix.
3. The concentration of foam agent shall be in accordance with the manufacturer's written recommendations.

### **306-9.3 Placement Requirements.**

#### **306-9.3.1 Tunnel Line and Grade.**

- a) Tunnel shall be excavated so that the carrier pipe can be installed as specified herein.
- b) Tunnel initial support system shall be constructed within 2.0 inches of design line and 1.0 inches of design grade.

### **306-9.4 Components.**

**306-9.4.1 Shield.** Shield shall provide full circumferential protection, incorporate guidance and steering, provide continuous protection to the initial support system, be capable of and accommodating face support, and provide for the safe excavation of the tunnel.

**306-9.4.2 Jacking Equipment.** Jacking system shall be capable of driving the tunnel to completion. If jacks are located in the shaft, ensure the shoring design incorporates reaction wall loads and that lubrication is used during pipe jacking. The jacking capacity shall exceed the Maximum Anticipated Jacking Force by at least 1.3 times.

**306-9.4.3 Excavation Controls.** Excavation method that is compatible with the ground and provides face support as specified herein.

**306-9.4.4 Spoils Transport System.** The spoils transportation method shall contain the spoils and prevent spillage.

**306-9.4.5 Guidance and Steering.** The guidance system shall provide for the installation of the carrier pipe to design within the specified tolerances.

### **306-9.5 Methods.**

**306-9.5.1 Preconstruction Site Assessment.** Contractor shall use pictures, survey, 3-D survey, and any additional methods to document the existing condition within the public right-of-way. The Contractor shall not enter private property outside the temporary construction easements.

**306-9.5.2 Shafts.** Vertical auger drilled shafts with grouted in-place corrugated metal pipe (CMP) or corrugated metal liner plate shafts that meet the following requirements:

- a) Design and construct watertight shafts based upon the geotechnical conditions, suitable for their intended purpose, accommodate existing structures, and minimize impacts to the community.
- b) Shafts shall have minimum factors of safety for resistance to basal uplift of 1.5 and sidewall failure of 2.0.
- c) Minimize the inflow of groundwater utilizing contact grouting, welding, and other appropriate methods.
- d) Shaft shall be equipped with a sump for collecting water and pumping the water out of the shaft.
- e) Removing and disposing of the water from inside the shaft shall conform to all permit requirements.

- f) Shaft shall be designed and constructed with a concrete base slab. The base slab, if constructed in accordance with the manhole foundation design, may be used for the placement of manholes.

**306-9.5.3 Tunneling.**

- a) Line and grade set-up shall be verified daily and as needed to ensure tunnel alignment.
- b) Tunnel shall be surveyed for line and grade, at a minimum of:
  - 1) Weekly
  - 2) Every 100 feet of advancement
  - 3) Include verification of previous survey points
- c) Provide written notice when line or grade attains 50 percent of allowable tolerance (1.0 inches of 2.0 inches).
- d) Provide written notice when line or grade attains 75 percent of allowable tolerance (1.5 inches of 2.0 inches).
- e) Stop tunneling when line and grade attains 100 percent of allowable tolerance (2.0 inches of 2.0 inches).

**306-9.5.4 Annular Space Grouting or Contact Grouting.**

- a) Contact grouting shall proceed from low end to high end without skipping over any grout port.
- b) Grout shall be injected at each port until grout flows from an open upstream port.
- c) No more than 3 upstream grout ports shall be open at any one time of which one shall be the next upstream port located at the tunnel crown.
- d) Contact grouting shall be pressurized to ensure filling of void and displacement of any water.
- e) Contact grouting pressure shall provide a minimum factor of safety of at least 2.0 below the initial support buckling pressure..

**306-9.5.5 Carrier Pipe Installation.**

- a) Carrier pipe joints shall be mated according to pipe manufacturer's written recommendations.
- b) Carrier pipe shall be installed according to pipe manufacturer's written recommendations.
- c) Carrier pipe can be:
  - Mounted and banded on dog-eared skids
  - Set on rails set to line and grade
  - Installed on a tunnel invert cast to grade

**306-9.5.6 Inspection and Testing.**

- a) Carrier pipe shall be inspected and tested before backfill grouting.
- b) Carrier pipe shall be inspected and tested after backfill grouting.

**306-9.5.7 Backfill Grout.**

- a) Bulkheads shall be constructed before backfill grouting commences for each lift.

- b) Backfill grouting shall be completed in lifts not exceeding the maximum pressure commensurate with a 36-inch grout lift unless a lower pressure is recommended by the grout manufacturer.
- c) Tunnel crown shall be completed in one lift.
- d) Submit calculations determining fluid pressure on carrier pipe during backfill operations ensuring a minimum factor of safety of 2.0.
- e) Submit calculations determining effects of heat of hydration on carrier pipe and ensuring a minimum factor of safety of 2.0.
- f) Submit calculations determining buoyancy of carrier pipe during backfill.
- g) Carrier pipe shall be filled with water before backfill grout contacts the carrier pipe.

**306-9.5.8 Environmental Controls. See Appendix A.**

**306-9.5.9 Construction Zone.** Contractor shall restrict all activities to the available work space. If additional work space is required the Contractor may acquire private space.

**306-9.5.10 Emergency Recovery Shafts.** Emergency Recovery Shaft shall be designed and constructed in accordance with the specifications. The Emergency Recovery Shaft location shall be acceptable to the City. The Emergency Recovery Shaft and its construction shall not block any sole entrance or exit from any property. The Emergency Recovery Shaft shall not be located above the tunnel but so located that the shield is pushed into the Emergency Recovery Shaft. No excavation shall take place within 5.0 feet of the shield without the City present.

**306-9.6 Measurement.**

- a) Manhole in shaft per Lump Sum for each manhole (Stations 18+00, 21+95, 26+82, 37+42, and 44+75).
- b) Sewer shall be measured from center of manhole station to center of manhole station.
- c) Emergency Recovery Shaft per negotiated lump sum.

**306-9.7 Payment.**

- a) Shafts with manholes shall be paid Lump Sum for each manhole. Cost shall include shoring, removal of spoils, removal of water, removal of shoring system upon work completion, and all work required for a properly functioning manhole.
- b) Sewer shall be paid per linear foot. Cost shall include surveying, excavation, shoring, removal and disposal of spoils, contact grouting, installation of carrier pipe, testing, backfill grouting, and all work required for the properly functioning gravity sewer.
- c) Emergency Recovery Shaft paid Lump Sum for all work required to construct a shaft at Station 25+00. Payment shall only be paid as required herein. This bid item shall be used as the basis for negotiating for the actual location and condition. Cost shall include:

4 weeks standby time

Shield recovery

Site restoration

Resumption of tunneling

**ADD: 306-13.2 Pipe Separations.** Pipe installation shall be in compliance with the State's health standards for separation and the following:

- a) The Contractor shall notify the Engineer immediately if sewer and water pipes, whether existing or proposed, are found to be closer than 4' horizontally or 1' vertically.
- b) When a proposed water main is installed above an existing sewer main, no connection joints shall be within 8' outside the sewer main crossing on both sides.
- c) When a proposed water main is installed below an existing sewer main, no connection joints shall be within 10' of the sewer main crossing on both sides.
- d) When a proposed sewer main is installed above an existing water main, no connection joints shall be within 10' outside the water main crossing on both sides.
- e) When a proposed sewer main is installed below an existing water main, no connection joints shall be within 4' outside the water main crossing on both sides.
- f) Dimensions shall be measured from outside pipe wall to outside pipe wall.
- g) If 1' vertical separation cannot be maintained between proposed and existing utilities, 6" – 11" sand cushion per 200-1.5, "Sand" and 1" neoprene pad shall be installed as shown on Plans. The neoprene pad shall be 1" thick and wide enough to extend a minimum of 6" horizontally beyond the outside pipe wall. Neoprene pads shall have hardness between 50-70 durometers, as manufactured by Hoffmeyer Company, Industrial Rubber Supply, or approved equal. The neoprene pad shall be installed immediately below or on top of the existing utility. The sand cushion shall be placed between the neoprene pad and the proposed pipe.

**306-13.3 Utility Crossings.** To the City Supplement, DELETE in its entirety.

**306-14 WATER SERVICES.** To The City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**ADD: 306-14 WATER SERVICES.** Each service shall have its own meter unless specified otherwise on the Plans. Water Services shall conform to 207-25, "POLYVINYL CHLORIDE (PVC) PRESSURE PIPE" and 207-26, "PIPE APPURTENANCES."

**ADD: PART 8 – ENVIRONMENTAL WORKS**

**SECTION 800 - REVEGETATION, MAINTENANCE, AND MONITORING**

**800-1.1 Terms and Responsibilities.** For the purpose of these specifications the following definitions and descriptions of the responsibilities shall apply:

**Project Biologist** – To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

An independent third party consultant employed by the Contractor and responsible for overseeing the protection of existing biological resources requirements and the entire revegetation program. The Project biologist shall not be the same as the Revegetation Contractor or Maintenance Contractor. Project Biologist shall review and become familiar with the Contract Documents and shall function under the direction of the Engineer. The Project Biologist shall be an individual or team of individuals with 4-year degree(s) in botany, ecology, landscape architecture. or a related field, and demonstrated experience in habitat restoration and shall be qualified to perform United States Fish and Wildlife Service protocol focused sensitive species surveys as outlined in the biological technical report, CEQA document, local, state and federal resource agency permits or a combination for the Project.

The Project Biologist may be hired by the City **if so specified in the Special Provisions.**

**Revegetation Contractor** - To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

The planting and plant establishment work shall be performed by a qualified Revegetation Contractor to implement the Revegetation Plan. Revegetation Contractor shall possess a landscape Contractor's and pesticide/herbicide license. The Revegetation Contractor shall demonstrate knowledge of native vegetation and invasive weed identification as a part of the Bid. The Revegetation Contractor shall implement the Revegetation Plan in accordance with recommendations provided by the Project Biologist and Engineer.

**800-1.7.1 General.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

The City will retain a qualified Project Biologist to perform biological monitoring work for this contract. The Contractor shall coordinate its activities and Schedule with the activities and schedules of the Biologist Monitor.

**800-1.8.5 Samples.** To the City Supplement, REVISE subsection number to "**800-1.8.10 Samples.**"

**800-1.8.6 Substitutions and Changes.** To the City Supplement, REVISE subsection number to "**800-1.8.11 Substitutions and Changes.**"

**800-2.1 General.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

When required in the Contract Documents, a licensed Revegetation Contractor shall be retained to perform landscape and revegetation work. The Contractor shall submit copies of the Revegetation Contractor's landscape contractor license and pesticide/herbicide license as noted in section 800-1.1 within 5 days of the Bid opening and show references for at least 3 successful native habitat revegetation projects of similar size and complexity in Southern California and provide a current reference for each. The submittals shall be sent to the City Project Manager.

If the proposed licensed Revegetation Contractor is not approved, the Contractor shall re-submit and obtain approval of an alternate licensed Revegetation Contractor at no additional cost to the City prior to the award of the Contract. Once approved, the licensed Revegetation Contractor shall attend the pre-construction meeting to present and coordinate the revegetation portion of the Project.

**800-3.1 Acoustician (Biological) Monitoring.** To the City Supplement, ADD the following:

Unless specified otherwise in the Contract Documents, the Contractor shall retain a qualified Acoustician approved by the City's Environmental Analysis Section (EAS) and Mitigation Monitoring and Coordination (MMC) staff. In addition to being approved by EAS/MMC, and within 5 working days of the bid opening, the Contractor must provide resume of the Acoustician as well as a list of 3 successful local projects the Acoustician completed in the last 5 years, and provide a current reference for each. The City shall verify the information provided and only qualified Acousticians shall be accepted. The Acoustician overseeing the work must be qualified to meet the City requirement by possessing a current noise engineer license or registration with monitoring noise level experience with listed animal species. The Acoustician shall attend the pre-construction meeting. The Acoustician shall confirm the project requirements by monitoring during construction activities as recommended by the Project Biologist and MMC, and shall recommend mitigation strategies, and prepare qualified plans or reports per Contract Appendices.

Unless included in the payment for the proposed item of Work e.g., utility main, the full compensation for Acoustician monitoring program, as prescribed in Contract Appendices, shall be included as part of the contract Bid item for Acoustician (Biological) Monitoring.



If a resource (animal species) is identified by the Project Biologist, the Contractor's Acoustician shall make a determination as to whether work in the area must cease or can continue. The time the Contractor waits for this determination from their Acoustician cannot be claimed as delay time.

The Contractor shall coordinate its activities and Schedule with the activities and schedules of the Acoustician. The Contractor shall notify the Engineer before noon of the working day before monitoring is required. See 2-11, "INSPECTION" for details.

**800-3.2 Acoustician (Biological) Mitigation.** To the City Supplement, ADD the following:

In the event a resource (animal species) is identified by the Project Biologist, foreseen or unforeseen and after consultation with MMC staff, the Contractor shall implement a mitigation program as set forth in Contract Appendices. In accordance with the Mitigation and Monitoring Reporting Program, the mitigation program shall include but not be limited to providing materials and implementing noise mitigation measures (e.g. noise attenuation barriers, etc) pursuant to the City's Biology Guidelines. The Acoustician shall make written observations about the activities as well as provide recommendations about all related mitigation activities.

Work for mitigation shall be paid from the Allowance Bid item for Acoustician (Biological) Monitoring. The Contractor shall provide the Engineer with invoices for the Work performed, including the invoice from the Acoustician in the format shown in the attached Appendix, and be reimbursed from the amount allocated.

## **SECTION 801 – WATER POLLUTION CONTROL**

**801-2.9 Post-Construction Requirements.** To the City Supplement second paragraph, ADD the following:

The decal-disc inlet markers shall be "das Duracast Curb Marker®" or approved equal.

ADD the following:

The Contractor shall comply with the following post-construction requirements:

Inlet Markers.

**801-9.3 BMP Requirements.** To the City Supplement, ADD the following:

- c) WTAP shall be required when the Project exceeds the Maximum Disturbed Area Requirements unless the grading Work is performed in phases that do not exceed the limit shown on the Plans per phase.

## **SECTION 803 – ENCOUNTERING OR RELEASING HAZARDOUS SUBSTANCES**

### **803-3 DEFINITIONS.**

**Petroleum Contaminated Soil Disposal and Recycling Facility.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**Petroleum Contaminated Soil Disposal and Recycling Facility** – A recycling or disposal facility which has as a minimum a valid California regional water quality control board permit including Waste Discharge Requirements (DWRs) and air emission permit to receive specific petroleum contaminated soils for processing, bioremediation, recycling, alternative fuel, or disposal. If a facility is chosen that is located outside of California, the receiving TSDF facility shall be equally permitted and regulated in that state as the TSDF accepting that same waste would be regulated in California.

**TSDF.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**TSDF** - a Hazardous Waste transfer, treatment, storage, or disposal facility which has received a California Department of Toxic Substances Control permit, a grant of interim status, or a variance or is otherwise authorized by California law and regulations to receive specific RCRA and/or Non-RCRA hazardous wastes for processing, recycling, alternative fuel, or disposal. The TSDF is regulated by other California regulatory agencies for storm water compliance, air emissions, and fire codes, as applicable. . If a facility is chosen that is located outside of California, the receiving TSDF facility shall be equally permitted and regulated in that state as the TSDF accepting that same waste would be regulated in California.

**803-12 ENCOUNTERING CONTAMINATED SOIL.** To the City Supplement ADD the following:

The Project is located within 1000 feet of areas identified as potentially contaminated. Potential contaminant of concern is gasoline. Information regarding previously mitigated sites can be found at

<http://www.geotracker.swrcb.ca.gov>.

**803-16 PAYMENT.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Payment for waste management shall be included in the applicable Bid items as follows:

- a) Preparation of Hazardous Waste Management Plan and Reporting (LS).
- b) Monitoring, Testing, Sampling, Site Storage, and Handling of Soils Containing RCRA Hazardous Waste (TON).
- c) Loading, Transportation, and Disposal of soils containing RCRA Hazardous Waste (TON).
- d) Monitoring, Testing, Sampling, Site Storage and Handling of Petroleum Contaminated Soil (TON).
- e) Loading, Transportation, and Disposal of Petroleum Contaminated Soil (TON).
- f) Monitoring, Testing, Sampling Site Storage and Handling of Soils Containing Non-RCRA Hazardous Waste (TON).
- g) Loading, Transportation, and Disposal of Soils Containing Non-RCRA Hazardous Waste (TON).
- h) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of Containerized RCRA Hazardous Waste (55 Gal DRUMS).
- i) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of Containerized Non-RCRA Hazardous Waste (55 Gal DRUMS).
- j) Testing, Sampling, Site Storage, Handling, Transportation and Recycling/Disposal of Universal Waste (EACH).
- k) Testing, Sampling, Site Storage, Handling, Transportation and Recycling/Disposal of Regulated Waste (TON).
- l) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of RCRA Hazardous Waste contamination from the treatment of contaminated ground water (GAL).
- m) Testing, Sampling, Site Storage, Handling, Transportation, and Disposal of Non-RCRA Hazardous Waste contamination from the treatment of contaminated ground water (GAL).

Shorter testing time and availability of preliminary results may be required by the Engineer and paid as Extra Work.

## SECTION 804 – SEWAGE SPILL PREVENTION

To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

**804-1 GENERAL.** The Contractor shall observe and comply with the City’s policy of zero spills. **The Contractor shall be liable for all damages and fines associated with sewage spills caused by improper support or damage to the existing sewer facilities.**

The Contractor shall designate a person responsible for the development and enforcement of the Sewage Spill Response Plan, and for ensuring sewer spills are minimized to the maximum extent possible. The Contractor shall provide a status of all bypass related work at biweekly progress meetings as requested by the City.

**804-2 SEWAGE SPILL PREVENTION AND RESPONSE PLAN.** Prior to the start of construction, the Contractor shall develop and submit to the Engineer, for review and approval, a written Sewage Spill Prevention and Response Plan. The plan shall include sewage spill response plan, spill containment and cleanup plan, staging area, and sewage bypass and pumping plan.

The Sewage Spill Prevention and Response Plan shall be developed to respond to any construction related sewage spill(s). The plan shall include:

- a) Identifying all nearby environmentally-sensitive areas such as waterways, channels, catch basins and entrances to existing underground storm drains.
- b) Making arrangements for an emergency response unit, stationed at or near the Site, comprised of emergency response equipment and trained personnel to be immediately dispatched in the event of a sewage spill(s). This includes field biologists, archaeologists, or both if in an environmentally-sensitive area such as a canyon.
- c) Developing an emergency notification procedure that includes an emergency response team with telephone numbers and arrangements for backup personnel and equipment. The emergency response unit shall be able to dispatch to the Site 24 hours a day 7 days a week including weekends and holidays. The Contractor shall designate primary and secondary representatives, their respective phone numbers, pager numbers, and mobile phone numbers. These Contractor’s representatives shall be accessible and available at all times to respond immediately to any sewer spill event.
- d) Identifying any property owners who may be affected e.g., the City Park and Recreation Department.

At the pre-construction meeting the Contractor will be provided with a list of the City representatives to contact in case of sewage spill(s). In case of a sewage spill(s), the Contractor shall immediately call the Sewage Spill Hotline number at (619) 527-5481 and shall act immediately without instructions from the City, to control the spill and take all appropriate steps to contain it in accordance with the Sewage Spill Prevention and Response Plan and 804-2.1, “Sewage Bypass and Pumping Plan.” The Contractor shall immediately notify the City representatives of the spill and shall report Project name, location, Contractor name, Project Engineer, and Engineer names.

The Contractor shall, within 3 Working Days from the occurrence of the spill, submit to the Engineer a written report describing the following information related to the spill: the location; the nature and estimated volume; the date and time; the duration; the cause; the type of remedial and/or clean up measures taken (including erosion control measures) and the date and time of implementation; the corrective and/or preventive actions taken to avoid further spills; equipment used in spill response; and the environmentally-sensitive habitat such as a water body, if any, impacted and results of any necessary monitoring. The Contractor shall provide a list of who from the City was notified, date and time of notification, date and time the Contractor was notified of the spill, date and time the Contractor arrived on Site.

The Engineer may institute further corrective actions, as deemed necessary, to fully comply with existing laws, ordinances, codes, order or other pertinent regulations. In addition to any penalties provided by federal, state, and local laws, the Contractor shall be responsible for all costs incurred for the corrective actions including mitigation measures (habitat restoration, etc.) and obtaining after-the-fact permits if necessary, in environmentally sensitive areas. These permits include but are not limited to those from the City Planning Department Development Services, California Coastal Commission, U.S. Army Corps of Engineers and the California Department of Fish and Game.

It shall be the Contractor's responsibility to assure that all field forces, including Subcontractors, know and obey all safety and emergency procedures, including the Sewage Spill Prevention and Response Plan applicable to the work, to be maintained and followed at the Site. If in an environmentally sensitive area, such as canyon, stream, or lagoon, impacts shall be minimized. Crews shall be aware at the start of the job of any sensitive environmental habitats, breeding season restrictions, etc.

The Contractor shall prevent spills when working on sewer lines, such as when making temporary connection, when connecting new lines into the sewer system, ensuring no laterals are connected to mains being abandoned, ensuring diversions are appropriately installed, and diversions are completely removed when finished so there are no blockages. The Contractor shall not trap debris and discharge rock or debris downstream. Avoidance of streams is paramount unless authorized via permits.

The Contractor shall defend, indemnify, protect, and hold harmless the City, its agents, officers, and employees, from and against all claims asserted, or liability established for damages or injuries to any person or property resulting from any sewage spill caused or claimed to be caused by the Contractor's action or failure to take measures to prevent a spill. **The Contractor shall be responsible for payment of any fines assessed against the City for such sewage spills.** The Contractor's duty to indemnify and hold harmless shall not include any claims or liability arising from the established active or sole negligence or willful misconduct of the City, its agents, officers or employees.

The Contractor shall obtain and maintain an additional insurance coverage for Pollution Liability with its limits and requirements as set forth in 7-3.5.3, "Contractors Pollution Liability Insurance Endorsements." The limits and requirements for Pollution Liability shall be in an amount sufficient to cover potential losses from sudden and accidental pollution. Unless otherwise provided for in the Bid Proposal, all costs associated with the requirements for Sewage Spill Prevention and Response Plan, including additional insurance, shall be included in the prices for other related Bid items.

**804-2.1 Sewage Bypass and Pumping Plan.** The Contractor shall submit to the Engineer for approval, a Sewage Bypass and Pumping Plan at least 15 Working Days prior to implementation of flow diversion in compliance with the City's policy of "ZERO SPILLS." The Sewage Bypass and Pumping Plan shall indicate the sequence of diversion operations, all other operations the Contractor will establish to maintain wastewater service during the construction period, and a quality assurance and quality control plan for the diversion Work. The Sewage Bypass and Pumping Plan shall include an emergency response plan indicating the procedures, equipment, and activities that will be implemented in the event of an emergency shutdown or failure of the flow diversion equipment used for construction. The Contractor shall be responsible for implementation of the emergency plan in accordance with 804-2 "Sewage Spill Prevention and Response Plan".

The Contractor's Sewage Bypass and Pumping Plan shall be reviewed and approved by the Wastewater Collection Division of the City before flow can be diverted. No deviation from the approved Sewage Bypass and Pumping Plan will be allowed without prior approval from the Engineer.

The Contractor shall observe and comply with all Federal, State, and local laws, ordinances, codes, orders, and regulations which in any manner affect the conduct of the work, specifically as it relates to sewage spills. The Contractor shall be fully responsible for preventing sewage spill(s), containing any sewage spill(s), recovery and legal disposal of any spilled sewage, any fines, penalties, claims and liability arising from negligently causing a sewage spill(s), and any violation of any law, ordinance, code, order, or regulation as a result of the spill(s).

The Contractor shall exercise care not to damage existing public and private improvements, interrupt existing services or facility operations which may cause a sewage spill(s). Any reasonably anticipated utility or improvement which is damaged by the Contractor shall be immediately repaired at the expense of the Contractor. In the event that the Contractor damages an existing utility or interrupts an existing service, which causes a sewage spill(s), the Contractor shall immediately call the emergency number at (619) 515-3525.

The Contractor shall exercise care not to damage any sensitive habitats or historic resources unless authorized via the discretionary permit and Mitigation, Monitoring and Reporting Program approved by the City.

The Contractor shall provide all facilities, labor, power, and appurtenances necessary to divert wastewater flows as necessary to allow proper installation of the pipeline and/or manhole linings.

The Contractor shall submit as part of their Sewage Bypass and Pumping Plan their monitoring procedure and frequency and shall continuously monitor the flow levels downstream and upstream of the flow diversion to detect any possible failure that may cause a sewage backup and spill(s). The Contractor shall maintain a log of the monitoring and provide daily copies to the Engineer in a manner acceptable to the Engineer.

The Contractor shall inspect and maintain the diversion system daily, including the back-up system. The Contractor shall submit with their Sewage Bypass and Pumping Plan their maintenance procedures and frequency. The Contractor shall maintain a log of all inspection, maintenance and repair records, and provide copies to the Engineer upon request in a manner acceptable to the Engineer.

The Contractor shall size the flow diversion system to handle the peak flow and shall include a 100% backup in the flow diversion system. The Contractor shall provide temporary means to maintain and handle the sewage flow in the existing system as required to complete the necessary construction. The Contractor shall utilize the flow diversion system to mitigate any additional wet weather flows, perform the necessary maintenance and repairs on the flow diversion system, and exercise and ensure the operation of the backup system. Each pump, including the backup pumps, shall be a complete unit with its own suction and discharge piping. The Contractor shall operate the backup flow diversion system for a minimum of 25% of the total diversion time on a weekly basis. The backup flow diversion system shall be fully installed, operational, and ready for immediate use. The diversion system shall be hydraulically tested with clean water prior to wastewater flow diversion. The Contractor shall demonstrate to the satisfaction of the Engineer that both the primary and backup flow diversion systems are fully functional and adequate, and shall certify the same, in writing, to the Engineer in a manner acceptable to the Engineer.

The Contractor shall provide one dedicated fuel tank for every single pump or generator, if fuel or generator driven pumps are used. The Contractor shall provide an emergency standby power generator, if electric power driven pumps are used. The Contractor shall provide a fuel level indicator outside each fuel tank. The Contractor shall continuously (while in use) monitor the fuel level in the tanks and ensure that the fuel level does not drop below a level equivalent of two hours of continuous flow diversion system operation. The Contractor shall take the necessary measures to ensure the fuel supply is protected against contamination. This includes but is not limited to fuel line water traps, fuel line filters, and protecting fuel stores from precipitation. The Contractor shall monitor all hoses and repair leaks immediately.

**804-2.2 Payment** Unless a Bid item has been provided, full compensation for the Sewage Bypass and Pumping Plan, its implementation e.g., labor, facilities, equipments, power, appurtenances and incidental, shall be included in the payment for sewer main.

### **SECTION 805 – WATER DISCHARGES**

**805-2.7 Payment.** To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Payment for dewatering will be made as follows:

- a) The Allowance Bid item for Permit and Discharge Fees shall cover the payment for fees and the associated expenses e.g., water samples and lab testing for obtaining permits.
- b) The payment for dewatering contaminated water containing hazardous substances and to bring the discharged water to the level that is in compliance with the permitting agencies' requirements and water quality standards will be included in the Allowance Bid item for "Dewatering Hazardous Contaminated Water."
- c) The payment for dewatering contaminated water containing non-hazardous substances will be included in the Lump Sum Bid item for "Dewatering Non-Hazardous Contaminated Water."
- d) For the payment for handling and disposal of the hazardous contamination, see 803-16 (l),(m), "Payment."
- e) The payment for preparing health and safety plan shall be included in the various Bid items unless a Bid Item has been provided.

### **SECTION 807 – RESOURCE DISCOVERIES**

**ADD: 807-1.1 Environmental Document.** The City of San Diego Environmental Analysis Section (EAS) of the Development Services Department has prepared MITIGATED NEGATIVE DECLARATION for **BALBOA TERRACE TRUNK SEWER**, DEP No. 235971, as referenced in the Contract Appendix. The Contractor shall comply with all requirements of the MITIGATED NEGATIVE DECLARATION as set forth in Contract Appendix.

Unless a separate Bid item has been provided for compliance with the City's prepared environmental document e.g., MMRP, payment shall be included in the various Bid items.

**807-1.3 Paleontological Monitoring Program.** To the City Supplement, DELETE in its entirety and SUBSTITUTE within the following:

Unless specified otherwise in the Contract Documents, the Contractor shall retain a qualified paleontologist approved by EAS. In addition to being approved by EAS, and within 5 working days of the bid opening, the Contractor must provide a list of 3 successful local projects the archaeologist completed in the last 5 years, and provide a current reference for each. The City shall verify the information provided and only qualified monitors shall be accepted. The paleontologist shall attend the pre-construction meeting. The areas shown on the Plans subject to monitoring are approximate. The paleontologist shall confirm the sites and implement the required monitoring in Contract Appendices.

Unless included in the payment for the proposed item of Work e.g., utility main, the full compensation for paleontological monitoring program and report preparation, as prescribed in Contract Appendices, shall be included in the Contract Bid item for paleontological monitoring program.

If a discovery is made, the Contractor's paleontological monitor shall make a determination as to whether excavation in the area must cease or can continue. The time the Contractor waits for this determination from their monitor cannot be claimed as delay time.

In the event of a significant discovery, and if no bid item for Paleontological Mitigation and Excavation is included in the Contract, the Contractor shall be entitled to additional compensation in accordance with 3-3, "Extra Work," for implementation of a Mitigation Program as set forth in Contract Appendices.

**END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)**

**APPENDIX A**

**Mitigated Negative Declaration / Site Development Permit**





THE CITY OF SAN DIEGO

DEVELOPMENT SERVICES DEPARTMENT

Date of Notice: 1/13/2012

PUBLIC NOTICE OF A

Draft Mitigated Negative Declaration

WBS# B-00478.02.06

The City of San Diego Entitlements Division has prepared a draft Mitigated Negative Declaration for the following project and is inviting your comments regarding the adequacy of the document. **Your comments must be received by 2/13/12 to be included in the final document considered by the decision-making authorities.** Please send your written comments to the following address: **Jeffrey Szymanski, Environmental Planner, City of San Diego Development Services Center, 1222 First Avenue, MS 501, San Diego, CA 92101** or e-mail your comments to [DSDEAS@sandiego.gov](mailto:DSDEAS@sandiego.gov) with the Project Number in the subject line.

**General Project Information:** Project No. 235917, Community Plan Clairemont Mesa Council District: 6

**SUBJECT:** Balboa Terrace Trunk Sewer SITE DEVELOPMENT PERMIT (SDP) to allow for the replacement and/or re-alignment of approximately 5,031 linear feet (LF) or (0.95 miles) of sewer main pipelines (Figure 2A). Existing 8-inch to 18-inch vitrified clay sewer pipes would be replaced with 8-inch and 21-inch polyvinyl chloride (PVC) pipe and centrifugally cast-fiberglass reinforced-polymer mortar (CCFRPM) pipe. Approximately 4,431 LF of the sewer pipelines would be located in new trench alignment at approximately 7 to 51 feet deep and 600 LF of sewer pipe would be in the same trench at a shallower depth of 12 to 21 feet deep. Approximately 3,373 LF of pipe installation work would be performed by conventional excavation (open trench) method, and 1,662 LF of pipe installation would be performed by tunneling method.

**Applicant:** City of San Diego, Engineering and Capital Projects Department, Right-of-Way Design Division.

**Recommended Finding:** The recommended finding that the project will not have a significant effect on the environment is based on an Initial Study and project revisions/conditions which now mitigate potentially significant environmental impacts in the following area(s): **Biological and Cultural Resources (Paleontology)**

**Availability in Alternative Format:** To request this Notice, the Draft Mitigated Negative Declaration, and/or supporting documents in alternative format, call the Development Services Department at 619-446-5349 or (800) 735-2929 (TEXT TELEPHONE).

**Additional Information:** For environmental review information, contact Jeffrey Szymanski at (619) 446-5324. The draft Mitigated Negative Declaration, and supporting documents may be reviewed, or purchased for the cost of reproduction, at the Fifth floor of the Development Services Center. For information regarding public meetings/hearings on this project, contact Project Manager Carrie Purcell at (619) 533-5124. This notice was published in the SAN DIEGO DAILY TRANSCRIPT, placed on the City of San Diego web-site (<http://clerkdoc.sannet.gov/Website/publicnotice/pubnotceqa.html>), and distributed on 1/13/2012.

Cecilia Gallardo, Deputy Director  
Development Services Department



## MITIGATED NEGATIVE DECLARATION

Project No. 235917  
SCH No. Pending

**SUBJECT: Balboa Terrace Trunk Sewer:** SITE DEVELOPMENT PERMIT (SDP) to allow for the replacement and/or re-alignment of approximately 5,031 linear feet (LF) or (0.95 miles) of sewer main pipelines (Figure 2A). Existing 8-inch to 18-inch vitrified clay sewer pipes would be replaced with 8-inch and 21-inch polyvinyl chloride (PVC) pipe and centrifugally cast-fiberglass reinforced-polymer mortar (CCFRPM) pipe. Approximately 4,431 LF of the sewer pipelines would be located in new trench alignment at approximately 7 to 51 feet deep and 600 LF of sewer pipe would be in the same trench at a shallower depth of 12 to 21 feet deep. Approximately 3,373 LF of pipe installation work would be performed by conventional excavation (open trench) method, and 1,662 LF of pipe installation would be performed by tunneling method.

Approximately five (5) work areas for tunneling activity are needed, with the largest two (2) in the canyon to be approximately 75 feet by 80 feet (approximately 6,000 square feet) next to MH 141 adjacent to the northern terminus of the private condominium driveway, and next to MH 170 in the canyon would be approximately 65 feet by 110 feet (approximately 7,150 square feet). The other three (3) work areas would be similarly dimensioned however these occur in non sensitive (paved or disturbed) areas. Within each of the five (5) work areas, launch/receiver pits would be necessary, as well as one (1) additional stand-alone pit for the installation of the below-ground structure at MH 509 in order to connect to the existing 72 inch main interceptor located west of Morena Boulevard. Each pit would measure approximately 20 feet by 20 feet. In addition, approximately 2,710 LF of sewer main would be abandoned in place utilizing slurry or grout that would be injected or piped into abandoned segments including: 630 LF of 18-inch sewer main that exists in a 70-inch storm drain, 730 LF within the drainage channel, and 1,350 LF in the developed areas within and south of the condominium complex. The associated work within the drainage channel would be done manually or in a similar sensitive method and the five (5) MHs to be removed would each create an approximate 5-foot radius temporary impact area that would be returned to its natural state following abandonment.

Construction equipment access within the canyon from Idlewild Way to reach manhole 170 would utilize approximately 5,200 LF of an existing 8-foot wide access path that would temporarily be widened to 12 feet by adding 4 feet on the down-slope side of the path. The access path was approved by Substantial Conformance Review (SCR) Project

No. 98156 for Stevenson Canyon in conformance with the Master Canyon Sewer Cleaning and Maintenance Programmatic EIR (LDR 42-0077) on September 8, 2006. The existing path would also be utilized for related abandonment activity as necessary. Staging would occur within the project impact work areas and corridors, on improved streets, in the dirt portion of the City lot south of Balboa Avenue and west of Morena Boulevard, or in other non-sensitive areas. A Right of Entry (ROE) permit would be required for any work within City owned Open Space.

Included in the scope of work are new installations of manholes, diversion structures, sewer laterals, curb ramps, installation of various other appurtenances as necessary, as well as street slurry seal and asphalt concrete overlay applications, and traffic control measures. Construction stormwater Best Management Practices (BMPs) would be implemented in order to reduce pollutant runoff. Post construction revegetation would provide long term erosion control for the impact areas as shown on the revegetation plan (Figure 2B) in conformance with the City's Landscape Regulations.

This project conforms to Council Policy 400-13 in that the minimum impacts are proposed in order to complete the project. A redirection of flow analysis was conducted in accordance with Council Policy 400-14 which determined that the cost to re-align the entire or portions of the sewer outside of the canyon greatly exceeded the 35 percent cost differential needed. Therefore, the trenchless and open trench methodology within the canyon is being implemented.

Construction of the project would affect portions of vacant City owned lot located southwest of Balboa Avenue and Morena Boulevard, Balboa Avenue, Balboa Terrace, and utility easements located in southern Stevenson Canyon (Open Space) and Canyon Haven Condominium complex all within the Clairemont Mesa Community Planning area. Applicant: City of San Diego, Public Works Department-Engineering and Capital Projects, Right of Way Design Division.

- 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): Biological Resources and Paleontology. The project requires implementation of specific mitigation identified in Section V of this Mitigated Negative Declaration (MND). The project as presented now avoids or mitigates the potentially significant environmental effects identified and the preparation of an Environmental Impact Report (EIR) would not be required.

- IV. DOCUMENTATION:

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

- V. MITIGATION, MONITORING AND REPORTING PROGRAM (MMRP):



**A. GENERAL REQUIREMENTS – PART I**

**Plan Check Phase (prior to permit issuance)**

1. Prior to Bid Opening/Bid Award 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 have been incorporated.
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.

**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:

**Biologist and Paleontologist**

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) No. 235917, shall conform to the mitigation requirements contained in the associated Environmental Document and implemented to the satisfaction of the DSD's ED, 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 that any other agency requirements or permits have been obtained or are in process 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.

**California Department of Fish and Game (CDFG) - Streambed Alteration Permit, Regional Water Quality Control Board (RWQCB) - 401 Water Quality Certificate, and Army Corps of Engineers (ACOE) - preconstruction notification.**

- 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.
- 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**

<i>Issue Area</i>	<i>Document submittal</i>	<i>Associated Inspection/Approvals/Note</i>
General	Consultant Qualification Letters meeting	Prior to Pre-construction
General	Consultant Const. Monitoring	Prior to or at the Pre-Construction meeting
Biology	Biology Reports	Limit of Work Verification
Paleontology	Paleontology Reports	Paleontology observation
Final MMRP		Final MMRP Inspection

## SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS:

**A BIOLOGICAL RESOURCES**

- I. Prior to the Notice to Proceed, which will be sent to DSD, the ADD Environmental Designee of the Entitlements Division shall verify that the following conditions have occurred to mitigate direct impacts to 0.354 acres of Tier II Diegan coastal sage scrub habitat (CSS) and 0.250 acres of wetland community habitat that includes 0.064 acres Southern Willow Scrub (SWS), 0.040 acres Freshwater Marsh (FWM), 0.003 acres Oak Riparian Woodland (ORW), 0.022 acres Mule Fat Scrub (MFS), 0.107 acres disturbed wetland, and 0.014 acres open channel.
- a. In order to mitigate for the impacts to uplands the applicant would be required to obtain mitigation credits of 0.354 acres of Tier II habitat to satisfy the 1:1 mitigation ratio within the MHPA at the Marron Valley Cornerstone Lands site; **OR** provide verification that the payment into the City's Habitat Acquisition Fund (HAF) has occurred and would equal 0.354 acres of HAF payment for the project at the current per-acre contribution amount to satisfy the 1:1 mitigation ratio within the MHPA. The HAF collects and allocates funds for the purchase and conservation of lands within the City's MHPA.
  - b. The applicant shall purchase 0.2515 acres of wetland creation credits (0.064 acres Southern Willow Scrub, 0.04 acres Freshwater Marsh, 0.0045 acres oak riparian woodland, 0.022 acres Mule Fat Scrub, 0.107 acres wetlands, and 0.014 acres open channel) at either the San Clemente and/or Rose Canyon sites and 0.2515 acres of wetland enhancement credits (0.064 acres Southern Willow Scrub, 0.04 acres Freshwater Marsh, 0.0045 acres oak riparian woodland, 0.022 acres Mule Fat Scrub, 0.107 acres wetlands, and 0.014 acres open channel) at either the San Clemente and/or Rose Canyon sites. The total purchase of 0.503 acres of wetland credits for wetland vegetation communities (0.128 acres Southern Willow Scrub, 0.080 acres Freshwater Marsh, 0.009 acres oak riparian woodland, 0.044 acres Mule Fat Scrub, 0.214 acres wetlands, and 0.028 acres open channel) will satisfy the required mitigation ratios of 2:1 for Southern Willow Scrub, Freshwater Marsh, Mule Fat Scrub, wetlands, and open channel, as well as 3:1 for Oak Riparian Woodland impacts.

## Letters of Qualification Have Been Submitted to ADD

1. The applicant shall submit, for approval, a letter verifying the qualifications of the biological professional to MMC. This letter shall identify the Principal Qualified Biologist (PQB) and Qualified Biological Monitor (QBM) and the names of all other persons involved in the implementation of the biological monitoring program, as they are defined in the City of San Diego Biological Review References. Resumes and the biology worksheet should be updated annually.
2. MMC will provide a letter to the applicant confirming the qualifications of the PQB /QBM and all City Approved persons involved in the biological 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 biological monitoring of the project.
4. PBQ must also submit evidence to MMC that the PQB/QBM has completed Storm Water Pollution Prevention Program (SWPPP) training.

## II. Prior to Start of Construction

### A. PQB Shall Attend Preconstruction (Precon) Meetings

1. Prior to beginning any work that requires monitoring:
  - a. The owner/permittee or their authorized representative shall arrange and perform a Precon Meeting that shall include the PQB, Construction Manager (CM) and/or Grading Contractor (GC), Landscape Architect (LA), Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC.
  - b. The PQB shall also attend any other grading/excavation related Precon Meetings to make comments and/or suggestions concerning the biological monitoring program.
  - c. If the PQB is unable to attend the Precon Meeting, the owner shall schedule a focused Precon Meeting with MMC, PQB, CM, BI, LA, RIC, RMC, RE and/or BI, if appropriate, prior to the start of any work associated with the revegetation/ restoration phase of the project, including site grading preparation.
2. When Biological Monitoring Will Occur
  - a. Prior to the start of any work, the PQB shall also submit a monitoring procedures schedule to MMC and the RE indicating when and where biological monitoring and related activities will occur.
3. PQB Shall Contact MMC to Request Modification
  - a. The PQB 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 other sensitive species not listed by federal and/or state agencies and/or not covered by the MSCP and to which any impacts may be considered significant under CEQA) which may reduce or increase the potential for biological resources to be present.
4. Prior to the start of any work, the PQB shall survey 100 percent of the precise "limits of disturbance" (including ingress, egress, and all staging areas) for narrow endemic plant species and other special status plants, including Willowy mondardella, San Diego thorn-mint, and other species known to occur or with potential to occur in harm's way. If identified during the survey, the PBQ shall coordinate with the Resident Engineer who has the authority to temporarily halt or redirect construction activities to less environmentally sensitive areas along the pipeline corridor so that appropriate mitigation measures are implemented, as approved by the City, to avoid direct or indirect impacts to special status species.

### III. During Construction

#### A. PQB or QBM Present During Construction/Grading/Planting

1. The PQB or QBM shall be present full-time during construction activities including but not limited to, site preparation, cleaning, grading, and excavation, in association with the construction of the project which could result in impacts to sensitive biological resources as identified in the LCD and on the RRME. **The QBM is responsible for notifying the PQB of changes to any approved construction plans, procedures, and/or activities. The PQB is responsible to notify MMC of the changes.**
2. The PQB or QBM shall document field activity via the Consultant Site Visit Record Forms (CSVSR). The CSVSR's shall be faxed by the CM the first day of monitoring, the last day of monitoring, monthly, and in the event that there is a deviation from conditions identified within the LCD and/or biological monitoring program. The RE shall forward copies to MMC.
3. The PQB or QBM shall be responsible for maintaining and submitting the CSVSR at the time that CM responsibilities end (i.e., upon the completion of construction activity other than that of associated with biology).
4. All construction activities (including staging areas) shall be restricted to the development areas. The PQB or QBM staff shall monitor construction activities as needed, with MMC concurrence on method and schedule. This is to ensure that construction activities do not encroach into biologically sensitive areas beyond the limits of disturbance.
5. The PQB or QBM shall supervise the placement of orange construction fencing or City approved equivalent, along the limits of potential disturbance adjacent to (or at the edge of) all sensitive habitats.
6. The PQB shall provide a letter to MMC that limits of potential disturbance has been surveyed, staked and that the construction fencing is installed properly
7. The PQB or QBM shall oversee implementation of BMP's, such as gravel bags, straw logs, silt fences or equivalent erosion control measures, as needed to ensure prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible to verify the removal of all temporary construction BMP's upon completion of construction activities. Removal of temporary construction BMP's shall be verified in writing on the final construction phase CSVSR.
8. PQB shall verify in writing on the CSVSR's that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking or other construction related activities shall occur adjacent to sensitive habitat. These activities shall occur only within the designated staging area located outside the area defined as biological sensitive area.
9. The project would implement protection measures such as orange construction fencing for areas of impact, as well as sensitive access with hand-carried or machine tools, etc where required for manhole abandonment. In addition, the project biologist will monitor all construction through the end of revegetation to ensure project scope compliance, and to minimize impacts to sensitive resources where feasible based on the biological assessment and in-field conditions.



**B. Disturbance/Discovery Notification Process**

1. If unauthorized disturbances occurs or sensitive biological resources are discovered that were not previously identified, the PQB or QBM shall direct the contractor to temporarily divert construction in the area of disturbance or discovery and immediately notify the RE or BI, as appropriate.
2. The PQB shall also immediately notify MMC by telephone of the disturbance and report the nature and extent of the disturbance and recommend the method of additional protection, such as fencing and appropriate Best Management Practices (BMP's). After obtaining concurrence with MMC and the RE, PQB and CM shall install the approved protection and agreement on BMP's.
3. The PQB shall also submit written documentation of the disturbance to MMC within 24 hours by fax or email with photos of the resource in context (e.g., show adjacent vegetation).

**C. Determination of Significance**

1. The PQB shall evaluate the significance of disturbance and/or discovered biological resource and provide a detailed analysis and recommendation in a letter report with the appropriate photo documentation to MMC to obtain concurrence and formulate a plan of action which can include fines, fees, and supplemental mitigation costs.
2. MMC shall review this letter report and provide the RE with MMC's recommendations and procedures.

**IV. General Bird Mitigation**

- a. If project grading/brush management is proposed in or adjacent to native habitat during the typical bird breeding season (i.e. February 1 - September 15), or an active nest is noted, the project biologist shall conduct a pregrading survey for active nests in the development area and within 300 feet of it, and submit a letter report to MMC prior to the preconstruction meeting.
- b. If active nests are detected, or considered likely, the report shall include mitigation in conformance with the City's Biology Guidelines and applicable State and Federal Law (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) to the satisfaction of the Assistant Deputy Director (ADD) Environmental Designee of the Entitlements Division. Mitigation requirements determined by the project biologist and the ADD shall be incorporated into the project's Biological Construction Monitoring Exhibit (BCME) and all monitoring results shall be incorporated into the final biological construction monitoring report.
- c. If no nesting birds are detected per IV.a above, mitigation under IV.b. is not required.

**V. LEAST BELL'S VIREO (State Endangered/Federally Endangered)**

1. Prior to the preconstruction meeting, the City Manager (or appointed designee) shall verify that the following project requirements regarding the least Bell's vireo are shown on the construction plans:

NO CLEARING, GRUBBING, GRADING, OR OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR BETWEEN MARCH 15 AND SEPTEMBER 15, THE BREEDING SEASON OF THE LEAST BELL'S VIREO, UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET TO THE SATISFACTION OF THE CITY MANAGER:

A. A QUALIFIED BIOLOGIST (POSSESSING A VALID ENDANGERED SPECIES ACT SECTION 10(a)(1)(A) RECOVERY PERMIT) SHALL SURVEY THOSE WETLAND AREAS THAT WOULD BE SUBJECT TO CONSTRUCTION NOISE LEVELS EXCEEDING 60 DECIBELS [dB(A)] HOURLY AVERAGE FOR THE PRESENCE OF THE LEAST BELL'S VIREO. SURVEYS FOR THE THIS SPECIES SHALL BE CONDUCTED PURSUANT TO THE PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE U.S. FISH AND WILDLIFE SERVICE WITHIN THE BREEDING SEASON PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF THE LEAST BELL'S VIREO IS PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:

- A. BETWEEN MARCH 15 AND SEPTEMBER 15, NO CLEARING, GRUBBING, OR GRADING OF OCCUPIED LEAST BELL'S VIREO HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND
  
- B. BETWEEN MARCH 15 AND SEPTEMBER 15, NO CONSTRUCTION ACTIVITIES SHALL OCCUR WITHIN ANY PORTION OF THE SITE WHERE CONSTRUCTION ACTIVITIES WOULD RESULT IN NOISE LEVELS EXCEEDING 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED LEAST BELL'S VIREO OR HABITAT. AN ANALYSIS SHOWING THAT NOISE GENERATED BY CONSTRUCTION ACTIVITIES WOULD NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT MUST BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE CITY MANAGER AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES. PRIOR TO THE COMMENCEMENT OF ANY OF CONSTRUCTION ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR
  
- C. AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, UNDER THE DIRECTION OF A QUALIFIED ACOUSTICIAN, NOISE ATTENUATION MEASURES (e.g., BERMS, WALLS) SHALL BE IMPLEMENTED TO ENSURE THAT NOISE LEVELS RESULTING FROM CONSTRUCTION

ACTIVITIES WILL NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF HABITAT OCCUPIED BY THE LEAST BELL'S VIREO. CONCURRENT WITH THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES AND THE CONSTRUCTION OF NECESSARY NOISE ATTENUATION FACILITIES, NOISE MONITORING\* SHALL BE CONDUCTED AT THE EDGE OF THE OCCUPIED HABITAT AREA TO ENSURE THAT NOISE LEVELS DO NOT EXCEED 60 dB(A) HOURLY AVERAGE. IF THE NOISE ATTENUATION TECHNIQUES IMPLEMENTED ARE DETERMINED TO BE INADEQUATE BY THE QUALIFIED ACOUSTICIAN OR BIOLOGIST, THEN THE ASSOCIATED CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL SUCH TIME THAT ADEQUATE NOISE ATTENUATION IS ACHIEVED OR UNTIL THE END OF THE BREEDING SEASON (SEPTEMBER 16).

\* Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

- B. IF LEAST BELL'S VIREO ARE NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE CITY MANAGER AND APPLICABLE RESOURCE AGENCIES WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN MARCH 15 AND SEPTEMBER 15 AS FOLLOWS:
  - I. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR LEAST BELL'S VIREO TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION A.III SHALL BE ADHERED TO AS SPECIFIED ABOVE.
  - II. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

**PALEONTOLOGICAL RESOURCES**

- I. **Prior to Permit Issuance or Bid Opening/Bid Award**
  - A. Entitlements Plan Check
    - 1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the

requirements for Paleontological Monitoring have been noted on the appropriate construction documents.

- B. Letters of Qualification have been submitted to ADD
  1. Prior to Bid Award, 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 paleontological monitoring program, as defined in the City of San Diego Paleontology Guidelines.
  2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the paleontological monitoring of the project.
  3. Prior to the start of work, the applicant shall obtain 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 has been completed. Verification includes, but is not limited to a copy of a confirmation letter from San Diego Natural History Museum, other institution 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.

### 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 paleontologist shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Paleontological 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. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)  
The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the paleontological monitoring program.
3. Identify Areas to be Monitored
  - a. Prior to the start of any work that requires monitoring, the PI shall submit a Paleontological Monitoring Exhibit (PME) based on the appropriate construction documents (reduced to 11x17) to MMC for approval identifying the areas to be monitored including the delineation of grading/excavation limits. Monitoring shall begin at depths below 10 feet from existing grade or as determined by the PI in consultation with MMC. The determination shall be based on site specific records search data which supports monitoring at depths less than ten feet.
  - b. The PME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).
  - c. MMC shall notify the PI that the PME has been approved.
4. 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 conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present.
5. Approval of PME and Construction Schedule  
After approval of the PME by MMC, the PI shall submit to MMC written authorization of the PME and Construction Schedule from the CM.

### III. During Construction

#### A. Monitor Shall be Present During Grading/Excavation/Trenching

1. The monitor shall be present full-time during grading/excavation/trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the PME that could result in impacts to formations with high and/or moderate resource sensitivity. **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 trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which 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 Paleontological 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 shall evaluate the significance of the resource.
  - 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. The determination of significance for fossil discoveries shall be at the discretion of the PI.
  - b. If the resource is significant, the PI shall submit a Paleontological Recovery Program (PRP) and obtain written approval of the program from MMC, MC and/or RE. PRP and any mitigation must be approved by MMC, RE and/or CM

before ground disturbing activities in the area of discovery will be allowed to resume.

- (1). Note: For pipeline trenching projects only, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
- c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the PI shall notify the RE, or BI as appropriate, that a non-significant discovery has been made. The Paleontologist shall continue to monitor the area without notification to MMC unless a significant resource is encountered.
- d. The PI shall submit a letter to MMC indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.
  - (1). Note: For Pipeline Trenching Projects Only. If the fossil discovery is limited in size, both in length and depth; the information value is limited and there are no unique fossil features associated with the discovery area, then the discovery should be considered not significant.
  - (2). Note, for Pipeline Trenching Projects Only: If significance can not be determined, the Final Monitoring Report and Site Record shall identify the discovery as Potentially Significant.

**D. Discovery Process for Significant Resources - Pipeline Trenching Projects**

The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance.

1. Procedures for documentation, curation and reporting
  - a. One hundred percent of the fossil resources within the trench alignment and width shall be documented in-situ photographically, drawn in plan view (trench and profiles of side walls), recovered from the trench and photographed after cleaning, then analyzed and curated consistent with Society of Invertebrate Paleontology Standards. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact and so documented.
  - b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section VI-A.
  - c. The PI shall be responsible for recording (on the appropriate forms for the San Diego Natural History Museum) the resource(s) encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines. The forms shall be submitted to the San Diego Natural History Museum and included in the Final Monitoring Report.
  - d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

**IV. 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 the RE via fax by 8AM on the next business day.

**b. Discoveries**

All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction.

**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 the RE and MMC, or by 8AM on 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.**

**V. 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 Paleontological Guidelines which describes the results, analysis, and conclusions of all phases of the Paleontological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring,
  - a. For significant paleontological resources encountered during monitoring, the Paleontological Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.
  - b. Recording Sites with the San Diego Natural History Museum  
The PI shall be responsible for recording (on the appropriate forms) any significant or potentially significant fossil resources encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines, and submittal of such forms to the San Diego Natural History Museum with the Final Monitoring Report.
2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC via the RE 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 Fossil Remains**

1. The PI shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued.

**C. Curation of artifacts: Deed of Gift and Acceptance Verification**

1. The PI shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution.
2. The PI shall submit the Deed of Gift and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.

3. The RE or BI, as appropriate shall obtain signature on the Deed of Gift and shall return to PI with copy submitted to MMC.
  4. 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 two copies of the Final Monitoring Report to MMC (even if negative), within 90 days after notification from MMC of the approved report.
  2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

VI. PUBLIC REVIEW DISTRIBUTION:

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

United States Government

- U.S. Fish and Wildlife Service (23)
- U.S. Army Corps of Engineers (26)
- U.S. Environmental Protection Agency (19)

State of California

- California Department of Fish and Game (32A)
- Caltrans (31)
- State Clearinghouse (46)
- California Regional Water Control Board (44)

City of San Diego

- Council Member Lori Zapf, District 6 (MS 10A)
- Historical Resource Board (87)
- City Attorney (MS 56A)
  - Shannon Thomas (MS 93C)

Public Works Department-Engineering and Capital Projects

- Seyed Haghgouy (MS 908A)
- Brian Vitelle (MS 908A)
- Roman Anissi (MS 908A)
- Wendy Gamboa (MS 908A)

Public Utilities Department

- Mehdi Rastakhiz (MS 910D)

Development Services Department

- Myra Herrmann (MS 501)
- Helene Deisher (MS 301)
- Jeff Szymanski (MS 501)
- Antoinette Gibbs (MS 501)
- Thomas Bui (MS 501)
- Jim Quinn (MS 501)
- Craig Hooker (MS 401)
- Jeff Harkness (MS 401)

Library Dept.-Gov. Documents MS 17 (81)

- Central Library (81 A)
- Clairemont Branch Library (81H)

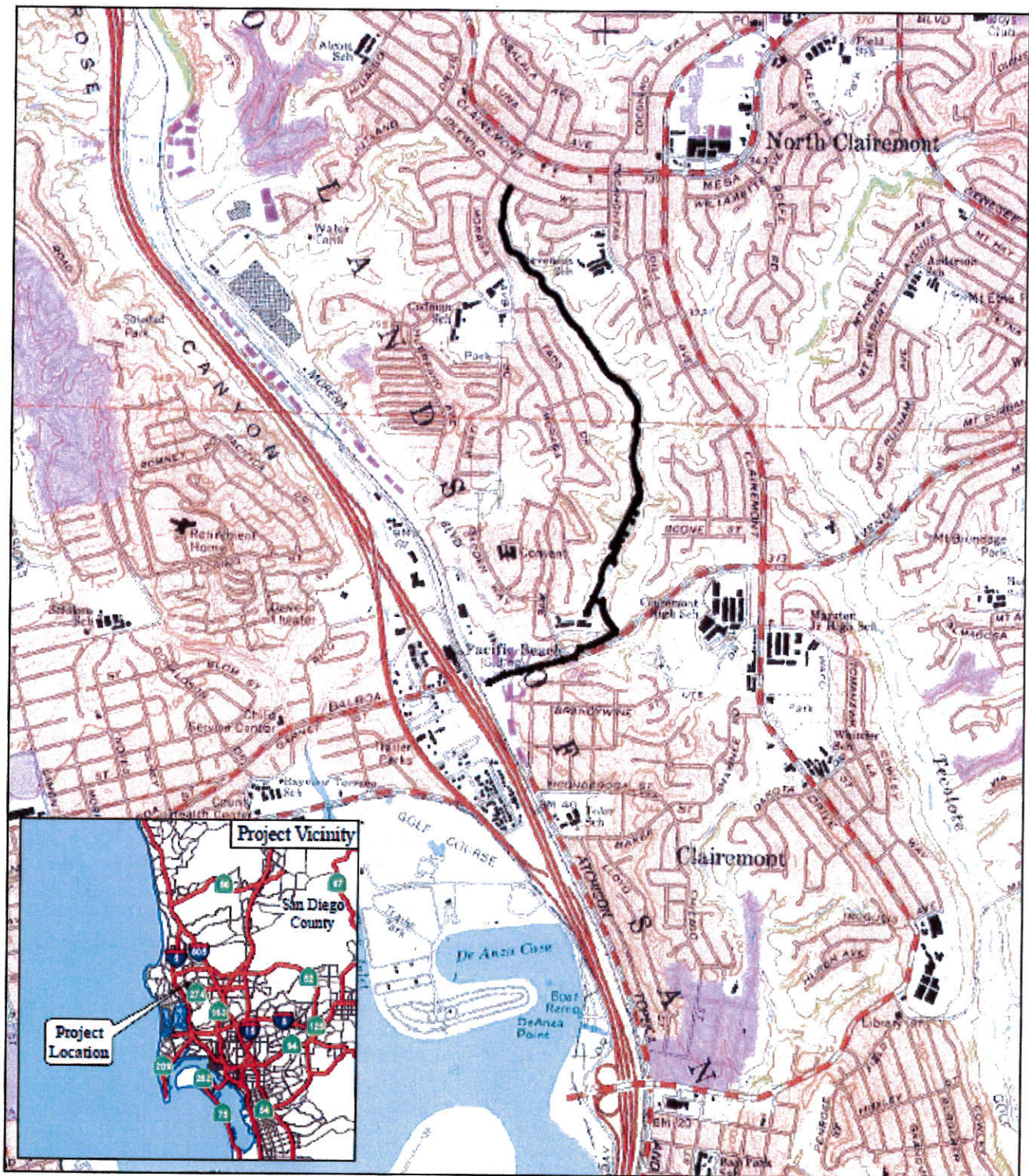


Other

Clairemont Mesa Planning Committee (248)  
Clairemont Town Council (257)  
San Diego Gas and Electric (114)  
Metropolitan Transit System (115)  
San Diego Natural History Museum (166)  
Sierra Club (165)  
Wetland Advisory Board (171)  
San Diego Bay and Coast Keeper (173)  
San Diego Canyonlands (165a)  
San Diego Audubon Society (167)  
Jim Pugh (167A)  
California Native Plant Society (170)  
Endangered Habitat League (182 and 182A)  
South Coastal Information Center @ San Diego State University (210)  
San Diego Historical Society (211)  
Carmen Lucas (206)  
Clint Linton (215b)  
San Diego Archaeological Center (212)  
Save Our Heritage Organization (214)  
Ron Christman (215)  
Louie Guassac (215A)  
San Diego County Archaeological Society (218)  
Kumeyaay Cultural Heritage Preservation (223)  
Kumeyaay Cultural Repatriation Committee (225)  
Native American Distribution (225 A-S) **Public Notice and Location Map Only**







**Location Map**  
Balboa Terrace Trunk Sewer/235917  
 City of San Diego – Development Services Department

**FIGURE**  
 1





L S A

LEGEND

- Limits of Grading
- Staging Area
- Open Trench Construction Area
- Trenchless Construction Area

0 275 550  
FEET

SOURCE: 2006/2008, TRACORRE, City of San Diego (2011)

Balboa Terrace Trunk Sewer  
Project Footprint



**Site Plan**  
**Balboa Terrace Trunk Sewer/235917**  
 City of San Diego – Development Services Department

FIGURE  
2A

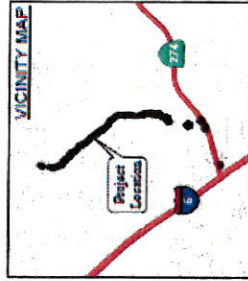
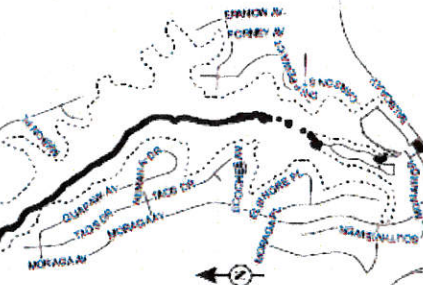


**KEY MAP**  
NOT TO SCALE

LEGEND

- Project Alignment
- Supervisor Canyon Boundary

\*SEE FOLLOWING SHEETS FOR DETAIL.



**Table 5: Container Size and Quantity**

Species	Common Name	Container Size	Plants Per Area	Quantity
California poppy	California poppy	1 gallon	200	200
California poppy	California poppy	1 gallon	200	200
California poppy	California poppy	1 gallon	200	200
California poppy	California poppy	1 gallon	200	200
California poppy	California poppy	1 gallon	200	200
California poppy	California poppy	1 gallon	200	200
California poppy	California poppy	1 gallon	200	200

**BALBOA TERRACE TRUNK SEWER REVEGETATION PLAN**

SHEET 1 OF 9

Kilian Truitt - Project Biologist



**Revegetation Plan**  
Balboa Terrace Trunk Sewer/235917  
City of San Diego – Development Services Department

**Table 2: Seed Mix for Corolla Stage 2 (0.640 Acre)**

Scientific Name*	Common Name	Pounds Pure Live Seed/Area	Total Pounds
<i>Cercaria californica</i>	California poppy	0.50	0.32
<i>Erigeron phillyria</i>	Summer daisy	0.15	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.15	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.15	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.15	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.15	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.15	0.10

**Table 3: Seed Mix for Freshwater Marsh\* (0.0181 Acre)**

Scientific Name*	Common Name	Pounds Pure Live Seed/Area	Total Pounds
<i>Cyperus setosus</i>	Tall tussock	0.15	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.05	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.10	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.10	0.10
<i>Erigeron phillyria</i>	Summer daisy	0.10	0.10

\* Due to the extremely small size of the revegetation area, LCA recommends a higher seed quantity than listed to allow for possible seed procurement and irrigation.

**Table 4: Success Criteria (As Verified by the Project Biologist)**

Parameter	Percent Vegetation Cover*	Plant Survival Container Plants
Performance Standards - Impact Area	Year 1: 50 Percent	Year 1: 100 Percent
	25 Months: 100 Percent	60 Percent
Performance Standards - Access	Year 1: 50 Percent	100 Percent
	25 Months: 100 Percent	60 Percent

Note: \* Greater revegetation (Note: If a color percent cover criterion is approved by the Project Biologist, a color percent cover criterion shall be used.)

\* Container plants not meeting other success criteria, as verified and recommended by the project biologist, shall be replaced and maintained at the contractor's expense and the contractor shall be held liable.

**Table 5: Summary and Schedule for Maintenance, Monitoring and Reporting**

Species	Planting Site Use	Planting Schedule	Reporting
California poppy	Impact Area	Year 1: 50 Percent	100 Percent
California poppy	Impact Area	25 Months: 100 Percent	60 Percent
California poppy	Impact Area	Year 1: 50 Percent	100 Percent
California poppy	Impact Area	25 Months: 100 Percent	60 Percent

- \* Container plants not meeting other success criteria, as verified and recommended by the project biologist, shall be replaced and maintained at the contractor's expense and the contractor shall be held liable.
- \* The contractor shall be responsible for the maintenance and monitoring of the revegetation area during the project term.
- \* The contractor shall be responsible for the maintenance and monitoring of the revegetation area during the project term.
- \* The contractor shall be responsible for the maintenance and monitoring of the revegetation area during the project term.
- \* The contractor shall be responsible for the maintenance and monitoring of the revegetation area during the project term.

**GENERAL REVEGETATION FOR THE PROJECT AREA:**

1. REVEGETATION OF THE PROJECT AREA SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF SAN DIEGO LANDSCAPE STANDARDS AND CITY REGULATIONS UNDER THE CITY OF SAN DIEGO LANDSCAPE STANDARDS AND CITY REGULATIONS.
2. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
3. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
4. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
5. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
6. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
7. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
8. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
9. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
10. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
11. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
12. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
13. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
14. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
15. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
16. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
17. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
18. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
19. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
20. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
21. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
22. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
23. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
24. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.
25. REVEGETATION SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM. THE CONTRACTOR SHALL MAINTAIN AND MONITOR THE REVEGETATION THROUGHOUT THE PROJECT TERM.

**FIGURE 2B**



## INITIAL STUDY CHECKLIST

1. Project Title/Project number: Balboa Terrace Trunk Sewer/235917
2. Lead agency name and address: City of San Diego, Development Services Department, 1222 First Avenue, MS 501, San Diego, CA 92101
3. Contact person and phone number: Jeff Szymanski, Associate Planner, 619-533-7523
4. Project location: The project would affect portions of vacant City owned lot located southwest of Balboa Avenue and Morena Boulevard, Balboa Avenue, Balboa Terrace, and utility easements located in southern Stevenson Canyon (Open Space) and Canyon Haven Condominium complex all within the Clairemont Mesa Community Planning area.
5. Project Applicant/Sponsor's name and address: City of San Diego, Public Works Dept- E&CP/Brian Vitelle, 600 B Street, Suite 800 (MS 908A) San Diego, CA 92101 (619) 533-7413
6. General Plan designation: Residential single-family (low-medium density), Residential multi-family, Commercial, and Open Space.
7. Zoning: RS-1-1, R-1-7, R-M-2-5, RM-3-7, CO-1-2, and OP-2-1.
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.): SITE DEVELOPMENT PERMIT (SDP) to allow for the replacement and/or re-alignment of approximately 5,031 linear feet (LF) or (0.95 miles) of sewer main pipelines (Figure 2A). Existing 8-inch to 18-inch vitrified clay sewer pipes would be replaced with 8-inch and 21-inch polyvinyl chloride (PVC) pipe and centrifugally cast-fiberglass reinforced-polymer mortar (CCFRPM) pipe. Approximately 4,431 LF of the sewer pipelines would be located in new trench alignment at approximately 7 to 51 feet deep and 600 LF of sewer pipe would be in the same trench at a shallower depth of 12 to 21 feet deep. Approximately 3,373 LF of pipe installation work would be performed by conventional excavation (open trench) method, and 1,662 LF of pipe installation would be performed by tunneling method.

Approximately five (5) work areas for tunneling activity are needed, with the largest two (2) in the canyon to be approximately 75 feet by 80 feet (approximately 6,000 square feet) next to MH 141 adjacent to the northern terminus of the private condominium driveway, and next to MH 170 in the canyon would be approximately 65 feet by 110 feet (approximately 7,150 square feet). The other three (3) work areas would be similarly dimensioned however these occur in non sensitive (paved or disturbed) areas. Within each of the five (5) work areas, launch/receiver pits would be necessary, as well as one (1) additional stand-alone pit for the installation of the below-ground structure at MH 509 in order to connect to the existing 72 inch main interceptor located west of Morena Boulevard. Each pit would measure approximately 20 feet by 20 feet. In addition, approximately 2,710 LF of sewer main would be abandoned in place utilizing slurry or grout that would be injected or piped into abandoned segments including: 630 LF of 18-inch sewer main that exists in a 70-inch storm drain, 730 LF within the drainage channel,

and 1,350 LF in the developed areas within and south of the condominium complex. The associated work within the drainage channel would be done manually or in a similar sensitive method and the five (5) MHs to be removed would each create an approximate 5-foot radius temporary impact area that would be returned to its natural state following abandonment.

Construction equipment access within the canyon from Idlewild Way to reach manhole 170 would utilize approximately 5,200 LF of an existing 8-foot wide access path that would temporarily be widened to 12 feet by adding 4 feet on the down-slope side of the path. The access path was approved by Substantial Conformance Review (SCR) Project No. 98156 for Stevenson Canyon in conformance with the Master Canyon Sewer Cleaning and Maintenance Programmatic EIR (LDR 42-0077) on September 8, 2006. The existing path would also be utilized for related abandonment activity as necessary. Staging would occur within the project impact work areas and corridors, on improved streets, in the dirt portion of the City lot south of Balboa Avenue and west of Morena Boulevard, or in other non-sensitive areas. A Right of Entry (ROE) permit would be required for any work within City owned Open Space.

Included in the scope of work are new installations of manholes, diversion structures, sewer laterals, curb ramps, installation of various other appurtenances as necessary, as well as street slurry seal and asphalt concrete overlay applications, and traffic control measures. Construction stormwater Best Management Practices (BMPs) would be implemented in order to reduce pollutant runoff. Post construction revegetation would provide long term erosion control for the impact areas as shown on the revegetation plan (Figure 2B) in conformance with the City's Landscape Regulations.

This project conforms to Council Policy 400-13 in that the minimum impacts are proposed in order to complete the project. A redirection of flow analysis was conducted in accordance with Council Policy 400-14 which determined that the cost to re-align the entire or portions of the sewer outside of the canyon greatly exceeded the 35 percent cost differential needed. Therefore, the trenchless and open trench methodology within the canyon is being implemented.

9. Surrounding land uses and setting: Briefly describe the project's surroundings: The surrounding land uses are residential, commercial, and Open Space.
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.): California Department of Fish and Game (CDFG) - Streambed Alteration Permit, Regional Water Quality Control Board (RWQCB) - 401 Water Quality Certificate, and Army Corps of Engineers (ACOE) - preconstruction notification.

**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.

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Greenhouse Gas Emissions      | <input type="checkbox"/> Population/Housing                         |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Public Services                            |
| <input type="checkbox"/> Air Quality                        | <input type="checkbox"/> Hydrology/Water Quality       | <input type="checkbox"/> Recreation                                 |
| <input checked="" type="checkbox"/> Biological Resources    | <input type="checkbox"/> Land Use/Planning             | <input type="checkbox"/> Transportation/Traffic                     |
| <input checked="" type="checkbox"/> Cultural Resources      | <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Utilities/Service—System                   |
| <input type="checkbox"/> Geology/Soils                      | <input type="checkbox"/> Noise                         | <input checked="" type="checkbox"/> 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.



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

D) AESTHETICS – Would the project:

- a) Have a substantial adverse effect on a scenic vista?

The trunk sewer project is located below grade, with the exception of manholes, and would not be visible once constructed. In addition, no designated scenic vistas have been identified within the project Area of Potential Affect (APE). No impacts to a scenic vista would occur.

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

As stated in I.a the project would be located below grade and is not located within a scenic highway. Therefore, no scenic resources such as trees, rock outcroppings or historic buildings would be impacted by the project.

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

Please see I.a

- d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

The project is largely located below grade, with the exception of manholes, and would not have the potential to create light or glare impacts.

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

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

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 trunk sewer project is located within various areas including the developed public right of way, on a vacant city owned lot, within the developed Canyon Haven condominium complex, and within Stevenson Canyon. These areas are not classified as farmland by the Farmland Mapping and Monitoring Program (FMMP). Similarly, land surrounding the project is not in agricultural production and is not classified as farmland by the FMMP. Therefore, the trunk sewer project would not convert farmland to non-agricultural uses.

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

Please see II.a.

- 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))?

The public right of way and canyon is not zoned as forest land. Therefore, the utility project would not conflict with existing zoning for forest land.

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

The trunk sewer project is located within various areas including the developed public right of way, on a vacant city owned lot, within the developed Canyon Haven condominium complex, and within Stevenson Canyon. These areas are not designated forest land. Therefore, the project would not convert forest land to non-forest use.

- 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?

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

No existing agricultural uses are located in the proximity of the project that could be affected. Therefore, the sewer replacement project would not convert farmland to non-agricultural uses.

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?

Construction of the project could increase the amount of harmful pollutants entering the air basin. However, construction emissions would be temporary and finite. In addition, construction Best Management Practices (BMPs), such as watering for dust abatement, would reduce construction dust emissions by 75 percent.

The project would primarily replace and rehabilitate existing sewer lines. The project would not generate additional trips to these facilities once constructed, other than periodic maintenance, and operational needs for the trunk sewer would be minimal. With the implementation of project BMPs during construction and the lack of operational emissions the project would not result in a conflict of air quality plans.

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

Please see III.a

- 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, construction operations could temporarily increase the emissions of dust and other pollutants. However, construction emissions would be temporary and implementation of BMPs would reduce potential impacts related to construction activities to a level less than significant. 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.

- d) Expose sensitive receptors to

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

substantial pollutant concentrations?

Construction operations could temporarily increase the emissions of harmful pollutants, which could affect sensitive receptors adjacent to the project. However, construction emissions would be temporary and it is anticipated that implementation of construction BMPs would reduce potential impacts related to construction activities to minimal levels. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations.

- e) Create objectionable odors affecting a substantial number of people?

Operation of construction equipment and vehicles could generate odors associated with fuel combustion. However, these odors would dissipate into the atmosphere upon release and would only remain temporarily in proximity to the construction equipment and vehicles. Therefore, the project would not create substantial amounts of objectionable odors affecting a substantial number of people.

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?

Portions of the project would be located within Stevenson Canyon which contains Environmentally Sensitive Lands (ESL) in the form of uplands and wetland habitat, as well as a vacant City owned lot partially comprised of upland species. Therefore, a biological survey report and wetland delineation was prepared by LSA Associates (*Biological Resources Report: Balboa Terrace Trunk Sewer, revised October 2011* and *Jurisdictional Delineation Report: Balboa Terrace Trunk Sewer Project, revised October 2011*) to assess the impacts of the project on sensitive biological resources and habitats. An approximate 37.23 acre study area was utilized within the Biological analysis that included vegetation mapping, field surveys for sensitive plant and animal species including focused rare plant, Least Bell's Vireo, and California gnatcatcher, as well as wetland assessments. The biological resources and jurisdictional delineation reports are available for review at the offices of the Entitlements Division.

Palmer's sagewort was the only sensitive plant species detected within the survey area during the biological survey. However, this plant is not considered a special-status species, or a City

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

Multiple Species Conservation Program (MSCP) covered species and as such is not afforded any special protections. As documented in the biological report it is anticipated that impact to this species does not constitute a significant impacts and no mitigation beyond general mitigation for upland impacts is necessary.

Suitable habitat for willowy monardella and San Diego thorn-mint were identified but none were detected during the survey. Willowy monardella is federally and State-listed as endangered, and San Diego thorn-mint is listed as federally threatened and State-listed as endangered. Although not present at the time of the survey field conditions may change over time and mitigation language has been included in the MMRP that requires a biologist to conduct a preconstruction narrow endemic and special status plant survey in order to avoid impacts. As such, the project includes mitigation as well as protections for such impacts should presence of such species be discovered. This would reduce impacts to less than significance.

Two single male coastal California gnatcatchers, a covered species under the City's MSCP, were observed at two different locations within the canyon however no female species or nests were located. This species exist and have a high probability of occurring within the study area during construction activities. However, because the project site is located outside of the MHPA there are no restrictions on clearing of vegetation during the breeding season for this species. Regardless, implementation of the protection measures required by the Migratory Bird Species Act would protect these as well as other avian species.

The least Bell's vireo, a covered species under the City's MSCP, is considered to have marginally suitable habitat within the study area. None were observed during the survey however, the project could result in direct impacts to suitable habitat for the least Bell's vireo (i.e., southern willow scrub, oak riparian woodland, and riparian vegetation). Mitigation language has been included in the MMRP in order to avoid impacts to the least Bell's vireo.

Mitigation has also been included for other wildlife species in the form of monitoring within select work areas prior to and during work activities that would prevent entrapment of wildlife.

In relation to the project, tunneling sewer mains would minimize impacts to sensitive resources and would accommodate topographic constraints within the canyon area. A majority of the impacts however are associated with either a direct or indirect result of temporarily widening the existing access path to conduct the tunneling work. Overall, the biological and wetland reports determined that the implementation of the project would result in impacts to biological resources which relate to abandonment of existing manholes, manhole replacement/relocation, pits and work areas, temporary widening of the access road, and staging areas. No impacts to sensitive biological resources would occur from open trenching activities where those are required.

In order to remove the pipeline outside of the drainage areas, the redirection of sewer alignment between manholes (MHs) 140 and 171 in the canyon would require an approximate 75 foot by 80 foot or 6,000 square feet to 65 foot by 110 foot or 7,150 square feet of work area adjacent these MHs respectively for the work pits and tunneling. The southern terminus of the canyon near the Canyon Haven condominiums is topographically challenging (slopes 30 percent and steeper here and elsewhere) and work equipment cannot access MH 171 from this direction without major grading and retaining structures. Therefore this project proposes a 4-foot

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

temporary expansion of the existing 8-foot wide access path to 12-feet that would extend from Idlewild Way to reach MH 171. This will allow machinery and work equipment to reach area with the minimum impacts necessary and was chosen as the preferred and least environmentally damaging alternative due to existing condition as well as constraints as outlined in the Biology report. Temporary access path impacts would occur on the down-slope with equipment travelling over the path and no grading is anticipated to occur as a result. It was determined that any grading into the hillside up-slope could have the potential to require a greater level of impact to biological resources than the temporary down-slope path expansion.

MH 140 will be installed in the least sensitive area as well as adjacent to the condominium complex, where tunneling equipment would connect the realigned pipeline between MHs 171 and 140. Impacts associated with abandonment of individual manholes associated to the abandoned pipe in the drainage areas would occur within a 5-foot radius (centered on each MH), equipment would be hand carried along the existing access path, and slurry or grout would be piped in to avoid any unnecessary impacts.

In addition to the MH 141 and 170 work areas, three other work areas approximately 6,000-7,150 square feet each would occur along the alignment, however, these would primarily be within previously disturbed or non-sensitive areas. In support of construction, six (6) pits are proposed, each measuring approximately 20 feet x 20 feet that would be excavated within all work areas, as well as in the City lot south of Balboa Avenue east of Morena Boulevard which would have minor impacts to native upland plant species at this location. Project staging would occur in the dirt areas of the same City lot, along the project impact corridor, or in other paved or non-sensitive areas.

A revegetation plan utilizing an appropriate native, non-invasive upland as well as riparian species for erosion control purposes would be included for project impact areas. This would include a 120 day plant establishment period and 25 months of long term maintenance and monitoring, or until revegetation is successful in order to return sensitive areas to their natural state.

Total impacts to sensitive habitat were identified as 0.354 acres of Diegan coastal sage scrub (Tier II) and 0.250 acres of City covered wetland community habitat that includes 0.064 acres Southern Willow Scrub (SWS), 0.040 acres Freshwater Marsh (FWM), 0.003 acres oak riparian woodland (ORW), 0.022 acres Mule Fat Scrub (MFS), 0.107 acres disturbed wetland, and 0.014 acres open channel. With the exception of oak riparian woodland which requires a 3:1 mitigation ratio, all of the other habitat types require a 2:1 mitigation ratio. Other impacts include approximately 0.256 acre of disturbed habitat (Tier IV) and 0.346 acre of ornamental areas (Tier IV). Disturbed and ornamental habitats are not considered sensitive and would not require mitigation. Total upland impacts would constitute 0.354 acres while total City wetland impacts would constitute 0.250 acres.

Mitigation for project impacts using the established mitigation ratios for upland impacts outside the MHPA and mitigation inside the MHPA would include 0.354 acre of Diegan coastal sage scrub (Tier II) habitat. Mitigation for impacts to this upland tier would be fulfilled through either obtaining mitigation credits at the City's Marron Valley Cornerstone Lands which are located entirely within the MHPA, or by payment into the City's Habitat Acquisition Fund. The HAF

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

collects and allocates funds for the purchase and conservation of lands within the City's MHPA. Mitigation for impacts to wetland habitats for a total of 0.503 acres within the MHPA are proposed to occur through the purchase of credits in Public Utilities grouped mitigation sites at San Clemente, Rose Canyon, or a combination of the two, for wetland creation. A minimum ratio of 1:1 is required to be in the form of creation and the remaining 1:1 ratio would be in the form of wetland enhancement credits that overall, account for the mitigation required based on the City's regulations.

Mitigation requirements shall be incorporated into Section V of the MMRP and would reduce potential impacts to biological resources to below a level of significance. Therefore the project would not have substantial effects 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.

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?

The jurisdictional assessment identified approximately 4.3 acres of wetland jurisdiction occurring on site and overlapping US Army Corps, California Department of Fish and Game (CDF&G), and City wetlands. As mentioned in IV a. and the technical report, the project would result in impacts to 0.250 acres of City covered wetland community habitats. These impacts would primarily occur because of the temporary widening of the access path from its existing 8-foot width to 12-feet, for construction equipment access necessary to install MH 171 and the tunneling work necessary to connect this manhole to MH 140. As noted in the wetland delineation the USACOE, CDF&G, and City have overlapping jurisdictions. Therefore, it has been identified that mitigation for impacts to the City's wetlands would accommodate the City requirements entirely, as well as a large proportion of necessary project mitigation considering outside agencies and their respective jurisdiction. Any additional mitigation required by each separate agency would also be carried out and provided in consultation with each agency.

Due to access constraints, water availability, and property ownership issues it was determined that the wetland mitigation would occur off-site but within the same Los Peñasquitos watershed. Project impacts to 0.250 acres of City covered wetland community habitat that includes 0.064 acres Southern Willow Scrub (SWS), 0.040 acres Freshwater Marsh (FWM), 0.003 acres oak riparian woodland (ORW), 0.022 acres Mule Fat Scrub (MFS), 0.107 acres disturbed wetland, and 0.014 acres open channel would be mitigated in accordance with the City's Biology Guidelines. A total of 0.503 acres of wetland credits for City wetland vegetation communities at either the San Clemente and/or Rose Canyon sites covering 0.128 acres Southern Willow Scrub, 0.080 acres Freshwater Marsh, 0.009 acres oak riparian woodland, 0.044 acres Mule Fat Scrub, 0.214 acres wetlands, and 0.028 acres open channel to satisfy the required mitigation ratio of 2:1 for all habitat impact types listed, with the exception of Oak Riparian Woodland which requires a 3:1 mitigation ratio.

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

Because CDF&G jurisdictional impacts encompass the City, as well as the other agency areas, the CDF&G impacts that equals 0.265 acres is expected to require a 2:1 mitigation ratio for a total of 0.530 acres of jurisdictional mitigation in all. In order to address this, this project would also provide an additional 0.027 acres of credit at the Public Utilities sites noted above, in order to account for the difference.

Overall, the creation of wetlands would satisfy the no net loss of these resources and since the project would not be constructing permanent structures, the impacts to wetlands in Stevenson Canyon are temporary in nature and the functions and values of wetlands would not be affected.

- |  |                          |                                     |                          |                          |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|
| 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? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|-------------------------------------|--------------------------|--------------------------|

Please see IV b. mitigation is required.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project is partially located within Stevenson Canyon which the biology report identifies as a contiguous area surrounded by residential development. The report concluded that the project has a low potential to impact wildlife movement during construction. The report further concluded that the short duration of construction is not expected to result in substantial impedance of wildlife movement and once constructed the improvements would be located below grade, within the exception of manholes, and would not impede wildlife movement in the project APE.

- |   |                          |                                     |                          |                          |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|-------------------------------------|--------------------------|--------------------------|

Please see IVa. mitigation is required.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| f) Conflict with the provisions of an adopted Habitat Conservation | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|



Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				
The project is not located in or directly adjacent to the City's Multi-Habitat Planning Area (MHPA) or any other conservation planning areas. Therefore the project does not have the potential to conflict with any habitat conservation plans.				

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. 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. 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.

A record search of the California Historic Resources Information System (CHRIS) digital database was reviewed to determine presence or absence of potential resources within the project site and one-mile radius. No on-site archaeological resources were identified; however, several sites were identified within a one-mile radius. As such, City Archaeological staff conducted a site visit during the morning of May 4, 2011. Visual inspections by staff identified no visible resources to warrant additional or follow up investigations. As such, impacts would remain below significant in this category.

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

Please see V a.

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

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

The project is primarily underlain by Ardath Shale and to a lesser degree Bay Point Formation and Scripps Formation. All these areas are categorized as having a high sensitivity for paleontological resources. As defined in the City's CEQA Thresholds, pipeline projects that excavate deeper than 10 feet of soil in areas of moderate or higher sensitivity could result in impacts to these resources.

To reduce this impact to below a level of significance, excavation within previously undisturbed formations at a depth of 10 or more feet would be monitored by a qualified paleontologist or paleontological monitor. Any significant paleontological resources encountered would be recovered and curated. Paleontological monitoring would be required and would reduce potential impacts to below a level of CEQA significance. This mitigation requirement is included in Section V of the MMRP.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| d) Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

Please see Va., impacts to historical resources, including human remains, are not anticipated.

**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. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Only a small portion of the project near and west of Morena Boulevard is located within an Alquist-Priolo Fault Zone and fault zone area. However, the project would utilize proper engineering design and standard construction practices in order to ensure that potential impacts in this category based on regional geologic hazards would remain less than significant. Therefore, risks from rupture of a known earthquake fault would remain less than significant.

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

- |                                    |                          |                          |                          |                                     |
|------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| ii) Strong seismic ground shaking? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

The following geotechnical reports were prepared for the trunk sewer project: *Geotechnical Evaluation, Balboa Terrace Trunk Sewer, San Diego, California, December 2, 2010 revised September 2011*(Ninyo & Moore).

The results from the report and its revision concluded that the project would not measurably destabilize neighboring properties or induce settlement of adjacent structures. Furthermore, the project in and of itself is not proposing to construct facilities that would attract people to the location, other than for routine maintenance.

Therefore, the project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. The project would utilize proper engineering design and standard construction practices to ensure that the potential for impacts from ground shaking would remain less than significant.

- |  |                          |                          |                                     |                          |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| iii) Seismic-related ground failure, including liquefaction? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|

The project would utilize proper engineering design and standard construction practices to ensure that the potential for impacts from liquefaction and ground failure would be less than significant.

- |                 |                          |                          |                          |                                     |
|-----------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| iv) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|-----------------|--------------------------|--------------------------|--------------------------|-------------------------------------|

The City of San Diego Seismic Safety Study maps have designated the geology at the project location as being in a landslide and slide prone zone. The project would not expose people or structures to the risk of loss, injury, or death involving landslides.

The above referenced, *Geotechnical Evaluation, Balboa Terrace Trunk Sewer, San Diego, California* report addressed unstable soil conditions, on or off-site landslides, lateral spreading, subsidence, and liquefaction and City Geology Staff determined that the report adequately addressed the soil and geologic conditions that could potentially affect the project. The project would utilize proper engineering design and standard construction practices would ensure that the potential for impacts would be less than significant.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Construction of the project would take place within various areas including the developed public right of way, on a vacant city-owned lot, within the developed Canyon Haven condominium complex, and within Stevenson Canyon. All disturbances to paved or ornamental areas would be replaced in kind and a revegetation plan for all other impact areas would be implemented that would prevent soil erosion.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Be located on a geologic unit or soil that is unstable, or that would | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

As stated above the *Geotechnical Evaluation, Balboa Terrace Trunk Sewer, San Diego, California* report addressed unstable soil conditions, on or off-site landslides, lateral spreading, subsidence, and liquefaction and City Geology Staff determined that the report adequately addressed the soil and geologic conditions that could potentially affect the project.

Furthermore, the project would utilize proper engineering design and standard construction practices would ensure that the potential for impacts would be less than significant.

- 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?
- |                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project would be located primarily within Terrace Escarpment and Gaviota Fine Sandy loam and to a lesser degree Huerhuero-Urban land complex, and Chesterton-Urban land complex. None of these soils are characterized as being expansive. No impacts would occur in this category.

- 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?
- |                          |                          |                          |                                     |
|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project is part of the City's sewer system. As a result, septic tanks or alternative wastewater systems would not be used. Therefore, no impact with regard to the capability of soils to adequately support the use of septic tanks or alternative wastewater disposal systems would result.

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?
- |                          |                          |                                     |                          |
|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|--------------------------|--------------------------|-------------------------------------|--------------------------|

The City of San Diego is utilizing the California Air Pollution Control Officers Association (CAPCOA) report "CEQA and Climate Change" (CAPCOA 2009) to determine whether a GHG analysis would be required for submitted projects. The CAPCOA report references a 900 metric ton guideline as a conservative threshold for requiring further analysis and possible mitigation. This emission level is based on the amount of vehicle trips, the typical energy and water use associated

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

with projects, and other factors.

CAPCOA identifies project types that are estimated to emit approximately 900 metric tons of GHG's annually. This 900 metric ton threshold is roughly equivalent to 36,000 square feet of office space, 11,000 square feet of retail, 50 residential units, and 6,300 square feet of supermarkets. Since the sewer project being considered in this CEQA document does not fit the categories listed above the project conducted an independent modeling analysis to determine the level of GHG emissions. The Roadway Construction Emissions Model is a spreadsheet program created by the Sacramento Metropolitan Air Quality Management District to analyze construction related GHGs (i.e. Carbon Dioxide) and was utilized to quantify the project's GHG emissions. The model utilizes project information (e.g. total construction months, project type and total project area) to quantify GHG emissions from heavy-duty construction equipment, haul trucks, and worker commute trips associated with linear construction projects. The output of the model is carbon dioxide (CO2) which is the major contributor of GHGs.

The Roadway Construction Emissions Model was conducted for this project. The results demonstrated that during the 10 months of estimated construction the project would produce approximately 292.1 metric tons of CO2 in the first year and 32.5 metric tons of CO2 in the second year. The output for the project falls well below the 900 metric ton per year figure. Therefore, based upon the analysis showed above the project would result in a less than significant CEQA Greenhouse gas impact and mitigation would not be required.

- b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Please see VII.a. It is anticipated that the project would not conflict with any applicable plans, policies, or regulations related to greenhouse gases.

**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?

Construction of the project may require the use of hazardous materials (fuels, lubricants, solvents, etc.), which would require proper storage, handling, use and disposal; however, the trunk sewer project would not routinely transport, use or dispose of hazardous materials. Therefore, the project would not create a significant hazard to the public or environment.

- 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?

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

The project would incorporate project design features, as well as incorporate specifications for construction to meet the local, state and federal requirements to address such hazardous materials should they be discovered during construction. Therefore, the project would not involve the release of hazardous materials into the environment. Impacts would remain less than significant.

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Clairemont Mesa High School property is situated at approximately ¼ mile from the alignment. However, please see VIII.a, impacts would not occur.

- 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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, known as the Cortese list. Therefore, no hazards would occur in relation to the Government Code Section.

- 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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

The project is not located within the boundaries of an existing airport land use plan or an airport land use plan pending adoption. The project is not located within the flight path of any airport and is located below ground surface and therefore would not introduce any new features that would create a flight hazards.

- 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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

The project is not located within 2 miles of a private airstrip. Furthermore, the project is located

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

below ground surface and therefore would not result in a safety hazard that would create flight hazards.

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Construction of the project would temporarily affect traffic circulation within the project APE and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction which would allow emergency plans to be employed. Therefore, the project would not physically interfere with an adopted emergency response plan or emergency evacuation plan.

- h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?
 

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

The project is partially located within Stevenson Canyon; however, the canyon land is not identified as wildlands that would pose a threat of wildland fires. Additionally, the sewer infrastructure project would not introduce any new features that would increase the risk of fire.

**IX. HYDROLOGY AND WATER QUALITY - Would the project:**

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

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

Potential impacts to existing water quality standards associated with the project would include minimal short-term construction-related erosion/sedimentation and no long term operational storm water discharge. Conformance to BMPs outlined in the Water Pollution Control Plan (WPCP) and conformance with the City's Stormwater Regulations would prevent or effectively minimize short-term water quality impacts. Therefore, the project would not violate any existing water quality standards or discharge requirements.

- 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
 

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	-------------------------------------	--------------------------

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

have been granted)?

The project does not propose the use of groundwater. Furthermore, the project would not introduce a substantially large amount of new impervious surfaces over ground that could interfere with groundwater recharge. Therefore, the project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

- 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 is located below the surface of developed public right of way, on a vacant city owned lot, within the developed Canyon Haven condominium complex, and within Stevenson Canyon. Upon completion of the installation of the utility lines, the paved areas would be returned to their preexisting conditions and the areas of disturbances within the canyon would be revegetated and would not substantially alter any existing drainage patterns.

- 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?

Please see IX.c.

- 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?

Conformance to BMPs outlined in the approved WPCP and compliance with the City Stormwater Regulations would prevent or effectively minimize short-term construction runoff impacts. Additionally, no new impervious areas are proposed that would increase runoff from the project area. Therefore, the underground utility project would not contribute runoff water that would exceed the capacity of existing storm water systems.

- f) Otherwise substantially degrade water quality?



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

Conformance to BMPs outlined in the approved WPCP to be prepared for the project and compliance with the City's Stormwater Regulations would prevent or effectively minimize short-term water quality impacts and would preclude impacts to water quality.

- 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 project does not propose construction of any new housing.

- h) Place within a 100-year flood hazard area, structures that would impede or redirect flood flows?

The project does not propose any new structures that would be located in the 100-year flood hazard areas.

- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The project would not include any new project features that would increase the risk associated with flooding beyond those of the existing conditions.

- j) Inundation by seiche, tsunami, or mudflow?

The project would not include any new project features that would increase the risk associated with seiche, tsunami, or mudflow beyond those of the existing conditions.

**X. LAND USE AND PLANNING – Would the project:**

- a) Physically divide an established community?

Implementation of the project would involve replacing and installing utility infrastructure and would not introduce any features that could divide an established community.

- 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

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

coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The project is consistent with all applicable land use plans, policies, or regulations of an agency with jurisdiction over the project and would not conflict with any land use plans.

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

The project is located within developed public right of way, on a vacant city owned lot, within the developed Canyon Haven condominium complex, and within Stevenson Canyon. but is not located within the MHPA or adjacent to areas containing conservation plans. No conflicts with habitat conservation plans would occur.

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?

The APE is not designated for the recovery of mineral resources on the City of San Diego General Plan Land Use Map. Therefore, the project would not result in the loss of availability of a known mineral resource.

- 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?

The areas surrounding the project site is not designated for the recovery of mineral resources on the City of San Diego General Plan Land Use Map. Therefore, the project would not result in the loss of availability of a locally important mineral resource recovery site.

XII. NOISE – Would the project result in:

- a) Exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The development of the project would generate noise from construction but would be temporary and

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

transitory in nature. Furthermore, the project is required to comply with the City Noise Ordinance and therefore, people would not be exposed to noise levels in excess of noise regulations.

- b) Exposure of persons to, or generation of, excessive ground borne vibration or ground borne noise levels?

Please see XII.a.

- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Please see XII.a.

- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing without the project?

Construction of the project would result in a temporary increase in the ambient noise levels in the project vicinity. However, based upon the transitory nature of the utility project and surrounding noise levels in the area resulting from traffic along the streets the increase in ambient noise would be less than significant.

- e) 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 is not located within the boundaries of an existing airport land use plan or an airport land use plan pending adoption. Furthermore, the utility project would not introduce any new features that would expose people residing or working in the project area to excessive noise levels beyond those associated with what currently exist.

- f) 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 is not located within proximity to a private airstrip. Furthermore, the utility project would not introduce any new features that would expose people residing or working in the project area to excessive noise levels beyond those associated with existing conditions. No impacts would

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

result.

**XIII. POPULATION AND HOUSING – Would the project:**

- 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 utility project would replace and install new utility infrastructure. The upgrade of the utility lines is intended to improve currently outdated sewer system in order to keep up with current demand. The project would not extend any existing roadways into an undeveloped area or introduce any new roadways that could induce growth. Therefore, the project would not induce substantial population growth.

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

The project would replace and upgrade sewer utility infrastructure and would not result in the displacement of any existing housing, or otherwise affect existing housing in any way that would necessitate the construction of replacement housing.

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

The project would replace and upgrade utility sewer infrastructure and would not result in the displacement of any existing housing or other structures, or otherwise affect existing housing or other structures in any way that would result in the displacement of any people.

**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:

Issue	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Fire Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The project would not physically alter any fire protection facilities. Replacement and installation of utility infrastructure would not require any new or altered fire protection services.				
ii) Police Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The project would not physically alter any police protection facilities. Replacement and installation of utility infrastructure would not require any new or altered police protection services.				
iii) Schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The project would not physically alter any schools. Additionally, the project would not include construction of future housing or induce growth that could increase demand for schools in the area.				
v) Parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The project would not physically alter any parks or create new housing. Therefore, the project would not create demand for new parks or other recreational facilities.				
vi) Other public facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The project would not increase the demand for electricity, gas, or other public facilities. The project would improve the sewer utility system to keep up with current demand.				

**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?
- 

Implementation of the utility project would replace and improve sewer infrastructure. The project would not generate additional trips to existing recreation areas or induce future growth that would result in additional trips to these facilities. Therefore, the project would not increase the use of existing recreational areas such that substantial physical deterioration of the facility would occur or be accelerated.

- 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
-------	--------------------------------	--	------------------------------	-----------

The project would replace and improve sewer utility infrastructure and does not include the construction of recreational facilities or require the construction or expansion of recreational facilities.

**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 temporarily affect traffic circulation within the project's APE and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction so that traffic circulation would not be substantially impacted. Therefore, the project would not result in an increase of traffic which is substantial in relation to existing traffic capacity.

- 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?

Construction of the project would temporarily affect traffic circulation within the project's APE and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction so that traffic would not exceed cumulative or individual level of service.

- 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 does not include any tall structures or new features that could affect air traffic patterns or introduce new safety hazards related to air traffic.

- d) Substantially increase hazards due to

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

a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project was designed to meet City design standards and, therefore, would meet existing levels of safety.

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| e) Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

Construction of the project would temporarily affect traffic circulation within the project's APE and its adjoining roads. However, an approved Traffic Control Plan would be implemented during construction so that there would be adequate emergency access.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project once completed would be located below grade and within Stevenson Canyon and does not have the potential to conflict with any alternative transportation systems.

**XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:**

- |   |                          |                          |                          |                                     |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project would facilitate the treatment of wastewater and would not exceed the requirements of the Regional Water Quality Control Board.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

The project would facilitate the treatment of wastewater and, therefore, would not require the construction of any new water or wastewater treatment facilities.

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|

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

significant environmental effects?

The project would not result in expanded impervious surface area and would not result in substantial quantities of runoff which would require new or expanded treatment facilities. Therefore, the project would not require the construction of new storm water drainage facilities or expansion of existing facilities.

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

The project would not require the use of any permanent water source and, therefore, would not impact existing water supplies.

- 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?

The project would facilitate the transmission of wastewater but would not impact an existing wastewater treatment provider. The project is being proposed to keep up with current demands and would facilitate the treatment of wastewater.

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

Construction of the project would likely generate waste associated with construction activities. This waste would be disposed of in accordance with all applicable local and state regulations pertaining to solid waste including permitting capacity of the landfill serving the project area. Materials able to be recycled shall be done to local standards regulating such activity. Operation of the project would not generate waste and, therefore, would not affect the permitted capacity of the landfill serving the project area.

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

Any solid waste generated during construction related activities would be recycled or disposed of in accordance with all applicable local, state and federal regulations.

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE –**



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

- 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?

The project would result in direct impacts to Biological Resources and potential impacts to Paleontological Resources. However, implementation of the MMRP in section V of the MND would reduce direct and/or potential impacts to these resources to below a level of significance and would not result in degradation to the environment.

- 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)?

When viewed in connection with the effects of other projects in the Clairemont Mesa area, construction activities have the potential to impact cultural resources (paleontology) which could incrementally contribute to a cumulative loss of non-renewable resources. However, with implementation of the mitigation measures in section V of the MND, incremental impacts would be reduced to below a level of significance. In addition the project would result in impacts to Biological Resources. Mitigation for upland and wetland impacts has been incorporated and the impacts associated with this project combined with other closely related past, present, and reasonably foreseeable future projects would not result in a considerable incremental contribution to any cumulative impact.

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

<b>Issue</b>	<b>Potentially Significant Impact</b>	<b>Less Than Significant with Mitigation Incorporated</b>	<b>Less Than Significant Impact</b>	<b>No Impact</b>
--------------	---	---	---	------------------

The City of San Diego conducted an Initial Study which determined that the project could have a significant environmental effect in the following areas: Biological Resources and Cultural Resources. However, with the implementation of mitigation identified in Section V of this MND the project would not have environmental effects which would cause substantial direct or indirect adverse effects on human beings.

## INITIAL STUDY CHECKLIST

### REFERENCES

#### I. AESTHETICS / NEIGHBORHOOD CHARACTER

- City of San Diego General Plan.
- Community Plan.
- Local Coastal Plan.

#### II. AGRICULTURAL RESOURCES & FOREST RESOURCES

- City of San Diego General Plan.
- 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.
- Regional Air Quality Strategies (RAQS) - APCD.
- Site Specific Report:

#### IV. BIOLOGY

- City of San Diego, Multiple Species Conservation Program (MSCP), Subarea Plan, 1997
- City of San Diego, MSCP, "Vegetation Communities with Sensitive Species and Vernal Pools" Maps, 1996.
- 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 Reports: *Biological Resources Report: Balboa Terrace Trunk Sewer, revised October 2011 (LSA Associates)* and *Jurisdictional Delineation Report: Balboa Terrace Trunk Sewer Project, revised October 2011 (LSA Associates)*.
- V. CULTURAL RESOURCES (INCLUDES HISTORICAL RESOURCES)**
  - City of San Diego Historical Resources Guidelines.
  - City of San Diego Archaeology Library.
  - Historical Resources Board List.
  - Community Historical Survey:
  - Site Specific Report:
- VI. GEOLOGY/SOILS**
  - 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.
  - Site Specific Report: *Geotechnical Evaluation, Balboa Terrace Trunk Sewer, San Diego, California, December 2, 2010 revised September 2011(Ninyo & Moore)*.
- VII. GREENHOUSE GAS EMISSIONS**
  - Site Specific Report: 'Green House Gas Memo prepared for Balboa Terrace Trunk Sewer, August 1, 2011.'
- VIII. HAZARDS AND HAZARDOUS MATERIALS**
  - San Diego County Hazardous Materials Environmental Assessment Listing
  - San Diego County Hazardous Materials Management Division
  - State Water Resources Control Board Geotracker
  - State Assessment and Mitigation, Unauthorized Release Listing, Public Use Authorized.
  - Airport Land Use Compatibility Plan.
  - Site Specific Report:
- IX. HYDROLOGY/WATER QUALITY**
  - Flood Insurance Rate Map (FIRM).
  - 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](http://www.swrcb.ca.gov/tmdl/303d_lists.html).
- Site Specific Report:

**X. LAND USE AND PLANNING**

- City of San Diego General Plan.
- Community Plan.
- Airport Land Use Compatibility Plan
- City of San Diego Zoning Maps
- FAA Determination

**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.
- California Geological Survey - SMARA Mineral Land Classification Maps.
- Site Specific Report:

**XII. NOISE**

- Community Plan
- San Diego International Airport Master Plan CNEL Maps.
- MCAS Miramar ALUCP
- 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.
- City of San Diego General Plan.
- Site Specific Report:

**XIII. PALEONTOLOGICAL RESOURCES**

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

- 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.
- Community Plan.
- Series 11 Population Forecasts, SANDAG.
- Other:

**XV. PUBLIC SERVICES**

- City of San Diego General Plan.
- Community Plan.

**XVI. RECREATIONAL RESOURCES**

- City of San Diego General Plan.
- 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.
- Community Plan.
- 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.

X Community Plan.

\_\_\_ Site Specific Report:

**XIX. WATER CONSERVATION**

X City of San Diego General Plan.

\_\_\_ Community Plan.

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

\_\_\_ Site Specific Report:

**APPENDIX B**

**Fire Hydrant Meter Program**



<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 1 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

1. **PURPOSE**

- 1.1 To establish a Departmental policy and procedure for issuance, proper usage and charges for fire hydrant meters.

2. **AUTHORITY**

- 2.1 All authorities and references shall be current versions and revisions.
- 2.2 San Diego Municipal Code (NC) Chapter VI, Article 7, Sections 67.14 and 67.15
- 2.3 Code of Federal Regulations, Safe Drinking Water Act of 1986
- 2.4 California Code of Regulations, Titles 17 and 22
- 2.5 California State Penal Code, Section 498B.0
- 2.6 State of California Water Code, Section 110, 500-6, and 520-23
- 2.7 Water Department Director

**Reference**

- 2.8 State of California Guidance Manual for Cross Connection Programs
- 2.9 American Water Works Association Manual M-14, Recommended Practice for Backflow Prevention
- 2.10 American Water Works Association Standards for Water Meters
- 2.11 U.S.C. Foundation for Cross Connection Control and Hydraulic Research Manual

3. **DEFINITIONS**

- 3.1 **Fire Hydrant Meter:** A portable water meter which is connected to a fire hydrant for the purpose of temporary use. (These meters are sometimes referred to as Construction Meters.)

<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 2 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

- 3.2 **Temporary Water Use:** Water provided to the customer for no longer than twelve (12) months.
- 3.3 **Backflow Preventor:** A Reduced Pressure Principal Assembly connected to the outlet side of a Fire Hydrant Meter.

4. **POLICY**

- 4.1 The Water Department shall collect a deposit from every customer requiring a fire hydrant meter and appurtenances prior to providing the meter and appurtenances (see Section 7.1 regarding the Fees and Deposit Schedule). The deposit is refundable upon the termination of use and return of equipment and appurtenances in good working condition.
- 4.2 Fire hydrant meters will have a 2 ½" swivel connection between the meter and fire hydrant. The meter shall not be connected to the 4" port on the hydrant. All Fire Hydrant Meters issued shall have a Reduced Pressure Principle Assembly (RP) as part of the installation. Spanner wrenches are the only tool allowed to turn on water at the fire hydrant.
- 4.3 The use of private hydrant meters on City hydrants is prohibited, with exceptions as noted below. All private fire hydrant meters are to be phased out of the City of San Diego. All customers who wish to continue to use their own fire hydrant meters must adhere to the following conditions:
  - a. Meters shall meet all City specifications and American Water Works Association (AWWA) standards.
  - b. Customers currently using private fire hydrant meters in the City of San Diego water system will be allowed to continue using the meter under the following conditions:
    - 1. The customer must submit a current certificate of accuracy and calibration results for private meters and private backflows annually to the City of San Diego, Water Department, Meter Shop.

<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 3 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

2. The meter must be properly identifiable with a clearly labeled serial number on the body of the fire hydrant meter. The serial number shall be plainly stamped on the register lid and the main casing. Serial numbers shall be visible from the top of the meter casing and the numbers shall be stamped on the top of the inlet casing flange.
3. All meters shall be locked to the fire hydrant by the Water Department, Meter Section (see Section 4.7).
4. All meters shall be read by the Water Department, Meter Section (see Section 4.7).
5. All meters shall be relocated by the Water Department, Meter Section (see Section 4.7).
6. These meters shall be tested on the anniversary of the original test date and proof of testing will be submitted to the Water Department, Meter Shop, on a yearly basis. If not tested, the meter will not be allowed for use in the City of San Diego.
7. All private fire hydrant meters shall have backflow devices attached when installed.
8. The customer must maintain and repair their own private meters and private backflows.
9. The customer must provide current test and calibration results to the Water Department, Meter Shop after any repairs.
10. When private meters are damaged beyond repair, these private meters will be replaced by City owned fire hydrant meters.



<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 4 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

11. When a private meter malfunctions, the customer will be notified and the meter will be removed by the City and returned to the customer for repairs. Testing and calibration results shall be given to the City prior to any re-installation.
12. The register shall be hermetically sealed straight reading and shall be readable from the inlet side. Registration shall be in hundred cubic feet.
13. The outlet shall have a 2 ½ "National Standards Tested (NST) fire hydrant male coupling.
14. Private fire hydrant meters shall not be transferable from one contracting company to another (i.e. if a company goes out of business or is bought out by another company).

4.4 All fire hydrant meters and appurtenances shall be installed, relocated and removed by the City of San Diego, Water Department. All City owned fire hydrant meters and appurtenances shall be maintained by the City of San Diego, Water Department, Meter Services.

4.5 If any fire hydrant meter is used in violation of this Department Instruction, the violation will be reported to the Code Compliance Section for investigation and appropriate action. Any customer using a fire hydrant meter in violation of the requirements set forth above is subject to fines or penalties pursuant to the Municipal Code, Section 67.15 and Section 67.37.

4.6 **Conditions and Processes for Issuance of a Fire Hydrant Meter**

Process for Issuance

- a. Fire hydrant meters shall only be used for the following purposes:
  1. Temporary irrigation purposes not to exceed one year.

<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 5 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

2. Construction and maintenance related activities (see Tab 2).
  - b. No customer inside or outside the boundaries of the City of San Diego Water Department shall resell any portion of the water delivered through a fire hydrant by the City of San Diego Water Department.
  - c. The City of San Diego allows for the issuance of a temporary fire hydrant meter for a period not to exceed 12 months (365 days). An extension can only be granted in writing from the Water Department Director for up to 90 additional days. A written request for an extension by the consumer must be submitted at least 30 days prior to the 12 month period ending. No extension shall be granted to any customer with a delinquent account with the Water Department. No further extensions shall be granted.
  - d. Any customer requesting the issuance of a fire hydrant meter shall file an application with the Meter Section. The customer must complete a "Fire Hydrant Meter Application" (Tab 1) which includes the name of the company, the party responsible for payment, Social Security number and/or California ID, requested location of the meter (a detailed map signifying an exact location), local contact person, local phone number, a contractor's license (or a business license), description of specific water use, duration of use at the site and full name and address of the person responsible for payment.
  - e. At the time of the application the customer will pay their fees according to the schedule set forth in the Rate Book of Fees and Charges, located in the City Clerk's Office. All fees must be paid by check, money order or cashiers check, made payable to the City Treasurer. Cash will not be accepted.
  - f. No fire hydrant meters shall be furnished or relocated for any customer with a delinquent account with the Water Department.
  - g. After the fees have been paid and an account has been created, the



<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 6 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

meter shall be installed within 48 hours (by the second business day). For an additional fee, at overtime rates, meters can be installed within 24 hours (within one business day).

#### 4.7 Relocation of Existing Fire Hydrant Meters

- a. The customer shall call the Fire Hydrant Meter Hotline (herein referred to as "Hotline"), a minimum of 24 hours in advance, to request the relocation of a meter. A fee will be charged to the existing account, which must be current before a work order is generated for the meter's relocation.
- b. The customer will supply in writing the address where the meter is to be relocated (map page, cross street, etc). The customer must update the original Fire Hydrant Meter Application with any changes as it applies to the new location.
- c. Fire hydrant meters shall be read on a monthly basis. While fire hydrant meters and backflow devices are in service, commodity, base fee and damage charges, if applicable, will be billed to the customer on a monthly basis. If the account becomes delinquent, the meter will be removed.

#### 4.8 Disconnection of Fire Hydrant Meter

- a. After ten (10) months a "Notice of Discontinuation of Service" (Tab 3) will be issued to the site and the address of record to notify the customer of the date of discontinuance of service. An extension can only be granted in writing from the Water Department Director for up to 90 additional days (as stated in Section 4.6C) and a copy of the extension shall be forwarded to the Meter Shop Supervisor. If an extension has not been approved, the meter will be removed after twelve (12) months of use.
- b. Upon completion of the project the customer will notify the Meter Services office via the Hotline to request the removal of the fire hydrant meter and appurtenances. A work order will be generated

<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 7 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

for removal of the meter.

- c. Meter Section staff will remove the meter and backflow prevention assembly and return it to the Meter Shop. Once returned to the Meter Shop the meter and backflow will be tested for accuracy and functionality.
- d. Meter Section Staff will contact and notify Customer Services of the final read and any charges resulting from damages to the meter and backflow or its appurtenance. These charges will be added on the customer's final bill and will be sent to the address of record. Any customer who has an outstanding balance will not receive additional meters.
- e. Outstanding balances due may be deducted from deposits and any balances refunded to the customer. Any outstanding balances will be turned over to the City Treasurer for collection. Outstanding balances may also be transferred to any other existing accounts.

5. **EXCEPTIONS**

- 5.1 Any request for exceptions to this policy shall be presented, in writing, to the Customer Support Deputy Director, or his/her designee for consideration.

6. **MOBILE METER**

- 6.1 Mobile meters will be allowed on a case by case basis. All mobile meters will be protected by an approved backflow assembly and the minimum requirement will be a Reduced Pressure Principal Assembly. The two types of Mobile Meters are vehicle mounted and floating meters. Each style of meters has separate guidelines that shall be followed for the customer to retain service and are described below:

- a) **Vehicle Mounted Meters:** Customer applies for and receives a City owned Fire Hydrant Meter from the Meter Shop. The customer mounts the meter on the vehicle and brings it to the Meter Shop for



<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 8 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

inspection. After installation is approved by the Meter Shop the vehicle and meter shall be brought to the Meter Shop on a monthly basis for meter reading and on a quarterly basis for testing of the backflow assembly. Meters mounted at the owner's expense shall have the one year contract expiration waived and shall have meter or backflow changed if either fails.

b) **Floating Meters:** Floating Meters are meters that are not mounted to a vehicle. **(Note: All floating meters shall have an approved backflow assembly attached.)** The customer shall submit an application and a letter explaining the need for a floating meter to the Meter Shop. The Fire Hydrant Meter Administrator, after a thorough review of the needs of the customer, (i.e. number of jobsites per day, City contract work, lack of mounting area on work vehicle, etc.), may issue a floating meter. At the time of issue, it will be necessary for the customer to complete and sign the "Floating Fire Hydrant Meter Agreement" which states the following:

- 1) The meter will be brought to the Meter Shop at 2797 Caminito Chollas, San Diego on the third week of each month for the monthly read by Meter Shop personnel.
- 2) Every other month the meter will be read and the backflow will be tested. This date will be determined by the start date of the agreement.

If any of the conditions stated above are not met the Meter Shop has the right to cancel the contract for floating meter use and close the account associated with the meter. The Meter Shop will also exercise the right to refuse the issuance of another floating meter to the company in question.

Any Fire Hydrant Meter using reclaimed water shall not be allowed use again with any potable water supply. The customer shall incur the cost of replacing the meter and backflow device in this instance.



<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 9 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

**7. FEE AND DEPOSIT SCHEDULES**

- 7.1 **Fees and Deposit Schedules:** The fees and deposits, as listed in the Rate Book of Fees and Charges, on file with the Office of the City Clerk, are based on actual reimbursement of costs of services performed, equipment and materials. These deposits and fees will be amended, as needed, based on actual costs. Deposits, will be refunded at the end of the use of the fire hydrant meter, upon return of equipment in good working condition and all outstanding balances on account are paid. Deposits can also be used to cover outstanding balances.

All fees for equipment, installation, testing, relocation and other costs related to this program are subject to change without prior notification. The Mayor and Council will be notified of any future changes.

**8. UNAUTHORIZED USE OF WATER FROM A HYDRANT**

- 8.1 Use of water from any fire hydrant without a properly issued and installed fire hydrant meter is theft of City property. Customers who use water for unauthorized purposes or without a City of San Diego issued meter will be prosecuted.
- 8.2 If any unauthorized connection, disconnection or relocation of a fire hydrant meter, or other connection device is made by anyone other than authorized Water Department personnel, the person making the connection will be prosecuted for a violation of San Diego Municipal Code, Section 67.15. In the case of a second offense, the customer's fire hydrant meter shall be confiscated and/or the deposit will be forfeited.
- 8.3 Unauthorized water use shall be billed to the responsible party. Water use charges shall be based on meter readings, or estimates when meter readings are not available.
- 8.4 In case of unauthorized water use, the customer shall be billed for all applicable charges as if proper authorization for the water use had been obtained, including but not limited to bi-monthly service charges, installation charges and removal charges.

<b>CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS</b>	<b>NUMBER DI 55.27</b>	<b>DEPARTMENT Water Department</b>
<b>SUBJECT  FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)</b>	<b>PAGE 10 OF 10</b>	<b>EFFECTIVE DATE  October 15, 2002</b>
	<b>SUPERSEDES DI 55.27</b>	<b>DATED April 21, 2000</b>

- 8.5 If damage occurs to Water Department property (i.e. fire hydrant meter, backflow, various appurtenances), the cost of repairs or replacements will be charged to the customer of record (applicant).

**Water Department Director**

- Tabs: 1. Fire Hydrant Meter Application  
2. Construction & Maintenance Related Activities With No Return To Sewer  
3. Notice of Discontinuation of Service

#### APPENDIX

**Administering Division:** Customer Support Division

**Subject Index:** Construction Meters  
Fire Hydrant  
Fire Hydrant Meter Program  
Meters, Floating or Vehicle Mounted  
Mobile Meter  
Program, Fire Hydrant Meter

**Distribution:** DI Manual Holders





# Application For Fire Hydrant Meter

(EXHIBIT A)

For Office Use Only

Department: METER SHOP 619 527 7449  
2797 Caminito Chollas • San Diego, California 92105-5097 • FAX 619 527 3125

NS Req:	Fac #:
Date:	By:

Application Date:	Requested Install Date:
-------------------	-------------------------

Fire Hydrant Location: (Attach detailed map, Thomas Bros. map location or construction drawing.)

Specific Use of Water:

Any return to Sewer or Storm Drain, if so, explain:

Estimated Duration of Meter Use:   Check Box if Reclaimed Water

## Company Information

Company Name:

Mailing Address:

City: State: Zip Code: Phone: ( )

\*Business License #: \*Contractor License #:

\*A copy of the Contractor's License and/or Business License is required at the time of meter issuance.

Name and Title of Agent: Phone: ( )

Site Contact Name and Title: Phone: ( )

Pager #: Cell: ( )

Responsible Party Name: Title:

Social Security or Cal ID #: Phone: ( )

Signature: Date:

Guarantees payment of all charges resulting from the use of this meter. Insures that employees of this organization understand the proper use of Fire Hydrant Meter.

## Fire Hydrant Meter Removal Request

Check Box to Request Removal of Above Meter Requested Removal Date:

Provide current Meter location if different from above:

Signature: Title: Date:

Phone: ( ) Pager: ( )

### For Office Use Only

<input type="checkbox"/> City Meter	<input type="checkbox"/> Private Meter		
CIS Account #:	Deposit Amount: \$	Fees Amount: \$	
Meter Serial #:	Meter Size:	Meter Make & Style:	
Backflow #:	Backflow Size:	Meter Make & Style:	
Name:	Signature:	Date:	

\$1,108.45 - FOR 24 HR INSTALLATION  
 \$1,052.26 - FOR 48 HR INSTALLATION

FHM App Created: 11/2/00-htp

**"Exhibit B"**

**CONSTRUCTION AND MAINTENANCE RELATED ACTIVITIES WITH NO RETURN TO SEWER:**

**Auto Detailing  
Backfilling  
Combination Cleaners (Vactors)  
Compaction  
Concrete Cutters  
Construction Trailers  
Cross Connection Testing  
Dust Control  
Flushing Water Mains  
Hydro blasting  
Hydro Seeding  
Irrigation (for establishing irrigation only; not continuing irrigation)  
Mixing Concrete  
Mobile Car Washing  
Special Events  
Street Sweeping  
Water Tanks  
Water Trucks  
Window Washing**

**Note: If there is any return to sewer or storm drain, then sewer and/or storm drain fees will be charged.**

**"Exhibit C"**

Date

Name of Responsible Party

Company Name and address

Account Number: \_\_\_\_\_

Subject: Discontinuation of Fire Hydrant Meter Service

Dear Water Department Customer:

The authorization for use of Fire Hydrant Meter # \_\_\_\_\_ located at (Meter location address) ends in 60 days and will be removed on or after (Date authorization expires). Extension requests for an additional 90 days must be submitted in writing for consideration 30 days prior to the discontinuation date. If you require an extension, please refer to the Water Departments', Department Instruction (D.I.) 55.27 for further information and procedure.

Mail your request for an extension to :

City of San Diego, Water Department

Attn: Meter Services

2797 Caminito Chollas

San Diego, Ca. 92105-5097

Should you have any questions regarding this matter, please call the Fire Hydrant "Hot Line" at: (xxx) xxx-xxx.

Sincerely,

City of San Diego Water Department



# Fire Hydrant Meter Relocate/Removal Request

(EXHIBIT D)

For Office Use Only

NS Req:	FHM Fac #:
Date:	By:

Date:

Instruction: Complete pertinent information then FAX both form and map to (xxx) xxx-xxxx, mail, or hand-deliver to the City of San Diego, Water Department/Meter Shop at: 2707 Caminito Chollas San Diego, CA 92105

## Meter Information

Billing Account #:	Requested Move Date:
Current Fire Hydrant Meter Location:	
New Meter Location: (Attach a detailed map, Thomas Bros map location or construction drawing.)	

## Company Information

Company Name:			
Mailing Address			
City:	State:	Zip Code:	Phone: ( )
Name and Title of Requestor:			Phone: ( )
Site Contact Name and Title			Phone: ( )
Pager #:			Cell: ( )
Responsible Party Name authorizing relocation fee:			
Signature:	Title:	Date:	

## Fire Hydrant Meter Removal Request

<input type="checkbox"/> Check Box to Request Removal of Above Meter	Requested Removal Date:	
Provide current Meter location if different from above:		
Signature:	Title:	Date:
Phone: ( )	Pager: ( )	

For Office Use Only

CIS Account #:	Fees Amount: \$		
Meter Serial #:	Size:	Make/Style	
Backflow #:	Size:	Make/Style	
Name:	Signature:	Date:	

FHM Relocate\_Removal Form

FHM App Created: 11/2/00-htp

## **APPENDIX C**

### **Materials Typically Accepted by Certificate of Compliance**

## **Materials Typically Accepted by Certificate of Compliance**

1. Soil amendment
2. Fiber mulch
3. PVC or PE pipe up to 16 inch diameter
4. Stabilizing emulsion
5. Lime
6. Preformed elastomeric joint seal
7. Plain and fabric reinforced elastomeric bearing pads
8. Steel reinforced elastomeric bearing pads
9. Waterstops (Special Condition)
10. Epoxy coated bar reinforcement
11. Plain and reinforcing steel
12. Structural steel
13. Structural timber and lumber
14. Treated timber and lumber
15. Lumber and timber
16. Aluminum pipe and aluminum pipe arch
17. Corrugated steel pipe and corrugated steel pipe arch
18. Structural metal plate pipe arches and pipe arches
19. Perforated steel pipe
20. Aluminum underdrain pipe
21. Aluminum or steel entrance tapers, pipe downdrains, reducers, coupling bands and slip joints
22. Metal target plates
23. Paint (traffic striping)
24. Conductors
25. Painting of electrical equipment
26. Electrical components
27. Engineering fabric
28. Portland Cement
29. PCC admixtures
30. Minor concrete, asphalt
31. Asphalt (oil)
32. Liquid asphalt emulsion
33. Epoxy



**APPENDIX D**

**Sample City Invoice**

City of San Diego, Field Engineering Div., 9485 Aero Drive, SD CA 92123						Contractor's Name:					
Project Name:						Contractor's Address:					
SAP No. (WBS/IO/CC)											
City Purchase Order No.						Contractor's Phone #:			Invoice No.		
Resident Engineer (RE):						Contractor's Fax #:			Invoice Date:		
RE Phone#:			RE Fax#:			Contact Name:			Billing Period:		
Item #	Item Description	Contract Authorization				Previous Estimate		This Estimate		Totals to Date	
		Unit	Qty	Price	Extension	%/QTY	Amount	% / QTY	Amount	% / QTY	Amount
1	2 Parallel 4" PVC C900	LF	1,380	\$34.00	\$46,920.00						
2	48" Primary Steel Casing	LF	500	\$1,000.00	\$500,000.00						
3	2 Parallel 12" Secondary Steel	LF	1,120	\$53.00	\$59,360.00						
4	Construction and Rehab of PS 49	LS	1	\$150,000.00	\$150,000.00						
5	Demo	LS	1	\$14,000.00	\$14,000.00						
6	Install 6' High Chain Link Fence	LS	1	\$5,600.00	\$5,600.00						
7	General Site Restoration	LS	1	\$3,700.00	\$3,700.00						
8	10" Gravity Sewer	LF	10	\$292.00	\$2,920.00						
9	4" Blow Off Valves	EA	2	\$9,800.00	\$19,600.00						
10	Bonds	LS	1	\$16,000.00	\$16,000.00						
11	Field Orders	AL	1	80,000	\$80,000.00						
11.1	Field Order 1	LS	5,500	\$1.00	\$5,500.00						
11.2	Field Order 2	LS	7,500	\$1.00	\$7,500.00						
11.3	Field Order 3	LS	10,000	\$1.00	\$10,000.00						
11.4	Field Order 4	LS	6,500	\$1.00	\$6,500.00						
12	Certified Payroll	LS	1	\$1,400.00	\$1,400.00						
<b>CHANGE ORDERS</b>											
Change Order 1			4,890								
Items 1-4					\$11,250.00						
Item 5-Deduct Bid Item 3		LF	120	-\$53.00	(\$6,360.00)						
Change Order 2			160,480								
Items 1-3					\$95,000.00						
Item 4 Deduct Bid Item 1		LF	380	-\$340.00	(\$12,920.00)						
Item 5-Encrease bid Item 9		LF	8	\$9,800.00	\$78,400.00						
Change Order 3 (Close Out)			-121,500								
Item 1 Deduct Bid Item 3			53	-500.00	(\$26,500.00)						
Item 2 Deduct Bid Item 4		LS	-1	45,000.00	(\$45,000.00)						
Items 3-9			1	-50,500.00	(\$50,500.00)						
<b>SUMMARY</b>								Total This	\$ -	Total Billed	\$0.00
A. Original Contract Amount						<b>Retention and/or Escrow Payment Schedule</b>					
B. Approved Change Order 1 Thru 3						Total Retention Required as of this billing					
C. Total Authorized Amount (A+B)						Previous Retention Withheld in PO or in Escrow					
D. Total Billed to Date						Add'l Amt to Withhold in PO/Transfer in Escrow:					
E. Less Total Retention (5% of D)						Amt to Release to Contractor from PO/Escrow:					
F. Less Total Previous Payments											
<b>G. Payment Due Less Retention</b>						<b>Contractor Signature and Date:</b>					
H. Remaining Authorized Amount											

**APPENDIX E**

**Hydrostatic Discharge Form**

## APPENDIX

### Hydrostatic Discharge Requirements Certification (Discharge Events < 500,000 gpd)

All discharge activities related to this project comply with the Regional Water Quality Control Board (RWQCB) Order No. 2002-0020, General Permit for Discharges of Hydrostatic Test Water and Potable Water to Surface Water and Storm Drains as referenced by ([http://www.swrcb.ca.gov/rwqcb9/board\\_decisions/adopted\\_orders/2002/2002\\_0020.shtml](http://www.swrcb.ca.gov/rwqcb9/board_decisions/adopted_orders/2002/2002_0020.shtml)), and as follows:

Discharged water has been dechlorinated to below <b>0.1</b> (mg/l) level; and effluent has been maintained between <b>6 and 9</b> (PH) based on:							<i>is discharge within acceptable limits?</i>		<i>Comment</i>
Event #	Discharge Date & Amount (GAL)	Discharge Time	Meter Readings (at source)	Test Results (Chlorine / PH)	Name of Personnel Conducting Tests (print)	*signature of personnel	yes	no	
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						
	Date	Start:	Start:						
	Amt:	End:	End:						

\*By signing, I certify that all of the statements and conditions for hydrostatic discharge events are correct.

**Project Name:** \_\_\_\_\_

**Work Order No.(s):** \_\_\_\_\_

Have any thresholds have been exceeded? Per Order No. 2002-0020, would this be a reportable discharge and must be reported **within 24 hours** of the event? [Reportable discharge would include violation of maximum gallons per day, any upset which exceeds any effluent limit]

**APPENDIX F**

**Caltrans Permit**

**ENCROACHMENT PERMIT**

TR-0120 (REV. 6/2000)

In compliance with (Check one):

- Your application of SEPTEMBER 29, 2011
- Utility Notice No. \_\_\_\_\_ of \_\_\_\_\_
- Agreement No. \_\_\_\_\_ of \_\_\_\_\_
- R/W Contract No. \_\_\_\_\_ of \_\_\_\_\_

Permit No. <b>11-11-NTK-0547</b>	
Dist/Co/Rte/PM <b>11-SD-5/R23.41-R23.47</b>	
Date <b>DECEMBER 20, 2011</b>	
Fee Paid \$ <b>EXEMPT</b>	Deposit \$ <b>EXEMPT</b>
Performance Bond Amount (1) \$ <b>N/A</b>	Payment Bond Amount (2) \$ <b>N/A</b>
Bond Company <b>N/A</b>	
Bond Number (1) <b>N/A</b>	Bond Number (2) <b>N/A</b>

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

ATTN: BRIAN VITELLE  
PHONE: (619) 533-7413

, PERMITTEE

And subject to the following, PERMISSION IS HEREBY GRANTED to:

enter upon State Highway right of way in San Diego County, City of San Diego, on Route 5, post mile R23.41 to R23.47, to place temporary traffic control to facilitate work outside of the right of way, as shown on the attached plans, in accordance with the requirements and conditions contained herein and as further directed or approved by the State's Inspector, Ralph Yanzon, telephone number (619) 718-7894, cell number (858) 688-1458.

The State's Inspector shall be notified seven working days prior to starting work.

Working hours shall be 9:00 P. M. to 5:00 A. M., Sunday through Thursday, or as directed and approved by the State's Inspector.

No vehicles or equipment shall be parked within the highway right of way at any time, except for those vehicles or that equipment actually engaged in the work, during the working hours specified herein.

(CONTINUED)

**THIS PERMIT IS NOT A PROPERTY RIGHT AND DOES NOT TRANSFER WITH THE PROPERTY TO A NEW OWNER**

The following attachments are also included as part of this permit (Check applicable):

- Yes  No General Provisions
- Yes  No Utility Maintenance Provisions
- Yes  No Special Provisions
- Yes  No A Cal-OSHA permit, if required: Permit No. \_\_\_\_\_
- Yes  No As-Built Plans Submittal Route Slip for Locally Advertised Projects
- Yes  No Water Pollution Control Plan

In addition to fee, the permittee will be billed actual costs for:

- Yes  No Review
- Yes  No Inspection
- Yes  No Field Work

(If any Caltrans effort expended)

Yes  No The information in the environmental documentation has been reviewed and is considered prior to approval of this permit.

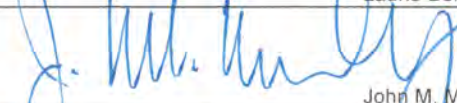
This permit is void unless the work is complete before **DECEMBER 31, 2012.**

This permit is to be strictly construed and no other work other than specifically mentioned is hereby authorized.  
No project work shall be commenced until all other necessary permits and environmental clearances have been obtained.

WMD:wmd  
cc: Permits  
BRominus, Reg. Mgr.  
RYanzon, Inspector  
Permittee  
Contractor

APPROVED:

BY:  Laurie Berman, District Director

BY:  John M. Markey, District Permit Engineer

**CITY OF SAN DIEGO**  
**11-11-NTK-0547**  
**DECEMBER 20, 2011**  
**PAGE TWO**

Permittee's Contractor is responsible for the actual cost of inspection, which may be more or less than the deposit. A bill or refund shall be sent upon satisfactory completion of the work. Payment of any bill is a condition of the permit.

Notwithstanding General Provision No. 4, your contractor is required to apply for and obtain an encroachment permit prior to starting work. A permit inspection deposit fee of \$1,066.00 will be required upon submittal of the application to perform the work.

The State of California, Department of Transportation, makes no assurance or expressed warranty that the plans are complete or that the planned construction fits field conditions. Should additional work or modifications of the work be required in order to meet established Department Standards or in order to fit field conditions, the work shall be performed by Permittee as directed by the State's Inspector at no cost to the State.

All work shall be coordinated with the State highway contractor's operations and under no circumstances shall the work granted herein interfere. All standards of construction shall be identical to similar work performed under adjacent highway contract.

Traffic control when permitted or directed by the State's Inspector, shall consist of closing shoulders in accordance with Part 6 of the January, 2010 edition of the California Manual on Uniform Traffic Control Devices (California MUTCD), the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications, and these special provisions, including the attached TRAFFIC CONTROL SYSTEM, T-11 (SHOULDER CLOSURE), and the attached TRAFFIC CONTROL PLANS.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Permittee shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

The provisions in this section will not relieve the Permittee from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.09, of the Standard Specifications.

Upon completion of the work, the attached card shall be completed and returned.

The following District Standard Special Provisions are generalizations of the Department Standard Specifications and are included only as a Permittee convenience. Permittee's attention is directed to the current Department Standard Specifications for complete, unabridged, specification requirements.

Once begun, that portion of the work within the State Highway right of way shall be prosecuted to completion as rapidly as possible.



**CITY OF SAN DIEGO**  
**11-11-NTK-0547**  
**DECEMBER 20, 2011**  
**PAGE THREE**

All personnel on foot within the State Highway right of way shall wear personal protective equipment, including safety glasses, hard hats and American National Standards Institute (ANSI) compliant Class II vests. In addition, all personnel working at night, on foot within the State Highway right of way shall wear ANSI Class III warning garments.

The Permittee is responsible for locating and protecting all utilities both underground and aerial. Any costs incurred for locating and protecting and/or relocating any utilities shall be borne by the Permittee



1. **AUTHORITY:** The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
4. **ASSIGNMENT:** No party other than the permittee or permittee's authorized agent is allowed to work under this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.
6. **BEGINNING OF WORK:** When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."
8. **PLAN CHANGES:** Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.
9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).
12. **PERMITS FROM OTHER AGENCIES:** This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 4' shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street. Attention is directed to Section 7-1.09 Public Safety of the Department Standard Specifications.
14. **PUBLIC TRAFFIC CONTROL:** As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. While providing traffic control, the needs and control of all road users [motorists, bicyclists and pedestrians, including persons with disabilities in accordance with the Americans with Disabilities Act of 1990 (ADA)] shall be an essential part of the work activity.  
  
Day and night time lane closures shall comply with the California Manual on Uniform Traffic Control Devices (Part 6, Temporary Traffic Control), Standard Plans, and Standard Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the California Manual on Uniform Traffic Control Devices (Chapter 6E, Flagger Control).
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this specific encroachment permit. If Encroachment Permit Special Provisions allow for the storage of equipment or materials within the State right of way, the equipment and material storage shall comply with Standard Specifications, Standard Plans, Special Provisions, and the Highway Design Manual. The clear recovery zone widths must be followed and are the minimum desirable for the type of facility indicated below: freeways and expressways - 30', conventional highways (no curbs) - 20', conventional highways (with curbs) - 1.5'. If a fixed object cannot be eliminated, moved outside the clear recovery zone, or modified to be made yielding, it should be shielded by a guardrail or a crash cushion.
17. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN RIGHT OF WAY:** Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.).



19. **RIGHT OF WAY CLEAN UP:** Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.
20. **COST OF WORK:** Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.
21. **ACTUAL COST BILLING:** When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.
22. **AS-BUILT PLANS:** When required, permittee shall submit one (1) set of folded as-built plans within thirty (30) days after completion and approval of work in compliance with requirements listed as follows:
1. Upon completion of the work provided herein, the permittee shall send one vellum or paper set of As-Built plans, to the State representative. Mylar or paper sepia plans are not acceptable.
  2. All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
  3. The plans are to be stamped or otherwise noted AS-BUILT by the permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a State stamp, or Caltrans representative signature, shall be used for producing the As-Built plans.
  4. If As-Built plans include signing or striping, the dates of signing or striping removal, relocation, or installation shall be shown on the plans when required as a condition of the permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage shall show the removal, relocation or installation dates of the appropriate staged striping and signing.
  5. As-Built plans shall contain the Permit Number, County, Route, and Post Mile on each sheet.
  6. Disclaimer statement of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code, shall not be included on the As-Built plans. Such statements constitute non-compliance with Encroachment Permit requirements, and may result in the Department of Transportation retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future permits, or a provision requiring a public agency to supply additional bonding.
23. **PERMITS FOR RECORD PURPOSES ONLY:** When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.
24. **BONDING:** The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.
25. **FUTURE MOVING OF INSTALLATIONS:** Permittee understands and agrees to relocate a permitted installation upon notice by the Department. Unless under prior property right or agreement, the permittee shall comply with said notice at his sole expense.
26. **ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.
27. **PREVAILING WAGES:** Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.
28. **RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.
- The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

29. **NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.
30. **FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:**  
A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that:  
1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.  
2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.  
3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the right of way.  
4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A, Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.  
5. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.
31. **MAINTENANCE OF HIGHWAYS:** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.
32. **SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

The permittee understands and agrees to comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

33. **PRIVATE USE OF RIGHT OF WAY:** Highway right of way shall not be used for private purposes without compensation to the State.

The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.

34. **FIELD WORK REIMBURSEMENT:** Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.
35. **NOTIFICATION OF DEPARTMENT AND TMC:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.
36. **SUSPENSION OF TRAFFIC CONTROL OPERATION:** The permittee, upon notification by the Department's representative, shall immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension shall be borne by the permittee.
37. **UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including, but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET TOTAL NO. SHEETS

REGISTERED CIVIL ENGINEER  
 Gordon Wong  
 No. C63597  
 Exp. 9-30-12  
 ENR  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE  
 May 20, 2011

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SEAMER COPYES OF THIS PLAN SHEET.

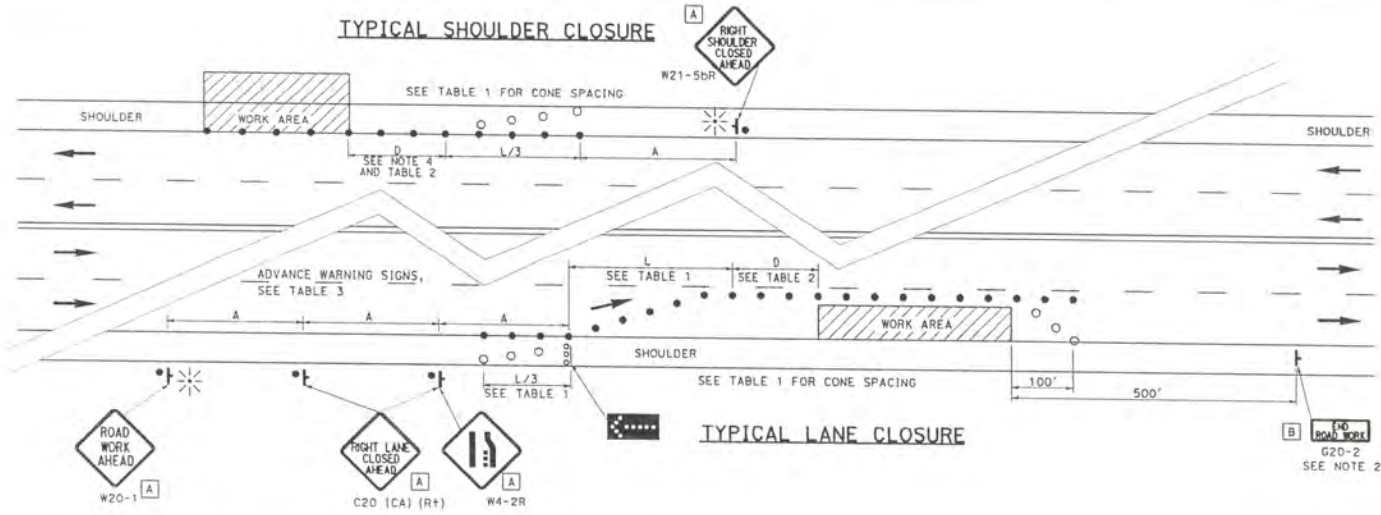


TABLE 1

APPROACH SPEED	* Min			Max SPACING OF CONES
	L	L/3	L/3	
mph	ft	ft	ft	ft
20 AND BELOW	80	30	20	20
25	125	45	25	25
30	180	60	30	30
35	245	85	35	35
40	320	110	40	40
45	540	180	45	45
50	600	200	50	50
OVER 50	SEE NOTE 3			
* USE L FOR LANE WIDTHS LESS THAN OR EQUAL TO 12'.				

TABLE 2

APPROACH SPEED	Min D	DOWNGRADE Min D *		
		-3%	-6%	-9%
mph	ft	ft	ft	ft
25 AND BELOW	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
OVER 50	SEE NOTE 3			
* USE ON SUSTAINED DOWNGRADE STEEPER THAN -3 PERCENT AND LONGER THAN 1 MILE.				

TABLE 3

ROAD TYPE	DISTANCE BETWEEN SIGNS	
	Min A (ft)	Min B (ft)
URBAN (SPEED 25 mph OR LESS)	100	
URBAN (SPEED 30 mph OR MORE)	350	
RURAL	500	
EXPRESSWAY / FREEWAY	SEE NOTE 3	

LEGEND

- TRAFFIC CONE
- TRAFFIC CONE (OPTIONAL TAPER)
- † TEMPORARY SIGN
- ← DIRECTION OF TRAVEL
- ⚡ FLASHING ARROW SIGN (FAS)
- ⚡ FAS SUPPORT OR TRAILER
- ⚡ PORTABLE FLASHING BEACON

SIGN PANEL SIZE (Min)

- A 36" x 36"
- B 36" x 18"

NOTES:

1. California code are designated by (CA). Otherwise, Federal (MUTCD) codes are shown.
2. A G20-2 "END ROAD WORK" sign, as appropriate, shall be placed at the end of the lane closure unless the end of work area is obvious, or ends within a larger project's limits.
3. For approach speeds over 50 mph, use the "Traffic Control System for Lane Closure On Freeways And Expressways" plan for lane closure details and requirements.
4. D is longitudinal buffer space and is optional only when work area is beyond the shoulder or clear recovery zone where there is no shoulder.

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**TRAFFIC CONTROL SYSTEM  
 FOR LANE CLOSURE ON  
 MULTILANE CONVENTIONAL  
 HIGHWAYS**

NO SCALE

T11

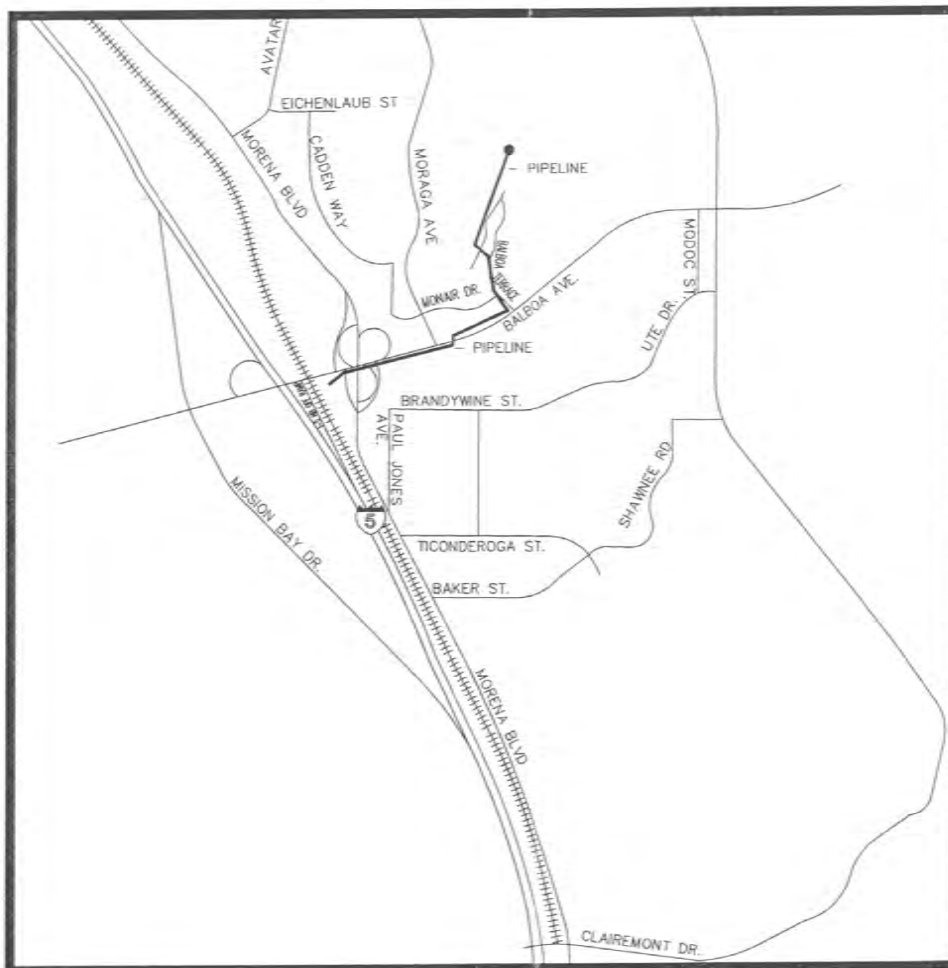
**TRAFFIC CONTROL NOTES**

1. VALIDATION: THIS TRAFFIC CONTROL PLAN IS NOT VALID UNTIL WORK DATES ARE APPROVED. THE CONTRACTOR SHALL, PER SECTION 7-10.1.3 OF THE CONTRACT SPECIAL PROVISIONS, CALL THE ENGINEER TRAFFIC CONTROL SECTION AT (858) 495-4741 TO OBTAIN A PERMIT. THE CONTRACTOR MUST CALL A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO STARTING WORK, OR FIVE (5) WORKING DAYS WHEN THE WORK WILL AFFECT A TRAFFIC SIGNAL.
2. STANDARDS: THIS TRAFFIC CONTROL PLAN SHALL CONFORM TO THE MOST RECENT ADOPTED EDITION OF EACH OF THE FOLLOWING MANUALS:
  - CITY OF SAN DIEGO STANDARD DRAWINGS, APPENDIX "A";
  - CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS; AND
  - STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK"), INCLUDING REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT AMENDMENTS.
3. NOTIFICATIONS: THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AFFECTED AGENCIES A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ANY EXCAVATION, CONSTRUCTION OR TRAFFIC CONTROL:
 

FIRE DEPARTMENT DISPATCH	(STREET OR ALLEY CLOSURE)	(858) 573-1300
POLICE DEPARTMENT TRAFFIC	(STREET OR ALLEY CLOSURE)	(858) 495-7800
WASTE MANAGEMENT DEPT	(REFUSE COLLECTION)	(858) 694-7000
STREET DIVISION/ELECTRICAL	(TRAFFIC SIGNALS)	(619) 527-7500
SAN DIEGO TRANSIT	(BUS STOPS)	(619) 595-7038
MTDB	(TAXI ZONES)	(619) 235-2643
UNDERGROUND SERVICE ALERT	(ANY EXCAVATION)	(800) 422-4133

THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS AND TENANTS A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CLOSURE OF DRIVEWAYS. THE CONTRACTOR SHALL POST SIGNS NOTIFYING THE PUBLIC A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CLOSURE OF STREETS.
4. POSTING PARKING RESTRICTIONS: THE CONTRACTOR SHALL POST TOW-AWAY/NO PARKING SIGNS TWENTY-FOUR (24) HOURS IN ADVANCE FOR TEMPORARY PARKING REMOVAL. SIGNS SHALL INDICATE SPECIFIC DAYS, DATES AND TIMES OF RESTRICTIONS.
5. EXCAVATIONS: EXCEPT AS SHOWN ON THE PLANS, TRENCHES SHALL BE BACKFILLED OR TRENCH-PLATED AT THE END OF EACH WORK DAY. AN ASPHALT RAMP SHALL BE PLACED AROUND EACH TRENCH PLATE TO PREVENT THE PLATE FROM BEING DISLODGED. UPON COMPLETION OF EXCAVATION BACKFILL, THE CONTRACTORS SHALL PROVIDE A SATISFACTORY SURFACE FOR TRAFFIC. WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVELY IN PROGRESS, THE CONTRACTOR SHALL MAINTAIN ALL TRAVEL LANES OPEN TO TRAFFIC, EXCEPT AS SHOWN ON THE PLANS.
6. RESTORATION OF TRAFFIC CONTROL DEVICES: THE CONTRACTOR SHALL REPAIR OR REPLACE TRAFFIC CONTROL DEVICES (INCLUDING TRAFFIC SIGNS, STRIPING, PAVEMENT MARKERS, PAVEMENT MARKINGS, LEGENDS, CURB MARKINGS, LOOP DETECTORS, TRAFFIC SIGNAL EQUIPMENT, ETC) DAMAGED OR REMOVED AS A RESULT OF OPERATIONS AND NOT DESIGNATED FOR REMOVAL. REPAIRS AND REPLACEMENTS SHALL BE EQUAL TO EXISTING IMPROVEMENTS. LOOP DETECTORS SHALL BE REPLACED WITHIN THREE (3) WORKING DAYS OF COMPLETION OF UNDERGROUND WORK.
7. CHANGES IN WORK: THE RESIDENT ENGINEER WILL OBSERVE THESE TRAFFIC CONTROL PLANS IN OPERATION AND RESERVES THE RIGHT TO MAKE CHANGES AS THE FIELD CONDITIONS WARRANT. SUCH CHANGES SHALL SUPERSEDE THESE PLANS.
8. FOR WORK NOT COVERED BY THESE TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL, PER SECTION 7-10.1.1 OF THE CONTRACT SPECIAL PROVISIONS, PREPARE TRAFFIC CONTROL SHOP DRAWINGS AND SUBMIT THEM TO THE RESIDENT ENGINEER. THE CONTRACTOR SHALL ALLOW A MINIMUM OF TWENTY (20) WORKING DAYS FOR REVIEW OF THE SHOP DRAWINGS. UPON APPROVAL OF THE TRAFFIC CONTROL PLAN, THE ENGINEERING TRAFFIC CONTROL SECTION WILL ISSUE A TRAFFIC CONTROL PLAN (TCP) PERMIT FOR THIS WORK.

**VICINITY MAP**



**TRAFFIC SIGNS**



**LEGEND**

- ▨ - WORK AREA
- XX - CONSTRUCTION NOTE
- Ⓜ - CONSTRUCTION SIGN LOCATION
- - DRUMS (36" MIN.)
- - DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- Ⓜ - TYPE III BARRICADES
- ↗ - EXISTING PAVEMENT MARKINGS
- ⏏ - FLASHING ARROW BOARD (FAB)

RECEIVED

OCT 25 2011

CALTRANS PERMITS

- TC-1 - TITLE SHEET
- TC-2 - STAGE 1 BALBOA TERRACE/BALBOA - STA. 21+00 TO 27+00
- TC-3 - STAGE 2 BALBOA TERRACE/BALBOA - STA. 17+90 TO 23+40
- TC-4 - STAGE 3 BALBOA AVE - STA. 1+00 TO 6+75
- TC-5 - STAGE 3 MORENA BLVD SB/NB RAMP DETOUR
- TC-6 - STAGE 4 BALBOA AVE - STA. 6+80 TO 12+40
- TC-7 - STAGE 4 NB MORENA BLVD TO EB BALBOA AVE RAMP CLOSURE
- TC-8 - STAGE 5 BALBOA AVE - STA. 11+90 TO 14+60
- TC-9 - STAGE 6 BALBOA AVE - STA. 14+60 TO 15+40
- TC-10 - STAGE 7 BALBOA AVE - STA. 15+40 TO 17+90

APPROVED PERMIT PLAN

1111 NTK 0547  
DEC 20 2011

TC-1

<b>BALBOA TERRACE TRUNK SEWER TRAFFIC CONTROL PLANS TITLE SHEET</b>	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 2 OF 10 SHEETS	WATER WBS: N/A SEWER WBS: B-00478
DESIGNED BY: JIM HUGHCOUY ASSOCIATE ENGINEER	CHECKED BY: BRIAN VITELLE PROJECT ENGINEER
DATE STARTED: _____	DATE COMPLETED: _____
CONTRACTOR: _____	PROJECT NO: 30360-TI-D

PLANS PREPARED UNDER THE SUPERVISION OF:  
  
 Bill E. Darnell  
 DESIGN ENGINEER R.C.E. No. 22338  
 LICENSE EXPIRES 9-30-13  
**Darnell & Associates, Inc.**  
 2810 4TH AVE SUITE A  
 SAN DIEGO, CA 92103  
 (619) 233-9373

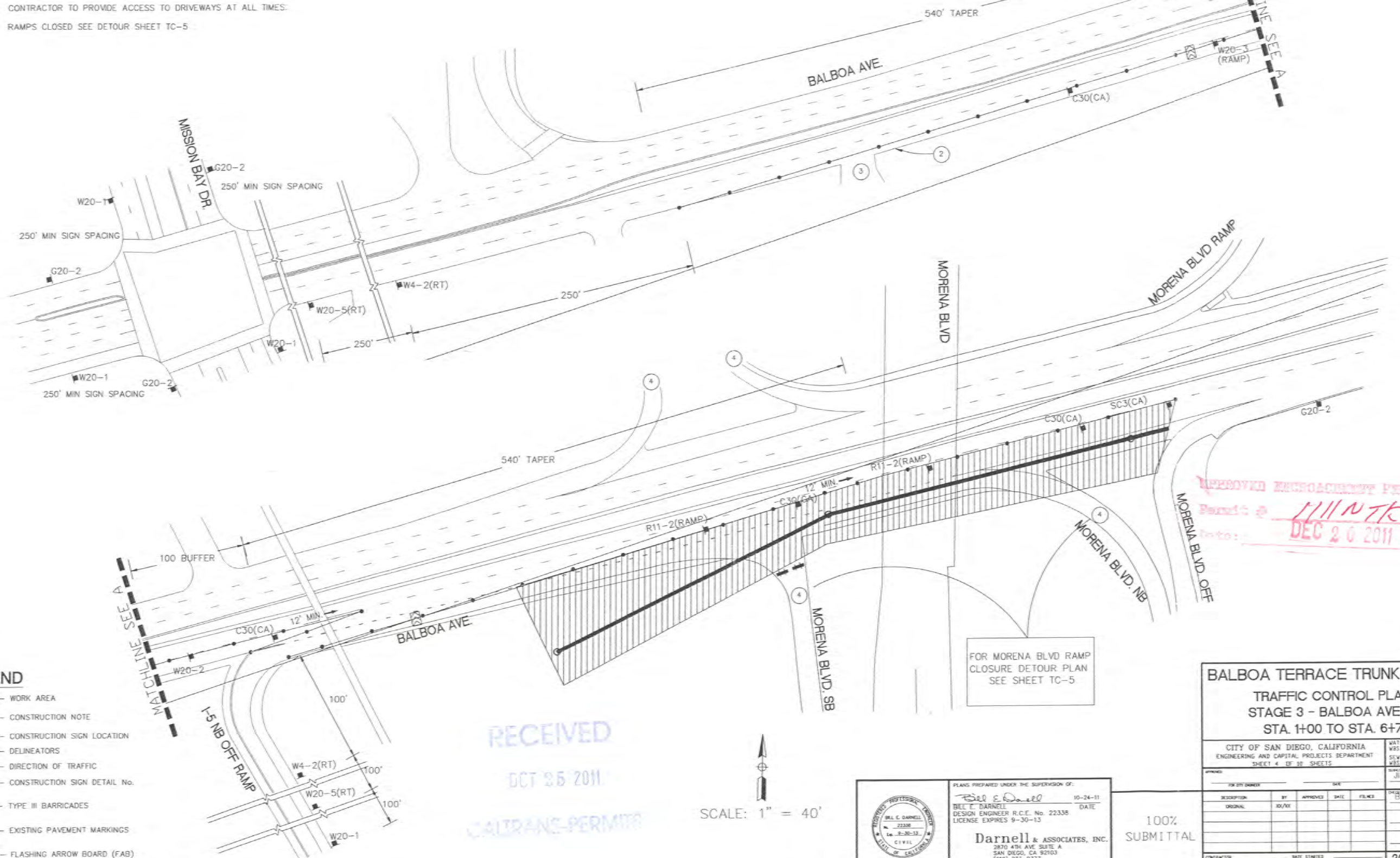
100%  
SUBMITTAL



**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.
- ④ RAMP CLOSED SEE DETOUR SHEET TC-5

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS \_\_\_\_\_ TO \_\_\_\_\_  
WORK DATES \_\_\_\_\_ TO \_\_\_\_\_



APPROVED ENCROACHMENT PERMIT PLAN  
Permit #: 1111 NTK 0547  
Date: DEC 20 2011

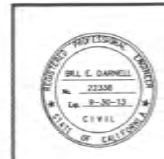
FOR MORENA BLVD RAMP  
CLOSURE DETOUR PLAN  
SEE SHEET TC-5

**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)

RECEIVED  
OCT 25 2011  
CALTRANS PERMITS

SCALE: 1" = 40'



PLANS PREPARED UNDER THE SUPERVISION OF:  
Bill E. Darnell 10-24-11  
DESIGN ENGINEER R.C.E. No. 22338 DATE  
LICENSE EXPIRES 9-30-13  
**Darnell & Associates, Inc.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

100%  
SUBMITTAL

<b>BALBOA TERRACE TRUNK SEWER</b>			
TRAFFIC CONTROL PLANS STAGE 3 - BALBOA AVENUE STA. 1+00 TO STA. 6+75			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 4 OF 35 SHEETS		WATER WBS: N/A SEWER WBS: B-00478	
APPROVED FOR CITY ENGINEER	DATE	APPROVED BY	DATE
		JIM HUGHCOUY	
DESCRIPTION		BY	APPROVED
ORIGINAL		10/24/11	
PROJECT ENGINEER		BRIAN VITELLE	
COORDINATOR		CCS27	
COORDINATOR		CCS83	
CONTRACTOR	DATE STARTED	CONTRACTOR	DATE COMPLETED
		30360-T4-D	

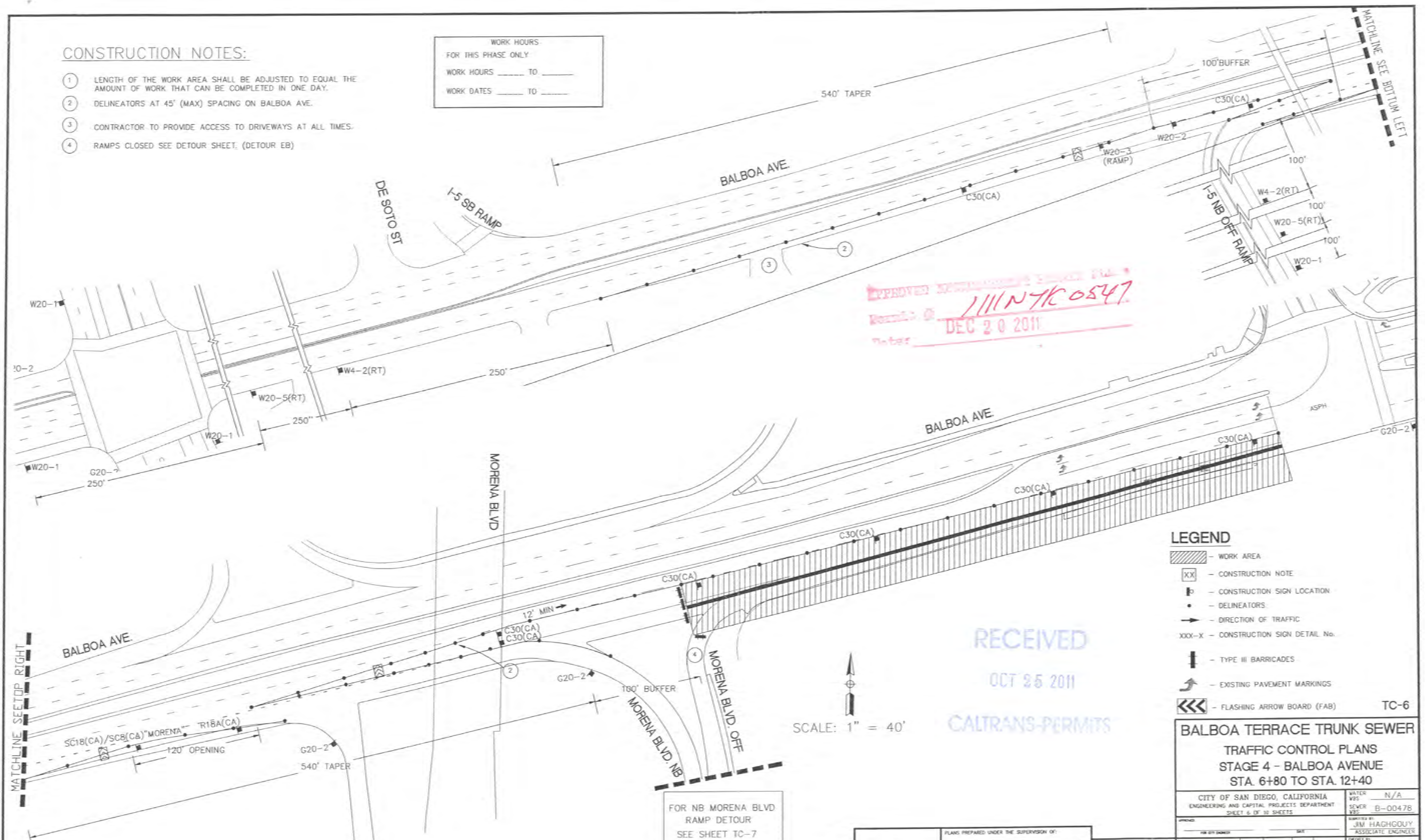
TC-4



**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.
- ④ RAMPS CLOSED SEE DETOUR SHEET, (DETOUR EB)

WORK HOURS:  
FOR THIS PHASE ONLY  
WORK HOURS \_\_\_\_\_ TO \_\_\_\_\_  
WORK DATES \_\_\_\_\_ TO \_\_\_\_\_



APPROVED FOR CONSTRUCTION PERMIT  
 NUMBER: **111N7K0547**  
 DATE: **DEC 20 2011**

RECEIVED  
 OCT 25 2011

CALTRANS PERMITS

SCALE: 1" = 40'

**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB) TC-6

FOR NB MORENA BLVD  
 RAMP DETOUR  
 SEE SHEET TC-7

PLANS PREPARED UNDER THE SUPERVISION OF:  
  
**Bill E. Darnell** 10-24-11  
 DESIGN ENGINEER R.C.E. No. 22338 DATE  
 LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
 2870 4TH AVE SUITE A  
 SAN DIEGO, CA 92103  
 (619) 233-9373  
 DWG NAME: 110211TC-01.dwg [DATE: 10-24-11] BY: JAW

100%  
 SUBMITTAL

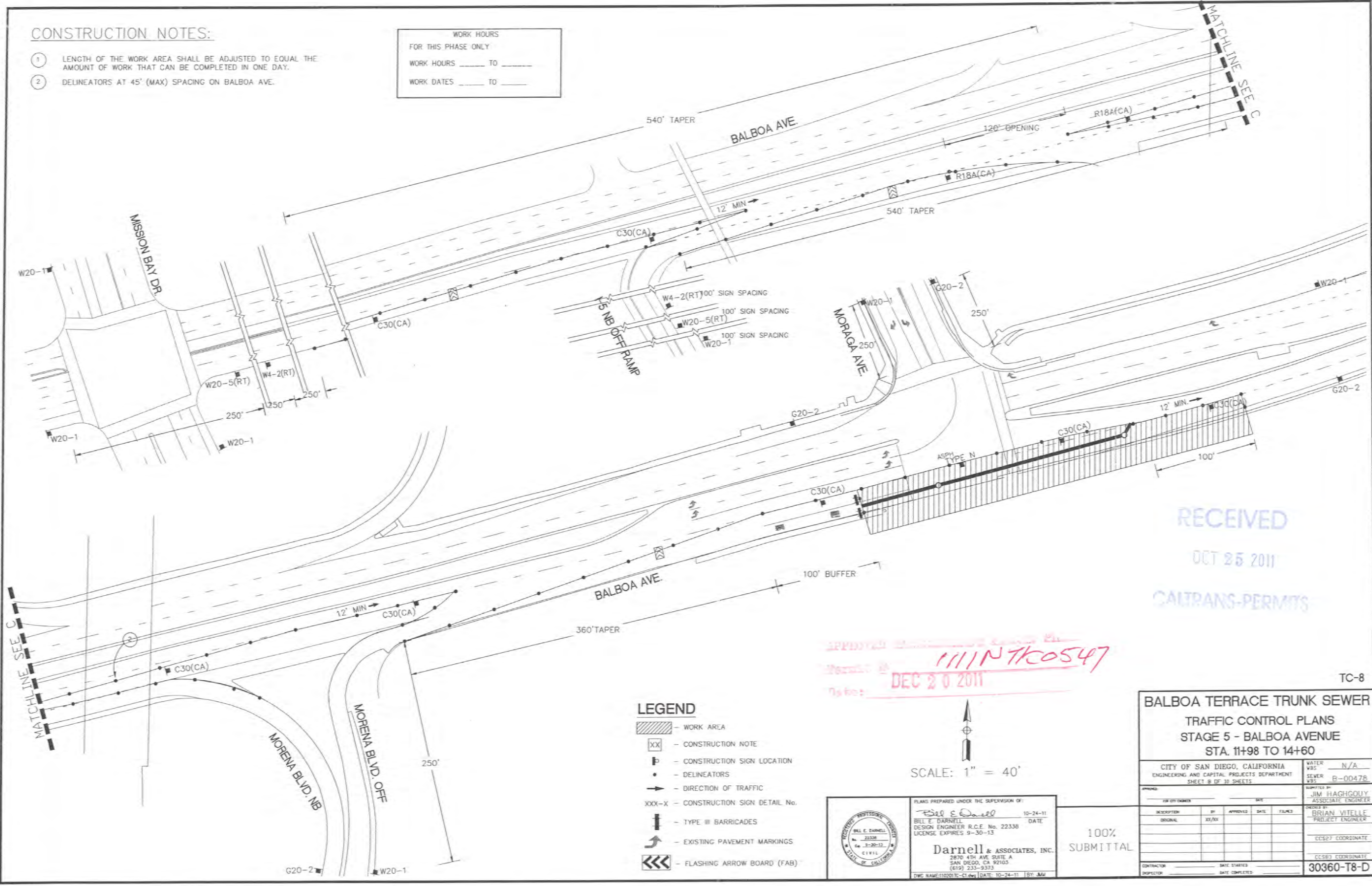
BALBOA TERRACE TRUNK SEWER				
TRAFFIC CONTROL PLANS				
STAGE 4 - BALBOA AVENUE				
STA. 6+80 TO STA. 12+40				
CITY OF SAN DIEGO, CALIFORNIA		WATER		N/A
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		SEWER		B-00478
SHEET 6 OF 10 SHEETS				
APPROVED BY:		DATE:		
FOR CITY ENGINEER:		DATE:		
DESCRIPTION	BY	APPROVED	DATE	FILED
ORIGINAL	XX/XX			
CHECKED BY: JIM HAGGOUY, ASSOCIATE ENGINEER				
DRAWN BY: BRIAN VITELLE, PROJECT ENGINEER				
CCS27 COORDINATE				
CCS93 COORDINATE				
CONTRACTOR	DATE STARTED	DATE COMPLETED	30360-T6-D	
INSPECTOR				



**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS \_\_\_\_\_ TO \_\_\_\_\_  
WORK DATES \_\_\_\_\_ TO \_\_\_\_\_



RECEIVED  
OCT 25 2011  
CALTRANS-PERMITS

APPROVED: *1111N7K0547*  
DATE: DEC 20 2011

TC-8

- LEGEND**
- WORK AREA
  - CONSTRUCTION NOTE
  - CONSTRUCTION SIGN LOCATION
  - DELINEATORS
  - DIRECTION OF TRAFFIC
  - XXX-X - CONSTRUCTION SIGN DETAIL No.
  - TYPE III BARRICADES
  - EXISTING PAVEMENT MARKINGS
  - FLASHING ARROW BOARD (FAB)

SCALE: 1" = 40'

PLANS PREPARED UNDER THE SUPERVISION OF:  
*Bill E. Darnell* 10-24-11  
BILL E. DARNELL DATE  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE. SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373  
DWG NAME: 110207C-C1.dwg [DATE: 10-24-11] [BY: JAW]

100%  
SUBMITTAL

<b>BALBOA TERRACE TRUNK SEWER</b>				WATER WBS: N/A	
<b>TRAFFIC CONTROL PLANS</b>				SEWER WBS: R-00478	
<b>STAGE 5 - BALBOA AVENUE</b>				SHEET 8 OF 10 SHEETS	
<b>STA. 11+98 TO 14+60</b>				APPROVED BY: JIM HUGHOUY, ASSOCIATE ENGINEER	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT				CHECKED BY: BRIAN VITELLE, PROJECT ENGINEER	
DESCRIPTION				CCS27 COORDINATE	
CONTRACTOR				CCS63 COORDINATE	
INSPECTOR				30360-T8-D	



## **APPENDIX G**

### **Preformed Loop Construction**

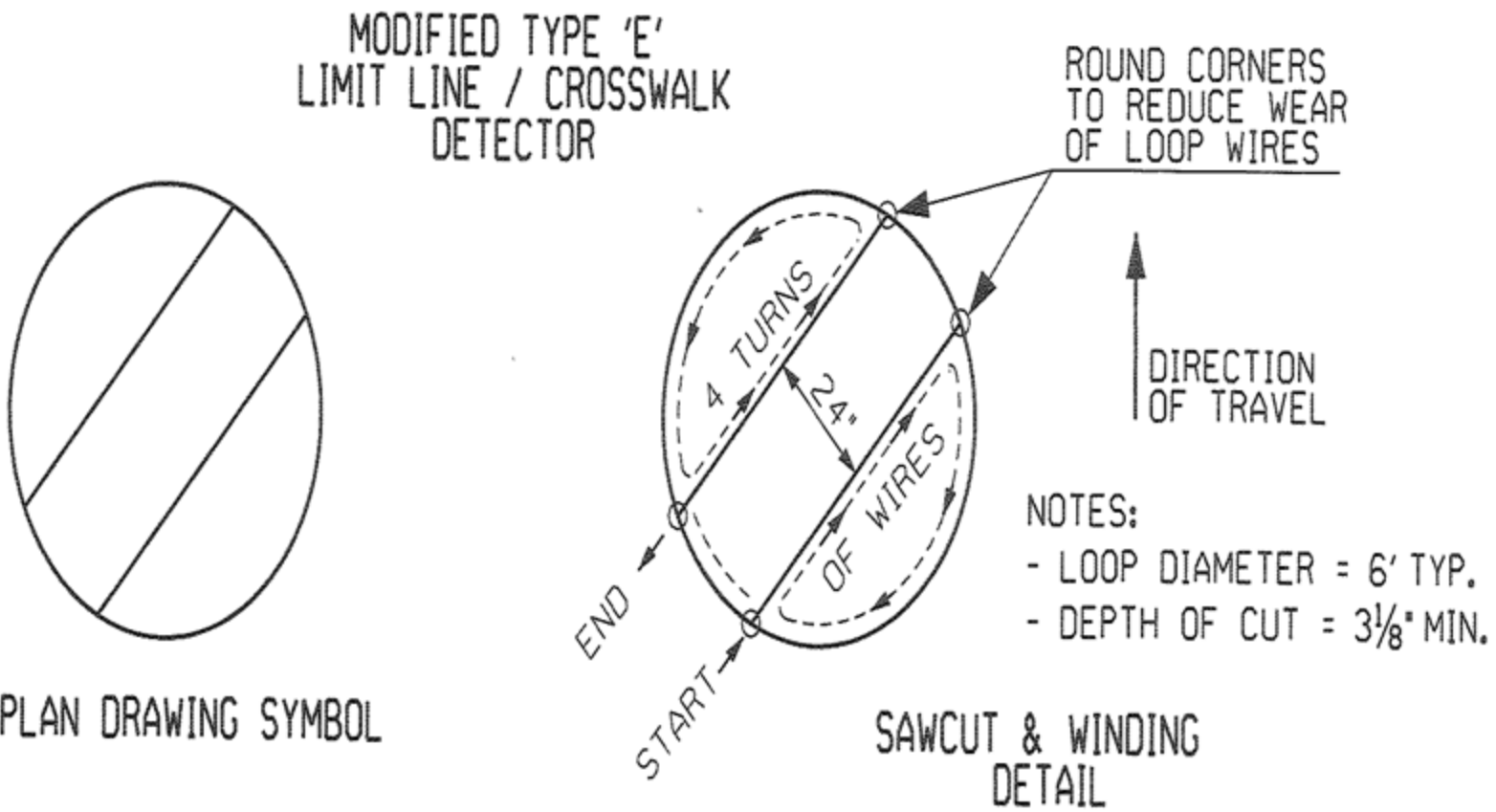


FIGURE 1 -TYPE 'E' MODIFIED LOOP

**APPENDIX H**  
**Hazardous Label/Forms**

SAMPLE HAZARDOUS WASTE LABEL

**HAZARDOUS WASTE**

STATE AND FEDERAL LAW PROHIBITS IMPROPER DISPOSAL  
IF FOUND, CONTACT THE NEAREST POLICE, OR PUBLIC SAFETY  
AUTHORITY, OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
OR THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES

GENERATOR NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_ 24 HR. PHONE ( ) \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

EPA ID NO. \_\_\_\_\_ MANIFEST DOCUMENT NO. \_\_\_\_\_

EPA WASTE NO. \_\_\_\_\_ CA WASTE NO. \_\_\_\_\_ ACCUMULATION START DATE \_\_\_\_\_ / /

CONTENTS, COMPOSITION \_\_\_\_\_

PROPER DOT SHIPPING NAME \_\_\_\_\_

TECHNICAL NAME (S) \_\_\_\_\_

UN/NA NO. WITH PREFIX \_\_\_\_\_

PHYSICAL STATE    HAZARDOUS PROPERTIES     FLAMMABLE     TOXIC  
 SOLID    LIQUID   |    CORROSIVE     REACTIVE     OTHER \_\_\_\_\_

**HANDLE WITH CARE!**  
CONTAINS HAZARDOUS OR TOXIC WASTES

# INCIDENT/RELEASE ASSESSMENT FORM <sup>1</sup>

## If you have an emergency, Call 911

*Handlers of hazardous materials are required to report releases. The following is a tool to be used for assessing if a release is reportable. Additionally, a non-reportable release incident form is provided to document why a release is not reported (see back).*

### Questions for Incident Assessment:

	YES	NO
1. Was anyone killed or injured, or did they require medical care or admitted to a hospital for observation?	<input type="checkbox"/>	<input type="checkbox"/>
2. Did anyone, other than employees in the immediate area of the release, evacuate?	<input type="checkbox"/>	<input type="checkbox"/>
3. Did the release cause off-site damage to public or private property?	<input type="checkbox"/>	<input type="checkbox"/>
4. Is the release greater than or equal to a reportable quantity (RQ)?	<input type="checkbox"/>	<input type="checkbox"/>
5. Was there an uncontrolled or unpermitted release to the air?	<input type="checkbox"/>	<input type="checkbox"/>
6. Did an uncontrolled or unpermitted release escape secondary containment, or extend into any sewers, storm water conveyance systems, utility vaults and conduits, wetlands, waterways, public roads, or off site?	<input type="checkbox"/>	<input type="checkbox"/>
7. Will control, containment, decontamination, and/or clean up require the assistance of federal, state, county, or municipal response elements?	<input type="checkbox"/>	<input type="checkbox"/>
8. Was the release or threatened release involving an unknown material or contains an unknown hazardous constituent?	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the incident a threatened release (a condition creating a substantial probability of harm that requires immediate action to prevent, reduce, or mitigate damages to persons, property, or the environment)?	<input type="checkbox"/>	<input type="checkbox"/>
10. Is there an increased potential for secondary effects including fire, explosion, line rupture, equipment failure, or other outcomes that may endanger or cause exposure to employees, the general public, or the environment?	<input type="checkbox"/>	<input type="checkbox"/>

If the answer is YES to any of the above questions – report the release to the California Office of Emergency Services at 800-852-7550 and the local CUPA daytime: (619) 338-2284, after hours: (858) 565-5255. Note: other state and federal agencies may require notification depending on the circumstances.

\*Call 911 in an emergency\*

If all answers are NO, complete a Non Reportable Release Incident Form (page 2 of 2) and keep readily available. Documenting why a “no” response was made to each question will serve useful in the event questions are asked in the future, and to justify not reporting to an outside regulatory agency.

If in doubt, report the release.

---

<sup>1</sup> This document is a guide for accessing when hazardous materials release reporting is required by Chapter 6.95 of the California Health and Safety Code. It does not replace good judgment, Chapter 6.95, or other state or federal release reporting requirements.

# NON REPORTABLE RELEASE INCIDENT FORM

## 1. RELEASE AND RESPONSE DESCRIPTION

Incident # \_\_\_\_\_

Date/Time Discovered	Date/Time Discharge	Discharge Stopped <input type="checkbox"/> Yes <input type="checkbox"/> No
Incident Date / Time:		
Incident Business / Site Name:		
Incident Address:		
Other Locators (Bldg, Room, Oil Field, Lease, Well #, GIS)		
Please describe the incident and indicate specific causes and area affected. Photos Attached?: <input type="checkbox"/> Yes <input type="checkbox"/> No		
Indicate actions to be taken to prevent similar releases from occurring in the future.		

## 2. ADMINISTRATIVE INFORMATION

Supervisor in charge at time of incident:	Phone:
Contact Person:	Phone:

## 3. CHEMICAL INFORMATION

Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT <sup>3</sup>
Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT <sup>3</sup>
Chemical	Quantity <input type="checkbox"/> GAL <input type="checkbox"/> LBS <input type="checkbox"/> FT <sup>3</sup>
Clean-Up Procedures & Timeline:	
Completed By:	Phone:
Print Name:	Title:

**EMERGENCY RELEASE FOLLOW - UP NOTICE REPORTING FORM**

<b>A</b>	BUSINESS NAME	FACILITY EMERGENCY CONTACT & PHONE NUMBER ( ) -	
<b>B</b>	INCIDENT DATE MO DAY YR	TIME NOTIFIED OES (use 24 hr time)	OES CONTROL NO.
<b>C</b>	INCIDENT ADDRESS LOCATION	CITY / COMMUNITY	COUNTY ZIP
<b>D</b>	CHEMICAL OR TRADE NAME (print or type)		CAS Number
<b>E</b>	CHECK IF CHEMICAL IS LISTED IN 40 CFR 355, APPENDIX A <input type="checkbox"/>	CHECK IF RELEASE REQUIRES NOTIFICATION UNDER 42 U.S.C. Section 9603 (a) <input type="checkbox"/>	
<b>F</b>	PHYSICAL STATE CONTAINED <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> GAS	PHYSICAL STATE RELEASED <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> GAS	QUANTITY RELEASED
<b>G</b>	ENVIRONMENTAL CONTAMINATION <input type="checkbox"/> AIR <input type="checkbox"/> WATER <input type="checkbox"/> GROUND <input type="checkbox"/> OTHER	TIME OF RELEASE	DURATION OF RELEASE — DAYS — HOURS — MINUTES
<b>H</b>	ACTIONS TAKEN		
<b>I</b>	KNOWN OR ANTICIPATED HEALTH EFFECTS (Use the comments section for addition information)		
<b>J</b>	<input type="checkbox"/> ACUTE OR IMMEDIATE (explain) _____ <input type="checkbox"/> CHRONIC OR DELAYED (explain) _____ <input type="checkbox"/> NOTKNOWN (explain) _____		
<b>K</b>	ADVICE REGARDING MEDICAL ATTENTION NECESSARY FOR EXPOSED INDIVIDUALS		
<b>L</b>	COMMENTS (INDICATE SECTION (A - G) AND ITEM WITH COMMENTS OR ADDITIONAL INFORMATION)		
<b>M</b>	CERTIFICATION: I certify under penalty of law that I have personally examined and I am familiar with the information submitted and believe the submitted information is true, accurate, and complete. REPORTING FACILITY REPRESENTATIVE (print or type) _____ SIGNATURE OF REPORTING FACILITY REPRESENTATIVE _____ DATE: _____		



## **EMERGENCY RELEASE FOLLOW-UP NOTICE REPORTING FORM INSTRUCTIONS**

### **GENERAL INFORMATION:**

Chapter 6.95 of Division 20 of the California Health and Safety Code requires that written emergency release follow-up notices prepared pursuant to 42 U.S.C. § 11004, be submitted using this reporting form. Non-permitted releases of reportable quantities of Extremely Hazardous Substances (listed in 40 CFR 355, appendix A) or of chemicals that require release reporting under section 103(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 [42 U.S.C. § 9603(a)] must be reported on the form, as soon as practicable, but no later than 30 days, following a release. The written follow-up report is required in addition to the verbal notification.

### **BASIC INSTRUCTIONS:**

- The form, when filled out, reports follow-up information required by 42 U.S.C § 11004. Ensure that all information requested by the form is provided as completely as possible.
- If the incident involves reportable releases of more than one chemical, prepare one report form for each chemical released.
- If the incident involves a series of separate releases of chemical(s) at different times, the releases should be reported on separate reporting forms.

### **SPECIFIC INSTRUCTIONS:**

**Block A:** Enter the name of the business and the name and phone number of a contact person who can provide detailed facility information concerning the release.

**Block B:** Enter the date of the incident and the time that verbal notification was made to OES. The OES control number is provided to the caller by OES at the time verbal notification is made. Enter this control number in the space provided.

**Block C:** Provide information pertaining to the location where the release occurred. Include the street address, the city or community, the county and the zip code.

**Block D:** Provide information concerning the specific chemical that was released. Include the chemical or trade name and the Chemical Abstract Service (CAS) number. Check all categories that apply. Provide best available information on quantity, time and duration of the release.

**Block E:** Indicate all actions taken to respond to and contain the release as specified in 42 U.S.C. § 11004(c).

**Block F:** Check the categories that apply to the health effects that occurred or could result from the release. Provide an explanation or description of the effects in the space provided. Use Block H for additional comments/information if necessary to meet requirements specified in 42 U.S.C. § 11004(c).

**Block G:** Include information on the type of medical attention required for exposure to the chemical released. Indicate when and how this information was made available to individuals exposed and to medical personnel, if appropriate for the incident, as specified in 42 U.S.C. § 11004(c).

**Block H:** List any additional pertinent information.

**Block I:** Print or type the name of the facility representative submitting the report. Include the official signature and the date that the form was prepared.

### **MAIL THE COMPLETED REPORT TO:**

**State Emergency Response Commission (SERC)  
Attn: Section 304 Reports  
Hazardous Materials Unit  
3650 Schriever Avenue  
Mather, CA 95655**

NOTE: Authority cited: Sections 25503, 25503.1 and 25507.1, Health and Safety Code. Reference: Sections 25503(b)(4), 25503.1, 25507.1, 25518 and 25520, Health and Safety Code.

## **APPENDIX I**

### **Long-Term Revegetation Maintenance Agreement**

## LONG-TERM REVEGETATION MAINTENANCE CONTRACT

This Long-Term Maintenance Contract [Contract] is made and entered into by and between the City of San Diego [City], a municipal corporation, and [insert name of the Contractor, to be identified after award] [Contractor], who may be individually or collectively referred to herein as a “Party” or the “Parties.”

### RECITALS

- A. Concurrent with the Contract execution, the Parties entered into an agreement [Agreement] for the construction of **Balboa Terrace Trunk Sewer** [Project], SAP number (WBS/IO/CC) **B-00478**, Bid No. **K-12-5468-DBB-3-C**.
- B. In accordance with the Agreement, the Contractor shall enter into this contract with the City for the purpose of implementing and fulfilling long-term revegetation maintenance and monitoring requirements in accordance with the City of San Diego Municipal Code and the Contract Documents for the **Balboa Terrace Trunk Sewer** [Maintenance Requirements].
- C. The Contractor is ready and willing to fulfill its maintenance requirements in accordance with the terms of this contract i.e., Maintenance Requirements.

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

### INTRODUCTORY PROVISIONS

1. **Recitals Incorporated.** The above referenced Recitals are true and correct and are incorporated into this contract by this reference.
2. **Exhibits Incorporated.** All Exhibits and Attachments referenced in this contract are incorporated into this contract by this reference.
3. **Contract Term.** This contract shall be effective on the date the Notice of Completion for the Agreement is executed, and it shall be effective until completion of the Work, described in Section 1.1 below.
4. **Terms and Conditions.** This contract is subject to the terms and conditions of the Agreement included in The GREENBOOK and The WHITEBOOK i.e., Part 1, Sections 212, 308, and 801 through Section 808 and The WHITEBOOK EOCP Section except as follows.

### SECTION 1: SCOPE OF WORK

- 1.1 **General.** The Contractor shall fulfill the Project’s Maintenance Requirements [Work] as identified in the scope of work attached as Exhibit A in a manner satisfactory to the City.

The Contractor shall provide all equipment, labor, and materials necessary to perform the **Work** as described in the written in Exhibit A, at the direction of the City.

**1.2 Work Schedule.** After receiving notification from the City, the Contractor shall create a comprehensive schedule of Work for performance of this contract [Schedule] for the City's approval. The Schedule shall include routine work and inspection and infrequent operations such as repairs, fertilization, aerification, watering, and pruning.

The City will approve the Schedule prior to the commencement of the Work. The City may require the Contractor to revise the Schedule. The Contractor shall not revise the Schedule unless the revisions have received the prior written approval of the City.

**1.3 Commencement of Work & Maintenance Period.** The Contract shall begin on the date indicated in the field notification to be issued by City to the Contractor in accordance with the Project's Agreement [Field Notification], and shall continue for **25** months. A copy of the Field Notification shall be attached hereto as Exhibit B.

**1.4 Performance of Work.** The Work shall be performed in accordance with the manufacturer's recommendations.

**1.5 License.** The Contractor shall hold the following licenses in good standing:

- a) C-27 State Contractor's License. Alternatively, the Contractor shall retain the services of a Subcontractor with a C-27 State Contractor's License.
- b) Pest Control Advisor's License. Alternatively, the Contractor shall retain the services of a licensed Pest Control Advisor.
- c) Registration with the County Agriculture Commission.
- d) Qualified Applicator's Certificate for Category B. This shall apply to any person supervising the use of pesticides, herbicides, or rodenticides.
- e) City of San Diego Business License.

Prior to performing the Work, the Contractor shall complete and submit to the City the License Data Sheet. See Exhibit C.

**1.6 Hours of Performance.** The Contractor shall perform the Work between the hours of 6:00 a.m. and 6:00 p.m., Monday through Friday [Working Hours]. The City may, in its sole discretion, grant permission to Contractor to perform Work during non-Working Hours. Maintenance functions that generate excess noise, e.g., operations of power equipment which would cause annoyance to area residents, shall not begin before 7:00 a.m.

## **SECTION 2: ADMINISTRATION**

**2.1 Contract Administrator.** The Public Works Department, Engineering and Capital Project is the Contract Administrator for the Contract. The Contractor shall perform the Work under the direction of a designated representative of the **Public Works, Engineering and Capital Projects Department**. The City will communicate with the Contractor on all matters related to the administration of this contract and the Contractor's performance of the Work rendered hereunder. When this contract refers to communications to or with City, those communications shall be with the City, unless the City or this contract specifies otherwise. Further, when this contract requires an act or approval by City, that act or approval will be performed by the City.

- 2.2 Local Office.** The Contractor shall maintain a local office with a competent company representative who can be reached during Normal Working Hours and who is authorized to discuss matters pertaining to this contract with the City. A local office is one located in San Diego County that can be reached by telephone and facsimile. An answering service in conjunction with a company email address for the designated company representative would fulfill this requirement. A mobile telephone shall not fulfill the requirement for a local office. All calls from the City shall be returned within a 1 hour period.
- 2.3 Emergency Calls.** The Contractor shall have the capability to receive and to respond immediately to calls of an emergency nature. The City shall refer emergency calls to Contractor for immediate disposition. The Contractor shall provide City with a 24 hour emergency telephone number for this purpose.
- 2.4 Staffing.** The Contractor shall furnish sufficient supervisory and working personnel capable of promptly accomplishing on schedule, and to the satisfaction of City, all Work required under this contract.
- 2.5 Contractor Inspections.** The Contractor shall perform inspections of the Work site and prepare and submit to the City a Punchlist and dates of correction. The Punchlist shall include a comprehensive report of Work performed at the Work site to ensure 100% cover.

### **PART 3: WORK SITE MAINTENANCE**

- 3.1 Use of Chemicals.** The Contractor shall submit to City for approval sample labels and MSDS for all chemical herbicides, rodenticides and pesticides proposed for use under this contract. Materials included shall be limited to chemicals approved by the State of California Department of Agriculture.

The use of any chemical shall be based on the recommendations of a licensed pest control advisor. Annual PCA Pesticide Recommendations are required for each pesticide proposed to be used for the Work site covered by this contract. The use of chemicals shall conform to the current San Diego County Department of Agriculture regulations.

No chemical herbicide, rodenticide, or pesticide shall be applied until its use is approved, in writing, by City as appropriate for the purpose and area proposed.

The Contractor shall submit a monthly pesticide use report to City along with Contractor's invoices for payment. This report shall include a statement of all applications of herbicides, rodenticides, and pesticides, detailing the chemical used, undiluted quantity, rate of application, applicator's name, and the date and purpose of the application. For months in which no pesticides are applied, state "No Pesticide Used" on the report.

- 3.2 Irrigation Water.** The Contractor shall diligently practice water conservation, including minimizing run-off or other waste. The Contractor shall turn off irrigation systems, if any, during periods of rainfall and at such other times when suspension of irrigation is desirable to conserve water and to remain within the guidelines of good horticulturally acceptable landscape maintenance practices. The Contractor's failure to properly manage and conserve water may result in deductions or other penalties.

If Contractor causes excessive use or waste of irrigation water, the estimated cost of that water shall be deducted from the monthly payment. Further, any monetary fines or other damages assessed to City for Contractor's failure to follow water conservation regulations imposed by the City, the State of California, the County Water Authority, or other legal entity shall be Contractor's responsibility and may be deducted from the monthly payment.

- 3.3 Payment for Water.** The Contractor shall pay for the water used in the maintenance of the Work site unless specified otherwise.
- 3.4 Satisfactory Progression.** If the Revegetation Area is not progressing towards the required 100% Cover, as defined in the Scope of Work, in accordance with the Work Schedule, as determined by City, City may adjust monthly payments to Contractor accordingly.

#### SECTION 4: COMPENSATION

- 4.1 Maximum Compensation.** The compensation for this contract shall not exceed \$[the Contractor's lump sum bid amount for this long-term maintenance contract; will be established during the award process] [Contract Price].
- 4.2 Wage Rates.** Refer to the Agreement for Prevailing wages requirements for this contract.
- 4.3 Method of Payment and Reports.** The payments will be made monthly as a linear percentage of the Contract Price. As conditions precedent to payment, the Contractor shall submit every month a detailed invoice and report of maintenance work performed. The Contractor's failure to submit the required reports or certified payrolls as described in the Agreement shall constitute a basis for withholding of payment by the City.
- 4.4 Final Payment.** The Contractor shall not receive the final payment until the following conditions have been completed to the City's satisfaction:

The item(s) of the work subject to this maintenance coverage as specified in Exhibit A [Maintenance Items] have been determined to be in compliance with the Agreement and this contract.

The Contractor has provided to the City a signed and notarized Affidavit of Disposal, a copy of which is attached to the Agreement (Front End Volume 1), stating that all brush, trash, debris, and surplus materials resulting from the Work have been disposed of in a legal manner.

The Contractor has performed comprehensive and successful testing and checks of the Maintenance Items.

- 4.5** Notwithstanding sections 3.3 and 3.4, the Contractor may request that the City pay all or some of the compensation for the Contract at a time earlier than provided in those sections if the Contractor provides a surety bond acceptable to the City which secures performance of the Contract for the full remaining term. Early payment under this section and acceptability of such bond shall be at the City's sole discretion..

## SECTION 5: BONDS AND INSURANCE

- 5.1 Contract Bonds.** Prior to commencement of the Work, Contractor, at its sole cost and expense, shall provide to City the following bonds issued by a surety authorized to issue bonds in California and otherwise satisfactory to City:

A Payment Bond (Material and Labor Bond) in an amount not less than the Contract Price, to satisfy claims of material suppliers and mechanics and laborers employed by it on the Work. The Payment Bond shall be maintained by the Contractor in full force and effect until the Work is accepted by City and until all claims for materials and labor are paid, and shall otherwise comply with the California Civil Code.

A Performance Bond in an amount not less than the Contract Price to guarantee faithful performance of all Work, within the time prescribed, in a manner satisfactory to the City, and that all materials and workmanship will be free from original or developed defects. The Performance Bond shall remain in full force and effect until performance of the Work is completed as set forth in this contract.

- 5.2 Insurance.** At all times during the term of this contract, the Contractor shall maintain insurance coverage as specified in the Agreement, Section 7-3, "LIABILITY INSURANCE."

The Contractor shall not begin the Work under this contract until it has complied with the following:

- a) Obtain insurance certificates reflecting evidence of insurance as specified in the Agreement, Section 7-3, "LIABILITY INSURANCE" for:
  1. Commercial General Liability
  2. Commercial Automobile Liability
  3. Worker's Compensation

The Contractor shall submit copies of any policy upon request by the City.

- b) Confirm that all policies contain the specific provisions required in Section 7-3, "LIABILITY INSURANCE."

The Contractor shall not modify any policy or endorsement thereto which increases the City's exposure to loss for the duration of this contract.

## SECTION 6: SPECIAL PROVISIONS

- 6.1 Illness and Injury Prevention Program.** The Contractor shall comply with all the mandates of Senate Bill 198 and specifically shall have a written Injury Prevention Program on file with the City in accordance with all applicable standards, orders, or requirements of California Labor Code, Section 6401.7. This Program shall be on file prior to performance of any Work.
- 6.2 Drug-Free Workplace.** The Contractor agrees to comply with the City's Drug-Free Workplace requirements set forth in Council Policy 100-17, adopted by Council Resolution No. R-277952 and incorporated into this contract by this reference. The Contractor has certified to the City that it will provide a drug-free workplace by submitting a Certification for a Drug-Free Workplace form.



- a) **Contractor’s Notice to Employees.** The Contractor shall publish a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the work place, and specifying the actions that will be taken against employees for violations of the prohibition.
- b) **Drug-Free Awareness Program.** The Contractor shall establish a drug-free awareness program to inform employees about all of the following:
  - 1. The dangers of drug abuse in the work place.
  - 2. The policy of maintaining a drug-free work place.
  - 3. Available drug counseling, rehabilitation, and employee assistance programs.
  - 4. The penalties that may be imposed upon employees for drug abuse violations.
  - 5. Posting the Statement. The Contractor shall post the drug-free policy in a prominent place.
  - 6. Subcontractor’s Contracts. The Contractor further certifies that each contract for Subcontractor Services for this contract shall contain language that binds the Subcontractor to comply with the provisions of Section 7.1 of this contract, as required by Sections 2.A.(1) through (3) of Council Policy 100-17. The Contractors and Subcontractors shall be individually responsible for their own drug-free work place program.
  - 7. Program Requirements Satisfaction. The requirements of a drug-free awareness program can be satisfied by periodic “tailgate sessions” covering the various aspects of drug-abuse education. Although an in-house employee assistance program is not required, the Contractor shall be expected to provide a listing of drug rehabilitation and counseling programs available in the community at large.

**6.3 Americans with Disabilities Act.** The Contractor is responsible as an employer, contractor, and the City representative to comply with all portions of Title 24 and the ADA. (For specific services and public accommodations, the Contractor may contact the Office of the Americans with Disabilities Act, Civil Rights Division, U.S. Department of Justice, P.O. Box 66118, Washington, D.C. 20035-6118; phone number (202) 514-0301.)

The Contractor acknowledges and agrees that it is aware of and will comply with Council Policy 100-04, incorporated herein by this reference, adopted by Resolution No. R-282153, relating to the federal mandated ADA. The policy applies equally to the Contractor and all Subcontractors.

The Contractor shall include in each subcontract agreement language which requires Subcontractor to abide by these provisions. The Contractor and all Subcontractors shall be individually responsible for administering their own ADA and Title 24 program.

**6.4 Taxpayer Identification Number.** I.R.S. regulations require the City to have the correct name, address, and Taxpayer Identification Number (TIN) or Social Security Number (SSN) on file for businesses or persons who provide services or products to the City. This information is necessary to complete Form 1099 at the end of each tax year. As such, the Contractor shall provide the City with a Form W-9 upon execution of this contract.

## SECTION 7: GENERAL PROVISIONS

- 7.1 Assignment.** The Contractor shall not assign the obligations under this contract, whether by express assignment or by sale of the company, nor any monies due or to become due, without City's prior written approval. Any assignment in violation of this Section shall constitute a Default and is grounds for immediate termination of this contract, at the sole discretion of City. In no event shall any putative assignment create a contractual relationship between City and any putative assignee.
- 7.2 Independent Contractors.** The Contractor and any Subcontractors employed by Contractor shall be independent contractors and not agents of City. Any provisions of this contract that may appear to give City any right to direct Contractor concerning the details of performing the Work, or to exercise any control over such performance, shall mean only that Contractor shall follow the direction of City concerning the end results of the performance.
- 7.3 Covenants and Conditions.** All provisions of this contract expressed as either covenants or conditions on the part of the City or the Contractor shall be deemed to be both covenants and conditions.
- 7.4 Jurisdiction, Venue, and Attorney's Fees.** The venue for any suit or proceeding concerning this contract, the interpretation or application of any of its terms, or any related disputes shall be in the County of San Diego, State of California. The prevailing Party in any such suit or proceeding shall be entitled to a reasonable award of attorney's fees in addition to any other award made in such suit or proceeding.
- 7.5 Successors in Interest.** This Contract and all rights and obligations created by this contract shall be in force and effect whether or not any Parties to the Contract have been succeeded by another entity, and all rights and obligations created by this contract shall be vested and binding on any Party's successor in interest.
- 7.6 Integration.** This Contract and the exhibits, attachments, and references incorporated into this contract fully express all understandings of the Parties concerning the matters covered in this contract. No change, alteration, or modification of the terms or conditions of this contract, and no verbal understanding of the Parties, their officers, agents, or employees shall be valid unless made in the form of a written change agreed to in writing by both Parties or an amendment to this contract agreed to by both Parties. All prior negotiations and agreements are merged into this contract.
- 7.7 Counterparts.** This Contract may be executed in counterparts, which when taken together shall constitute a single signed original as though all Parties had executed the same page.
- 7.8 No Waiver.** No failure of either the City or the Contractor to insist upon the strict performance by the other of any covenant, term or condition of this contract, nor any failure to exercise any right or remedy consequent upon a breach of any covenant, term, or condition of this contract, shall constitute a waiver of any such breach or of such covenant, term or condition. No waiver of any breach shall affect or alter this contract, and each and every covenant, condition, and term hereof shall continue in full force and effect to any existing or subsequent breach.
- 7.9 Severability.** The unenforceability, invalidity, or illegality of any provision of this contract shall not render any other provision of this contract unenforceable, invalid, or illegal.

- 7.10 Drafting Ambiguities.** The Parties agree that they are aware that they have the right to be advised by counsel with respect to the negotiations, terms and conditions of this contract, and the decision of whether to seek advice of counsel with respect to this contract is a decision which is the sole responsibility of each Party. This Contract shall not be construed in favor of or against either Party by reason of the extent to which each Party participated in the drafting of the Contract.
- 7.11 Signing Authority.** The representative for each Party signing on behalf of a corporation, partnership, joint venture or governmental entity hereby declares that authority has been obtained to sign on behalf of the corporation, partnership, joint venture, or entity and agrees to hold the other Party or Parties hereto harmless if it is later determined that such authority does not exist.

IN WITNESS WHEREOF, this Contract is executed by the City of San Diego, acting by and through its Public Works Department Director in accordance with Resolution No. R-[\*insert number of Resolution authorizing advertising and award of underlying construction contract\*], and by Contractor.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

THE CITY OF SAN DIEGO

By: \_\_\_\_\_

Mayor or designee

I HEREBY CERTIFY I can legally bind [name of Contractor to be determined during DBB award process] and that I have read this entire contract, this \_\_\_\_\_ day of \_\_\_\_\_, [insert year].

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

I HEREBY APPROVE the form and legality of the foregoing Contract this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

Jan I. Goldsmith, City Attorney

By: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Deputy City Attorney

## EXHIBIT A

### SCOPE OF WORK

**(Note to PM: This is a sample. Insert specifications which apply to your project. )**

- I. Location of Work.** The location of the Work to be performed [Revegetation Area] is shown the Revegetation Plan sheets [1-9] prepared by LSA Associates [07/14/2011, 7/1/2011] [\*insert beginning drawing number\*] through [\*insert ending drawing number\*] [Specifications], which are incorporated into this contract by this reference as though fully set forth herein.
- II. Description of Work.** The Contractor shall maintain and monitor the Revegetation Area during the Monitoring Program in accordance with this contract and the Specifications such that the Revegetation Area meets the success criteria specified in the Revegetation Plan at each of the milestones listed and on the last date of the Monitoring Program as set forth in the Work Schedule. The Work includes complete landscape maintenance consisting of irrigation, pruning, shaping and training of trees, shrubs, and ground cover plants; fertilization; weed control; control of all plant diseases and pests; and trash removal, and all other maintenance listed in this contract and as required to maintain the Revegetation Area in a safe, attractive and useable condition and to maintain the plant material in good ecologically healthy and viable condition.

The work also requires biological monitoring of the Revegetation Area according to the schedule and methods specified in the Revegetation Plan. The monitoring work shall include all reporting tasks specified in the Revegetation Plan. See section III.J for Project Biologist information. The Contractor shall provide adequate notification [minimum 24 hours] to the Project Biologist for all onsite work to be done and must coordinate with the Project Biologist on all Revegetation Plan activities.

**III. Method of Performing Work.**

- A. Irrigation. Irrigation shall be provided by the Contractor, and applied to hydroseed, container and salvaged plants at the discretion of the Project Biologist, and as identified by the Revegetation Plan. Delivery techniques and schedules will vary depending on the availability of a sprinkler irrigation system and weather patterns. Timing of implementation is intended to use natural precipitation, but supplemental watering shall be applied when needed. Failure of an existing irrigation system to provide full and proper coverage shall not relieve Contractor of the responsibility to provide adequate irrigation with full and proper coverage to all areas.
1. In areas where an automatic sprinkler system is installed, Contractor shall periodically inspect the operation of the system for any malfunction. The maximum interval between inspections shall not exceed 7 days. The Contractor shall maintain all sprinkler systems in such a way as to guarantee proper coverage and full working capability, and shall make whatever adjustments may be necessary to prevent excessive run-off into streets, rights-of-way, or other areas not meant to be irrigated. The cost of wasted water may be charged to Contractor.
  2. All areas not adequately covered by a sprinkler system shall be irrigated by a portable irrigation method, as recommended by the Project Biologist. The Contractor shall furnish all hoses, nozzles, sprinklers, etc. necessary to

accomplish this supplementary irrigation. Care shall be exercised to prevent water waste, erosion, and/or detrimental seepage into existing underground improvements or structures.

3. Irrigation shall be accomplished as follows:
  - a) Turf (if any) shall be irrigated Monday through Friday, as required, to maintain horticulturally acceptable growth and color, and to encourage deep rooting. Daily watering should be avoided wherever possible, in favor of scheduling applications every other night or twice each week. Additional irrigations shall be performed in the event of unusually hot/dry weather conditions (as are present during Santa Ana conditions, or other times of low humidity or high winds, or during a prolonged high temperature period during summer months).
  - b) Landscaped improved banks and slopes (if any) shall be irrigated Monday through Friday as required to maintain horticulturally acceptable growth and color, and to encourage deep rooting.
  - c) Shrub beds (if any) shall be irrigated as required to maintain horticulturally acceptable growth and color, and to promote deep rooting. Shrub areas shall be irrigated at a rate which keeps surface runoff to a minimum. The irrigation rate shall be adjusted to the needs of shrub types, seasons and weather conditions.
  - d) Planted and seeded areas shall be irrigated as required to maintain ecologically acceptable growth, form and health, and to promote deep rooting. Planted and seeded areas shall be irrigated at a rate which keeps surface runoff to a minimum. The irrigation rate shall be adjusted to the needs of plant types, seasons and weather conditions.
4. Maintenance of Irrigation System. The Contractor shall keep controller and valve boxes (if any) clear of soil and debris and shall maintain the irrigation system at no additional cost to City, including replacement, repair, adjustment, raising or lowering, straightening and any other operation required for the continued proper operation of the system from the “cold” side of the water meter throughout the Revegetation Area. The Contractor shall also be responsible for maintaining the painted surfaces of irrigation and lighting controller cabinets as well as the corresponding automatic irrigation battery numbers on the lids of the automatic control valve boxes (if any). The Contractor shall be responsible for light bulb replacements in controller cabinets as necessary.
  - a) Repair or replacement includes: sprinkler system laterals (piping), sprinkler mains (pressure lines), vacuum breakers, sprinkler control valves, sprinkler controllers, sprinkler heads, sprinkler caps, sprinkler head risers, valve covers, boxes and lids (including electrical pull boxes and lids), valve sleeves and lids, quick coupler valves and hose bibs. Any replacement shall conform to the type and kind of existing system. Any deviation shall be approved in writing by City.
  - b) Contractor shall repair irrigation systems which are damaged or altered in any way, including by acts of God, vandalism, vehicular damage, or theft.

5. Operation of Automatic Irrigation Controllers. Where the operation of automatic irrigation controllers is required as part of this contract, Contractor shall:

- i) Not duplicate any coded City key furnished by City for access and operation of the controller;
- ii) surrender all keys furnished by City, promptly at the end of the Contract term, or at any time deemed necessary by City to prevent serious loss to City;
- iii) protect the security of City's property by keeping controller cabinet and building doors locked at all times; and
- iv) refrain from using premises behind locked doors for storage of materials, supplies, or tools except as approved by City.

B. Pruning Shrubs and Ground Cover Plants. Contractor shall prune all shrubs and ground cover plants growing in the Revegetation Area as required to:

- i) maintain plants in a healthy, growing condition;
- ii) maintain plant growth within reasonable bounds;
- iii) prevent encroachment of passage ways, walks, streets, or view of signs; and
- iv) prevent encroachment in any manner deemed objectionable by City.

The Contractor shall remove dead or damaged limbs with sharp pruning tools, with no stubs remaining. The Contractor shall seal any pruning cut which exceeds 2" in diameter with an approved pruning paint when required by City. The Contractor shall perform pruning to permit plants to grow naturally in accordance with their normal growth characteristics except where box hedging is required by City. The Contractor shall not shear, hedge, or severely prune plants, unless authorized by City. The Contractor shall not use growth regulators.

C. Tree Maintenance. Contractor shall maintain all trees in the revegetation area in their natural shapes. The Contractor shall perform pruning to promote the best growth habits, appearance, and health of the tree, and to prevent encroachment which blocks vision or is in any manner deemed undesirable by City. The Contractor is responsible for tree pruning that can be accomplished with a 12' pole saw by a worker standing on the ground. The Contractor shall not top trees.

1. Potential Hazards. The Contractor shall notify City within 24 hours of any tree that shows signs of root heaving or leaning, or is in any manner a potential safety hazard. The Contractor shall immediately reestablish trees and shrubs that are uprooted due to storms, if possible. If trees or shrubs cannot be reestablished, Contractor shall remove them immediately (including roots) and fill the holes until replacement planting is complete.
2. Replacement. The Contractor shall completely remove and replace trees lost due to Contractor's faulty maintenance or negligence, as determined by City. The Contractor shall replace trees in kind and size as determined by City. If there is a difference in value between the tree lost and the replacement tree, City will deduct the difference from the Contract payment. The City shall determine the



value of the tree lost using the latest International Society of Arboriculture (I.S.A.) guidelines for value determination.

3. Staking. The Contractor shall securely stake any newly planted trees and other trees needing support with 2 “lodge pole” type stakes placed on opposite sides of the tree outside the root ball and secured to the tree with at least two flexible rubber tree ties. The Contractor shall regularly inspect tree ties and stakes and reposition them as necessary to ensure against girdling and abrasion.

D. Fertilization. Contractor shall fertilize the Revegetation Area as necessary to meet the success criteria specified in the Revegetation Plan at each of the milestones listed and on the last date of the Monitoring Program as set forth in the Work Schedule. Prior to any fertilization, Contractor shall submit to City Material Safety Data Sheets and a schedule of application showing the site, date, and approximate time of fertilizer application [Fertilizer Schedule]. The Fertilization Schedule, regardless of its intensity, timing, or the number of sites covered daily or weekly, shall not excuse Contractor from performing any other Work regularly required under this contract. All fertilization shall first be approved by the Project Biologist.

1. Contractor shall notify City at least 48 hours before beginning any fertilization. Fertilizer shall be delivered to the site only in the original unopened containers bearing the manufacturer’s guaranteed analysis. Damaged packages shall not be accepted. The Contractor shall furnish City with duplicate signed, legible copies of all certificates and invoices for all fertilizer to be used for this contract. The invoices shall state the grade, amount and quantity received. Both the copy to be retained by City and Contractor’s copy shall be signed by City, on site, before any fertilizer may be used.
2. Fertilizers, if necessary, shall be applied at the direction of the Project Biologist and according to manufacturer’s product specifications.
3. If deemed necessary by City to achieve required results, Contractor shall apply other materials as directed by City, including:
  - i) iron chelate;
  - ii) soil sulfur;
  - iii) gypsum; or
  - iv) surfactant enzymes such as Sarvon or Naiad.
4. Contractor shall adequately irrigate the fertilized area(s) immediately following the application of fertilizers and/or amendments to force fertilizer material to rest directly on the soil surface. Drip irrigated areas shall be adequately hand watered using quick coupler valves and hoses to dissolve fertilizer.

E. Weed Removal. Contractor shall completely remove weeds from the Revegetation Area, including all turf grass areas, shrub and ground cover areas, planters, tree wells, and cracks in paved areas, including sidewalks, parking lot, gutters and curbs, as shown on the Work Schedule. For the purposes of this Section, “Weed” means any undesirable or misplaced plant. The Contractor shall control Weeds by manual, mechanical, or chemical methods. The City or Project Biologist may restrict the use of chemical weed control in certain areas.

- F. Disease and Pest Control. The Contractor shall regularly inspect the Revegetation Area for the presence of disease and insect or rodent infestation. The Contractor shall notify City within 4 days if disease or insect or rodent infestation is discovered. In its notice to City, Contractor shall identify the disease, insect, or rodent and specify the control measures to be taken. Upon approval of City, Contractor shall implement the approved control measures, exercising extreme caution in the application of all sprays, dusts, or other materials utilized. The Contractor shall continue the approved control measures until the disease, insect, or rodent is controlled to the satisfaction of City.
1. All individuals who supervise the mixing and application of herbicides, pesticides, and rodenticides on behalf of Contractor shall possess valid Qualified Applicators Certificate for Category B issued to them by the State Department of Food and Agriculture.
  2. Contractor shall utilize all safeguards necessary during disease, insect or rodent control operations to ensure safety of the public and the employees of Contractor, in accordance with current standard practices accepted by the State of California Department of Food and Agriculture. If Contractor is unable to control the pest or disease, a pest control company will be hired and the cost shall be deducted from Contractor's monthly payment.
- G. Plant Replacement. Except as provided in Section H below, Contractor shall notify City within 4 days of the loss of plant material due to any cause.
1. Contractor shall at no cost to City replace any tree, shrub, ground cover, or other plant which is damaged or lost as a result of Contractor's faulty maintenance or negligence. The size and species of replacement plant materials shall be as directed by Project Biologist.
  2. If so directed by Project Biologist, Contractor shall replace any plant damaged or lost that is not a result of Contractor's faulty maintenance or negligence. The size and species of replacement plant materials shall be as directed by Project Biologist. The City will pay for materials and labor.
  3. City may determine that certain plants should be replaced in order to ensure maximum ecological health and overall aesthetic appearance of planting in the Revegetation Area. When City determines such replacement should occur, Contractor shall replace the plants as directed by City. City will pay for materials and labor.
- H. Damage Reports. The Contractor shall notify City within 24 hours of any damage to the Work Area caused by accident, vandalism or theft.
- I. Litter. The Contractor shall promptly dispose of all trash and debris at an appropriate City disposal site. The Contractor shall pay any and all fees associated with the disposal of debris or trash accumulated under the terms of this contract. The Contractor understands that disposal of refuse at City landfills is subject to a fee and that the Refuse Disposal Division can be contacted at (619) 573-1418 for fee information.
1. Contractor Generated Litter. The Contractor shall promptly remove all debris generated by Contractor's pruning, trimming, weeding, edging and other Work required by this contract. Immediately after working in streets, park walks,

gutters, driveways, and paved areas, Contractor shall clean them in accordance with all applicable laws.

2. Third Party Generated Litter. Upon discovery Contractor shall remove all litter, including bottles, glass, cans, paper, cardboard, fecal matter, leaves, branches, metallic items, and other debris, from the Work site.

- J. Monitoring: The City will hire a qualified Project Biologist to oversee all maintenance operations and conduct qualitative and quantitative biological monitoring of the revegetation area according to the schedule and methods described in the Revegetation Plan. The Project Biologist will be responsible for preparing and submitting monitoring reports according to the schedule and instructions in the Revegetation Plan. The Project Biologist will be an individual or team of individuals with 4-year degree(s) in botany, ecology, landscape architecture or a related field, and demonstrated experience in upland and riparian community restoration.

**EXHIBIT B**

**FIELD NOTIFICATION**

**[Inset a copy of the Engineer's Field Notification which establishes the commencement date of the monitoring program, see City Supplement, section 800-2.12]**

**EXHIBIT C**  
**LICENSE DATA SHEET**

**State Contractor License Classification and Number:** \_\_\_\_\_

Name of License Holder: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

**Pest Control Applicator's Name:** \_\_\_\_\_

License Number: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

**Pest Control Advisor's Name:** \_\_\_\_\_

License Number: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

**City of San Diego Business License Number:** \_\_\_\_\_

Expiration Date: \_\_\_\_\_

**APPENDIX J**

**Agreement for Application of Emulsion-Aggregate Slurry**

**AGREEMENT FOR APPLICATION OF  
EMULSION-AGGREGATE SLURRY**

**RELATED TO BALBOA TERRACE TRUNK SEWER**

THIS Agreement for Application of Emulsion-Aggregate Slurry Related to **BALBOA TERRACE TRUNK SEWER** [Agreement] is made and entered into by and between the City of San Diego [City] and [\*Insert name of Contractor\*] [Contractor] (collectively referred to herein as “the Parties”).

**RECITALS**

A. WHEREAS, on or about [\*Insert date\*], the City and the Contractor entered into an agreement for the construction of **BALBOA TERRACE TRUNK SEWER** [Contract], SAP No. (WBS/CC/IO) **B-00478**.

B. WHEREAS, in accordance with the terms of the Contract, the City and the Contractor agreed that the slurry sealing work described in Section 302-4, *Emulsion-Aggregate Slurry* and 600-3, *Rubberized Emulsion – Aggregate Slurry* would not be performed during the months of November, December, January, February, and/or March [Winter Months].

C. WHEREAS, work progressed in accordance with the Contract such that the slurry sealing work would, in the absence of the Parties’ agreement to the contrary, be performed during the Winter Months.

D. WHEREAS, the City and the Contractor desire to enter into this Agreement in order to fulfill their obligations under 302-4, *Emulsion-Aggregate Slurry* and 600-3, *Rubberized Emulsion – Aggregate Slurry* of the Contract.

NOW, THEREFORE, in consideration of the mutual obligations of the Parties as set forth in the above Recitals, which are incorporated herein by this reference, the City and the Contractor agree as follows:

**ARTICLE I - WORK TO BE PERFORMED**

**1.1 Performance of Work.**

The Contractor agrees to perform all slurry sealing work as set forth in Sections 302-4 and 600-3 of the Contract and *sheet 30360-29-D of the Project’s plans* [Slurry Work], which is/are incorporated by this reference as though fully set forth herein. The Slurry Work shall be performed in accordance with the Schedule of Work, attached hereto as “Exhibit A” and incorporated herein by this reference, or as otherwise agreed to by the Parties in a written change to the Schedule of Work. Unless otherwise specified, the time of completion of this Agreement shall be expressed in Working Days.

For the purposes of this Agreement:

a) References in the specified sections to the “Agency” shall mean the City and the “Work” shall mean the Slurry Work.

b) References to the specified sections shall mean sections of the GREENBOOK (Standard



Specifications for Public Works Construction), the City Supplement, and Supplementary Special Provisions under the editions specified in the Contract.

## **1.2 Working Day.**

See the City Supplements, Section 1-2, TERMS AND DEFINITIONS. The Engineer will make a daily determination of each Working Day to be charged against the Agreement time. These determinations will be discussed and the Contractor will be furnished a periodic statement showing allowable number of Working Days of Agreement time, including any adjustments, at the beginning of the reporting period. The statement will also indicate the number of Working Days charged during the reporting period and the number of Working Days of Agreement time remaining. If the Contractor does not agree with the statement, it shall file a written protest within 15 days after receipt, setting forth the facts of the protest. Otherwise, the statement will be deemed to have been accepted.

## **1.3 Prosecution of Slurry Work.**

Section 6-2, Prosecution of Work is incorporated into this Agreement by this reference as though fully set forth herein.

## **1.4 Project Site Maintenance.**

Section 7-8 of the Contract, Project Site Maintenance is incorporated into this Agreement by this reference as though fully set forth herein.

## **1.5 Protection and Restoration of Existing Improvements.**

Section 7-9 of the Contract, Protection and Restoration of Existing Improvements is incorporated into this Agreement by this reference as though fully set forth herein.

## **1.6 Public Convenience and Safety.**

Section 7-10 of the Contract, Public Convenience and Safety is incorporated into this Agreement by this reference as though fully set forth herein.

## **1.7 Completion, Acceptance, and Guarantee.**

The Engineer will inspect the Slurry Work in accordance with Section 302-4 and 600-3 of the Contract. The Contractor shall provide the Engineer with written notice that the Slurry Work has been completed. If the Engineer determines that the Slurry Work has been completed to the Engineer's reasonable satisfaction and is ready for acceptance, the Engineer will accept the completed Work by sending written notice to the Contractor specifying the date of acceptance. All Slurry Work shall be subject to the warranty requirements of the Contract as specified in Section 6-8, COMPLETION, ACCEPTANCE, AND WARRANTY.

## **1.8 Payment to Contractor.**

Upon completion of the Slurry Work, the City will pay the Contractor for slurry work, bonds, insurance, and traffic control in accordance with the applicable sections of the Contract.

## **1.9 Delays and Extensions of Time.**

Section 6-6, Delays and Extensions of Time is incorporated into this Agreement by this reference as though fully set forth herein.

### **1.10 Liquidated Damages.**

Section 6-9, Liquidated Damages is incorporated into this Agreement by this reference as though fully set forth herein.

## **ARTICLE II - BOND/INSURANCE/INDEMNIFICATION**

### **2.1 Faithful Performance Bond.**

Prior to execution of this Agreement, the Contractor shall provide the City with a faithful performance bond [Bond] in the amount of \$[\*insert amount of Contractor's bid item for slurry work], guaranteeing faithful performance of all Slurry Work, within the time prescribed in this Agreement, in a manner satisfactory to City, and that all materials and workmanship will be free from original or developed defects. The Bond must remain in effect until the end of all warranty periods set forth in this Agreement. The Bond shall comply with Section 2-4, BONDS of the Contract.

### **2.2 Insurance.**

Section 7-3, Liability Insurance is incorporated into this Agreement by this reference as though fully set forth herein. At all times during the term of this Agreement, the Contractor shall maintain insurance coverage required by Section 7-3, LIABILITY INSURANCE of the Contract for:

- a. Commercial General Liability.
- b. Commercial Automobile Liability.
- c. Worker's Compensation.

All policies must be primary and non-contributing to any insurance that may be carried by the City, as reflected in an endorsement, which shall be submitted to the City. The policies shall not be canceled, non-renewed, or materially changed except after 30 days prior written notice by the Contractor or the insurance carrier to the City by certified mail, except for non-payment of premium, in which case 10 days notice shall be provided.

### **2.3 Indemnification.**

Section 7-15, Indemnification And Hold Harmless Agreement is incorporated into this Agreement by this reference as though fully set forth herein.

## **ARTICLE III - DEFAULT/TERMINATION**

### **3.1 Default by Contractor.**

Section 6-4, Default by Contractor is incorporated into this Agreement by this reference as though fully set forth herein.

### **3.2 Termination of Agreement.**

Section 6-5, *Termination of Contract* is incorporated into this Agreement by this reference as though fully set forth herein.

## **ARTICLE IV - CONTRACTOR OBLIGATIONS**

### **4.1 Compliance with the City's Equal Opportunity Contracting Program.**

The Contractor and each Subcontractors shall comply with the City's Equal Opportunity Contracting Program requirements which the Contractor acknowledges receiving in conjunction with the Contract.

### **4.2 Non-Discrimination Ordinance.**

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

### **4.3 Compliance Investigations.**

Upon the City's request, the Contractor agrees to provide to the City, within 60 days, a truthful and complete list of the names of all Subcontractors and Suppliers that the Contractor has used in the past 5 years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by the Contractor for each subcontract or supply contract. The Contractor further agrees to fully cooperate in any investigation conducted by the City pursuant to the City's Nondiscrimination in Contracting Ordinance (Municipal Code sections 22.3501-22.3517.) The Contractor understands and agrees that violation of this clause shall be considered a material breach of the contract and may result in remedies being ordered against the Contractor up to and including contract termination, debarment, and other sanctions for violation of the provisions of the Nondiscrimination in Contracting Ordinance. The Contractor further understands and agrees that the procedures, remedies and sanctions provided for in the Nondiscrimination Ordinance apply only to violations of the Nondiscrimination Ordinance.

### **4.4 Drug-Free Workplace.**

The Contractor agrees to comply with the City's Drug-Free Workplace requirements set forth in Council Policy 100-17, adopted by Council Resolution No. R-277952 and incorporated into this Agreement by this reference. The Contractor has certified to the City that it will provide a drug-free workplace by submitting a Contractor Certification for a Drug-Free Workplace form.

The Contractor further certifies that any subcontract for this Agreement shall contain language that binds the Subcontractor to comply with the drug-free workplace requirements of this Agreement, as required by Sections 2.A.(1) through (3) of Council Policy 100-17. The Contractor and Subcontractors shall be individually responsible for their own drug-free work place program.

### **4.5 Compliance with Controlling Law.**

The Contractor shall comply with all laws, ordinances, regulations, and policies of the federal, state,

and local governments applicable to this Agreement, including the California Labor Code. In addition, the Contractor shall comply immediately with all directives issued by the City or its authorized representatives under authority of any laws, statutes, ordinances, rules, or regulations. The laws of the State of California shall govern and control the terms and conditions of this Agreement.

## **ARTICLE V - GENERAL PROVISIONS**

### **5.1 Jurisdiction, Venue, and Attorney's Fees.**

The venue for any suit or proceeding concerning this Agreement, the interpretation or application of any of its terms, or any related disputes shall be in the County of San Diego, State of California. The prevailing party in any such suit or proceeding shall be entitled to a reasonable award of attorney's fees in addition to any other award made in such suit or proceeding.

### **5.2 Successors in Interest.**

This Agreement and all rights and obligations created by this Agreement shall be in force and effect whether or not any parties to the Agreement have been succeeded by another entity, and all rights and obligations created by this Agreement shall be vested and binding on any party's successor in interest.

### **5.3 Integration.**

This Agreement and the exhibits and references incorporated into this Agreement fully express all understandings of the Parties concerning the matters covered in this Agreement. No change, alteration, or modification of the terms or conditions of this Agreement, and no verbal understanding of the Parties, their officers, agents, or employees shall be valid unless made in the form of a written change agreed to in writing by both Parties or an amendment to this Agreement agreed to by both Parties. All prior negotiations and agreements are merged into this Agreement.

### **5.4 No Waiver.**

No failure of either the City or the Contractor to insist upon the strict performance by the other of any covenant, term or condition of this Agreement, nor any failure to exercise any right or remedy consequent upon a breach of any covenant, term, or condition of this Agreement, shall constitute a waiver of any such breach or of such covenant, term or condition. No waiver of any breach shall affect or alter this Agreement, and each and every covenant, condition, and term hereof shall continue in full force and effect to any existing or subsequent breach.

### **5.5 Severability.**

The unenforceability, invalidity, or illegality of any provision of this Agreement shall not render any other provision of this Agreement unenforceable, invalid, or illegal.

### **5.6 Drafting Ambiguities.**

The Parties agree that they are aware that they have the right to be advised by counsel with respect to the negotiations, terms and conditions of this Agreement, and the decision of whether or not to seek

advice of counsel with respect to this Agreement is a decision, which is the sole responsibility of each Party. This Agreement shall not be construed in favor of or against either Party by reason of the extent to which each Party participated in the drafting of the Agreement.

#### **5.7 City Acts/Approvals.**

Whenever an act or approval is required by the City in accordance with the terms of this Agreement, that the Engineering and Capital Projects Department Director or duly designated representative shall perform act or approval.

#### **5.8 Signing Authority.**

The representative for each Party signing on behalf of a corporation, partnership, joint venture or governmental entity hereby declares that authority has been obtained to sign on behalf of the corporation, partnership, joint venture, or entity and agrees to hold the other Party or Parties hereto harmless if it is later determined that such authority does not exist..

IN WITNESS WHEREOF, this Agreement is executed by the City of San Diego, by and through its Public Works Department Director in accordance with Resolution No. [\*Insert resolution number authorizing underlying construction contract\*], and by Contractor.

THE CITY OF SAN DIEGO

Dated:

By:

[\*Insert name and title\*]

CONTRACTOR

Dated:

By:

[\*Insert name and title\*]

I HEREBY APPROVE the form and legality of the foregoing Agreement this  
day of \_\_\_\_\_, 20\_\_.

JAN I GOLDSMITH, City Attorney

By:

Deputy City Attorney

**EXHIBIT A**  
**SCHEDULE OF WORK**

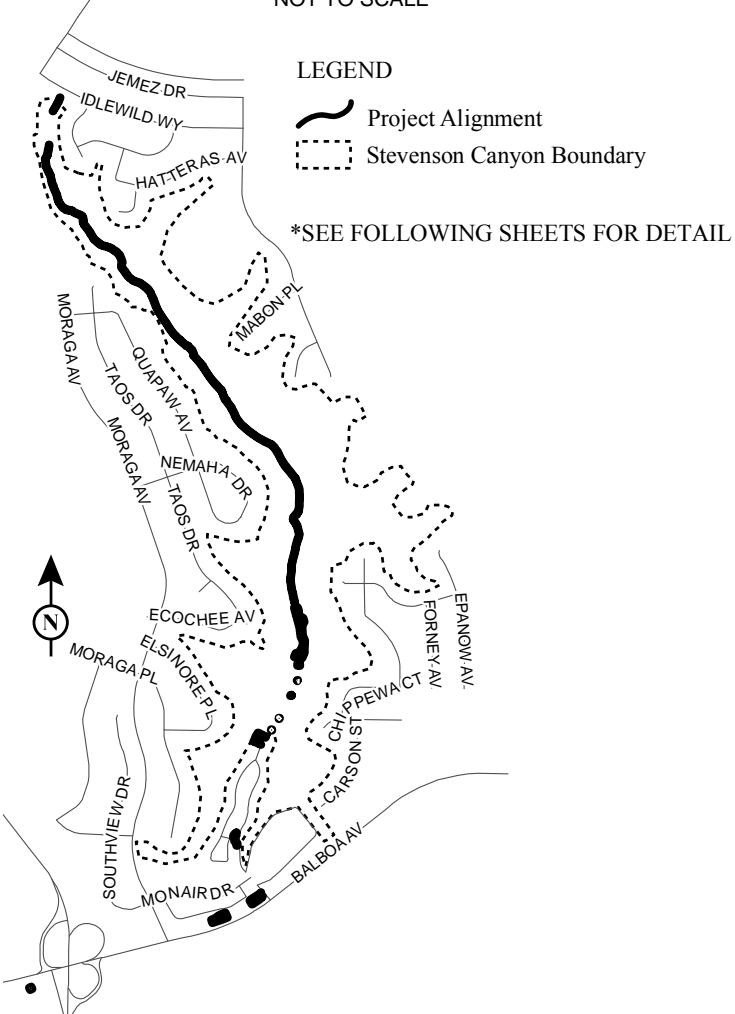
[\*Insert Schedule Showing Time (in Working Days) in Which Work is to be Performed\*]

**APPENDIX K**  
**Revegetation Plans**



# KEY MAP

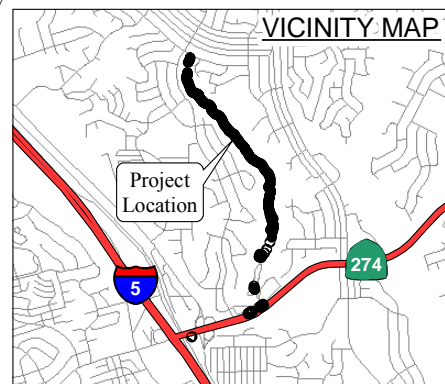
NOT TO SCALE



## LEGEND

- Project Alignment
- Stevenson Canyon Boundary

\*SEE FOLLOWING SHEETS FOR DETAIL



**Table 2: Seed Mix for Coastal Sage Scrub\*\* (0.660 Acre)**

Scientific Name**	Common Name	Pounds Pure Live Seed/Acre	Total Pounds
<i>Artemisia californica</i>	California sagebrush	0.50	0.34
<i>Artemisia palmeri</i>	Palmer's sagewort	0.35	0.24
<i>Baccharis pilularis</i>	Coyote brush	1.50	1.02
<i>Eriogonum fasciculatum</i>	California buckwheat	3.00	2.03
<i>Malacothamnus fasciculatus</i>	Coastal bushmallow	3.00	2.03
<i>Salvia mellifera</i>	Black sage	1.00	0.68

**Table 3: Seed Mix for Freshwater Marsh\*\* (0.0131 Acre)**

Scientific Name**	Common Name	Pounds Pure Live Seed/Acre	Total Pounds*
<i>Cyperus eragrostis</i>	tall flatsedge	0.15	0.10
<i>Juncus acutus ssp. leopoldii</i>	southwestern spiny rush	0.05	0.10
<i>Juncus bufonius</i>	toad rush	0.10	0.10
<i>Typha latifolia</i>	broadleaf cattail	0.10	0.10

\* Due to the extremely small size of the revegetation area, LSA recommends a higher seed quantity than usual to allow for practical seed procurement and installation.

**TABLE 4: Success Criteria (As Verified by the Project Biologist)**

Parameter	Percent Vegetation Cover*		Plant Survival	
	Hydroseed		Container Plants**	
Performance Standard - Impact Area	Year 1:	50 Percent	Year 1:	100 Percent
	25 Months:	100 Percent	25 Months:	80 Percent
Performance Standard - Access Path	Year 1:	50 Percent	Year 1:	100 Percent
	25 Months:	100 Percent	25 Months:	80 Percent

\*See General Revegetation Note #5 if a lower percent cover criterion is approved by the Project Biologist. At the end of Year 1, plant coverage of hydroseed and container plants combined shall meet 50% coverage  
 \*\*Container plants not meeting plant survival success criteria, as verified and recommended by the project biologist, shall be replaced and maintained at the contractor's expense until the success criteria have been met.

**TABLE 5: Summary and Schedule for Maintenance, Monitoring, and Reporting**

Period	Activity for Project Biologist/Contractor	Biologist Site Visit Frequency	Submittals/Checklist	Reporting Frequency
Revegetation/Installation	Project Biologist will be responsible for monitoring/Landscape Contractor will be responsible for installation and maintenance.	During installation of seed	Reports prepared by the biologist (based on the revegetation plan criteria)	At completion of successful installation as determined by the Project Biologist
120 Day PEP	Project Biologist will be responsible for monitoring/Landscape Contractor will be responsible for maintenance.	For months 1 & 2- biweekly, Months 3 & 4- at least once a month	Reports prepared by the biologist (based on the revegetation plan criteria)	At the end of the PEP**
25-month long term maintenance and monitoring	Project Biologist will be responsible for monitoring/Landscape Contractor will be responsible for maintenance.	Every 3 Months	Reports prepared by the biologist (based on the revegetation plan criteria)	Every 3 Months for the first 9 months Year 1** 25 Months**

Note: If 25th month success criteria are not met, the Mitigation and Monitoring Program will be extended as required. Quarterly maintenance and monitoring with yearly reporting shall continue as needed.  
 \*\*PEP, 1 year and 25th month final report(s) required to include the above information.

**Table 1: Container Plant and Cutting List\***

Species	Common Name	Container Size	Plants Per Acre	Quantity†
<i>Artemisia californica</i> *	California sagebrush	1-gallon	200	120
<i>Baccharis pilularis</i> *	coyote brush	1-gallon	200	120
<i>Baccharis salicifolia</i>	mule fat	cuttings	N/A	50
<i>Malosma laurina</i> *	laurel sumac	1-gallon	200	120
<i>Rhus integrifolia</i> *	lemonadeberry	1-gallon	200	120
<i>Salvia mellifera</i> *	black sage	1-gallon	200	120
<i>Sambucus mexicana</i> *	Mexican elderberry	1-gallon	200	120

† Container plants and cuttings to be planted 6 feet on center

# BALBOA TERRACE TRUNK SEWER REVEGETATION PLAN

SHEET 1 OF 9





Mike Trotta - Project Biologist

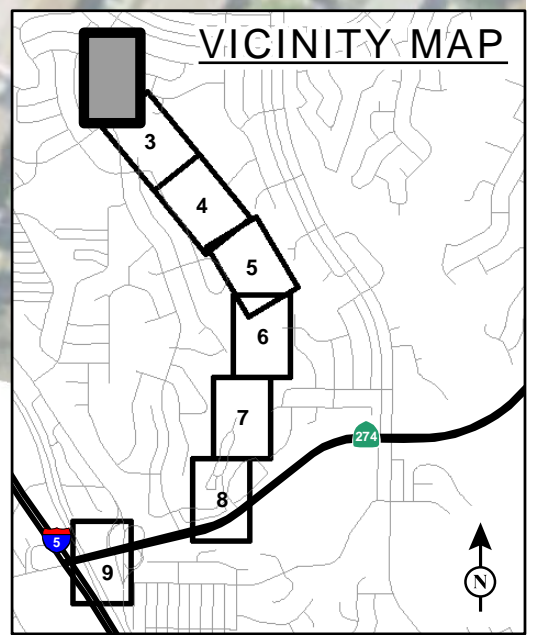
- GENERAL REVEGETATION NOTES:**
- REVEGETATION OF THE PROJECT AREA SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF SAN DIEGO LANDSCAPE STANDARDS AND CITY SPECIFICATIONS UNDER THE DIRECTION OF THE RESIDENT ENGINEER (RE) AND PROJECT BIOLOGIST.
  - REVEGETATION SHALL BE PERFORMED IN ACCORDANCE WITH THE BIOLOGICAL RESOURCES REPORT (LSA ASSOCIATES, INC., JULY 2011).
  - THE UPPER EIGHT-INCHES OF TOPSOIL FROM THE SITE SHALL BE SALVAGED, IF SOIL IS REMOVED, AS DIRECTED BY THE RE AND PROJECT BIOLOGIST. THE PROJECT BIOLOGIST SHALL ENSURE THAT SOIL WILL BE STOCKPILED WITHIN THE LIMITS OF THE PROJECT, NO MORE THAN THREE FEET HIGH WHEN POSSIBLE. BMPs, SILT FENCING, AND/OR COVER SHALL BE INSTALLED AROUND THE STOCKPILE TO PREVENT EROSION AND AS A BARRIER TO PRECLUDE ANY UNAUTHORIZED ACCESS, OR AS RECOMMENDED BY THE PROJECT BIOLOGIST.
  - PRIOR TO REVEGETATION AND/OR PLANT INSTALLATION, THE PROJECT BIOLOGIST SHALL PROVIDE WRITTEN RECOMMENDATIONS TO THE RE AS TO THE SALVAGED TOPSOIL RELOCATION, RE-COMPACTION (E.G., MAX 75 PERCENT WITHIN TOP 8 INCHES), AND/OR PREPARATION FOR REVEGETATION PURPOSES TO BE DONE BY THE CONTRACTOR. IF TOPSOIL CANNOT BE SALVAGED, CLEAN AND WEEDFREE CLASS "A" TOPSOIL WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR.
  - SEED MIX AND/OR CONTAINER STOCK USED FOR EROSION CONTROL AND ON SLOPES SHALL ACHIEVE 100 PERCENT (OR AS APPROVED BY THE PROJECT BIOLOGIST AND CITY REPRESENTATIVE BASED ON SITE CONDITIONS IF LESSER % COVERAGE) SOIL COVERAGE WITHIN 25 MONTHS OF BEING INSTALLED AFTER THE 120-DAY PLANT ESTABLISHMENT PERIOD (PEP). AT THE END OF YEAR 1, PLANT COVERAGE SHALL MEET 50 PERCENT COVERAGE, AS VERIFIED BY THE PROJECT BIOLOGIST (TABLE 4).
  - REVEGETATION OF MANUFACTURED SLOPES AND OTHER DISTURBED AREAS ADJACENT TO AREAS OF NATIVE VEGETATION SHALL BE ACCOMPLISHED IN SUCH A MANNER AS TO PROVIDE VISUAL AND HORTICULTURAL COMPATIBILITY WITH THE INDIGENOUS NATIVE PLANT MATERIALS.
  - INVASIVE PLANT SPECIES, INCLUDING BUT NOT LIMITED TO THOSE LISTED IN THE CITY'S LANDSCAPE STANDARDS, ARE PROHIBITED AND SHALL BE ERADICATED AND REMOVED BY THE CONTRACTOR. NATIVE PLANT SPECIES SHALL BE USED IN NATURALIZED AREAS.
  - REVEGETATION AND EROSION CONTROL TIMING - ALL REQUIRED REVEGETATION AND EROSION CONTROL SHALL BE COMPLETED WITHIN 30 CALENDAR DAYS OF THE COMPLETION OF GRADING OR DISTURBANCE IN ORDER TO START THE 120-DAY PEP, OR AS RECOMMENDED BY THE RE AND PROJECT BIOLOGIST.
  - ALL SLOPES 3:1 OR GREATER SHALL REQUIRE BIODEGRADABLE EROSION CONTROL BLANKETS OR OTHER SLOPE PROTECTION METHODS AS RECOMMENDED BY THE PROJECT BIOLOGIST PRIOR TO THE INSTALLATION OF THE REVEGETATION, OR IN THE EVENT OF SLOPE OR RESTORATION FAILURE. ALL MULCH GROUNDCOVER USED SHALL BE CREATED FROM ON-SITE VEGETATION, IF FEASIBLE, AND SHALL BE CLEAN AND FREE OF WEEDS, SEEDS, AND OTHER DEBRIS AS CERTIFIED BY THE SUPPLIER, AS APPLICABLE.
  - THE CONTRACTOR SHALL CORRECT ALL SOIL EROSION, AND SHALL REPAIR AND/OR REPLACE ALL ABOVE GROUND EROSION CONTROL BMPs DAMAGED DURING THE 120 DAY PEP AND THROUGHOUT THE 25 MONTH MAINTENANCE AND MONITORING PERIOD. ANY ABOVE GRADE EROSION CONTROL MEASURES SUCH AS, BUT NOT LIMITED TO, SILT FENCING, GRAVEL BAGS, FIBER ROLLS, AND/OR HAY BALES SHALL BE REMOVED BY THE CONTRACTOR FOLLOWING ACCEPTANCE OF THE 25 MONTH MAINTENANCE AND MONITORING PERIOD BY THE RE AND PROJECT BIOLOGIST. ALL HAY/STRAW PRODUCTS SHALL BE UN-DECAYING, CLEAN, AND FREE OF WEED, SEEDS, AND DEBRIS.
  - 1:1 REPLACEMENT OF ORNAMENTALS (IN KIND) SHALL BE MONITORED AND MAINTAINED FOR A PERIOD OF NO LESS THAN 90 DAYS TO ENSURE SUCCESSFUL ESTABLISHMENT OF PLANTINGS PER CONTRACT SPECIFICATIONS.
  - ORANGE CONSTRUCTION FENCING SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ALL REVEGETATION PLANT MATERIALS, THROUGHOUT THE 120 DAY PEP, AND UNTIL THE ACCEPTANCE OF THE 25-MONTH MAINTENANCE AND MONITORING PERIOD BY A CITY REPRESENTATIVE AND PROJECT BIOLOGIST. FOLLOWING ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL ORANGE FENCING.
  - THE CONTRACTOR SHALL REMOVE ALL TRASH AND/OR DEBRIS FROM THE REVEGETATION SITE PRIOR TO THE REVEGETATION INSTALLATION, AND ONGOING DURING MAINTENANCE UNTIL THE ACCEPTANCE OF THE 25-MONTH MAINTENANCE AND MONITORING PERIOD. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY IRRIGATION LINES AND APPURTENANCES FOLLOWING ACCEPTANCE OF THE REVEGETATION BY THE RE, CITY REPRESENTATIVE, AND PROJECT BIOLOGIST.
- TEMPORARY IRRIGATION:**
- UNDER THE DIRECTION OF THE PROJECT BIOLOGIST, TEMPORARY IRRIGATION WILL BE APPLIED AS FOLLOWS:
  - HYDROSEED AND/OR CONTAINER PLANTS SHALL BE PLANTED BETWEEN OCTOBER 1 AND FEBRUARY 15 DURING THE RAINY SEASON. THE PROJECT BIOLOGIST SHALL RECOMMEND TEMPORARY IRRIGATION MEASURES AS NEEDED. THE CONTRACTOR SHALL PROPOSE METHODS OF IRRIGATION AND SHALL PROVIDE IRRIGATION LINES AND APPURTENANCES TO FUNCTION AUTOMATICALLY.
  - HYDROSEED AND/OR CONTAINER PLANTS PLANTED BETWEEN FEBRUARY 15 AND OCTOBER 1 SHALL REQUIRE A COMPREHENSIVE IRRIGATION PLAN AND APPROVAL BY A CITY REPRESENTATIVE AND PROJECT BIOLOGIST. THE CONTRACTOR SHALL PREPARE AND SUBMIT THE PLAN TO THE RE FOR APPROVAL. THE CONTRACTOR SHALL PROVIDE ALL IRRIGATION LINES AND APPURTENANCES TO FUNCTION AUTOMATICALLY AND IN ACCORDANCE WITH THE PLAN, AND MAKE ANY ADJUSTMENTS NECESSARY TO MEET THE SUCCESS CRITERIA PER PROJECT BIOLOGIST RECOMMENDATIONS.
  - TEMPORARY IRRIGATION VIA IRRIGATION LINES AND APPURTENANCES (OR ALTERNATE METHOD SUBJECT TO THE PRIOR APPROVAL OF THE RE AND PROJECT BIOLOGIST) SHALL BE PROVIDED BY THE CONTRACTOR FOR A PERIOD SUFFICIENT TO ESTABLISH PLANT MATERIAL AND TO PROVIDE VEGETATIVE COVER THAT PREVENTS SOIL EROSION. THE AMOUNT AND FREQUENCY OF IRRIGATION MUST BE ADJUSTED WHEN WARRANTED BY SITE CONDITIONS. THE PROJECT BIOLOGIST AND CONTRACTOR SHALL MONITOR THE SITE TO DETERMINE SUCCESS AND IF ANY ADDITIONAL MEASURES OR FEATURES ARE REQUIRED FOR THE TEMPORARY IRRIGATION SYSTEM.
  - IRRIGATION SHALL BE PERFORMED IN A MANNER THAT AVOIDS RUNOFF, SEEPAGE, AND OVERSPRAY ONTO ADJACENT PROPERTIES, NON-IRRIGATED AREAS, WALLS, ROADWAYS, OR STRUCTURES.
  - THE WATER DELIVERY RATE SHALL BE MATCHED TO THE SLOPE GRADIENT AND THE PERCOLATION RATE OF THE SOIL.
  - IRRIGATION SHALL DELIVER WATER SUFFICIENTLY AND UNIFORMLY, AND SHALL BE APPROPRIATE TO THE NEEDS OF THE PLANT MATERIALS. RECOMMENDED REFERENCE MATERIALS FOR IRRIGATION SYSTEMS DESIGN ARE LISTED IN APPENDIX "A" OF THE CITY'S LANDSCAPE STANDARDS.
  - OVERWATERING AS INDICATED BY THE PRESENCE OF SOGGY SOILS, CONTINUALLY WET PAVEMENT, STANDING WATER, RUNOFF INTO STREET GUTTERS, AND OTHER SIMILAR CONDITIONS SHALL BE MANAGED AND PREVENTED.
  - IF THE PROJECT BIOLOGIST RECOMMENDS AN ALTERNATIVE IRRIGATION METHOD, SUCH AS TRUCK WATERING, ALL VEHICLES SHALL STAY ON THE PERMANENT ACCESS ROUTES AND SHALL NOT IRRIGATE BEYOND THE REVEGETATION BOUNDARY.
- SEED MIXES:**
- THE SEED MIXES DESCRIBED IN THE TABLES SHALL BE INSTALLED IN ALL NON-HARDSCAPED AREAS DISTURBED BY THE PROJECT. THE SEED SHALL BE INSTALLED VIA HYDROSEED METHODS, UNLESS OTHERWISE DIRECTED BY THE PROJECT BIOLOGIST. SEED APPLIED BETWEEN NOVEMBER AND MARCH SHALL BE COVERED BY THE CONTRACTOR WITH SUITABLE BIODEGRADABLE COVER AS APPROVED BY THE PROJECT BIOLOGIST.
  - ALL SEEDS SHALL MEET THE MINIMUM % PURE LIVE SEED AS NOTED IN THE TABLES. IF MINIMUM % PURE LIVE SEED COUNT CANNOT BE MET, THE CONTRACTOR WILL COORDINATE WITH THE PROJECT BIOLOGIST TO OBTAIN WRITTEN APPROVAL FOR ALTERNATIVE COMPLIANCE.
  - ALL SEEDS SHALL ORIGINATE FROM WITHIN THE PROJECT VICINITY (E.G., 10-MILE RADIUS), OR THE CONTRACTOR SHALL PROVIDE EVIDENCE THAT LOCALLY COLLECTED SEED IS NOT AVAILABLE AND THE CONTRACTOR SHALL NOTIFY A CITY REPRESENTATIVE AND PROJECT BIOLOGIST FOR ALTERNATIVE COMPLIANCE. THE CONTRACTOR SHALL RETAIN AND SUBMIT ALL SEED TAGS FOR SEED PRODUCTS TO BE USED TO THE RE AND PROJECT BIOLOGIST PRIOR TO APPLICATION.
- HYDROSEEDING PROCEDURES:**
- HYDROSEED APPLICATION SHALL ONLY OCCUR AFTER THE PROJECT BIOLOGIST HAS OBSERVED AND APPROVED SITE PREPARATION.
  - TYPE 9 MULCH (WOOD FIBER) OR BONDED FIBER MATRIX (BFM) SHALL BE APPLIED AT A MINIMUM RATE OF 1,500 POUNDS PER ACRE; HYDROPOST PREMIUM COMPOST, OR EQUAL, SHALL BE APPLIED AT A MINIMUM RATE OF 1,000 POUNDS PER ACRE; BIOSOL MIX 7-2-3 ORGANIC FERTILIZER, OR EQUAL, SHALL BE APPLIED AT A MINIMUM RATE OF 800 POUNDS PER ACRE; AM 120 MYCORRHIZAL INOCULUM, OR EQUAL, SHALL BE APPLIED AT A MINIMUM RATE OF 60 POUNDS PER ACRE. USE OF A LOWER MINIMUM RATE OF THE PRODUCTS MENTIONED ABOVE IS SUBJECT TO THE DISCRETION OF THE RE AND PROJECT BIOLOGIST ONLY.
  - TYPE 9 MULCH (WOOD FIBER) OR BFM AND HYDROPOST COMPOST SHALL BE UNIFORMLY SPREAD AND "TACKED" WITH TYPE 10 MULCH (STABILIZING EMULSION) BINDER AT A MINIMUM RATE OF 150 POUNDS PER ACRE. THE BINDER SHALL BE AN ORGANIC DERIVATIVE OR PROCESSED ORGANIC ADHESIVE, OR AS DIRECTED BY THE PROJECT BIOLOGIST.
  - A WETTING AGENT CONSISTING OF ONE TON PER ACRE AGRICULTURAL GYPSUM (95 % ALKYL POLYETHYLENE GLYCOL ETHER, OR AS APPROVED BY THE PROJECT BIOLOGIST) SHALL BE APPLIED AS PER MANUFACTURER'S RECOMMENDATIONS OR AS RECOMMENDED BY THE PROJECT BIOLOGIST.
  - EQUIPMENT USED FOR THE APPLICATION OF THE HYDROSEED SLURRY SHALL HAVE A BUILT-IN AGITATION SYSTEM TO SUSPEND AND HOMOGENOUSLY MIX THE SLURRY. THE SLURRY MIX SHALL BE DYED GREEN. THE EQUIPMENT MUST HAVE A PUMP CAPABLE OF APPLYING THE SLURRY UNIFORMLY.
- CONTAINER PLANT AND CUTTING PROCEDURES:**
- IN ADDITION TO THE SEED IN THE TABLES, THE CONTRACTOR SHALL SUPPLY AND PLANT UP TO 2,000 (1) GALLON CONTAINER PLANTS PER ACRE OF NON-INVASIVE AND/OR NATIVE PLANTS AT THE RECOMMENDATION AND UNDER THE DIRECTION OF THE RE AND PROJECT BIOLOGIST. THE PROJECT BIOLOGIST SHALL CONSIDER THE 120 DAY PEP, 25 MONTH MAINTENANCE AND MONITORING PERIOD, AND SUCCESS CRITERIA, IN THE EVENT THAT ADDITIONAL CONTAINER PLANTS ARE RECOMMENDED BY THE PROJECT BIOLOGIST FOR INSTALLATION.
  - CONTAINER PLANTS SHALL BE PROCURED FROM A NURSERY QUALIFIED TO PROPAGATE AND CARE FOR PLANT SPECIES. SOURCE FOR ANY NATIVE CONTAINER PLANT MATERIALS SHALL ORIGINATE WITHIN 25 MILES FROM THE PROJECT VICINITY WITHIN SAN DIEGO COUNTY TO THE EXTENT PRACTICAL (E.G., WITHIN A 25-MILE RADIUS), OR AS APPROVED BY THE RE AND PROJECT BIOLOGIST.
  - CONTAINER PLANT MATERIAL MUST BE DELIVERED TO THE PROJECT SITE AT THE APPROPRIATE TIME, IN A HEALTHY AND VIGOROUS CONDITION, AND LABELED CLEARLY. THE PROJECT BIOLOGIST WILL REJECT PLANT MATERIAL DELIVERED PRIOR TO ITS PLANTING DATE. SPECIMENS SHOWING EVIDENCE OF DISEASE, MISHANDLING, DEFECTS OR DAMAGE, OVER AND UNDERWATERING, OR OTHER DEFICIENCY AT THE TIME OF DELIVERY WILL BE REJECTED.
  - CONTAINER PLANTS WILL BE PLACED BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE PROJECT BIOLOGIST IN THE REVEGETATION AREAS. THE SUGGESTED CONTAINER PLANT INSTALLATION PROCEDURE SHALL BE AS DIRECTED BY THE RE AND PROJECT BIOLOGIST.
  - THE CONTAINER PLANTS AND CUTTINGS ARE TO BE PLANTED IN THE DESIGNATED AREAS (REFER TO SHEETS 2 THROUGH 9) 6 FEET ON CENTER.
- MAINTENANCE REQUIREMENTS:**
- THE REVEGETATION AREAS SHALL BE MAINTAINED FOR A PERIOD OF NOT LESS THAN 25 MONTHS (TABLE 5), OR AS DETERMINED BY THE RE AND PROJECT BIOLOGIST. ALL REVEGETATED AREAS SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL APPROVAL BY THE CITY. THE MAINTENANCE PERIOD BEGINS ON THE FIRST DAY FOLLOWING ACCEPTANCE (AT THE END OF THE 120-DAY PEP) AND MAY BE EXTENDED AT THE DISCRETION OF THE CITY REPRESENTATIVE AND RE.
  - PRIOR TO FINAL APPROVAL OF THE MAINTENANCE PERIOD, THE CITY REPRESENTATIVE MAY REQUIRE CORRECTIVE ACTIONS, INCLUDING BUT NOT LIMITED TO, WEED ERADICATION AND REMOVAL, SUPPLEMENTAL SEEDING AND SUPPLEMENTAL CONTAINER PLANTINGS, THE PROVISION OR MODIFICATION OF IRRIGATION SYSTEMS, AND THE REPAIR OF ANY SOIL EROSION OR SLOPE SLIPPAGE, IN CONSULTATION WITH THE PROJECT BIOLOGIST.
  - THE 120-DAY PEP FOLLOWS HYDROSEED APPLICATION. THE PEP, START OF THE 25-MONTH MAINTENANCE PERIOD, AND ACCEPTANCE AT THE CONCLUSION OF THE MAINTENANCE PERIOD, ARE DETERMINED BY THE CITY REPRESENTATIVE IN CONSULTATION WITH THE PROJECT BIOLOGIST.
  - WEEDING AND HERBICIDE AND/OR PESTICIDE APPLICATION SHALL BE DONE REGULARLY BY THE CONTRACTOR. WEEDING SHALL BE DONE BI-WEEKLY AT A MINIMUM UNTIL THE END OF THE 120-DAY PEP, AND MONTHLY THROUGHOUT THE 25 MONTHS OF MAINTENANCE. WEEDS SHALL BE PROPERLY DISPOSED OF OFF SITE. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY REPRESENTATIVE AND PROJECT BIOLOGIST PRIOR TO HERBICIDE/PESTICIDE APPLICATION, AND SHALL APPLY HERBICIDE/PESTICIDE PER THE MANUFACTURER'S RECOMMENDATIONS AND ANY STATE OF CALIFORNIA GUIDELINES. THE CONTRACTOR MUST POSSESS A VALID STATE PESTICIDE AND/OR HERBICIDE LICENSE AT ALL TIMES.
  - THE CONTRACTOR SHALL CONTROL WEEDS AS IDENTIFIED BY THE PROJECT BIOLOGIST SUCH THAT NO WEED COVER EXCEEDS 5% OF THE PROJECT SITE, NO WEEDS REACH MORE THAN 12 INCHES IN HEIGHT, AND BEFORE THEY SET SEED. AREAS WHERE WEEDING CREATES IN EXCESS OF 25 SQUARE FEET OF BARE SOIL SHALL BE REPLANTED AND MAINTAINED BY THE CONTRACTOR.
  - IN AREAS WHERE NON-NATIVE GRASSLANDS (NNG) HAVE BEEN DISTURBED, ALL COVERAGE REQUIREMENTS CAN BE ACHIEVED BY THE ESTABLISHMENT OF NATIVE OR NON-NATIVE GRASSES OR FORBS THAT 1) ARE NOT LISTED IN THE CITY OF SAN DIEGO LANDSCAPE GUIDELINES AS INVASIVE PLANT SPECIES AND 2) ARE NOT RATED BY THE CALIFORNIA INVASIVE PLANT COUNCIL (CAL-IPC) AS HIGHLY INVASIVE.



**LEGEND**

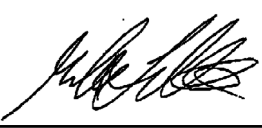
Revegetation

	Coastal Sage Scrub Seed Mix (CSS)
	Fresh Water Marsh Seed Mix (FWM)
	Mule Fat Cuttings (MF)
	1:1 In Kind Ornamental Replacement



**LSA**  
 LSA Associates, Inc.  
 703 Palomar Airport Road, Suite 206  
 Carlsbad, CA 92011  
 Phone: (760) 931-5471  
 Fax: (760) 918-2458





**BALBOA TERRACE TRUNK SEWER  
 REVEGETATION PLAN**  
 Sheet 2 of 9

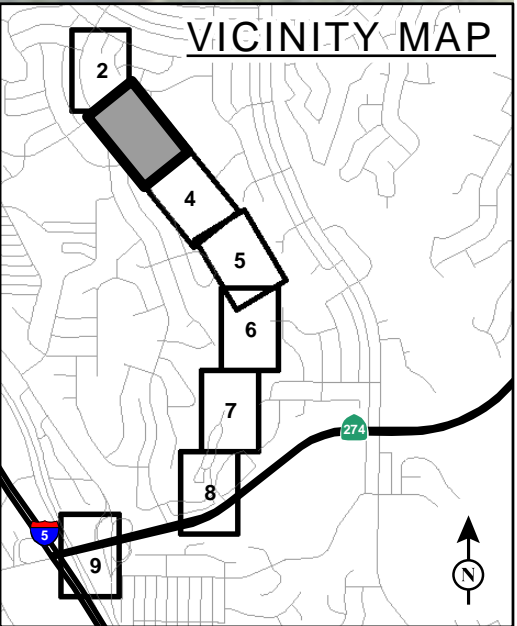
  
 Mike Trotta - Project Biologist



**LEGEND**

Revegetation

	Coastal Sage Scrub Seed Mix (CSS)
	Fresh Water Marsh Seed Mix (FWM)
	Mule Fat Cuttings (MF)
	1:1 In Kind Ornamental Replacement



**LSA**

LSA Associates, Inc.  
 703 Palomar Airport Road, Suite 206  
 Carlsbad, CA 92011  
 Phone: (760) 931-5471  
 Fax: (760) 918-2458

**BALBOA TERRACE TRUNK SEWER  
 REVEGETATION PLAN**

Sheet 3 of 9







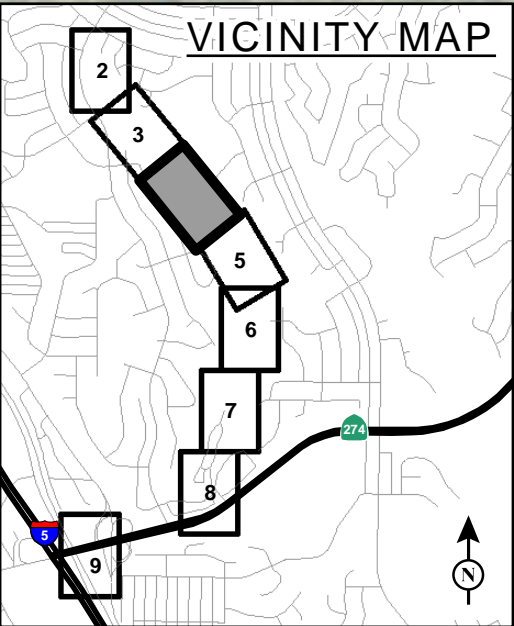
Mike Trotta - Project Biologist



**LEGEND**

Revegetation

	Coastal Sage Scrub Seed Mix (CSS)
	Fresh Water Marsh Seed Mix (FWM)
	Mule Fat Cuttings (MF)
	1:1 In Kind Ornamental Replacement



**LSA**  
 LSA Associates, Inc.  
 703 Palomar Airport Road, Suite 206  
 Carlsbad, CA 92011  
 Phone: (760) 931-5471  
 Fax: (760) 918-2458

**BALBOA TERRACE TRUNK SEWER  
 REVEGETATION PLAN**  
 Sheet 4 of 9





  
 Mike Trotta - Project Biologist





**LEGEND**

Revegetation

	Coastal Sage Scrub Seed Mix (CSS)
	Fresh Water Marsh Seed Mix (FWM)
	Mule Fat Cuttings (MF)
	1:1 In Kind Ornamental Replacement

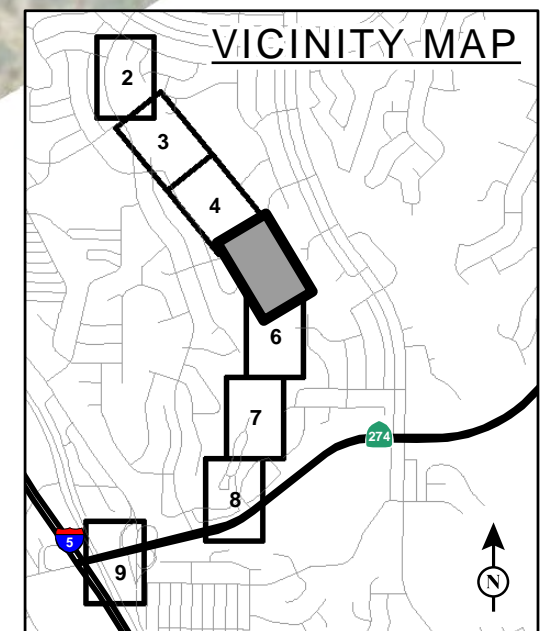
**LSA**

LSA Associates, Inc.  
 703 Palomar Airport Road, Suite 206  
 Carlsbad, CA 92011  
 Phone: (760) 931-5471  
 Fax: (760) 918-2458

**BALBOA TERRACE TRUNK SEWER  
 REVEGETATION PLAN**

Sheet 5 of 9





  
 Mike Trotta - Project Biologist





**LEGEND**

Revegetation

	Coastal Sage Scrub Seed Mix (CSS)
	Fresh Water Marsh Seed Mix (FWM)
	Mule Fat Cuttings (MF)
	1:1 In Kind Ornamental Replacement

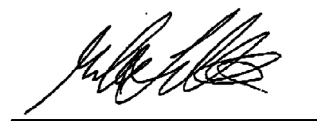


**LSA**

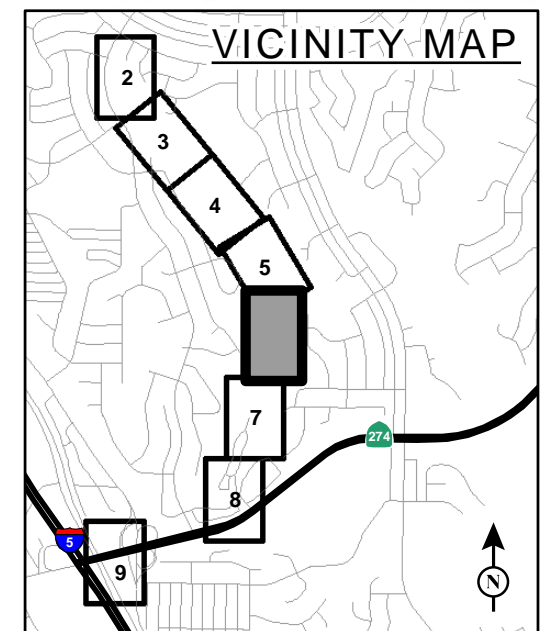
LSA Associates, Inc.  
 703 Palomar Airport Road, Suite 206  
 Carlsbad, CA 92011  
 Phone: (760) 931-5471  
 Fax: (760) 918-2458

**BALBOA TERRACE TRUNK SEWER  
 REVEGETATION PLAN**

Sheet 6 of 9



Mike Trotta - Project Biologist

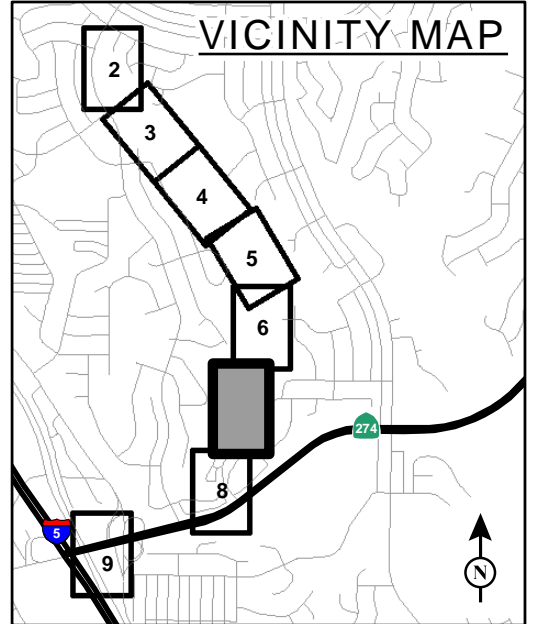




LEGEND

Revegetation

- Coastal Sage Scrub Seed Mix (CSS)
- Fresh Water Marsh Seed Mix (FWM)
- Mule Fat Cuttings (MF)
- 1:1 In Kind Ornamental Replacement



LSA

LSA Associates, Inc.  
703 Palomar Airport Road, Suite 206  
Carlsbad, CA 92011  
Phone: (760) 931-5471  
Fax: (760) 918-2458

**BALBOA TERRACE TRUNK SEWER  
REVEGETATION PLAN**





Sheet 7 of 9

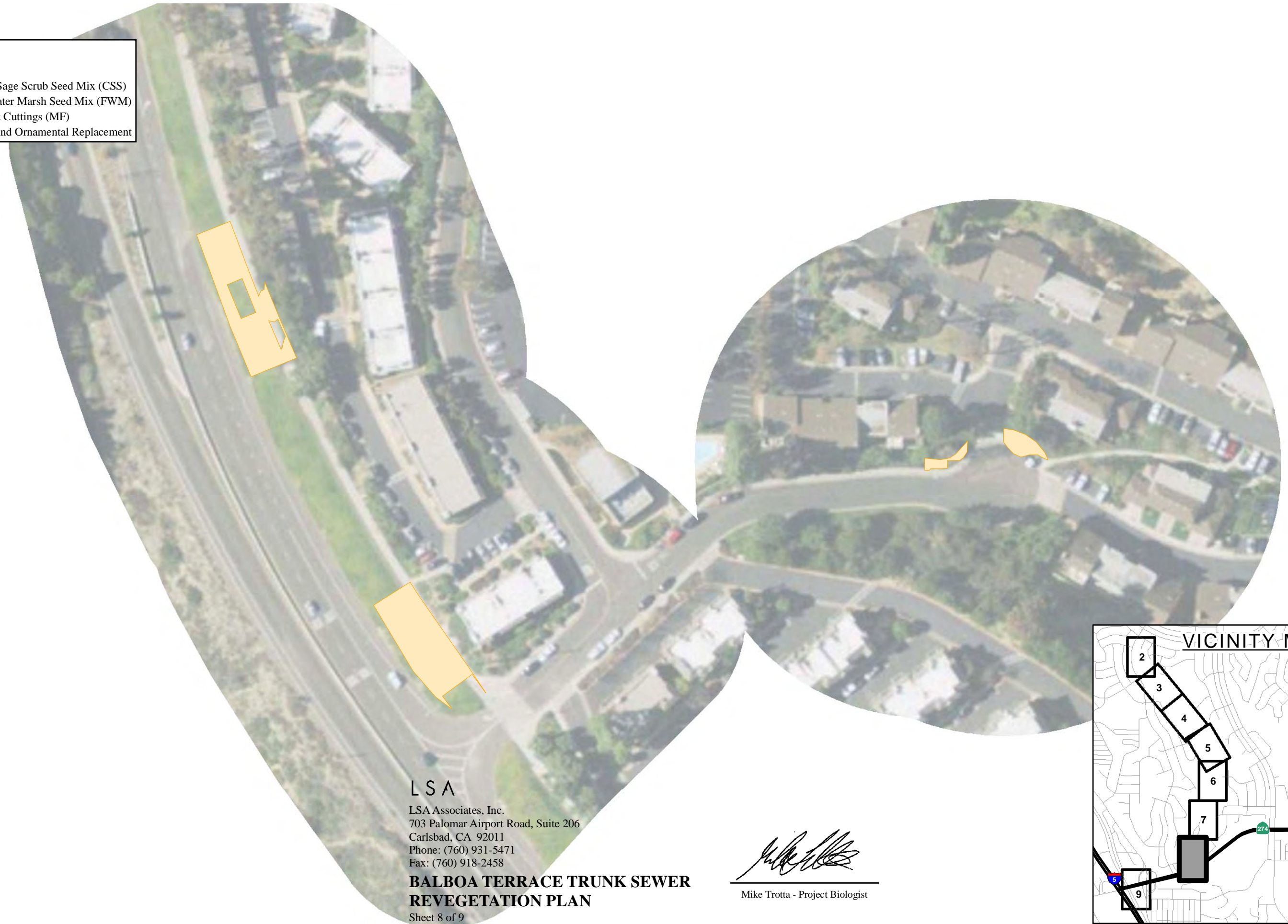
Mike Trotta - Project Biologist



**LEGEND**

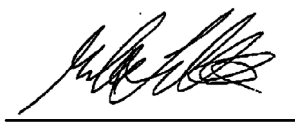
Revegetation

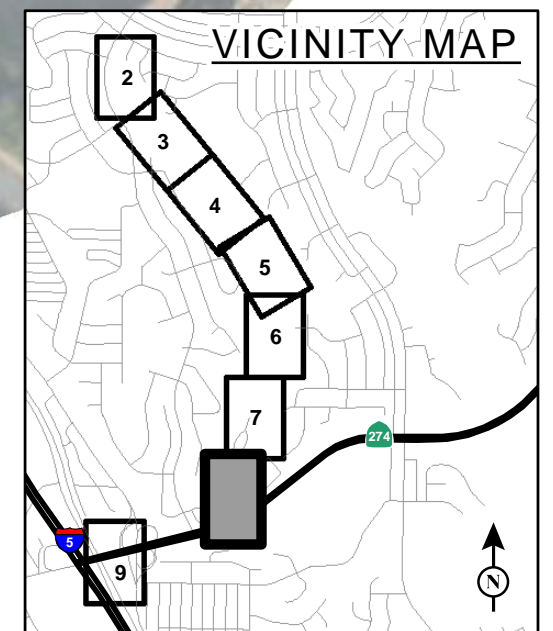
	Coastal Sage Scrub Seed Mix (CSS)
	Fresh Water Marsh Seed Mix (FWM)
	Mule Fat Cuttings (MF)
	1:1 In Kind Ornamental Replacement



**LSA**  
 LSA Associates, Inc.  
 703 Palomar Airport Road, Suite 206  
 Carlsbad, CA 92011  
 Phone: (760) 931-5471  
 Fax: (760) 918-2458

**BALBOA TERRACE TRUNK SEWER  
 REVEGETATION PLAN**  
 Sheet 8 of 9





  
 Mike Trotta - Project Biologist





**LEGEND**

Revegetation

	Coastal Sage Scrub Seed Mix (CSS)
	Fresh Water Marsh Seed Mix (FWM)
	Mule Fat Cuttings (MF)
	1:1 In Kind Ornamental Replacement



**LSA**

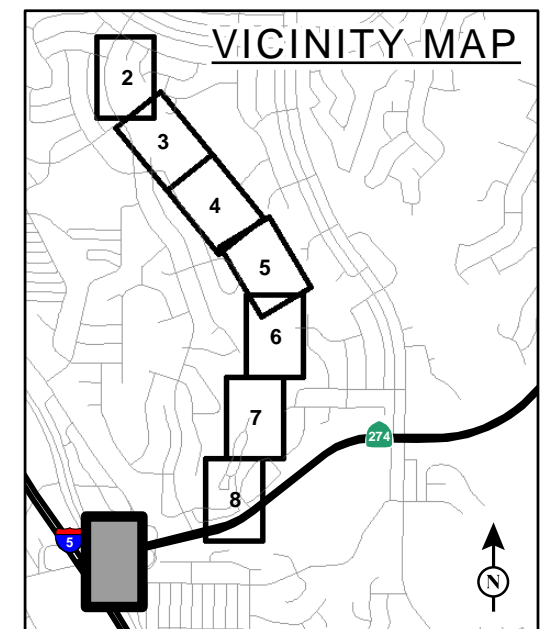
LSA Associates, Inc.  
 703 Palomar Airport Road, Suite 206  
 Carlsbad, CA 92011  
 Phone: (760) 931-5471  
 Fax: (760) 918-2458

**BALBOA TERRACE TRUNK SEWER  
 REVEGETATION PLAN**

Sheet 9 of 9

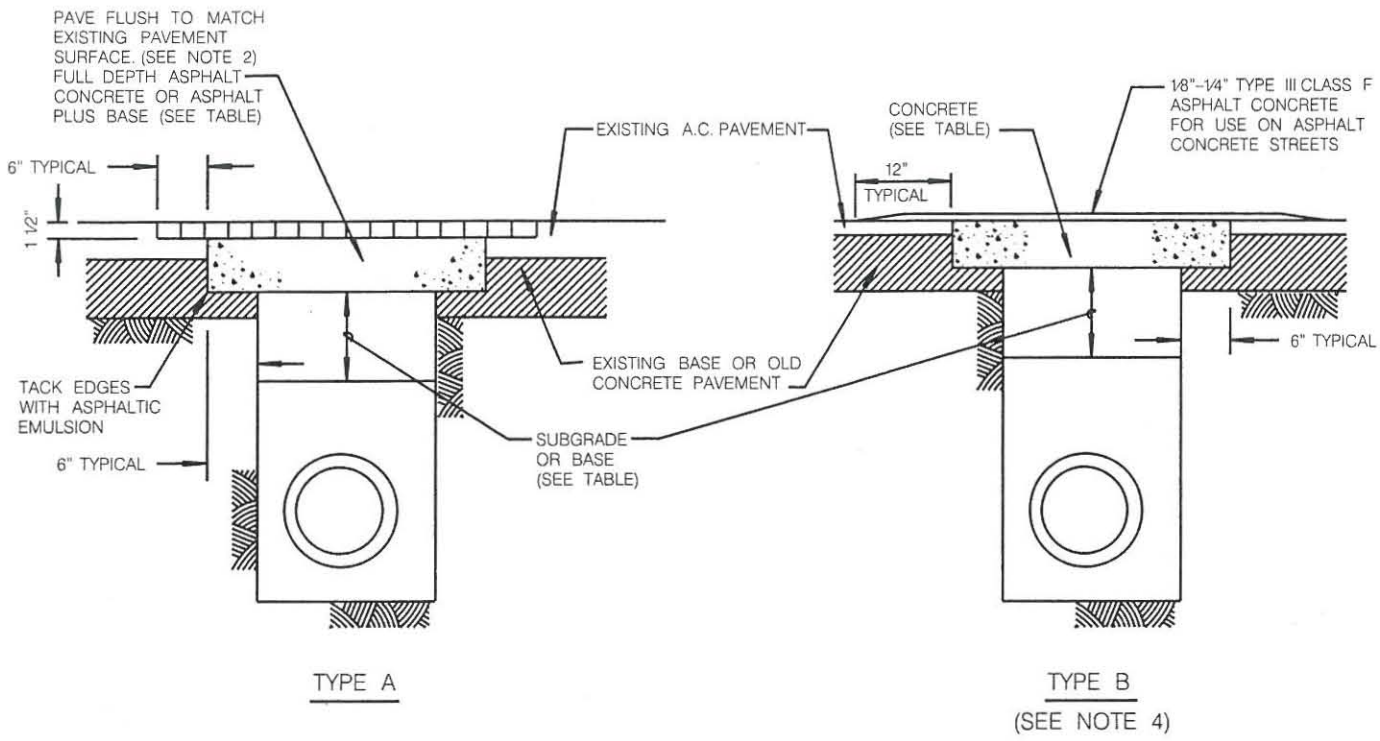


Mike Trotta - Project Biologist



**APPENDIX L**

**Updated Standard Drawings**



	TYPE A		TYPE B
	ASPHALT	ASPHALT PLUS BASE	CONCRETE
MIX DESIGN	3/4" TYPE III CLASS B3	3/4" TYPE III CLASS B3 PLUS CLASS II BASE	560-C-3250
ALLEYS	8.0"	ASPHALT THICKNESS TO EQUAL	5.5"
LOCAL THROUGH 4 LANE COLLECTORS	10.0"	EXISTING PLUS 1", MIN 4" TO MAX. 9".	7.0"
MAJOR OR GREATERS	12.0"	COMBINED ASPHALT PLUS BASE 18" MIN.	9.0"

NOTES:

1. ANY STREET TRENCH 7 FEET IN WIDTH OR GREATER AND LONGER THAN 100 FEET IN OVERALL LENGTH SHALL BE RECONSTRUCTED WITH THE PAVEMENT SECTION FOR THE STREET CLASSIFICATION PER SCHEDULE "J" (SDG-113).
2. ASPHALT TRENCH CAPS IN STREETS NOT RECEIVING A FULL WIDTH OVERLAY PRIOR TO ACCEPTANCE SHALL BE MILLED AS SHOWN AND RESURFACED WITH 1/2" TYPE III CLASS C2 ASPHALT NO LESS THAN 30 DAYS AFTER INITIAL ASPHALT PLACEMENT.
3. 560-C-3250 CONCRETE TREATED WITH A MINIMUM 2% CALCIUM CHLORIDE SOLUTION IN ACCORDANCE WITH 201-1 OR 650-CW-4000 (W/O CC) CONCRETE MAY BE OPENED TO TRAFFIC 3 DAYS AFTER IT IS PLACED. 650-CW-4000 CONCRETE TREATED IN SAME MANNER (W/CC) MAY BE OPENED TO TRAFFIC 24 HOURS AFTER IT IS PLACED. CONCRETE SPECIFIED BY ALTERNATE CLASS OR OTHERWISE CONTAINING FLY ASH IS NOT ALLOWED.
4. USE TYPE "A" UNLESS SPECIFIED OR AUTHORIZED OTHERWISE BY THE CITY ENGINEER.

REVISION	BY	APPROVED	DATE
ORIGINAL		J.P. CASEY	1/24/89
UPDATED	KA	A. DSKOUI	09/10

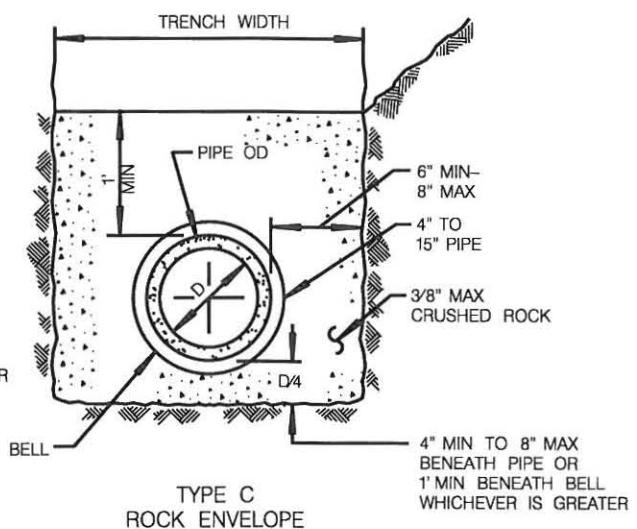
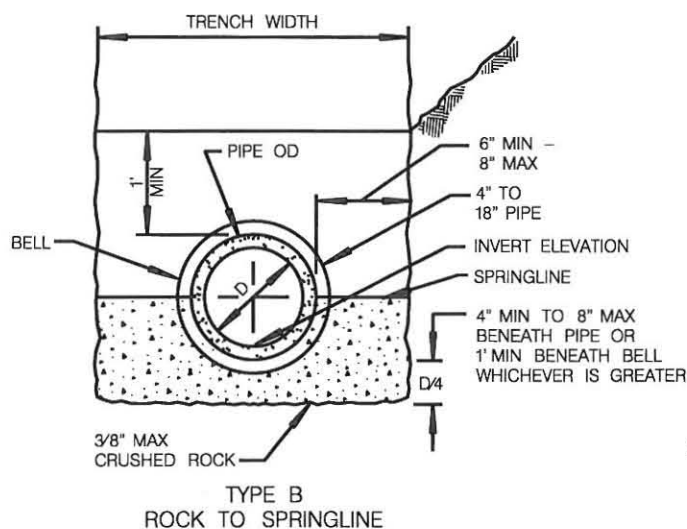
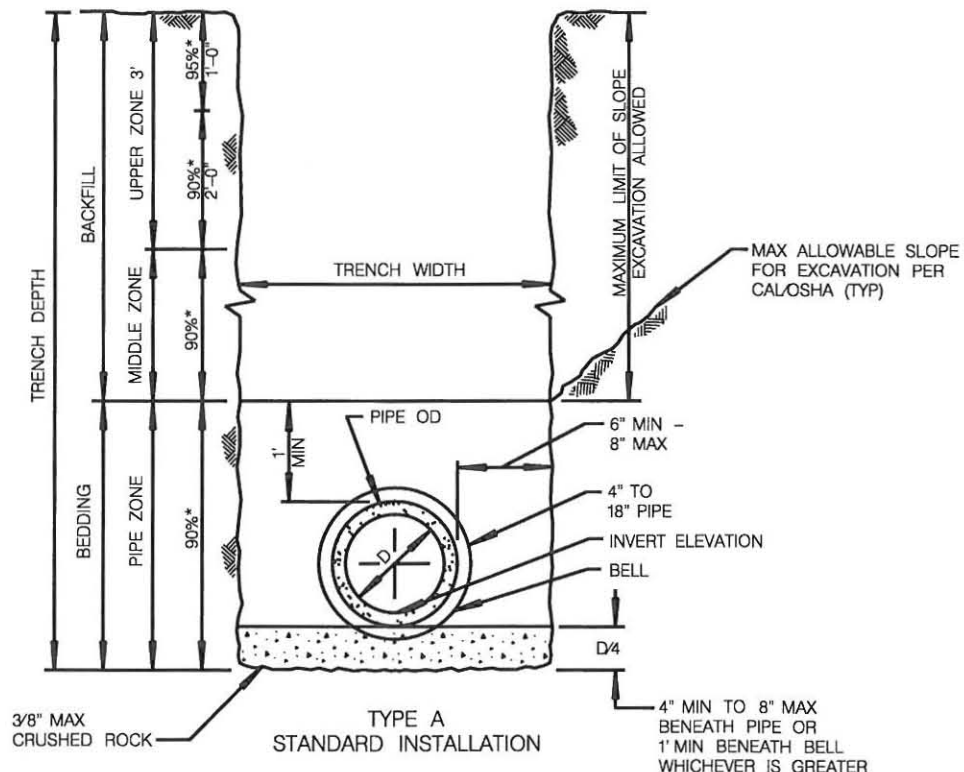
CITY OF SAN DIEGO - STANDARD DRAWING

**TRENCH RESURFACING FOR ASPHALT  
CONCRETE SURFACED STREETS**

RECOMMENDED BY THE CITY OF SAN DIEGO  
STANDARDS COMMITTEE

*[Signature]*  
COORDINATOR R.C.E. 65271 DATE

DRAWING NUMBER **SDG-107**



**NOTES**

1. FOR TRENCH RESURFACING IN IMPROVED STREETS, SEE STANDARD DRAWINGS SDG-107, SDG-108.
2. (\*) INDICATES MINIMUM RELATIVE COMPACTION.
3. MINIMUM DEPTH OF COVER FROM THE TOP OF PIPE TO FINISH GRADE FOR PVC SDR 35 SEWER MAIN SHALL BE 5'. FOR SHALLOWER DEPTH, SPECIAL DESIGN IS REQUIRED. SEE SDS-101 FOR ADDITIONAL INFORMATION.
4. SEE TYPE A INSTALLATION FOR DETAILS NOT SHOWN FOR TYPES B AND C.
5. FOR PIPE SIZE ENCASEMENT LARGER THAN 15", MAXIMUM SIDE WALL CLEARANCE SHALL BE 12" OR AS SHOWN ON THE PLANS.
6. 6" METAL TAPE SHALL BE INSTALLED ABOVE PIPE 4" BELOW TRENCH CAP AND 12" BELOW FINISH GRADE IN UNIMPROVED STREETS.
7. 1" SAND CUSHION OR A 6" MINIMUM SAND CUSHION WITH 1" NEOPRENE PAD SHALL BE PLACED FOR CROSSINGS UTILITIES WHEN VERTICAL CLEARANCE IS 1' OR LESS. THE NEOPRENE PAD SHALL BE PLACED ON THE MOST FRAGILE UTILITY.

REVISION	BY	APPROVED	DATE
ORIGINAL	RA	A. OSKOU	12/06
UPDATED	KA	A. OSKOU	09/10

CITY OF SAN DIEGO - STANDARD DRAWING

**PIPE BEDDING AND TRENCH BACKFILL  
FOR SEWERS**

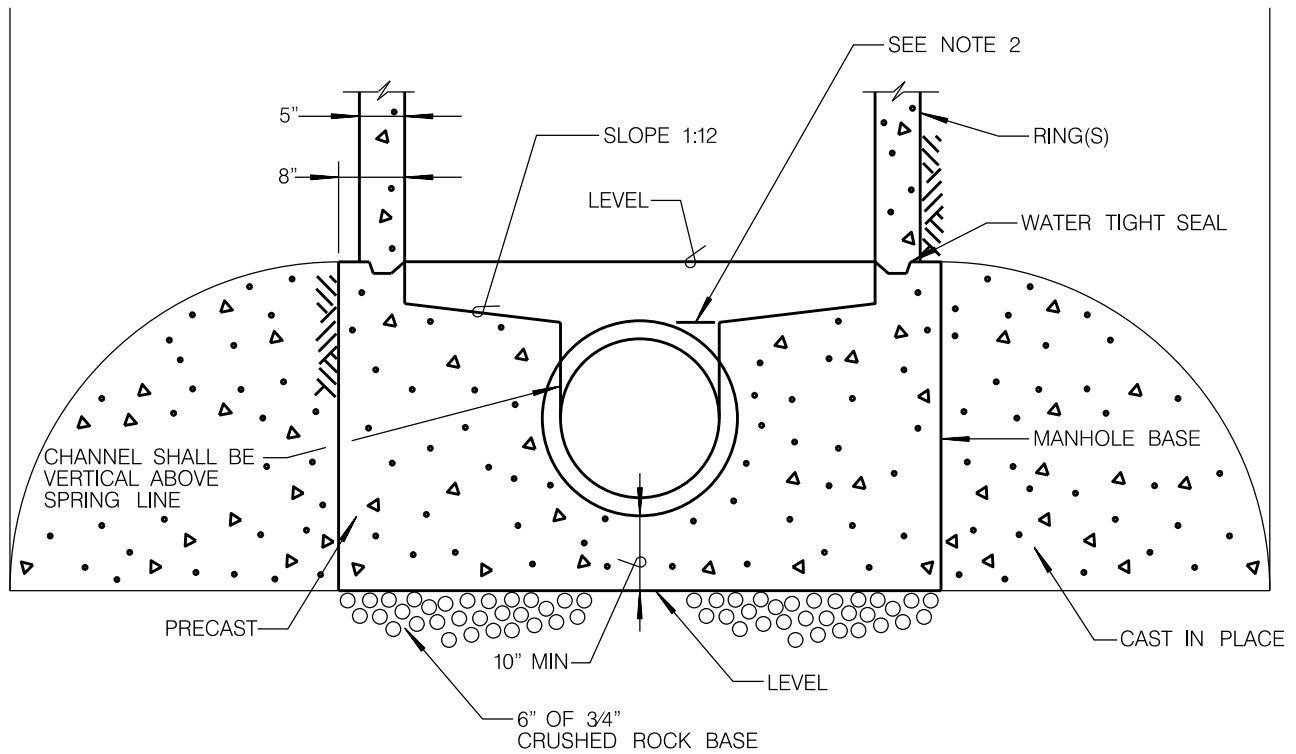
RECOMMENDED BY THE CITY OF SAN DIEGO  
STANDARDS COMMITTEE

---

COORDINATOR R.C.E. 65271 DATE

---

DRAWING NUMBER **SDS-110**



NOTE

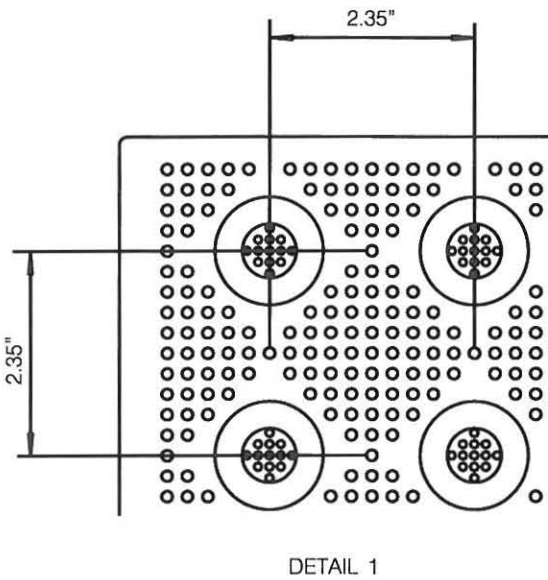
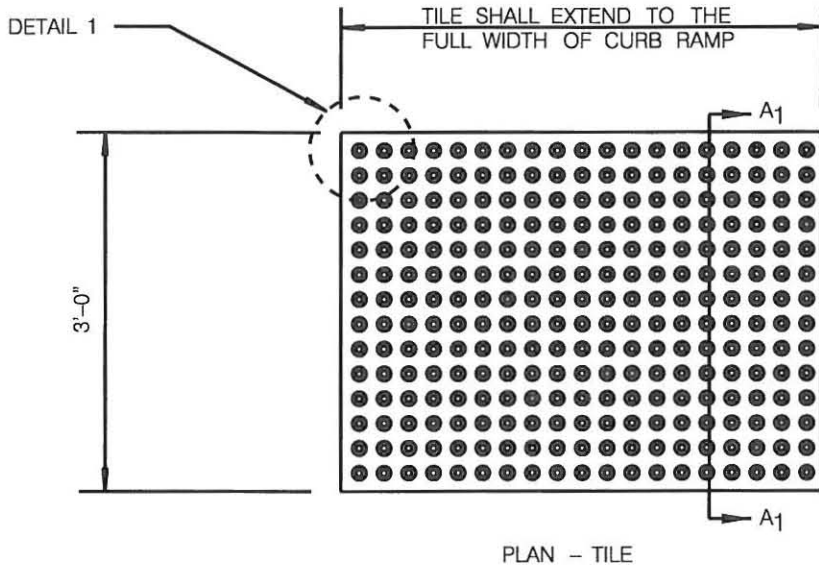
1. MANHOLE BASES FOR MAINS 18" AND LARGER SHALL BE COATED PER SM-07
2. LOWEST POINT ON SHELF SHALL BE EVEN WITH TOP OF PIPE.
3. CAST IN PLACE MANHOLE BASES CAST WITH 660-CW-4000 CONCRETE (WITHOUT CALCIUM CHLORIDE CC) OR WITH 560-C-3250 TREATED WITH A MINIMUM OF 2% CC SOLUTION IN ACCORDANCE WITH 201-1 MAY HAVE MANHOLE SHAFT AND CONE TO A MAXIMUM HEIGHT OF 25' STACKED AFTER 24 HOURS OF CURE. SHORTER CURING TIMES, DEEPER INSTALLATIONS, AND ALTERNATE CONCRETE MIX DESIGNS REQUIRE ENGINEER'S PRIOR APPROVAL.

REVISION	BY	APPROVED	DATE
ORIGINAL	KA	A. OSKQUI	0910

CITY OF SAN DIEGO - STANDARD DRAWING

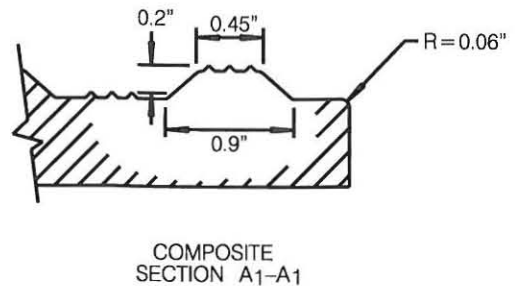
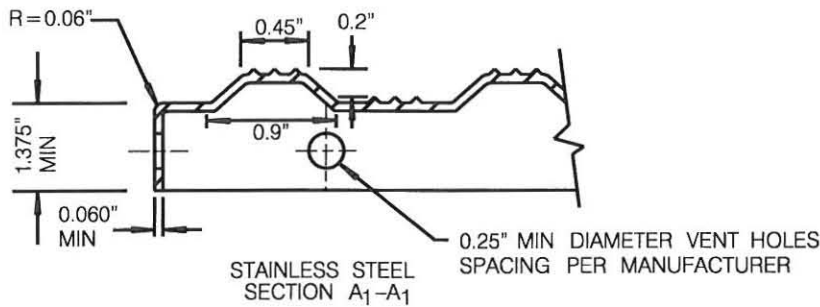
**SEWER MANHOLE BASE**

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE		
COORDINATOR	R.C.E. 65271	DATE
DRAWING NUMBER	<b>SDS-120</b>	



NOTES

1. THE DETECTABLE /TACTILE WARNING TILE SHALL BE SLIP RESISTANT AND CONSIST OF AN INLINE PATTERN OF RAISED TRUNCATED DOMES.
2. COLOR: THE DETECTABLE /TACTILE WARNING TILE SHALL BE YELLOW CONFORMING TO FEDERAL STANDARDS 595B TABLE IV, COLOR NO. 33538.



DETECTABLE / TACTILE WARNING TILES

SHEET 1 OF 5

REVISION	BY	APPROVED	DATE
ORIGINAL	FC	A. OSKOUI	1203
UPDATE	FC	A. OSKOUI	1206
UPDATE	FC	A. OSKOUI	0207
UPDATE	FC	A. OSKOUI	1208
UPDATE	KA	A. OSKOUI	0910

CITY OF SAN DIEGO - STANDARD DRAWING

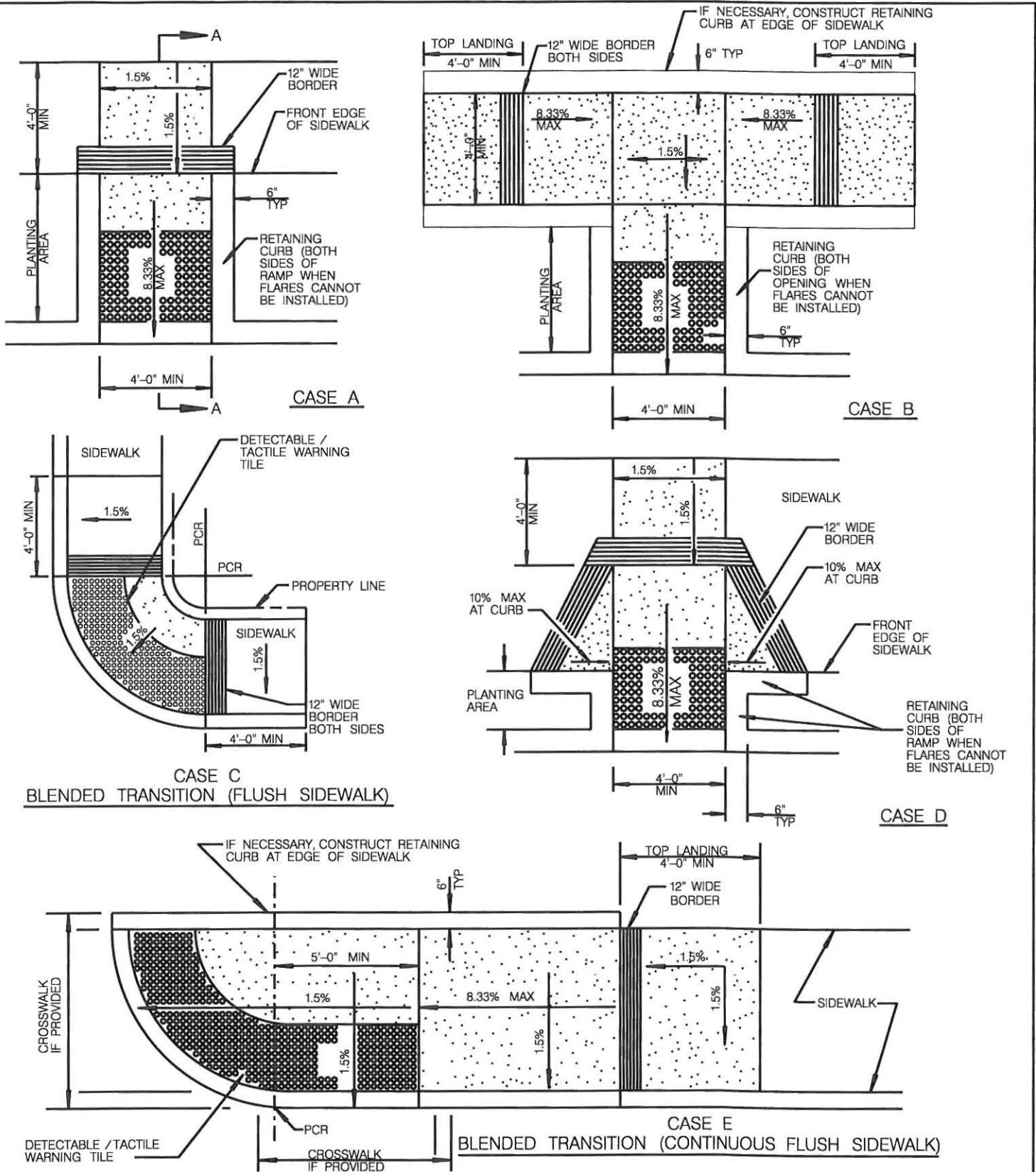
**GENERAL CURB RAMP NOTES  
& SUPPLEMENTAL DETAILS**

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE

COORDINATOR R.C.E. 65271 DATE

DRAWING NUMBER **SDG-130**





NOTE:  
CASE A THRU E MAY BE USED ONLY WITH APPROVAL OF THE ENGINEER.

SHEET 2 OF 5

REVISION	BY	APPROVED	DATE
ORIGINAL	SS	A. OSKOU	1203
UPDATE	FC	A. OSKOU	1206
UPDATE	FC	A. OSKOU	1208
UPDATE	KA	A. OSKOU	0910

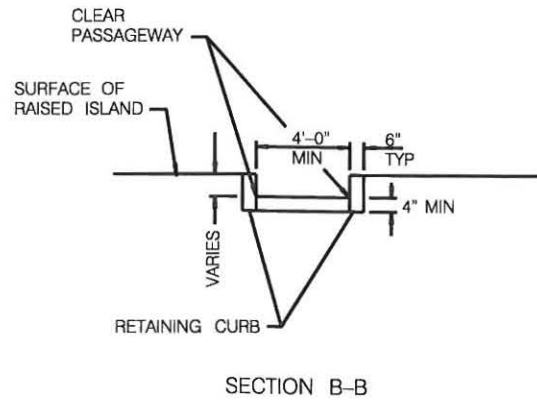
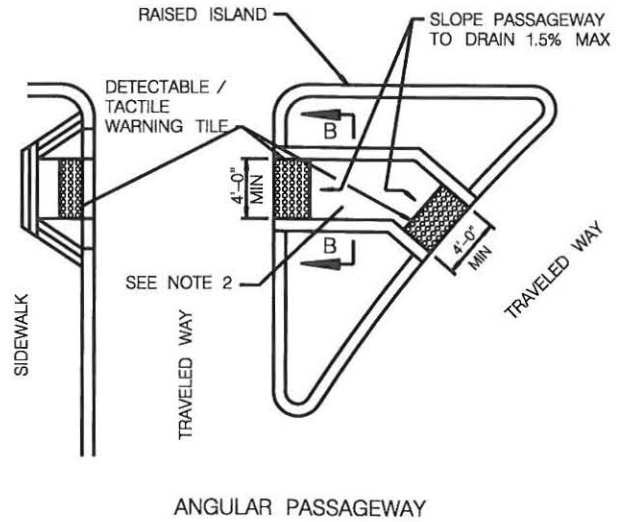
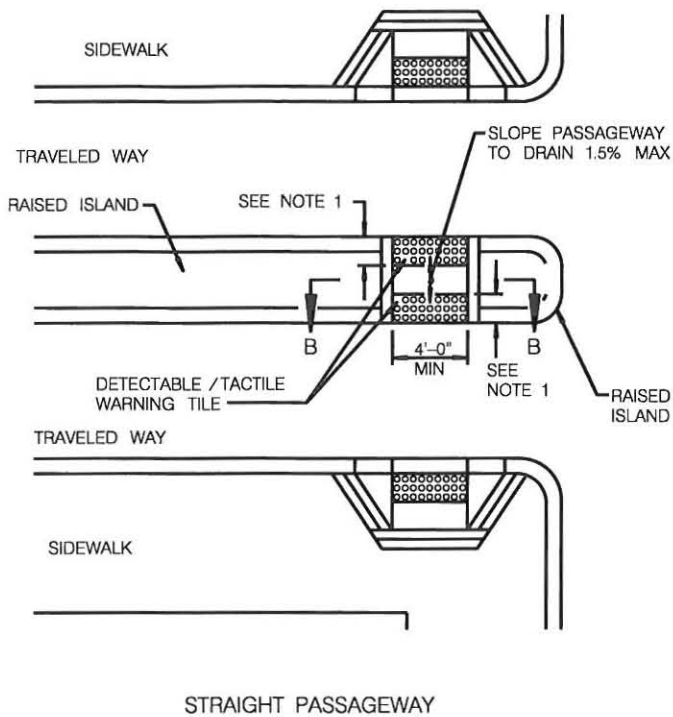
CITY OF SAN DIEGO – STANDARD DRAWING

## GENERAL CURB RAMP

### NOTES & SUPPLEMENTAL DETAILS

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE	
COORDINATOR	R.C.E. 65271
DATE	
DRAWING NUMBER	<b>SDG-130</b>

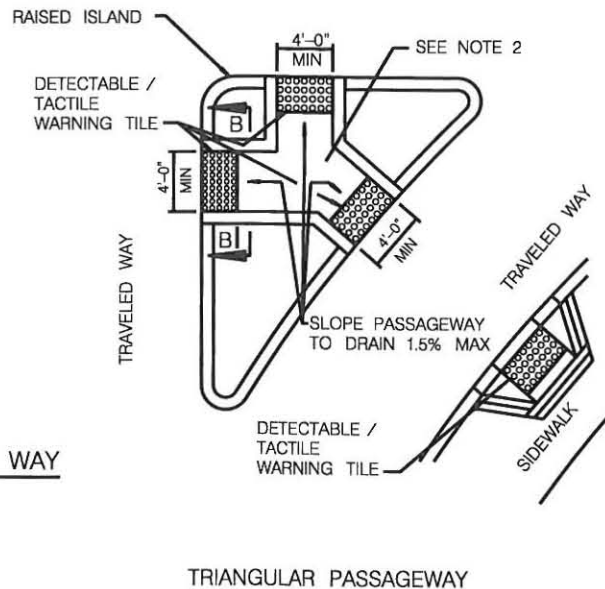




NOTES:

1. WHERE AN ISLAND PASSAGEWAY LENGTH IS LESS THAN OR EQUAL TO 8'-0", THE DETECTABLE / TACTILE WARNING TILE SHALL EXTEND THE FULL WIDTH AND FULL LENGTH OF THE PASSAGEWAY. WHERE AN ISLAND PASSAGEWAY LENGTH IS GREATER THAN 8'-0", A DETECTABLE / TACTILE WARNING TILE SHALL EXTEND THE FULL WIDTH AND 3'-0" DEPTH OF THE PASSAGEWAY LENGTH.
2. THE DETECTABLE / TACTILE WARNING TILES AT FLUSH REFUGE OR PASSAGEWAY SHALL BE IN LINE WITH MEDIAN EDGE.
3. FOR FLUSH ISLAND PASSAGEWAY, DETECTABLE WARNING TILE SHALL BE STAINLESS STEEL OR REPLACEABLE PANELS PLACED ON CONCRETE PASSAGEWAY.

ISLAND PASSAGE WAY



SHEET 3 OF 5

REVISION	BY	APPROVED	DATE
ORIGINAL	SS	A. OSKOUJ	1203
UPDATE	FC	A. OSKOUJ	1206
UPDATE	FC	A. OSKOUJ	1208
UPDATE	KA	A. OSKOUJ	09/10

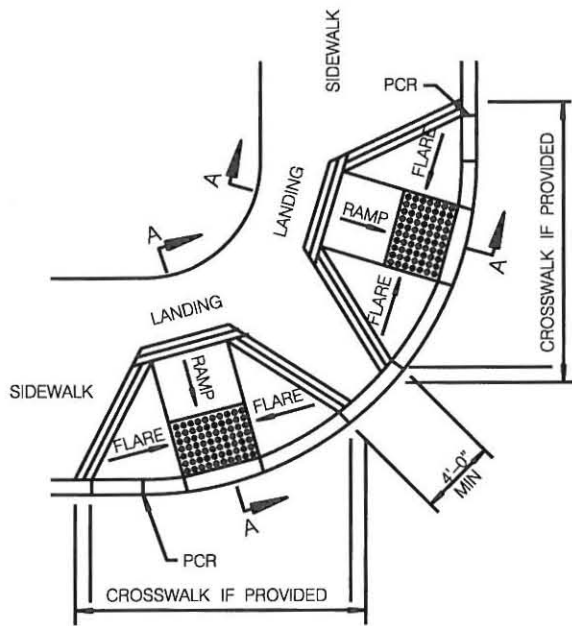
CITY OF SAN DIEGO - STANDARD DRAWING

**GENERAL CURB RAMP NOTES  
& SUPPLEMENTAL DETAILS**

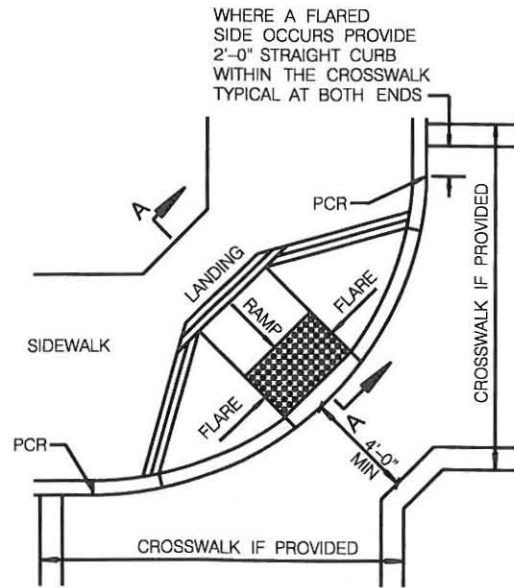
RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE

COORDINATOR R.C.E. 65271 DATE

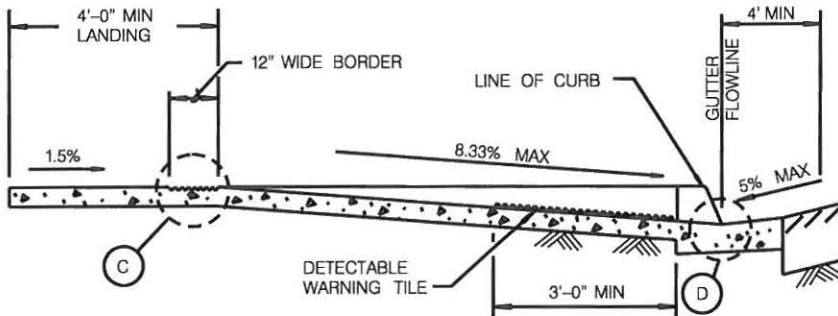
DRAWING NUMBER **SDG-130**



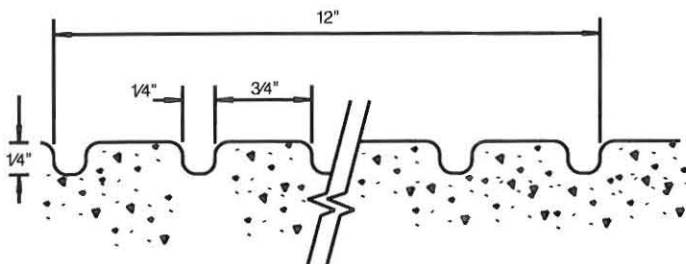
DETAIL A  
TWO-RAMP CORNER INSTALLATION



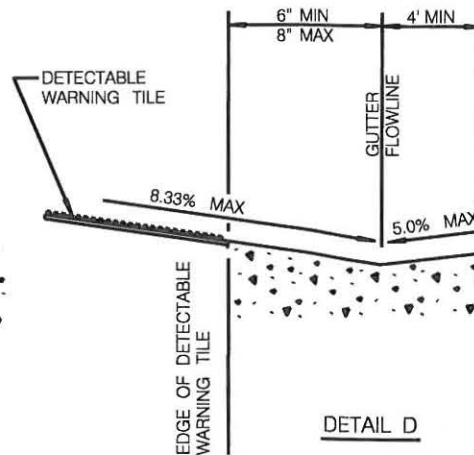
DETAIL B  
TYPICAL ONE-RAMP  
CORNER INSTALLATION



SECTION A-A



DETAIL C



DETAIL D

SHEET 4 OF 5

REVISION	BY	APPROVED	DATE
ORIGINAL	SS	A. OSKOUI	1203
UPDATE	FC	A. OSKOUI	1206
UPDATE	FC	A. OSKOUI	1208
UPDATE	KA	A. OSKOUI	0910

CITY OF SAN DIEGO – STANDARD DRAWING

**GENERAL CURB RAMP NOTES  
& SUPPLEMENTAL DETAILS**

RECOMMENDED BY THE CITY OF SAN DIEGO  
STANDARDS COMMITTEE

COORDINATOR R.C.E. 65271 DATE

DRAWING NUMBER **SDG-130**

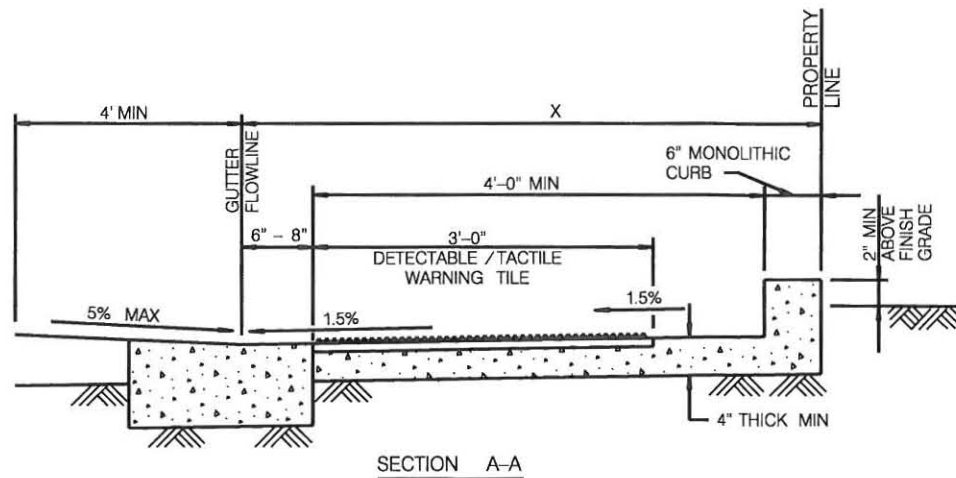
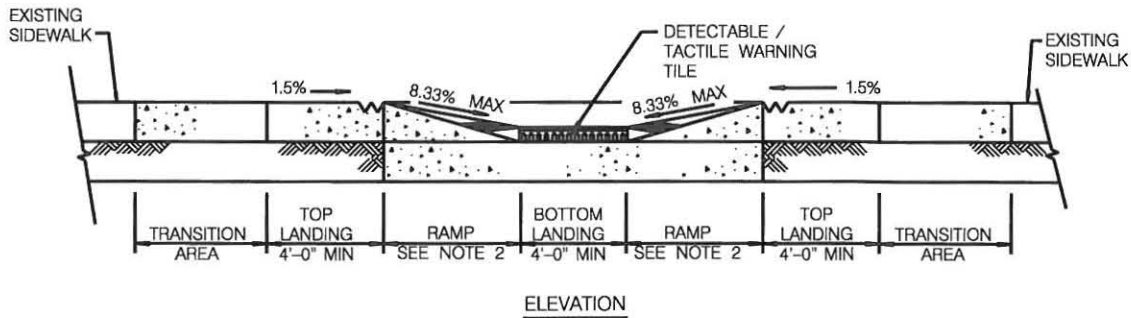
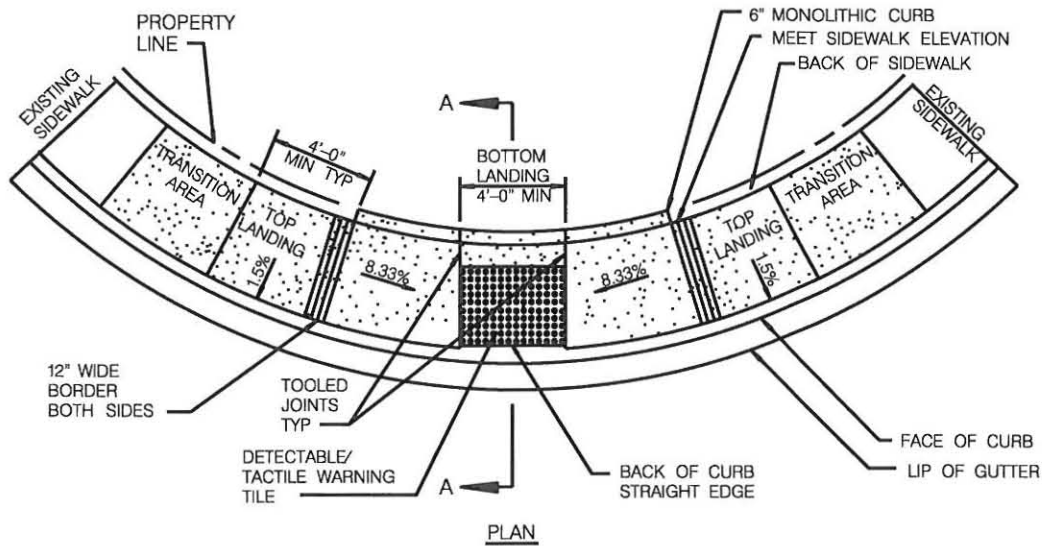
NOTES

1. AS SITE CONDITIONS DICTATE, 2 CURB RAMPS MAY BE USED FOR CORNER INSTALLATIONS SIMILAR TO THOSE SHOWN IN DETAIL A. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER PRIOR TO THE APPLICATION OF CASES A THROUGH D SHEET 2 OF 5.
2. WHEN A CURB RAMP IS LOCATED IN THE CENTER OF THE CURB RETURN, CROSSWALK CONFIGURATION SHALL BE SIMILAR TO DETAIL B.
3. CURB RAMP SURFACES (FLARES AND RAMP) SHALL HAVE A MEDIUM TO HEAVY BROOM TEXTURED FINISH, PERPENDICULAR TO THE AXIS OF TRAVEL.
4. THE CURB RAMP SHALL BE OUTLINED WITH A 12" BORDER, WITH 1/4" GROOVES APPROXIMATELY 3/4" ON CENTER. SEE DETAIL C.
5. CURB RAMPS SHALL BE CONCRETE CLASS 520-C-2500.
6. INSTALL 1/4" EXPANSION JOINT FILLER MATERIAL BETWEEN A NEW CURB RAMP AND THE EXISTING SIDEWALKS.
7. TOOLED JOINT - PROVIDE 1/4" DEEP GROOVE WITH 1/4" RADIUS EDGES. GROVE SHALL NOT EXTEND TO BOTTOM CURB OR GUTTER.
8. IF OBSTRUCTIONS SUCH AS INLETS, POLES, FIRE HYDRANT, ETC., ARE ENCOUNTERED, THE RAMP LOCATION(S) MAY BE ADJUSTED ONLY UPON THE EVALUATION & APPROVAL OF THE ENGINEER.
9. TRANSITIONS FROM RAMPS TO WALKS, GUTTERS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT CHANGES. THE BUILD-UP ASPHALT AT THE BOTTOM OF THE CURB RAMP BETWEEN THE GUTTER AND THE STREET SHALL BE MILLED TO ACHIEVE THE REQUIRED FLUSH TRANSITION.
10. IF THE 4' 5% MAX COUNTER SLOPE AT THE BOTTOM OF THE RAMP (AT STREET TRANSITION) CANNOT BE ACHIEVED DUE TO EXISTING CONDITIONS, THE RAMP SLOPE SHALL BE ADJUSTED SO THE SUM OF BOTH SLOPES DOESN'T EXCEED 13.3%.
11. IF THE CONDITION OF THE STREET AND SIDEWALK IS SUCH THAT THE EXISTING SLOPES DO NOT ALLOW THE INSTALLATION OF THE REQUIRED CURB RAMP SLOPE, THEN THE RAMP SHALL BE EXTENDED UP TO A MAXIMUM LENGTH OF 15'-0" (LINEAR FEET) TO CATCH THE REQUIRED SLOPE EVEN IF THE REQUIRED SLOPE IS NOT ACHIEVED. COORDINATION WITH ENGINEER IS REQUIRED PRIOR TO ANY DEMOLITION OR CONSTRUCTION.
12. THE REMOVAL OF EXISTING CONCRETE CURB, GUTTER, SIDEWALK, AND PAVEMENT (OR CURB RAMP) FOR A NEW CURB RAMP SHALL COMPLY WITH SDG-156. THE REMOVAL OF ADDITIONAL SIDEWALK PANELS MAY BE REQUIRED TO MEET EXISTING GRADE AND TO COMPLY WITH THE ACCESSIBILITY REGULATIONS.
13. PROVIDE A 2" X 2" KEYWAY BENEATH SAWCUT EDGES OF THE EXISTING SIDEWALK.
14. THE CROSS SLOPE OF THE RAMP SHALL BE 1.5%.
15. WATER PONDING WITHIN THE CURB RAMP LIMITS IS NOT ALLOWED.
16. NO GRADE BREAK IS ALLOWED ALONG THE RAMP SURFACE.
17. IF THE CROSS SLOPE OF THE SIDEWALK ADJACENT TO THE CURB RAMP IS MORE THAN 2%, PROVIDE A MIN 4' TRANSITION.
18. HISTORICAL STAMPS/IMPRESSIONS SHALL BE PRESERVED PER SDG-115.
19. UTILITY PULL BOXES, MANHOLES, VAULTS AND OTHER UTILITY FACILITIES WITHIN THE BOUNDARIES OF THE CURB RAMP SHALL BE RELOCATED OR ADJUSTED TO GRADE PRIOR TO, OR IN CONJUNCTION WITH THE CURB RAMP CONSTRUCTION. COORDINATE WITH THE ENGINEER.
20. ANY DEVIATION FROM THESE PROVISIONS REQUIRES PRIOR APPROVAL BY THE ENGINEER.

SHEET 5 OF 5

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL	SS	A. OSKOUI	12/03		
UPDATE	FC	A. OSKOUI	12/06	<b>GENERAL CURB RAMP NOTES &amp; SUPPLEMENTAL DETAILS</b>	COORDINATOR R.C.E. 65271 DATE
UPDATE	FC	A. OSKOUI	12/08		
UPDATE	KA	A. OSKOUI	09/10		DRAWING NUMBER
					<b>SDG-130</b>





NOTES

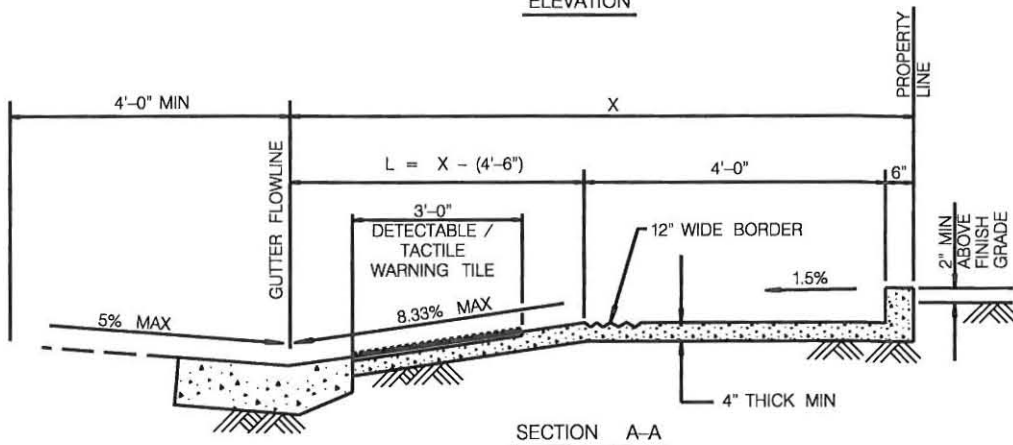
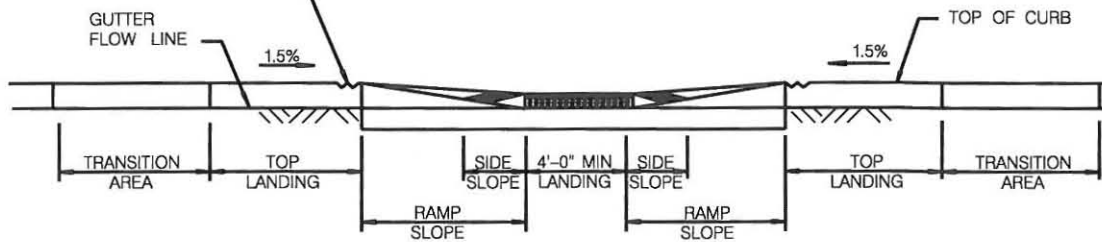
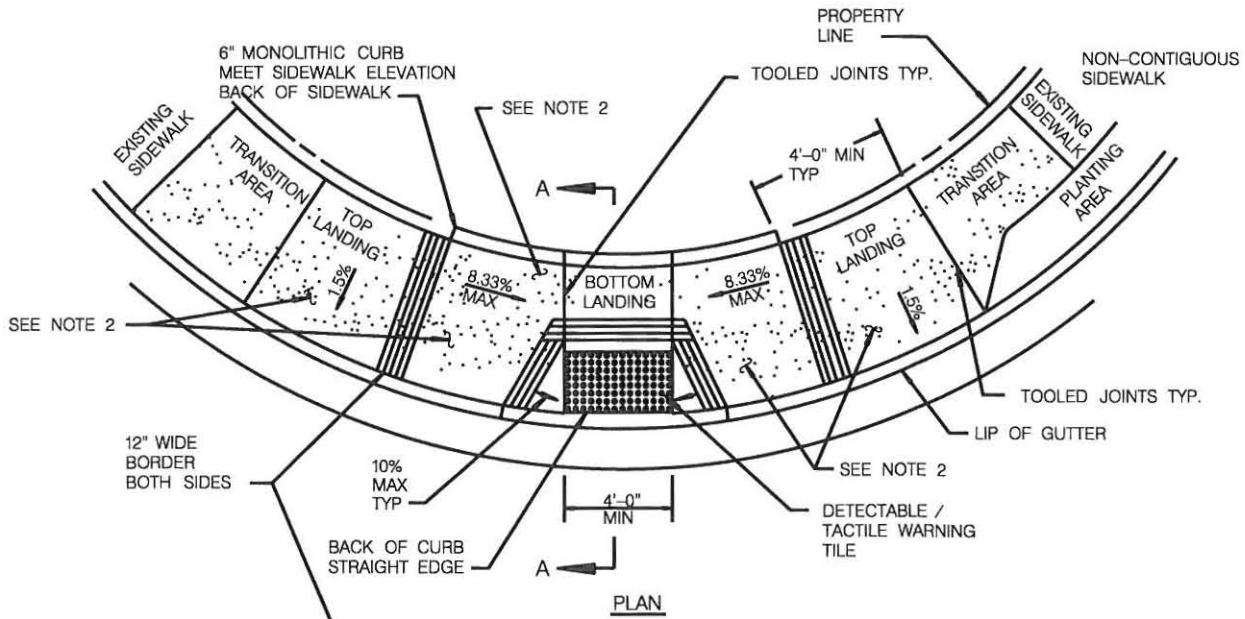
1. TYPE C1 CURB RAMP SHALL ONLY BE USED TO MITIGATE EXISTING CONDITIONS WHERE INADEQUATE RIGHT OF WAY EXISTS. TYPE C1 SHALL BE USED WHEN  $X < 8'$ .  $X$ =DISTANCE FROM FACE OF CURB TO PROPERTY LINE.
2. SEE SDG-130 FOR ADDITIONAL CURB RAMP DETAILS AND INFORMATION.

REVISION	BY	APPROVED	DATE
ORIGINAL	SS	A. OSKOU	1203
UPDATE	FC	A. OSKOU	1206
UPDATE	FC	A. OSKOU	1208
UPDATE	KA	A. OSKOU	0910

CITY OF SAN DIEGO - STANDARD DRAWING

**CURB RAMP - TYPE C1**

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE		
COORDINATOR	R.C.E. 65271	DATE
DRAWING NUMBER	<b>SDG-134</b>	



NOTES

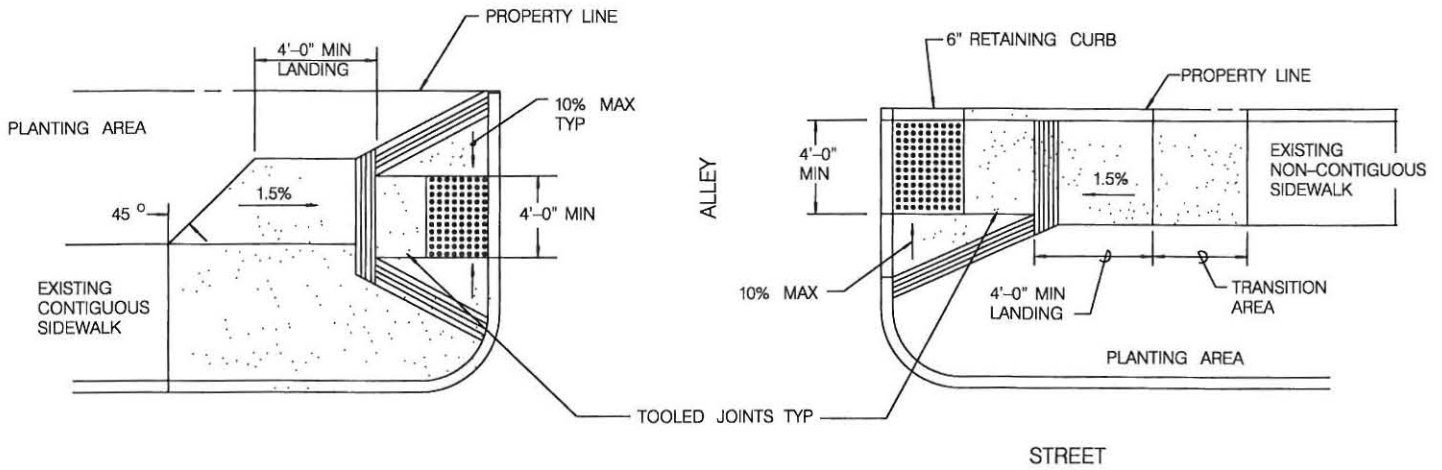
1. TYPE C2 CURB RAMP SHALL ONLY BE USED TO MITIGATE EXISTING CONDITIONS WHERE INADEQUATE RIGHT OF WAY EXISTS. TYPE C2 SHALL BE USED WHEN  $X=8'$  OR  $8' < X < 10'$ .  $X$ =DISTANCE FROM FACE OF CURB TO PROPERTY LINE.
2. SEE SDG-130 FOR ADDITIONAL CURB RAMP DETAILS AND INFORMATION.

REVISION	BY	APPROVED	DATE
ORIGINAL	SS	A. OSKQUI	1203
UPDATE	FC	A. OSKQUI	1206
UPDATE	FC	A. OSKQUI	1208
UPDATE	KA	A. OSKQUI	0910

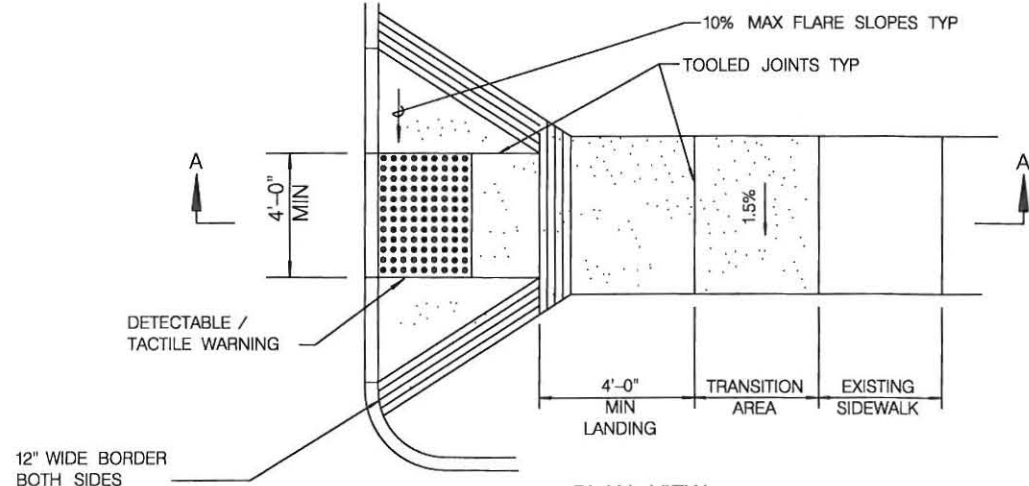
CITY OF SAN DIEGO - STANDARD DRAWING

**CURB RAMP - TYPE C2**

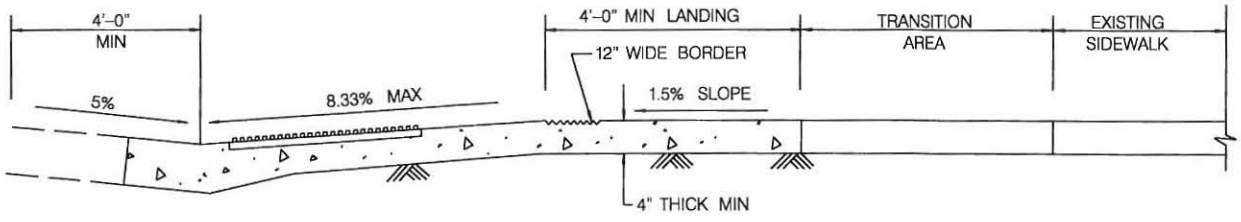
RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE		
COORDINATOR	R.C.E. 65271	DATE
DRAWING NUMBER	<b>SDG-135</b>	



TYPICAL PLAN



PLAN VIEW



SECTION A-A

NOTES:

- 1. SEE SDG-130 FOR ADDITIONAL CURB RAMP DETAILS AND INFORMATION

REVISION	BY	APPROVED	DATE
ORIGINAL	SM	A. OSKOUI	1203
UPDATE	FC	A. OSKOUI	1206
UPDATE	FC	A. OSKOUI	1208
UPDATE	KA	A. OSKOUI	0910

CITY OF SAN DIEGO – STANDARD DRAWING

**CURB RAMP - TYPE D**

RECOMMENDED BY THE CITY OF SAN DIEGO  
STANDARDS COMMITTEE

---

COORDINATOR R.C.E. 65271 DATE

---

DRAWING NUMBER **SDG-136**



# City of San Diego



## ADDENDUM "A"

### FOR

### BALBOA TERRACE TRUNK SEWER

BID NO.:	<u>K-12-5468-DBB-3-C</u>
SAP NO. (WBS/IO/CC):	<u>B-00478</u>
CLIENT DEPARTMENT:	<u>2011</u>
COUNCIL DISTRICT:	<u>6</u>
PROJECT TYPE:	<u>JB</u>

---

#### A. CHANGES TO THE BID SUBMITTAL DUE DATE AND TIME

The bid opening date for this project has been extended to **2:00 PM on May 2, 2012**.

Proposals will be received at the Public Works Contracting Group, 1200 Third Avenue, Suite 200, San Diego, California.

Tony Heinrichs, Director  
Public Works Department

Dated: *April 16, 2012*,  
San Diego, California

TH/ar/ca/je/rir

# City of San Diego



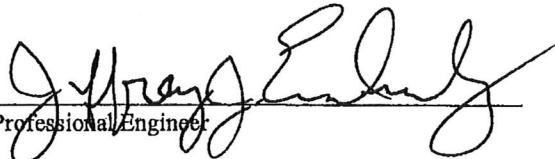
## ADDENDUM "B"

FOR

## BALBOA TERRACE TRUNK SEWER

BID NO.:	K-12-5468-DBB-3-C
SAP NO. (WBS/IO/CC):	B-00478
CLIENT DEPARTMENT:	2011
COUNCIL DISTRICT:	6
PROJECT TYPE:	JB

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

  
Professional Engineer

Seal:



For which proposal will be received at San Diego, California, until **2:00 p.m. on May 2, 2012**, at Public Works Contracting Group, 1200 Third Avenue, Suite 200, San Diego, California.

### A. CHANGES TO CONTRACT DOCUMENTS

The following changes to the Contract Documents are hereby made effective as though originally issued with the bid package. Bidders are reminded that all previous requirements to this solicitation remain in full force and effect.

## B. BIDDER's QUESTIONS

- Q1. Specification Page 34, Normal Working Hours shall be 8:30 AM to 3:30 PM, does this apply to the tunnel work? If not what are the allowable hours and days that we can work on the tunnels, and are there any noise restrictions?
- A1. If the Contractor works within the City's noise ordinance, Normal Working Hours for the tunneling may be adjusted with the Engineer's approval which will not be reasonably withheld. Surface impacts in the work area will also be considered when adjusting work hours.
- Q2. Specification Page 40, Paragraph 6-7, requires work on Balboa Avenue to be completed in 10 working days per 500-lf of pipeline. Does this section apply to the tunnel work?
- A2. No.
- Q3. Specification Page 71, Paragraph 306-9.1.6.a.7, Submittals-Contingency Plans, Requires the submission of a contingency plan for encountering a lens of material that is to be assumed to be 24-inch by 200-foot with an unconfined compressive strength. We understand that this requires the submittal of a "contingency plan" to potentially deal with a hard lens of material, however it is unclear to us what mechanism will be used to pay for this work IF the contingent material is encountered. Will this work be considered a DSC and paid by Change Order?
- A3. If the contingent material is encountered and appropriate notice provided to the Engineer, it will be paid by as Extra Work.
- Q4. Specification Page 65, Paragraph 306-9.1.2.m. States that drill and blast methods will not permitted. Will the City consider drill and blast methods as a "contingency plan" for the above?
- A4. No.
- Q5. Specification Page 73, Paragraph 306-9.2.1, Initial Ground Support lists 2 types of ground support; a) Jacking Pipe, & b) Water Tight Segmental Liner. Plan sheet C-21 details 5 different initial support schemes the majority of which are not considered to be "water tight supports". Our question is which initial support systems are acceptable the ones detailed in the plans, or only the 2-systems specified in 306-9.2.1?
- A5. See changes to the Contract Documents, **Section 306-9.1.3 Minimum Soil Cover** in this addendum.
- Q6. Plan Sheet C-21 Note 1 limits the maximum tunnel size to 72-inch in height or width for the various initial sports on sheet C-21. In regards to the 72-inch requirement is that the finished tunnel diameter, or the excavated diameter of the tunnel?
- A6. See changes to the Plans, **Sheet C-21, Note 1**.

- Q7. In regards to the above Note 1 on Plan Sheet C-21 why is the city limiting the size of the tunnel, it does not appear that there are any conflicting utilities or other issues that would prevent increasing the size of the tunnel to allow the Contractor to use more efficient means of completing the work. Specifically the tunnel drive Manhole Structures 9 to 10 requires the tunnel to be completed on a very tight curve radius of 500-lf. With the specified size limitations we are essentially require to hand mine this section which could take up the complete contract time if the work is limited to 8:30-AM to 3:30-PM
- A7. See changes to the Plans, **Sheet C-21, Note 1.**
- Q8. Specification Page 76, Paragraph 306-9.5.10, Emergency Recovery Shaft what does the City anticipate will require the necessity for a recovery shaft? Is there any limitation on why the City might not pay for recovery shaft after the construction of such shaft?
- A8. An Emergency Recovery Shaft is not anticipated but is included as a contingency.
- Q9. Soils Report: please provide the bores # B-1 and B-2 that were done in 200. They appear on the plan view but no bores were attached.
- A9. No additional information is available for these borings. The test reports for B-1 and B-2 were not inadvertently left out. The report represents the best and complete information available, as is.
- Q10. Equipment access: the abandonment drawing specifies no mechanical equipment, but the new sewer work will require heavy equipment for the pit and open cut work. Therefore, we need clarification that equipment can enter this area.
- A10. Refer to Plans, Sheet C-27 note 1
- Q11. The SLBE/ELBE percentage is quite high considering that a substantial portion of the job cannot be done by SLBE's (e.g. tunneling, monitoring, shoring, and dewatering). Has the City carefully considered these limitations?
- A11. The percentages are calculated based on the City's Scope of Work and SLBE-ELBE certified firms' availability.
- Q12. What types of initial tunnel support will be acceptable on the project as none listed in the documents fulfill the requirements of both the specifications and the design drawings?
- A12. See changes to the Specifications, Section 306-9.1.3, "Minimum Soil Cover Section" and 306-9.2.1, "Initial Ground Support" in this addendum.

**C. VOLUME 1**

1. To Supplementary Special Provisions (SSP), SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR, Subsection 7-5, "PERMITS, FEES, AND NOTICES," page 48, **DELETE** in its entirety and **SUBSTITUTE** with the following:

**7-5 PERMITS, FEES, AND NOTICES.** To the City Supplement, **DELETE** item e) in its entirety.

To the City Supplement, **ADD** the following:

The City will obtain, at no cost to the Contractor; the following permits:

- a) Caltrans "parent" permit.
- b) Site Development Permit.

The construction within the canyon cannot be started until the City obtains the Site Development Permit.

2. To Supplementary Special Provisions (SSP), Section 7, "RESPONSIBILITIES OF THE CONTRACTOR," **ADD** the following:

**ADD: 7-5.4 Easement Acquisition.** The Contractor shall not perform Work within proposed easement until the City has obtained the easements. The Engineer will notify the Contractor when the easements have been acquired.

3. To Supplementary Special Provisions (SSP), SECTION 306 – UNDERGROUND CONDUIT CONSTRUCTION, Subsection 306-9.1.3 Minimum Soil Cover, page 65, **DELETE** in its entirety and **SUBSTITUTE** with the following:

**306-9.1.3 Minimum Soil Cover.**

- a) Tunnel between Stations 18+00 and 26+82: Minimum separation between tunnel initial support system and carrier pipe is 4 inches.
- b) Tunnel between Stations 37+42 and 44+75: Minimum separation between tunnel initial support system and carrier pipe is 4 inches.
- c) The excavated tunnel height may be increased, with the Engineer's approval, by lowering the tunnel invert.
- d) The excavated tunnel height may be decreased, with the Engineer's approval, by raising the tunnel invert.

4. To Supplementary Special Provisions (SSP), SECTION 306 – UNDERGROUND CONDUIT CONSTRUCTION, Subsection 306-9.2.1 Initial Ground Support, page 73, **DELETE** in its entirety and **SUBSTITUTE** with the following:

**306-9.2.1 Initial Ground Support.**

The initial ground support system for tunnel shall be designed with a minimum factor of safety of 2.0:

- a) For the tunnel between Station 18+00 and Station 26+81, the steel rib or steel liner plate initial ground support system shall be placed in intimate contact with the native soil and be contact grouted at the end of each shift and after not more than 20 feet of advancement. The initial ground support

system shall be advanced so the workers are not working under unsupported ground. The initial ground support system shall allow for complete backfilling of the tunnel as specified herein. The initial ground support system shall accommodate all curves as noted on the Plans.

- b) For the tunnel between Station 18+00 and Station 26+81, the modified horseshoe or A-frame initial ground support system shall be placed in intimate contact with the native soil. The initial ground support system shall be advanced so the workers are not working under unsupported ground. The limits of excavation shall be uniform and allow for complete backfilling of the tunnel as specified herein. The initial ground support system shall accommodate all curves as noted on the Plans.
- c) For the tunnel between Station 18+00 and Station 26+81, the jacked casing initial ground support system shall provide an annular space not greater than 1.0 inch and shall be contact grouted upon completion of the tunnel. The jacked casing shall be designed to withstand the jacking forces required to complete the drive. The initial ground support system shall be advanced so the workers are not working under unsupported ground. The initial ground support system shall accommodate all curves as noted on the Plans.
- d) For the tunnel between Station 37+42 and Station 44+75, the jacked steel casing shall provide a water tight joint and provide an annular space not greater than 1.0 inch and shall be contact grouted upon completion of the tunnel. Jacked casing shall be designed to withstand the jacking forces required to complete the drive.
- e) For the tunnel between Station 37+42 and Station 44+75, the steel liner plate system shall provide a water tight joint between segments, be placed in intimate contact with the native soil and be contact grouted at the end of each shift and after not more than 20 feet of advancement. Segments shall be designed to withstand the jacking force.

#### **D. PLANS**

- 1. To Drawings Numbered 30360-01-D through 30360-38-D, **DELETE** in their entirety and **SUBSTITUTE** with 6 of 53 through 43 of 53 of this Addendum
- 2. To Drawings Numbered 30360-T1-D through 30360-T10-D, **DELETE** in their entirety and **SUBSTITUTE** with 44 of 53 through 53 of 53 of this Addendum

Tony Heinrichs, Director  
Public Works Department

Dated: *April 24, 2012,*  
San Diego, California

TH/AR/ca/je/rir

# BALBOA TERRACE TRUNK SEWER

## UNDERGROUND UTILITIES

AT LEAST THREE (3) WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL REQUEST A MARKOUT OF UNDERGROUND UTILITIES BY CALLING THE BELOW LISTED REGIONAL NOTIFICATION CENTER FOR AN INQUIRY IDENTIFICATION NUMBER: UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-422-4133

## CONTRACTOR'S RESPONSIBILITIES

- PURSUANT TO SECTION 4216 OF THE GOVERNMENT CODE, AT LEAST 2 WORKING DAYS PRIOR TO COMMENCING ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT THE REGIONAL NOTIFICATION CENTER (UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA) AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
- THE CONTRACTOR SHALL NOTIFY SDG&E (SEMPRA ENERGY) AT LEAST 10 WORKING DAYS PRIOR TO EXCAVATING WITHIN 10 FEET OF SDG&E UNDERGROUND HIGH VOLTAGE TRANSMISSION POWER LINES (11.0, 69 KV AND HIGHER).
- THE CONTRACTOR SHALL LOCATE AND RECONNECT ALL SEWER LATERALS, LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. LATERAL RECORDS ARE AVAILABLE TO THE CONTRACTOR AT THE WATER DEPARTMENT, 2797 CAMINITO CHOLLAS, THE CONTRACTOR SHALL LOCATE THE IMPROVEMENTS THAT WILL BE AFFECTED BY LATERAL REPLACEMENTS.
- THE LOCATIONS OF EXISTING BUILDINGS AS SHOWN ON THE PLANS ARE APPROXIMATE.
- STORM DRAIN INLETS SHALL REMAIN FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.
- UNLESS OTHERWISE NOTED AS PREVIOUSLY POTHOLED (PH), ELEVATIONS SHOWN ON THE PROFILE FOR EXISTING UTILITIES ARE BASED ON A SEARCH OF THE AVAILABLE RECORD INFORMATION ONLY AND ARE SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THE CITY DOES NOT GUARANTEE THAT IT HAS REVIEWED ALL AVAILABLE DATA. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES EITHER SHOWN ON THE PLANS OR MARKED IN THE FIELD IN ACCORDANCE WITH SPECIFICATIONS SECTION 5-1.
- EXISTING UTILITY CROSSINGS AS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT REPRESENTATIVE OF ACTUAL LENGTH AND LOCATION OF CONFLICT AREAS. SEE PLAN VIEW.
- PALEONTOLOGICAL MONITORING IS REQUIRED ALONG THE ENTIRE OPEN TRENCH INSTALLATION ALIGNMENT PER STANDARD SPECIFICATION 807-1.3.

## STORMWATER PROTECTION NOTES

- THIS PROJECT IS SUBJECT TO MUNICIPAL STORMWATER PERMIT ORDER No. R9-2010-0003 AND WPCP.

## LIMITS OF WORK

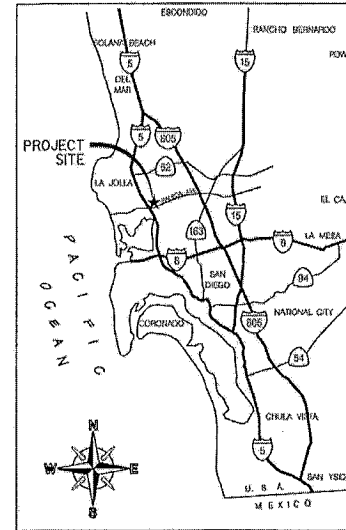
SHEET NO.	DISCIPLINE CODE	TITLE	LIMITS	PIPE		LENGTH (FT)
				SIZE (IN)	MATERIAL	
1	G-1					
2	C-1	BALBOA AVE	STA 1+08.08 TO STA 8+50	15, 21	PVC	741.92
3	C-2	BALBOA AVE	STA 8+50 TO STA 16+50	21	PVC/CCFRPM	800.00
4	C-3	BALBOA AVE, BALBOA TERRACE	STA 16+50 TO STA 23+50	20, 21	PVC/CCFRPM	700.00
5	C-4	BALBOA TERRACE, EASEMENT	STA 23+50 TO STA 30+50	8, 20, 21	PVC/CCFRPM	886.12
6	C-5	EASEMENT	LINE A STA 1+00 TO STA 2+06.12			
7	C-6	EASEMENT	STA 30+50 TO STA 38+50	20, 21	PVC/CCFRPM	800.00
8	C-7	PROFILE	STA 38+50 TO STA 45+22.21	20, 21	PVC/CCFRPM	672.21
9	C-8	PROFILE	STA 1+00 TO STA 8+50			
10	C-9	PROFILE	STA 8+50 TO STA 16+50			
11	C-10	PROFILE	STA 16+50 TO STA 23+50			
12	C-11	PROFILE	STA 23+50 TO STA 30+50			
13	C-12	PROFILE	STA 30+50 TO STA 38+50			
14	C-13	ENLARGED PLAN	LINE B STA 1+00 TO STA 3+50			
15	C-14	PROFILE	LINE C STA 0+77.13 TO STA 2+20			
16	C-15	PROFILE	LINE A AND LINE B			
17	C-16	MANHOLE DETAILS 1				
18	C-17	MANHOLE DETAILS 2				
19	C-18	MANHOLE DETAILS 3				
20	C-19	MANHOLE DETAILS 4				
21	C-20	MANHOLE DETAILS 5				
22	C-21	TUNNELING DETAILS 1				
23	C-22	TUNNELING DETAILS 2				
24	C-23	CROSS SECTIONS 1				
25	C-24	CROSS SECTIONS 2				
26	C-25	HORIZONTAL CONTROL INDEX REPORT				
27	C-26	ABANDONMENT PLAN 1				
28	C-27	ABANDONMENT PLAN 2				
29	C-28	STREET RESURFACING PLAN				
30	C-29	CURB RAMP LOCATION PLAN				
31	C-30	WATER POLLUTION CONTROL SITE PLAN				
32	S-1	GENERAL STRUCTURAL NOTES 1				
33	S-2	GENERAL STRUCTURAL NOTES 2				
34	S-3	TYPICAL STRUCTURAL DETAILS				
35	S-4	MANHOLE No.1 PLANS AND SECTIONS				
36	S-5	MANHOLE No.9 PLANS AND SECTION				
37	S-6	MANHOLE No.10 PLANS AND SECTION				
38	S-7	MANHOLE No.19 PLANS AND SECTION				
I-10	T-1/T-10	TRAFFIC CONTROL PLANS				
				TOTAL SEWER		4993.12

## DISCIPLINE CODE

- G GENERAL
- C CIVIL
- S STRUCTURAL
- T TRAFFIC

## WORK TO BE DONE

CONSTRUCTION CONSISTS OF THE INSTALLATION OF 21", 15", AND 8" SEWER PIPE VIA TUNNELING AND OPEN TRENCH CONSTRUCTION AND ALL OTHER WORK, AND APPURTENANCES IN ACCORDANCE WITH THESE SPECIFICATIONS AND DRAWINGS NUMBERED 30360-01-D THROUGH 30360-38-D AND 30360-T01-D THROUGH 30360-T10-D.



VICINITY MAP  
NOT TO SCALE

## IMPROVEMENTS

- TRENCH RESURFACING
- SEWER MAIN
- SEWER MANHOLE/PVC LINED
- 4" SEWER LATERAL WITH C.O. UNLESS OTHERWISE SPECIFIED
- CONCRETE PROTECTION FOR EXIST SEWER PIPE
- CONCRETE ENCASUREMENT
- ABANDON EX MANHOLE
- EX SEWER MAIN TO BE FILLED WITH SLURRY
- SURVEY MONUMENT

APPROXIMATE LIMITS OF TUNNELING SHAFT

REFER TO CONTRACT APPENDICES FOR LINK TO UPDATED STANDARD DRAWINGS.

FOR ADDITIONAL SYMBOLS SEE RESURFACING, CURB RAMP, HORIZONTAL ALIGNMENT COORDINATE AND TRAFFIC CONTROL SHEETS.

## FIELD DATA

**BENCH MARK:** NWBP MORENA BLVD. AND PAUL JONES ELEV. 59.07, PER THE CITY OF SAN DIEGO BENCH BOOK (NAVD 29 FEET)

**FIELD NOTES:** DAPRON, 8-3-1999, 234-1714, W0175471  
RAMETTA, 3-05-2002, 234-1704, W0175471  
RAMETTA, 10-03-2002, 234-1704, W0175471

**BASIS OF BEARING:** FROM HV-1 TO HV-2 UTILIZING RTK GPS FIELD PROCEDURES (IE. N65°43'43"E, HD. 1072.30) WITH THE BASE STATION LOCATED AT GPS 851 AND CONSTRAINING TO GPS 851, GPS 925, GPS 950, AND GPS 793

**DATUM:** MEAN SEA LEVEL

## MAJOR STREETS

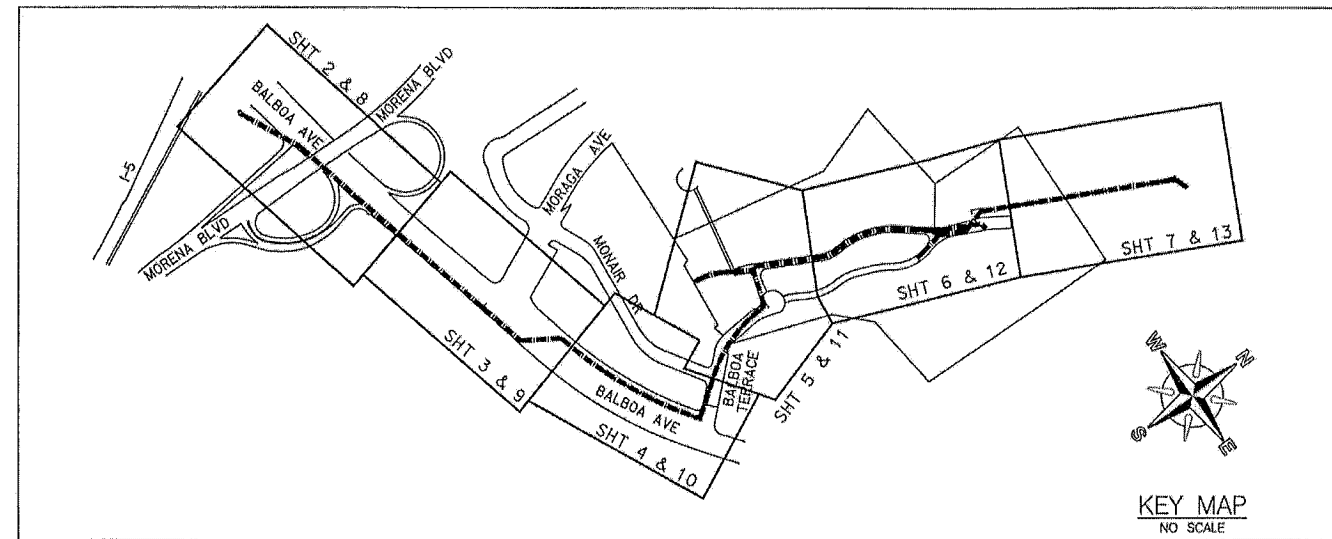
BALBOA AVE

## EXISTING STRUCTURES

- EX WATER MAIN & VALVES
- EX WATER METER
- EX FIRE HYDRANT
- EX SEWER MAIN & MANHOLES
- EX DRAINS
- EX PAVEMENT (PROFILE)
- EX GROUND LINE (PROFILE)
- EX TRAFFIC SIGNAL
- EX STREET LIGHT
- EX GAS MAIN
- ELEC. COND., TEL. COND., CATV
- RAILROAD, TROLLEY TRACKS

## ABBREVIATIONS

ABAND	ABANDON	EB	ENCASED BURIED	OVHD	OVER HEAD
ABAND'D	ABANDONED	EL, ELEV	ELEVATION	PH	POT HOLE
ACP	ASBESTOS CEMENT PIPE	ELEC	ELECTRIC	PROP	PROPOSED
AHD	AHEAD	EX, EXIST	EXISTING	PVC	POLYVINYL CHLORIDE
ASSY	ASSEMBLY	E/O	EAST OF	RED	REDUCER
BK	BACK	F	FLANGE	RT	RIGHT
BTWN	BETWEEN	GV	GATE VALVE	S	SURVEY LINE
CATV	CABLE TV	HDPE	HIGH-DENSITY POLYETHYLENE	SO	STUB OUT
CI	CAST IRON PIPE	HP	HIGH PRESSURE	S/O	SOUTH OF
C	CENTERLINE	IE	INVERT ELEVATION	SWR	SEWER
COND	CONDUIT	LT	LEFT	TEL	TELEPHONE
CONT	CONTINUED	MJ	MECHANICAL JOINT	UNK	UNKNOWN
CONTR	CONTRACTOR	MTD	MULTIPLE TELEPHONE	VC	VITRIFIED CLAY PIPE
DB	DIRECT BURIED	DUCT	DUCT	WM	WATER METER
DIP	DUCTILE IRON PIPE	N/O	NORTH OF	WTR	WATER
				W/O	WEST OF



KEY MAP  
NO SCALE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

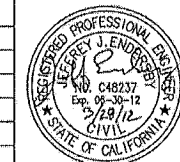
*Jeffrey J. Endersby* 3/28/12  
JEFFREY J. ENDERSBY DATE

CITY OF SAN DIEGO  
PUBLIC WORKS PROJECT



AS-BUILT INFORMATION	
MATERIALS	MANUFACTURER
PIPE SDR 26 (SEWER)	-
PIPE SDR 35 (SEWER)	-
SEWER MANHOLES	-

**Brown and Caldwell**



PLANS FOR THE CONSTRUCTION OF  
BALBOA TERRACE TRUNK SEWER

COVER SHEET

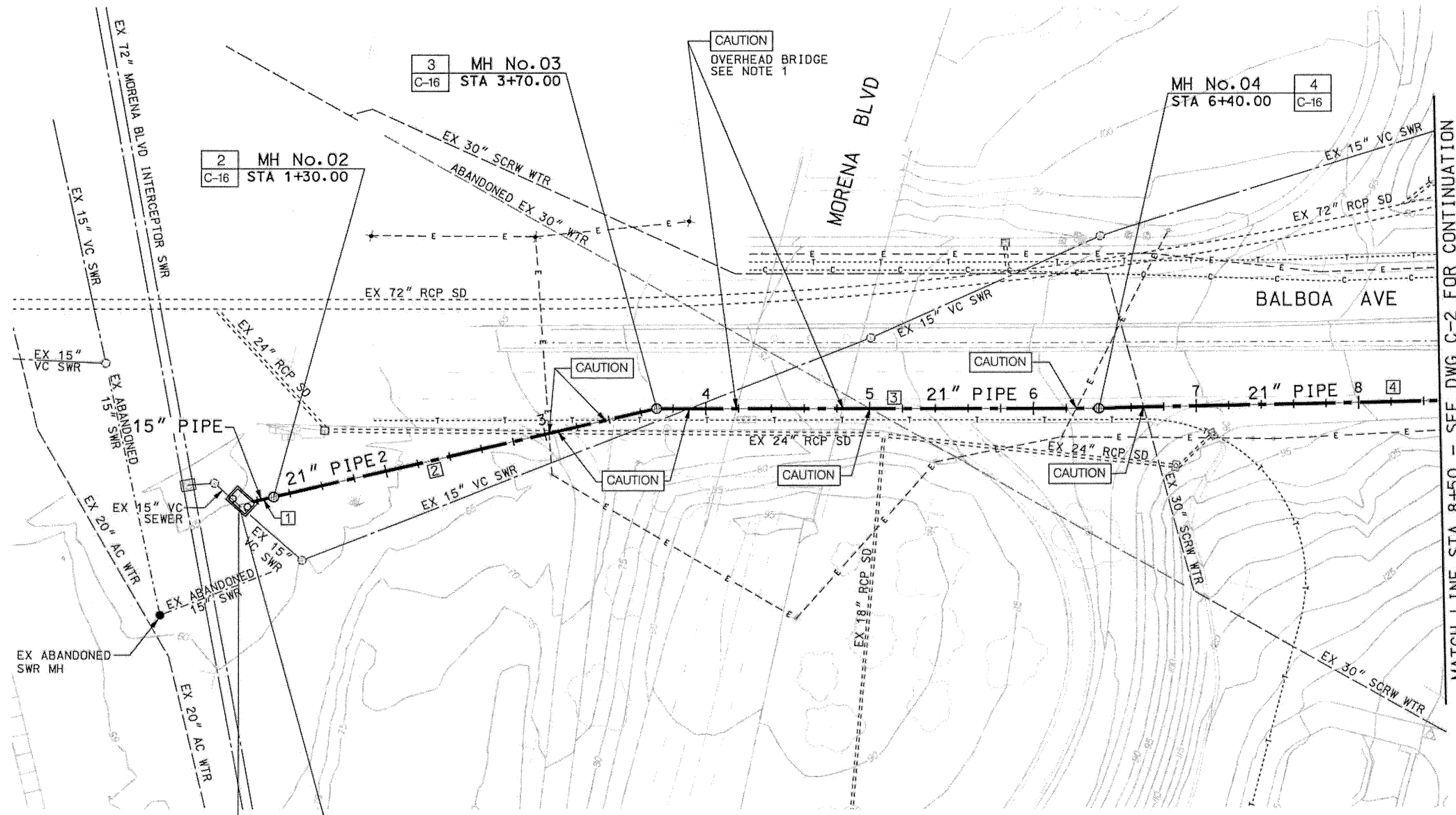
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 01 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED BY: <i>[Signature]</i>	DATE: 2/22/12	ASSOCIATE ENGINEER: JIM HAGHGOUY
FOR CITY ENGINEER		PROJECT ENGINEER: BRIAN VITELLE
DESCRIPTION: ORIGINAL	BY: BC	DATE: 2/22/12
		FILED: 2/22/12
		234-1701
		CC897 COORDINATE
		6262407-1874444
		CC898 COORDINATE
CONTRACTOR	DATE STARTED	30360-01-D
INSPECTOR	DATE COMPLETED	

BALBOA TERRACE TRUNK SEWER



PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 63°19.34" E	-	21.92'	15" SDR-26 PVC
2	N 63°19.34" E	-	240.00'	21" PS-115 PVC
3	N 76°27'45" E	-	270.00'	21" PS-115 PVC
4	N 75°23'58" E	-	210.00'	21" PS-115 PVC

- NOTES:**
- CONTRACTOR SHALL CONDUCT SHORING AND TRENCHING OPERATIONS IN A MANNER AS TO NOT AFFECT THE CONDITION OR STRUCTURAL INTEGRITY OF ADJACENT EMBANKMENTS, BRIDGE SUPPORT COLUMNS AND FOOTINGS, ABUTMENTS, AND ANY ADDITIONAL INFRASTRUCTURE THAT MAY BE LOCATED IN THE PROJECT VICINITY.
  - CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.



MATCH LINE STA 8+50 - SEE DWG C-2 FOR CONTINUATION

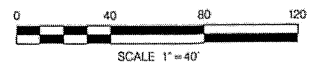
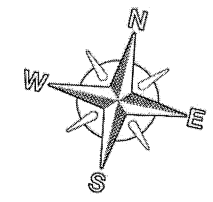
- REFERENCE:**
- WATER: 3983L, I0320-6-D, I2788-15-D
  - SEWER: 9892-L
  - STORM DRAIN: I2788-14-D
  - GAS: N/A
  - ELECTRIC: 234-1704
  - CABLE TV: C2341704
  - TELEPHONE: PBO201BA, PBO201BC
  - IMPROVEMENTS: 2887-D, 33148-5-D
  - 100' SCALE/FIELD BOOK: D13S
  - THOMAS BROS.: I248-D4

SEE DWG C-7 FOR PROFILE

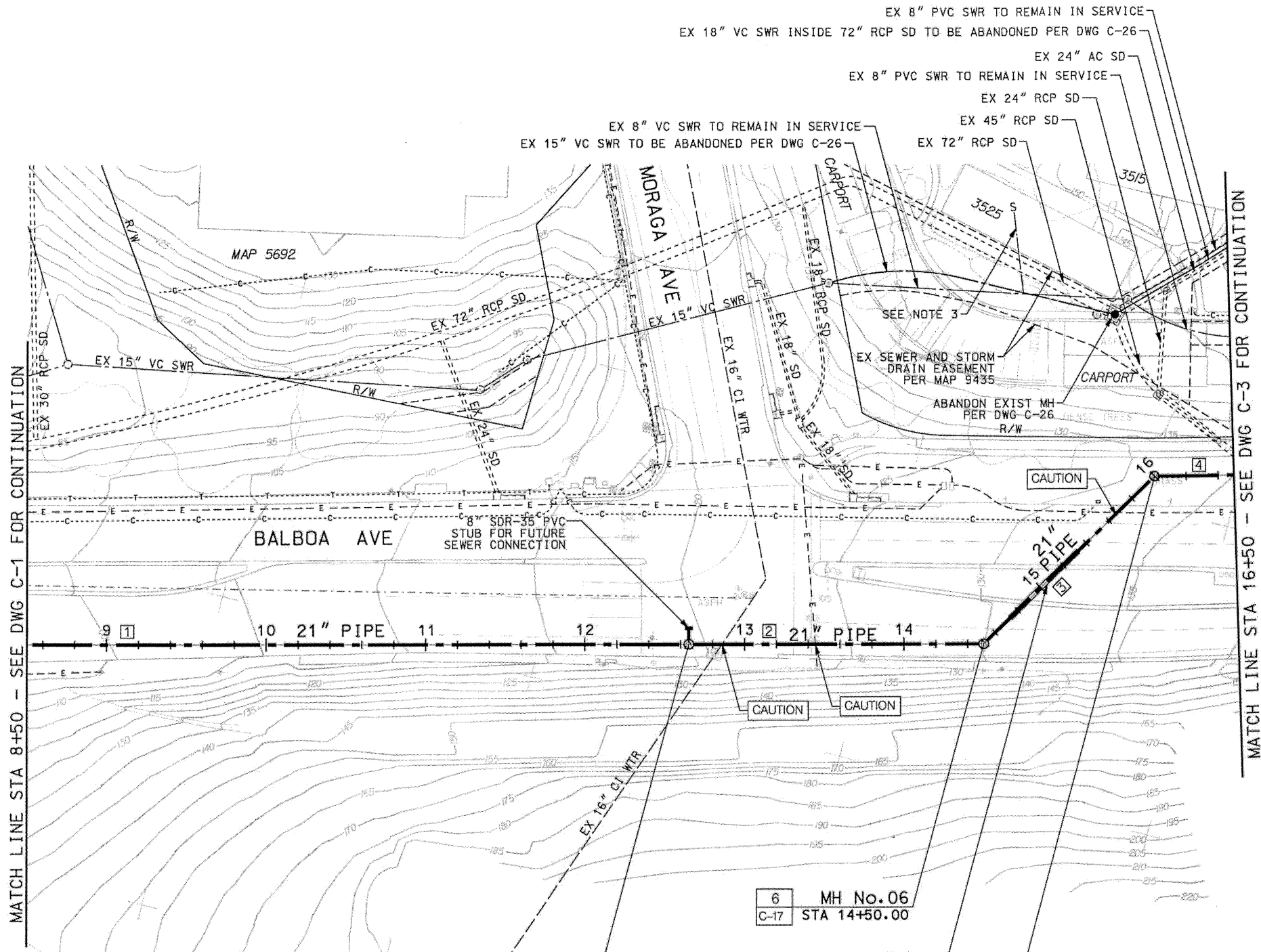
C-1

BALBOA TERRACE TRUNK SEWER  
BALBOA AVENUE  
STA 1+08.08 TO STA 8+50

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 02 OF 38 SHEETS		WATER WBS: N/A SEWER WBS: S-I2035
APPROVED BY: <i>[Signature]</i>	DATE: 2/22/12	SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: BC	PROJECT ENGINEER: BRIAN VITELLE
		234-1701
		CCS27 COORDINATE
		6262407-1874444
		CCS83 COORDINATE
CONTRACTOR: _____	DATE STARTED: _____	30360-02-D
INSPECTOR: _____	DATE COMPLETED: _____	



BALBOA AVENUE STA 1+08.08 TO STA 8+50



PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 75°23'58" E	-	415.00'	21" PS-115 PVC
2	N 75°23'58" E	-	185.00'	21" PS-115 PVC
3	N 31°25'40" E	-	150.00'	21" PS-115 PVC
4	22°26'01"	1520.00'	50.00'	21" PS-115 PVC

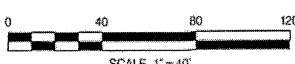
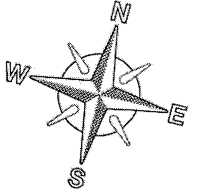
- NOTES:
- CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
  - STANDARD SCHEDULE STEEL PIPE 3/8" THICK CASING REQUIRED FOR OPEN CUT CONSTRUCTION. CONTRACTOR SHALL REPLACE IN KIND MEDIAN, VEGETATION AND COMMUNITY SIGN OR CONTRACTOR MAY PROTECT IN PLACE AND PERFORM TRENCHLESS CONSTRUCTION. CONTRACTOR SHALL DESIGN AND SUBMIT FOR APPROVAL TRENCHLESS CONSTRUCTION METHODS AND MATERIALS.
  - CONTRACTOR SHALL VERIFY SERVICE LATERAL CONNECTION TO UPPER SEWER MAIN PRIOR TO ABANDONING LOWER SEWER MAIN.

- REFERENCE:
- WATER: 7119-W, I2089CL
  - SEWER: 9893-L, I5572-2-D, I8195-6-D, 93-3-D, I8195-6-D
  - STORM DRAIN: 2887AD, 2888AD, I2089CL, I1676-S-D, I5572-2-D, I8195-12-D
  - GAS: 5I-348
  - ELECTRIC: 234-I704
  - CABLE TV: C234I704
  - TELEPHONE: PB020IBA, PB020IBC
  - IMPROVEMENTS: 685I-D, I2088L, I1676-I-D, I5572-5-D, I8195-II-D, I8195-I7-D, 33148-5-D
  - 100' SCALE/FIELD BOOK: DI35
  - THOMAS BROS.: I248-D4

SEE DWG C-8 FOR PROFILE

C-2

<b>BALBOA TERRACE TRUNK SEWER</b>			
BALBOA AVENUE STA 8+50 TO STA 16+50			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 03 OF 38 SHEETS		WATER WBS N/A	SEWER WBS S-I2035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGGOLY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY BC	APPROVED	DATE 2/28/12
DESIGNED BY BRIAN VITELLE PROJECT ENGINEER		CHECKED BY 234-I70I CCS27 COORDINATE	
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
		6262407-1874444 CCS83 COORDINATE	
		30360-03-D	



BALBOA AVENUE STA 8+50 TO STA 16+50

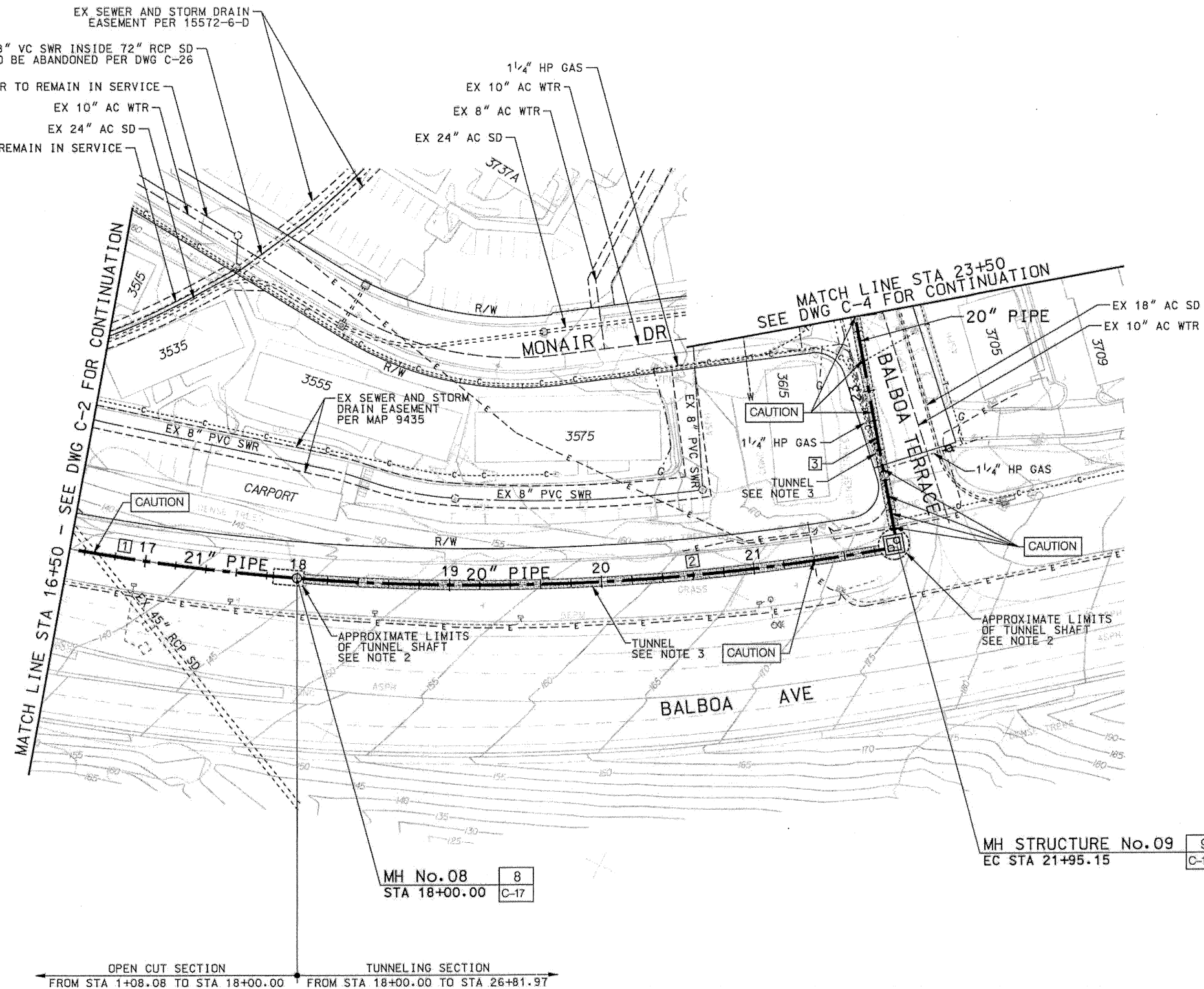
PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	22° 26' 01"	1520.00'	150.00'	21" PS-115 PVC
2	22° 26' 01"	1520.00'	395.15'	20" SN-72 CCFRPM (TUNNELED)
3	N 36° 48' 14" W	-	154.85'	20" SN-72 CCFRPM (TUNNELED)

**NOTES:**

- CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
- TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
- CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.

**REFERENCE:**

- WATER: I8195-2-D, I8195-3-D
- SEWER: I8195-2-D, I8195-6-D
- STORM DRAIN: I676-2-D, I8195-12-D
- GAS: 5I-348, 5I-349
- ELECTRIC: 234-1704
- CABLE TV: C2341704
- TELEPHONE: PB020IBA, PB020IBC
- IMPROVEMENTS: I5572-5-D, I5572-7-D, I8195-2-D, I8195-10-D, I8195-11-D, 33148-6-D
- 100' SCALE/FIELD BOOK: D135
- THOMAS BROS.: I248-D4



SEE DWG C-9 FOR PROFILE

C-3

**BALBOA TERRACE TRUNK SEWER**

BALBOA AVENUE, BALBOA TERRACE  
STA 16+50 TO STA 23+50

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 04 OF 38 SHEETS

WATER WBS N/A  
SEWER WBS S-I2035

APPROVED FOR CITY ENGINEER: *[Signature]* DATE: 2/22/12

SUBMITTED BY: JIM HAGHGOUY  
ASSOCIATE ENGINEER

DESCRIPTION: ORIGINAL BY: BC APPROVED: DATE: FILED:

DESIGNED BY: BRIAN VITELLE  
PROJECT ENGINEER

PROJECT NO: 234-1701

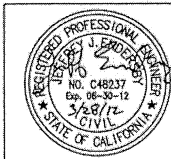
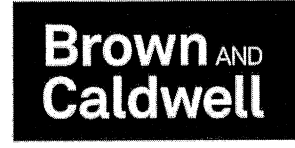
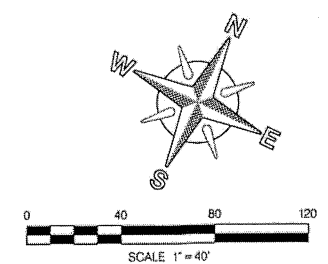
COORDINATOR: CCS87

DATE STARTED: 6262407-1874444

COORDINATOR: CCS83

CONTRACTOR INSPECTOR: DATE STARTED: DATE COMPLETED:

PROJECT NO: 30360-04-D





BALBOA TERRACE, EASEMENT STA 23+50 TO STA 30+50

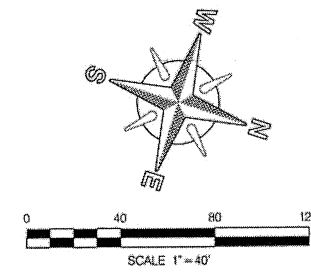
PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 36°48'14" W	-	13.99'	20" SN-72 CCFRPM (TUNNELED)
2	36°26'16"	500.00'	317.98'	20" SN-72 CCFRPM (TUNNELED)
3	N 72°44'11" W	-	138.99'	21" PS-115 PVC
4	N 27°47'11" W	-	15.30'	21" PS-115 PVC
5	N 26°30'00" E	-	213.74'	21" PS-115 PVC
1A	N 08°01'51" E	-	25.75'	8" SDR-35 PVC
2A	22°30'00"	200.00'	78.54'	8" SDR-35 PVC
5A	N 30°31'51" E	-	41.81'	8" SDR-35 PVC
4A	N 14°25'31" E	-	16.67'	8" SDR-35 PVC
6A	4°27'29"	300.00'	23.34'	8" SDR-35 PVC

- NOTES:
- CONTRACTOR SHALL LOCATE AND VERIFY SIZE OF EXISTING SERVICE LATERALS.
  - CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
  - TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
  - CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.
  - CONTRACTOR SHALL TEST AND CONFIRM STATUS OF SEWER LATERAL TO BE ABANDONED.
  - TEMPORARY CONSTRUCTION EASEMENT FOR SEWER LATERAL CONNECTION.
  - PROPOSED 15' WIDE SEWER EASEMENT.
  - CONTRACTOR SHALL MINIMIZE IMPACTS TO RESIDENTS AND SHALL COORDINATE ALL STREET AND DRIVEWAY IMPACTS WITH OWNERS.
  - CONTRACTOR SHALL USE CAUTION WHEN CONSTRUCTING NEW PIPELINE PARALLEL TO EXISTING 8" PVC SEWER MAIN. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE TO EXISTING PIPELINE.
  - CONTRACTOR SHALL COORDINATE WITH SDG&E (SEMPRA ENERGY) FOR RELOCATION OF EXISTING GAS LINES PRIOR TO START OF CONSTRUCTION.

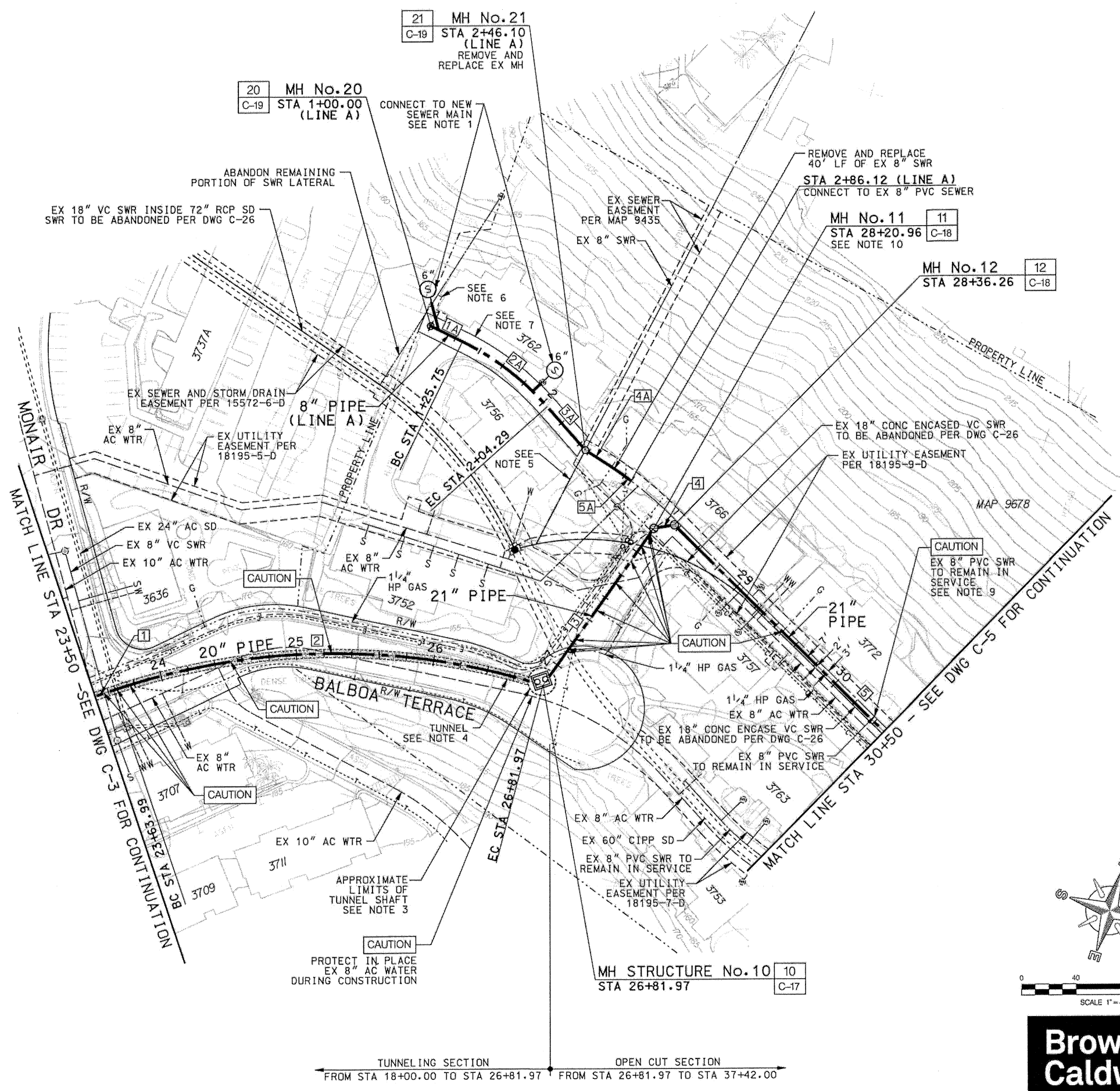
REFERENCE:  
 WATER: 18195-2-D, 18195-3-D, 18195-4-D, 18195-5-D, 18195-7-D  
 SEWER: 7078-D, 18195-2-D, 18195-7-D, 18195-8-D, 18195-9-D  
 STORM DRAIN: 18195-13-D, 18195-14-D, 18195-26-D  
 GAS: 51-349, 51-350  
 ELECTRIC: 234-1704  
 CABLE TV: C2341704  
 TELEPHONE: PB0201BA, PB0201BC  
 IMPROVEMENTS: 15572-5-D, 15572-7-D, 18195-2-D, 18195-3-D, 18195-17-D, 18195-18-D  
 100' SCALE/FIELD BOOK: D135  
 THOMAS BROS.: I248-D4

SEE DWG C-14 FOR LINE A PROFILE  
 SEE DWG C-10 FOR PROFILE

BALBOA TERRACE TRUNK SEWER			
BALBOA TERRACE, EASEMENT STA 23+50 TO STA 30+50 LINE A STA 1+00 TO STA 2+86.12			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 05 OF 38 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	DESIGNED BY JIM HAGHGOUY ASSOCIATE ENGINEER	DATE 3/28/12
DESCRIPTION ORIGINAL	BY BC	APPROVED DATE FILED	PROJECT ENGINEER BRIAN VITELLE
CONTRACTOR		DATE STARTED	234-1701
INSPECTOR		DATE COMPLETED	6262407-1874444 CCS83 COORDINATE
			30360-05-D



**Brown and Caldwell**



TUNNELING SECTION FROM STA 18+00.00 TO STA 26+81.97  
 OPEN CUT SECTION FROM STA 26+81.97 TO STA 37+42.00

PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 26°30'00" E	-	29.24'	21" PS-115 PVC
2	32°08'00"	136.00'	76.27'	21" PS-115 PVC
3	43°59'00"	312.00'	239.51'	21" PS-115 PVC
4	N 38°21'00" E	-	124.98'	21" PS-115 PVC
5	N 68°04'47" E	-	30.00'	21" PS-115 PVC
6	N 25°33'16" E	-	102.00'	21" PS-115 PVC
7	N 18°16'08" W	-	90.00'	21" PS-115 PVC
8	N 25°41'11" E	-	108.00'	20" SN-72 CCFRPM (TUNNELED)

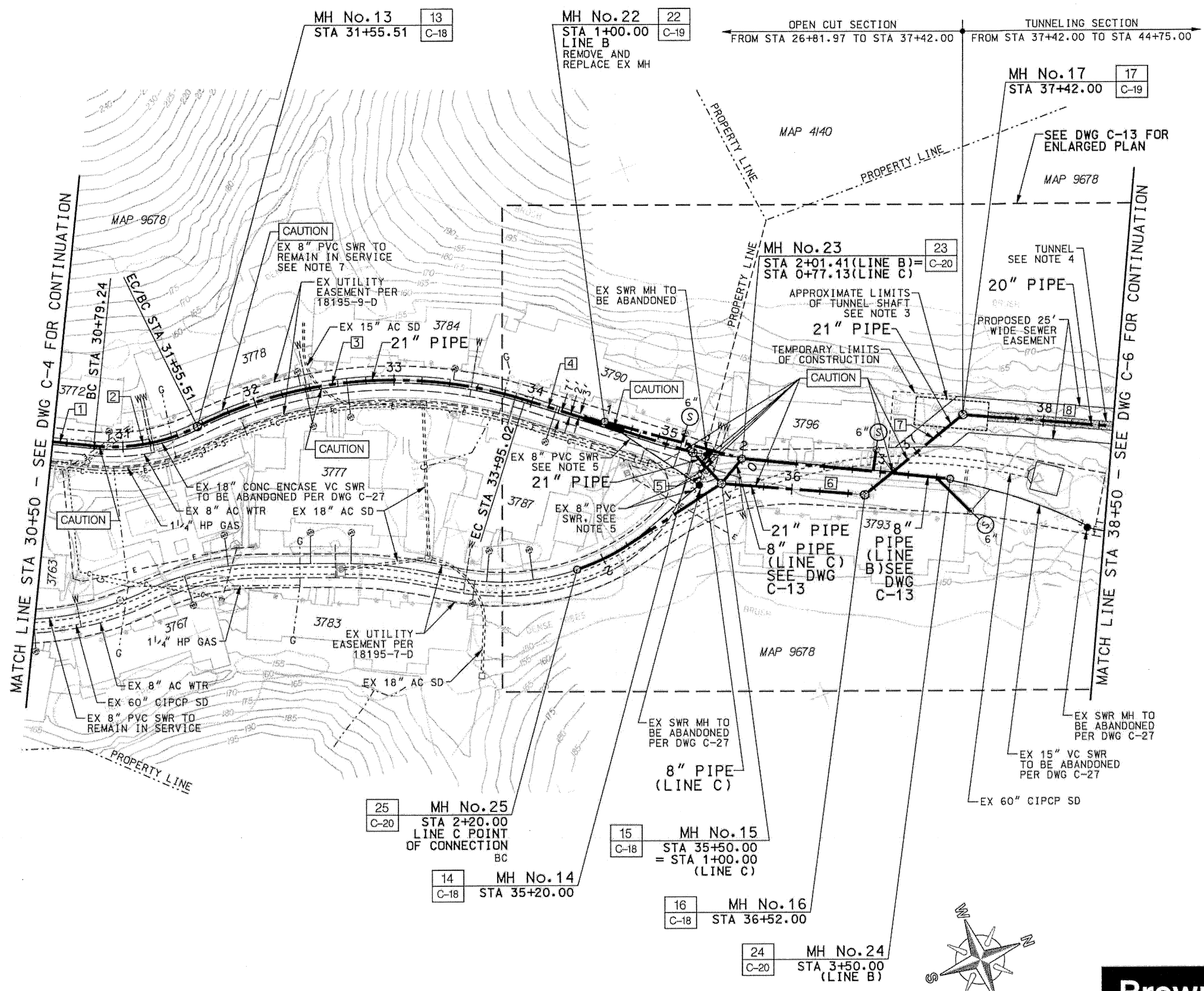
SEE ENLARGED PLAN ON DWG C-13 FOR LINE B AND LINE C PIPE DATA.

**NOTES:**

- CONTRACTOR SHALL LOCATE AND VERIFY SIZE OF EXISTING SERVICE LATERALS.
- CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
- TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
- CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.
- PORTION OF EXISTING 8" SEWER PIPE TO BE REMOVED AS NEEDED FOR CONSTRUCTION OF NEW MAIN. REMAINING SEWER TO BE ABANDONED PER WP-03.
- CONTRACTOR SHALL MINIMIZE IMPACTS TO RESIDENTS AND SHALL COORDINATE ALL STREET AND DRIVEWAY IMPACTS WITH OWNERS.
- CONTRACTOR SHALL USE CAUTION WHEN CONSTRUCTING NEW PIPELINE PARALLEL TO EXISTING 8" PVC SEWER MAIN. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE TO EXISTING PIPELINE.

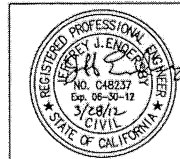
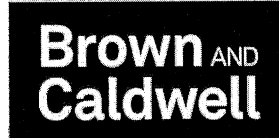
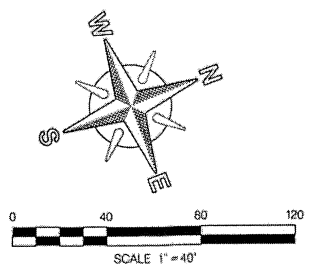
**REFERENCE:**

- WATER: 18195-7-D, 18195-8-D
- SEWER: 18195-7-D, 18195-8-D, 18195-9-D
- STORM DRAIN: 18195-13-D, 18195-14-D, 18195-19-D, 18195-26-D
- GAS: 51-350, 51-351
- ELECTRIC: 234-1704, 236-1704
- CABLE TV: C2341704
- TELEPHONE: PBO201BA, PBO201BC
- IMPROVEMENTS: 18195-18-D, 18195-19-D
- 100' SCALE/FIELD BOOK: D13S
- THOMAS BROS.: 1248-D4



SEE DWG C-11 FOR PROFILE C-5

<b>BALBOA TERRACE TRUNK SEWER</b>		<b>EASEMENT</b>	
STA 30+50 TO STA 38+50			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 06 OF 38 SHEETS		WATER WBS	N/A
APPROVED: <i>[Signature]</i> 2/22/12 FOR CITY ENGINEER		SEWER WBS	S-12035
DATE: 2/22/12		DRAWN BY: JIM HAGHGOUY ASSOCIATE ENGINEER	
DESCRIPTION: ORIGINAL		PROJECT ENGINEER: BRIAN VITELLE	
BY: BC	APPROVED:	234-1701 CCSE7 COORDINATE	
DATE:	FILED:	6262407-187444 CCS83 COORDINATE	
CONTRACTOR:		DATE STARTED:	
INSPECTOR:		DATE COMPLETED:	
		30360-06-D	

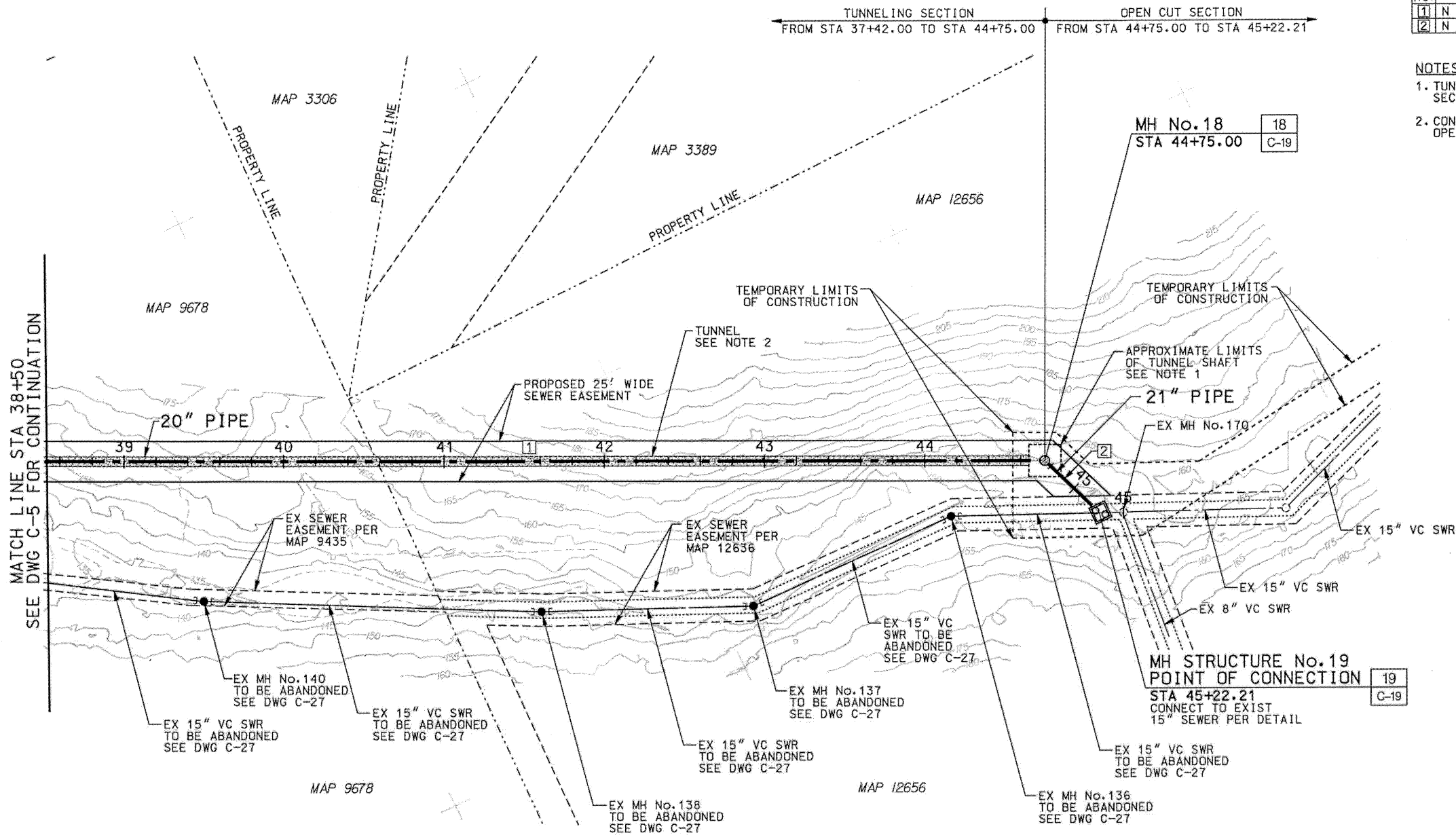


EASEMENT STA 30+50 TO STA 38+50

PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 25° 41.11" E	-	625.00'	20" SN-72 CCFRPM (TUNNELED)
2	N 69° 04.42" E	-	47.21'	21" PS-115 PVC

**NOTES:**

1. TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
2. CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.



**REFERENCE:**  
 WATER: N/A  
 SEWER: 9895-L, 9896-L  
 STORM DRAIN: N/A  
 GAS: N/A  
 ELECTRIC: N/A  
 CABLE TV: N/A  
 TELEPHONE: N/A  
 IMPROVEMENTS: N/A  
 100' SCALE/FIELD BOOK: D13S  
 THOMAS BROS.: I248-D4

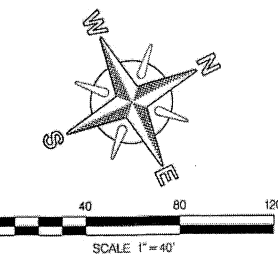
SEE DWG C-12 FOR PROFILE

C-6

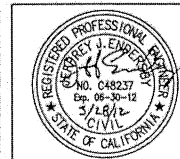
**BALBOA TERRACE TRUNK SEWER**

**EASEMENT**  
 STA 38+50 TO STA 45+22.21

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 07 OF 38 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: BC	PROJECT ENGINEER: BRIAN VITELLE
		234-1701 CCS27 COORDINATE
		6262407-1B74444 CCS83 COORDINATE
CONTRACTOR: _____	DATE STARTED: _____	30360-07-D
INSPECTOR: _____	DATE COMPLETED: _____	

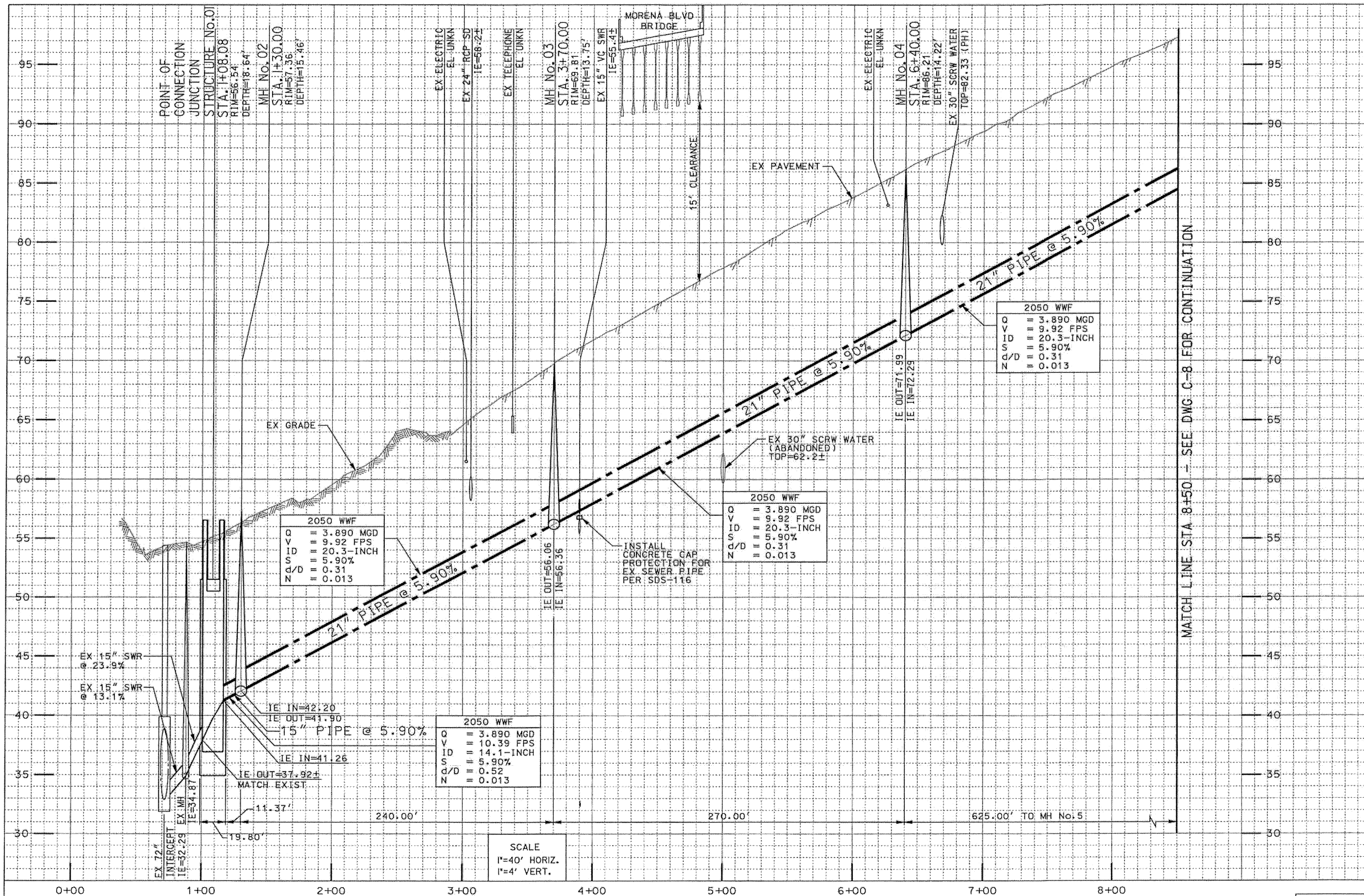


**Brown AND Caldwell**



EASEMENT STA 38+50 TO STA 45+22.21





SEE DWG C-1 FOR PLAN

**C-7**

**BALBOA TERRACE TRUNK SEWER**

BALBOA AVENUE  
PROFILE  
STA 1+08.08 TO STA 8+50

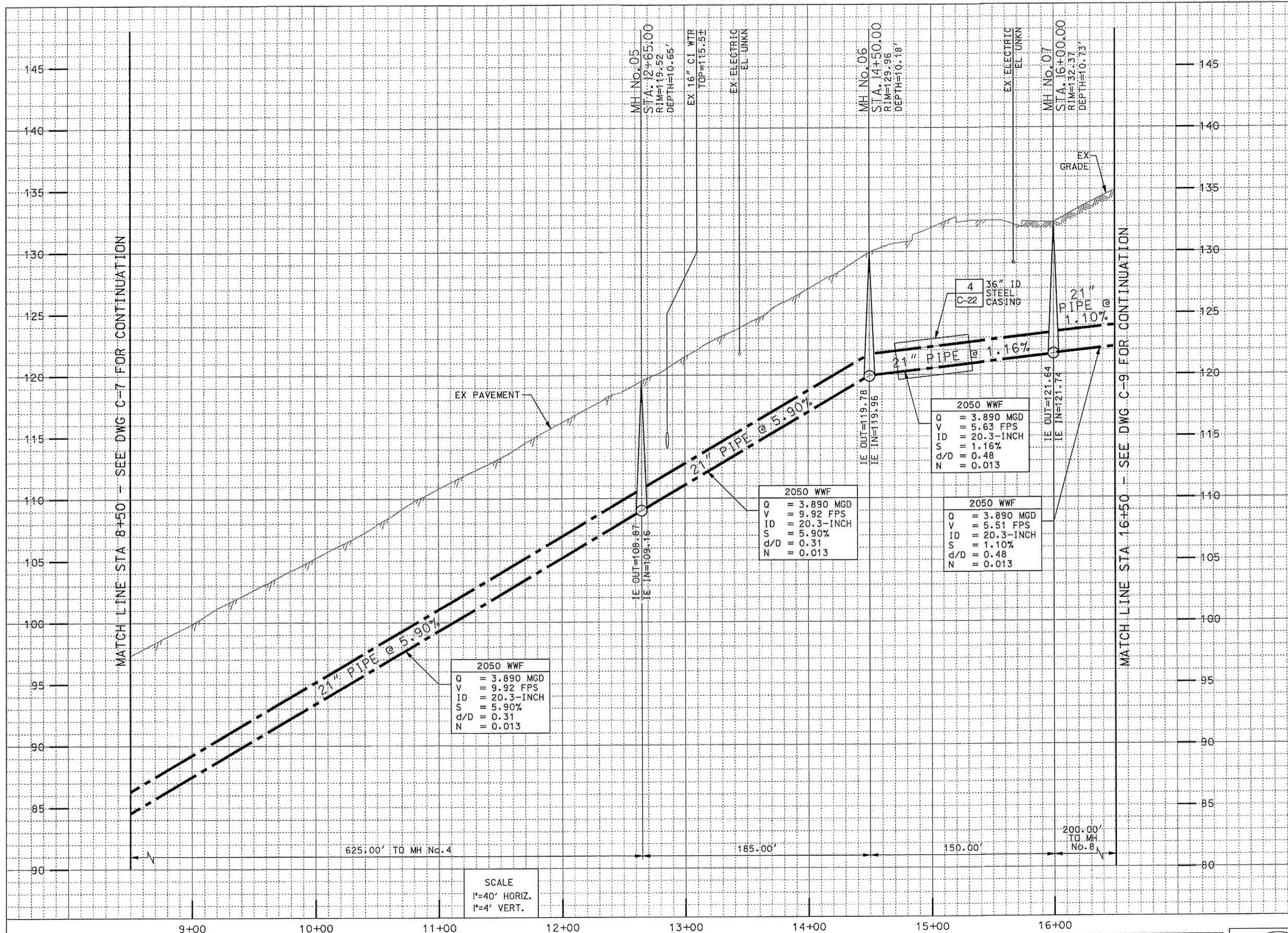
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 08 OF 37 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED BY: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	DESIGNED BY: <i>[Signature]</i> PROJECT ENGINEER
DESCRIPTION: ORIGINAL	BY: XX/XX	DATE: 2/22/12
FILED		
CONTRACTOR: _____		DATE STARTED: _____
INSPECTOR: _____		DATE COMPLETED: _____

30360-08-D

PROFILE STA 1+08.08 TO STA 8+50

P:\Projects\San Diego, City of (CA)\MWWD 2008-2011 As-Needed\139455 - Balboa Terrace Trunk Sewer\CADD\2-SHEETS\C-CIVIL\BTSS-SHT-08.dgn  
28-MAR-2012 08:35 therencia

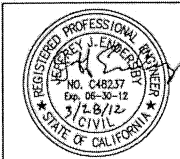
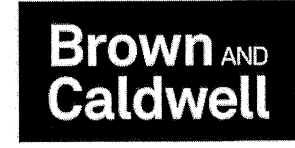


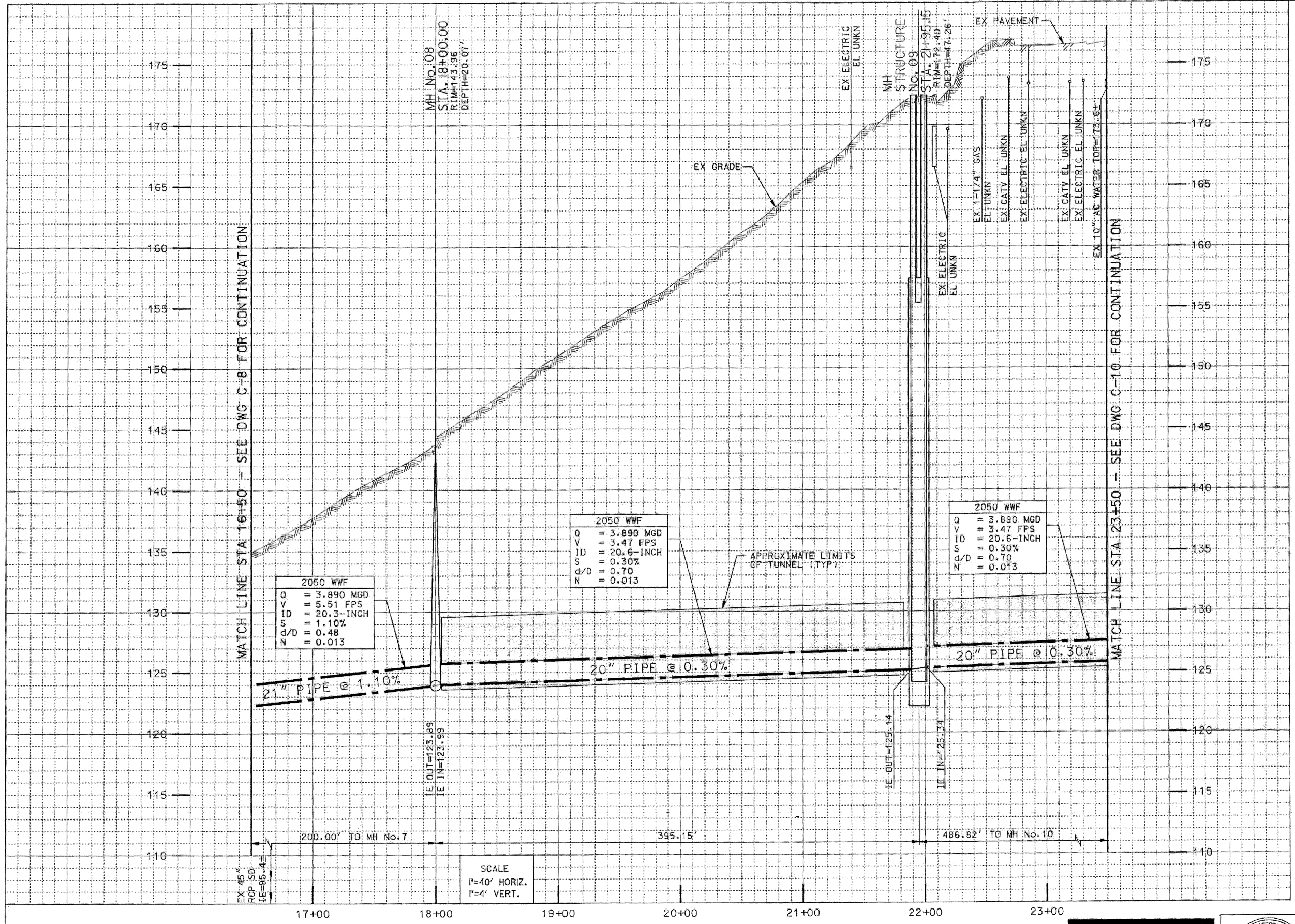


SEE DWG C-2 FOR PLAN C-8

BALBOA TERRACE TRUNK SEWER  
BALBOA AVENUE  
PROFILE  
STA 8+50 TO STA 16+50

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 09 OF 37 SHEETS				WATER WBS N/A SEWER WBS S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGGOUY ASSOCIATE ENGINEER		
DESCRIPTION ORIGINAL	BY XX/XX	APPROVED	DATE	FILED BRIAN VITELLE PROJECT ENGINEER
				234-1701 CCS&P COORDINATE
				6262407-1B74444 CCS&P COORDINATE
CONTRACTOR	DATE STARTED	30360-09-D		
INSPECTOR	DATE COMPLETED			





MATCH LINE STA 16+50 - SEE DWG C-8 FOR CONTINUATION

MATCH LINE STA 23+50 - SEE DWG C-10 FOR CONTINUATION

2050 WWF  
 Q = 3.890 MGD  
 V = 5.51 FPS  
 ID = 20.3-INCH  
 S = 1.10%  
 d/D = 0.48  
 N = 0.013

2050 WWF  
 Q = 3.890 MGD  
 V = 3.47 FPS  
 ID = 20.6-INCH  
 S = 0.30%  
 d/D = 0.70  
 N = 0.013

2050 WWF  
 Q = 3.890 MGD  
 V = 3.47 FPS  
 ID = 20.6-INCH  
 S = 0.30%  
 d/D = 0.70  
 N = 0.013

APPROXIMATE LIMITS OF TUNNEL (TYP)

EX 45"  
 ROP 5D  
 IE=95.4±

IE OUT=123.89  
 IE IN=123.99

IE OUT=125.14

IE IN=125.34

200.00' TO MH No.7

395.15'

486.82' TO MH No.10

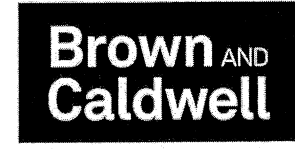
SCALE  
 1"=40' HORIZ.  
 1"=4' VERT.

SEE DWG C-3 FOR PLAN

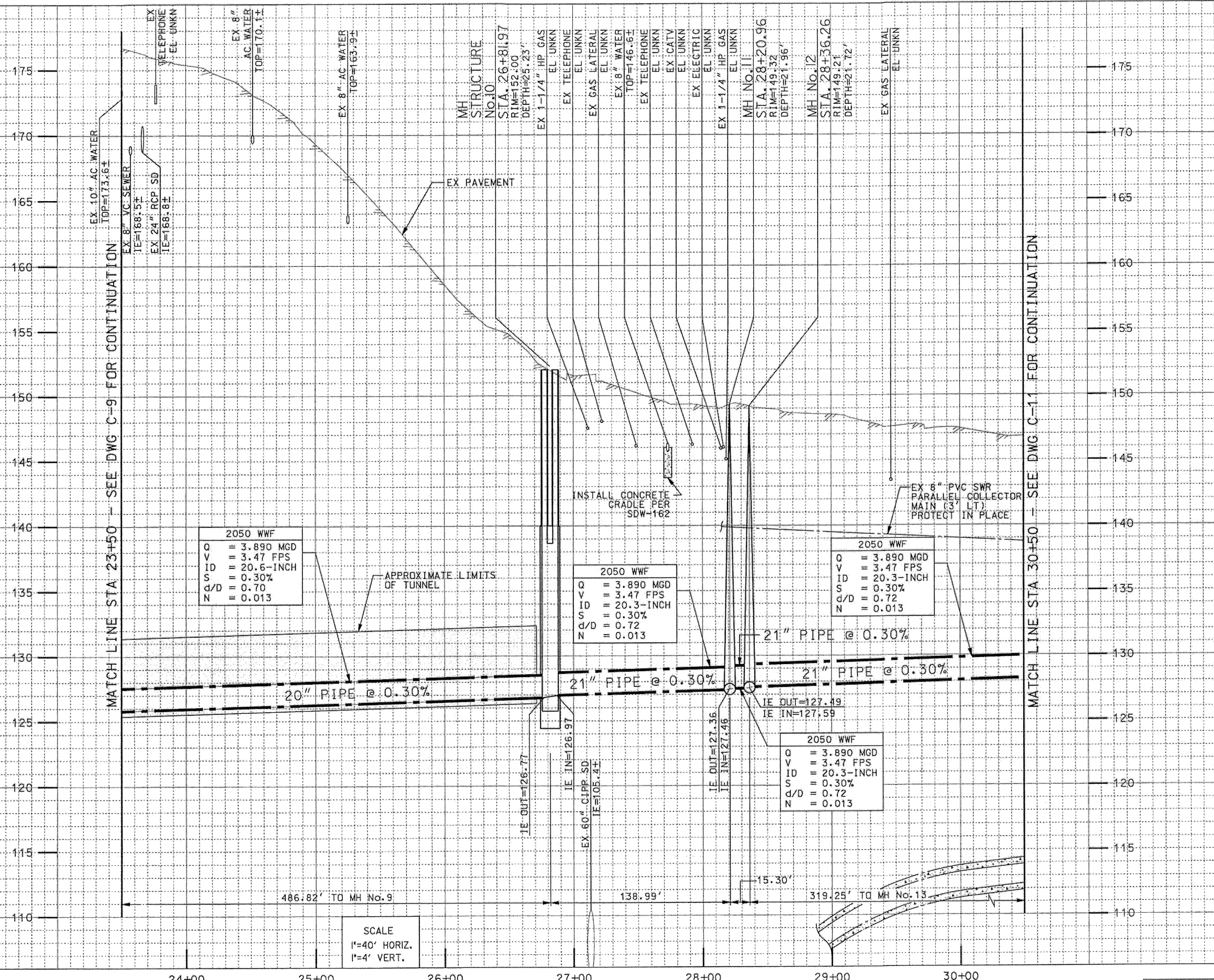
C-9

BALBOA TERRACE TRUNK SEWER  
 BALBOA AVENUE, BALBOA TERRACE  
 PROFILE  
 STA 16+50 TO STA 23+50

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 10 OF 37 SHEETS				WATER WBS N/A SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	DATE	2/22/12		
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	XX/XX			
SUBMITTED BY JIM HAGGOLY ASSOCIATE ENGINEER				ORDERED BY BRIAN VITELLE PROJECT ENGINEER
				234-1701 CCS27 COORDINATE
				6262407-1874444 CCS83 COORDINATE
CONTRACTOR INSPECTOR		DATE STARTED		30360-10 -D
		DATE COMPLETED		







MATCH LINE STA 23+50 - SEE DWG C-9 FOR CONTINUATION

MATCH LINE STA 30+50 - SEE DWG C-11 FOR CONTINUATION

2050 WWF  
 Q = 3.890 MGD  
 V = 3.47 FPS  
 ID = 20.3-INCH  
 S = 0.30%  
 d/D = 0.70  
 N = 0.013

2050 WWF  
 Q = 3.890 MGD  
 V = 3.47 FPS  
 ID = 20.3-INCH  
 S = 0.30%  
 d/D = 0.72  
 N = 0.013

2050 WWF  
 Q = 3.890 MGD  
 V = 3.47 FPS  
 ID = 20.3-INCH  
 S = 0.30%  
 d/D = 0.72  
 N = 0.013

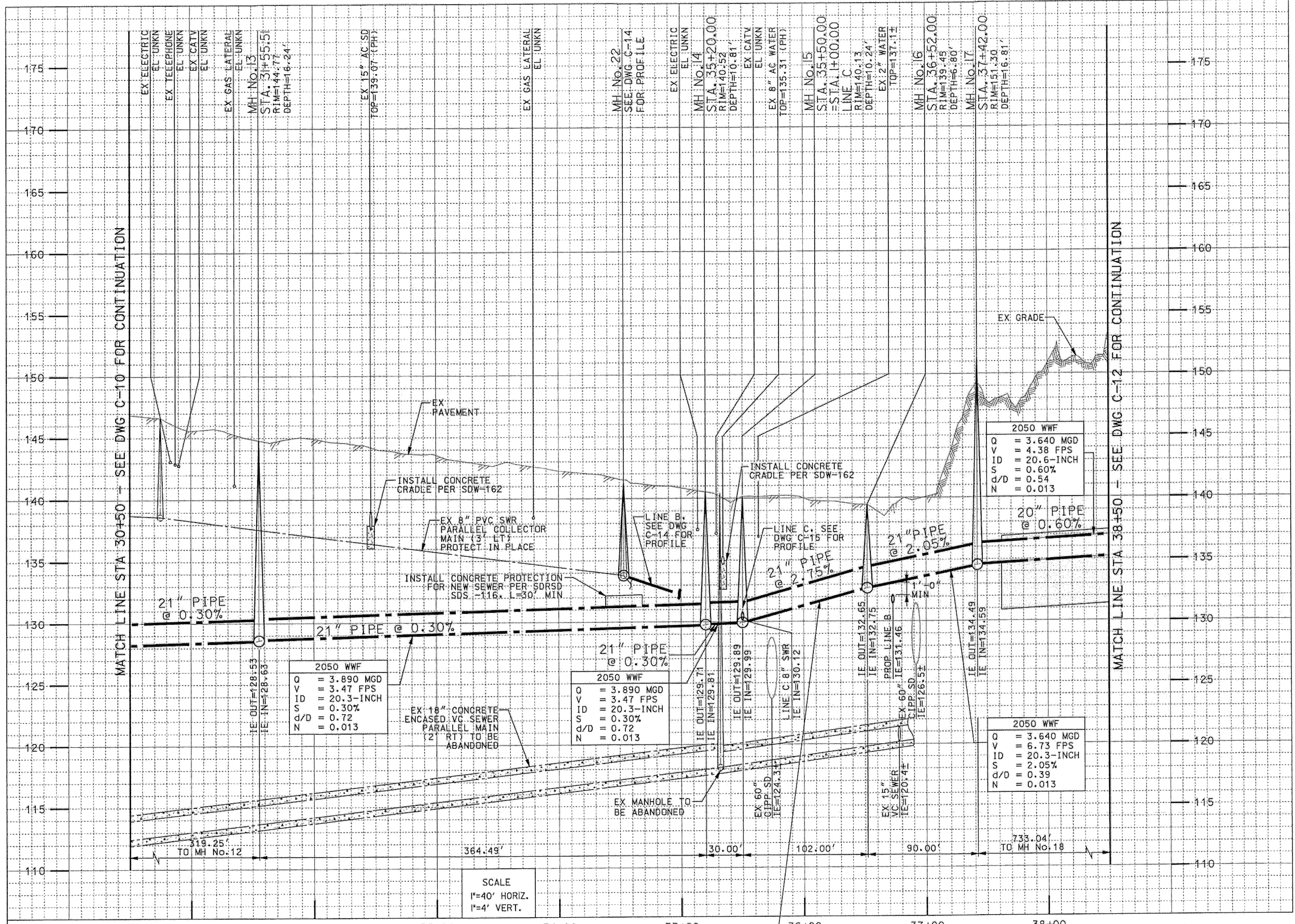
2050 WWF  
 Q = 3.890 MGD  
 V = 3.47 FPS  
 ID = 20.3-INCH  
 S = 0.30%  
 d/D = 0.72  
 N = 0.013

SCALE  
 1"=40' HORIZ.  
 1"=4' VERT.

SEE DWG C-4 FOR PLAN C-10

<b>BALBOA TERRACE TRUNK SEWER</b>			
BALBOA TERRACE, EASEMENT PROFILE STA 23+50 TO STA 30+50			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET II OF 37 SHEETS		WATER WBS N/A SEWER WBS S-12035	
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGHGOUY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY XX/XX	APPROVED	DATE FILED
PROJECT ENGINEER BRIAN VITELLE		PROJECT NO. 234-I701	
CONTRACTOR		COORDINATE CCS27 6262407-1B74444	
INSPECTOR		COORDINATE CCS83 30360-11-D	





SCALE  
1"=40' HORIZ.  
1"=4' VERT.

2050 WWF  
Q = 3.890 MGD  
V = 3.47 FPS  
ID = 20.3-INCH  
S = 0.30%  
d/D = 0.72  
N = 0.013

2050 WWF  
Q = 3.890 MGD  
V = 3.47 FPS  
ID = 20.3-INCH  
S = 0.30%  
d/D = 0.72  
N = 0.013

2050 WWF  
Q = 3.640 MGD  
V = 4.38 FPS  
ID = 20.6-INCH  
S = 0.60%  
d/D = 0.54  
N = 0.013

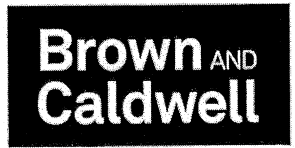
2050 WWF  
Q = 3.640 MGD  
V = 6.73 FPS  
ID = 20.3-INCH  
S = 2.05%  
d/D = 0.39  
N = 0.013

2050 WWF  
Q = 3.640 MGD  
V = 7.45 FPS  
ID = 20.3-INCH  
S = 2.75%  
d/D = 0.36  
N = 0.013

SEE DWG C-5 FOR PLAN C-11

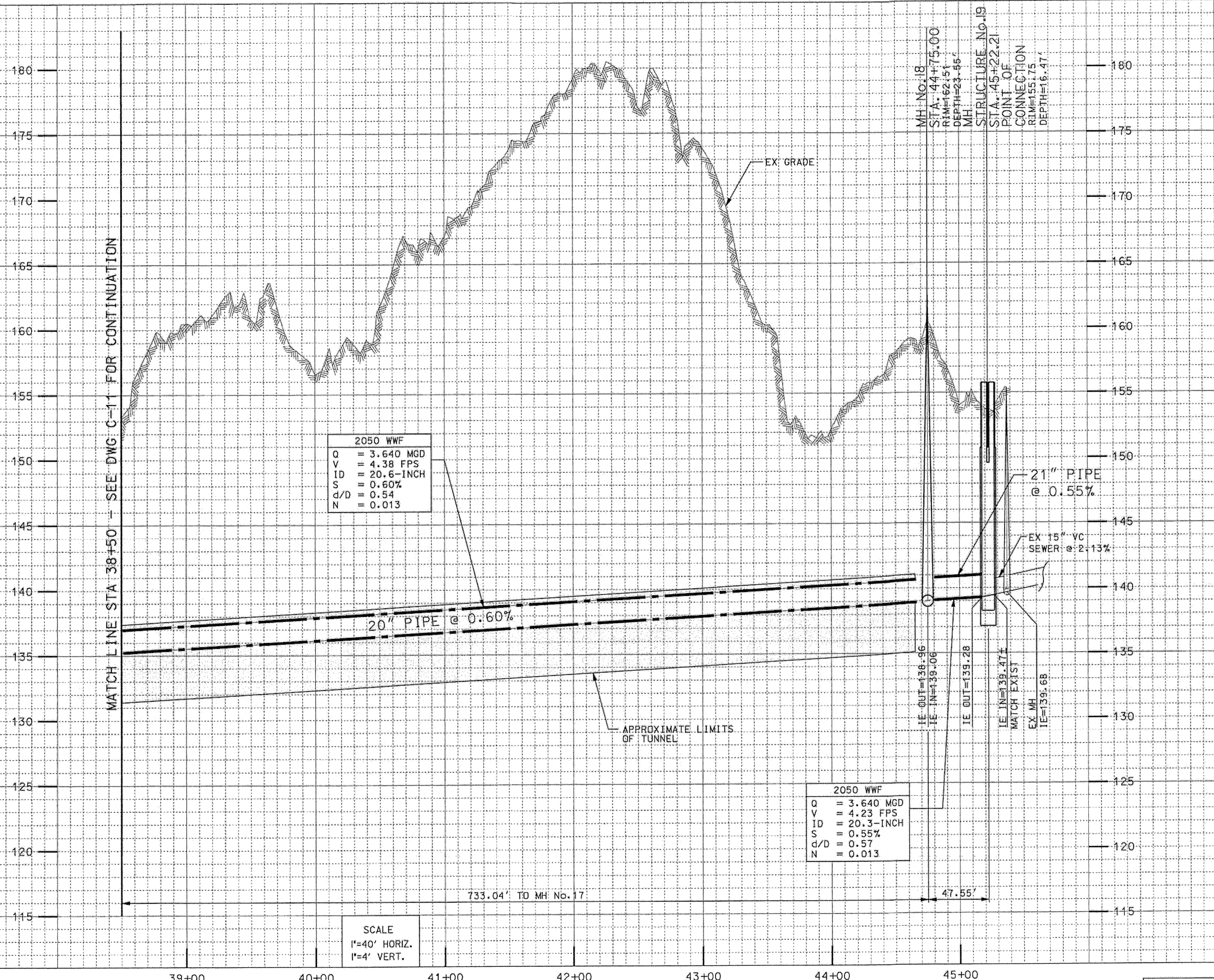
BALBOA TERRACE TRUNK SEWER  
EASEMENT  
PROFILE  
STA 30+50 TO STA 38+50

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 12 OF 37 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	DESIGNED BY JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY XX/XX	DATE 234-1701
	APPROVED DATE	FILMED
		PROJECT ENGINEER BRIAN VITELLE
		COORDINATOR 234-1701
		COORDINATOR 6262407-1874444
CONTRACTOR	DATE STARTED	COORDINATOR 30360-12-D
INSPECTOR	DATE COMPLETED	





PROFILE STA 38+50 TO STA 45+22.21



2050 WWF  
 Q = 3.640 MGD  
 V = 4.38 FPS  
 ID = 20.6-INCH  
 S = 0.60%  
 d/D = 0.54  
 N = 0.013

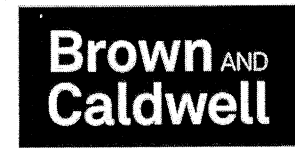
2050 WWF  
 Q = 3.640 MGD  
 V = 4.23 FPS  
 ID = 20.3-INCH  
 S = 0.55%  
 d/D = 0.57  
 N = 0.013

SCALE  
 1"=40' HORIZ.  
 1"=4' VERT.

SEE DWG C-6 FOR PLAN C-12

BALBOA TERRACE TRUNK SEWER  
 EASEMENT  
 PROFILE  
 STA 38+50 TO STA 45+22.21

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 13 OF 37 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGHGOLY ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: XX/XX	DATE: 3/28/12
PROJECT ENGINEER: BRIAN VITELLE	PROJECT ENGINEER: 234-1701	CCS27 COORDINATE: 6262407-1874444
CONTRACTOR: _____	DATE STARTED: _____	CCS83 COORDINATE: 30360-13-D
INSPECTOR: _____	DATE COMPLETED: _____	



LINE B AND LINE C ENLARGED PLAN

PROPOSED PIPE DATA TABLE					
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS	
1B	N 36°00'32" E	-	101.41'	8" SDR-35 PVC	
2B	N 26°30'47" E	-	148.59'	8" SDR-35 PVC	
1C	S 29°23'13" E	-	22.87'	8" SDR-35 PVC	
2C	S 12°19'10" E	-	82.59'	8" SDR-35 PVC	
3C	12°54'41"	166.02'	37.41'	8" SDR-35 PVC	

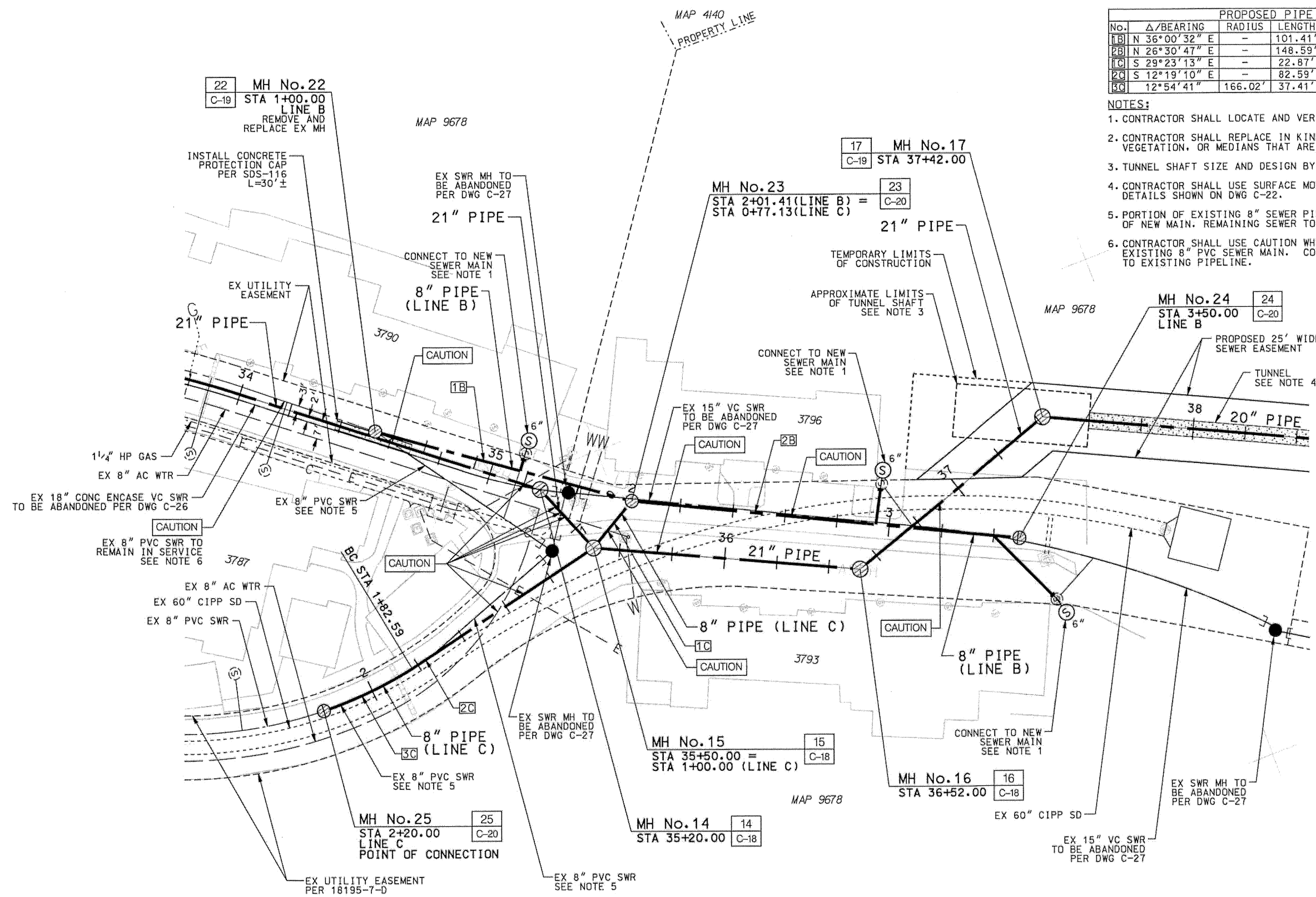
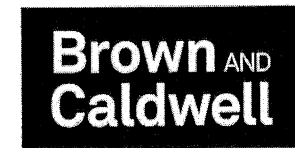
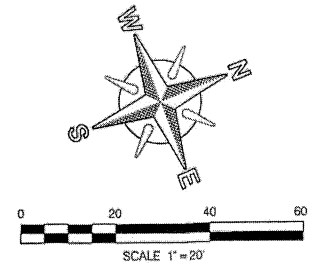
- NOTES:**
- CONTRACTOR SHALL LOCATE AND VERIFY SIZE OF EXISTING SEWER SERVICE LATERALS.
  - CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
  - TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
  - CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.
  - PORTION OF EXISTING 8" SEWER PIPE TO BE REMOVED AS NEEDED FOR CONSTRUCTION OF NEW MAIN. REMAINING SEWER TO BE ABANDONED PER WP-03.
  - CONTRACTOR SHALL USE CAUTION WHEN CONSTRUCTING NEW PIPELINE PARALLEL TO EXISTING 8" PVC SEWER MAIN. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE TO EXISTING PIPELINE.

- REFERENCE:**
- WATER: 18195-7-D, 18195-8-D
  - SEWER: 18195-7-D, 18195-8-D, 18195-9-D
  - STORM DRAIN: 18195-13-D, 18195-14-D, 18195-19-D, 18195-26-D
  - GAS: 51-350, 51-351
  - ELECTRIC: 234-1704, 236-1704
  - CABLE TV: C2341704
  - TELEPHONE: PB0201BA, PB0201BC
  - IMPROVEMENTS: 18195-18-D, 18195-19-D
  - 100' SCALE/FIELD BOOK: D135
  - THOMAS BROS.: I248-D4

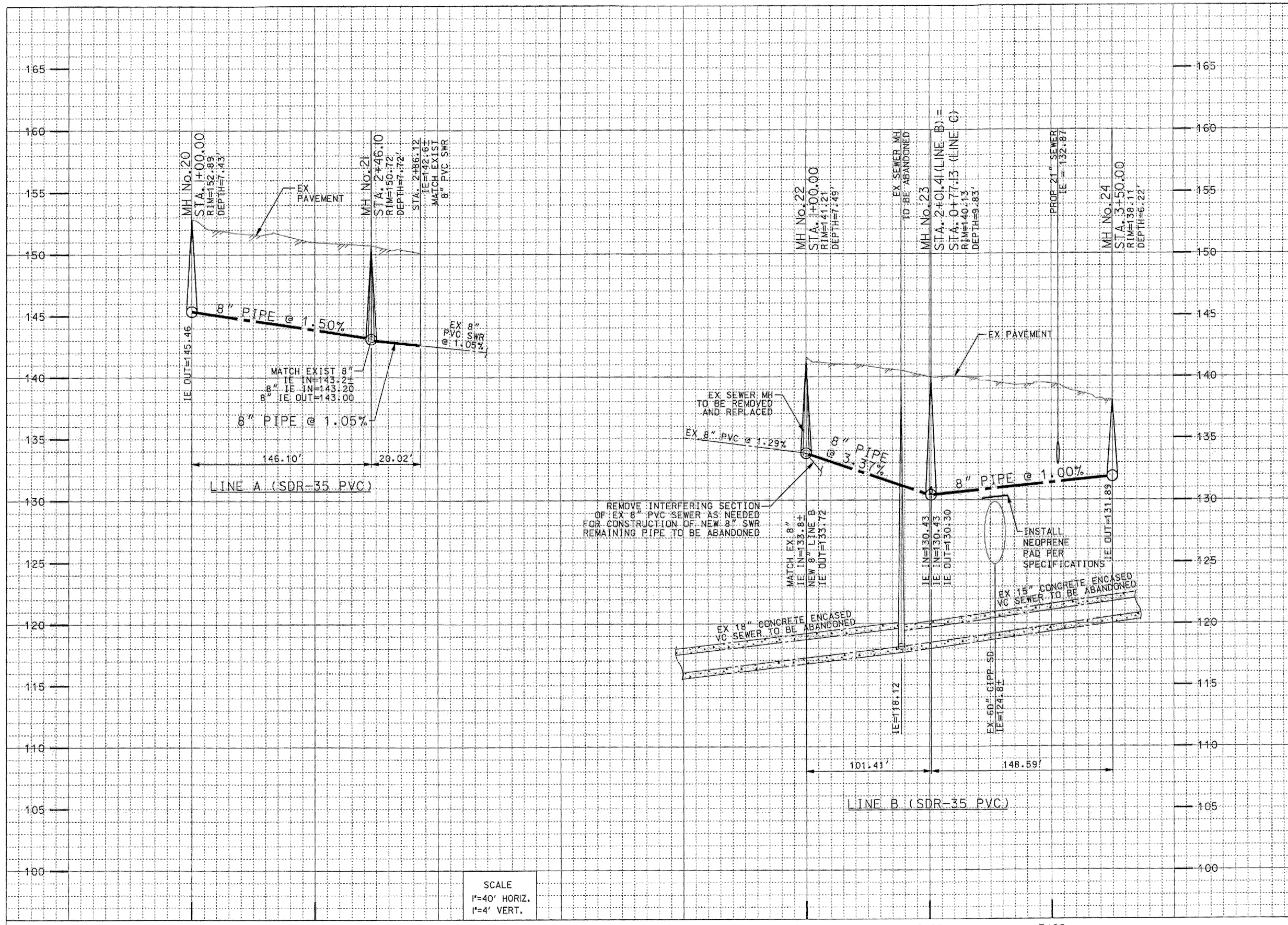
SEE DWGS C-14 AND C-15 FOR PROFILES

C-13

<b>BALBOA TERRACE TRUNK SEWER</b>			
ENLARGED PLAN			
LINE B STA 1+00 TO STA 3+50			
LINE C STA 0+77.13 TO STA 2+20			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 14 OF 38 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGGOLY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY BC	APPROVED	DATE FILED
DESIGNED BY BRIAN VITELLE PROJECT ENGINEER		234-1701	
CCS87 COORDINATE		6262407-1874444	
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
		30360-14 -D	







SEE DWG C-4 FOR LINE A PLAN

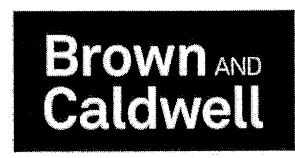
SEE DWG C-13 FOR LINE B PLAN

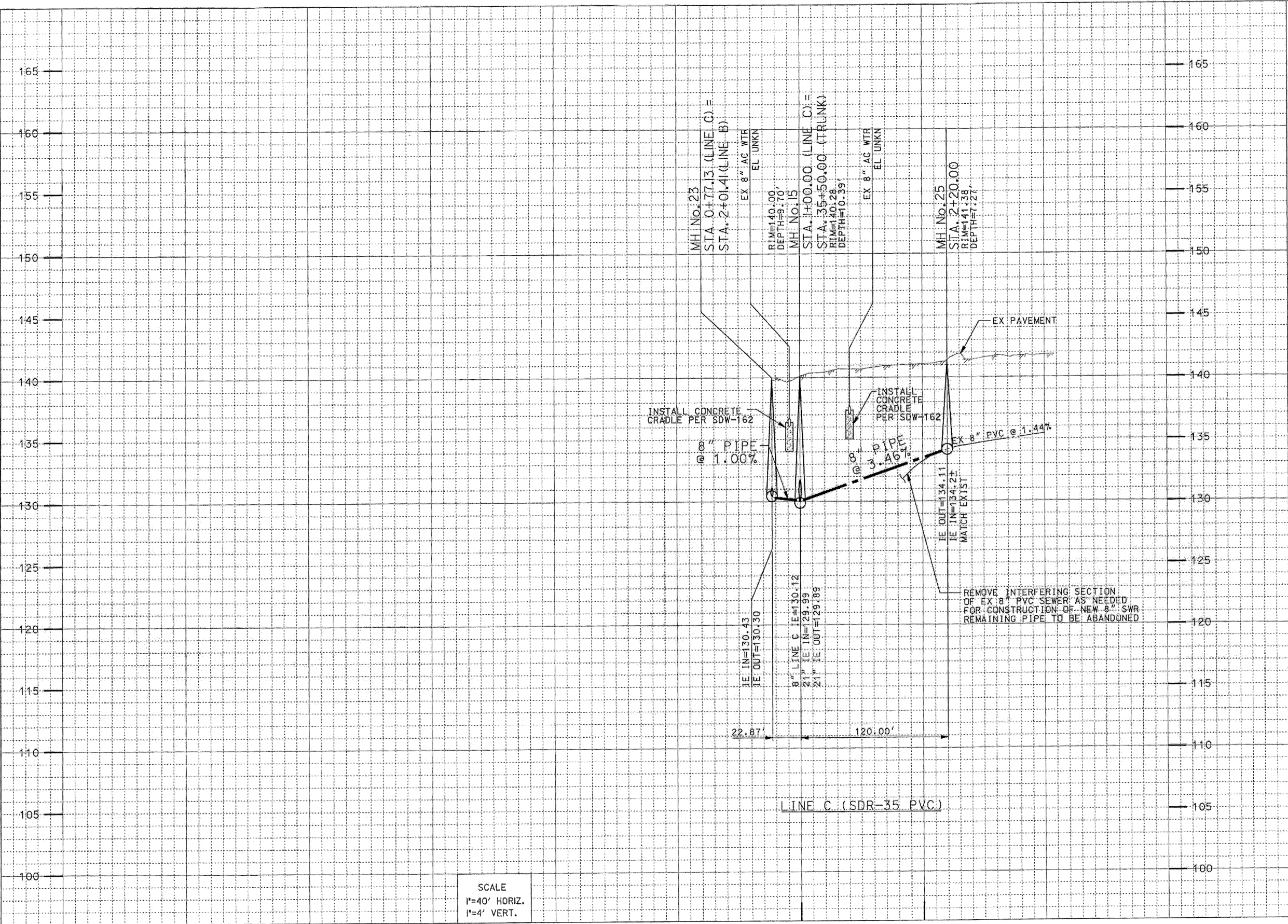
C-14

BALBOA TERRACE TRUNK SEWER

EASEMENT PROFILES  
LINE A AND LINE B

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 15 OF 37 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED BY: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: XX/XX	PROJECT ENGINEER: BRIAN VITELLE
	APPROVED DATE	234-1701 CCR27 COORDINATE
	APPROVED DATE	6262407-1874444 CCR27 COORDINATE
CONTRACTOR	DATE STARTED	30360-15-D
INSPECTOR	DATE COMPLETED	



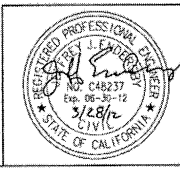


SCALE  
1"=40' HORIZ.  
1"=4' VERT.

SEE DWG C-13 FOR LINE C PLAN **C-15**

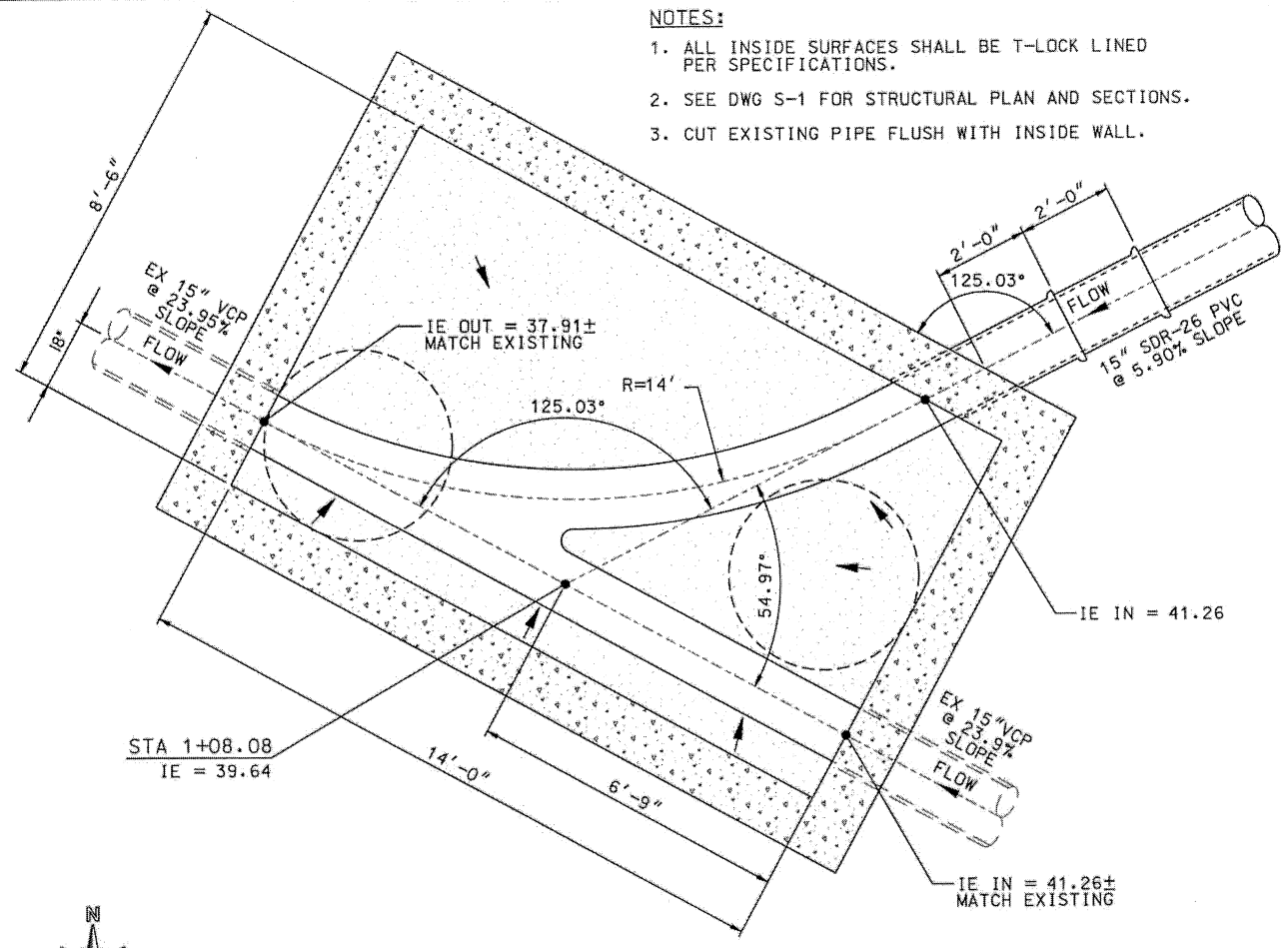
BALBOA TERRACE TRUNK SEWER  
EASEMENT PROFILE  
LINE C

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 16 OF 37 SHEETS		WATER WBS N/A
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER		SEWER WBS S-12035
DATE 2/22/12		DESIGNED BY JIM HAGGOLY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY xx/xx	DATE FILMED
DESIGNED BY BRIAN VITELLE PROJECT ENGINEER		PROJECT NO. 234-1701
CONTRACTOR		CCS27 COORDINATE 6262407-1874444
INSPECTOR		CC883 COORDINATE 30360-16 -D



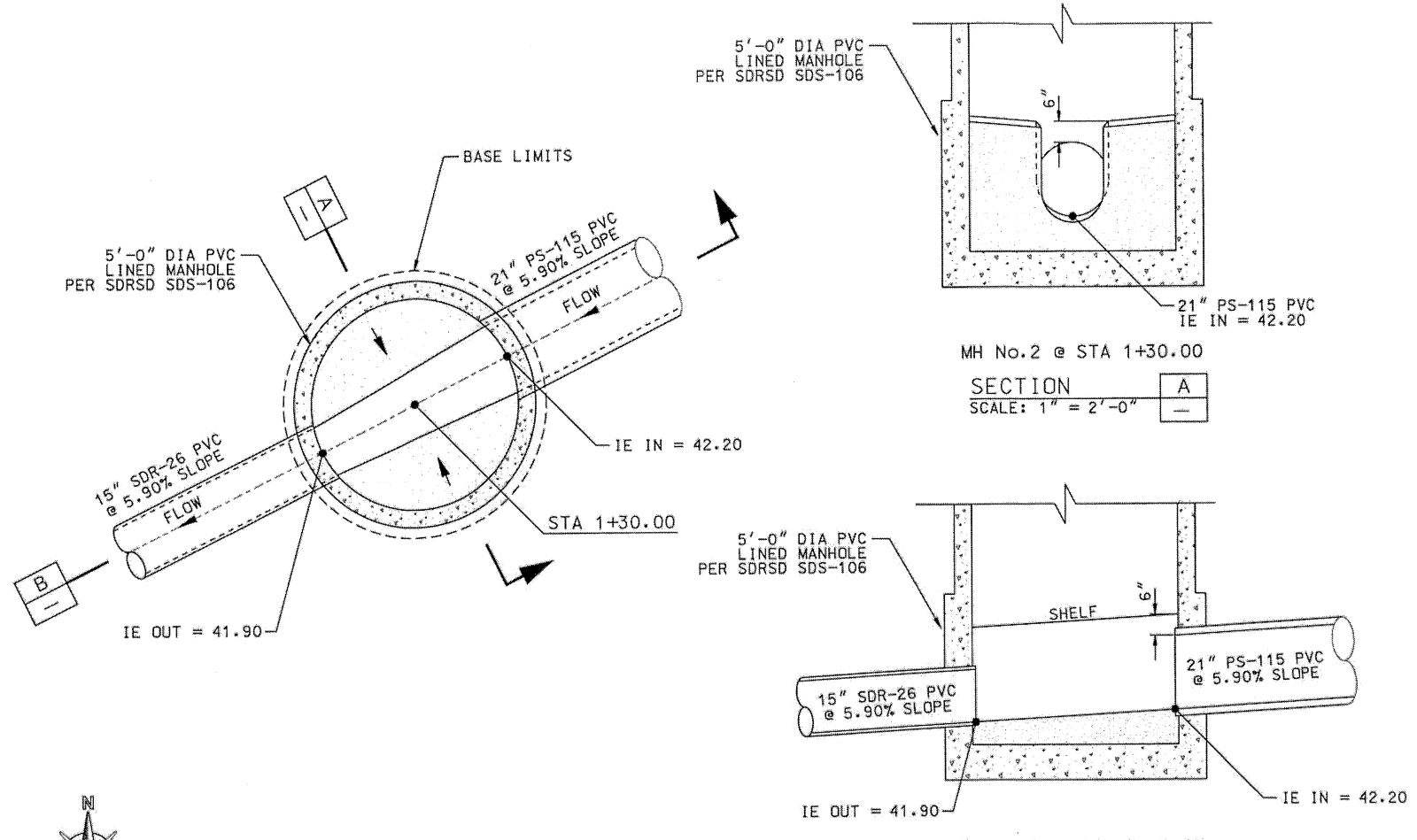
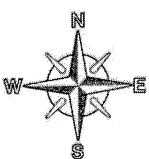


- NOTES:**
1. ALL INSIDE SURFACES SHALL BE T-LOCK LINED PER SPECIFICATIONS.
  2. SEE DWG S-1 FOR STRUCTURAL PLAN AND SECTIONS.
  3. CUT EXISTING PIPE FLUSH WITH INSIDE WALL.



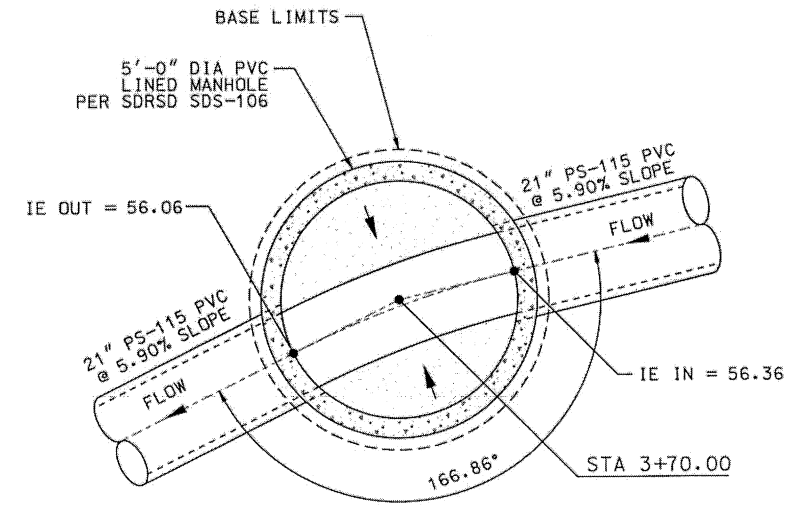
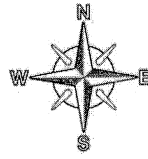
JUNCTION STRUCTURE No.1 @ STA 1+08.08

DETAIL 1  
SCALE: 1" = 2'-0" C-1



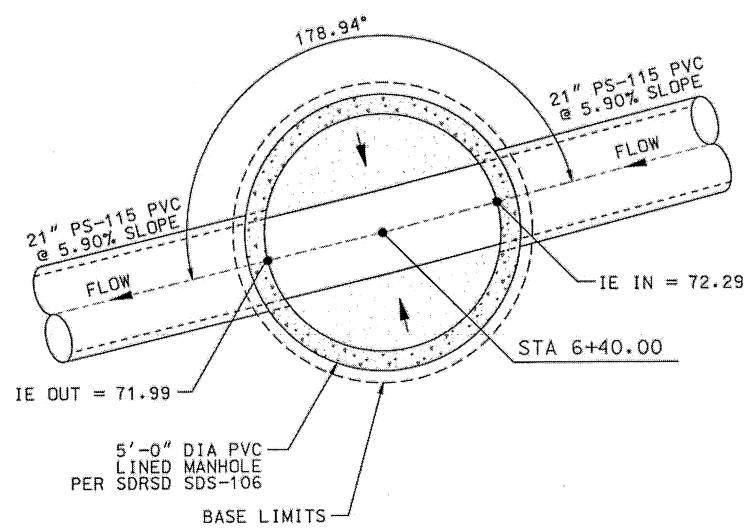
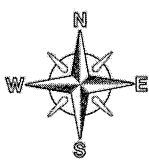
MH No.2 @ STA 1+30.00

DETAIL 2  
SCALE: 1" = 2'-0" C-1



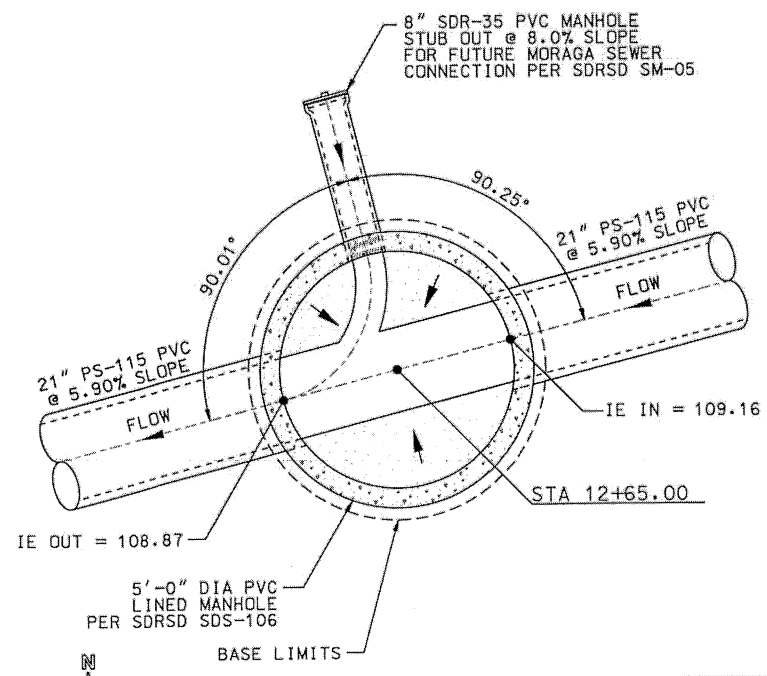
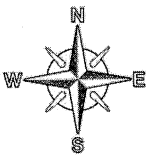
MH No.3 @ STA 3+70.00

DETAIL 3  
SCALE: 1" = 2'-0" C-1



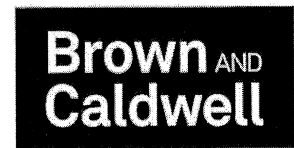
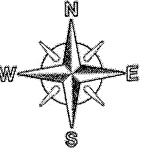
MH No.4 @ STA 6+40.00

DETAIL 4  
SCALE: 1" = 2'-0" C-1



MH No.5 @ STA 12+65.00

DETAIL 5  
SCALE: 1" = 2'-0" C-2

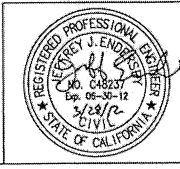


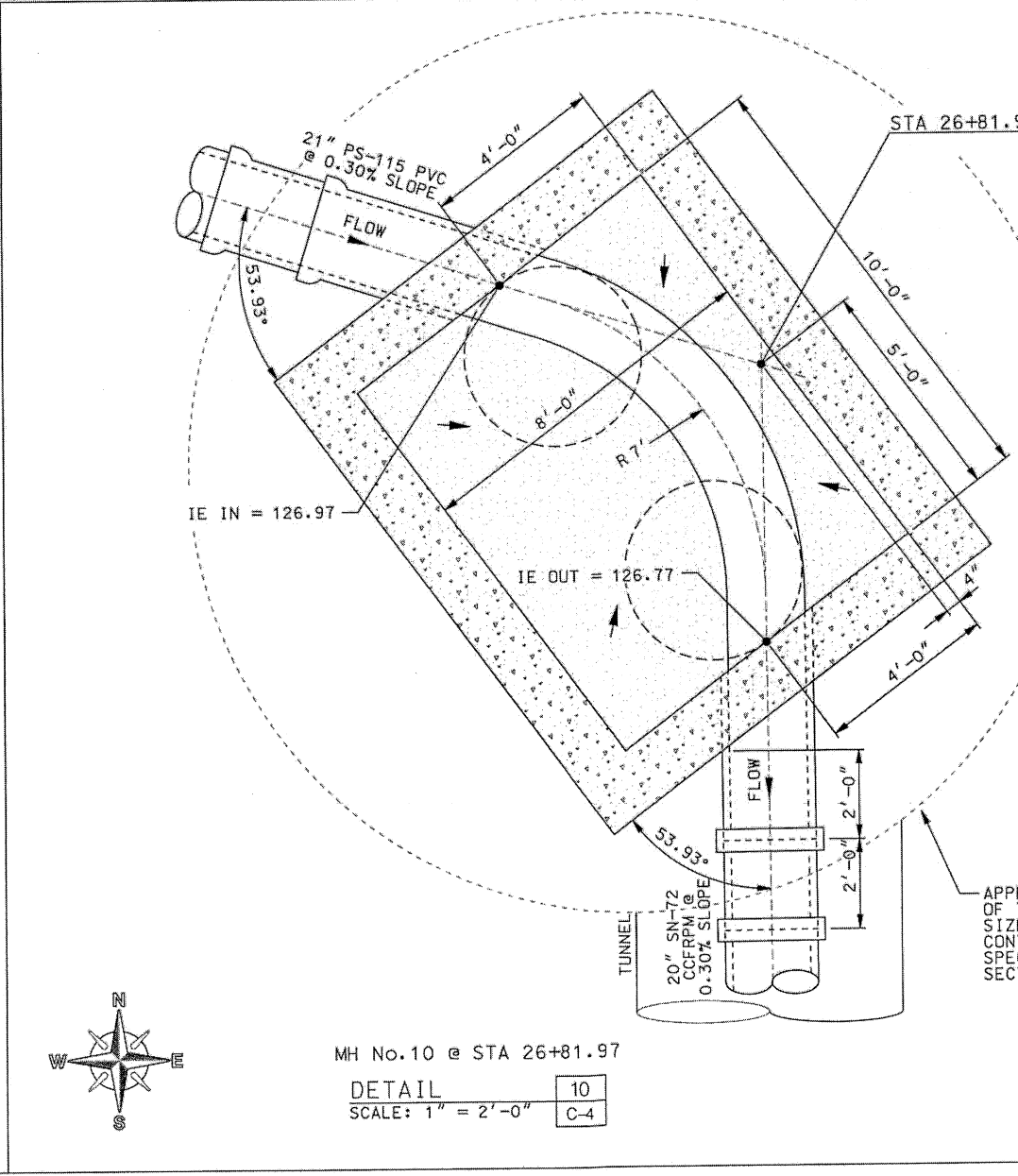
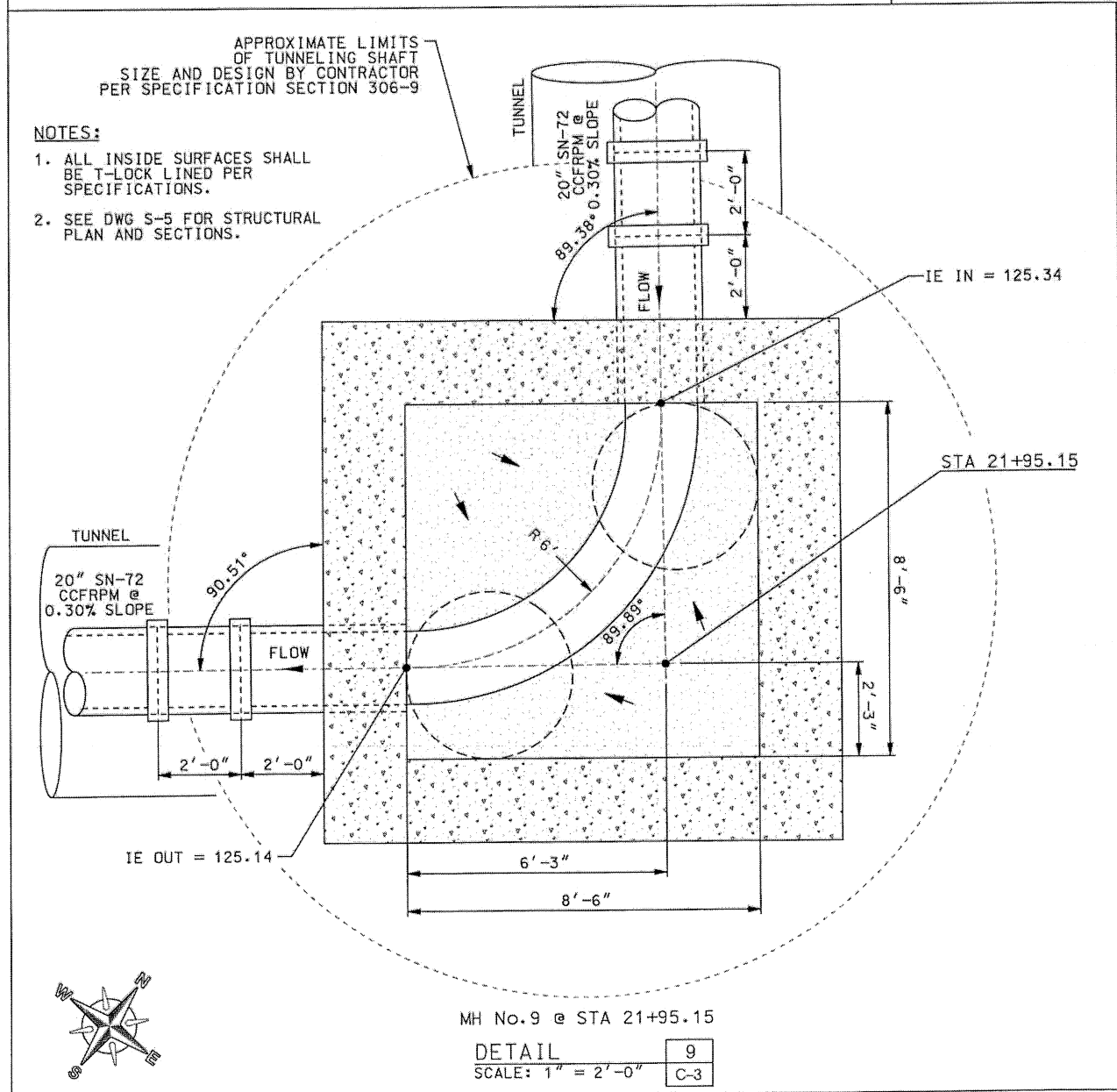
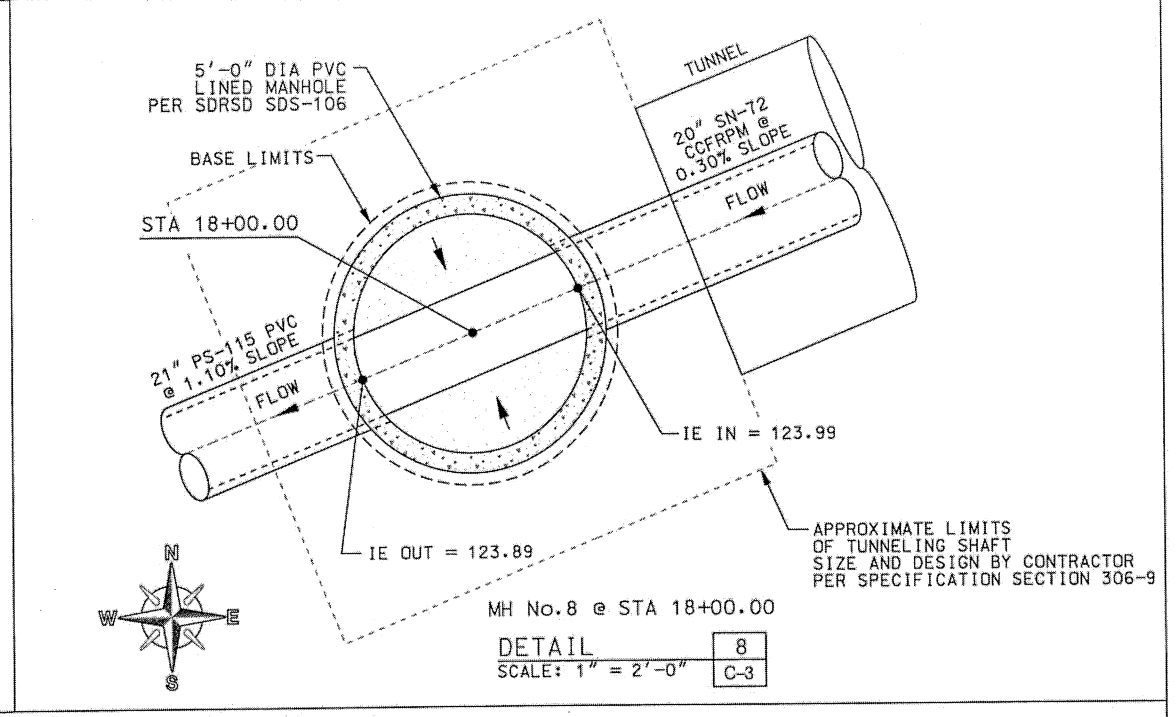
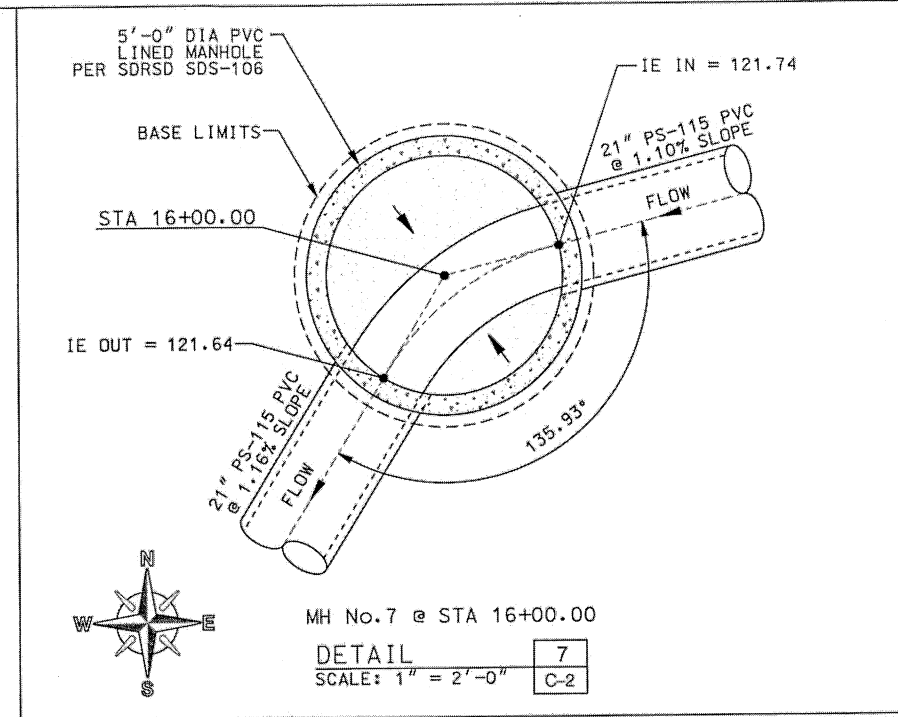
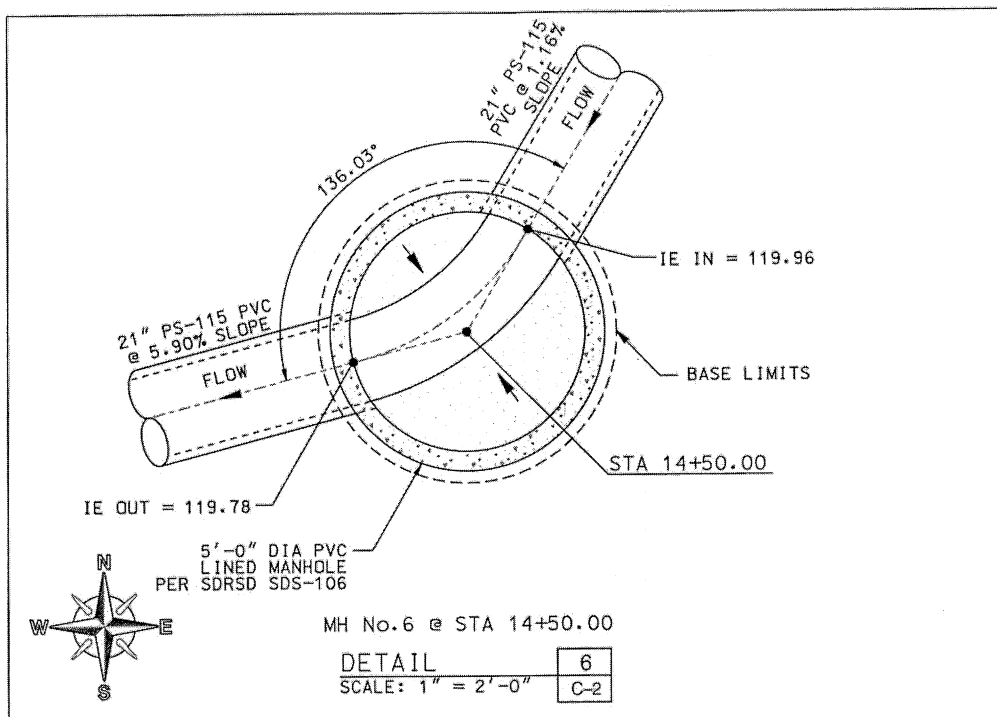
C-16

BALBOA TERRACE TRUNK SEWER

MANHOLE DETAILS 1

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 17 OF 38 SHEETS				WATER WBS N/A SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	DATE	2/22/12	SUBMITTED BY JIM HAGGOUY ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILED
ORIGINAL	BC			
CREATED BY BRIAN VITELLE PROJECT ENGINEER				234-1701 CCS27 COORDINATE
CONTRACTOR				6262407-1874444 CCS83 COORDINATE
INSPECTOR				30360-17-D





APPROXIMATE LIMITS OF TUNNELING SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9

**NOTES:**

- ALL INSIDE SURFACES SHALL BE T-LOCK LINED PER SPECIFICATIONS.
- SEE DWG S-5 FOR STRUCTURAL PLAN AND SECTIONS.

**NOTES:**

- ALL INSIDE SURFACES SHALL BE T-LOCK LINED PER SPECIFICATIONS.
- SEE DWG S-6 FOR STRUCTURAL PLAN AND SECTIONS.

**Brown and Caldwell**

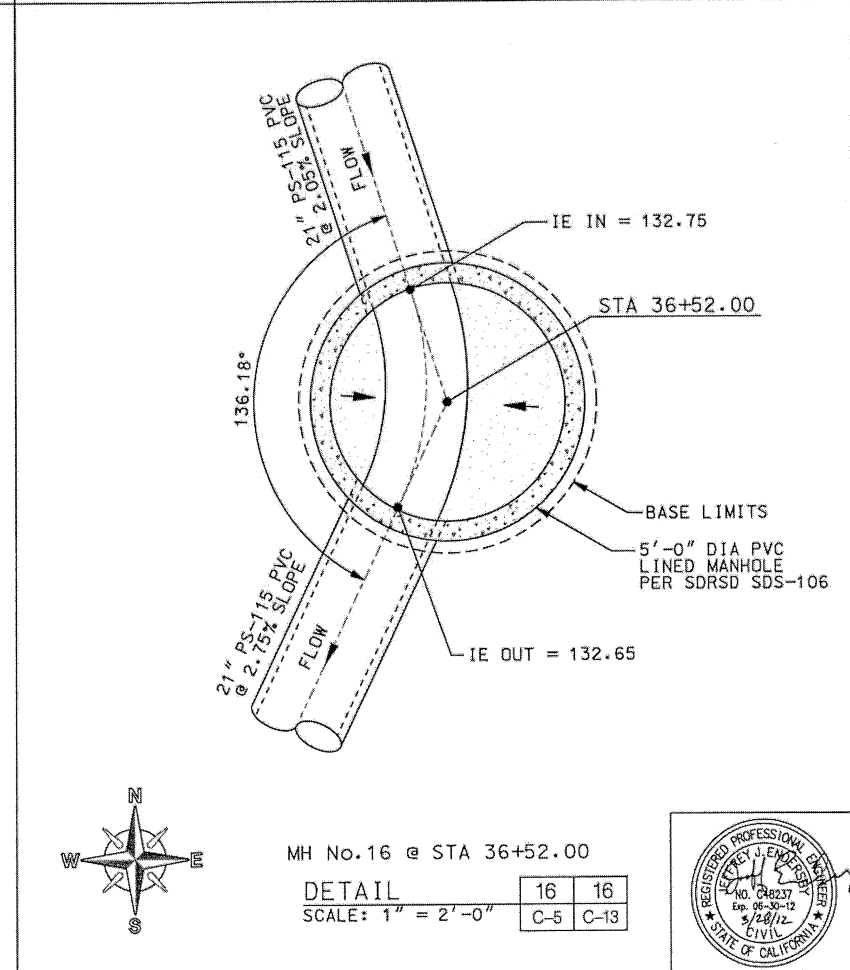
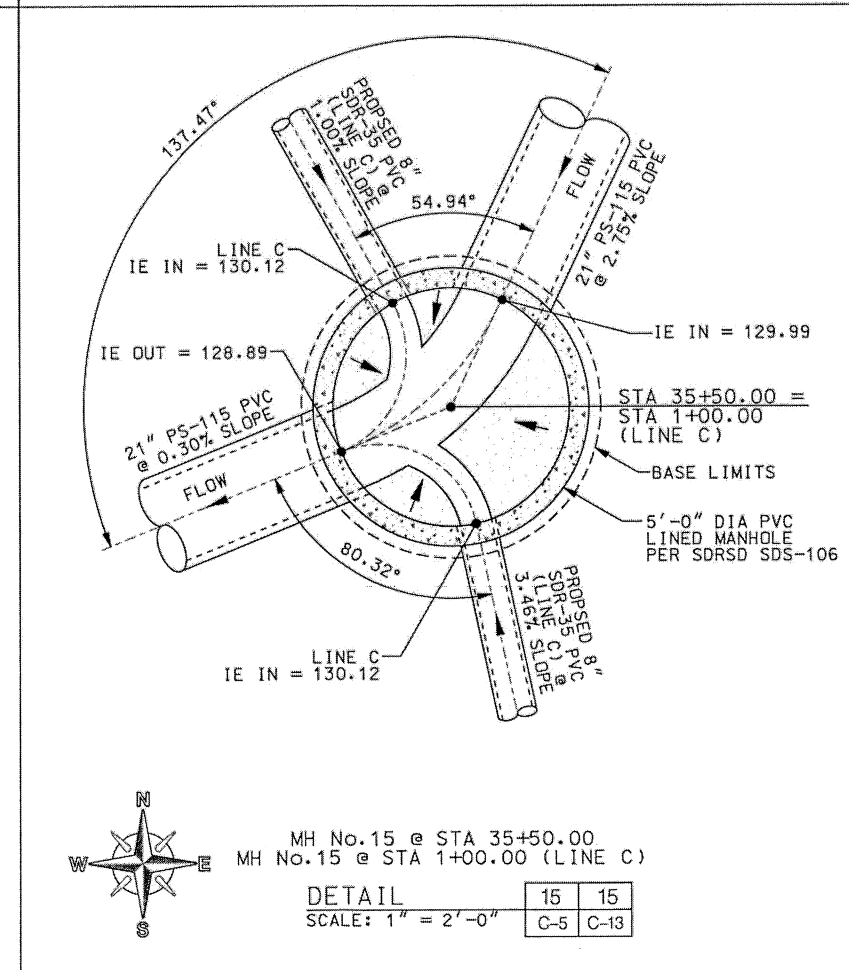
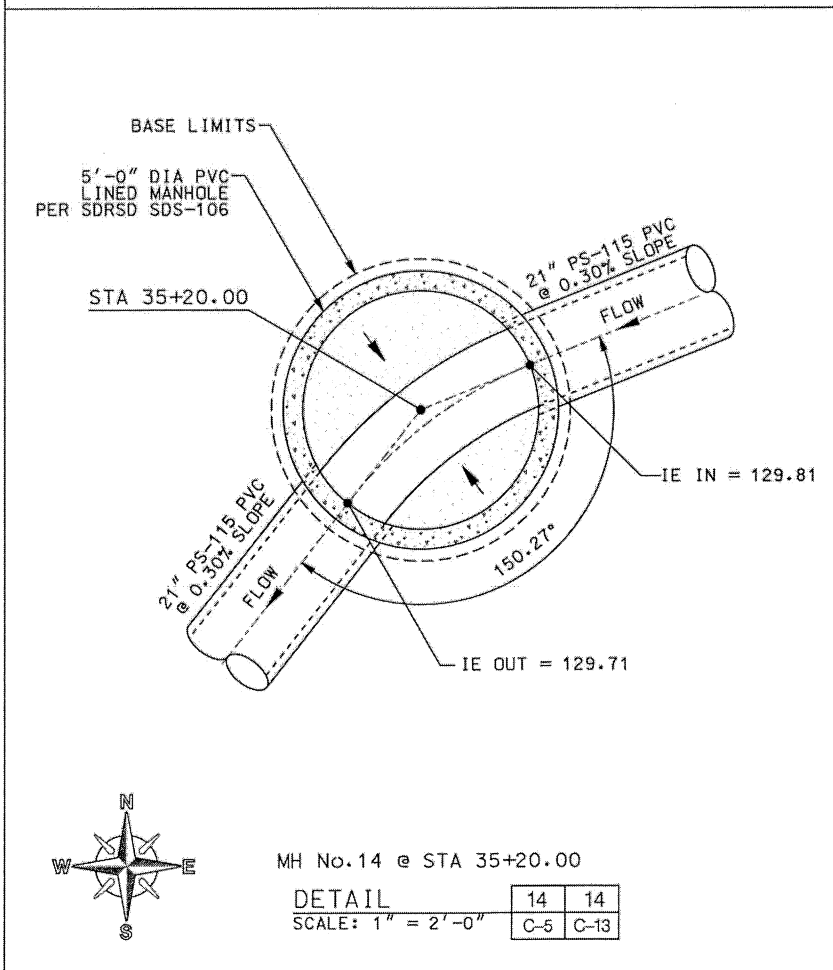
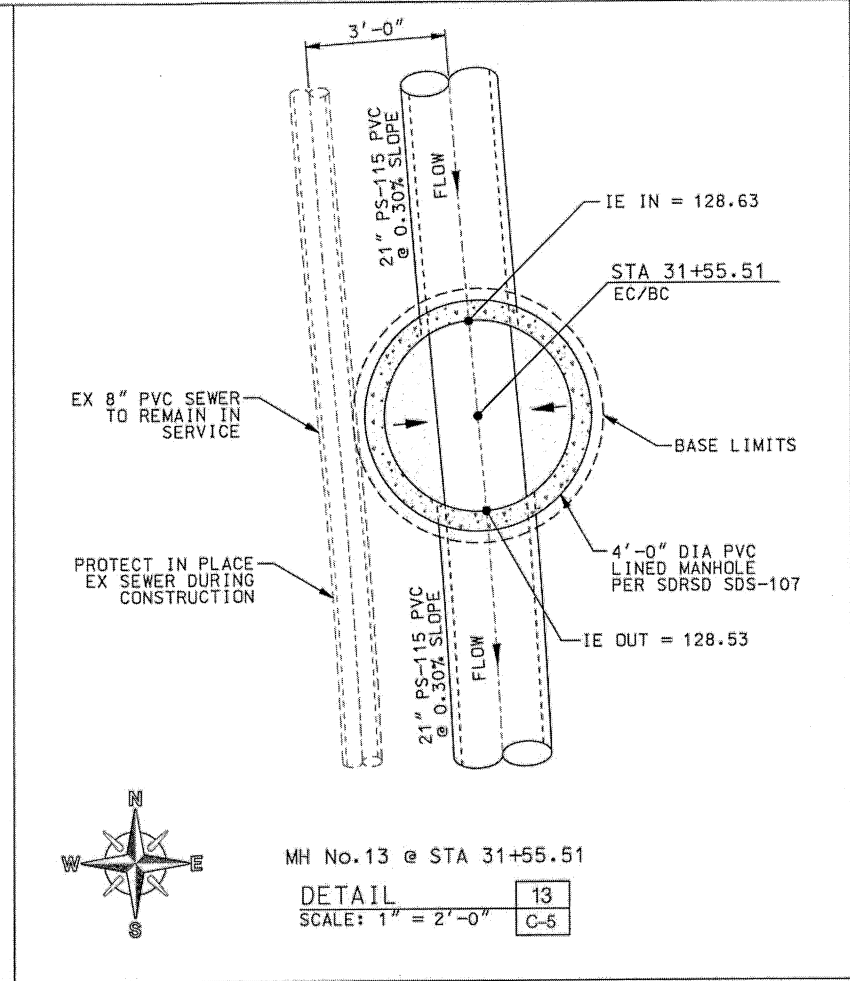
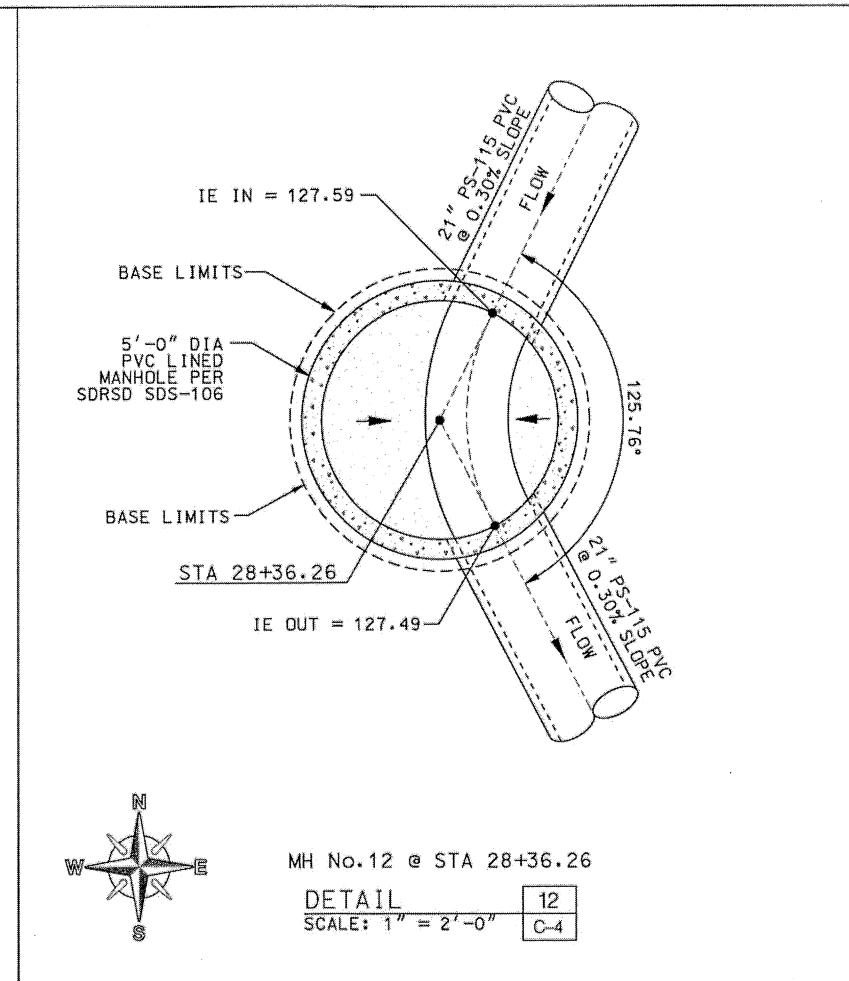
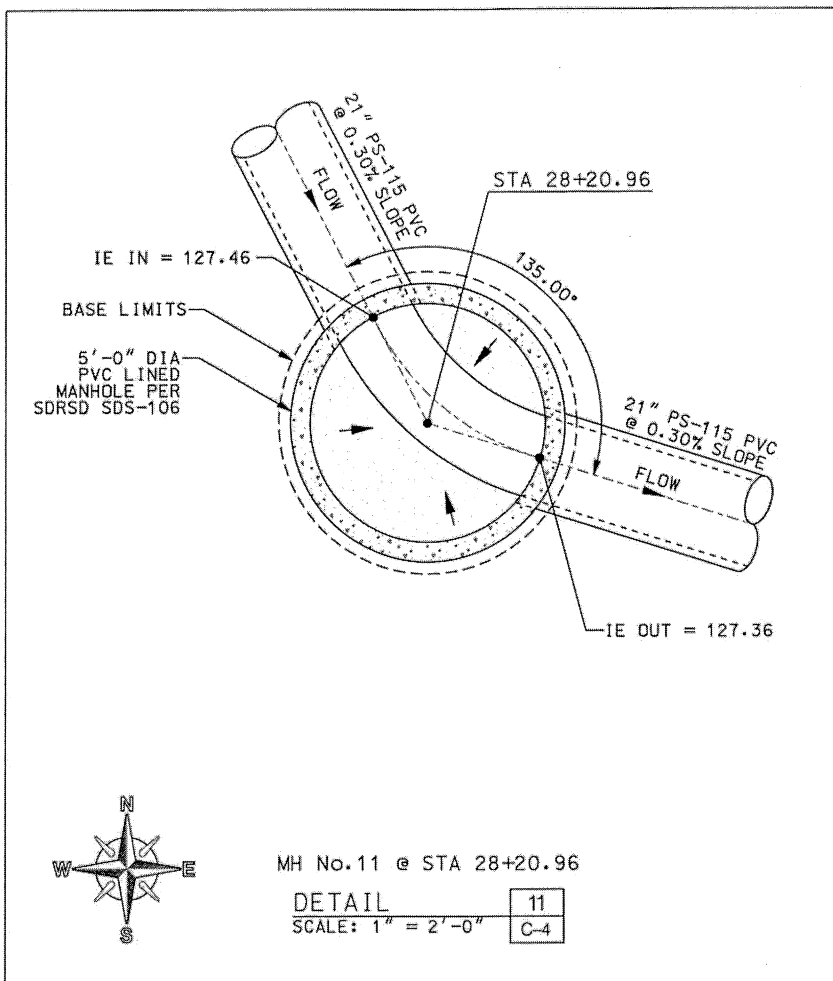
C-17

BALBOA TERRACE TRUNK SEWER  
MANHOLE DETAILS 2

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 18 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGGOLY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY BC	CHECKED BY BRIAN VITELLE PROJECT ENGINEER
	APPROVED	DATE
		FILED
		234-1701 CCS27 COORDINATE
		6262407-1874444 CCS83 COORDINATE
CONTRACTOR	DATE STARTED	30360-18-D
INSPECTOR	DATE COMPLETED	

APPROXIMATE LIMITS OF TUNNELING SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9

MANHOLE DETAILS 2

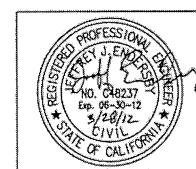


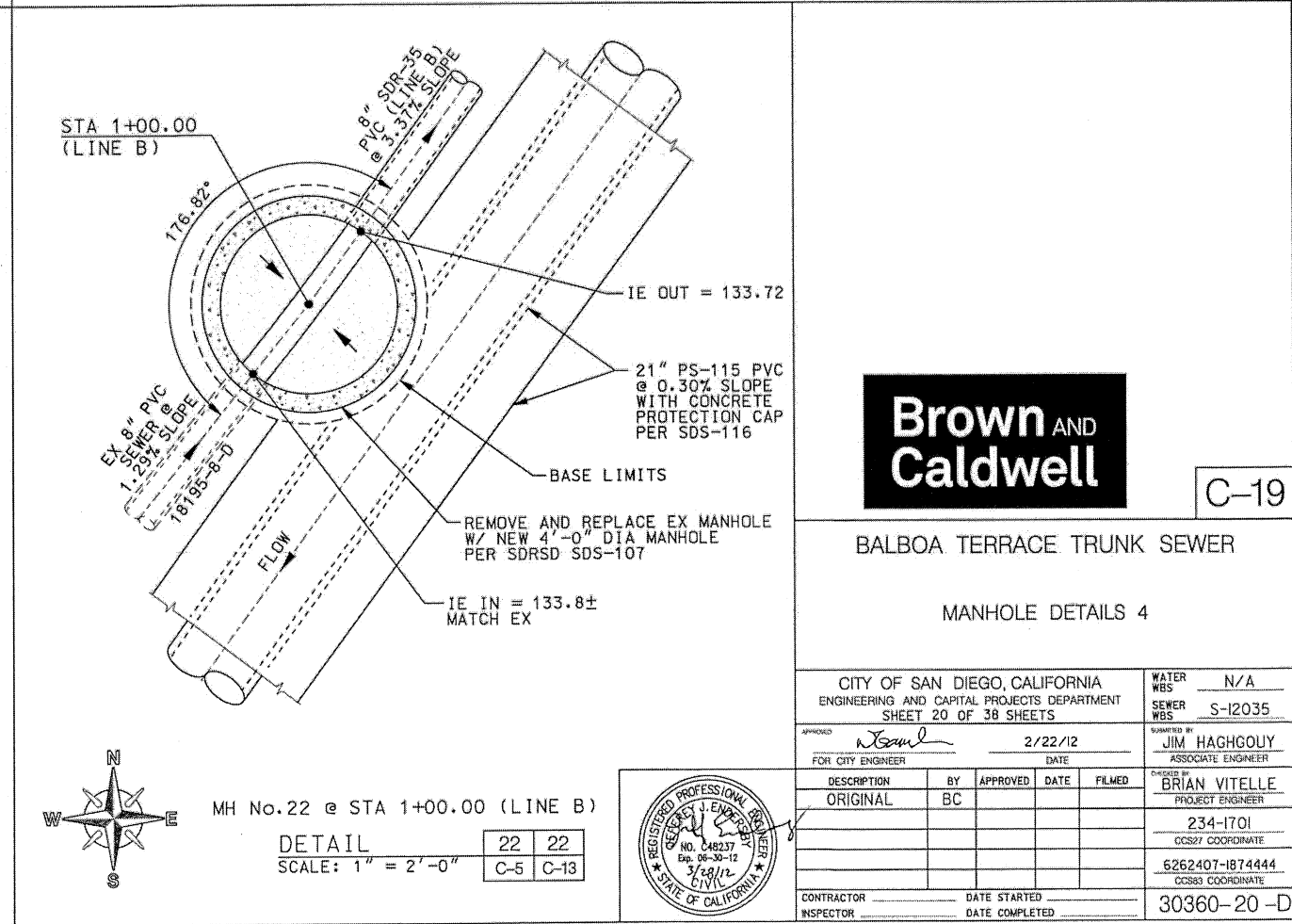
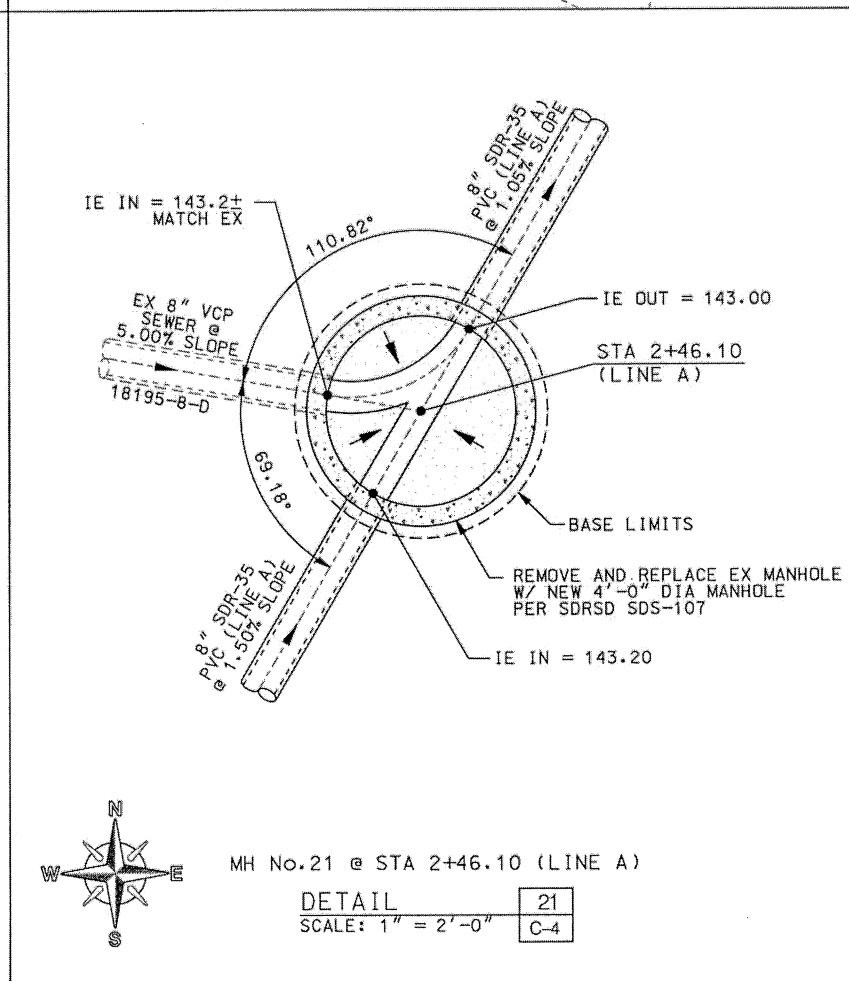
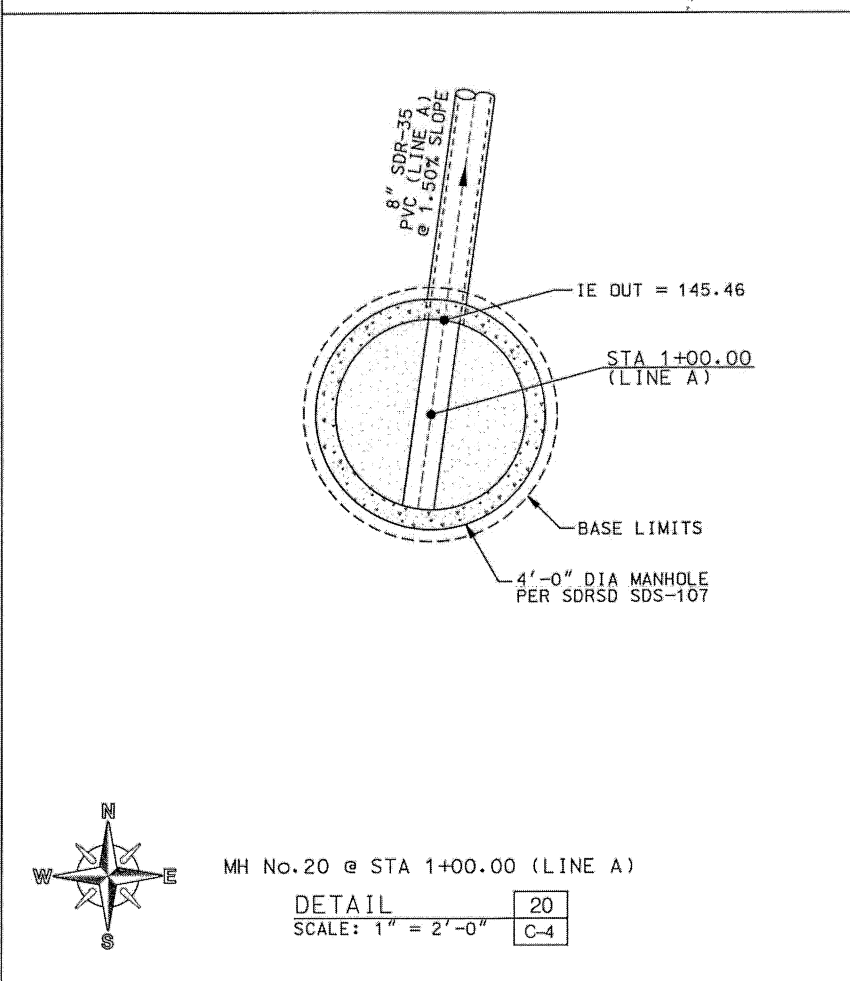
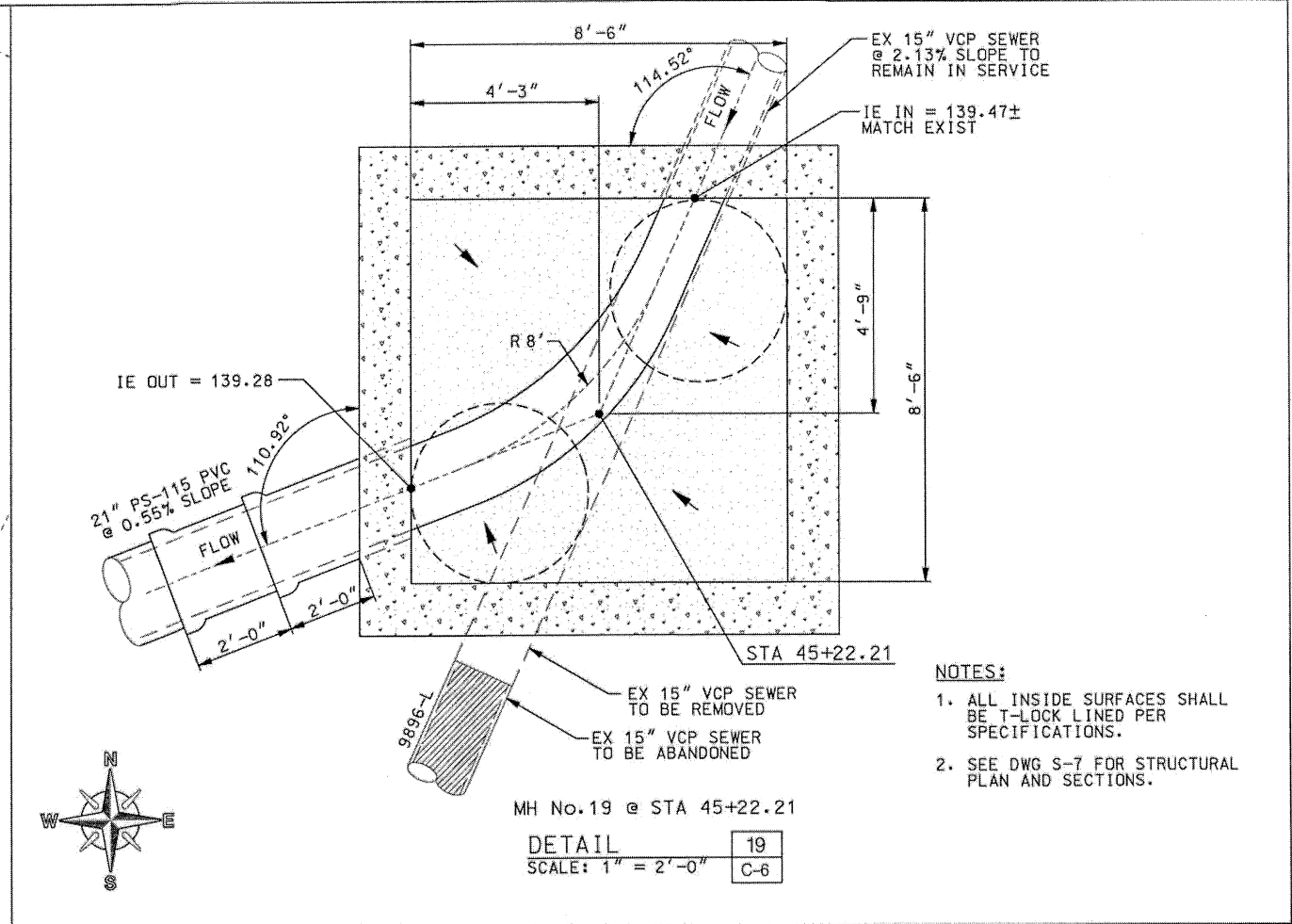
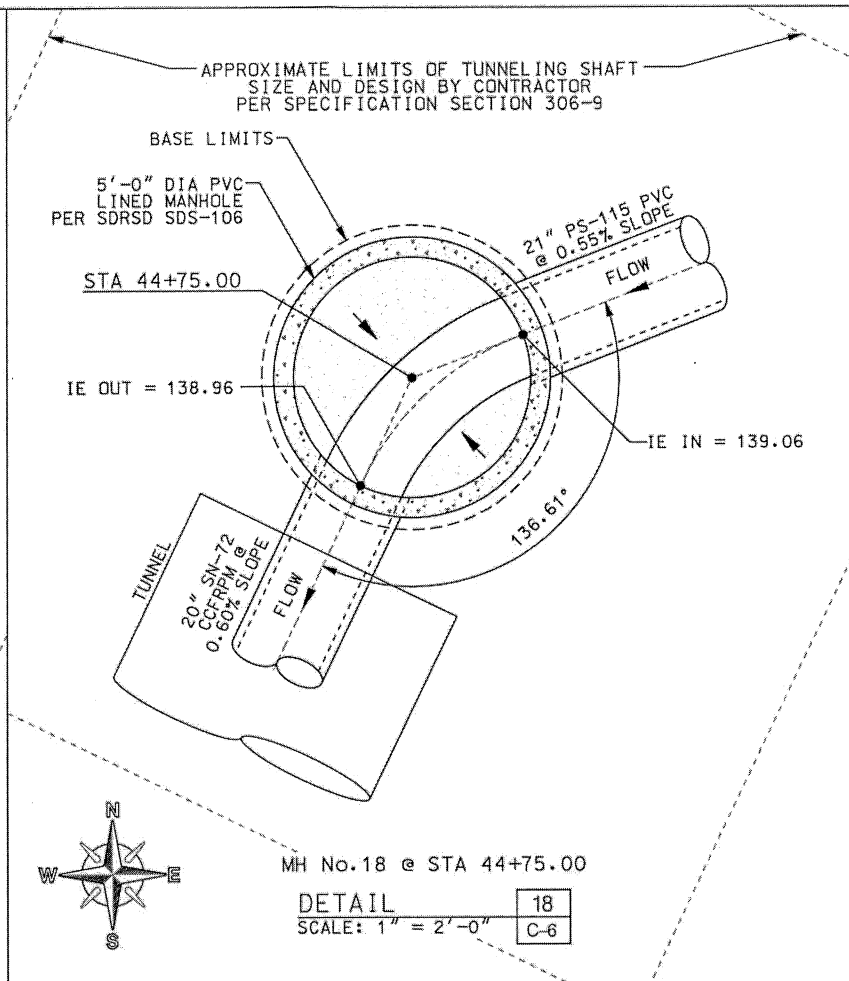
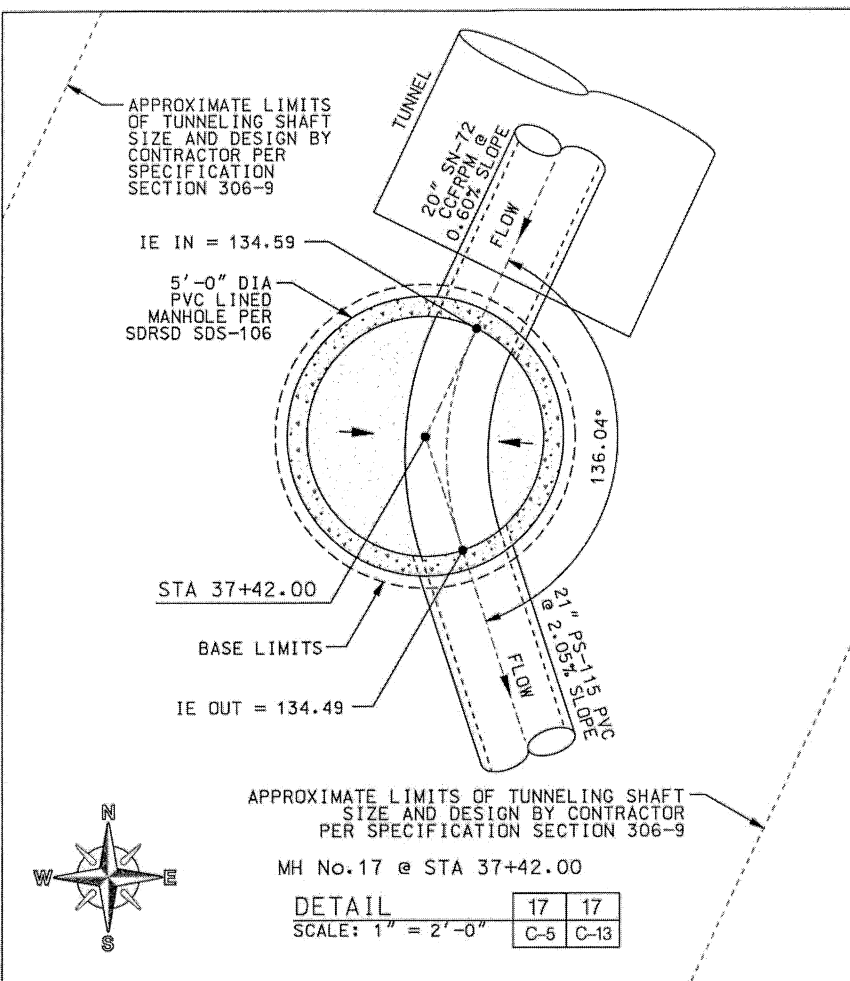
C-18

BALBOA TERRACE TRUNK SEWER

MANHOLE DETAILS 3

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 19 OF 38 SHEETS				WATER WBS N/A SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	DATE	2/22/12	SUBMITTED BY JIM HAGGOUY ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			
DESIGNED BY BRIAN VITELLE PROJECT ENGINEER				234-1701 CCS27 COORDINATE
CONTRACTOR				6262407-1874444 CCS26 COORDINATE
INSPECTOR	DATE STARTED	DATE COMPLETED	30360-19-D	





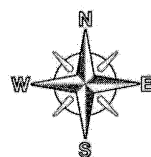
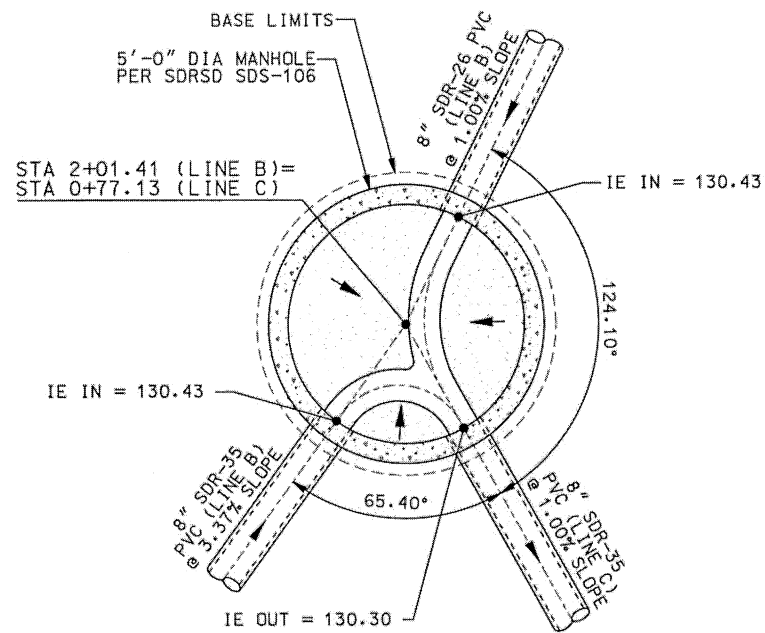
**Brown AND Caldwell**  
C-19

BALBOA TERRACE TRUNK SEWER  
MANHOLE DETAILS 4

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 20 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY BC	DATE 2/22/12
APPROVED	DATE	FILED
CREATED BY BRIAN VITELLE PROJECT ENGINEER		NO. 248237 Exp. 08-31-12 3/29/12 CIVIL
CONTRACTOR		DATE STARTED
INSPECTOR		DATE COMPLETED
		234-1701 CCS27 COORDINATE 6262407-1874444 CCS83 COORDINATE 30360-20 -D

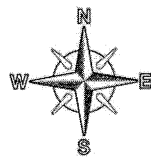
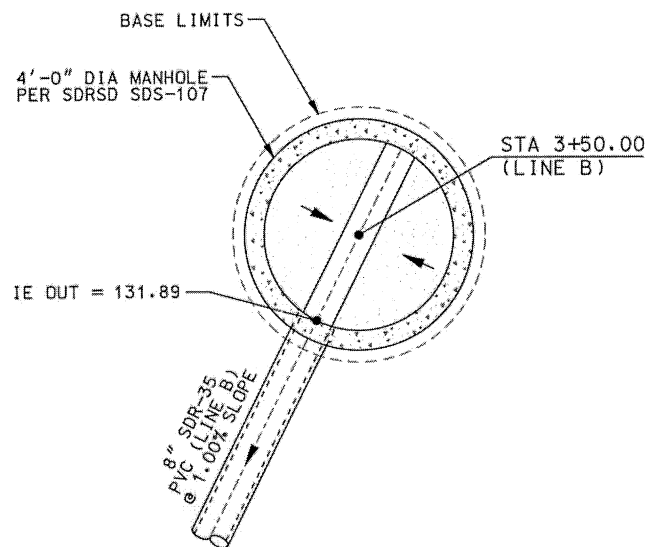
MANHOLE DETAILS 4





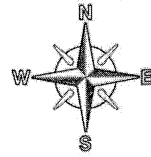
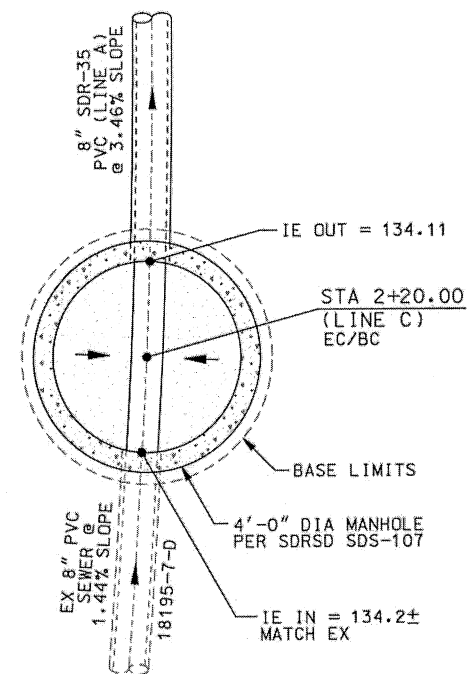
MH No. 23 @ STA 2+01.41 (LINE B)  
 MH No. 23 @ STA 0+77.13 (LINE C)

DETAIL	23	23
SCALE: 1" = 2'-0"	C-5	C-13



MH No. 24 @ STA 3+50.00 (LINE B)

DETAIL	24	24
SCALE: 1" = 2'-0"	C-5	C-13



MH No. 25 @ STA 2+20.00 (LINE C)

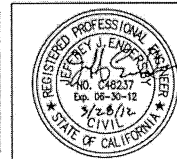
DETAIL	25	25
SCALE: 1" = 2'-0"	C-5	C-13

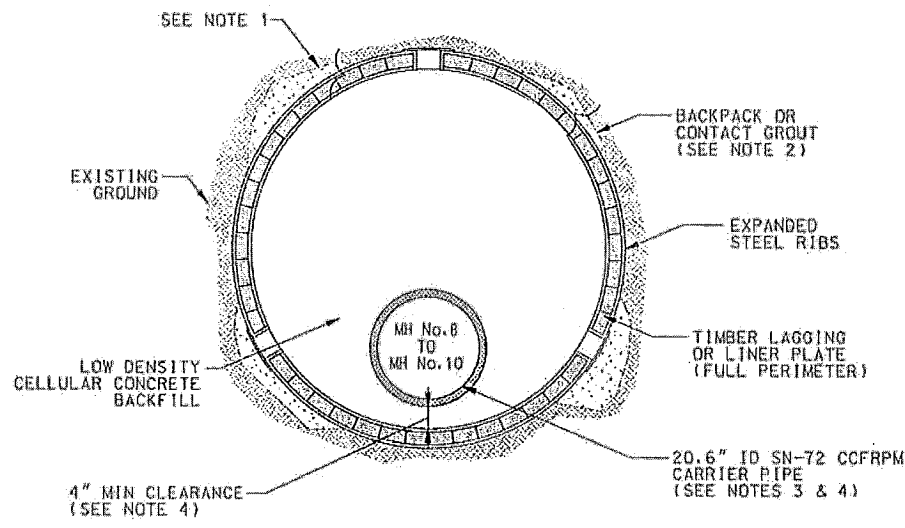
C-20

BALBOA TERRACE TRUNK SEWER

MANHOLE DETAILS 5

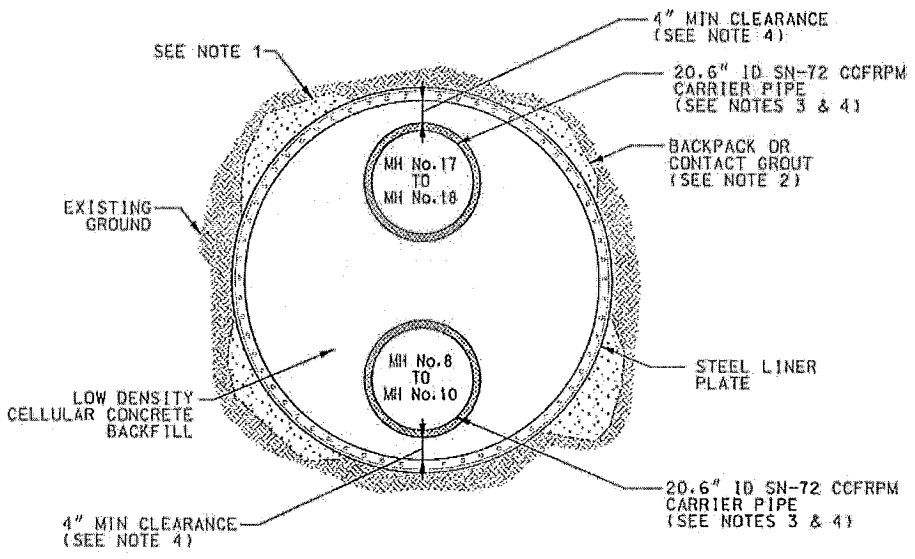
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 20 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED BY: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGGOLY ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: BC	PROJECT ENGINEER: BRIAN VITELLE
		234-1701
		CS27 COORDINATE
		6262407-1874444
		CS283 COORDINATE
CONTRACTOR: _____	DATE STARTED: _____	30360-21 -D
INSPECTOR: _____	DATE COMPLETED: _____	





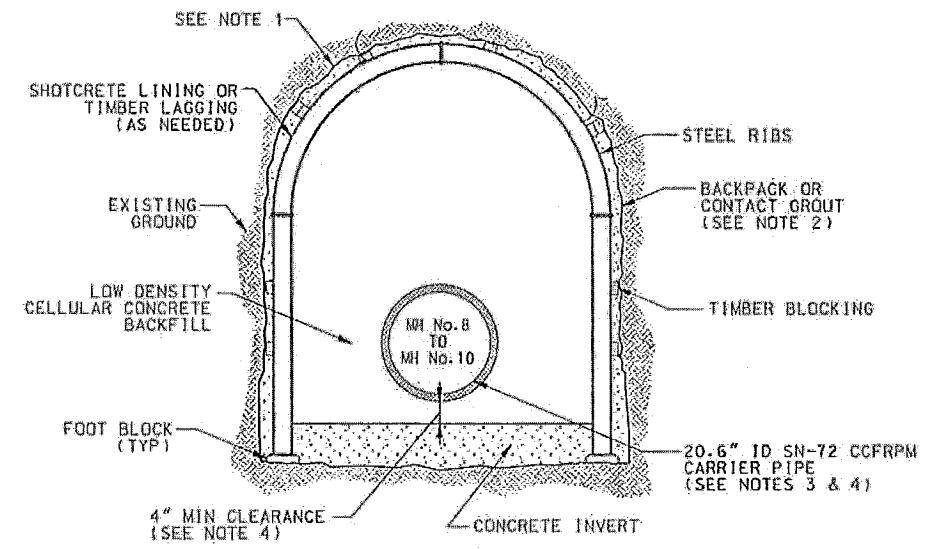
TYPICAL SECTION, STEEL RIB  
INITIAL SUPPORT ALTERNATIVE

DETAIL	1
NOT TO SCALE	VAR



TYPICAL SECTION, STEEL LINER PLATE  
INITIAL SUPPORT ALTERNATIVE

DETAIL	2
NOT TO SCALE	VAR

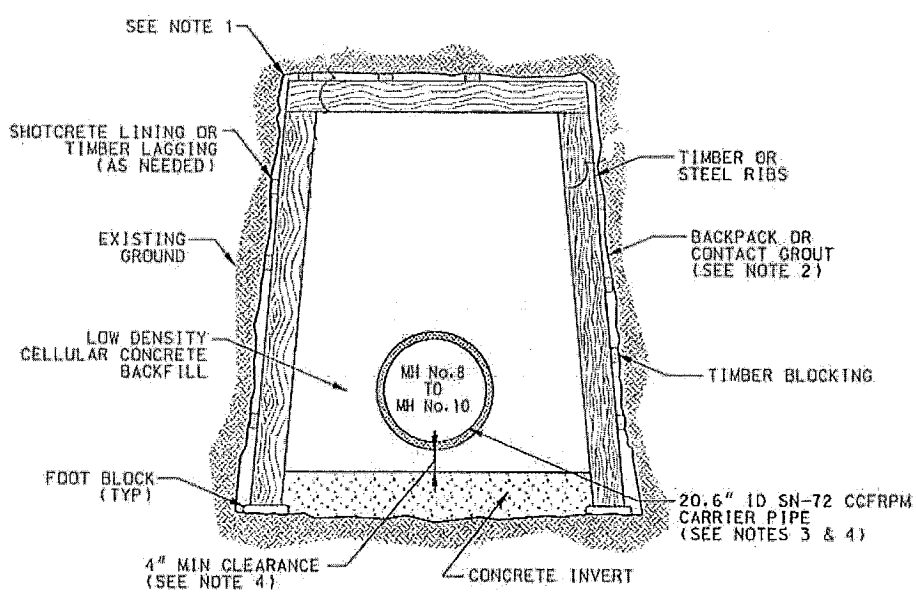


TYPICAL, MODIFIED  
HORSESHOE TUNNEL SECTION

DETAIL	3
NOT TO SCALE	VAR

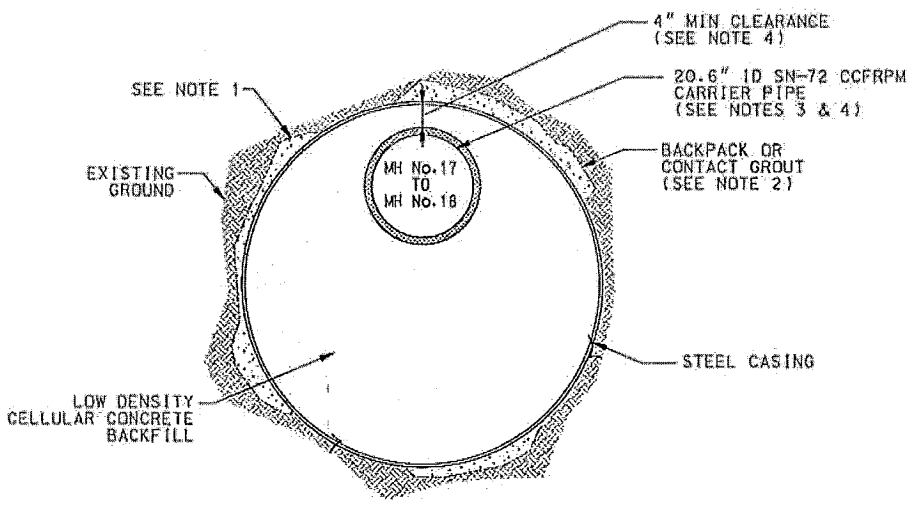
**NOTES:**

- EXCAVATED TUNNEL DIAMETER TO BE DETERMINED BY CONTRACTOR; HEIGHT OR WIDTH FOR THE INITIAL SUPPORT PROVISIONS INDICATED SHOULD NOT EXCEED 72-IN WITHOUT THE CITY'S APPROVAL. SEE SPECIFICATION SECTION 306-9.
- PLACE BACKPACK/CONTACT GROUTING BEHIND TUNNEL INITIAL SUPPORT SYSTEMS IMMEDIATELY AFTER INSTALLATION OF THE TUNNEL SUPPORT.
- PLACE CARRIER PIPE AT ALIGNMENT, ELEVATIONS AND GRADES SHOWN ON DRAWINGS. TUNNEL INVERT ELEVATION/ENVELOPE MAY BE VARIED AS DETERMINED BY CONTRACTOR SUCH THAT CARRIER PIPE IS SECURED AT TUNNEL INVERT OR THE TUNNEL CROWN. THE LOCATION OF THE PLACEMENT OF THE CARRIER PIPE SHALL BE CONSISTENT THROUGHOUT THE ENTIRE LENGTH OF THE TUNNEL.
- PROVIDE ACCEPTABLE MEANS OF SUPPORTING/SECURING THE CARRIER PIPE TO PREVENT FLOATATION DURING BACKFILLING WITH LOW DENSITY CELLULAR CONCRETE. THE LOCATION AND METHOD OF PLACING/ATTACHING/SECURING THE CARRIER PIPE WITHIN THE TUNNEL ENVELOPE SHALL BE APPROVED BY THE ENGINEER.



A-FRAME TUNNEL SECTION

DETAIL	4
NOT TO SCALE	VAR



TYPICAL SECTION, JACKED STEEL CASING  
INITIAL SUPPORT ALTERNATIVE

DETAIL	5
NOT TO SCALE	VAR

C-21

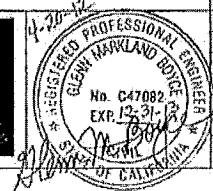
BALBOA TERRACE TRUNK SEWER

TUNNELING DETAILS 1

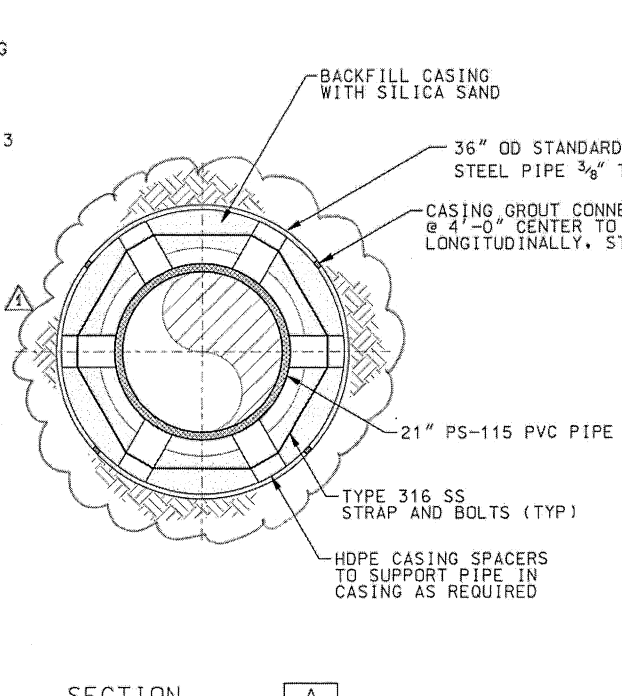
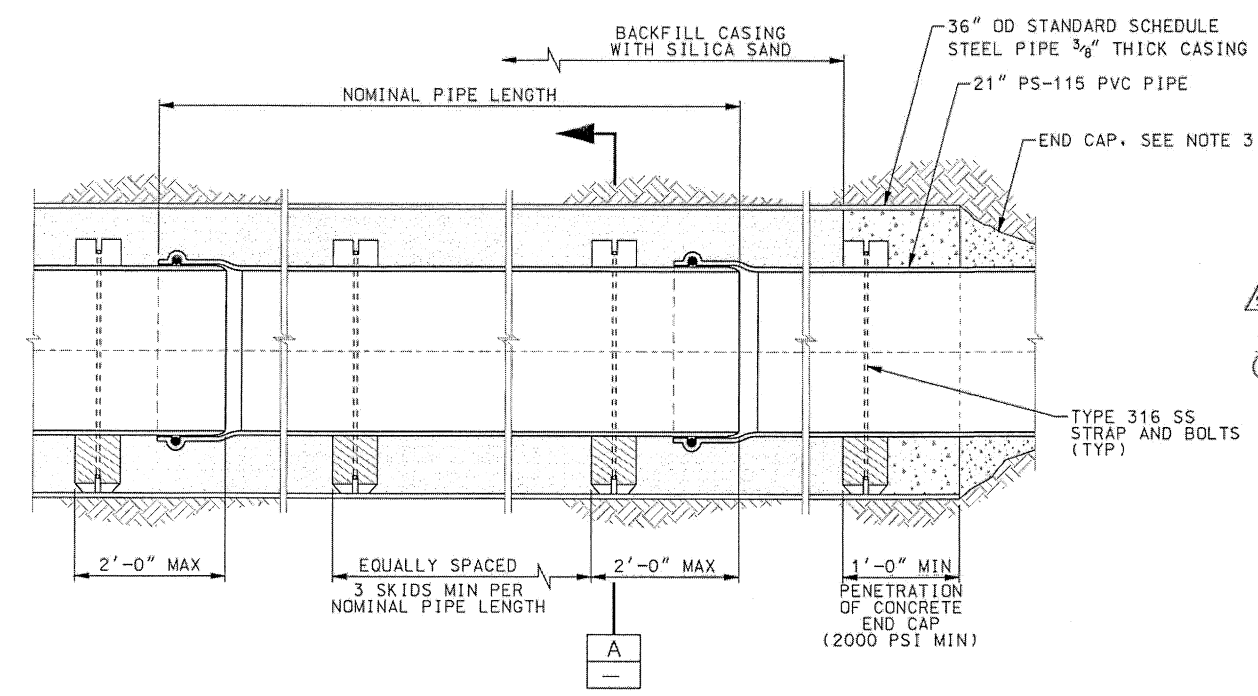
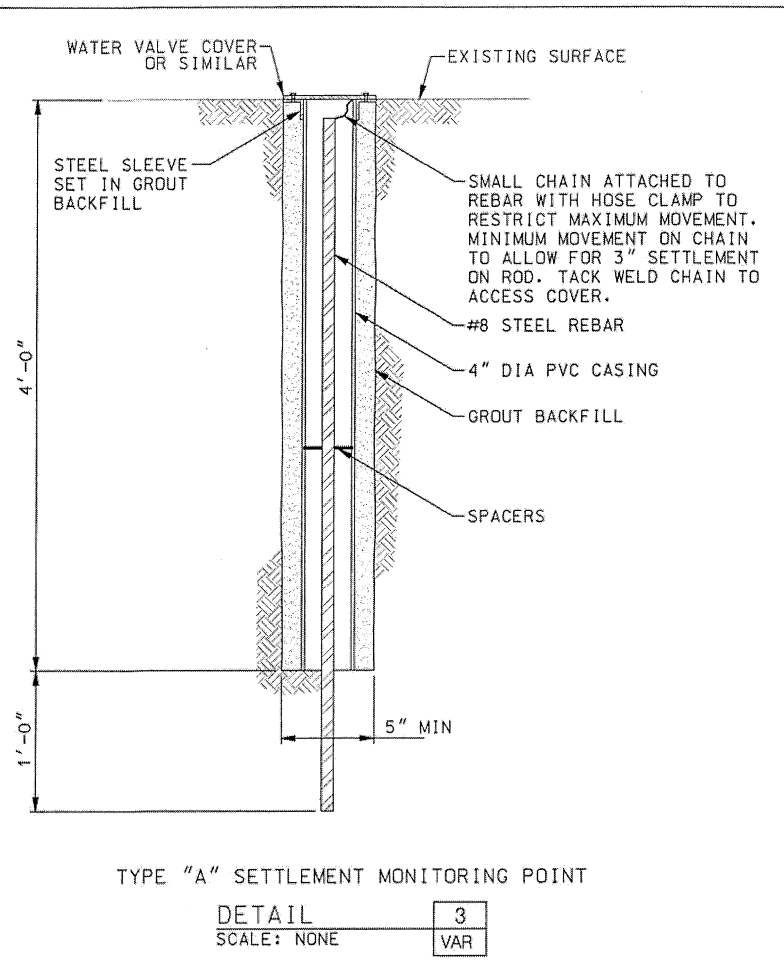
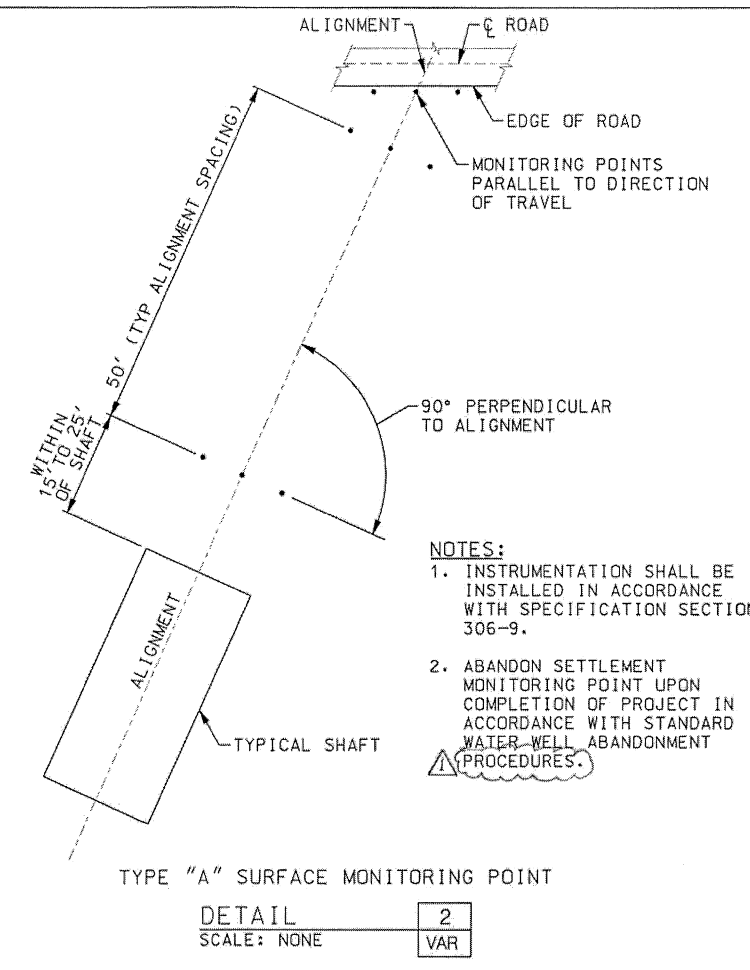
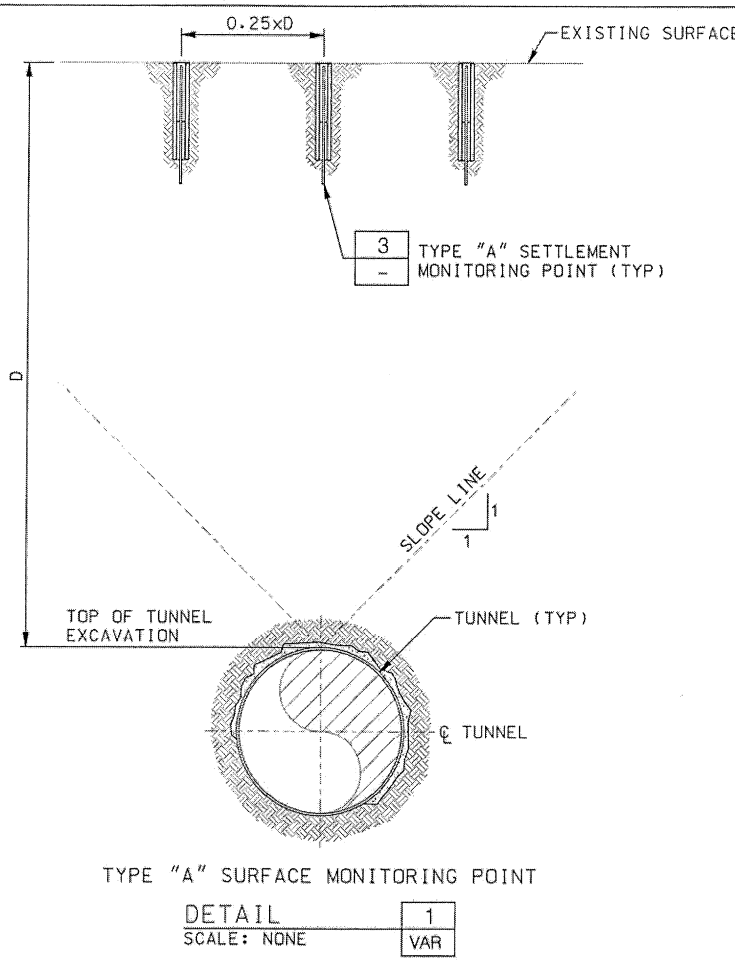
**JACOBS ASSOCIATES**

Engineers/Consultants

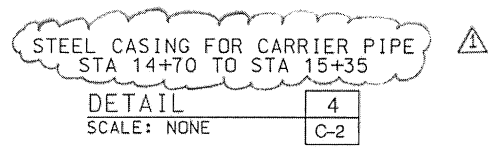
**Brown and Caldwell**



CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 22 OF 36 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED BY <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	DESIGNED BY JIM HACHGOLEY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY BC	PROJECT ENGINEER BRIAN VITELLE 234-1701 CES27 COORDINATOR 6262407-1874444 CES83 COORDINATOR
DATE STARTED	DATE COMPLETED	30360-22 -D



- NOTES:
1. CASING SHALL BE STEEL PIPE.
  2. CARRIER PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
  3. CONCRETE END CAP.
  4. SKIDS SHALL BE SPACED AT 9'-0" MAXIMUM.
  5. CASING PIPE TO BE SUPPLIED IN NOMINAL CONTINUOUS 20-FOOT LENGTHS. JOINTS TO BE SINGLE WELDED, FULL CIRCUMFERENCE. DEVIATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE.



C-22

BALBOA TERRACE TRUNK SEWER

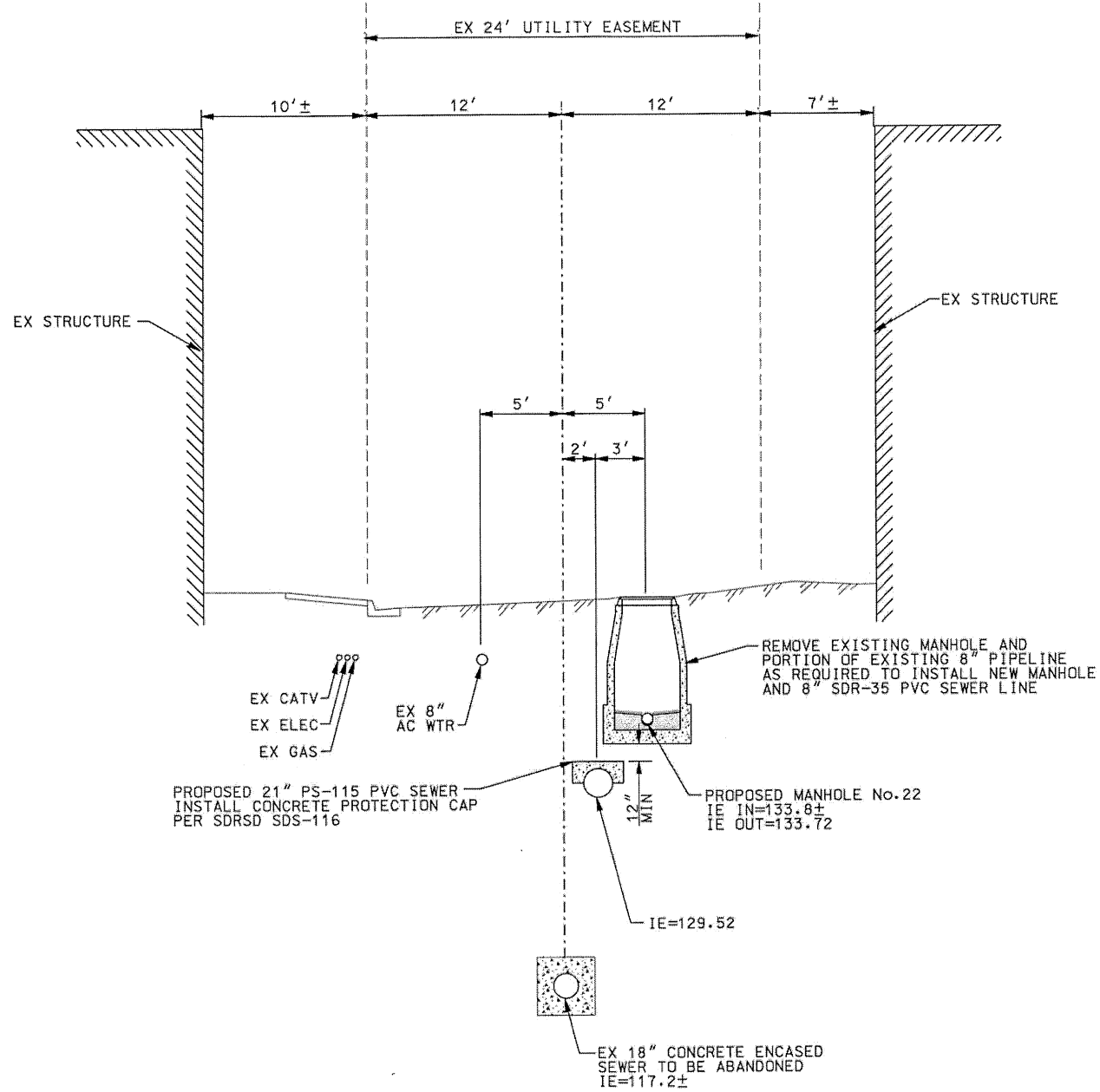
TUNNELING DETAILS 2

**JACOBS ASSOCIATES**  
Engineers/Consultants

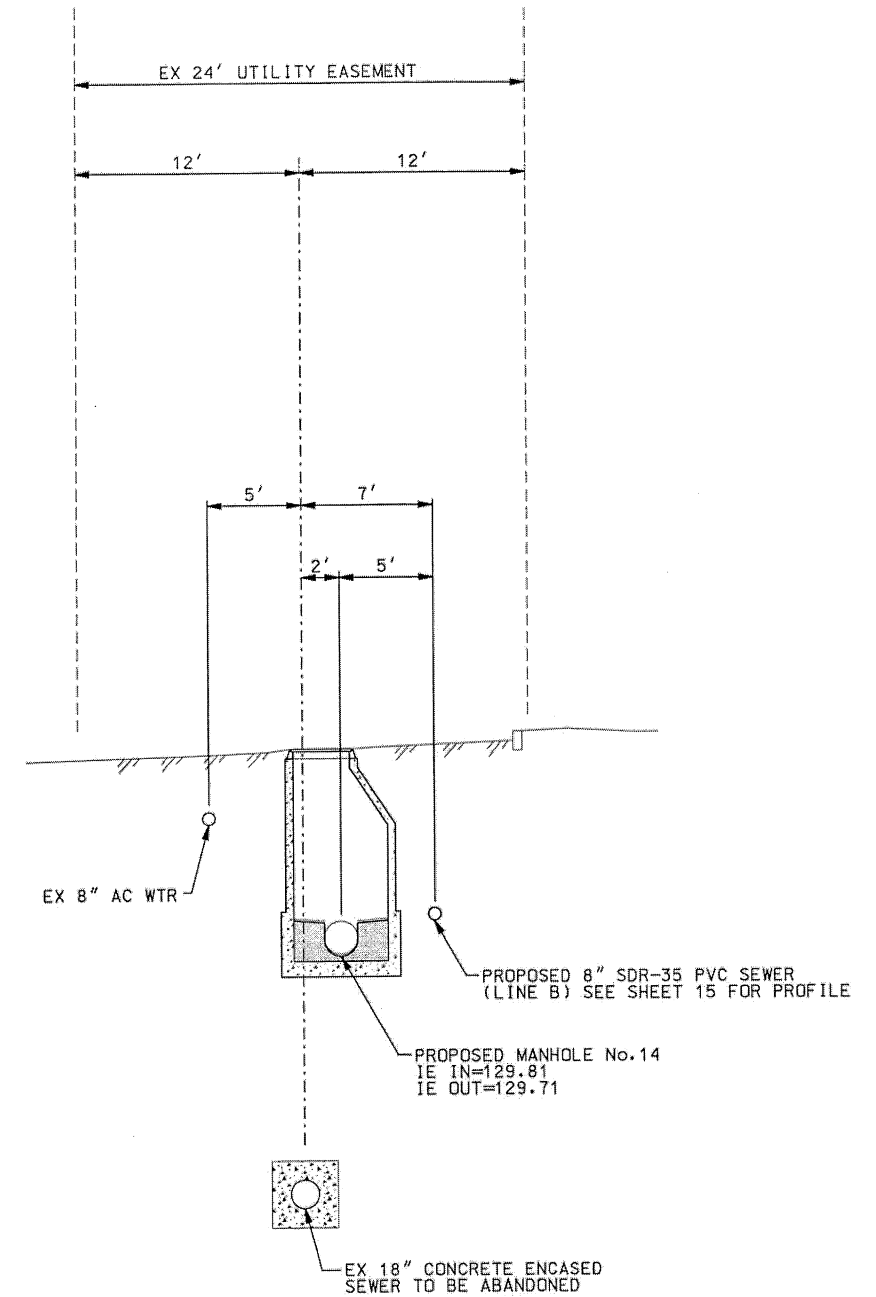
**Brown and Caldwell**

REGISTERED PROFESSIONAL ENGINEER  
EILEEN MARKLAND BRUCE  
No. C47082  
EXP. 12-31-13  
CIVIL  
STATE OF CALIFORNIA

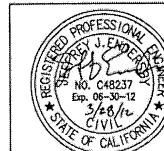
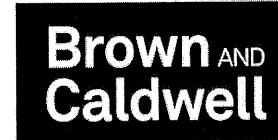
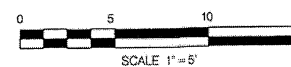
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 23 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	DATE 2/22/12	DESIGNED BY JIM HAGGOLY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY BC	DATE 4/10/12
APPENDUM	BY JA	DATE
ORDERED BY BRIAN VITELLE PROJECT ENGINEER		234-1701 CCS27 COORDINATE
CONTRACTOR		6262407-1874444 CCS83 COORDINATE
INSPECTOR	DATE STARTED	30360-23-D
	DATE COMPLETED	



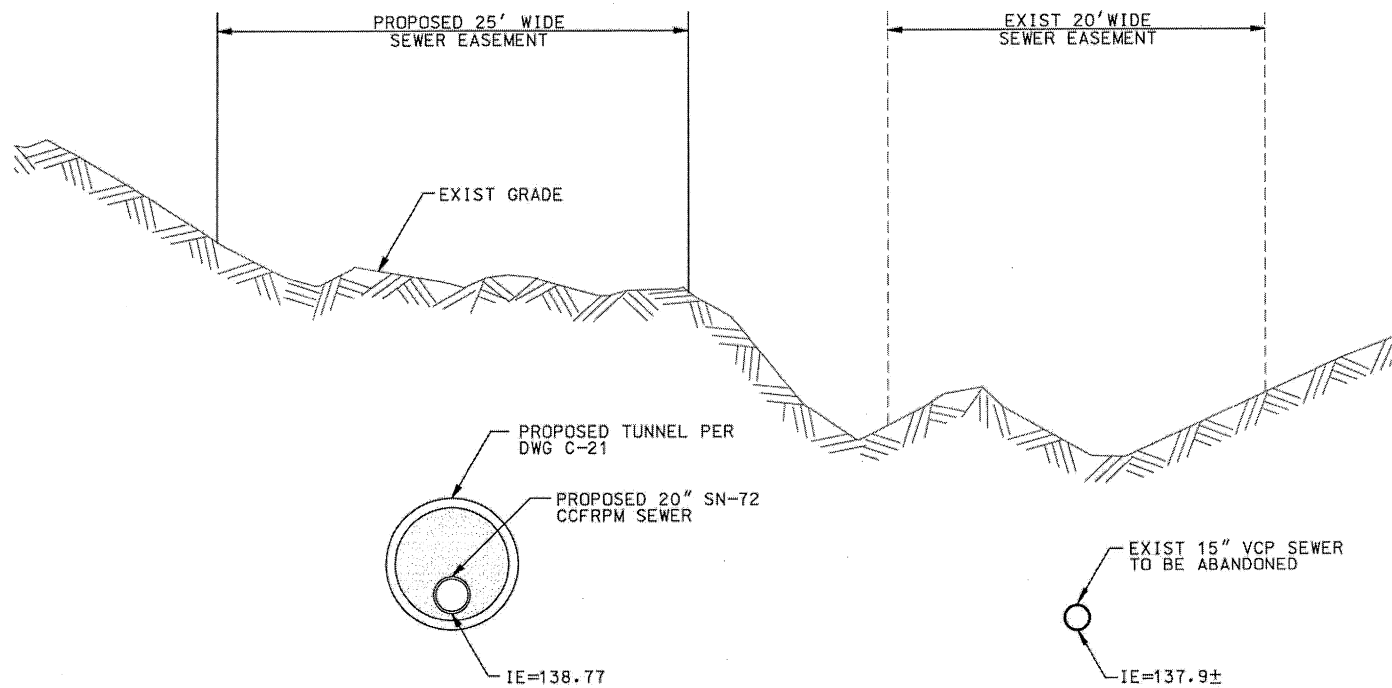
SECTION @ STA. 34+53.40  
(LOOKING DOWNSTREAM)  
SCALE: 1" = 5'



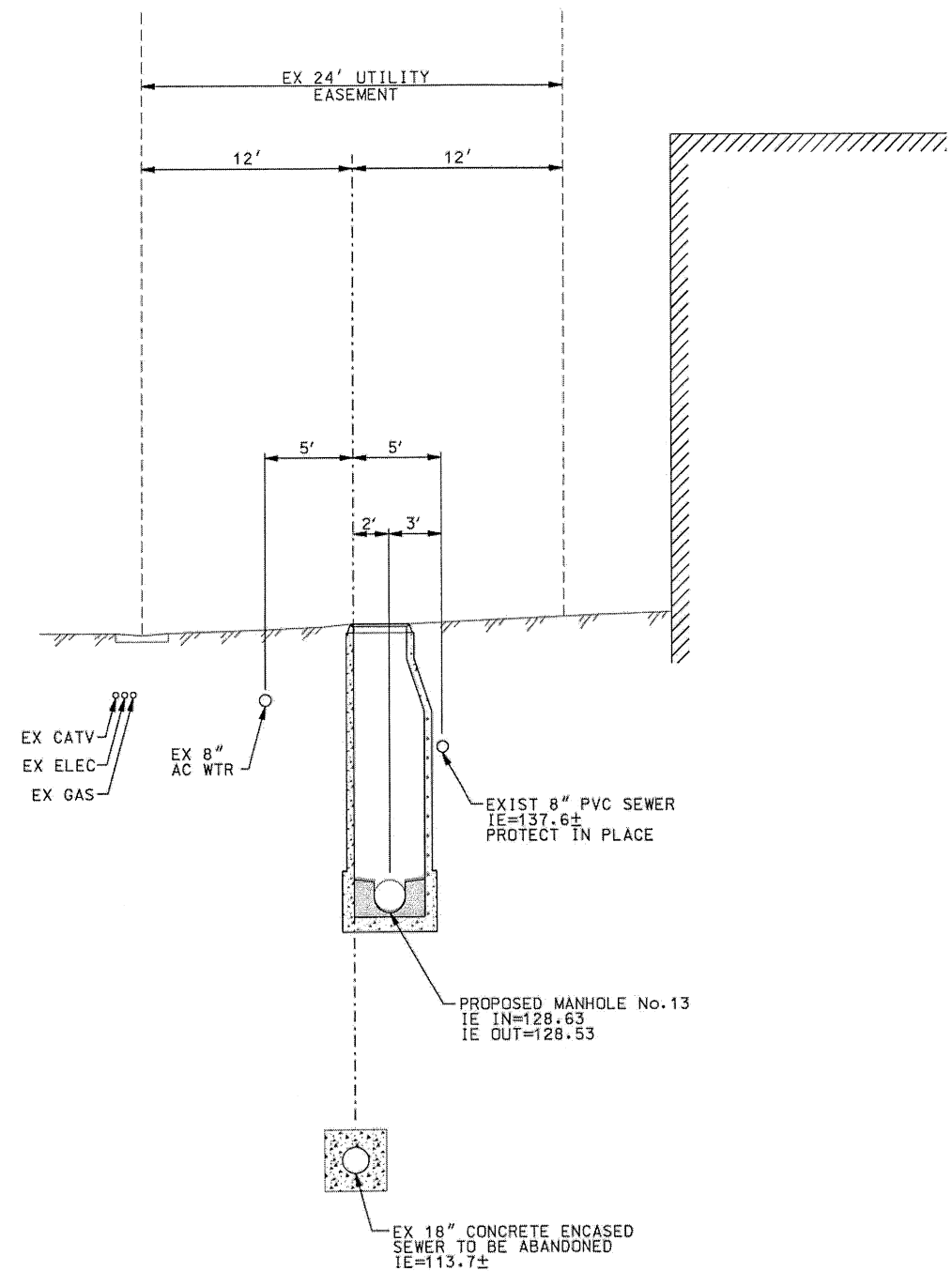
SECTION @ MH No. 14  
(LOOKING DOWNSTREAM)  
SCALE: 1" = 5'



BALBOA TERRACE TRUNK SEWER			
CROSS SECTIONS 1			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 24 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035	
APPROVED BY <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	DESIGNED BY JIM HAGGOUY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY BC	APPROVED DATE	FILMED
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
		CHARGE BY BRIAN VITELLE PROJECT ENGINEER	
		234-1701 CGS27 COORDINATE	
		6262407-1874444 CCS83 COORDINATE	
		30360-24-D	



SECTION @ STA. 44+40.00  
(LOOKING UPSTREAM)  
SCALE: 1" = 5'



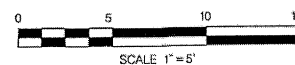
SECTION @ MH No. 13  
(LOOKING DOWNSTREAM)  
SCALE: 1" = 5'

CROSS SECTIONS

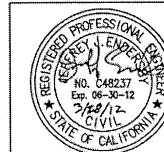
C-24

BALBOA TERRACE TRUNK SEWER  
CROSS SECTIONS 2

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 25 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	DESIGNED BY JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY BC	CHECKED BY BRIAN VITELLE PROJECT ENGINEER
	APPROVED	DATE
	DATE	FILMED
		234-1701
		CCS27 COORDINATE
		6262407-1874444
		CCS83 COORDINATE
CONTRACTOR	DATE STARTED	30360-25 -D
INSPECTOR	DATE COMPLETED	



**Brown AND Caldwell**





HORIZONTAL ALIGNMENT NAME : INTERCEPTOR

	STATION	NORTHING	EASTING
JUNCTION No.1 (POB)	1+08.08	1874706.21	6265389.12
MH No.2 (PI)	1+30.00	1874716.05	6265408.71
Tangent Direction: N 63°19'34" E			
Tangent Length: 21.92			
MH No.2 (PI)	1+30.00	1874716.05	6265408.71
MH No.3 (PI)	3+70.00	1874823.79	6265623.17
Tangent Direction: N 63°19'34" E			
Tangent Length: 240.00			
MH No.3 (PI)	3+70.00	1874823.79	6265623.17
MH No.4 (PI)	6+40.00	1874886.99	6265885.67
Tangent Direction: N 76°27'45" E			
Tangent Length: 270.00			
MH No.4 (PI)	6+40.00	1874886.99	6265885.67
MH No.5 (PI)	12+65.00	1875044.54	6266490.48
Tangent Direction: N 75°23'58" E			
Tangent Length: 625.00			
MH No.5 (PI)	12+65.00	1875044.54	6266490.48
MH No.6 (PI)	14+50.00	1875091.18	6266669.51
Tangent Direction: N 75°23'58" E			
Tangent Length: 185.00			
MH No.6 (PI)	14+50.00	1875091.18	6266669.51
MH No.7 (BC)	16+00.00	1875219.18	6266747.72
(PI)	19+01.44	1875293.98	6267039.73
(CC)	1876691.62	6266370.49	
JUNC. MH No.9 (EC)	21+95.15	1875474.56	6267281.08
Radius: 1520.00			
Delta: 22°26'01" Left			
Degree of Curvature(Arc): 3°46'10"			
Length: 595.14			
Tangent: 301.43			
Chord: 591.35			
Middle Ordinate: 29.04			
External: 29.60			
Tangent Direction: N 75°37'49" E			
Radial Direction: S 14°22'11" E			
Chord Direction: N 64°24'48" E			
Radial Direction: S 36°48'12" E			
Tangent Direction: N 53°11'48" E			
JUNC. MH No.9 (EC)	21+95.15	1875474.56	6267281.08
(BC)	23+63.99	1875609.76	6267179.93
(PI)	25+28.57	1875741.53	6267081.34
(CC)	1875909.30	6267580.28	
JUNC. MH No.10 (EC)	26+81.97	1875906.10	6267080.29
Radius: 500.00			
Delta: 36°26'16" Right			
Degree of Curvature(Arc): 11°27'33"			
Length: 317.98			
Tangent: 164.57			
Chord: 312.65			
Middle Ordinate: 25.07			
External: 26.39			
Tangent Direction: N 36°48'14" W			
Radial Direction: N 53°11'46" E			
Chord Direction: N 18°35'06" W			
Radial Direction: N 89°38'02" E			
Tangent Direction: N 0°21'58" W			
JUNC. MH No.10 (EC)	26+81.97	1875906.10	6267080.29
MH No. 11 (PI)	28+20.96	1875947.35	6266947.56
Tangent Direction: N 72°44'11" W			
Tangent Length: 138.99			

	STATION	NORTHING	EASTING
MH No. 11 (PI)	28+20.96	1875947.35	6266947.56
MH No. 12 (PI)	28+36.26	1875960.89	6266940.44
Tangent Direction: N 27°44'11" W			
Tangent Length: 15.30			
MH No. 12 (PI)	28+36.26	1875960.89	6266940.44
(BC)	30+79.24	1876178.34	6267048.85
Tangent Direction: N 26°30'00" E			
Tangent Length: 242.98			
(BC)	30+79.24	1876178.34	6267048.85
(PI)	31+18.41	1876213.39	6267066.33
(CC)	1876239.02	6266927.14	
MH No. 13 (PRC)	31+55.51	1876252.37	6267062.49
Radius: 136.00			
Delta: 32°08'00" Left			
Degree of Curvature(Arc): 42°07'45"			
Length: 76.27			
Tangent: 39.17			
Chord: 75.28			
Middle Ordinate: 5.31			
External: 5.53			
Tangent Direction: N 26°30'00" E			
Radial Direction: S 63°30'00" E			
Chord Direction: N 10°26'00" E			
Radial Direction: N 84°22'00" E			
Tangent Direction: N 5°38'00" W			
MH No. 13 (PRC)	31+55.51	1876252.37	6267062.49
(PI)	32+81.51	1876377.77	6267050.12
(CC)	1876283.00	6267372.98	
(EC)	33+95.02	1876476.58	6267128.30
Radius: 312.00			
Delta: 43°59'00" Right			
Degree of Curvature(Arc): 18°21'51"			
Length: 239.51			
Tangent: 126.00			
Chord: 233.67			
Middle Ordinate: 22.70			
External: 24.48			
Tangent Direction: N 5°38'00" W			
Radial Direction: N 84°22'00" E			
Chord Direction: N 16°21'30" E			
Radial Direction: S 51°39'00" E			
Tangent Direction: N 38°21'00" E			
(EC)	33+95.02	1876476.58	6267128.30
MH No. 14 (PI)	35+20.00	1876574.60	6267205.84
Tangent Direction: N 38°21'00" E			
Tangent Length: 124.98			
MH No. 14 (PI)	35+20.00	1876574.60	6267205.84
MH No. 15 (PI)	35+50.00	1876585.80	6267233.67
Tangent Direction: N 68°04'47" E			
Tangent Length: 30.00			
MH No. 15 (PI)	35+50.00	1876585.80	6267233.67
MH No. 16 (PI)	36+52.00	1876677.82	6267277.67
Tangent Direction: N 25°33'16" E			
Tangent Length: 102.00			
MH No. 16 (PI)	36+52.00	1876677.82	6267277.67
MH No. 17 (PI)	37+42.00	1876763.28	6267249.46
Tangent Direction: N 18°16'08" W			
Tangent Length: 90.00			
MH No. 17 (PI)	37+42.00	1876763.28	6267249.46
MH No. 18 (PI)	44+75.00	1877423.85	6267567.18
Tangent Direction: N 25°41'11" E			
Tangent Length: 733.00			
MH No. 18 (PI)	44+75.00	1877423.85	6267567.18
MH No. 19 (PDE)	45+22.21	1877440.70	6267611.27
Tangent Direction: N 69°04'42" E			
Tangent Length: 47.21			

HORIZONTAL ALIGNMENT NAME : LINE A

	STATION	NORTHING	EASTING
MH No. 20 (POB)	1+00.00	1875747.36	6266858.72
(BC)	1+25.75	1875772.85	6266862.32
Tangent Direction: N 8°01'51" E			
Tangent Length: 25.75			
(BC)	1+25.75	1875772.85	6266862.32
(PI)	1+65.53	1875812.25	6266867.88
(CC)	1875744.91	6267060.36	
(PT)	2+04.29	1875846.51	6266888.09
Radius: 200.00			
Delta: 22°30'00" Right			
Degree of Curvature(Arc): 28°38'52"			
Length: 78.54			
Tangent: 39.78			
Chord: 78.04			
Middle Ordinate: 3.84			
External: 3.92			
Tangent Direction: N 8°01'51" E			
Radial Direction: S 81°58'09" E			
Chord Direction: N 19°16'51" E			
Radial Direction: S 59°28'09" E			
Tangent Direction: N 30°31'51" E			
(PT)	2+04.29	1875846.51	6266888.09
MH No. 21 (PI)	2+46.10	1875882.53	6266909.33
Tangent Direction: N 30°31'51" E			
Tangent Length: 41.82			
(BC)	2+46.10	1875882.53	6266909.33
(BC)	2+62.77	1875882.53	6266909.33
Tangent Direction: S 14°25'31" W			
Tangent Length: 16.67			
(BC)	2+62.77	1875882.53	6266909.33
(PI)	2+74.45	1875909.98	6266916.39
(CC)	1875823.94	6267204.02	
CONNECT TO EXIST(PDE)	2+86.12	1875921.03	6266920.17
Radius: 300.00			
Delta: 4°27'29" Right			
Degree of Curvature(Arc): 19°05'55"			
Length: 23.34			
Tangent: 11.68			
Chord: 23.34			
Middle Ordinate: 0.23			
External: 0.23			
Tangent Direction: N 14°25'31" E			
Radial Direction: S 75°34'29" E			
Chord Direction: N 16°39'16" E			
Radial Direction: S 71°07'00" E			
Tangent Direction: N 18°53'00" E			

HORIZONTAL ALIGNMENT NAME : LINE B

	STATION	NORTHING	EASTING
MH No.22 (POB)	1+00.00	1876523.69	6267162.83
MH No. 23 (PI)	2+01.41	1876605.72	6267222.45
Tangent Direction: N 36°00'32" E			
Tangent Length: 101.41			
MH No. 23 (PI)	2+01.41	1876605.72	6267222.45
MH No. 24 (POE)	3+50.00	1876738.69	6267288.78
Tangent Direction: N 26°30'47" E			
Tangent Length: 148.59			

HORIZONTAL ALIGNMENT NAME : LINE C

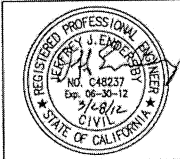
	STATION	NORTHING	EASTING
MH No. 23 (POB)	0+77.13	1876605.72	6267222.45
MH No. 15 (PI)	1+00.00	1876585.80	6267233.67
Tangent Direction: S 29°23'13" E			
Tangent Length: 22.87			
MH No. 15 (PI)	1+00.00	1876585.80	6267233.67
(BC)	1+82.59	1876505.11	6267251.30
Tangent Direction: S 12°19'10" E			
Tangent Length: 82.59			
(BC)	1+82.59	1876505.11	6267251.30
(PI)	2+01.37	1876486.65	6267254.79
(CC)	1876474.20	6267088.17	
MH No. 25 (POE)	2+20.00	1876467.88	6267254.08
Radius: 166.02			
Delta: 12°54'37" Right			
Degree of Curvature(Arc): 34°30'38"			
Length: 37.41			
Tangent: 18.78			
Chord: 37.33			
Middle Ordinate: 1.05			
External: 1.06			
Tangent Direction: S 10°43'47" E			
Radial Direction: S 79°16'13" W			
Chord Direction: S 4°16'28" E			
Radial Direction: N 87°49'09" W			
Tangent Direction: S 2°10'51" W			

C-25

BALBOA TERRACE TRUNK SEWER

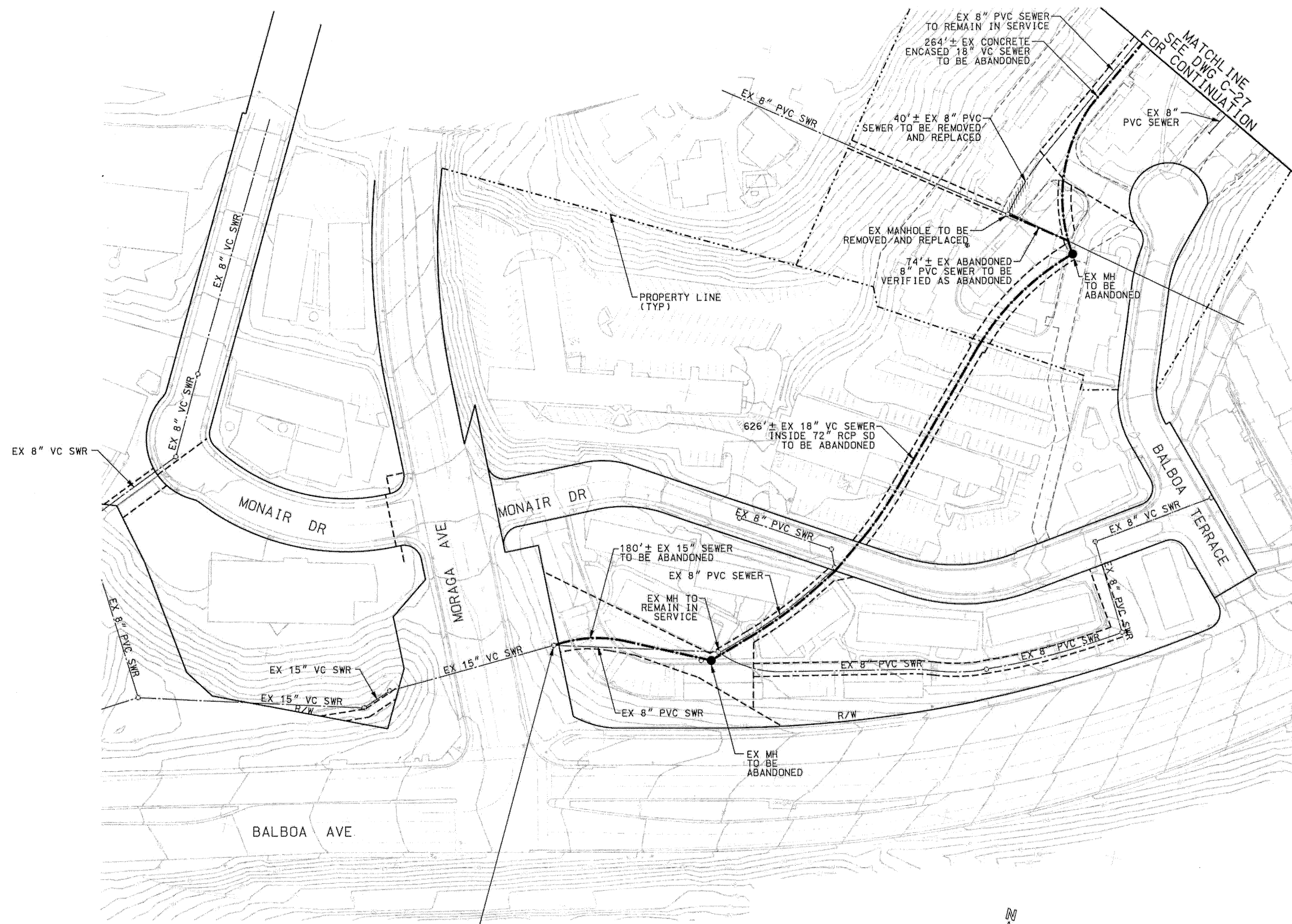
HORIZONTAL CONTROL INDEX REPORT

CITY OF SAN DIEGO, CALIFORNIA				WATER	N/A
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT				SEWER	S-12035
SHEET 26 OF 38 SHEETS				WBS	S-12035
APPROVED	<i>[Signature]</i>	DATE	2/22/12	DESIGNED BY	JIM HAGHGOUY
FOR CITY ENGINEER				ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED	CHIEF ENGINEER
ORIGINAL	BC				BRIAN VITELLE
					PROJECT ENGINEER
					234-1701
					CCS27 COORDINATE
					6262407-1874444
					CCS83 COORDINATE
CONTRACTOR		DATE STARTED			30360-26 -D
INSPECTOR		DATE COMPLETED			



HORIZONTAL CONTROL INDEX REPORT



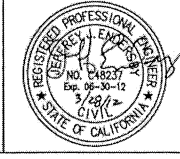
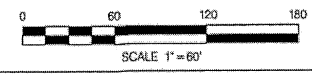
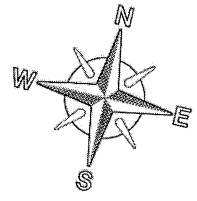


- LEGEND**
- EXISTING SEWER MAIN TO REMAIN IN SERVICE
  - - - EXISTING SEWER MAIN TO BE SLURRY FILLED
  - ////// EXISTING SEWER MAIN TO BE REMOVED
  - EXISTING MANHOLE OUTSIDE OF CANYON TO BE ABANDONED PER SDRSD SM-08
  - EXISTING MANHOLE TO REMAIN IN SERVICE

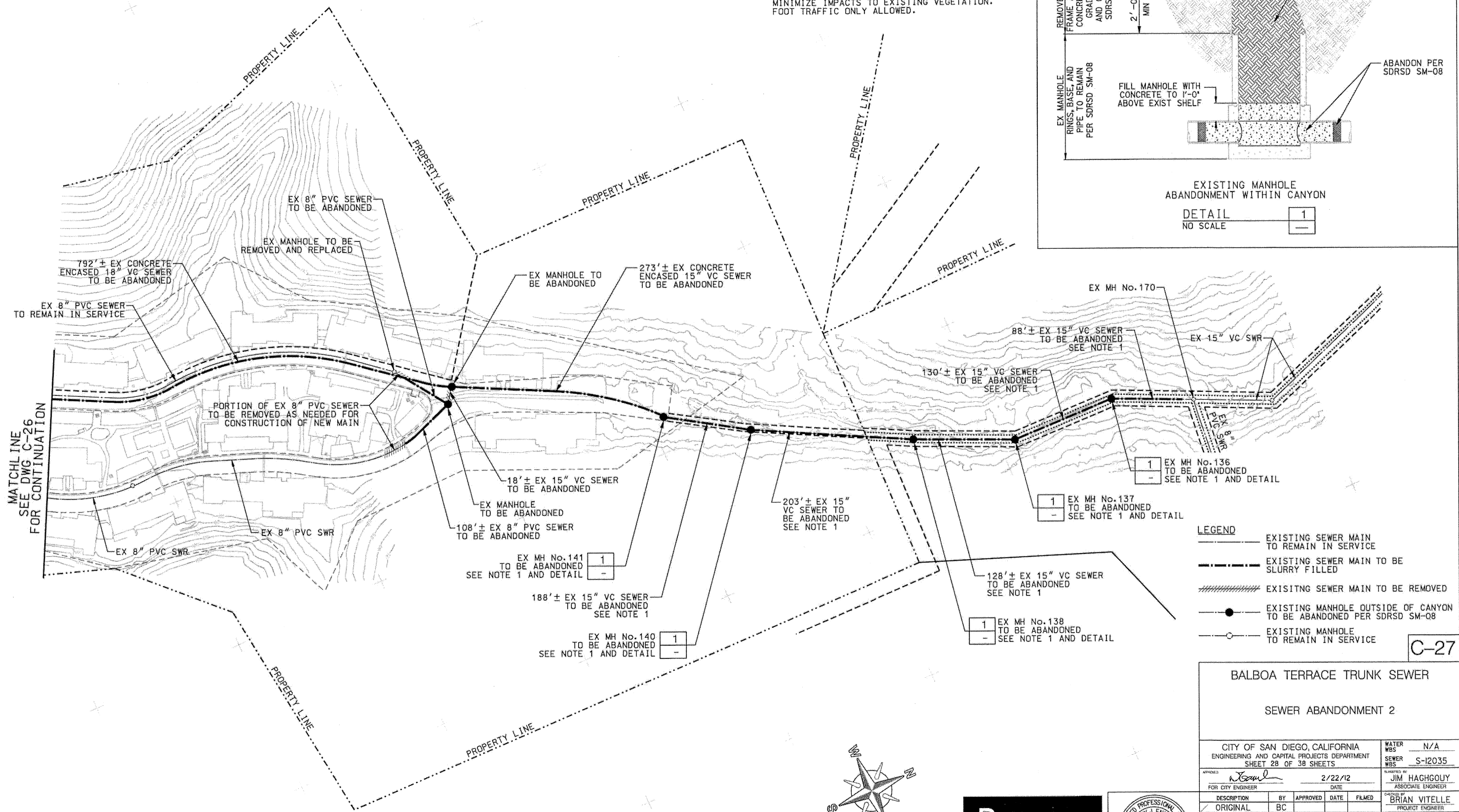
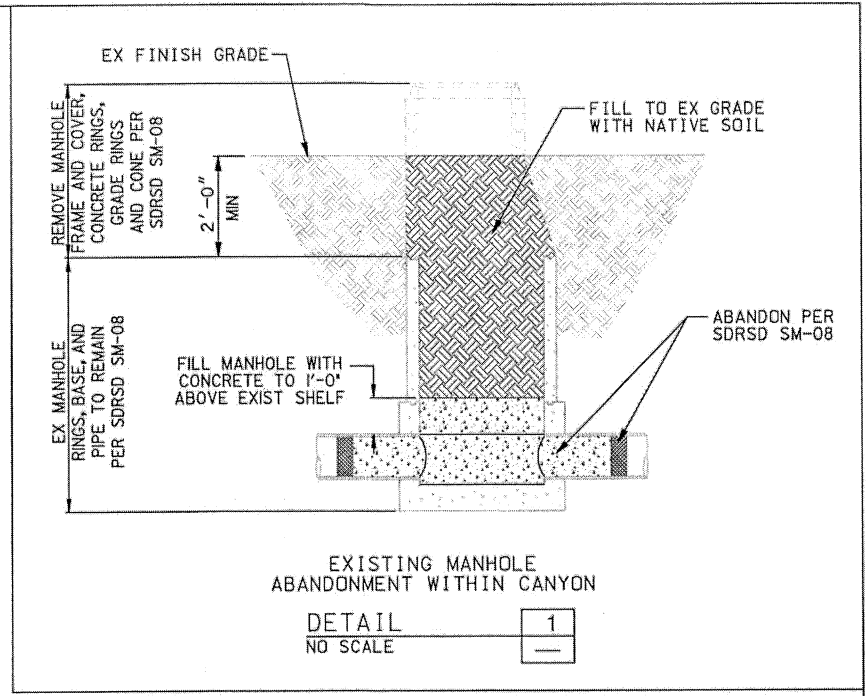
C-26

<b>BALBOA TERRACE TRUNK SEWER</b>	
SEWER ABANDONMENT 1	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 27 OF 38 SHEETS	WATER WBS N/A SEWER WBS S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12 ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: BC
CHECKED BY: <b>BRIAN VITELLE</b> PROJECT ENGINEER	
234-1701 CDS27 COORDINATE	
6262407-1874444 CDS88 COORDINATE	
CONTRACTOR INSPECTOR	DATE STARTED / DATE COMPLETED
	30360-27-D

EX MANHOLE TO REMAIN, PLUG ABANDONED EX 15" SEWER MAIN IN (EX 8" SEWER IN AND EX 15" SEWER OUT TO REMAIN ACTIVE)

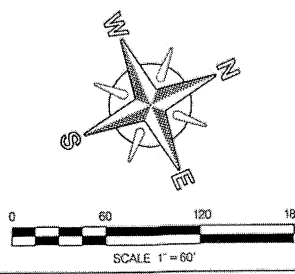


**NOTES:**  
 1. CONTRACTOR SHALL NOT EMPLOY THE USE OF HEAVY EQUIPMENT FOR DEMOLITION OR ABANDONMENT WORK WITHIN THE CANYON. ALL WORK SHALL BE COMPLETED USING HAND TOOLS AND CAREFUL CONSIDERATION TO MINIMIZE IMPACTS TO EXISTING VEGETATION. FOOT TRAFFIC ONLY ALLOWED.

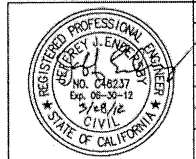


**LEGEND**

- EXISTING SEWER MAIN TO REMAIN IN SERVICE
- - - EXISTING SEWER MAIN TO BE SLURRY FILLED
- //// EXISTING SEWER MAIN TO BE REMOVED
- EXISTING MANHOLE OUTSIDE OF CANYON TO BE ABANDONED PER SDRSD SM-08
- EXISTING MANHOLE TO REMAIN IN SERVICE



**Brown and Caldwell**

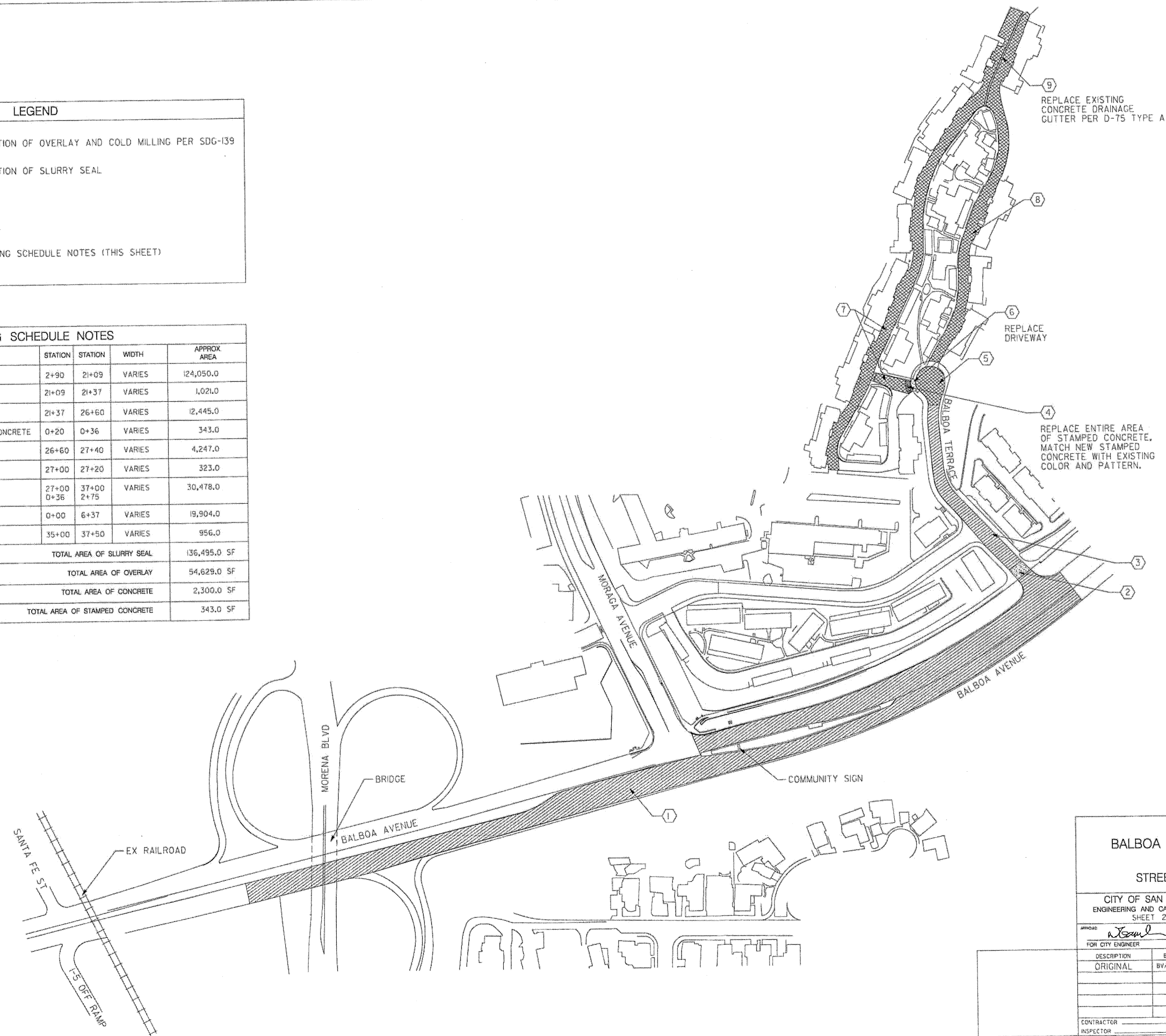


<b>BALBOA TERRACE TRUNK SEWER</b>	
SEWER ABANDONMENT 2	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 28 OF 38 SHEETS	WATER WBS N/A SEWER WBS S-12035
APPROVED BY <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12
DESIGNED BY JIM HAGGOUY ASSOCIATE ENGINEER	CHECKED BY BRIAN VITELLE PROJECT ENGINEER
DESCRIPTION ORIGINAL	BY BC
APPROVED	DATE
FILED	
PROJECT NO. 234-1701	COORDINATE CCS27
6262407-187444	COORDINATE CCS83
CONTRACTOR	DATE STARTED
INSPECTOR	DATE COMPLETED
	30360-28 -D

SEWER ABANDONMENT

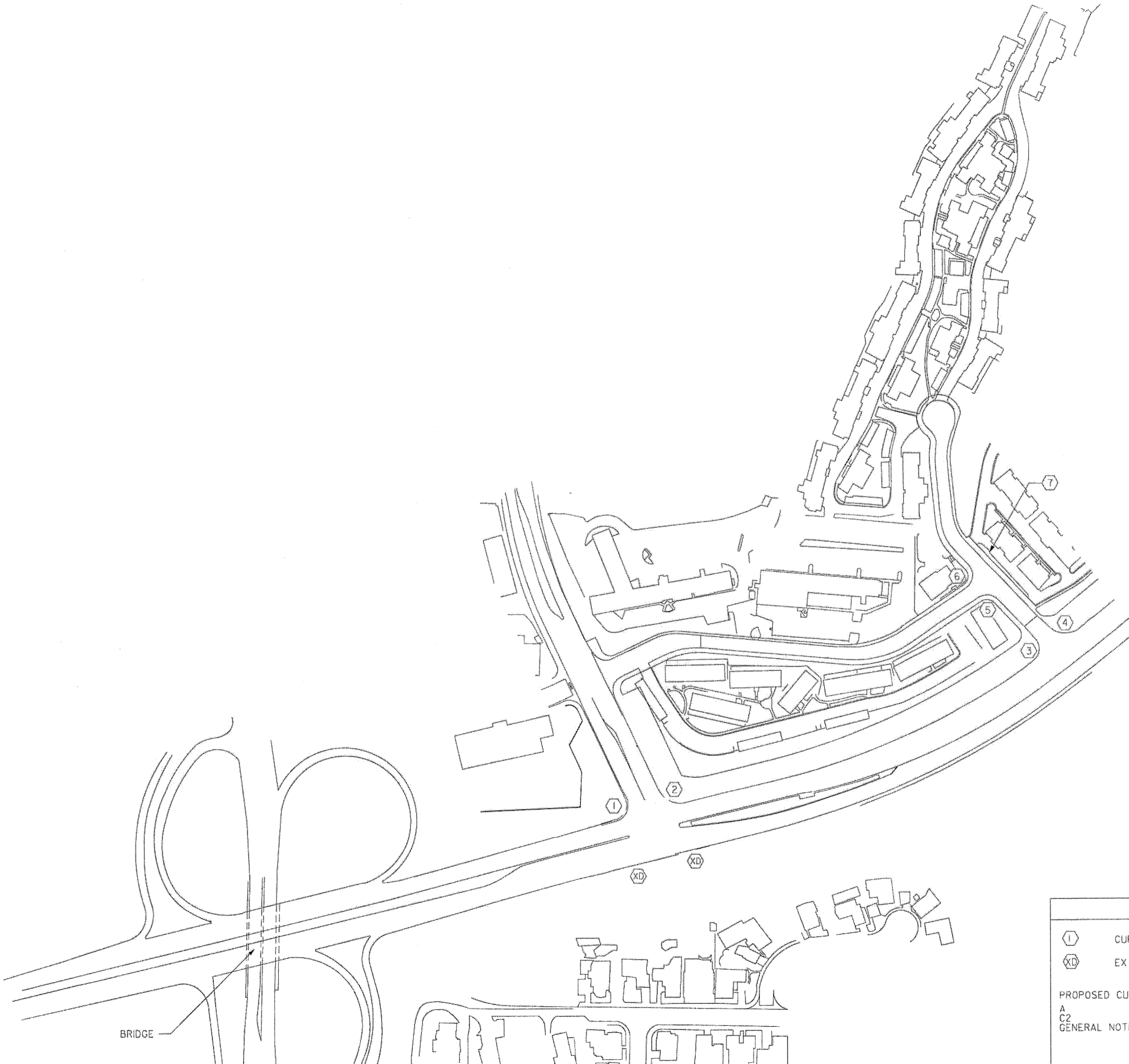
LEGEND	
	APPROXIMATE LOCATION OF OVERLAY AND COLD MILLING PER SDG-139
	APPROXIMATE LOCATION OF SLURRY SEAL
	CONCRETE
	STAMPED CONCRETE
	LOCATION PER PAVING SCHEDULE NOTES (THIS SHEET)

PAVING SCHEDULE NOTES						
NO.	LOCATION	RESTORATION REQUIRED	STATION	STATION	WIDTH	APPROX. AREA
1	BALBOA AVENUE	SLURRY	2+90	21+09	VARIES	124,050.0
2	BALBOA TERRACE	CONCRETE	21+09	21+37	VARIES	1,021.0
3	BALBOA TERRACE	SLURRY	21+37	26+60	VARIES	12,445.0
4	EASEMENT	STAMPED CONCRETE	0+20	0+36	VARIES	343.0
5	BALBOA TERRACE	OVERLAY	26+60	27+40	VARIES	4,247.0
6	BALBOA TERRACE	CONCRETE	27+00	27+20	VARIES	323.0
7	EASEMENT	OVERLAY	27+00 0+36	37+00 2+75	VARIES	30,478.0
8	EASEMENT	OVERLAY	0+00	6+37	VARIES	19,904.0
9	EASEMENT	CONCRETE	35+00	37+50	VARIES	956.0
TOTAL AREA OF SLURRY SEAL						136,495.0 SF
TOTAL AREA OF OVERLAY						54,629.0 SF
TOTAL AREA OF CONCRETE						2,300.0 SF
TOTAL AREA OF STAMPED CONCRETE						343.0 SF



NO SCALE C-28

<b>BALBOA TERRACE TRUNK SEWER</b>			
<b>CIVIL STREET RESURFACING PLAN</b>			
CITY OF SAN DIEGO, CALIFORNIA		WATER WBS N/A	
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		SEWER WBS S-12035	
SHEET 29 OF 38 SHEETS			
APPROVED <i>[Signature]</i>	DATE 2/22/12	DRAWN BY JIM HAGGOUY ASSOCIATE ENGINEER	
FOR CITY ENGINEER		OWNED BY BRIAN VITELLE PROJECT ENGINEER	
DESCRIPTION ORIGINAL	BY/VER	APPROVED	FILED
CONTRACTOR			DATE STARTED
INSPECTOR			DATE COMPLETED
			30360-29-D



CURB RAMP NOTES TABLE								
LOCATION NO.	RAMP TYPE	NEW	REPLACEMENT	HISTORIC STAMPS	TRUNCATED DOME MATERIAL		CONSTRAINTS	COMMENTS / MODIFICATIONS
					* STAINLESS STEEL	* OTHER		
1	C2		X	N/A		X	N/A	
2	C2		X	N/A		X	N/A	
3	C2		X	N/A		X	N/A	CURB RAMPS SHOULD BE DIRECTIONAL AND FACE OPPOSING RAMP.
4	C2		X	N/A		X	N/A	CURB RAMPS SHOULD BE DIRECTIONAL AND FACE OPPOSING RAMP.
5	C2		X	N/A		X	N/A	
6	A		X	N/A		X	N/A	
7	A		X	N/A		X	N/A	

\* THE DETECTABLE WARNING TILES SHALL BE PER THE CITY'S APPROVED MATERIALS LIST



NO SCALE

**NOTE:**  
 CONTRACTOR TO NOTIFY SURVEYING 30 DAYS PRIOR TO REMOVAL OF SIDEWALK FOR CURB RAMP CONSTRUCTION TO RELOCATE ANY SURVEY MARKERS.

C-29

LEGEND				
①	CURB RAMP NO's			
ⓧ	EX CURB RAMP WITH DOME			
PROPOSED CURB RAMPS PER STANDARD DRAWINGS: A SDG-132 C2 SDG-135 GENERAL NOTES SDG-130				

BALBOA TERRACE TRUNK SEWER CURB RAMP LOCATION PLAN				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 30 OF 38 SHEETS			WATER RBS 0-00000 SEWER RBS 5-12035	
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/22/12	DRAWN BY BRIAN VITELLE PROJECT ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BV/EH			
				SEE SHEETS CCS27 COORDINATE
				SEE SHEETS CCS83 COORDINATE
CONTRACTOR		DATE STARTED		30360-30-D
INSPECTOR		DATE COMPLETED		

CURB RAMP LOCATION

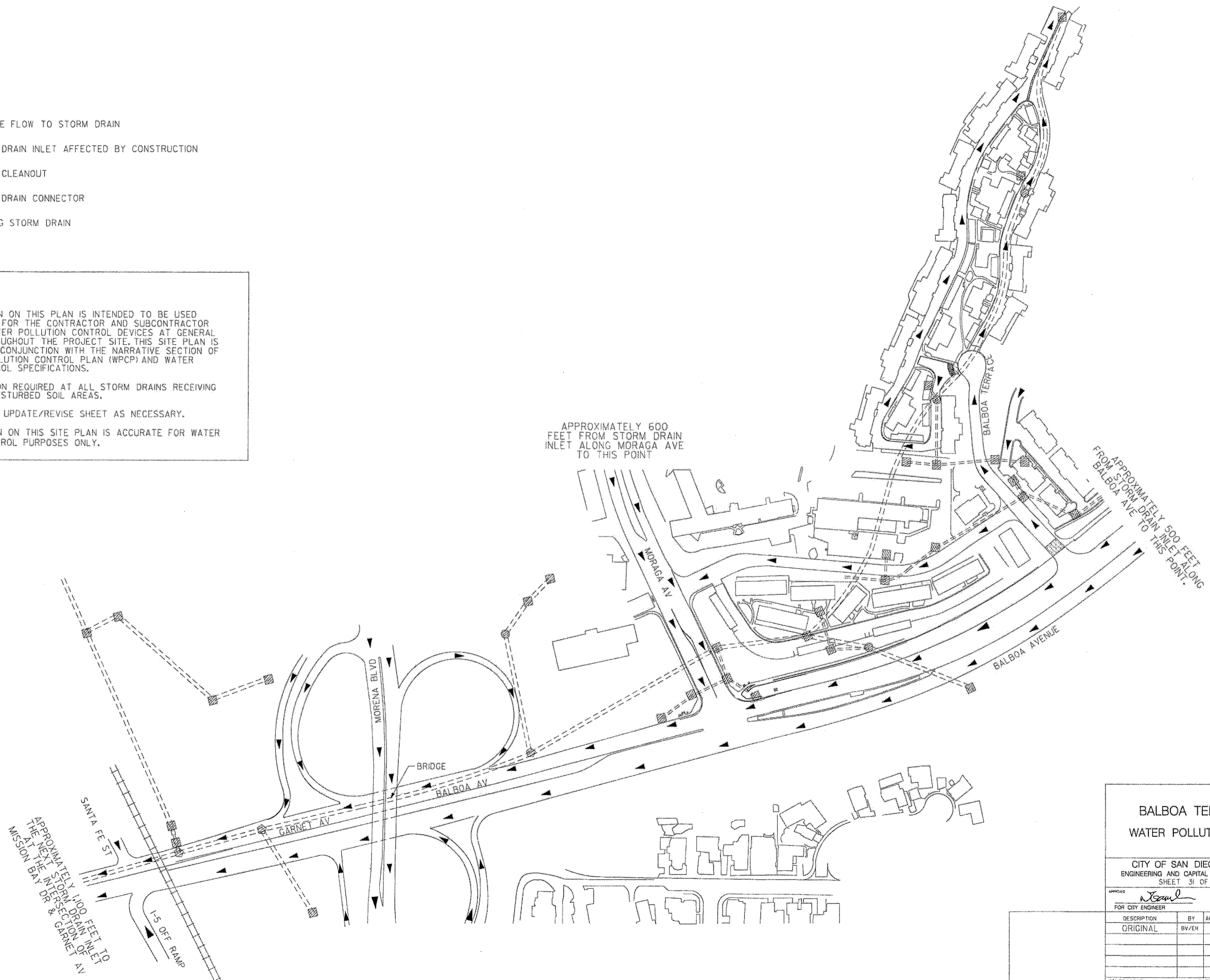


**LEGEND:**

- ▶ SURFACE FLOW TO STORM DRAIN
- ▨ STORM DRAIN INLET AFFECTED BY CONSTRUCTION
- ⊙ STORM CLEANOUT
- ◊ STORM DRAIN CONNECTOR
- - - - EXISTING STORM DRAIN

**NOTES**

1. THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTOR TO INSTALL WATER POLLUTION CONTROL DEVICES AT GENERAL LOCATIONS THROUGHOUT THE PROJECT SITE. THIS SITE PLAN IS TO BE USED IN CONJUNCTION WITH THE NARRATIVE SECTION OF THE WATER POLLUTION CONTROL PLAN (WPCP) AND WATER POLLUTION CONTROL SPECIFICATIONS.
2. INLET PROJECTION REQUIRED AT ALL STORM DRAINS RECEIVING RUNOFF FROM DISTURBED SOIL AREAS.
3. CONTRACTOR TO UPDATE/REVISE SHEET AS NECESSARY.
4. THE INFORMATION ON THIS SITE PLAN IS ACCURATE FOR WATER POLLUTION CONTROL PURPOSES ONLY.



NO SCALE C-30

<b>BALBOA TERRACE TRUNK SEWER WATER POLLUTION CONTROL SITE PLAN</b>			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 31 OF 38 SHEETS			WATER R/S N/A SEWER R/S S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HACHGOJY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY BV/EH	APPROVED	DATE FILED
			DRAWN BY BRIAN VITELLE PROJECT ENGINEER
			SEE SHEETS CC87 COORDINATE
			SEE SHEETS CC88 COORDINATE
CONTRACTOR		DATE STARTED	30360-31-D
INSPECTOR		DATE COMPLETED	

CONCRETE:

- 1. ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF A.C.I. 318-LATEST EDITION "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS CONTAINED HEREIN OR SHOWN ON THE DRAWINGS.
2. ALL CONCRETE SHALL BE 150 P.C.F. HARDROCK, MIXED PER A.S.T.M. C-94, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 P.S.I. AT 28 DAYS W/ MAX W/C RATIO OF 0.45.
3. THE MAXIMUM SIZE AGGREGATE IN FOUNDATION AND MASS CONCRETE WORK SHALL BE 1 INCH. THE MAXIMUM SIZE AGGREGATE IN SLABS ON GRADE, WALLS, AND ALL OTHER CONCRETE SHALL BE 3/4 INCH.
4. CEMENT SHALL CONFORM TO A.S.T.M. C-150, TYPE V, LOW ALKALI. AGGREGATES FOR NORMAL WEIGHT SHALL CONFORM TO A.S.T.M. C-33.
5. ADMIXTURES AND COLORS (EXCEPT AS NOTED HEREIN) SHALL NOT BE USED UNLESS SUBSTANTIATING DATA IS SUBMITTED TO AND REVIEWED BY THE ENGINEER AND ARCHITECT OF RECORD.
6. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY. THE MIX DESIGNS SHALL CONFORM TO C.B.C. SEC. 1905 UNLESS OTHERWISE NOTED.
7. NON-STRUCTURAL STEEL EMBEDDED IN CONCRETE SHALL BE GALVANIZED OR PAINTED. ALL DAMAGED GALVANIZED AREAS SHALL BE REPAIRED PRIOR TO EMBEDMENT.
8. PROVIDE 2- #5 DIAGONAL BARS AT CORNERS OF WALL, FLOOR, AND ROOF OPENINGS AND INSIDE CORNERS OF FLOORS.
9. PROVIDE WATERSTOPS IN ALL BELOW GRADE FOUNDATION WALL CONSTRUCTION JOINTS.
10. READY MIXED CONCRETE SHALL CONFORM TO (A.S.T.M. C-94).
11. PLACEMENT OF CONCRETE SHALL CONFORM TO A.C.I. 304. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE FOR ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
12. ALL EXPOSED CONCRETE SHALL HAVE A SMOOTH FORM FINISH USING B-B PLYFORM, CLASS I, EXT-A.P.A. PLYWOOD.
13. ALL SLABS SHALL HAVE A TROWELED FINISH EXCEPT AS NOTED ON THE DRAWINGS.
14. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
15. IF THE CONTRACTOR DESIRES TO MAKE ANY CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THESE DRAWINGS, HE SHALL SUBMIT DETAILS OF CHANGES TO THE ENGINEER OF RECORD FOR REVIEW BEFORE STARTING WORK.
16. NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOUNDATION STEEL OFF THE GROUND.
17. PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED CONCRETE CORNERS, U.O.N.
18. SLEEVE PLUMBING OPENINGS IN SLABS WITH NON-CORROSIVE SLEEVE BEFORE PLACING CONCRETE AND BEND REINFORCING AROUND SLEEVES.
19. ALL REINFORCING BARS SHALL BE PROVIDED WITH THE FOLLOWING CONCRETE MINIMUM COVER:
FOOTINGS CAST AGAINST EARTH 3"
FORMED CONCRETE EXPOSED TO EARTH, WEATHER OR LIQUID 2"
BEAMS AND GIRDERS 1 1/2"
WALLS 1 1/2"
COLUMN TIES 1 1/2"
SLABS (#11 AND SMALLER) 3/4"
20. CONCRETE CURING: TYPICALLY REQUIRED A MINIMUM OF 10 DAYS.

REINFORCING:

- 1. ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE C.B.C., AND THE "MANUAL OF STANDARD PRACTICE" BY THE C.R.S.I. OR AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
2. REINFORCING BARS SHALL CONFORM TO A.S.T.M. A-615, DEFORMED GRADE 60, EXCEPT #3 BARS MAY BE GRADE 40. REINFORCING BARS THAT ARE TO BE WELDED SHALL CONFORM TO A.S.T.M. A-706, DEFORMED GRADE 60.
3. WELDING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH A.S.T.M. A-706 WITH LOW HYDROGEN ELECTRODES AND STRUCTURAL WELDING CODE REINFORCING STEEL SHALL CONFORM TO A.N.S.I. / A.W.S. D1.4. MINIMUM TENSILE STRENGTH OF WELD METAL SHALL BE 90 K.S.I. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD, UNLESS OTHERWISE PERMITTED BY THE BUILDING OFFICIAL.
5. WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A-185, AND SHALL BE LAPPED 1 SPACE AND 12" MINIMUM.
6. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE LAPPED WITH THE SAME GRADE, SIZE, SPACING AND NUMBER AS THE VERTICAL REINFORCEMENT.
7. REINFORCING SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS.
8. ALL VERTICAL REINFORCING SHALL BE CONTINUOUS BETWEEN TWO LEVELS, UNLESS OTHERWISE NOTED.
9. SLAB ON GRADE REINFORCING SHALL BE POSITIONED AT MID-DEPTH, UNLESS OTHERWISE NOTED.
10. PROVIDE #3 SPACER TIES AT 2'-6" ON CENTER IN ALL BEAMS AND FOOTINGS TO SECURE REINFORCING BARS IN PLACE, UNLESS OTHERWISE NOTED.
11. PIPING AND CONDUIT SHALL BE SO FABRICATED AND INSTALLED THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED. A.C.I. #6.3.12

DESIGN BASIS:

CODE: 2010 C.B.C. (CALIFORNIA BUILDING CODE) CCR, TITLE 24, PART 2.

LATERAL LOADS:

- 1. SEISMIC LOAD
SEISMIC DESIGN CATEGORY = D
SITE CLASS = D
Ss = 1.701
Si = 0.679
Fa = 1.0
Fv = 1.5
Sds = 1.134
Sd1 = 0.679
I = 1.25
2. WIND LOAD:
BASIC WIND SPEED = 85 MPH
EXPOSURE C
Iw = 1.15

GENERAL NOTES:

- 1. THE PROJECT SPECIFICATIONS SHALL BE PART OF THE CONTRACT DOCUMENTS.
2. THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH CIVIL DRAWINGS.
3. THE CONTRACTOR SHALL REVIEW EXISTING CONDITIONS ON THE SITE DURING THE BIDDING. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES PRIOR TO PROCEEDING.
4. UNLESS NOTED OR SHOWN OTHERWISE, ALL PHASES OF WORK ARE TO CONFORM TO THE MINIMUM STANDARDS OF THE CALIFORNIA BUILDING CODE (2010 EDITION), AND ANY A.S.T.M. SPECIFICATIONS ON WHICH THESE STANDARDS ARE BASED. WHERE CONFLICT BETWEEN BUILDING CODES AND SPECIFICATIONS OCCUR, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
5. ALL A.S.T.M. DESIGNATIONS REFERRED TO ON THESE DRAWINGS SHALL BE THE LATEST ADOPTED OR REVISED SPECIFICATION, AS OF THE DATE OF THESE DRAWINGS.
6. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS. DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
7. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
8. THE STRUCTURAL DRAWINGS SHOW ONLY THE BASIC STRUCTURAL REQUIREMENTS. REFER TO CIVIL AND MECHANICAL DRAWINGS FOR NON-STRUCTURAL ITEMS, SUCH AS:
A. SIZE AND LOCATION OF ALL OPENINGS.
B. SIZE AND LOCATION OF ALL NON-BEARING WALLS.
C. SIZE AND LOCATION OF ALL CONCRETE CURBS, WALKS, ROOF AND FLOOR DRAINS, SLOPES, DEPRESSED SLAB AREAS, ETC.
D. FLOOR, ROOF AND WALL FINISHES.
E. DIMENSIONS WHICH ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
9. THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS NOTED OTHERWISE, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.
10. NEITHER THE OWNER NOR THE ARCHITECT/STRUCTURAL ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS. SITE OBSERVATION VISITS BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE SAFETY ITEMS.
11. SATISFACTORY EXECUTION OF CONSTRUCTION IS DEPENDENT UPON CONFORMANCE WITH THE INTENT OF THESE DRAWINGS. THE OWNER SHALL RETAIN A CALIFORNIA LICENSED CIVIL OR STRUCTURAL ENGINEER DURING CONSTRUCTION TO OBSERVE THE CONSTRUCTION AND STATE THAT THE STRUCTURE HAS BEEN BUILT IN GENERAL CONFORMANCE WITH THE INTENT OF THESE DRAWINGS.
12. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD FOR EACH PARTICULAR LEVEL. WHEN WEIGHT OF MATERIALS OR EQUIPMENT MAY EXCEED DESIGN LOAD, STRUCTURAL SYSTEMS SHALL BE SHORED.
13. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.

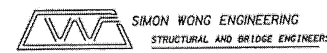
FOUNDATION:

- 1. PRIOR TO THE POURING OF CONCRETE AND PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE THE FOOTING EXCAVATIONS. HE SHALL POST NOTICE ON THE JOB SITE AND ADVISE THE BUILDING INSPECTOR IN WRITING THAT THE WORK SO INSPECTED MEETS THE CONDITIONS OF THE REPORT. A WRITTEN CERTIFICATION TO VERIFY THAT:
A. THE STRUCTURE WAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT.
B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED, AND
C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.
2. SOILS REPORT PREPARED BY:
NINYO & MOORE GEOTECHNICAL AND ENVIRONMENTAL SCIENCES CONSULTANTS SAN DIEGO, CALIFORNIA
PROJECT NO. 106859001 DATED DEC 2, 2010 (REV. SEPT 7, 2011)
3. SOIL REMOVAL AND RECOMPACTION SHALL BE DONE PER SOILS REPORT RECOMMENDATIONS UNDER GEOTECHNICAL ENGINEER'S SUPERVISION AND INSPECTION.
4. TYPE OF FOOTING:
DESIGN SOIL PRESSURE:
FOOTING TYPE STATIC BEARING PRESSURE
MAT FOOTING 3,000 P.S.F.
5. SLAB BASE AND COMPACTION TO BE IN ACCORDANCE WITH SOILS REPORT.
6. NO PIPES OR DUCTS SHALL BE PLACED IN SLABS OR WALLS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ENGINEER.
7. ALL WALLS RETAINING EARTH SHALL DRAIN TO DAYLIGHT OR OTHER DRAINAGE.
8. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
9. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN AREAS TO BE EXCAVATED BEFORE BEGINNING EXCAVATION. EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING. DAMAGE CAUSED AS A RESULT OF FAILING TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
10. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, APPROVALS, PERMITS, INSTALLATION AND MONITORING OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN TEMPORARY EXCAVATIONS.
11. ALL PLANTERS IN CLOSE PROXIMITY TO THE STRUCTURES SHALL HAVE ADEQUATE DRAINAGE OF SURFACE WATER TO PREVENT SATURATION OF SOIL UNDER FOUNDATION.

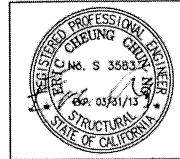
S-1

BALBOA TERRACE TRUNK SEWER
STRUCTURAL
GENERAL NOTES 1

Table with project details including City of San Diego, California, Engineering and Capital Projects Department, Sheet 32 of 38, and approval signatures for Jim Haghgouy and Brian Vitelle.



9908 Hilbert Street, Suite 202
San Diego, CA 92131
(619) 566-3113



STRUCTURAL NOTES 1



SUMMARY OF SPECIAL INSPECTION

REQUIRED VERIFICATION AND INSPECTION OF SOILS		
VERIFICATION AND INSPECTION	CONTINUOUS INSPECTION	PERIODIC INSPECTION
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIALS.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	X	-
5. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

SPECIAL INSPECTION NOTES - APPLIES TO ALL TABLES

- A. THE SPECIAL INSTRUCTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY APPENDIX CHAPTER 1 SECTION 109 OF THE C.B.C., AS AMENDED. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A CITY INSPECTOR.
- B. THE SPECIAL INSPECTORS MUST BE CERTIFIED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES, TO PERFORM THE TYPE OF INSPECTION SPECIFIED.
  - EXCEPTIONS:
    - 1. SOILS INSPECTIONS BY THE SOILS ENGINEER OF RECORD.
    - 2. WHEN WAIVED BY THE BUILDING OFFICIAL.
- C. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION.
- D. SPECIALLY INSPECTED WORK THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE CITY INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.
- E. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES, FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND EQUIPMENTS.
- F. A PROPERTY OWNER'S FINAL REPORT OF WORK REQUIRING SPECIAL INSPECTION, TESTING, AND STRUCTURAL OBSERVATIONS MUST BE COMPLETED BY THE CONTRACTOR AS THE PROPERTY OWNER'S AGENT OF RECORD, ARCHITECT OF RECORD, OR ENGINEER OF RECORD AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.

SUMMARY OF SPECIAL INSPECTION

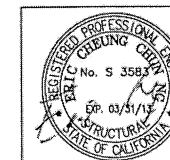
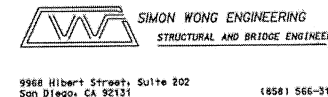
REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION		
VERIFICATION AND INSPECTION	CONTINUOUS INSPECTION	PERIODIC INSPECTION
1. INSPECTION OF REINFORCING STEEL, AND PLACEMENT.	-	X
2. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.	X	-
3. VERIFYING USE OF REQUIRED DESIGN MIX.	-	X
4. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-
5. INSPECTION OF CONCRETE FOR PROPER APPLICATION TECHNIQUES.	X	-
6. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X
7. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X
8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.		X
9. EXPANSION ANCHORS	-	X
10. EPOXY ANCHORS: VERIFY DRILLING OF ANY HOLES, THE CLEANLINESS OF THE HOLE, THE MOISTURE IN THE HOLE, MIXING THE EPOXY, THE BRAND OF THE EPOXY, AND THE PROPER MATERIAL FOR THE ASSEMBLY	-	X

S-2

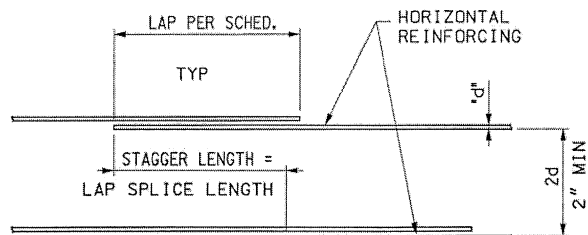
BALBOA TERRACE TRUNK SEWER

STRUCTURAL GENERAL NOTES 2

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 33 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED BY <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY BC	APPROVED BY BRIAN VITELLE PROJECT ENGINEER
		234-1701 CC527 COORDINATE
		6262407-187444 CC583 COORDINATE
CONTRACTOR	DATE STARTED	30360-33-D
INSPECTOR	DATE COMPLETED	



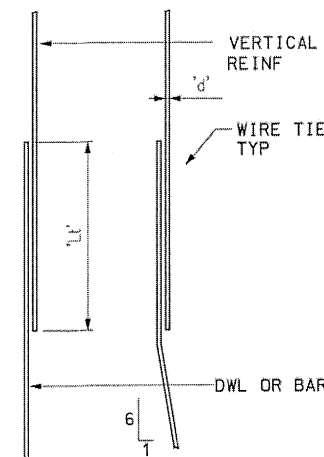
STRUCTURAL NOTES 2



- NOTES:
1. SPLICE LENGTH SHALL BE DETERMINED FROM THE SIZE OF THE SMALLER BAR SPLICED.
  2. MINIMUM COVER 1.5". MINIMUM BAR CLEAR SPACING 2 BAR DIAMETERS.
  3. TOP BARS ARE DEFINED AS BARS WITH 12" OR MORE OF FRESH CONCRETE PLACED BELOW THEM.
  4. CONCRETE MASONRY UNITS LAP 48d MINHORIZ & VERTREINF.
  5. L<sub>T</sub> VALUES IN SCHEDULE SHALL BE MULTIPLIED BY 1.3 FOR LIGHT WEIGHT CONCRETE.

BAR SIZE	TENSION LAP "L <sub>T</sub> " (IN.)					
	F' <sub>c</sub> =3,000 P.S.I.		F' <sub>c</sub> =4,500 P.S.I.		F' <sub>c</sub> =5,000 P.S.I.	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	29	23	25	20	22	17
#4	38	30	33	26	29	23
#5	47	37	41	32	36	28
#6	56	44	49	38	44	34
#7	82	64	71	55	63	49
#8	94	73	81	63	72	56
#9	106	82	91	70	81	63
#10	119	92	103	80	91	70
#11	131	101	113	87	101	78

HARDROCK CONCRETE  
F'<sub>y</sub> = 60,000 PSI (CLASS "B")



BAR SIZE	TENSION LAP "L <sub>T</sub> " (IN.)			HOOK EMBED (IN.)
	F' <sub>c</sub> =3,000 PSI	F' <sub>c</sub> =4,500 PSI	F' <sub>c</sub> =5,000 PSI	
#3	22	19	17	8
#4	29	25	23	11
#5	36	31	28	14
#6	43	37	34	16
#7	63	54	49	19
#8	72	62	56	22
#9	81	70	63	25
#10	91	79	70	28
#11	101	87	78	31

F'<sub>y</sub> = 60 KSI

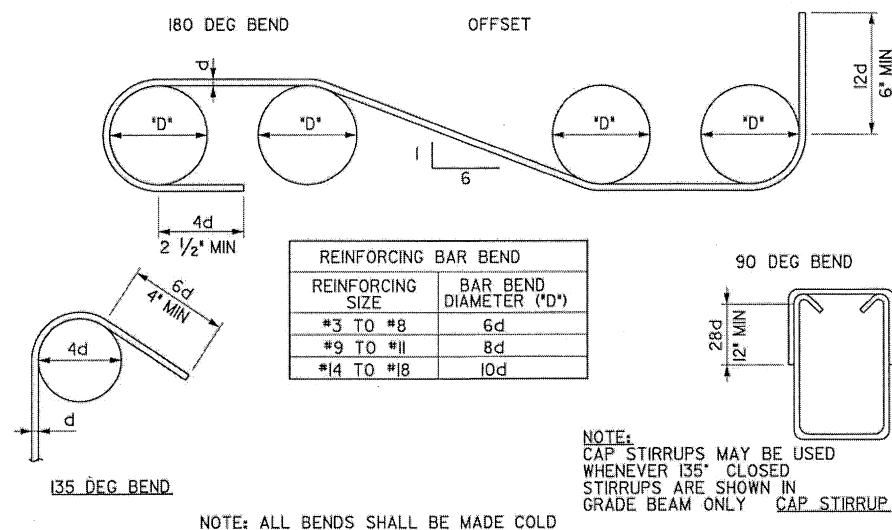
- NOTES:
1. ALL VERTICAL REINFORCING FOR COLUMN, PIERS AND WALLS SHALL BE DOWELED AS SHOWN UON.
  2. MINIMUM CLEAR SPACING 2d, MINIMUM COVER 1.5".
  3. DOWELS SHALL BE THE SAME GRADE, SIZE, QUANTITY AND/OR SPACING AS VERTICAL REINFORCING.

HORIZONTAL REINFORCING LAP SPLICE

DETAIL 1  
SCALE: NTS

VERT REINF - TENSION LAP SPLICE

DETAIL 2  
SCALE: NTS

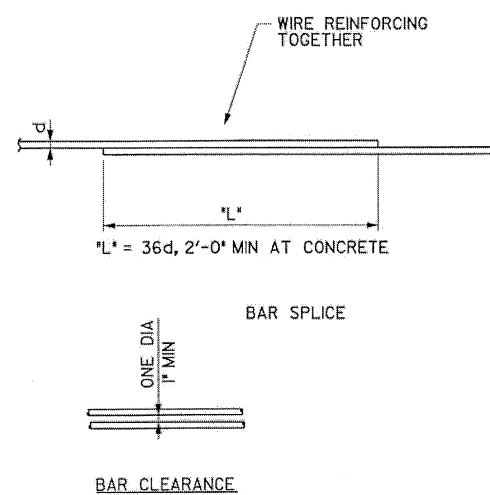


REINFORCING SIZE	BAR BEND DIAMETER (D')
#3 TO #8	6d
#9 TO #11	8d
#14 TO #18	10d

NOTE:  
CAP STIRRUPS MAY BE USED WHENEVER 135° CLOSED STIRRUPS ARE SHOWN IN GRADE BEAM ONLY CAP STIRRUP

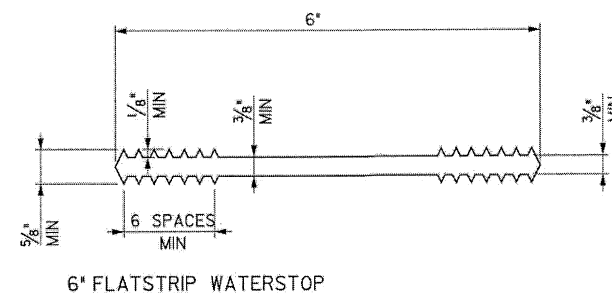
TYP BAR BENDS

DETAIL 3  
SCALE: NTS



BAR SPLICE

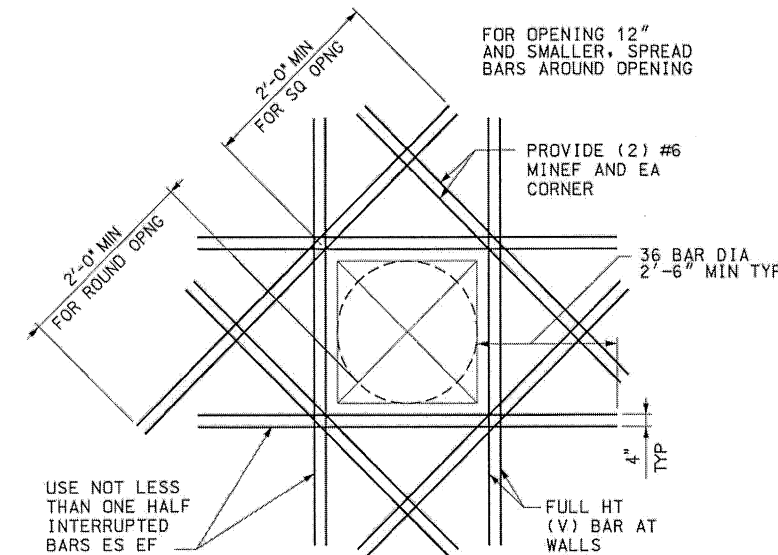
BAR CLEARANCE



6" FLATSTRIP WATERSTOP

WATER STOP

DETAIL 4  
SCALE: NTS



TYP REINF AT LARGE OPNG IN CONC WALL

DETAIL 5  
SCALE: NTS

S-3

BALBOA TERRACE TRUNK SEWER

STRUCTURAL TYPICAL DETAILS 1

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 34 OF 38 SHEETS

APPROVED: *[Signature]* 2/22/12  
FOR CITY ENGINEER DATE

DESIGNED BY: JIM HAGGOLY  
ASSOCIATE ENGINEER

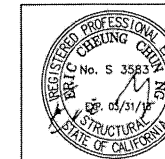
CHIEF ENGINEER: BRIAN VITELLE  
PROJECT ENGINEER

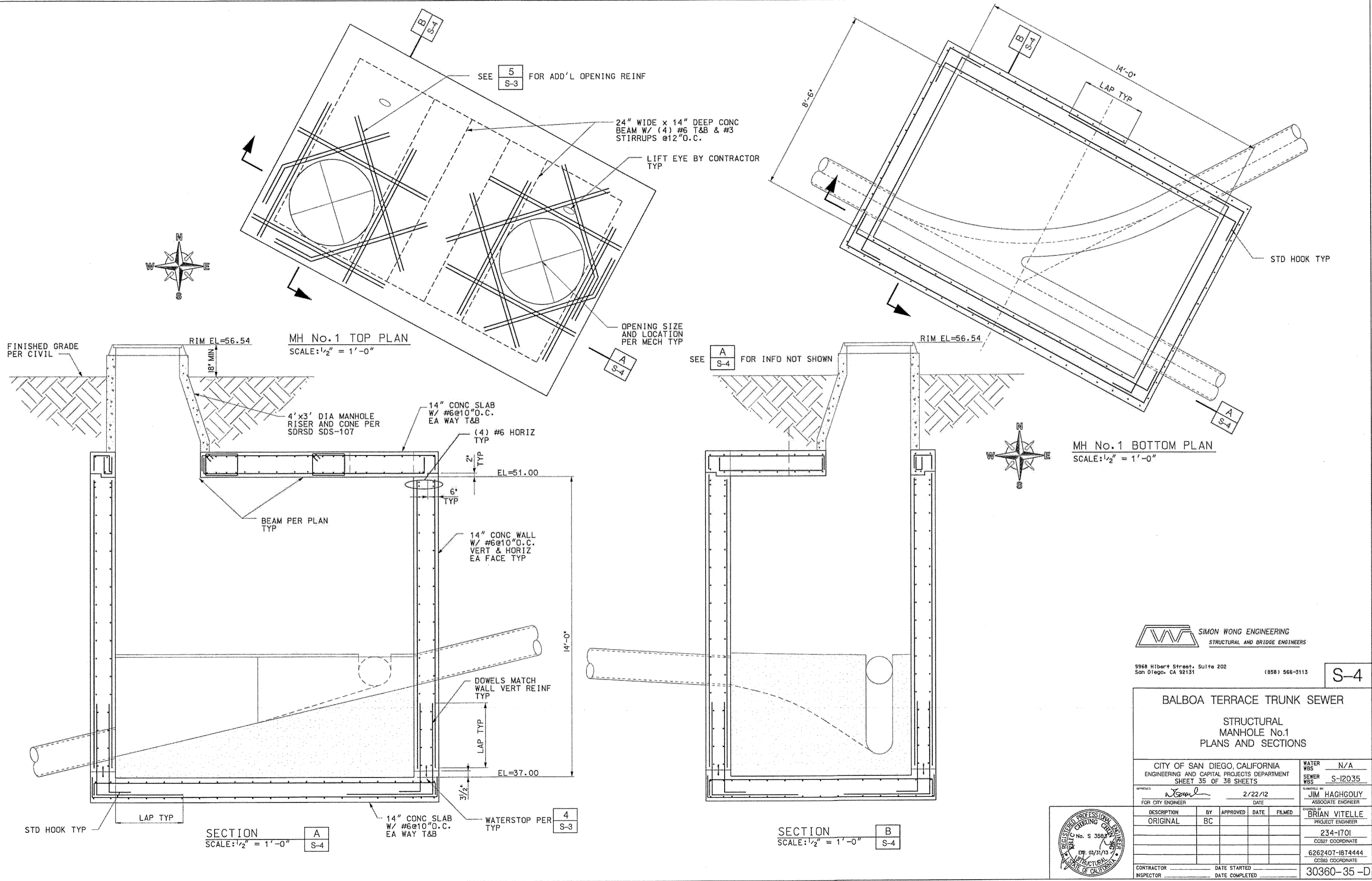
234-1701  
CCS87 COORDINATE

6262407-1874444  
CCS83 COORDINATE

CONTRACTOR: \_\_\_\_\_ DATE STARTED: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_

SIMON WONG ENGINEERING  
STRUCTURAL AND BRIDGE ENGINEERS  
9568 Hilbert Street, Suite 202  
San Diego, CA 92131 (858) 566-9113



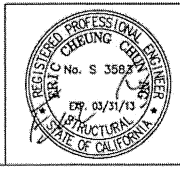


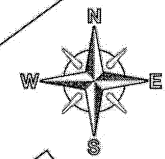
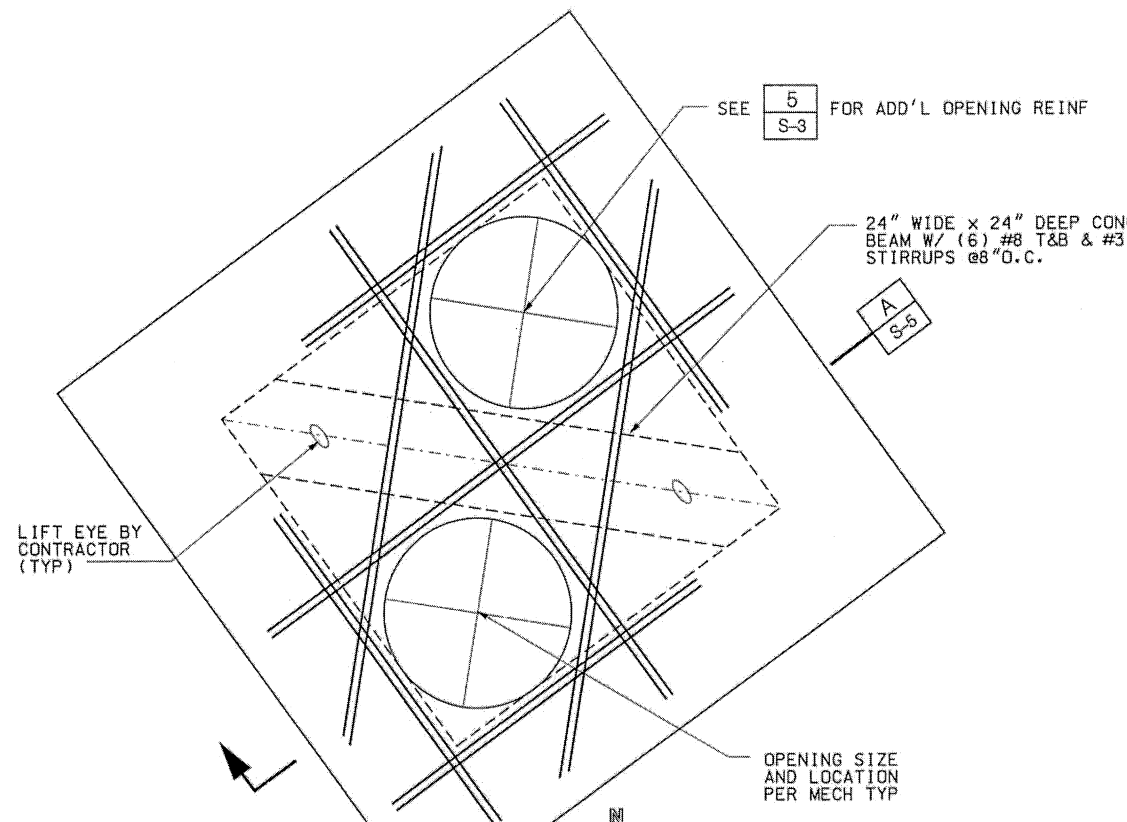
**SIMON WONG ENGINEERING**  
STRUCTURAL AND BRIDGE ENGINEERS

9968 Hlbert Street, Suite 202  
San Diego, CA 92131 (858) 566-3113

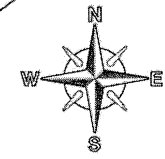
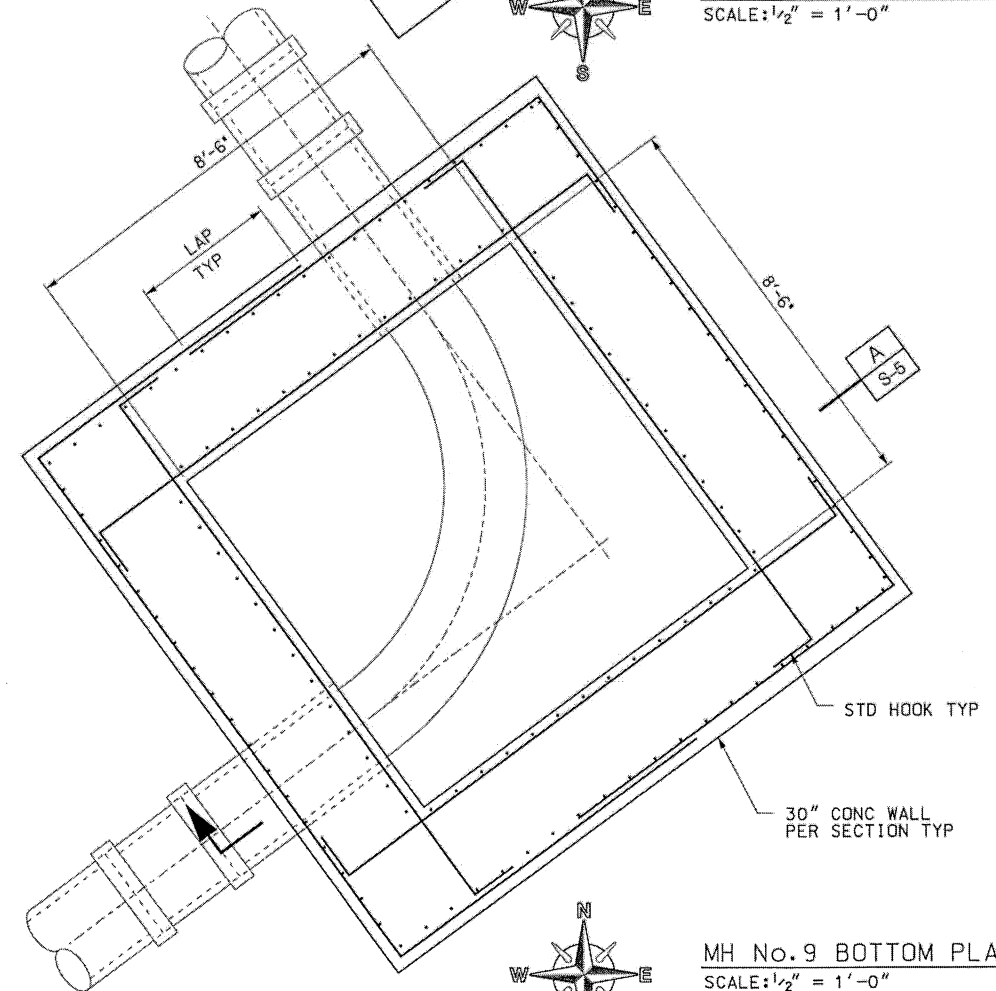
S-4

<b>BALBOA TERRACE TRUNK SEWER</b>			
STRUCTURAL MANHOLE No.1 PLANS AND SECTIONS			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 35 OF 38 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE 2/22/12	ENGINEER JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	BC		
CONTRACTOR	DATE STARTED		
INSPECTOR	DATE COMPLETED		
			30360-35-D

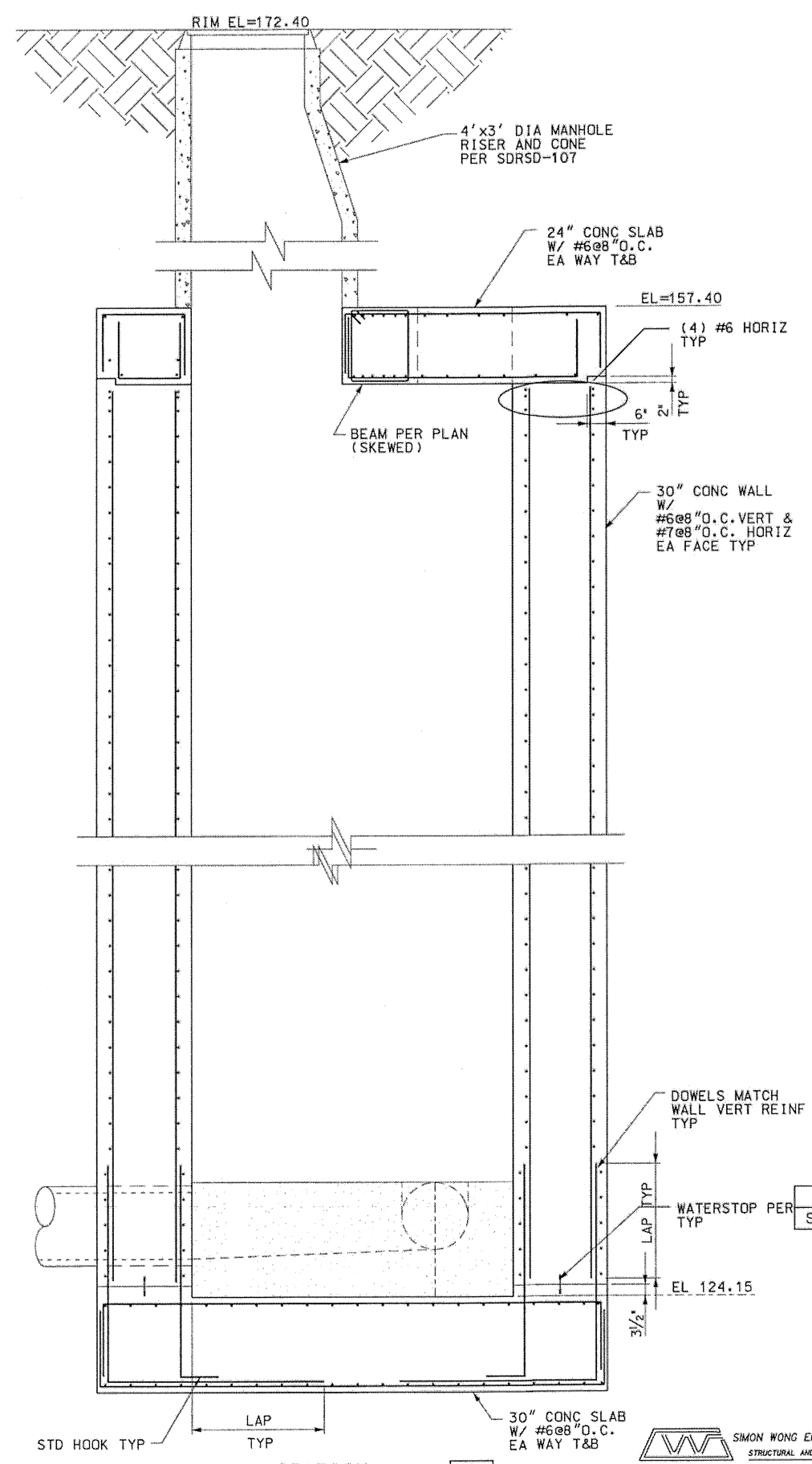




MH No. 9 TOP PLAN  
SCALE: 1/2" = 1'-0"

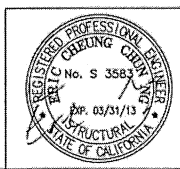


MH No. 9 BOTTOM PLAN  
SCALE: 1/2" = 1'-0"

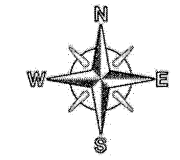
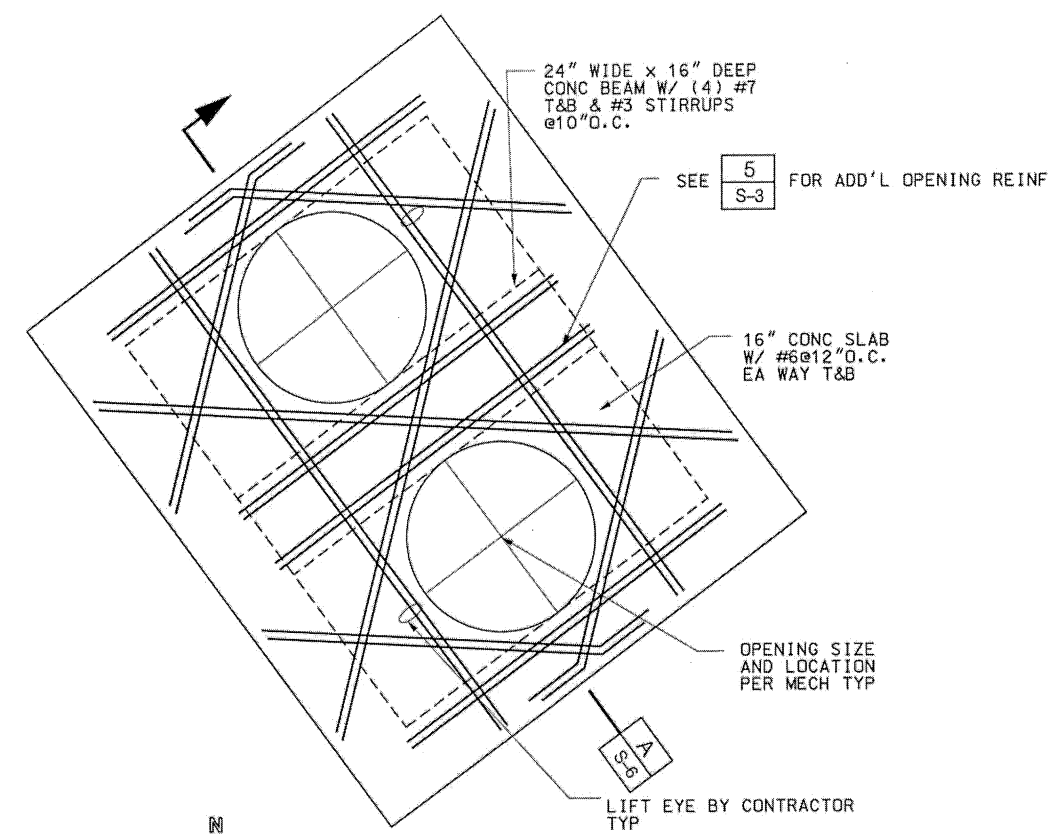


SECTION A  
SCALE: 1/2" = 1'-0" S-5

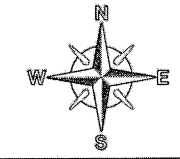
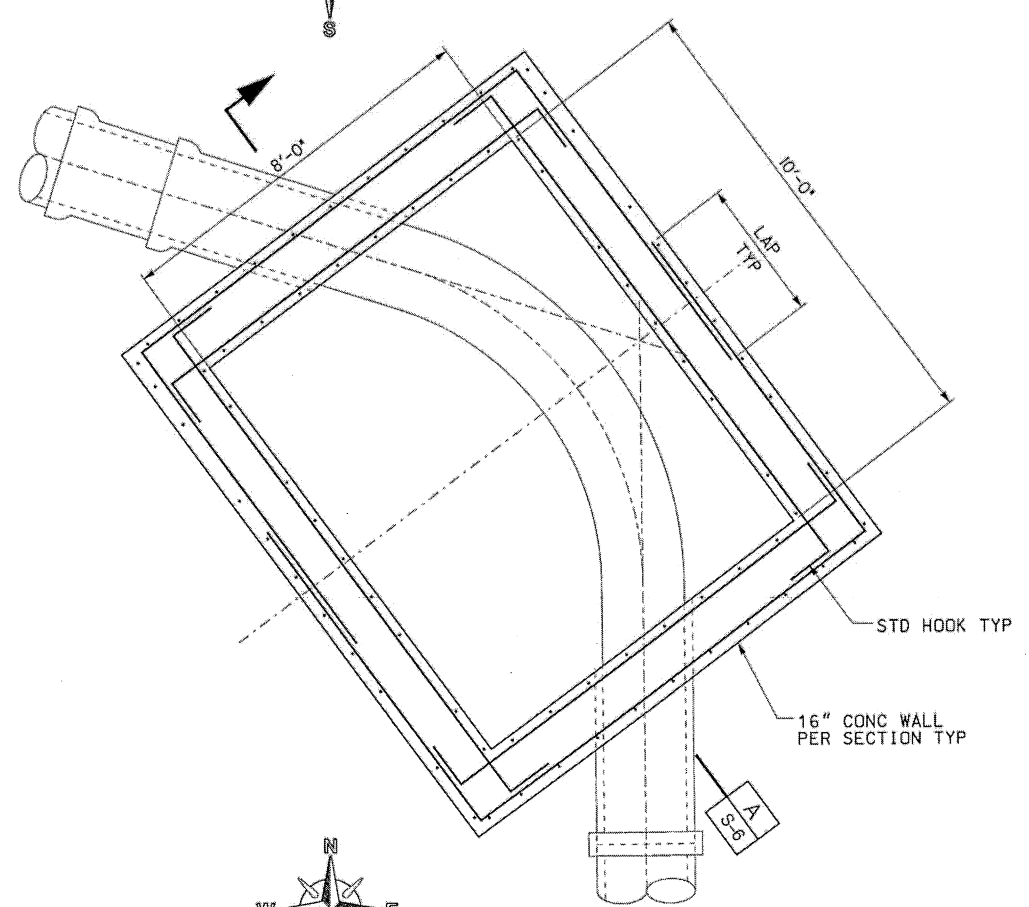
**SW** SIMON WONG ENGINEERING  
STRUCTURAL AND BRIDGE ENGINEERS  
9968 Hibert Street, Suite 202  
San Diego, CA 92131 (658) 566-3113



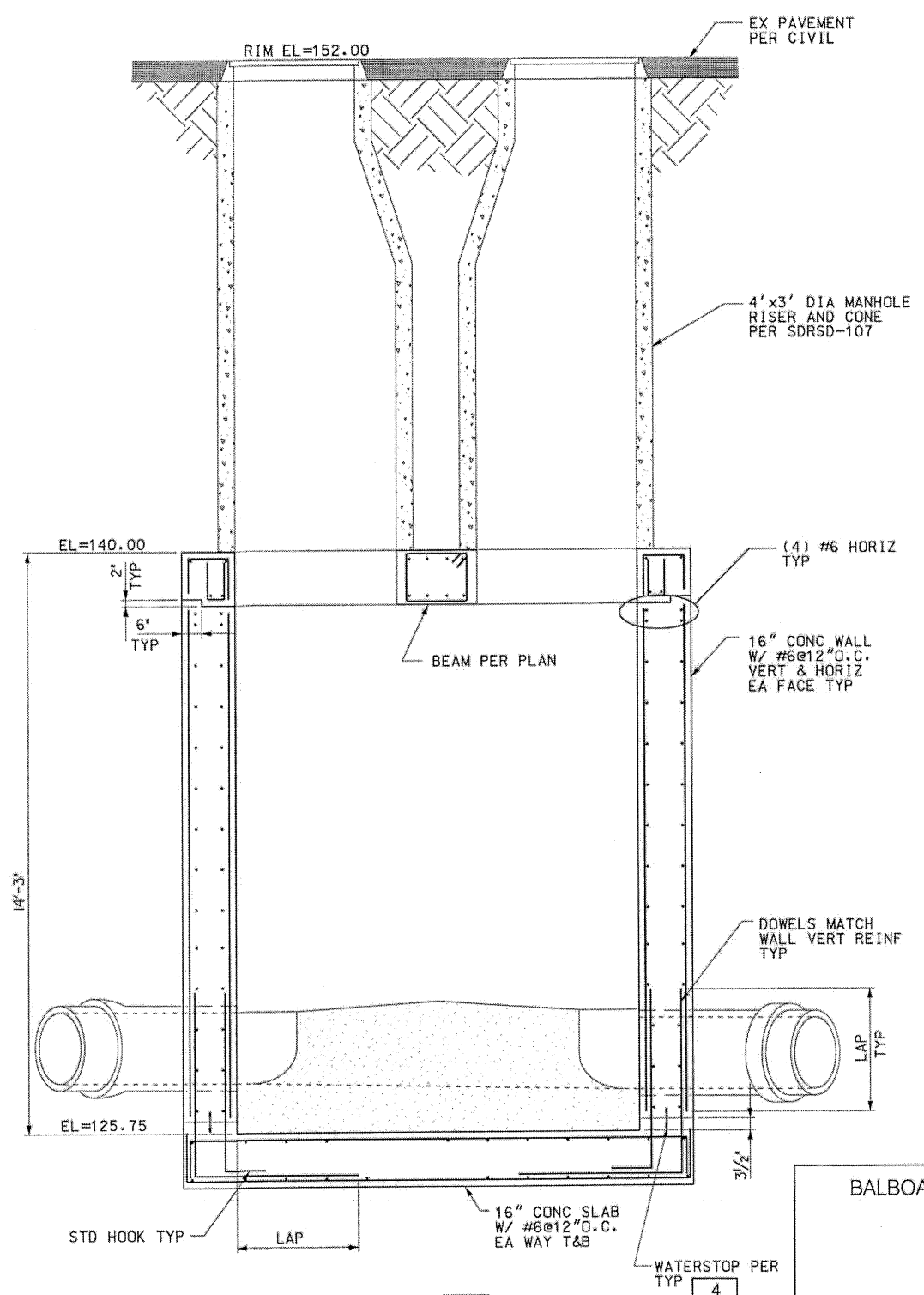
<b>BALBOA TERRACE TRUNK SEWER</b>			
<b>STRUCTURAL MANHOLE No.9 PLANS AND SECTION</b>			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 36 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035	DESIGNED BY <b>JIM HAGGOUY</b> ASSOCIATE ENGINEER
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	CHECKED BY <b>BRIAN VITELLE</b> PROJECT ENGINEER	
DESCRIPTION ORIGINAL	BY BC	APPROVED	FILED 234-1701 CC827 COORDINATE 6262407-187444 CC883 COORDINATE
CONTRACTOR	DATE STARTED	DATE COMPLETED	30360-36-D



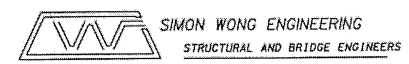
MH No. 10 TOP PLAN  
SCALE: 1/2" = 1'-0"



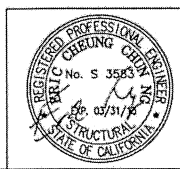
MH No. 10 BOTTOM PLAN  
SCALE: 1/2" = 1'-0"



SECTION A-A  
SCALE: 1/2" = 1'-0"

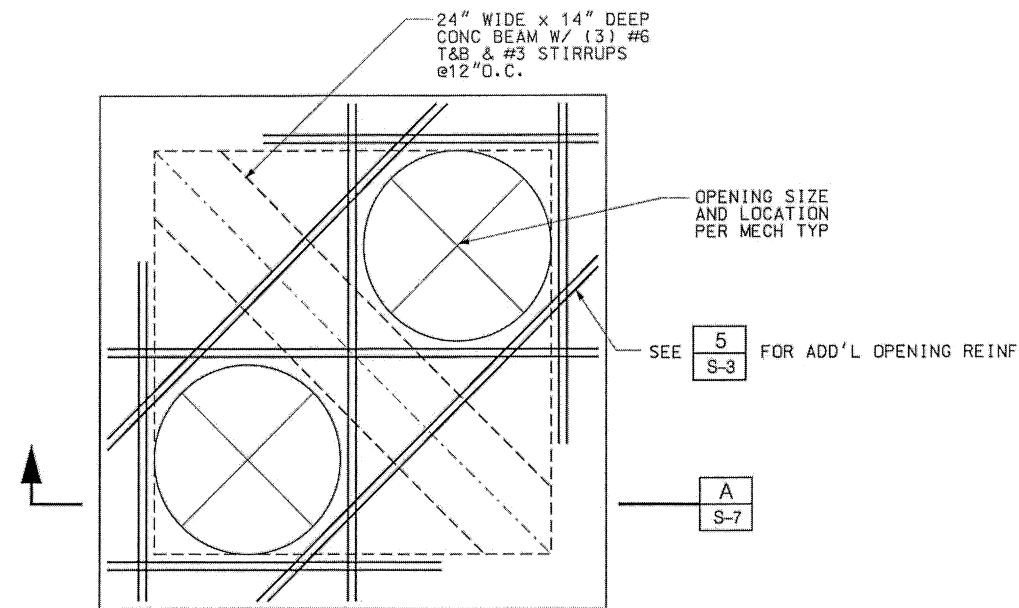


9568 Hibert Street, Suite 202  
San Diego, CA 92131 (858) 566-3113

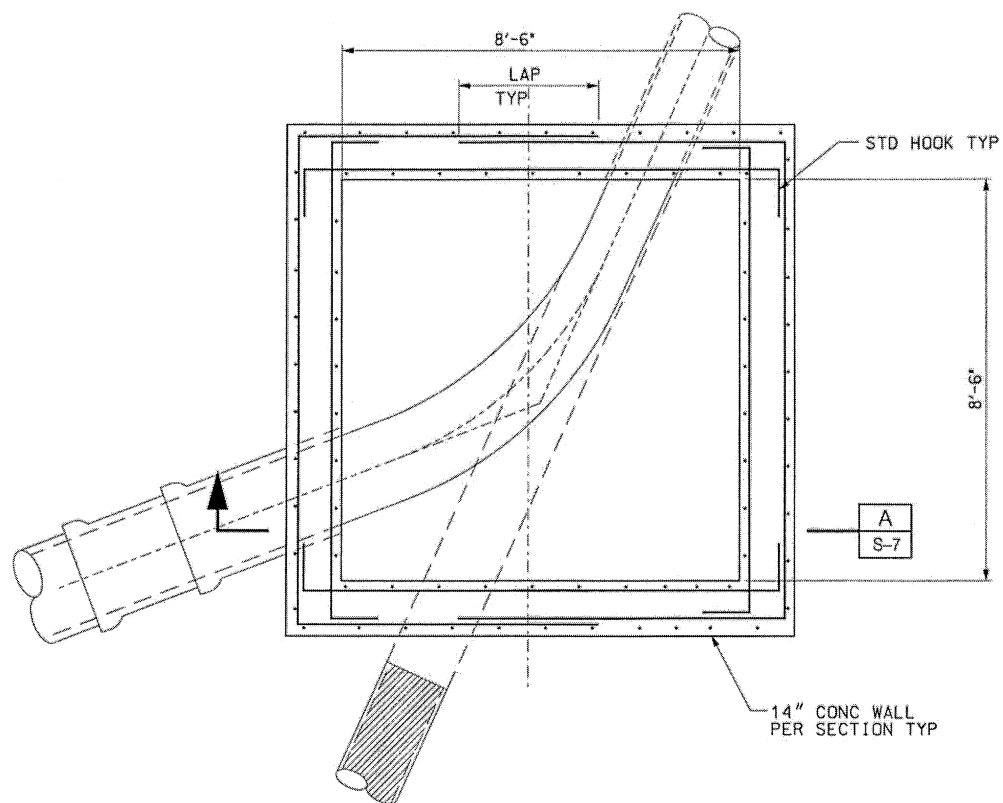
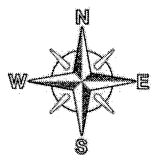


BALBOA TERRACE TRUNK SEWER			
STRUCTURAL MANHOLE No.10 PLANS AND SECTION			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 37 OF 38 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED BY <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGGOUY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY BC	APPROVED	FILED
ORDERED BY BRIAN VITELLE PROJECT ENGINEER		234-1701 CCS27 COORDINATE	
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
		30360-37-D	

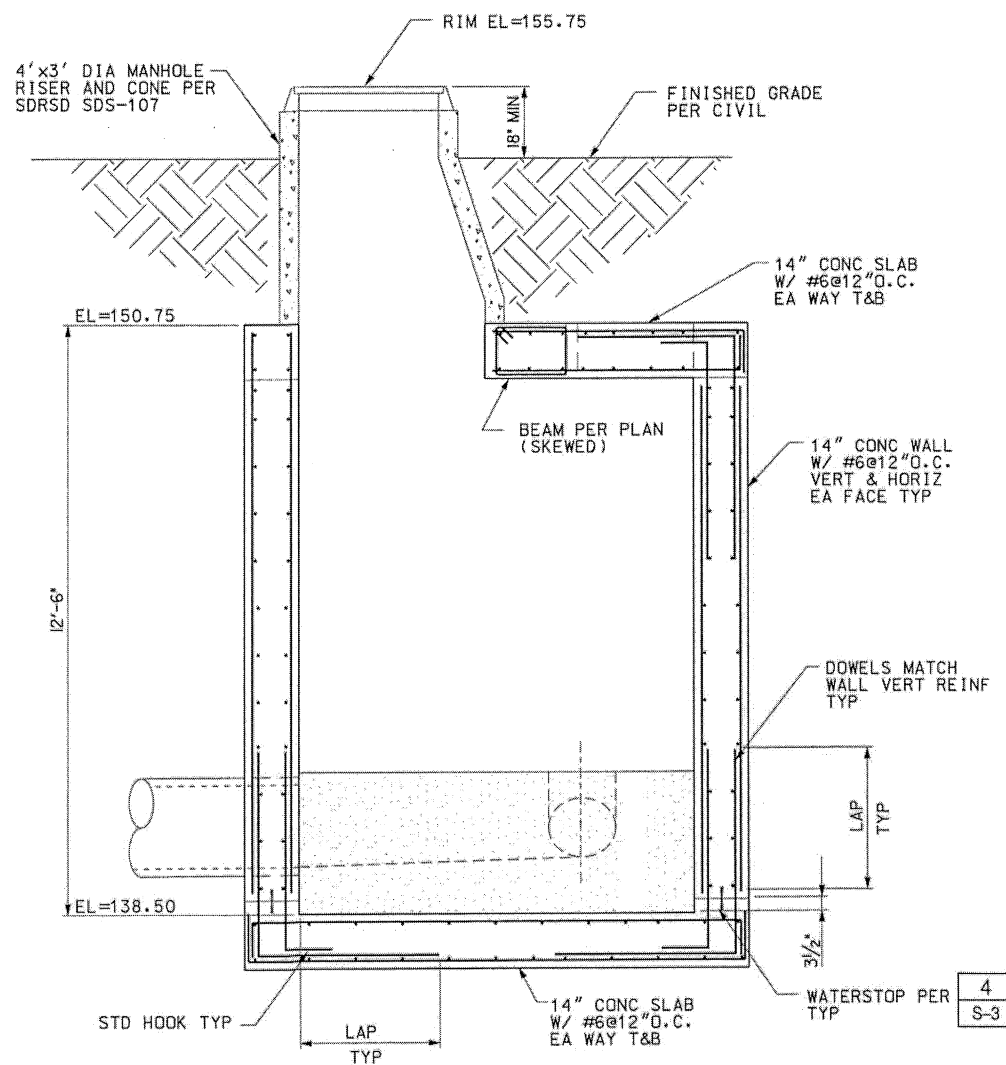
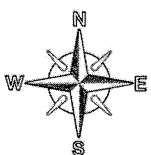




MH No. 19 TOP PLAN  
SCALE: 1/2" = 1'-0"



MH No. 19 BOTTOM PLAN  
SCALE: 1/2" = 1'-0"



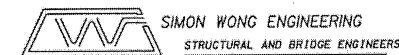
SECTION A  
SCALE: 1/2" = 1'-0"

S-7

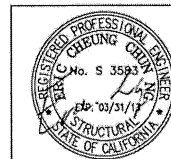
BALBOA TERRACE TRUNK SEWER

MANHOLE No.19  
PLANS AND SECTION

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 38 OF 38 SHEETS					WATER WBS	N/A
APPROVED: <i>[Signature]</i> 2/22/12 FOR CITY ENGINEER					SEWER WBS	S-12035
SUBMITTED BY JIM HAGHGOUY ASSOCIATE ENGINEER					CHECKED BY BRIAN VITELLE PROJECT ENGINEER	
DESCRIPTION					234-1701	
ORIGINAL					CCS27 COORDINATE	
					6262407-1B74444	
					CCS83 COORDINATE	
CONTRACTOR					DATE STARTED	
INSPECTOR					DATE COMPLETED	
					30360-38 -D	



9968 Hibert Street, Suite 202  
San Diego, CA 92131 (858) 566-3113





**TRAFFIC CONTROL NOTES**

1. VALIDATION: THIS TRAFFIC CONTROL PLAN IS NOT VALID UNTIL WORK DATES ARE APPROVED. THE CONTRACTOR SHALL, PER SECTION 7-10.2.3 OF THE CONTRACT SPECIAL PROVISIONS, CALL THE ENGINEER TRAFFIC CONTROL SECTION AT (858) 495-4741 TO OBTAIN A PERMIT. THE CONTRACTOR MUST CALL A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO STARTING WORK, OR FIVE (5) WORKING DAYS WHEN THE WORK WILL AFFECT A TRAFFIC SIGNAL.
2. STANDARDS: THIS TRAFFIC CONTROL PLAN SHALL CONFORM TO THE MOST RECENT ADOPTED EDITION OF EACH OF THE FOLLOWING MANUALS:
  - CITY OF SAN DIEGO STANDARD DRAWINGS, APPENDIX "A";
  - CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS; AND
  - STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK"), INCLUDING REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT AMENDMENTS.
3. NOTIFICATIONS: THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AFFECTED AGENCIES A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ANY EXCAVATION, CONSTRUCTION OR TRAFFIC CONTROL:
 

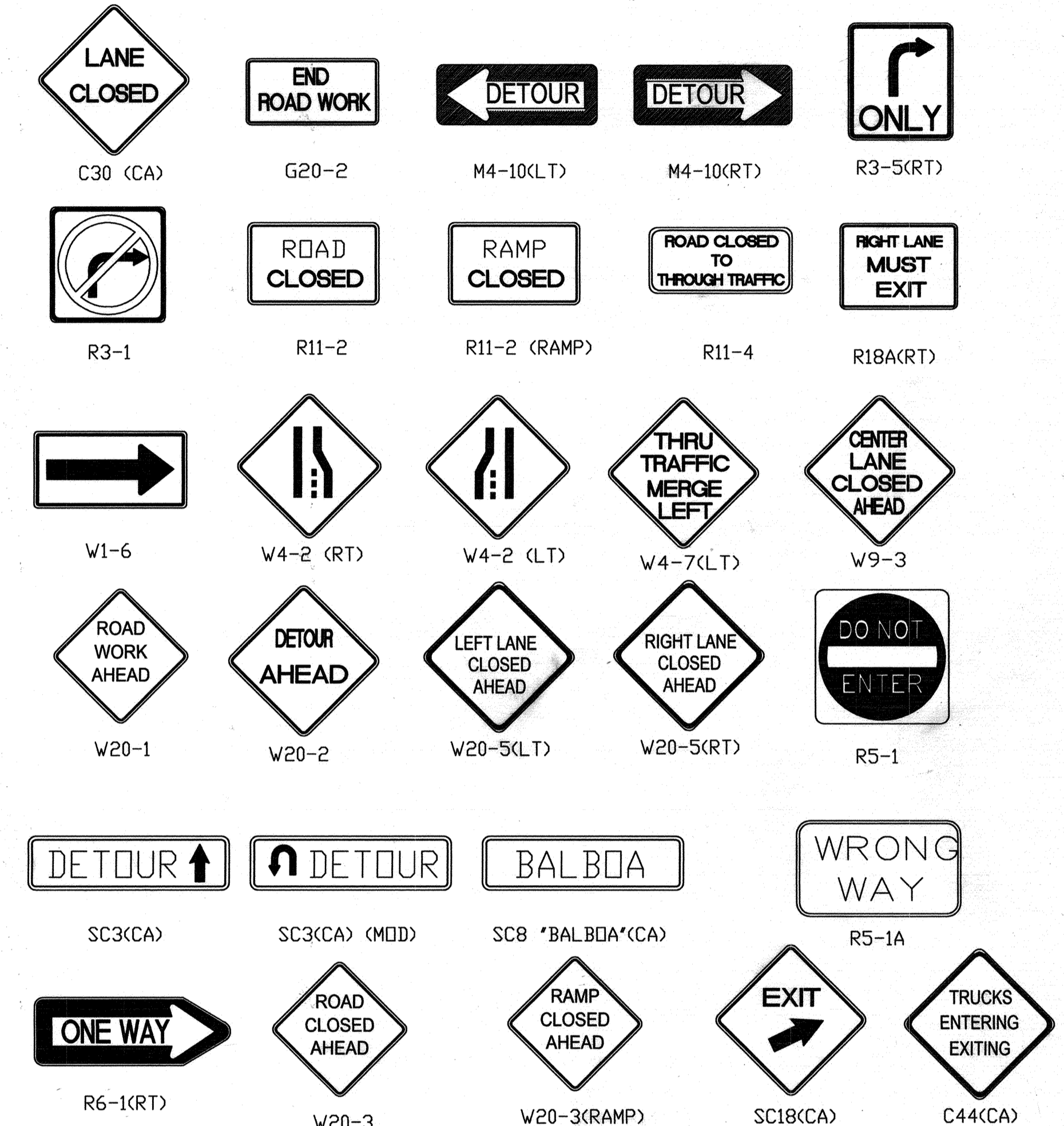
FIRE DEPARTMENT DISPATCH	(STREET OR ALLEY CLOSURE)	(858) 573-1300
POLICE DEPARTMENT TRAFFIC	(STREET OR ALLEY CLOSURE)	(858) 495-7800
WASTE MANAGEMENT DEPT	(REFUSE COLLECTION)	(858) 694-7000
STREET DIVISION/ELECTRICAL	(TRAFFIC SIGNALS)	(619) 527-7500
SAN DIEGO TRANSIT	(BUS STOPS)	(619) 595-7038
MTDB	(TAXI ZONES)	(619) 235-2643
UNDERGROUND SERVICE ALERT	(ANY EXCAVATION)	(800) 422-4133

THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS AND TENANTS A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CLOSURE OF DRIVEWAYS. THE CONTRACTOR SHALL POST SIGNS NOTIFYING THE PUBLIC A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CLOSURE OF STREETS.
4. POSTING PARKING RESTRICTIONS: THE CONTRACTOR SHALL POST TOW-AWAY/NO PARKING SIGNS TWENTY-FOUR (24) HOURS IN ADVANCE FOR TEMPORARY PARKING REMOVAL. SIGNS SHALL INDICATE SPECIFIC DAYS, DATES AND TIMES OF RESTRICTIONS.
5. EXCAVATIONS: EXCEPT AS SHOWN ON THE PLANS, TRENCHES SHALL BE BACKFILLED OR TRENCH-PLATED AT THE END OF EACH WORK DAY. AN ASPHALT RAMP SHALL BE PLACED AROUND EACH TRENCH PLATE TO PREVENT THE PLATE FROM BEING DISLODGED. UPON COMPLETION OF EXCAVATION BACKFILL, THE CONTRACTORS SHALL PROVIDE A SATISFACTORY SURFACE FOR TRAFFIC. WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVELY IN PROGRESS, THE CONTRACTOR SHALL MAINTAIN ALL TRAVEL LANES OPEN TO TRAFFIC, EXCEPT AS SHOWN ON THE PLANS.
6. RESTORATION OF TRAFFIC CONTROL DEVICES: THE CONTRACTOR SHALL REPAIR OR REPLACE TRAFFIC CONTROL DEVICES (INCLUDING TRAFFIC SIGNS, STRIPING, PAVEMENT MARKERS, PAVEMENT MARKINGS, LEGENDS, CURB MARKINGS, LOOP DETECTORS, TRAFFIC SIGNAL EQUIPMENT, ETC) DAMAGED OR REMOVED AS A RESULT OF OPERATIONS AND NOT DESIGNATED FOR REMOVAL. REPAIRS AND REPLACEMENTS SHALL BE EQUAL TO EXISTING IMPROVEMENTS. LOOP DETECTORS SHALL BE REPLACED WITHIN THREE (3) WORKING DAYS OF COMPLETION OF UNDERGROUND WORK.
7. CHANGES IN WORK: THE RESIDENT ENGINEER WILL OBSERVE THESE TRAFFIC CONTROL PLANS IN OPERATION AND RESERVES THE RIGHT TO MAKE CHANGES AS THE FIELD CONDITIONS WARRANT. SUCH CHANGES SHALL SUPERSEDE THESE PLANS.
8. FOR WORK NOT COVERED BY THESE TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL, PER SECTION 7-10.2.1 OF THE CONTRACT SPECIAL PROVISIONS, PREPARE TRAFFIC CONTROL SHOP DRAWINGS AND SUBMIT THEM TO THE RESIDENT ENGINEER. THE CONTRACTOR SHALL ALLOW A MINIMUM OF TWENTY (20) WORKING DAYS FOR REVIEW OF THE SHOP DRAWINGS. UPON APPROVAL OF THE TRAFFIC CONTROL PLAN, THE ENGINEERING TRAFFIC CONTROL SECTION WILL ISSUE A TRAFFIC CONTROL PLAN (TCP) PERMIT FOR THIS WORK.

**VICINITY MAP**



**TRAFFIC SIGNS:**



- TC-1 - TITLE SHEET
- TC-2 - STAGE 1 BALBOA TERRACE/BALBOA - STA. 21+00 TO 27+00
- TC-3 - STAGE 2 BALBOA TERRACE/BALBOA - STA. 17+90 TO 23+40
- TC-4 - STAGE 3 BALBOA AVE - STA. 1+00 TO 6+75
- TC-5 - STAGE 3 MORENA BLVD SB/NB RAMPS DETOUR
- TC-6 - STAGE 4 BALBOA AVE - STA. 6+80 TO 12+40
- TC-7 - STAGE 4 NB MORENA BLVD TO EB BALBOA AVE RAMP CLOSURE
- TC-8 - STAGE 5 BALBOA AVE - STA. 11+90 TO 14+60
- TC-9 - STAGE 6 BALBOA AVE - STA. 14+60 TO 15+40
- TC-10 - STAGE 7 BALBOA AVE - STA. 15+40 TO 17+90

**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DRUMS (36" MIN.)
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)

PLANS PREPARED UNDER THE SUPERVISION OF:  
**Bill E. Darnell** 2/3/2011  
 BILL E. DARNELL  
 DESIGN ENGINEER R.C.E. No. 22338  
 LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
 2870 4TH AVE SUITE A  
 SAN DIEGO, CA 92103  
 (619) 233-9373  
 DWG NAME: 110201TC-E1.dwg | DATE: 2-3-12 | BY: JMM

100%  
SUBMITTAL

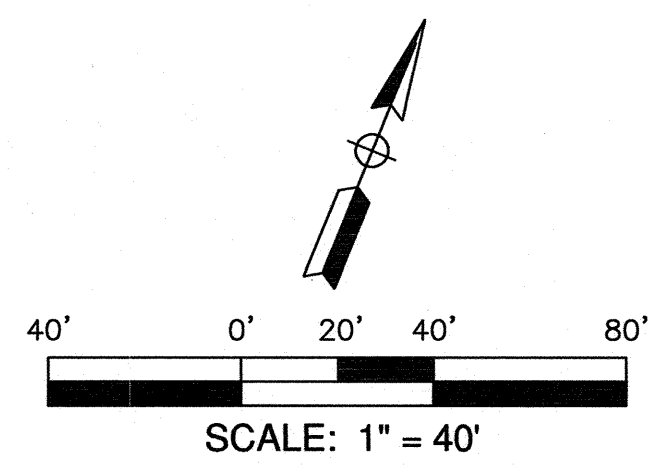
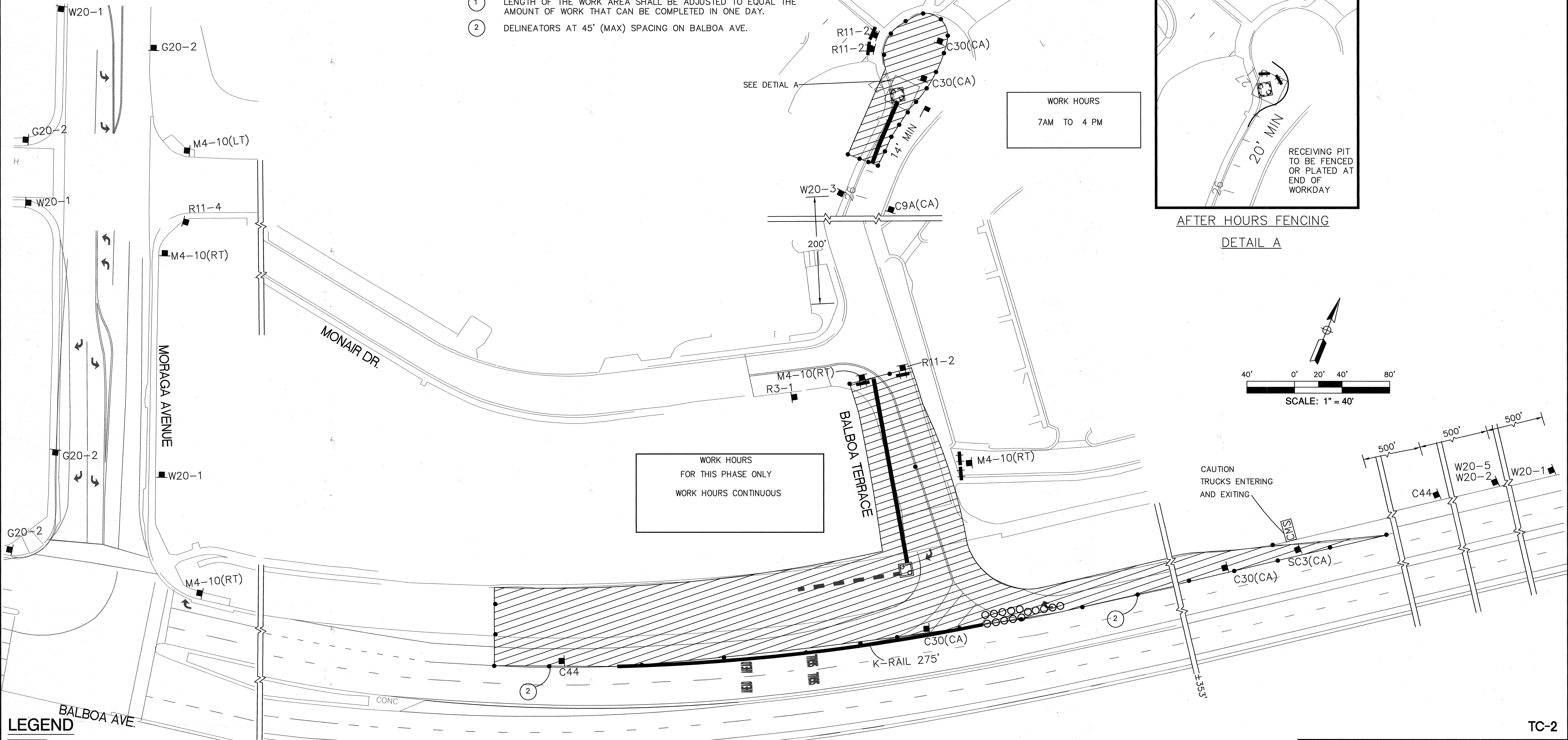
<b>BALBOA TERRACE TRUNK SEWER</b>		WATER WBS: N/A
<b>TRAFFIC CONTROL PLANS</b>		SEWER WBS: S-12035
<b>TITLE SHEET</b>		
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 1 OF 10 SHEETS		DATE: 02/13/2012
APPROVED: <i>Jim Haghouy</i> FOR CITY ENGINEER		SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	D&A	
CONTRACTOR:	DATE STARTED:	CCS27 COORDINATE
INSPECTOR:	DATE COMPLETED:	CCS83 COORDINATE
		<b>30360-TI-D</b>

TC-1



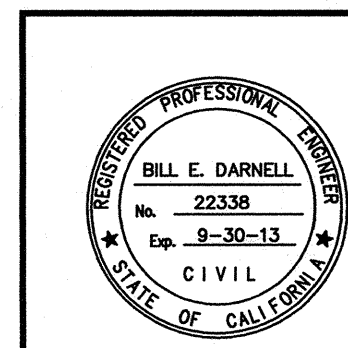
**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLAGGER
- FLASHING ARROW BOARD (FAB)
- INSTALL ARRAY FORMATION U14



PLANS PREPARED UNDER THE SUPERVISION OF:  
**Bill E. Darnell** 2/3/2011  
 DESIGN ENGINEER R.C.E. No. 22338 DATE  
 LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
 2870 4TH AVE SUITE A  
 SAN DIEGO, CA 92103  
 (619) 233-9373  
 DWG NAME: 102201TC-E.dwg DATE: 2-3-12 BY: JMM

100%  
SUBMITTAL

**BALBOA TERRACE TRUNK SEWER  
 TRAFFIC CONTROL PLANS  
 STAGE 1 - BALBOA TERRACE AND BALBOA AVE  
 STA. 21+00 TO 27+00**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 2 OF 10 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>Muhammad</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	D&A	
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		CCS27 COORDINATE
CONTRACTOR		DATE STARTED
INSPECTOR		DATE COMPLETED
		CCS83 COORDINATE
		<b>30360-T2-D</b>

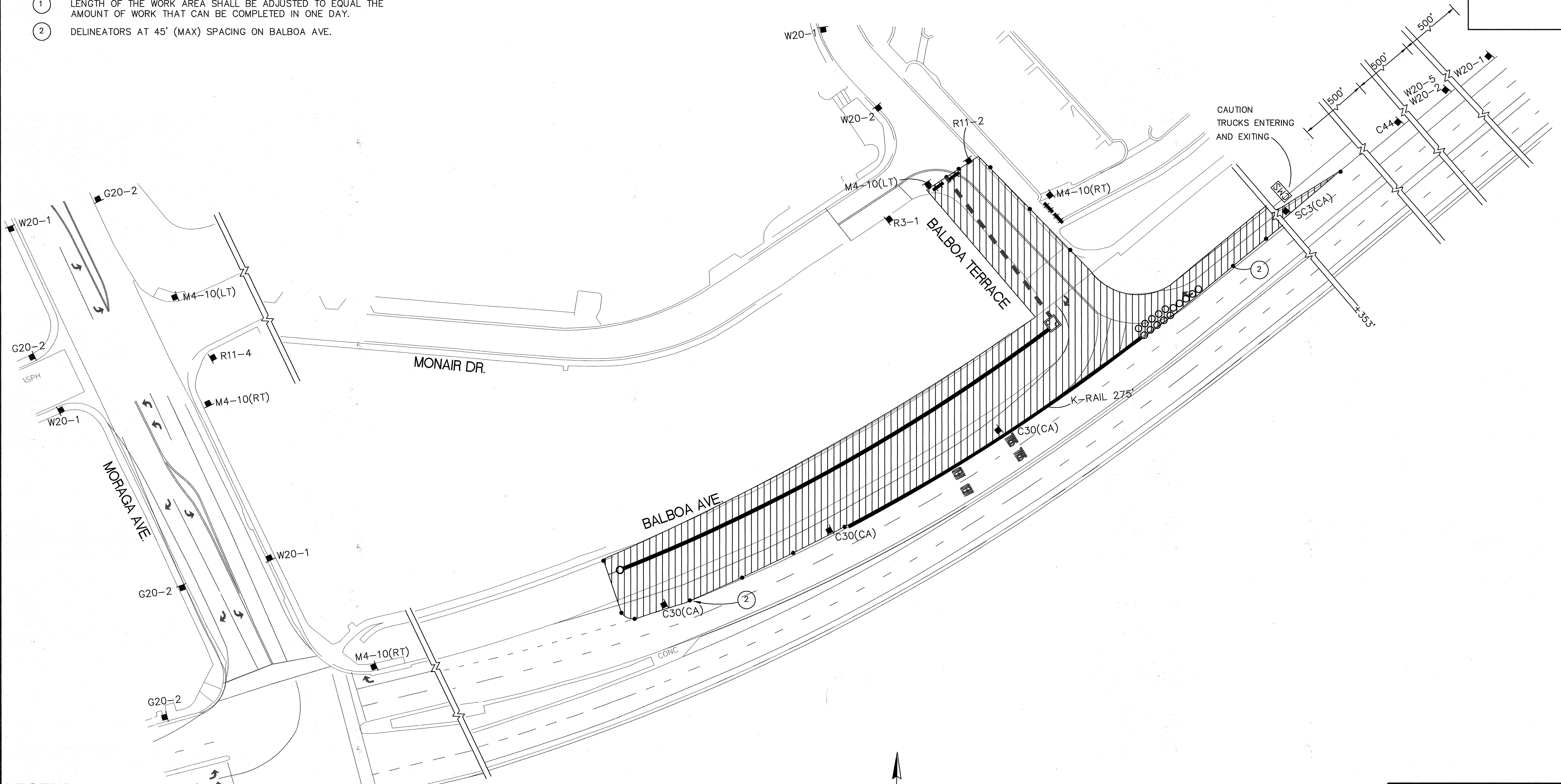
TC-2



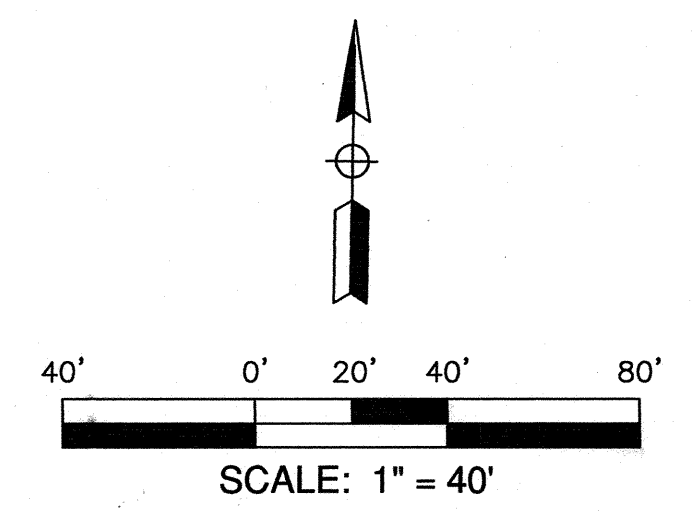
**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS CONTINUOUS



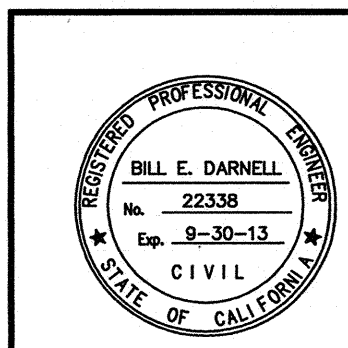
- LEGEND**
- WORK AREA
  - CONSTRUCTION NOTE
  - CONSTRUCTION SIGN LOCATION
  - DELINEATORS
  - DIRECTION OF TRAFFIC
  - XXX-X - CONSTRUCTION SIGN DETAIL No.
  - TYPE III BARRICADES
  - EXISTING PAVEMENT MARKINGS
  - INSTALL ARRAY FORMATION U14
  - FLASHING ARROW BOARD (FAB)



TC-3

**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 2 - BALBOA AVENUE  
STA. 17+90 TO STA. 23+40**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 3 OF 10 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>Amel Abouhamad</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	D&A	
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		CCS27 COORDINATE
		CCS83 COORDINATE
CONTRACTOR		DATE STARTED
INSPECTOR		DATE COMPLETED
		<b>30360-T3-D</b>



PLANS PREPARED UNDER THE SUPERVISION OF:  
*Bill E. Darnell* 2/13/2012  
DATE  
BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE. SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373  
DWG NAME: 110201TC-E.dwg | DATE: 2-3-12 | BY: JMM

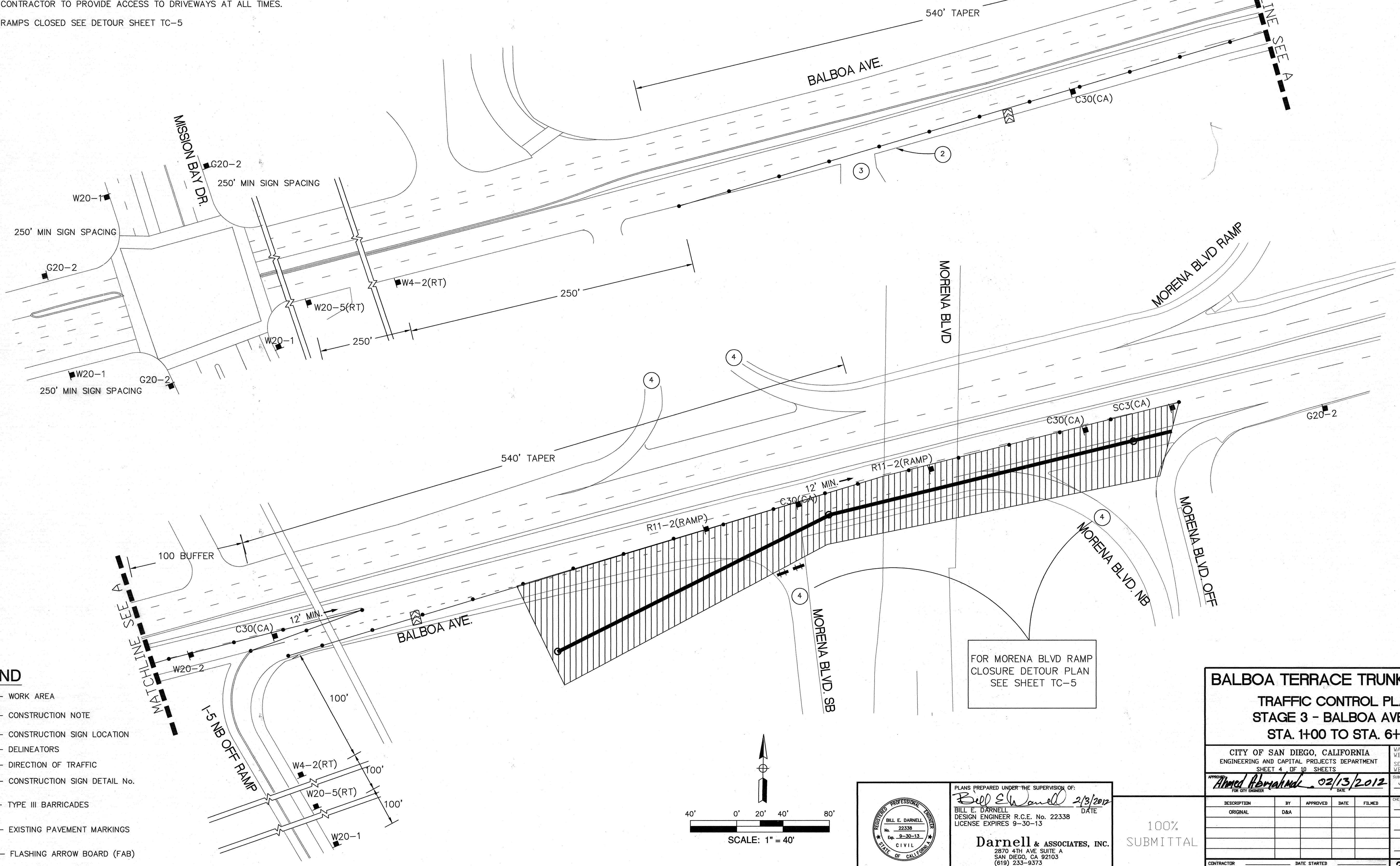
100%  
SUBMITTAL



**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.
- ④ RAMPS CLOSED SEE DETOUR SHEET TC-5

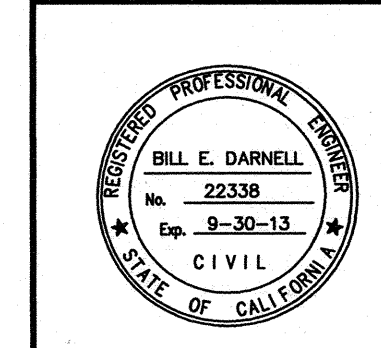
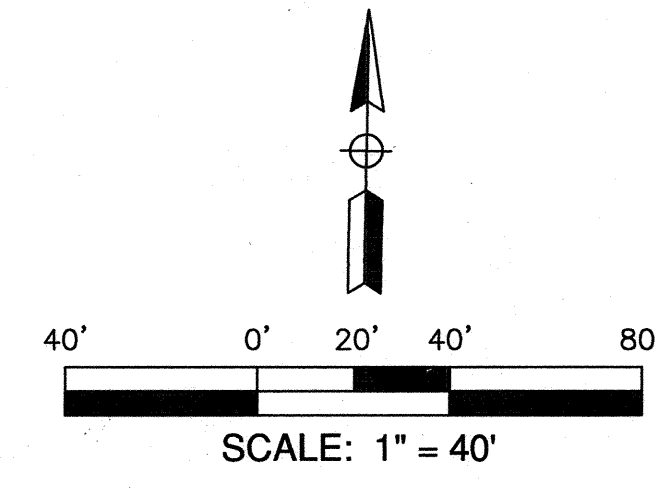
WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)

FOR MORENA BLVD RAMP  
CLOSURE DETOUR PLAN  
SEE SHEET TC-5



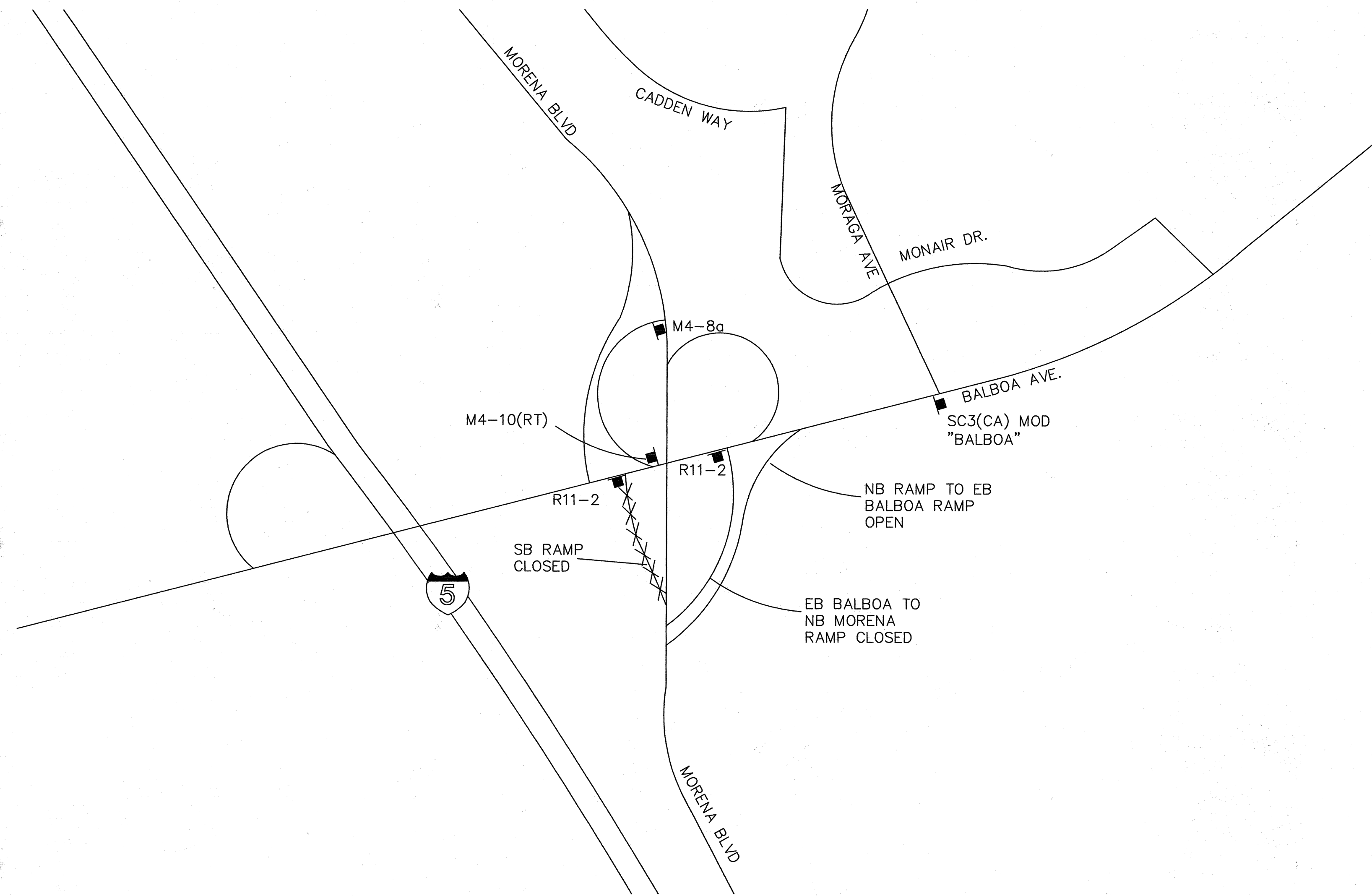
PLANS PREPARED UNDER THE SUPERVISION OF:  
*Bill E. Darnell* 2/3/2012  
DATE  
BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
SAN DIEGO, CA 92103  
(619) 233-9373  
LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373  
DWG NAME: 110201TC-E1.dwg | DATE: 2-13-12 | BY: JMM

100%  
SUBMITTAL


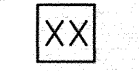







<b>BALBOA TERRACE TRUNK SEWER</b>			
<b>TRAFFIC CONTROL PLANS</b>			
<b>STAGE 3 - BALBOA AVENUE</b>			
<b>STA. 1+00 TO STA. 6+75</b>			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 4 OF 10 SHEETS		WATER WBS N/A SEWER WBS S-12035	
APPROVED BY: <i>Ali Mohamed</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER	
DESCRIPTION		BY	DATE
ORIGINAL	DEA		
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		CCS27 COORDINATE	
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
		<b>30360-T4-D</b>	

TC-4

# STAGE 3 DETOUR FOR MORENA BLVD SB/NB RAMP CLOSURES



## LEGEND

-  - WORK AREA
-  - CONSTRUCTION NOTE
-  - CONSTRUCTION SIGN LOCATION
-  - DELINEATORS
-  - DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
-  - TYPE III BARRICADES
-  - EXISTING PAVEMENT MARKINGS
-  - FLASHING ARROW BOARD (FAB)
-  - CHANGEABLE MESSAGE SIGN

TC-5

### BALBOA TERRACE TRUNK SEWER DETOUR PLAN FOR STAGE 3 NB MORENA BLVD TO EB BALBOA

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 5 OF 10 SHEETS		WATER WBS N/A
APPROVED: <i>Armed Alvarado</i> 02/13/2012 FOR CITY ENGINEER		SEWER WBS S-12035
DESIGNER	BY	DATE
ORIGINAL	D&A	2/13/2012
SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER		ORDERED BY: BRIAN VITELLE PROJECT ENGINEER
DARNELL & ASSOCIATES, INC.		CCS27 COORDINATE
2870 4TH AVE SUITE A SAN DIEGO, CA 92103 (619) 233-9373		CCS83 COORDINATE
CONTRACTOR	DATE STARTED	30360 T5-D
INSPECTOR	DATE COMPLETED	

PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012  
DATE

BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

DWG NAME: 110201TC-E1.dwg | DATE: 2-3-12 | BY: JMM

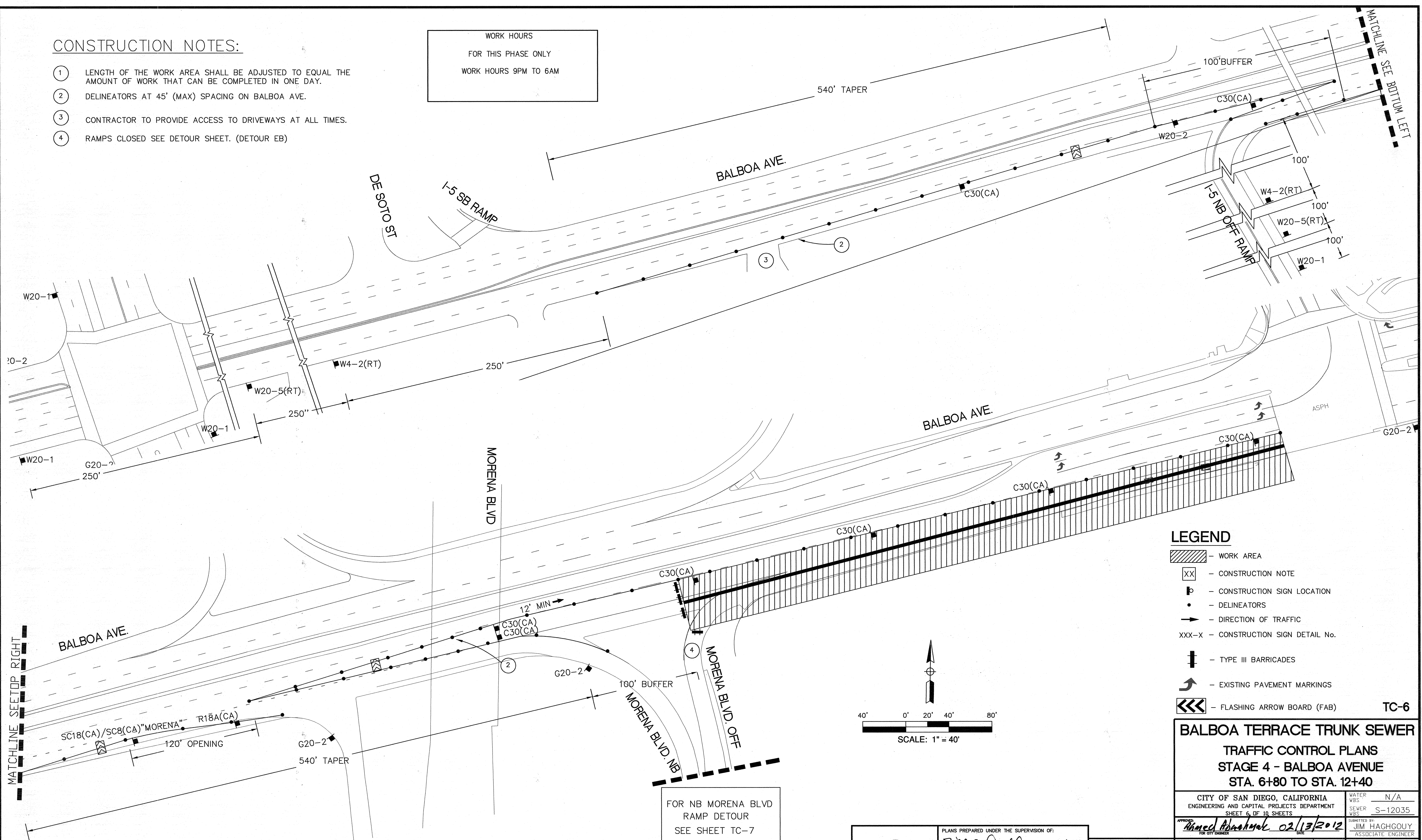
100%  
SUBMITTAL



**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.
- ④ RAMPS CLOSED SEE DETOUR SHEET. (DETOUR EB)

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)

**TC-6**

<b>BALBOA TERRACE TRUNK SEWER</b>			
<b>TRAFFIC CONTROL PLANS</b>			
<b>STAGE 4 - BALBOA AVENUE</b>			
<b>STA. 6+80 TO STA. 12+40</b>			
CITY OF SAN DIEGO, CALIFORNIA		WATER V&S	N/A
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		SEWER V&S	S-12035
SHEET 6 OF 10 SHEETS		APPROVED BY	DATE
		<i>Amjed Abushakr</i>	02/13/2012
SUBMITTED BY		CHECKED BY	
JIM HAGGOUY		BRIAN VITELLE	
ASSOCIATE ENGINEER		PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	D&A		
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
		CCS87 COORDINATE	
		CCS83 COORDINATE	
			<b>30360-T6-D</b>

PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/13/2012

BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

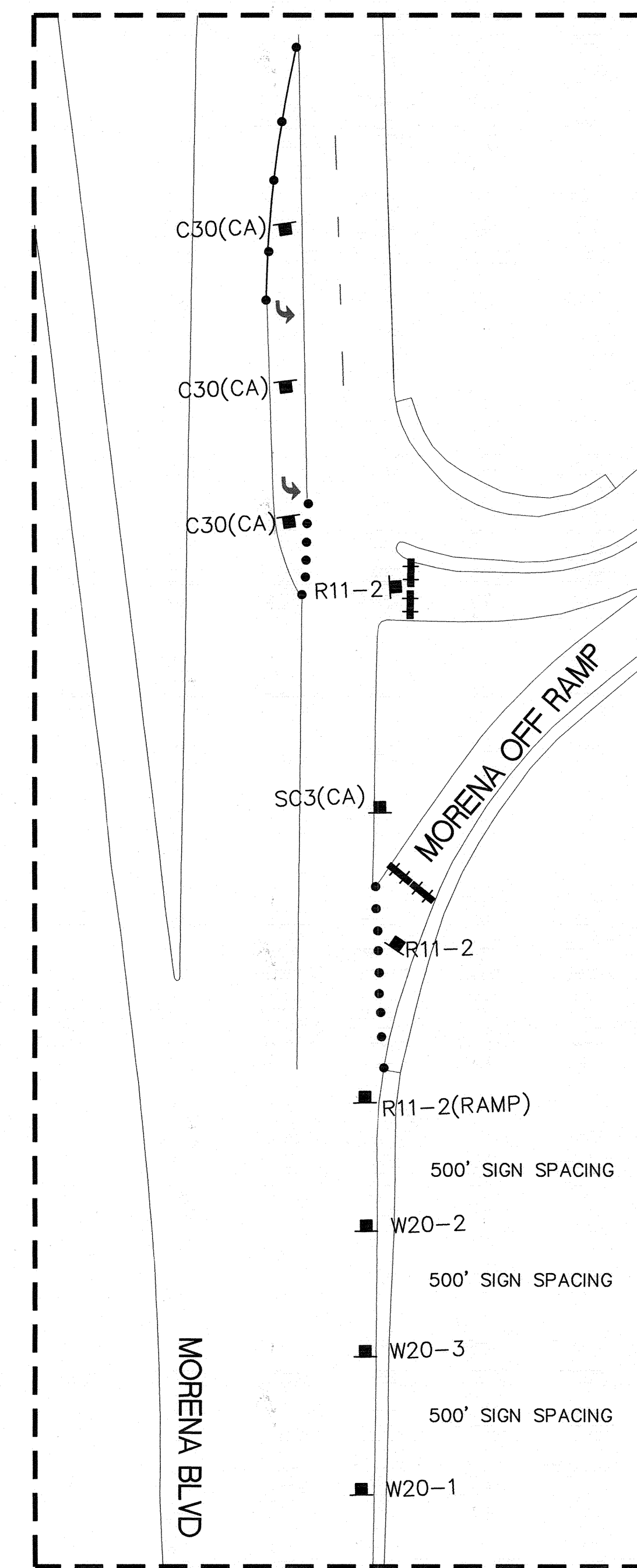
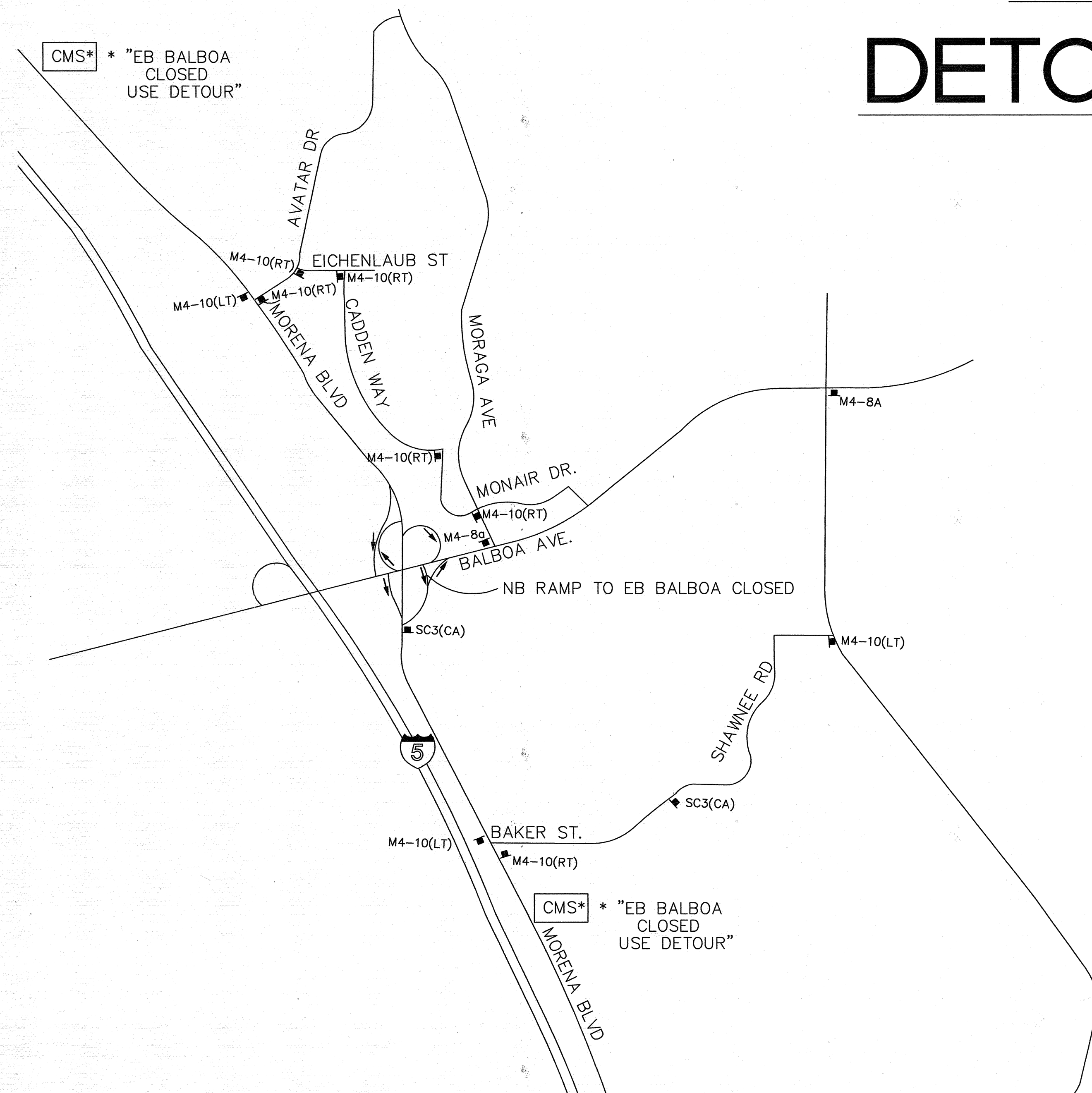
DWG NAME: 110201C-EL06g | DATE: 2-3-12 | BY: JMM

100%  
SUBMITTAL



# STAGE 4 DETOUR EB RAMP

DETAIL A



## LEGEND

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)
- CHANGEABLE MESSAGE SIGN

TC-7

### BALBOA TERRACE TRUNK SEWER DETOUR PLAN FOR STAGE 4 - EB BALBOA AVE - NB AND SB MORENA BLVD RAMP CLOSURES

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 7 OF 10 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED BY: <i>Theresa Housh</i> FOR CITY ENGINEER	DATE: 02/13/2012	SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	DBA	
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		CCS27 COORDINATE
CONTRACTOR		CCS83 COORDINATE
INSPECTOR	DATE STARTED	30360-T7-D
	DATE COMPLETED	

PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012  
BILL E. DARNELL DATE  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

DWG NAME: 110201TC-E1.dwg | DATE: 2-3-12 | BY: JMM

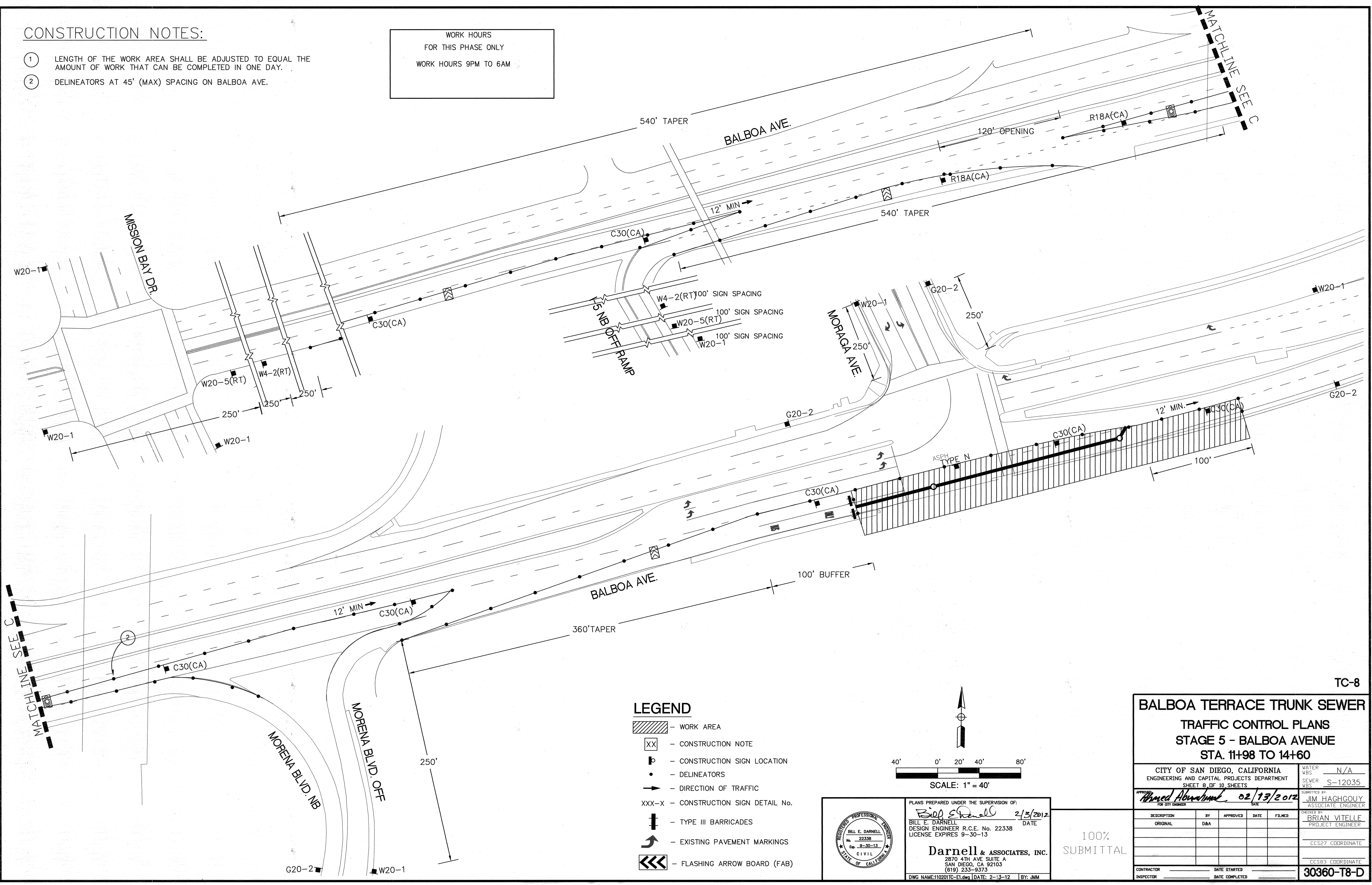
100%  
SUBMITTAL



**CONSTRUCTION NOTES:**

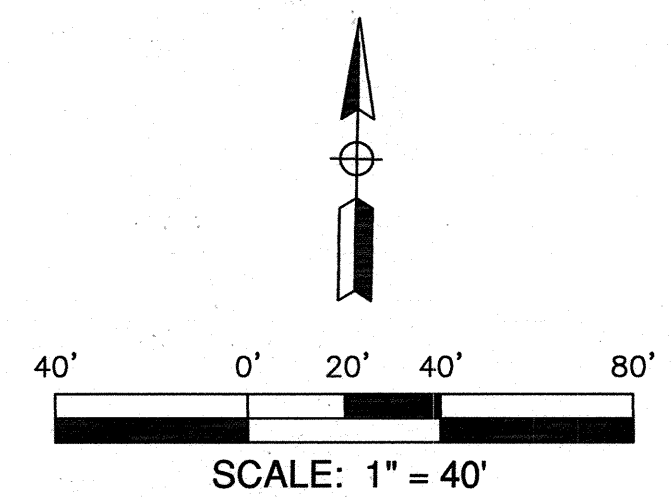
- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.

WORK HOURS  
 FOR THIS PHASE ONLY  
 WORK HOURS 9PM TO 6AM



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)



PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012 DATE

BILL E. DARNELL  
 DESIGN ENGINEER R.C.E. No. 22338  
 LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
 2870 4TH AVE SUITE A  
 SAN DIEGO, CA 92103  
 (619) 233-9373

DWG NAME: 110201TC-E1.dwg | DATE: 2-13-12 | BY: JMM

100%  
SUBMITTAL

TC-8

**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 5 - BALBOA AVENUE  
STA. 11+98 TO 14+60**

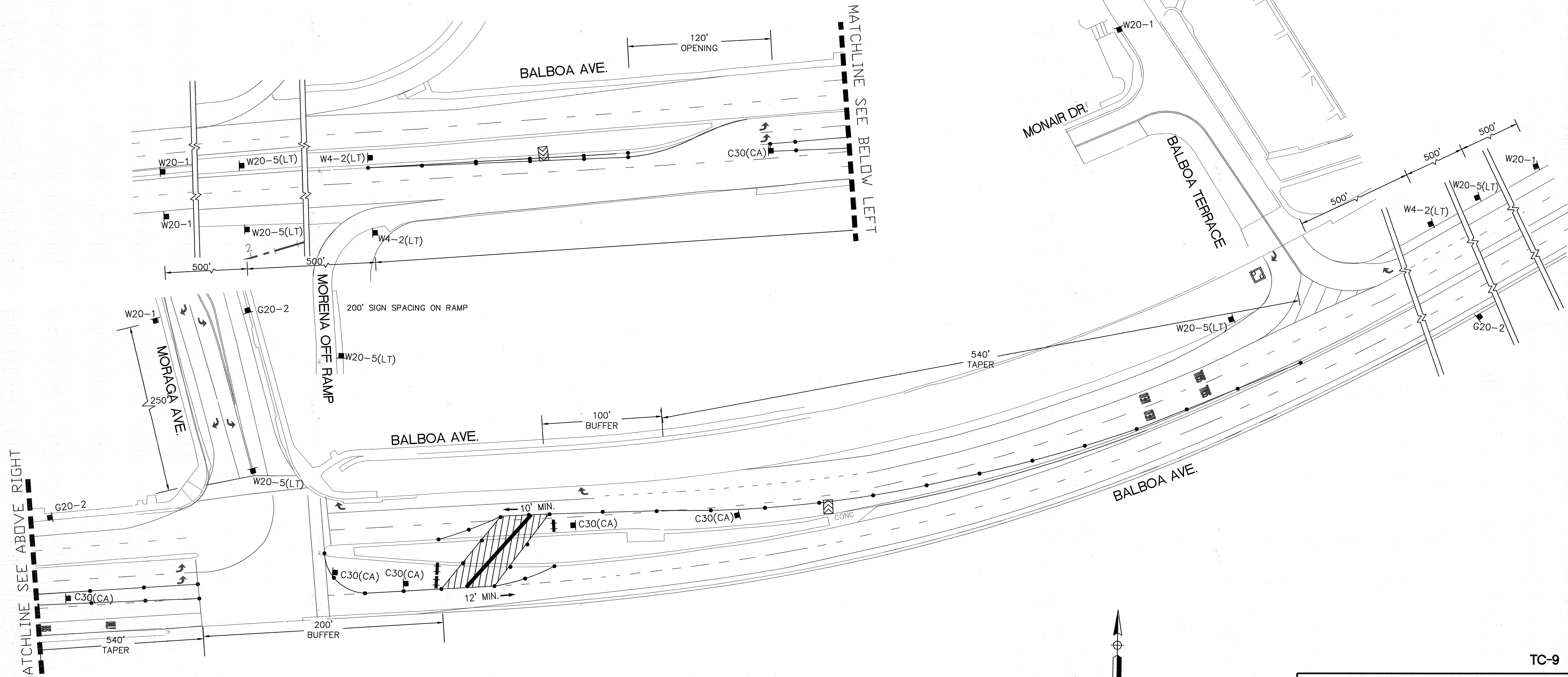
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 8 OF 10 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>Bill E. Darnell</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	D&A	
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		CCS27 COORDINATE
		CCS83 COORDINATE
CONTRACTOR	DATE STARTED	30360-T8-D
INSPECTOR	DATE COMPLETED	



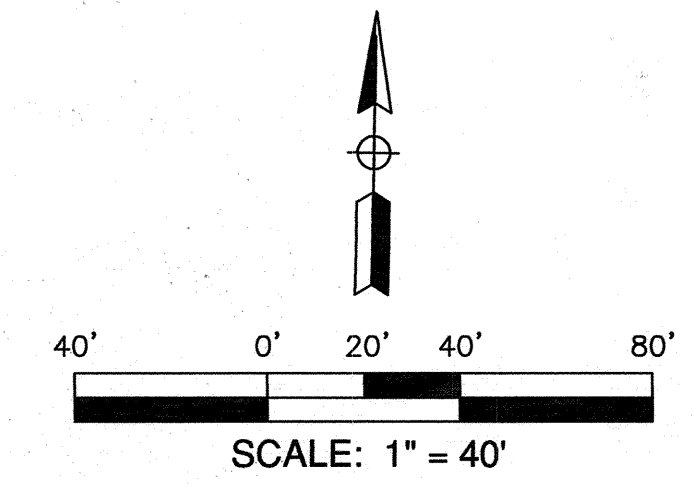
**CONSTRUCTION NOTES:**

- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



- LEGEND**
- WORK AREA
  - CONSTRUCTION NOTE
  - CONSTRUCTION SIGN LOCATION
  - DELINEATORS
  - DIRECTION OF TRAFFIC
  - XXX-X - CONSTRUCTION SIGN DETAIL No.
  - TYPE III BARRICADES
  - EXISTING PAVEMENT MARKINGS
  - FLASHING ARROW BOARD (FAB)



TC-9

**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 6 - BALBOA AVENUE  
STA. 14+50 TO 15+40**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 9 OF 10 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>[Signature]</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HACHGOUY, ASSOCIATE ENGINEER CHECKED BY: BRIAN VITELLE, PROJECT ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	D&A	
CONTRACTOR		DATE STARTED
INSPECTOR		DATE COMPLETED
		100% SUBMITTAL
		CCS27 COORDINATE CCS83 COORDINATE <b>30360- T9-D</b>

PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012  
BILL E. DARNELL DATE  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSURE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

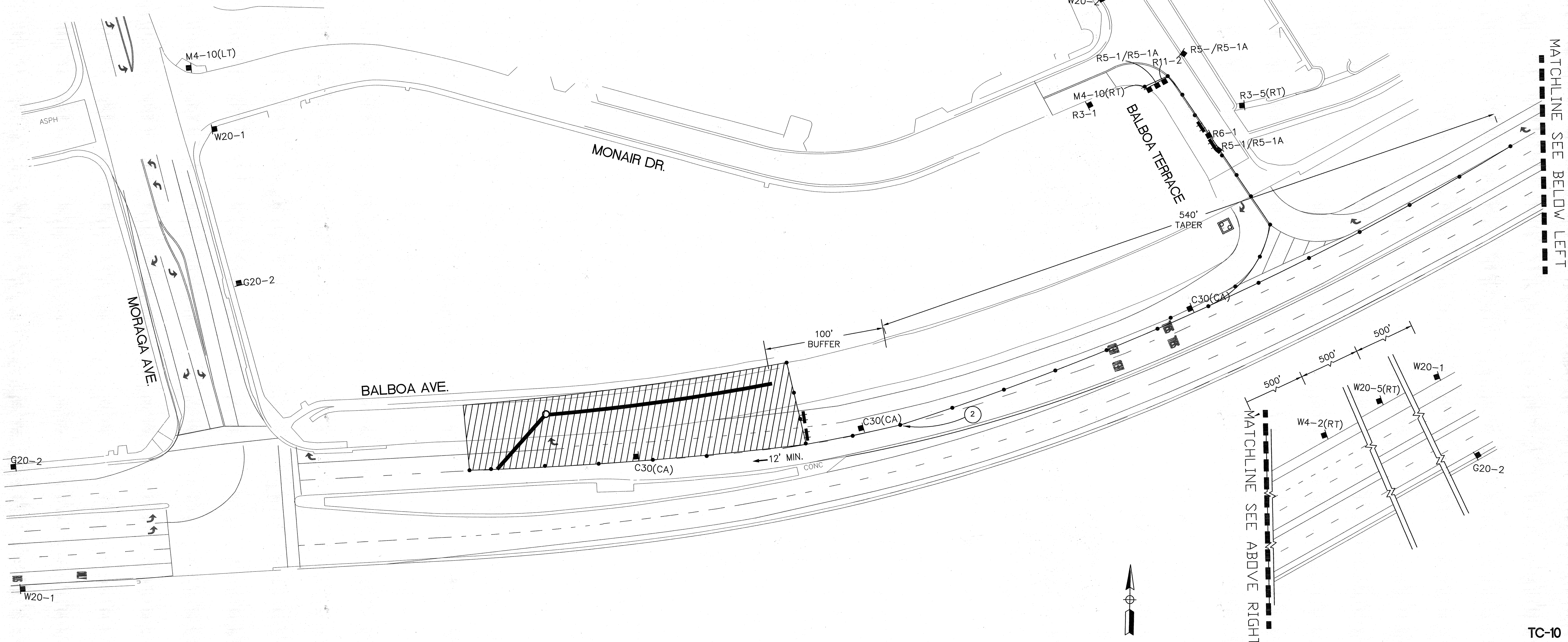
DWG NAME: 110201TC-E | DATE: 2-3-12 | BY: JMM



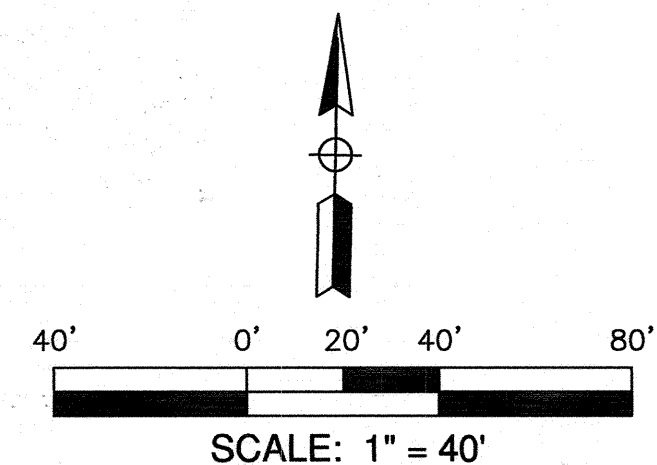
**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



- LEGEND**
- WORK AREA
  - CONSTRUCTION NOTE
  - CONSTRUCTION SIGN LOCATION
  - DELINEATORS
  - DIRECTION OF TRAFFIC
  - XXX-X - CONSTRUCTION SIGN DETAIL No.
  - TYPE III BARRICADES
  - EXISTING PAVEMENT MARKINGS
  - FLASHING ARROW BOARD (FAB)



**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 7 - BALBOA AVENUE  
STA. 15+40 TO 17+90**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 10 OF 10 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>Alfred Housh</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER CHECKED BY: BRIAN VITELLE PROJECT ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	D&A	
DATE		
FILED		
CONTRACTOR: _____		DATE STARTED: _____
INSPECTOR: _____		DATE COMPLETED: _____
		CCS27 COORDINATE CCS83 COORDINATE <b>30360-T10-D</b>

PLANS PREPARED UNDER THE SUPERVISION OF:  
*Bill E. Darnell* 2/13/2012  
BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13  
DATE

**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE. SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

DWG NAME: 110201TC-E | DATE: 2-3-12 | BY: JMM

100%  
SUBMITTAL

TC-10



THE CITY OF SAN DIEGO

Purchasing and Contracting Department  
Contracting Division  
1200 Third Avenue, Suite 200  
San Diego, CA 92101  
(619) 236-6000

**FAX TRANSMITTAL**

Date: May 4, 2012

The following 5 pages (including this cover) are intended for:

<i>FROM</i>		<i>TO:</i>	
<i>To:</i>	Estimator	<i>From:</i>	Claudia Abarca
<i>Company:</i>	TC Construction	<i>Division:</i>	Contracting Division
<i>FAX #</i>	619-448-3341	<i>FAX #</i>	619-236-5904
<i>Phone #</i>	619-448-4560	<i>Phone #</i>	619-236-6669

**RE: Bid # K-12-5468-DBB-3-C - Balboa Terrace Trunk Sewer**

COMMENTS: In tabulating the bid results of subject project, we have found that the ESTIMATED TOTAL BASE BID is \$6,694,894.00 NOT \$6,712,894.00 as per your bid. Please FAX acknowledgement/concurrence of the correct amount by 5:00 PM today (5/4/12).

*5-4-12 3:45 PM*  
*Justin Cameron concurs with the new Estimated Total Base Bid.*  
*Secretary*

*If there are any problems with receiving this FAX transmission (such as missing pages), please contact the Sender at the "From" phone number given above.*

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED, AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW; RECEIPT BY AN UNINTENDED RECIPIENT DOES NOT CONSTITUTE A WAIVER OF ANY APPLICABLE PRIVILEGE.

If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and return the original message to us at the above address via the U.S. Postal Service.



THE CITY OF SAN DIEGO

Purchasing and Contracting Department  
Contracting Division  
1200 Third Avenue, Suite 200  
San Diego, CA 92101  
(619) 236-6000

## FAX TRANSMITTAL

Date: May 4, 2012

The following 5 pages (including this cover) are intended for:

<b>To:</b>	<b>Estimator</b>	<b>From:</b>	<b>Claudia Abarca</b>
<b>Company:</b>	<b>TC Construction</b>	<b>Division:</b>	<b>Contracting Division</b>
<b>FAX #</b>	<b>619-448-3341</b>	<b>FAX #</b>	<b>619-236-5904</b>
<b>Phone #</b>	<b>619-448-4560</b>	<b>Phone #</b>	<b>619-236-6669</b>

**RE: Bid # K-12-5468-DBB-3-C – Balboa Terrace Trunk Sewer**

COMMENTS: In tabulating the bid results of subject project, we have found that the ESTIMATED TOTAL BASE BID is \$6,694,894.00 NOT \$6,712,894.00 as per your bid. Please FAX acknowledgement/concurrence of the correct amount by 5:00 PM today (5/4/12).

*If there are any problems with receiving this FAX transmission (such as missing pages), please contact the Sender at the "From" phone number given above.*

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED, AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW; RECEIPT BY AN UNINTENDED RECIPIENT DOES NOT CONSTITUTE A WAIVER OF ANY APPLICABLE PRIVILEGE.

If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and return the original message to us at the above address via the U.S. Postal Service.



# City of San Diego

CONTRACTOR'S NAME: TE CONSTRUCTION CO. INC.  
ADDRESS: 10540 PROSPECT AVE., SANTEE, CA. 92071  
TELEPHONE NO.: 619-448-4560 FAX NO.: 619-448-3341  
CITY CONTACT JIM HAGHGOUY, 600 B St. Suite 800, MS 908A, San Diego, CA, 92101  
Email: Jhaghgouy@sandiego.gov; Phone: 619-533-4657; Fax: 619-533-5176

CA/AR/JE

## CONTRACT DOCUMENTS



## FOR

## BALBOA TERRACE TRUNK SEWER

VOLUME 2 OF 2

BID NO.:	<u>K-12-5468-DBB-3-C</u>
SAP NO. (WBS/IO/CC):	<u>B-00478</u>
CLIENT DEPARTMENT:	<u>2011</u>
COUNCIL DISTRICT:	<u>6</u>
PROJECT TYPE:	<u>JB</u>

**THIS CONTRACT IS SUBJECT TO THE FOLLOWING:**

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

**THIS BIDDING DOCUMENT TO BE SUBMITTED IN ITS ENTIRETY  
REFER TO INVITATION TO BIDS FOR TIME, DATE, AND LOCATION**

# TABLE OF CONTENTS

## Volume 2 - Bidding Documents

The following forms must be completed in their entirety and submitted with the Bid. Include the form(s) even if the information does not apply. Where the information does not apply write in N/A. Failure to include any of the forms may cause the Bid to be deemed **non-responsive**. If you are uncertain or have any questions about any required information, contact the City no later than 14 days prior to Bid due date.

<u>DESCRIPTION</u>	<u>PAGE NUMBER</u>
1. Bid/Proposal.....	3-5
2. Bid Bond.....	6
3. Non-Collusion Affidavit to be executed by Bidder and Submitted with Bid under 23 USC 112 and PCC 7106 .....	7
4. Contractors Certification of Pending Actions.....	8
5. Equal Benefits Ordinance Certification of Compliance.....	9
6. Proposal (Bid).....	10-14
7. Form AA35 - List of Subcontractors .....	15
8. Form AA40 - Named Equipment/Material Supplier List .....	16

**BIDDING DOCUMENTS**

---

**PROPOSAL**

**Bidder's General Information**

To the City of San Diego:

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

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

**IF A SOLE OWNER OR SOLE CONTRACTOR SIGN HERE:**

*N/A*

- (1) Name under which business is conducted \_\_\_\_\_
- (2) Signature (Given and surname) of proprietor \_\_\_\_\_
- (3) Place of Business (Street & Number) \_\_\_\_\_
- (4) City and State \_\_\_\_\_ Zip Code \_\_\_\_\_
- (5) Telephone No. \_\_\_\_\_ Facsimile No. \_\_\_\_\_

**IF A PARTNERSHIP, SIGN HERE:**

*N/A*

- (1) Name under which business is conducted \_\_\_\_\_
- (2) Name of each member of partnership, indicate character of each partner, general or special (limited):  
\_\_\_\_\_  
\_\_\_\_\_

**BIDDING DOCUMENTS**

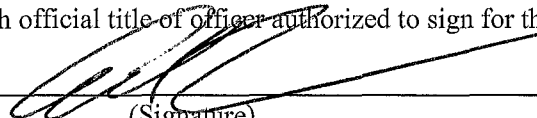
(3) Signature (Note: Signature must be made by a general partner)

\_\_\_\_\_  
Full Name and Character of partner  
\_\_\_\_\_

(4) Place of Business (Street & Number) \_\_\_\_\_  
(5) City and State \_\_\_\_\_ Zip Code \_\_\_\_\_  
(6) Telephone No. \_\_\_\_\_ Facsimile No. \_\_\_\_\_

**IF A CORPORATION, SIGN HERE:**

(1) Name under which business is conducted TC CONSTRUCTION CO. INC.  
(2) Signature, with official title of officer authorized to sign for the corporation:

\_\_\_\_\_  
  
(Signature)

AUSTIN CAMERON  
(Printed Name)

SECRETARY  
(Title of Officer)

(Impress Corporate Seal Here)

(3) Incorporated under the laws of the State of CALIFORNIA  
(4) Place of Business (Street & Number) 10540 PROSPECT AVE.  
(5) City and State SANTEE, CA. Zip Code 92071  
(6) Telephone No. 619-448-4560 Facsimile No. 619-448-3341

**THE FOLLOWING SECTIONS MUST BE FILLED IN BY ALL PROPOSERS:**

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

LICENSE CLASSIFICATION A, C-21

LICENSE NO. 402459 EXPIRES 4-30-13

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

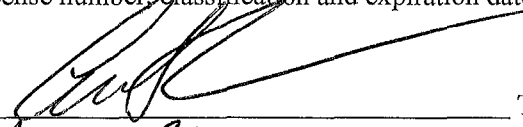
TAX IDENTIFICATION NUMBER (TIN): [REDACTED]

E-Mail Address: acameron@tcinesd.com

**BIDDING DOCUMENTS**

**THIS PROPOSAL MUST BE NOTARIZED BELOW:**

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

Signature  Title SECRETARY  
AUSTIN CAMERON

SUBSCRIBED AND SWORN TO BEFORE ME, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_,

Notary Public in and for the County of \_\_\_\_\_, State of \_\_\_\_\_

(NOTARIAL SEAL)

State of California County of  
San Diego  
Subscribed and sworn to (or affirmed)  
before me on this 30<sup>th</sup> day of April, 2012, by  
Austin Cameron  
proved to me on the basis of satisfactory evidence  
to be the person(s) who appeared before me.  
Signature Sandra Weeks





**BIDDING DOCUMENTS**

---

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS,

That TC Construction Company, Inc. as Principal, and Liberty Mutual Insurance Company as Surety, are held and firmly bound unto The City of San Diego hereinafter called "OWNER," in the sum of **10% OF THE TOTAL BID AMOUNT** for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a Bid to said OWNER to perform the WORK required under the bidding schedule(s) of the OWNER's Contract Documents entitled

Balboa Terrace Trunk Sewer; Bid No. K-12-5468-DBB-3-C

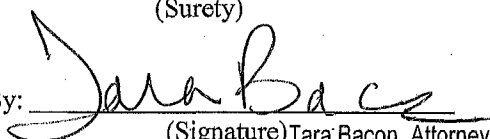
NOW THEREFORE, if said Principal is awarded a contract by said OWNER and, within the time and in the manner required in the "Invitation to Bids" enters into a written Agreement on the form of agreement bound with said Contract Documents, furnishes the required certificates of insurance, and furnishes the required Performance Bond and Payment Bond, then this obligation shall be null and void, otherwise it shall remain in full force and effect. In the event suit is brought upon this bond by said OWNER and OWNER prevails, said Surety shall pay all costs incurred by said OWNER in such suit, including a reasonable attorney's fee to be fixed by the court.

SIGNED AND SEALED, this 30th day of March, 2012

TC Construction Company, Inc. (SEAL)  
(Principal)

Liberty Mutual Insurance Company (SEAL)  
(Surety)

By:   
(Signature)

By:   
(Signature) Tara Bacon, Attorney-in-Fact

**AUSTIN CAMERON, SECRETARY**

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

**CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT**

CIVIL CODE § 1189

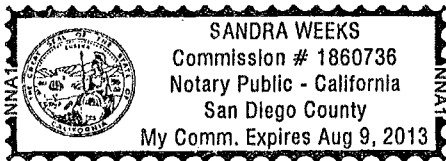
State of California

County of San Diego }

On April 16, 2012 before me, Sandra Weeks, Notary Public  
Date Here Insert Name and Title of the Officer

personally appeared Austin Cameron  
Name(s) of Signer(s)

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



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

WITNESS my hand and official seal.

Signature: Sandra Weeks  
Signature of Notary Public

Place Notary Seal Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

**Description of Attached Document**

Title or Type of Document: \_\_\_\_\_

Document Date: \_\_\_\_\_ Number of Pages: \_\_\_\_\_

Signer(s) Other Than Named Above: \_\_\_\_\_

**Capacity(ies) Claimed by Signer(s)**

Signer's Name: \_\_\_\_\_ Signer's Name: \_\_\_\_\_

Corporate Officer — Title(s): \_\_\_\_\_  Corporate Officer — Title(s): \_\_\_\_\_

Individual  Individual

Partner —  Limited  General  Partner —  Limited  General

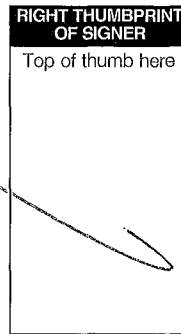
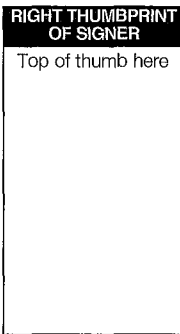
Attorney in Fact  Attorney in Fact

Trustee  Trustee

Guardian or Conservator  Guardian or Conservator

Other: \_\_\_\_\_  Other: \_\_\_\_\_

Signer Is Representing: \_\_\_\_\_ Signer Is Representing: \_\_\_\_\_



## ACKNOWLEDGMENT

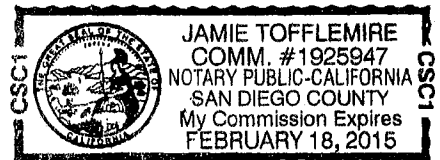
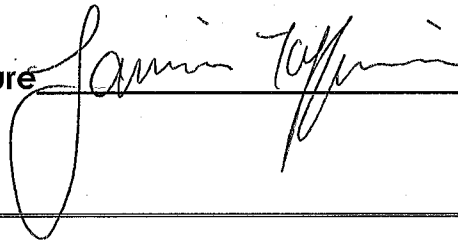
State of California  
County of San Diego

On March 30, 2012 before me, Jamie Tofflemire, Notary Public, personally appeared Tara Bacon, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

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

WITNESS my hand and official seal.

Signature



(Seal)

American Fire and Casualty Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

Liberty Mutual Insurance Company  
Peerless Insurance Company

POWER OF ATTORNEY

KNOWN ALL PERSONS BY THESE PRESENTS: That American Fire & Casualty Company and The Ohio Casualty Insurance Company are corporations duly organized under the laws of the State of Ohio, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, that Peerless Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, DALE G. HARSHAW, BRADLEY R. ORR, GEOFFREY SHELTON, TARA BACON, .....

all of the city of SAN DIEGO, state of CALIFORNIA each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 2nd day of March, 2012.



American Fire and Casualty Company  
The Ohio Casualty Insurance Company  
Liberty Mutual Insurance Company  
Peerless Insurance Company  
West American Insurance Company

By: Gregory W. Davenport  
Gregory W. Davenport, Assistant Secretary

STATE OF WASHINGTON ss  
COUNTY OF KING

On this 2nd day of March, 2012, before me personally appeared Gregory W. Davenport, who acknowledged himself to be the Assistant Secretary of American Fire and Casualty Company, Liberty Mutual Insurance Company, The Ohio Casualty Company, Peerless Insurance Company and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Seattle, Washington, on the day and year first above written.



By: KD Riley  
KD Riley, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company, which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS - Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

ARTICLE XIII - Execution of Contracts - SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes Gregory W. Davenport, Assistant Secretary to appoint such attorney-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, David M. Carey, the undersigned, Assistant Secretary, of American Fire and Casualty Company, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, West American Insurance Company and Peerless Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is in full force and effect and has not been revoked.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this 30th day of March, 2012.



By: David M. Carey  
David M. Carey, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, bank deposit, currency rate, interest rate or residual value guarantees.

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

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

State of California )
County of SAN DIEGO ) ss.

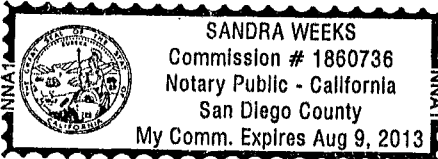
AUSTIN CAMERON, being first duly sworn, deposes and says that he or she is SECRETARY of the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and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

Signed: [Signature] AUSTIN CAMERON

Title: SECRETARY

State of California County of San Diego
Subscribed and sworn to before me this \_\_\_ day of \_\_\_, 20\_\_
before me on this 30th day of April, 2012, by Austin Cameron
proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.
Signature: Sandra Weeks

Notary Public (SEAL) (SEAL)



CONTRACTORS CERTIFICATION OF PENDING ACTIONS

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

CHECK ONE BOX ONLY.

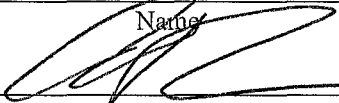
The undersigned certifies that within the past 10 years the Bidder has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers.

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Contractor Name: TC CONSTRUCTION CO. INC.

Certified By AUSTIN CAMERON Title SECRETARY

 Date 5-2-12  
Signature

USE ADDITIONAL FORMS AS NECESSARY



**BIDDING DOCUMENTS**

**EQUAL BENEFITS ORDINANCE  
CERTIFICATION OF COMPLIANCE**



For additional information, contact:

**CITY OF SAN DIEGO**

**EQUAL BENEFITS PROGRAM**

202 C Street, MS 9A, San Diego, CA 92101

Phone (619) 533-3948 Fax (619) 533-3220

**COMPANY INFORMATION**

Company Name: <b>TC CONSTRUCTION CO. INC.</b>	Contact Name: <b>AUSTIN CAMERON</b>
Company Address: <b>10540 PROSPECT AVE. SANTEE, CA. 92071</b>	Contact Phone: <b>619-448-4560 x 117</b>
	Contact Email: <b>acameron@tcinsd.com</b>

**CONTRACT INFORMATION**

Contract Title: <b>BALBOA TERRACE TRUNK SEWER</b>	Start Date: <b>TBD</b>
Contract Number (if no number, state location): <b>K-12-5468-DBB-3-C</b>	End Date: <b>TBD</b>

**SUMMARY OF EQUAL BENEFITS ORDINANCE REQUIREMENTS**

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

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

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

**CONTRACTOR EQUAL BENEFITS ORDINANCE CERTIFICATION**

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

- I affirm **compliance** with the EBO because my firm (*contractor must select one reason*):
- Provides equal benefits to spouses and domestic partners.
  - Provides no benefits to spouses or domestic partners.
  - Has no employees.
  - Has collective bargaining agreement(s) in place prior to January 1, 2011, that has not been renewed or expired.
- I request the City's approval to pay affected employees a cash equivalent in lieu of equal benefits and verify my firm made a reasonable effort but is not able to provide equal benefits upon contract award. I agree to notify employees of the availability of a cash equivalent for benefits available to spouses but not domestic partners and to continue to make every reasonable effort to extend all available benefits to domestic partners.

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

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

<b>AUSTIN CAMERON, SECRETARY</b>		<b>5-02-12</b>
Name/Title of Signatory	Signature	Date

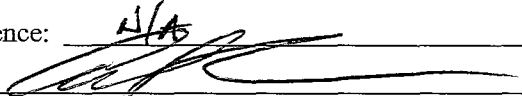
**FOR OFFICIAL CITY USE ONLY**

Receipt Date:	EBO Analyst:	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved – Reason:
---------------	--------------	-----------------------------------	---

**BIDDING DOCUMENTS**

---

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

Bidder: TC CONSTRUCTION CO. INC.  
Title: SECRETARY  
Business Address: 10540 PROSPECT AVE., SANTEE, CA. 92071  
Place of Business: SAME  
Place of Residence: N/A  
Signature:  AUSTIN CAMERON

**NOTES:**

- A. The low City shall determine the low Bid based on the Base Bid alone.
- B. Prices and notations shall be in ink or typewritten. All corrections (which have been initiated by the Bidder using erasures, strike out, line out, or "white-out") shall be typed or written in with ink adjacent thereto, and shall be initialed in ink by the person signing the bid proposal.
- C. Failure to initial all corrections made in the bidding documents shall cause the Bid to be rejected as **non-responsive** and ineligible for further consideration.
- D. Blank spaces must be filled in, using figures. Bidder's failure to submit a price for any Bid item that requires the Bidder to submit a price shall render the Bid **non-responsive** and shall be cause for its rejection.
- E. Unit prices shall be entered for all unit price items. Unit prices shall not exceed two (2) decimal places. If the Unit prices entered exceed two (2) decimal places, the City will only use the first two digits after the decimal points without rounding up or down.
- F. All extensions of the unit prices bid will be subject to verification by the City. In the case of inconsistency or conflict between the product of the Quantity x Unit Price and the Extension, the product shall govern.
- G. In the case of inconsistency or conflict, between the sums of the Extensions with the estimated total Bid, the sum of the Extensions shall govern.
- H. Bids shall not contain any recapitulation of the Work. Conditional Bids will be rejected as being **non-responsive**. Alternative proposals will not be considered unless called for.
- I. The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on the Bid form. The following addenda have been received and are acknowledged in this bid: [A, B.....]. If an addendum or addenda has been issued by the City and not noted above as being received by the Bidder, this proposal shall be rejected as being **non-responsive**.

**BIDDING DOCUMENTS**

**PROPOSAL (BID)**

The Bidder agrees to the construction of **BALBOA TERRACE TRUNK SEWER**, for the City of San Diego, in accordance with these contract documents for the prices listed below. The Bidder guarantees the Contract Price for a period of 120 days (90 days for Contracts valued at \$500,000 or less) from the date of Bid opening to Award of the Contract. The duration of the Contract Price guarantee shall be extended by the number of days required for the City to obtain all items necessary to fulfill all conditions precedent e.g., bond and insurance.

Item	Quantity	Unit	Payment Reference	NAICS	Description	Unit Price	Extension
<b>BASE BID</b>							
1.	1	LS	2-4.1	237110	Bonds (Payment and Performance)	<del>                    </del>	\$45,000
2.	1	EA	3-3.2.2	237110	Certified Payroll	\$2,000.-	\$2,000.-
3.	1	AL	7-5.3	237110	CalTrans Encroachment Permit	<del>                    </del>	\$10,000.00
4.	1	LS	7-9.1.1	238990	Video Recording of Pre-existing Conditions	<del>                    </del>	\$5,000.-
5.	1	LS	7-10.2.7	237310	Traffic Control	<del>                    </del>	\$50,000.-
6.	500	LF	7-10.2.7	237310	K-Rail	\$12.-	\$6,000.-
7.	1	LS	7-10.2.7	237310	Flashing Arrow Boards	<del>                    </del>	\$5,000.-
8.	8	EA	7-10.2.7	237310	Crash Cushion Modules	\$5,000.-	\$40,000.-
9.	1	LS	7-10.2.7	541330	Traffic Control Design	<del>                    </del>	\$3,000.-
10.	1	AL	7-10.5.4	237310	Portable Changeable Message Signs (PCMS)	<del>                    </del>	\$7,000.00
11.	1	LS	7-16.3	237110	Community Liaison	<del>                    </del>	\$25,000.-
12.	1	AL	4-1.3.4	237310	Special Inspection	<del>                    </del>	\$20,000.00
13.	1	LS	9-3.4.1	237110	Mobilization	<del>                    </del>	\$150,000
14.	1	AL	9-3.5	237110	Field Orders	<del>                    </del>	\$200,000.00
15.	20	CY	300-1.4	237310	Additional Pavement Removal & Disposal	\$200.-	\$4,000.-
16.	8	EA	301-1.7	237310	Adjusting Existing Gate Valve Cover to Grade	\$500.-	\$4,000.-
17.	6,200	LF	302.1.12	237310	Cold Milling Asphalt Concrete Pavement	\$2.-	\$12,400.-
18.	136,500	SF	302-4.5	237310	Slurry Seal (REAS) Type 2 and Striping	\$ .45	\$61,425.-

**BIDDING DOCUMENTS**

Item	Quantity	Unit	Payment Reference	NAICS	Description	Unit Price	Extension
19.	30	TON	302-4.5	237310	AC Patching for Slurry Seal	\$ 200.-	\$ 6,000.-
20.	1	LS	302-4.5.1	237310	Bond for Slurry Seal	<del> </del>	\$ 200.-
21.	250	SF	302-5.1.2	237310	Pavement Restoration for Area Adjacent to Trench	\$ 25.-	\$ 6,250.-
22.	500	TON	302-5.9	237310	1-1/2 Inch AC Overlay and Striping	\$ 145.-	\$ 72,500.-
23.	3,000	SY	302.7.4	237310	Pavement Fabric	\$ 4.-	\$ 12,000.-
24.	2,300	SF	303-5.9	237310	Miscellaneous Concrete (Concrete Driveway, Cross Gutter, Concrete Drainage Gutter)	\$ 9.50	\$ 21,850.-
25.	400	LF	303-5.9	237310	Additional Curb and Gutter	\$ 23.-	\$ 9,200.-
26.	1,000	SF	303-5.9	237310	Additional Sidewalk Removal and Replacement	\$ 5.50	\$ 5,500.-
27.	2	EA	303-5.10.2	237310	Curb Ramp Type A w/ Composite Detectable Warning Tiles	\$ 2,100.-	\$ 4,200.-
28.	5	EA	303-5.10.2	237310	Curb Ramp Type C w/ Composite Detectable Warning Tiles	\$ 2,000.-	\$ 10,000.-
29.	323	SF	303-6.1.1	237310	Stamped Concrete	\$ 7.-	\$ 2,261.-
30.	1	LS	306-1.1.6	237110	Trench Shoring	<del> </del>	\$ 100,000.-
31.	500	CY	306-1.2.1.1	237110	Additional Bedding	\$ 30.-	\$ 15,000.-
32.	3,000	TON	306-1.6	237110	Imported Backfill	\$ 4.-	\$ 12,000.-
33.	5,000	LF	306-1.4.8.8	237110	Televising Sewer Mains For Acceptance	\$ 1.25	\$ 6,250.-
34.	3,150	LF	306-1.4.8.8	237110	Cleaning & Televising of Existing Sewer Mains - Before Abandonment	\$ 3.-	\$ 9,450.-
35.	300	TON	306-1.5.1	237310	Temporary Resurfacing	\$ 95.-	\$ 28,500.-
36.	2,777	LF	306-1.6	237110	21-Inch Sewer Main, Special Strength PS-115 (SDR-26)	\$ 280.-	\$ 777,560 (R)
37.	22	LF	306-1.6	237110	15-Inch Sewer Main, Special Strength SDR-26	\$ 200.-	\$ 4,400.-
38.	580	LF	306-1.6	237110	8-Inch Sewer Main, SDR-35	\$ 120.-	\$ 69,600.-
39.	1	LS	306-1.6	237110	Junction Structure No. 01 Complete including Excavation, Shoring, Structure, Backfill.	<del> </del>	\$ 110,000.-
40.	5	EA	306-1.7.1	237110	6-Inch Sewer Lateral, Cleanout, and Reconnect	\$ 1,000.-	\$ 5,000.-

**BIDDING DOCUMENTS**

Item	Quantity	Unit	Payment Reference	NAICS	Description	Unit Price	Extension
41.	12	EA	306-1.8.6	237110	Manholes (5 x 3), PVC Lined	\$ 8,500.-	\$ 102,000.-
42.	1	EA	306-1.8.6	237110	Manholes (4 x 3), PVC Lined	\$ 11,000.-	\$ 11,000.-
43.	5	EA	306-1.8.6	237110	Manholes (4 x 3)	\$ 4,000.-	\$ 20,000.-
44.	1	LS	306-9.7	237110	MH 8 Complete including Excavation, Shoring, Structure, Backfill	<del>XXXXXX</del>	\$ 57,000.-
45.	1	LS	306-9.7	237110	MH Structure No. 9 Complete including Excavation, Shoring, Structure, Backfill	<del>XXXXXX</del>	\$ 657,000.-
46.	1	LS	306-9.7	237110	MH Structure No. 10 Complete including Excavation, Shoring, Structure, Backfill	<del>XXXXXX</del>	\$ 120,000.-
47.	1	LS	306-9.7	237110	MH 17 Complete including Excavation, Shoring, Structure, Backfill	<del>XXXXXX</del>	\$ 60,000.-
48.	1	LS	306-9.7	237110	MH 18 Complete including Excavation, Shoring, Structure, Backfill	<del>XXXXXX</del>	\$ 50,000.-
49.	1	LS	306-9.7	237110	MH Structure No. 19 Complete including Excavation, Shoring, Structure, Backfill	<del>XXXXXX</del>	\$ 100,000.-
50.	882	LF	306-9.7	237110	20-Inch Sewer from MH 8 to MH 10 Complete including Pipe, Tunneling, Initial Ground Support System, and Grouting	\$ 2,100.-	\$ 1,852,200.-
51.	744	LF	306-9.7	237110	20-Inch Sewer from MH 17 to MH 18 Complete including Pipe, Tunneling, Initial Ground Support System, and Grouting	\$ 1,500.-	\$ 1,116,000.-
52.	1	LS	306-9.7	237110	Emergency Recovery Shaft @ Station 25+00	<del>XXXXXX</del>	\$ 100,000.-
53.	9	EA	306-5.3	237110	Abandon Existing Manhole Outside of Trench	\$ 2,000.-	\$ 18,000.-
54.	3,150	LF	306-5.3	237110	Abandon and grout Fill Existing 8-Inch, 15-Inch and 18-Inch Sewer Main Outside of Trench Limit	\$ 20.-	\$ 63,000.-
55.	1,000	LF	308-8	561730	Fiber Rolls	\$ 3.-	\$ 3,000.-
56.	1	LS	800-2.15	238390	Clearing and Grubbing	<del>XXXXXX</del>	\$ 25,000.-
57.	1	LS	800-2.15		Construction Fencing and Access Route	<del>XXXXXX</del>	\$ 25,000.-
58.	1	LS	800-2.15	541330	Revegetation (Installation and 120 day Plant Establishment Period)	<del>XXXXXX</del>	\$ 85,000.-
59.	1	LS	800-2.15	561730	Revegetation (Long Term Monitoring & Maintenance)	<del>XXXXXX</del>	\$ 13,000.-
60.	1	AL	800-3.1		Acoustician (Biological) Monitoring	<del>XXXXXX</del>	\$25,000.00
61.	1	AL	800-3.2		Acoustician (Biological) Mitigation	<del>XXXXXX</del>	\$25,000.00

**BIDDING DOCUMENTS**

Item	Quantity	Unit	Payment Reference	NAICS	Description	Unit Price	Extension	
62.	1	LS	801-9.4	541330	Water Pollution Control Program Development	<del>          </del>	\$5,000.-	
63.	1	LS	801-9.4	237990	Water Pollution Control Program Implementation	<del>          </del>	\$35,000.-	
64.	1	LS	803-16	238990	Preparation of Hazardous Waste Management Plan and Reporting	<del>          </del>	\$5,000.-	
65.	50	TON	803-16	238990	Monitoring, Testing, Sampling, Site Storage, and Handling of Soils Containing RCRA Hazardous Waste	\$ 130.-	\$ 6,500.-	
66.	50	TON	803-16	238990	Loading, Transportation and Disposal of soils containing RCRA Hazardous Waste	\$ 225.-	\$ 11,250.-	
67.	1	LS	804-2.2	237110	Sewage Bypass and Pumping Plan (Diversion Plan)	<del>          </del>	\$5,000.-	
68.	1	AL	805-2.7	237110	Dewatering Permit and Discharge Fees	<del>          </del>	\$80,000.00	
69.	1	AL	805-2.7	238990	Equipment & Set up for Treatment of Contaminated Water containing non-hazardous materials	<del>          </del>	\$10,000.00	
70.	1	AL	805-2.7	238990	Equipment & Set up for Treatment of Contaminated Water containing hazardous substances	<del>          </del>	\$15,000.00	
71.	1	LS	805-2.7	238990	Dewatering – Non-Hazardous	<del>          </del>	\$40,000.-	
72.	1	LS	805-2.7	238990	Dewatering – Hazardous	<del>          </del>	\$ 1.-	
73.	5	DAYS	807-1	541330	Suspension of Work - Resources	\$ 1.-	\$ 5.-	
74.	3,373	LF	807-1.3	541330	Paleontological Monitoring Program	\$ 4.-	\$13,492.-	
75.	30	CY	807-1.5	541330	Paleontological Mitigation and Excavation	\$130.-	\$ 3,900.-	
<b>ESTIMATED TOTAL BASE BID</b>							<del>\$6,712,894</del>	6,694,894. <sup>76</sup>

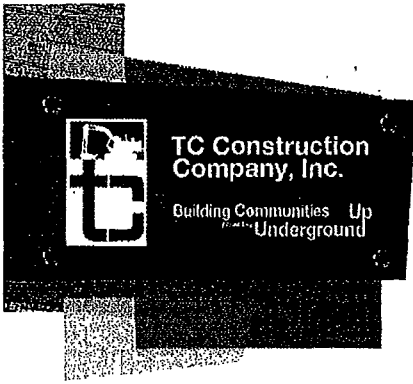
TOTAL BID PRICE FOR BID (Items 1 through 75 inclusive) amount written in words:

Six million, Seven hundred - twelve thousand, eight hundred ninety four dollars

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

TERRY CAMERON, PRESIDENT  
STEVE LOKER, VICE PRESIDENT  
AUSTIN CAMERON, SEC. TREAS  
DEREK FRANKEN, VICE PRESIDENT





May 4, 2012

City of San Diego

Attn: Claudia Abarca

Re: Bid K-12-5468-DBB-3-C, Balboa Terrace Trunk Sewer

Dear Ms. Abarca

As you are aware, the bid we submitted on May 2<sup>nd</sup> had an additional subcontracting form that listed a similar subcontractor for the tunnelling portion of the project. During the bid process the subcontractors revised their price numerous times and in the final moments it was determined that the low bidder was Golden State Boring and not Pipe Jacking. TC Construction made the correction to list Golden State Boring, but inadvertently left the form in the bid package.

Therefore, TC Construction is aware of this duplication error and wishes to proceed with the project based on self performing the work in accordance with section 4106 of the Public Contracting Code.

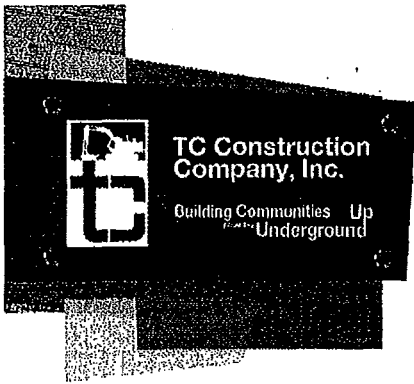
If you have any questions please feel free to call me at 619-726-3136.

Sincerely,

A handwritten signature in black ink, appearing to be 'Paul', written in a cursive style.

Estimator





May 4, 2012

City of San Diego

Attn: Claudia Abarca

Re: Bid K-12-5468-DBB-3-C, Balboa Terrace Trunk Sewer

Dear Ms. Abarca

As you are aware, the bid we submitted on May 2<sup>nd</sup> had an additional subcontracting form that listed a similar subcontractor for the tunnelling portion of the project. During the bid process the subcontractors revised their price numerous times and in the final moments it was determined that the low bidder was Golden State Boring and not Pipe Jacking. TC Construction made the correction to list Golden State Boring, but inadvertently left the form in the bid package.

Therefore, TC Construction is aware of this duplication error and wishes to proceed with the project based on self performing the work in accordance with section 4106 of the Public Contracting Code.

If you have any questions please feel free to call me at 619-726-3136.

Sincerely,

A handwritten signature in black ink, appearing to be 'C. Abarca', written over a white background.

Estimator



**BIDDING DOCUMENTS**

**LIST OF SUBCONTRACTORS**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>PIPE JACKING UNLIMITED</u> Address: <u>5486 INDUSTRIAL PKWY</u> City: <u>SAN BERNARDINO</u> State: <u>CA</u> Zip: <u>92407</u> Phone: <u>909.880.8446</u>	<u>CONSTRUCTOR</u>	<u>TUNNELING</u>	<u>\$2,205,280</u>			
Name: <u>VADNAIS CORP.</u> Address: <u>2130 LA MIRADA DR.</u> City: <u>VISTA</u> State: <u>CA</u> Zip: <u>92081</u> Phone: <u>858.550.1460</u>	<u>CONSTRUCTOR</u>	<u>TUNNELING</u>	<u>AC</u>			
Name: <u>GOLDEN STATE BORING</u> Address: <u>7000 MERRILL AVE.</u> City: <u>CHINO</u> State: <u>CA</u> Zip: <u>91710</u> Phone: <u>903.430.5811</u>	<u>CONSTRUCTOR</u>	<u>TUNNELING</u>	<u>AC</u>			

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

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

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

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

12.77

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).

**BIDDING DOCUMENTS**

**LIST OF SUBCONTRACTORS**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>Kirk Paving</u> Address: <u>8722 Winter Gardens Blvd</u> City: <u>Lakeside</u> State: <u>Ca</u> Zip: <u>92040</u> Phone: <u>619-938-9958</u>	Constructor	AC Grinding or AC Paving	\$79,130 <sup>00</sup>	SLBE	city	
Name: <u>Malcolm Prilling</u> Address: <u>4926 N. Azusa Canyon</u> City: <u>Irwindale</u> State: <u>Ca</u> Zip: <u>91706</u> Phone: <u>626-338-0035</u>	Constructor	shoring	\$315,000 <sup>00</sup>			
Name: <u>Golden State Boring</u> Address: <u>7000 Marryll Ave</u> City: <u>Chino</u> State: <u>Ca</u> Zip: <u>91710</u> Phone: <u>909-936-5811</u>	Constructor	tunneling	\$1,993,950 <sup>00</sup>			

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

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

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

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

**The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).**

**BIDDING DOCUMENTS**

**LIST OF SUBCONTRACTORS**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB <sup>①</sup>	WHERE CERTIFIED <sup>②</sup>	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>PAVEMENT RECYCLING SYSTEMS</u> Address: <u>10240 SAN SEVASTIANE WAY</u> City: <u>SURUDA CA</u> State: <u>CA</u> Zip: <u>91752</u> Phone: <u>951-682-1091</u>	<u>CONSTRUCTOR</u>	<u>AC GRINDING</u>	<u>6,448.-</u>	<u>AO</u>		
Name: <u>VIC SALAZAR COMMUNICATIONS</u> Address: <u>2514 JAMACHA RD #502-21</u> City: <u>EL CAJON</u> State: <u>CA</u> Zip: <u>92019</u> Phone: <u>619-517-4744</u>	<u>CONSTRUCTOR</u>	<u>COMM. LIASION</u>	<u>24,000.-</u>	<u>ELBE</u>	<u>CITY</u>	
Name: <u>BRIAN F. SMITH</u> Address: <u>14010 POWAY RD.</u> City: <u>POWAY</u> State: <u>CA</u> Zip: <u>92064</u> Phone: <u>858-679-8218</u>	<u>CONSTRUCTOR</u>	<u>PALEO MONITORING</u>	<u>12,962.-</u>	<u>SLBE</u>	<u>CITY</u>	

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

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

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

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

The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).

**BIDDING DOCUMENTS**

**LIST OF SUBCONTRACTORS**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>RAW PRODUCTIONS</u> Address: <u>8575 LA JOLLA SHORES</u> City: <u>LA JOLLA</u> State: <u>CA</u> Zip: <u>92037</u> Phone: <u>858.220.3191</u>	CONSTRUCTOR	VIDEO PRE EXISTING	350.-	ELBE	CITY	
Name: <u>TIERRA DATA INC.</u> Address: <u>10110 W. LILAC RD.</u> City: <u>ESCONDIDO</u> State: <u>CA</u> Zip: <u>92026</u> Phone: <u>760.749.2247</u>	CONSTRUCTOR	REVEG	64,400.-	ELBE	CITY	
Name: <u>G. SCOTT ASPHALT</u> Address: <u>358 TROUSDALE DR.</u> City: <u>CHULA VISTA</u> State: <u>CA</u> Zip: <u>91910</u> Phone: <u>619.420.1854</u>	CONSTRUCTOR	SLURRY SEAL	46,522.-	SLBE	CITY	

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

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

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

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

**The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).**



**LIST OF SUBCONTRACTORS**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB <sup>①</sup>	WHERE CERTIFIED <sup>②</sup>	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>LUZAIMI STRIPING</u> Address: <u>PO BOX 2426</u> City: <u>EL CANON</u> State: <u>CA</u> Zip: <u>92021</u> Phone: <u>619.443.7755</u>	CONSTRUCTOR	STRIPING	8,322.54	ELBE	CITY	
Name: <u>ROBCAR</u> Address: <u>777 GABLE WAY</u> City: <u>EL CANON</u> State: <u>CA</u> Zip: <u>92020</u> Phone: <u>619.44.3644</u>	DESIGNER	TRAFFIC PLANS	1,250.-	SLBE	CITY	
Name: <u>COASTAL PIPELINE</u> Address: <u>PO BOX 235653</u> City: <u>ENCINITAS</u> State: <u>CA</u> Zip: <u>92023</u> Phone: <u>760-828-5174</u>	CONSTRUCTOR	SEWER VIDEO	6,187.50	ELBE	CITY	

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

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

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

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

**The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).**

**BIDDING DOCUMENTS**

**LIST OF SUBCONTRACTORS**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>APPIAN</u> Address: <u>5780 OLINDA RD</u> City: <u>EL SOBRANTE</u> State: <u>CA</u> Zip: <u>94803</u> Phone: <u>510-375-1927</u>	<u>DESIGNER</u>	<u>WPCP</u>	<u>525.-</u>			
Name: <u>ARTHUR G. ORTIZ CONST.</u> Address: <u>PO BOX 121177</u> City: <u>CHULA VISTA</u> State: <u>CA</u> Zip: <u>91912</u> Phone: <u>619-944-1030</u>	<u>CONSTRUCTOR</u>	<u>CONCRETE FLATWORK</u>	<u>45,913.-</u>	<u>ELBE</u>	<u>CITY</u>	
Name: <u>NATIONAL COATING &amp; LINING</u> Address: <u>2985 SECOND UNIT P</u> City: <u>LAKE ELMORE</u> State: <u>CA</u> Zip: <u>92532</u> Phone: <u>951-471-3388</u>	<u>CONSTRUCTOR</u>	<u>WATERPROOFING &amp; T-LOCK</u>	<u>62,980.-</u> <u>71,330.00</u>	<u>(NO)</u>		

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

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

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

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

**The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).**

**BIDDING DOCUMENTS**

**LIST OF SUBCONTRACTORS**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF SUBCONTRACTOR	CONSTRUCTOR OR DESIGNER	TYPE OF WORK	DOLLAR VALUE OF SUBCONTRACT	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>A &amp; M REINFORCING</u> Address: <u>5353 OLDE HWY 80</u> City: <u>EL CAJON</u> State: <u>CA</u> Zip: <u>92021</u> Phone: <u>619.334.6608</u>	CONSTRUCTOR	REBAR	100,285.-			
Name: <u>STUART ENGINEERING</u> Address: <u>7525 METROPOLITAN #308</u> City: <u>SAN DIEGO</u> State: <u>CA</u> Zip: <u>92108</u> Phone: <u>619.296.1010</u>	CONSTRUCTOR	MONUMENT SURVEY	34,000.-	SLBE	CITY	
Name: <u>CELL-CRETE</u> Address: <u>135 E. RAILROAD AVE</u> City: <u>MOOREVIA</u> State: <u>CA</u> Zip: <u>91016</u> Phone: <u>626.357.3500</u>	CONSTRUCTOR	SLURRY FILL PIPE	44,830.-			

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

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

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

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

**The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).**

**BIDDING DOCUMENTS**

**NAMED EQUIPMENT/MATERIAL SUPPLIER LIST**

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

NAME, ADDRESS AND TELEPHONE NUMBER OF VENDOR/SUPPLIER	MATERIALS OR SUPPLIES	DOLLAR VALUE OF MATERIAL OR SUPPLIES	SUPPLIER (Yes/No)	MANUFACTURER (Yes/No)	MBE, WBE, DBE, DVBE, OBE, ELBE, SLBE, SDB, WoSB, HUBZone, OR SDVOSB <sup>①</sup>	WHERE CERTIFIED <sup>②</sup>
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						

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

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

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

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

**The Bidder will not receive any subcontracting participation percentages if the Bidder fails to submit the required proof of certification (except for OBE, SLBE and ELBE).**

# BALBOA TERRACE TRUNK SEWER

## UNDERGROUND UTILITIES

AT LEAST THREE (3) WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL REQUEST A MARKOUT OF UNDERGROUND UTILITIES BY CALLING THE BELOW LISTED REGIONAL NOTIFICATION CENTER FOR AN INQUIRY IDENTIFICATION NUMBER: UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-422-4133

## CONTRACTOR'S RESPONSIBILITIES

- PURSUANT TO SECTION 4216 OF THE GOVERNMENT CODE, AT LEAST 2 WORKING DAYS PRIOR TO COMMENCING ANY EXCAVATION, THE CONTRACTOR SHALL CONTACT THE REGIONAL NOTIFICATION CENTER (UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA) AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
- THE CONTRACTOR SHALL NOTIFY SDG&E (SEMPRA ENERGY) AT LEAST 10 WORKING DAYS PRIOR TO EXCAVATING WITHIN 10 FEET OF SDG&E UNDERGROUND HIGH VOLTAGE TRANSMISSION POWER LINES (I.e. 69 KV AND HIGHER).
- THE CONTRACTOR SHALL LOCATE AND RECONNECT ALL SEWER LATERALS, LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. LATERAL RECORDS ARE AVAILABLE TO THE CONTRACTOR AT THE WATER DEPARTMENT, 2797 CAMINITO CHOLLAS, THE CONTRACTOR SHALL LOCATE THE IMPROVEMENTS THAT WILL BE AFFECTED BY LATERAL REPLACEMENTS.
- THE LOCATIONS OF EXISTING BUILDINGS AS SHOWN ON THE PLANS ARE APPROXIMATE.
- STORM DRAIN INLETS SHALL REMAIN FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.
- UNLESS OTHERWISE NOTED AS PREVIOUSLY POTHOLED (PH), ELEVATIONS SHOWN ON THE PROFILE FOR EXISTING UTILITIES ARE BASED ON A SEARCH OF THE AVAILABLE RECORD INFORMATION ONLY AND ARE SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THE CITY DOES NOT GUARANTEE THAT IT HAS REVIEWED ALL AVAILABLE DATA. THE CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES EITHER SHOWN ON THE PLANS OR MARKED IN THE FIELD IN ACCORDANCE WITH SPECIFICATIONS SECTION 5-1.
- EXISTING UTILITY CROSSINGS AS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT REPRESENTATIVE OF ACTUAL LENGTH AND LOCATION OF CONFLICT AREAS. SEE PLAN VIEW.
- PALEONTOLOGICAL MONITORING IS REQUIRED ALONG THE ENTIRE OPEN TRENCH INSTALLATION ALIGNMENT PER STANDARD SPECIFICATION 807-1.3.

## STORMWATER PROTECTION NOTES

- THIS PROJECT IS SUBJECT TO MUNICIPAL STORMWATER PERMIT ORDER No. R9-2007-0001 AND WPCP.

## LIMITS OF WORK

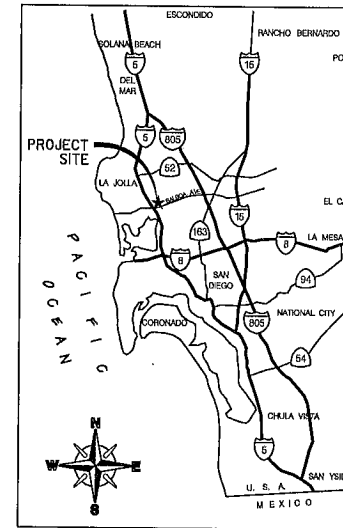
SHEET NO.	DISCIPLINE CODE	TITLE	LIMITS	PIPE		LENGTH (FT)
				SIZE (IN)	MATERIAL	
1	G-1					
2	C-1	BALBOA AVE	STA 1+08.08 TO STA 8+50	15, 21	PVC	741.92
3	C-2	BALBOA AVE	STA 8+50 TO STA 16+50	21	PVC/CCFRPM	800.00
4	C-3	BALBOA AVE, BALBOA TERRACE	STA 16+50 TO STA 23+50	20, 21	PVC/CCFRPM	700.00
5	C-4	BALBOA TERRACE, EASEMENT	STA 23+50 TO STA 30+50	8, 20, 21	PVC/CCFRPM	866.12
6	C-5	EASEMENT	STA 30+50 TO STA 38+50	20, 21	PVC/CCFRPM	800.00
7	C-6	EASEMENT	STA 38+50 TO STA 45+22.21	20, 21	PVC/CCFRPM	672.21
8	C-7	PROFILE	STA 1+00 TO STA 8+50			
9	C-8	PROFILE	STA 8+50 TO STA 16+50			
10	C-9	PROFILE	STA 16+50 TO STA 23+50			
11	C-10	PROFILE	STA 23+50 TO STA 30+50			
12	C-11	PROFILE	STA 30+50 TO STA 38+50			
13	C-12	PROFILE	STA 38+50 TO STA 45+22.21			
14	C-13	ENLARGED PLAN	LINE B STA 1+00 TO STA 3+50 LINE C STA 0+77.13 TO STA 2+20 LINE A AND LINE B	8	PVC	392.87
15	C-14	PROFILE				
16	C-15	PROFILE				
17	C-16	MANHOLE DETAILS 1				
18	C-17	MANHOLE DETAILS 2				
19	C-18	MANHOLE DETAILS 3				
20	C-19	MANHOLE DETAILS 4				
21	C-20	MANHOLE DETAILS 5				
22	C-21	TUNNELING DETAILS 1				
23	C-22	TUNNELING DETAILS 2				
24	C-23	CROSS SECTIONS 1				
25	C-24	CROSS SECTIONS 2				
26	C-25	HORIZONTAL CONTROL INDEX REPORT				
27	C-26	ABANDONMENT PLAN 1				
28	C-27	ABANDONMENT PLAN 2				
29	C-28	STREET RESURFACING PLAN				
30	C-29	CURB RAMP LOCATION PLAN				
31	C-30	WATER POLLUTION CONTROL SITE PLAN				
32	S-1	GENERAL STRUCTURAL NOTES 1				
33	S-2	GENERAL STRUCTURAL NOTES 2				
34	S-3	TYPICAL STRUCTURAL DETAILS				
35	S-4	MANHOLE No.1 PLANS AND SECTIONS				
36	S-5	MANHOLE No.9 PLANS AND SECTION				
37	S-6	MANHOLE No.10 PLANS AND SECTION				
38	S-7	MANHOLE No.19 PLANS AND SECTION				
1-10	T-1/T-10	TRAFFIC CONTROL PLANS				
				TOTAL SEWER		4993.12

## DISCIPLINE CODE

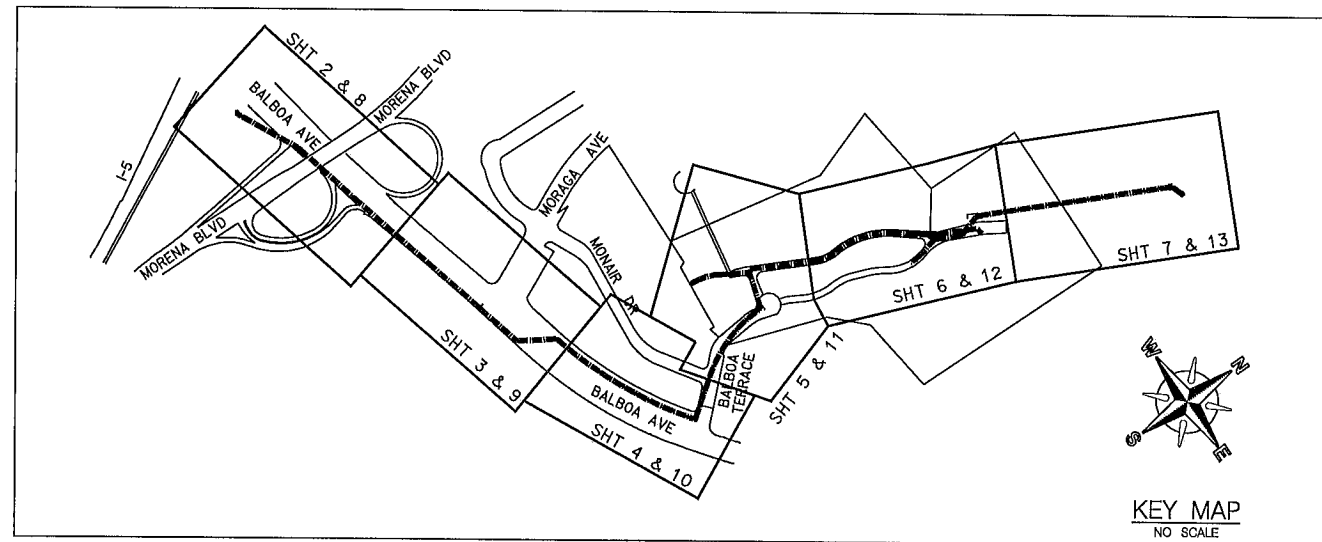
- G GENERAL
- C CIVIL
- S STRUCTURAL
- T TRAFFIC

## WORK TO BE DONE

CONSTRUCTION CONSISTS OF THE INSTALLATION OF 21", 15", AND 8" SEWER PIPE VIA TUNNELING AND OPEN TRENCH CONSTRUCTION AND ALL OTHER WORK, AND APPURTENANCES IN ACCORDANCE WITH THESE SPECIFICATIONS AND DRAWINGS NUMBERED 30360-01-D THROUGH 30360-38-D AND 30360-101-D THROUGH 30360-110-D.



VICINITY MAP  
NOT TO SCALE



KEY MAP  
NO SCALE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

JEFFREY J. ENDERSBY

DATE

CITY OF SAN DIEGO  
PUBLIC WORKS PROJECT



## LEGEND

### IMPROVEMENTS

- TRENCH RESURFACING
- SEWER MAIN
- SEWER MANHOLE/PVC LINED
- 4" SEWER LATERAL WITH C.O. UNLESS OTHERWISE SPECIFIED

CONCRETE PROTECTION FOR EXIST SEWER PIPE

CONCRETE ENCASUREMENT

ABANDON EX MANHOLE

EX SEWER MAIN TO BE FILLED WITH SLURRY

SURVEY MONUMENT

APPROXIMATE LIMITS OF TUNNELING SHAFT

REFER TO CONTRACT APPENDICES FOR LINK TO UPDATED STANDARD DRAWINGS.

FOR ADDITIONAL SYMBOLS SEE RESURFACING, CURB RAMP, HORIZONTAL ALIGNMENT COORDINATE AND TRAFFIC CONTROL SHEETS.

### FIELD DATA

BENCH MARK: NWBP MORENA BLVD. AND PAUL JONES. ELEV. 59.07, PER THE CITY OF SAN DIEGO BENCH BOOK (NAVD 29 FEET)

FIELD NOTES: DAPRON, 8-3-1999, 234-1714, W0175471  
RAMETTA, 3-05-2002, 234-1704, W0175471  
RAMETTA, 10-03-2002, 234-1704, W0175471

BASIS OF BEARING: FROM HV-1 TO HV-2 UTILIZING RTK GPS FIELD PROCEDURES (IE. N65° 43' 43" E, HD. 1072.30) WITH THE BASE STATION LOCATED AT GPS 851 AND CONSTRAINING TO GPS 851, GPS 925, GPS 950, AND GPS 793

DATUM: MEAN SEA LEVEL

### MAJOR STREETS

BALBOA AVE

### EXISTING STRUCTURES

- EX WATER MAIN & VALVES
- EX WATER METER
- EX FIRE HYDRANT
- EX SEWER MAIN & MANHOLES
- EX DRAINS
- EX PAVEMENT (PROFILE)
- EX GROUND LINE (PROFILE)
- EX TRAFFIC SIGNAL
- EX STREET LIGHT
- EX GAS MAIN
- ELEC. COND., TEL. COND., CATV
- RAILROAD, TROLLEY TRACKS

## ABBREVIATIONS

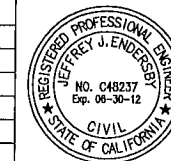
ABAND	ABANDON	EB	ENCASED BURIED	OVHD	OVER HEAD
ABAND'D	ABANDONED	EL, ELEV	ELEVATION	PH	POT HOLE
ACP	ASBESTOS CEMENT	ELEC	ELECTRIC	PROP	PROPOSED
	PIPE	EX, EXIST	EXISTING	PVC	POLYVINYL CHLORIDE
AHD	AHEAD	E/O	EAST OF	RED	REDUCER
ASSY	ASSEMBLY	F	FLANGE	RT	RIGHT
BK	BACK	GV	GATE VALVE	S	SURVEY LINE
BTWN	BETWEEN	HDPE	HIGH-DENSITY	SO	STUB OUT
CATV	CABLE TV		POLYETHYLENE	S/O	SOUTH OF
CI	CAST IRON PIPE	HP	HIGH PRESSURE	SWR	SEWER
CL	CENTERLINE	IE	INVERT ELEVATION	TEL	TELEPHONE
COND	CONDUIT	LT	LEFT	UNK	UNKNOWN
CONT	CONTINUED	MJ	MECHANICAL JOINT	VC	VITRIFIED CLAY PIPE
CONTR	CONTRACTOR	MTD	MULTIPLE TELEPHONE	WM	WATER METER
DB	DIRECT BURIED	DUCT	DUCT	WTR	WATER
DIP	DUCTILE IRON PIPE	N/O	NORTH OF	W/O	WEST OF

CONSTRUCTION CHANGE / ADDENDUM			
CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

### WARNING

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

**Brown AND Caldwell**



PLANS FOR THE CONSTRUCTION OF  
BALBOA TERRACE TRUNK SEWER

COVER SHEET

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 01 OF 38 SHEETS		WATER N/A SEWER S-12035 RBS
APPROVED: <i>Jeffrey J. Endersby</i> FOR CITY ENGINEER	DATE: 2/22/12	DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: BC	DATE: [ ]
	APPROVED: [ ]	DATE: [ ]
	DATE FILMED: [ ]	
		234-1701 CCS#7 COORDINATE
		6262407-1874444 CCS#3 COORDINATE
CONTRACTOR: [ ]	DATE STARTED: [ ]	30360-01-D
INSPECTOR: [ ]	DATE COMPLETED: [ ]	

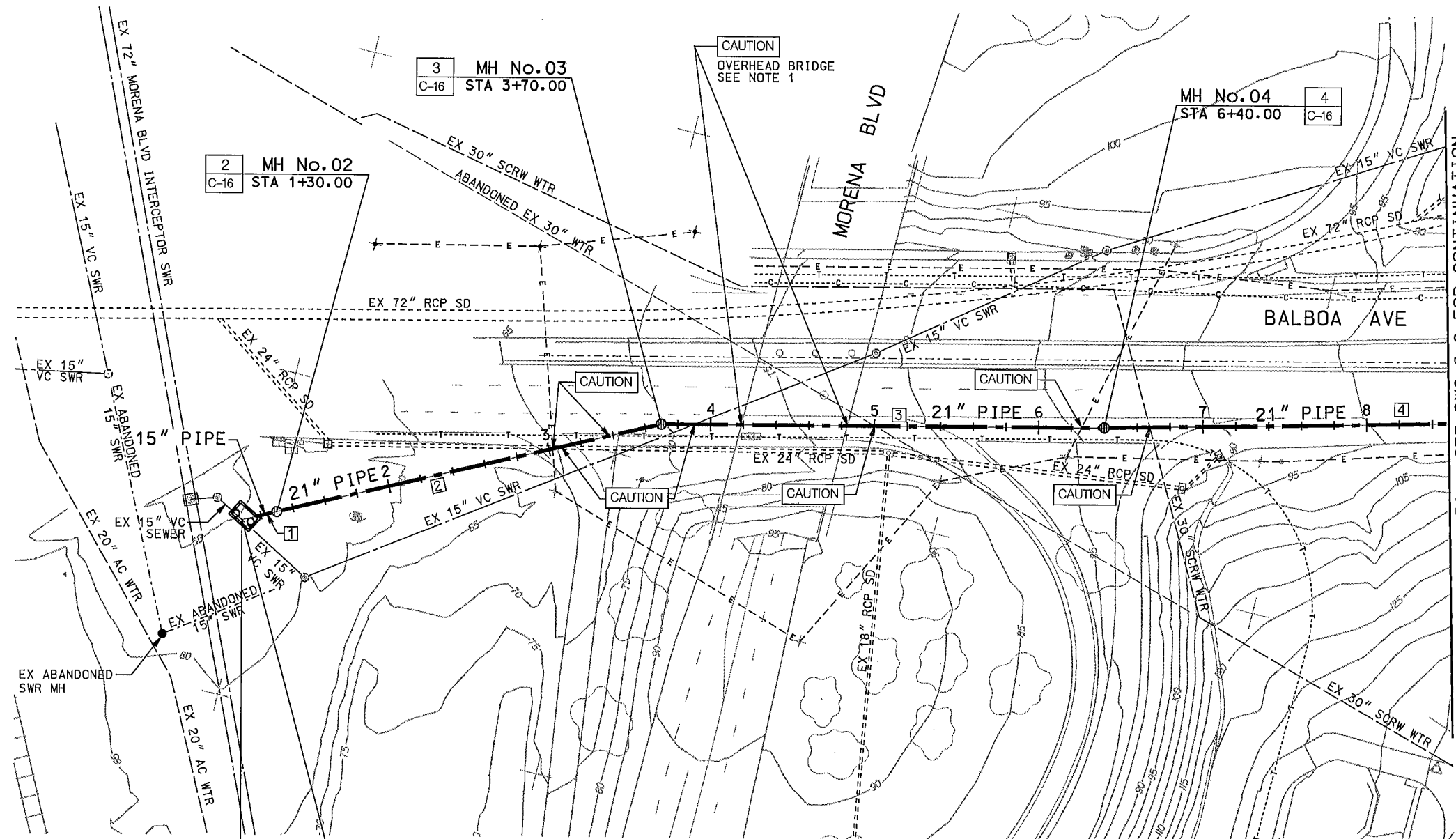
BALBOA TERRACE TRUNK SEWER

G-1

PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 63°19.34" E	-	21.92'	15" SDR-26 PVC
2	N 63°19.34" E	-	240.00'	21" PS-115 PVC
3	N 76°27'45" E	-	270.00'	21" PS-115 PVC
4	N 75°23'58" E	-	210.00'	21" PS-115 PVC

**NOTES:**

- CONTRACTOR SHALL CONDUCT SHORING AND TRENCHING OPERATIONS IN A MANNER AS TO NOT AFFECT THE CONDITION OR STRUCTURAL INTEGRITY OF ADJACENT EMBANKMENTS, BRIDGE SUPPORT COLUMNS AND FOOTINGS, ABUTMENTS, AND ANY ADDITIONAL INFRASTRUCTURE THAT MAY BE LOCATED IN THE PROJECT VICINITY.
- CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.



MATCH LINE STA 8+50 - SEE DWG C-2 FOR CONTINUATION

**REFERENCE:**

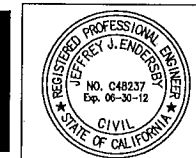
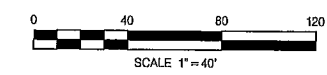
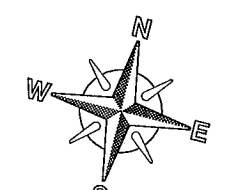
- WATER: 3983L, 10320-6-D, 12788-15-D
- SEWER: 9892-L
- STORM DRAIN: 12788-14-D
- GAS: N/A
- ELECTRIC: 234-1704
- CABLE TV: C2341704
- TELEPHONE: PB0201BA, PB0201BC
- IMPROVEMENTS: 2887-D, 33148-5-D
- 100' SCALE/FIELD BOOK: DI3S
- THOMAS BROS.: 1248-D4

SEE DWG C-7 FOR PROFILE

C-1

POINT OF CONNECTION  
JUNCTION STRUCTURE No. 01  
STA 1+08.08

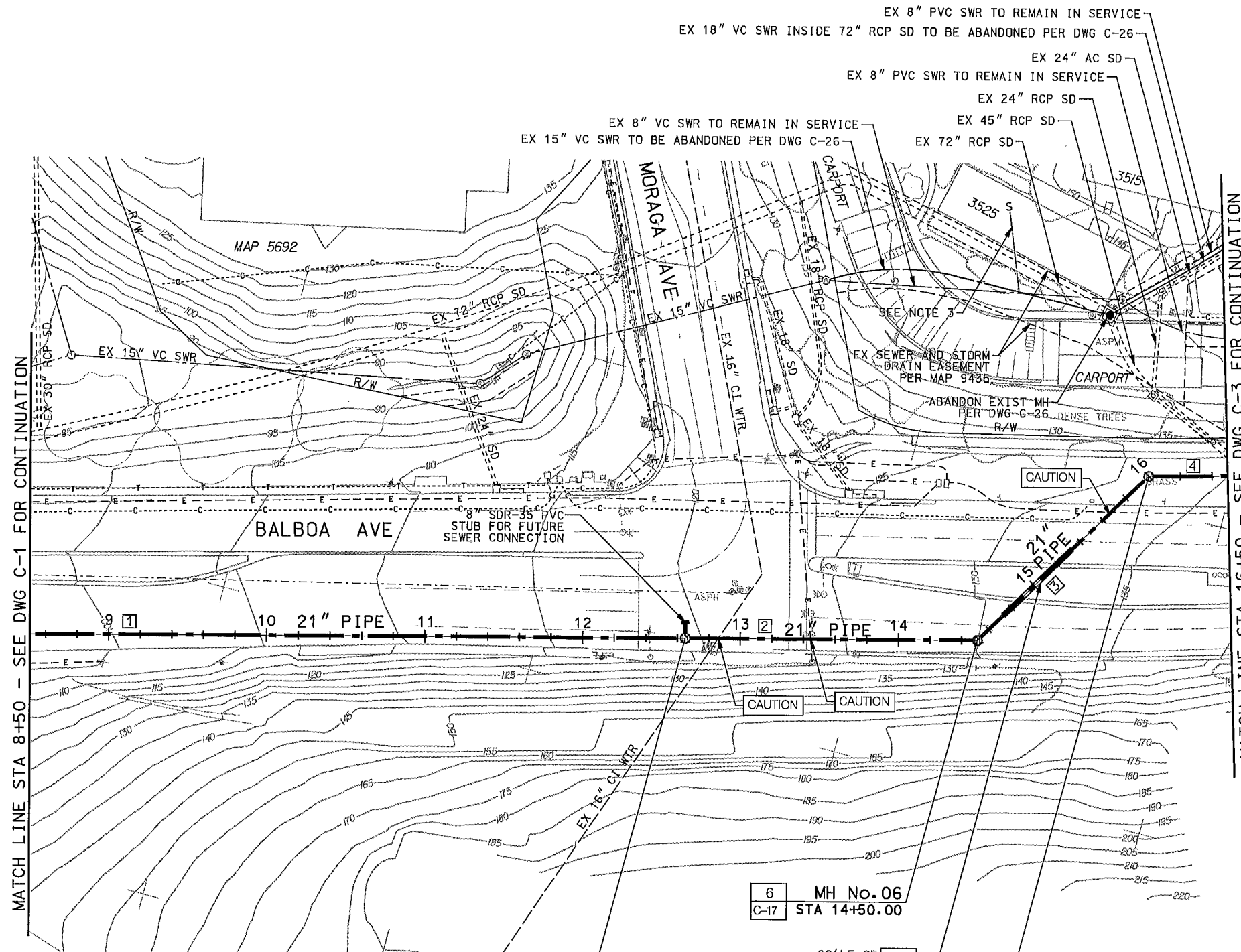
OPEN CUT SECTION  
FROM STA 1+08.08 TO STA 18+00.00



BALBOA TERRACE TRUNK SEWER		BALBOA AVENUE STA 1+08.08 TO STA 8+50	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 02 OF 38 SHEETS		WATER N/A	SEWER S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY BC	APPROVED	DATE FILMED
PROJECT ENGINEER BRIAN VITELLE		234-1701	
6262407-1874444		CCS83 COORDINATE	
CONTRACTOR	DATE STARTED	30360-02-D	
INSPECTOR	DATE COMPLETED		

BALBOA AVENUE STA 1+08.08 TO STA 8+50





PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 75°23'58" E	-	415.00'	21" PS-115 PVC
2	N 75°23'58" E	-	185.00'	21" PS-115 PVC
3	N 31°25'40" E	-	150.00'	21" PS-115 PVC
4	22°26'01"	1520.00'	50.00'	21" PS-115 PVC

- NOTES:**
- CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
  - STANDARD SCHEDULE STEEL PIPE 3/8" THICK CASING REQUIRED FOR OPEN CUT CONSTRUCTION. CONTRACTOR SHALL REPLACE IN KIND MEDIAN, VEGETATION AND COMMUNITY SIGN OR CONTRACTOR MAY PROTECT IN PLACE AND PERFORM TRENCHLESS CONSTRUCTION. CONTRACTOR SHALL DESIGN AND SUBMIT FOR APPROVAL TRENCHLESS CONSTRUCTION METHODS AND MATERIALS.
  - CONTRACTOR SHALL VERIFY SERVICE LATERAL CONNECTION TO UPPER SEWER MAIN PRIOR TO ABANDONING LOWER SEWER MAIN.

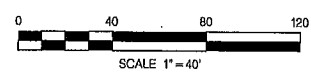
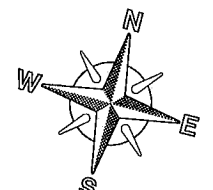
- REFERENCE:**
- WATER: 7119-W, I2089CL
  - SEWER: 9893-L, I5572-2-D, I8195-6-D, 93-3-D, I8195-6-D
  - STORM DRAIN: 2887AD, 2888AD, I2089CL, I1676-S-D, I5572-2-D, I8195-12-D
  - GAS: 5I-348
  - ELECTRIC: 234-1704
  - CABLE TV: C2341704
  - TELEPHONE: PBO20IBA, PBO20IBC
  - IMPROVEMENTS: 685I-D, I2088L, I1676-I-D, I5572-5-D, I8195-II-D, I8195-17-D, 33148-5-D
  - 100' SCALE/FIELD BOOK: D13S
  - THOMAS BROS.: I248-D4

SEE DWG C-8 FOR PROFILE

C-2

**BALBOA TERRACE TRUNK SEWER**  
BALBOA AVENUE  
STA 8+50 TO STA 16+50

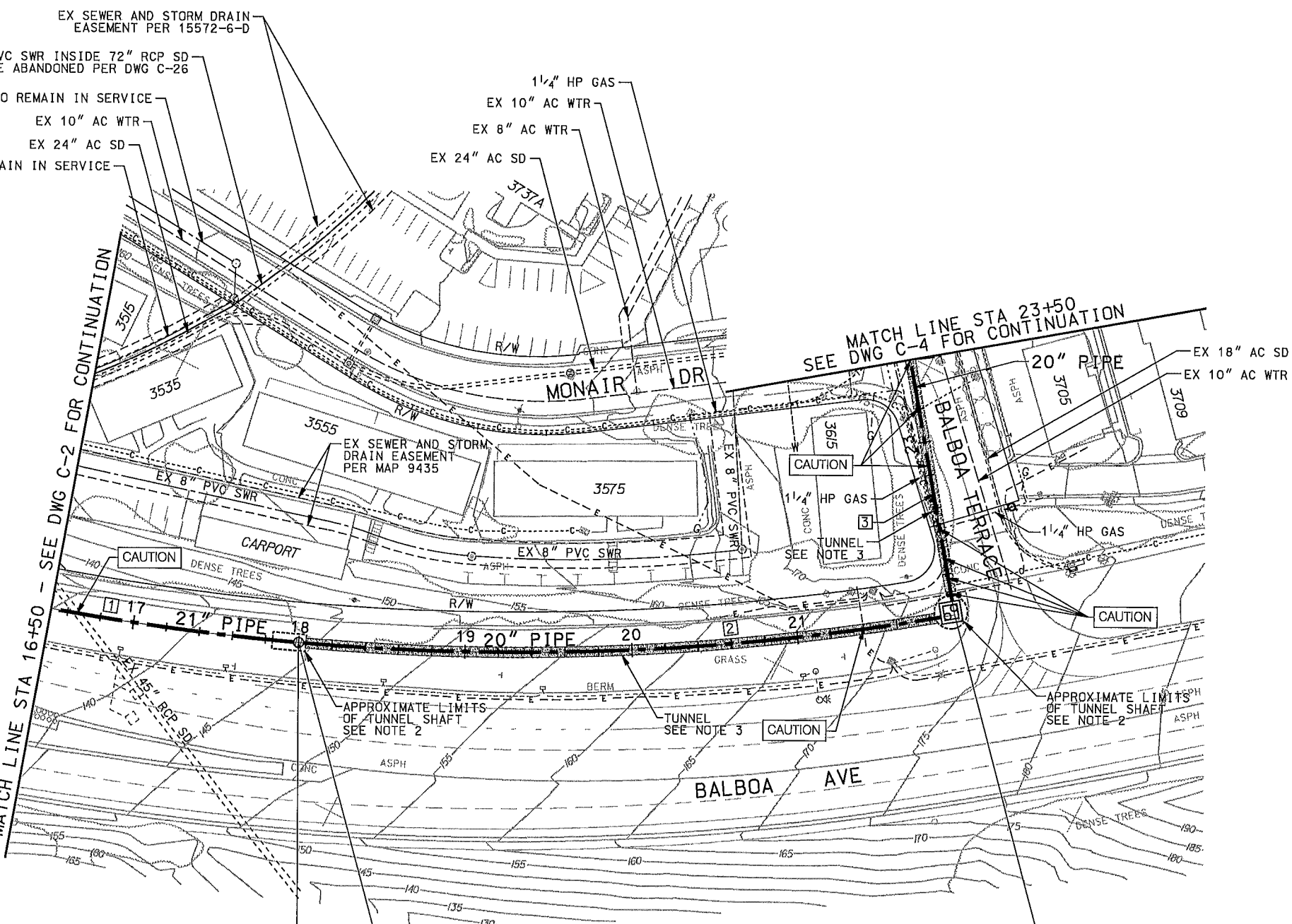
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 03 OF 38 SHEETS		WATER WBS: N/A	SEWER WBS: S-I2035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER	DRAWN BY: BRIAN VITELLE PROJECT ENGINEER
DESCRIPTION: ORIGINAL	BY: BC	APPROVED: [ ]	DATE: [ ]
FILED: [ ]	DATE: [ ]	DATE: [ ]	DATE: [ ]
CONTRACTOR: [ ]		DATE STARTED: [ ]	DATE COMPLETED: [ ]
INSPECTOR: [ ]		DATE STARTED: [ ]	DATE COMPLETED: [ ]
PROJECT NO: 234-1701			COORDINATE: 6262407-1874444
PROJECT NO: 6262407-1874444			COORDINATE: [ ]
CONTRACTOR: [ ]			DATE STARTED: [ ]
INSPECTOR: [ ]			DATE COMPLETED: [ ]



BALBOA AVENUE STA 8+50 TO STA 16+50

PROPOSED PIPE DATA TABLE table with 5 columns: No., Δ/BEARING, RADIUS, LENGTH, REMARKS. Contains 3 rows of pipe data.

NOTES: 1. CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS. 2. TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9. 3. CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.



MH No. 08 STA 18+00.00 8 C-17. MCH STRUCTURE No. 09 EC STA 21+95.15 9 C-17. OPEN CUT SECTION FROM STA 1+08.08 TO STA 18+00.00. TUNNELING SECTION FROM STA 18+00.00 TO STA 26+81.97.

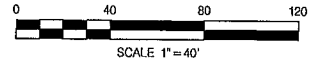
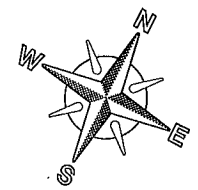
REFERENCE: WATER: I8195-2-D, I8195-3-D. SEWER: I8195-2-D, I8195-6-D. STORM DRAIN: I1676-2-D, I8195-12-D. GAS: 51-348, 51-349. ELECTRIC: 234-1704. CABLE TV: C2341704. TELEPHONE: PB020IBA, PB020IBC. IMPROVEMENTS: I5572-5-D, I5572-7-D, I8195-2-D, I8195-10-D, I8195-11-D, 33148-6-D. 100' SCALE/FIELD BOOK: D13S. THOMAS BROS.: I248-D4.

SEE DWG C-9 FOR PROFILE C-3

BALBOA TERRACE TRUNK SEWER. BALBOA AVENUE, BALBOA TERRACE. STA 16+50 TO STA 23+50

CITY OF SAN DIEGO, CALIFORNIA. ENGINEERING AND CAPITAL PROJECTS DEPARTMENT. SHEET 04 OF 38 SHEETS. APPROVED: [Signature] FOR CITY ENGINEER. DATE: 2/22/12.

Table with columns: DESCRIPTION, BY, APPROVED, DATE, FILMED. Includes project details like PROJECT ENGINEER BRIAN VITELLE and CONTRACTOR/INSPECTOR information.





No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 36°48'14" W	-	13.99'	20" SN-72 CCFRPM (TUNNELED)
2	36°26'16"	500.00'	317.98'	20" SN-72 CCFRPM (TUNNELED)
3	N 72°44'11" W	-	138.99'	21" PS-115 PVC
4	N 27°47'11" W	-	15.30'	21" PS-115 PVC
5	N 26°30'00" E	-	213.74'	21" PS-115 PVC
1A	N 08°01'51" E	-	25.75'	8" SDR-35 PVC
2A	22°30'00"	200.00'	78.54'	8" SDR-35 PVC
3A	N 30°31'51" E	-	41.81'	8" SDR-35 PVC
4A	N 14°25'31" E	-	16.67'	8" SDR-35 PVC
5A	4°27'29"	300.00'	23.34'	8" SDR-35 PVC

- NOTES:**
- CONTRACTOR SHALL LOCATE AND VERIFY SIZE OF EXISTING SERVICE LATERALS.
  - CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
  - TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
  - CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.
  - CONTRACTOR SHALL TEST AND CONFIRM STATUS OF SEWER LATERAL TO BE ABANDONED.
  - TEMPORARY CONSTRUCTION EASEMENT FOR SEWER LATERAL CONNECTION.
  - PROPOSED 15' WIDE SEWER EASEMENT.
  - CONTRACTOR SHALL MINIMIZE IMPACTS TO RESIDENTS AND SHALL COORDINATE ALL STREET AND DRIVEWAY IMPACTS WITH OWNERS.
  - CONTRACTOR SHALL USE CAUTION WHEN CONSTRUCTING NEW PIPELINE PARALLEL TO EXISTING 8" PVC SEWER MAIN. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE TO EXISTING PIPELINE.
  - CONTRACTOR SHALL COORDINATE WITH SDG&E (SEMPRA ENERGY) FOR RELOCATION OF EXISTING GAS LINES PRIOR TO START OF CONSTRUCTION.

**REFERENCE:**  
 WATER: 18195-2-D, 18195-3-D, 18195-4-D, 18195-5-D, 18195-7-D  
 SEWER: 7078-D, 18195-2-D, 18195-7-D, 18195-8-D, 18195-9-D  
 STORM DRAIN: 18195-13-D, 18195-14-D, 18195-26-D  
 GAS: 5I-349, 5I-350  
 ELECTRIC: 234-1704  
 CABLE TV: C2341704  
 TELEPHONE: PBO201BA, PBO201BC  
 IMPROVEMENTS: 15572-5-D, 15572-7-D, 18195-2-D, 18195-3-D, 18195-17-D, 18195-18-D  
 100' SCALE/FIELD BOOK: D13S  
 THOMAS BROS.: I248-D4

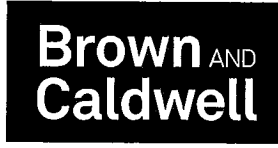
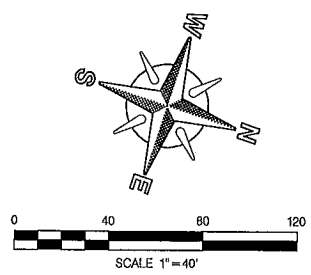
SEE DWG C-14 FOR LINE A PROFILE

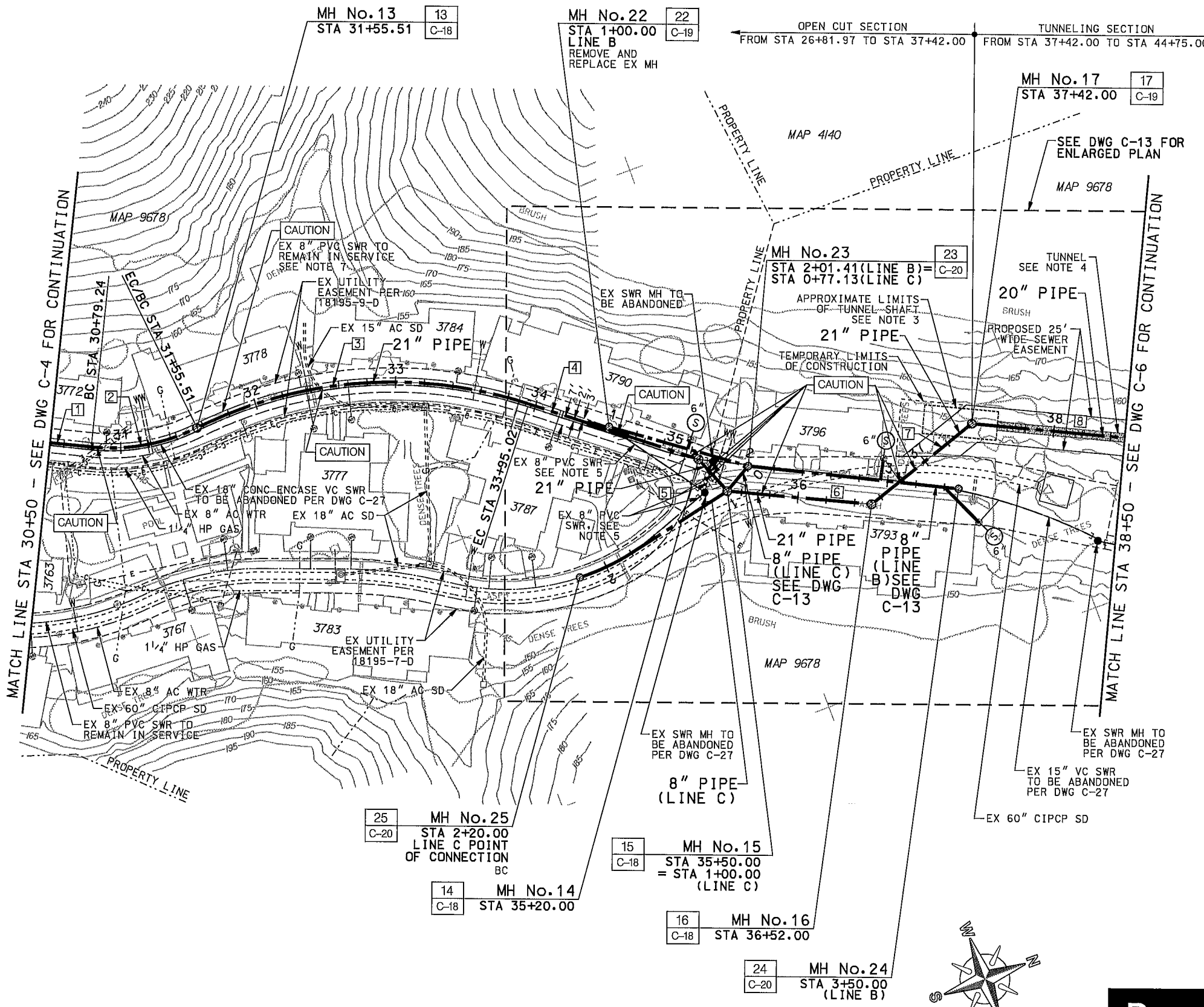
SEE DWG C-10 FOR PROFILE

C-4

**BALBOA TERRACE TRUNK SEWER**  
 BALBOA TERRACE, EASEMENT  
 STA 23+50 TO STA 30+50  
 LINE A STA 1+00 TO STA 2+86.12

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 05 OF 38 SHEETS		WATER WBS N/A
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER		SEWER WBS S-12035
DATE: 2/22/12		DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	BC	
PROJECT ENGINEER: BRIAN VITELLE		DATE
234-1701		FILED
CCS27 COORDINATE		
6262407-1874444		
CCS63 COORDINATE		
CONTRACTOR	DATE STARTED	30360-05-D
INSPECTOR	DATE COMPLETED	





PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 26°30'00" E	-	29.24'	21" PS-115 PVC
2	32°08'00"	136.00'	76.27'	21" PS-115 PVC
3	43°59'00"	312.00'	239.51'	21" PS-115 PVC
4	N 38°21'00" E	-	124.98'	21" PS-115 PVC
5	N 68°04'47" E	-	30.00'	21" PS-115 PVC
6	N 25°33'16" E	-	102.00'	21" PS-115 PVC
7	N 18°16'08" W	-	90.00'	21" PS-115 PVC
8	N 25°41'11" E	-	108.00'	20" SN-72 CCFRPM (TUNNELED)

SEE ENLARGED PLAN ON DWG C-13 FOR LINE B AND LINE C PIPE DATA.

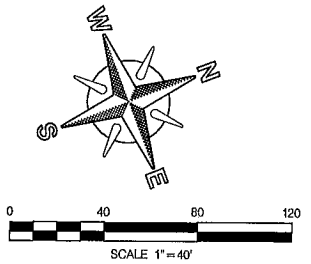
- NOTES:**
- CONTRACTOR SHALL LOCATE AND VERIFY SIZE OF EXISTING SERVICE LATERALS.
  - CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
  - TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
  - CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.
  - PORTION OF EXISTING 8" SEWER PIPE TO BE REMOVED AS NEEDED FOR CONSTRUCTION OF NEW MAIN. REMAINING SEWER TO BE ABANDONED PER WP-03.
  - CONTRACTOR SHALL MINIMIZE IMPACTS TO RESIDENTS AND SHALL COORDINATE ALL STREET AND DRIVEWAY IMPACTS WITH OWNERS.
  - CONTRACTOR SHALL USE CAUTION WHEN CONSTRUCTING NEW PIPELINE PARALLEL TO EXISTING 8" PVC SEWER MAIN. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE TO EXISTING PIPELINE.

- REFERENCE:**
- WATER: 18195-7-D, 18195-8-D
  - SEWER: 18195-7-D, 18195-8-D, 18195-9-D
  - STORM DRAIN: 18195-13-D, 18195-14-D, 18195-19-D, 18195-26-D
  - GAS: 5I-350, 5I-351
  - ELECTRIC: 234-1704, 236-1704
  - CABLE TV: C2341704
  - TELEPHONE: PB0201BA, PB0201BC
  - IMPROVEMENTS: 18195-18-D, 18195-19-D
  - 100' SCALE/FIELD BOOK: DI35
  - THOMAS BROS.: I248-D4

SEE DWG C-11 FOR PROFILE C-5

**BALBOA TERRACE TRUNK SEWER**  
EASEMENT  
STA 30+50 TO STA 38+50

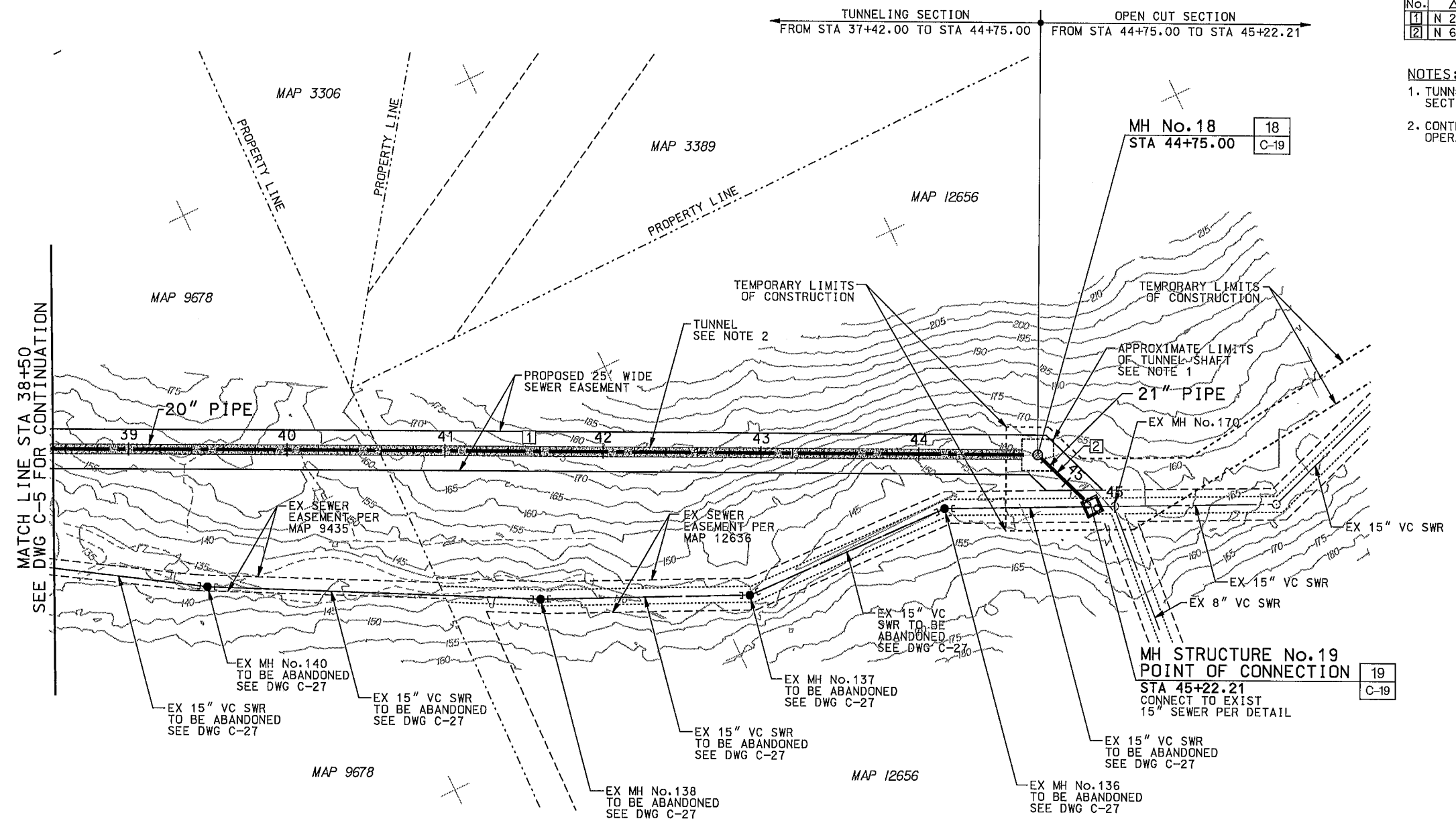
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 06 OF 38 SHEETS		WATER WBS N/A
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER		SEWER WBS S-I2035
DATE: 2/22/12		DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY BC	CHECKED BY: BRIAN VITELLE PROJECT ENGINEER
APPROVED	DATE	234-1701
FILED		CC827 COORDINATE
		6262407-1874444
		CC883 COORDINATE
CONTRACTOR	DATE STARTED	30360-06-D
INSPECTOR	DATE COMPLETED	



EASEMENT STA 30+50 TO STA 38+50

PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1	N 25°41.11" E	-	625.00'	20" SN-72 CCFRPM (TUNNELED)
2	N 69°04.42" E	-	47.21'	21" PS-115 PVC

- NOTES:
- TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
  - CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.



REFERENCE:

WATER: N/A

SEWER: 9895-L, 9896-L

STORM DRAIN: N/A

GAS: N/A

ELECTRIC: N/A

CABLE TV: N/A

TELEPHONE: N/A

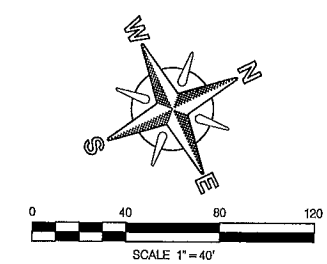
IMPROVEMENTS: N/A

100' SCALE/FIELD BOOK: D135

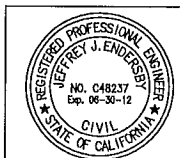
THOMAS BROS.: I248-D4

SEE DWG C-12 FOR PROFILE C-6

<b>BALBOA TERRACE TRUNK SEWER</b>	
EASEMENT STA 38+50 TO STA 45+22.21	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 07 OF 38 SHEETS	WATER WBS: N/A SEWER WBS: S-I2035
APPROVED BY: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12
DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER	ORDERED BY: BRIAN VITELLE PROJECT ENGINEER
DESCRIPTION: ORIGINAL	BY: BC
APPROVED: [ ]	DATE: [ ]
FILED: [ ]	
234-1701 CCS27 COORDINATE	
6262407-1874444 CCS83 COORDINATE	
CONTRACTOR: [ ]	DATE STARTED: [ ]
INSPECTOR: [ ]	DATE COMPLETED: [ ]
30360-07-D	

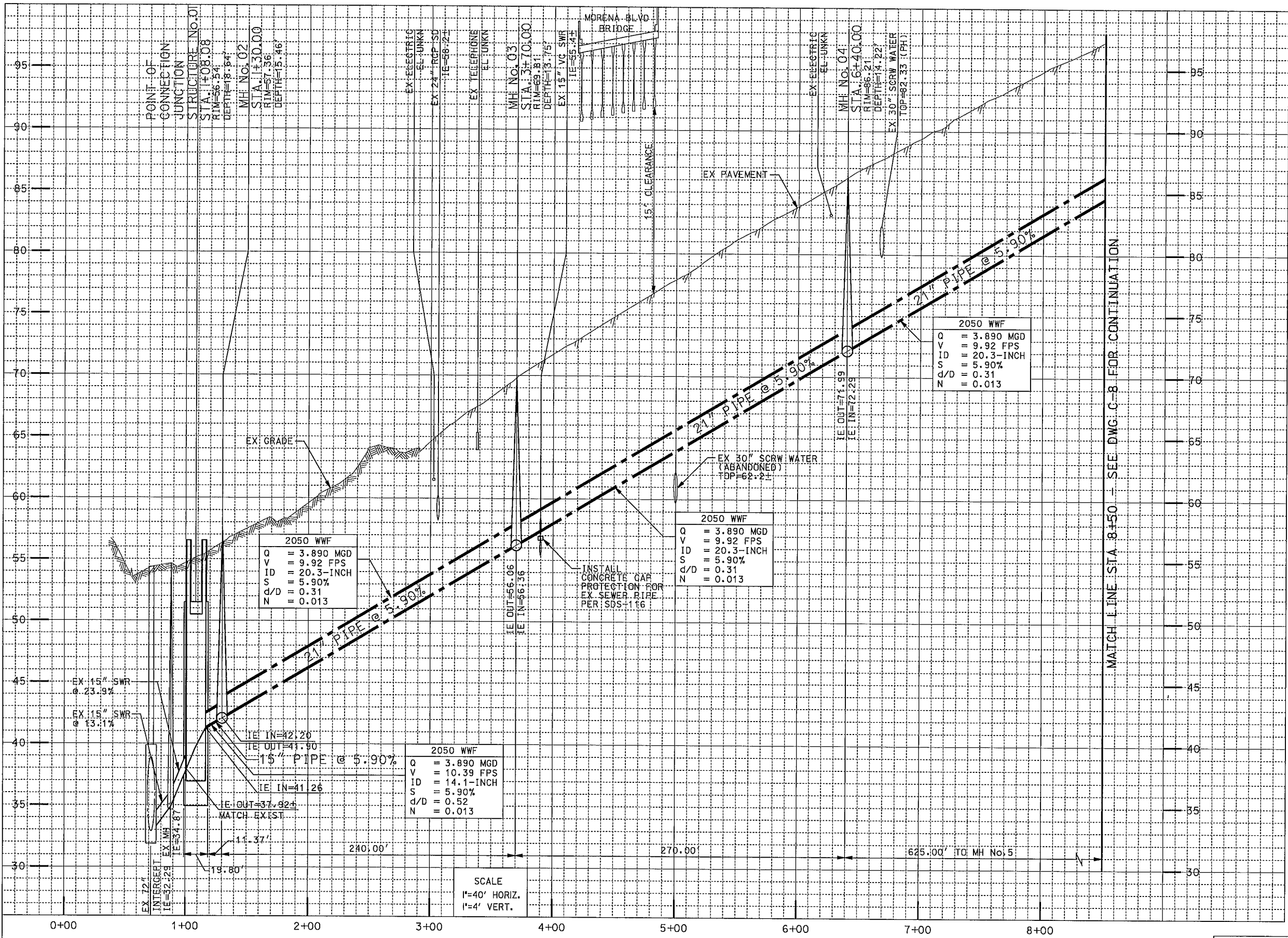


**Brown AND Caldwell**



EASEMENT STA 38+50 TO STA 45+22.21





2050 WWF

Q	= 3.890 MGD
V	= 9.92 FPS
ID	= 20.3-INCH
S	= 5.90%
d/D	= 0.31
N	= 0.013

2050 WWF

Q	= 3.890 MGD
V	= 10.39 FPS
ID	= 14.1-INCH
S	= 5.90%
d/D	= 0.52
N	= 0.013

2050 WWF

Q	= 3.890 MGD
V	= 9.92 FPS
ID	= 20.3-INCH
S	= 5.90%
d/D	= 0.31
N	= 0.013

2050 WWF

Q	= 3.890 MGD
V	= 9.92 FPS
ID	= 20.3-INCH
S	= 5.90%
d/D	= 0.31
N	= 0.013

SCALE  
1"=40' HORIZ.  
1"=4' VERT.

MATCH LINE STA 8+50 - SEE DWG C-8 FOR CONTINUATION

SEE DWG C-1 FOR PLAN

C-7

BALBOA TERRACE TRUNK SEWER  
BALBOA AVENUE  
PROFILE  
STA 1+08.08 TO STA 8+50

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 08 OF 37 SHEETS

WATER WBS N/A  
SEWER WBS S-12035

APPROVED: *[Signature]* 2/22/12  
FOR CITY ENGINEER DATE

SUBMITTED BY: JIM HAGGOUY  
ASSOCIATE ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	XX/XX			

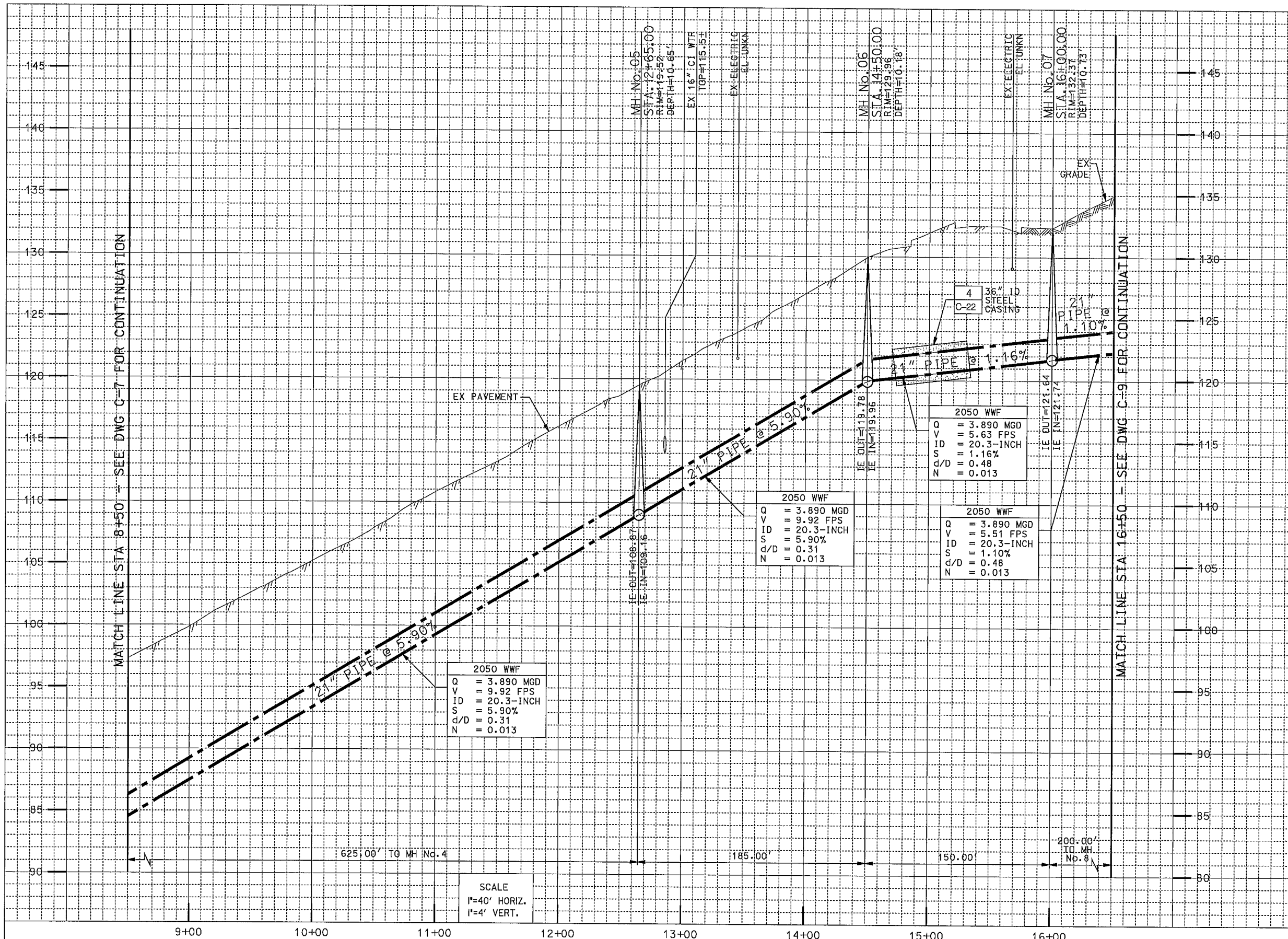
CREATED BY: BRIAN VITELLE  
PROJECT ENGINEER  
234-1701  
CC827 COORDINATE  
6262407-1874444  
CC883 COORDINATE

CONTRACTOR \_\_\_\_\_ DATE STARTED \_\_\_\_\_  
INSPECTOR \_\_\_\_\_ DATE COMPLETED \_\_\_\_\_

30360-08-D







SEE DWG C-2 FOR PLAN

C-8

BALBOA TERRACE TRUNK SEWER  
BALBOA AVENUE  
PROFILE  
STA 8+50 TO STA 16+50

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 09 OF 37 SHEETS

FOR CITY ENGINEER: *[Signature]* DATE: 2/22/12

DESIGNED BY: BRIAN VITELLE  
PROJECT ENGINEER

NO. 234-1701  
CCS27 COORDINATE  
6262407-1874444  
CCS83 COORDINATE

CONTRACTOR: \_\_\_\_\_ DATE STARTED: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_

WATER WBS: N/A  
SEWER WBS: S-12035

APPROVED BY: JIM HAGHOULY  
ASSOCIATE ENGINEER

PROJECT ENGINEER

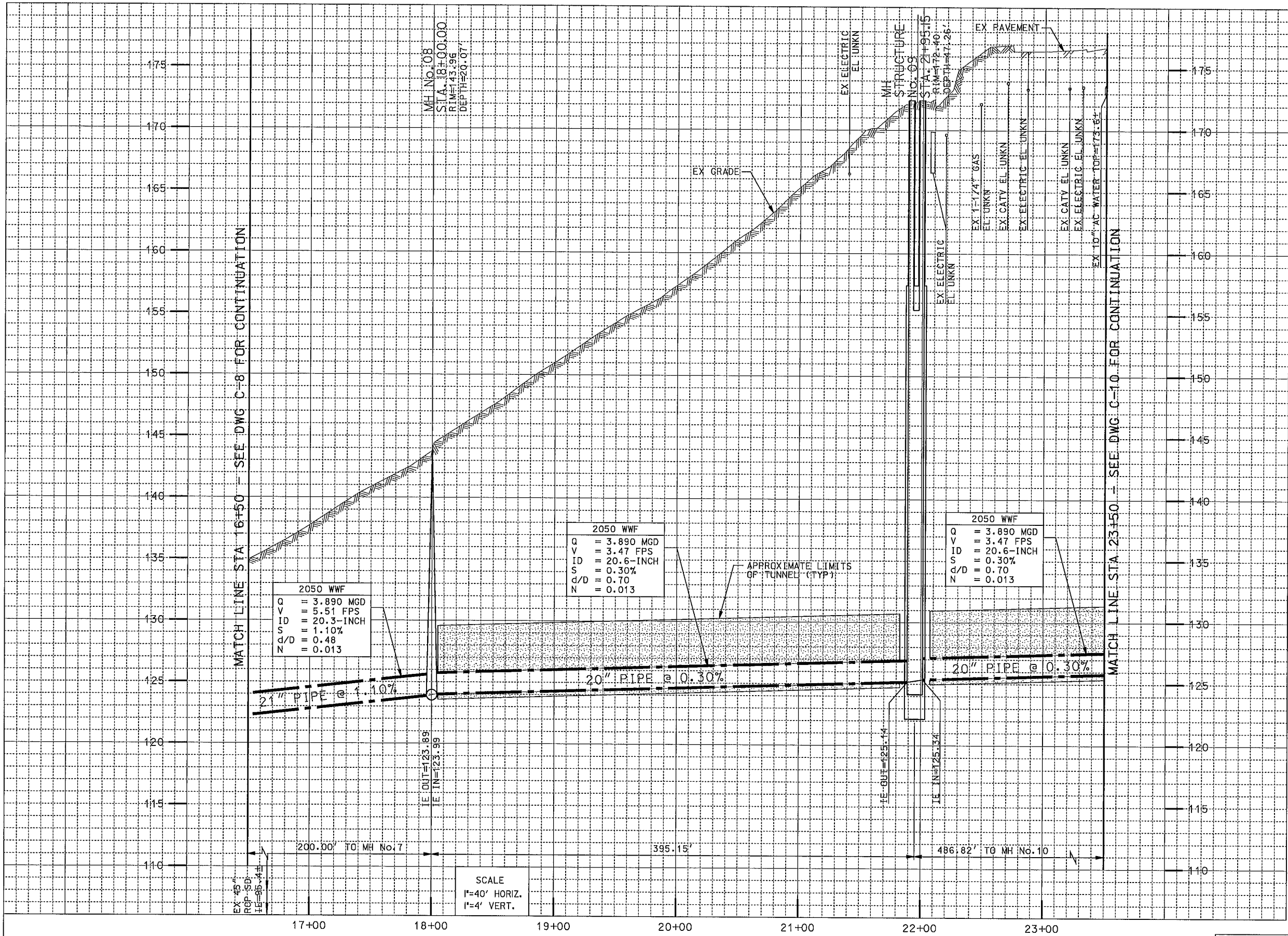
234-1701  
CCS27 COORDINATE  
6262407-1874444  
CCS83 COORDINATE

30360-09-D

SCALE  
1"=40' HORIZ.  
1"=4' VERT.



PROFILE STA 8+50 TO STA 16+50



SEE DWG C-3 FOR PLAN

C-9

BALBOA TERRACE TRUNK SEWER  
 BALBOA AVENUE, BALBOA TERRACE  
 PROFILE  
 STA 16+50 TO STA 23+50

CITY OF SAN DIEGO, CALIFORNIA  
 ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
 SHEET 10 OF 37 SHEETS

APPROVED: *[Signature]* DATE: 2/22/12  
 FOR CITY ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	xx/xx			

WATER WBS N/A  
 SEWER WBS S-12035

DESIGNED BY: JIM HAGHGOUY  
 ASSOCIATE ENGINEER

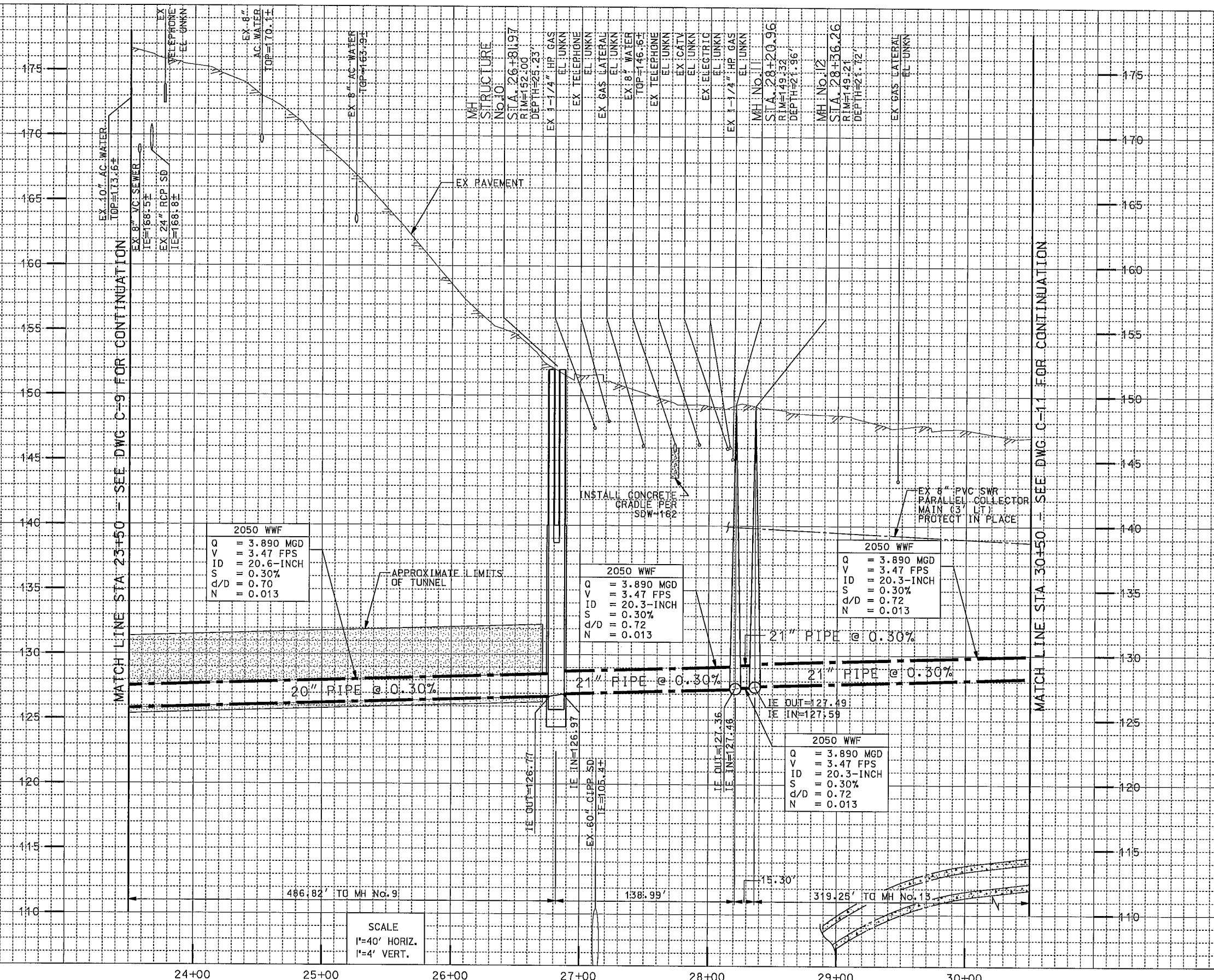
CHECKED BY: BRIAN VITELLE  
 PROJECT ENGINEER

234-1701  
 CC827 COORDINATE  
 6262407-1874444  
 CS893 COORDINATE

CONTRACTOR \_\_\_\_\_ DATE STARTED \_\_\_\_\_  
 INSPECTOR \_\_\_\_\_ DATE COMPLETED \_\_\_\_\_

30360-10-D





MATCH LINE STA 23+50 - SEE DWG C-9 FOR CONTINUATION

MATCH LINE STA 30+50 - SEE DWG C-11 FOR CONTINUATION

SEE DWG C-4 FOR PLAN

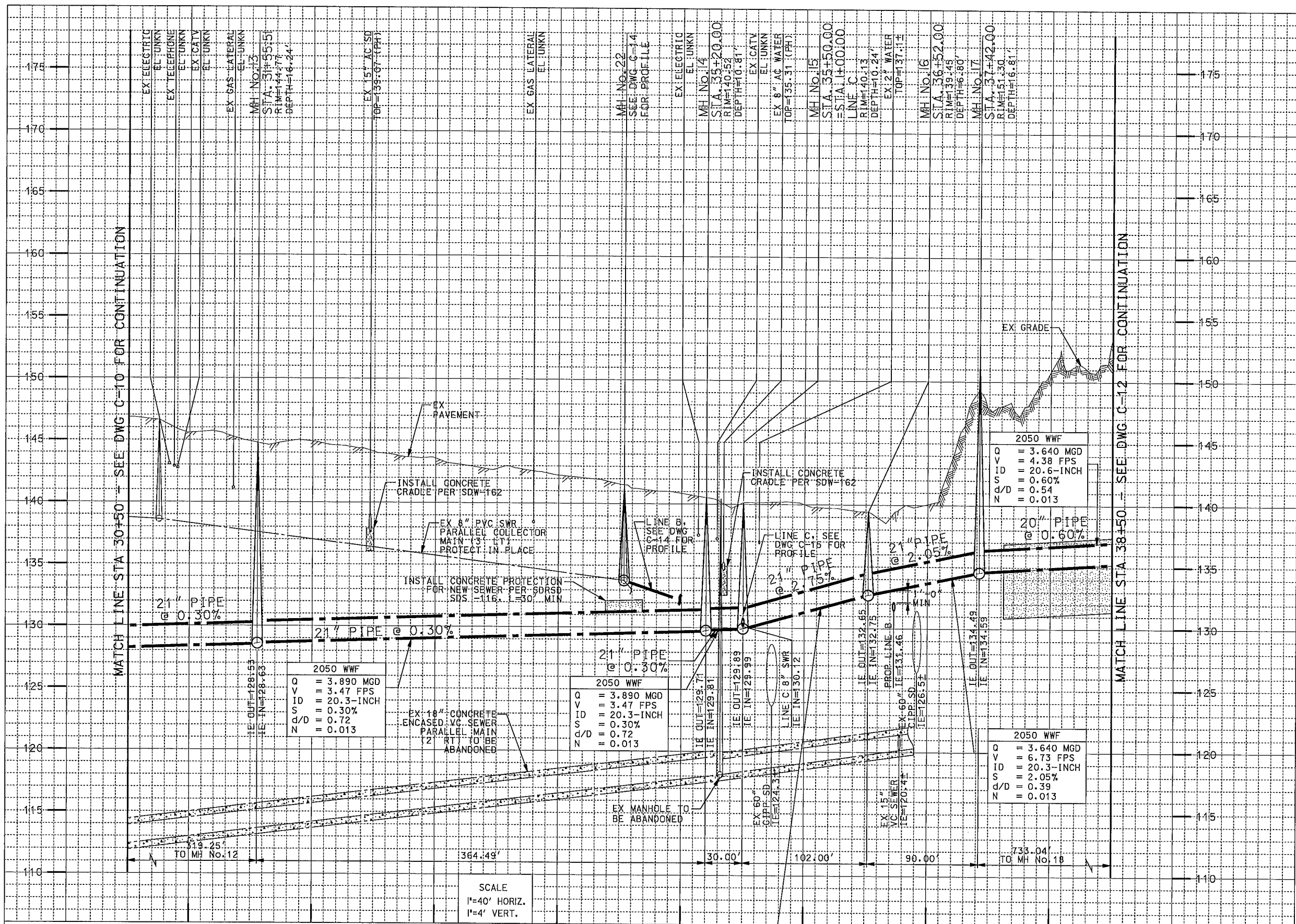
C-10

BALBOA TERRACE TRUNK SEWER  
BALBOA TERRACE, EASEMENT  
PROFILE  
STA 23+50 TO STA 30+50

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET # OF 37 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12	SUBMITTED BY JIM HAGHGOUY ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY XX/XX	APPROVED	DATE FILMED
DESIGNED BY BRIAN VITELLE PROJECT ENGINEER		NO. 234-1701 CCS27 COORDINATE	
CONTRACTOR		6262407-1874444 CCS83 COORDINATE	
INSPECTOR	DATE STARTED	30360-11-D DATE COMPLETED	







SEE DWG C-5 FOR PLAN

C-11

BALBOA TERRACE TRUNK SEWER  
EASEMENT  
PROFILE  
STA 30+50 TO STA 38+50

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 12 OF 37 SHEETS

APPROVED BY: *[Signature]* DATE: 2/22/12  
FOR CITY ENGINEER

DESIGNED BY: BRIAN VITELLE  
PROJECT ENGINEER

NO. 234-1701  
CC327 COORDINATE

6262407-187444  
CC383 COORDINATE

CONTRACTOR: \_\_\_\_\_ DATE STARTED: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_

WATER N/A  
SEWER S-12035

DESIGNED BY: JIM HAGHOJY  
ASSOCIATE ENGINEER

NO. 234-1701  
CC327 COORDINATE

6262407-187444  
CC383 COORDINATE

CONTRACTOR: \_\_\_\_\_ DATE STARTED: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_

30360-12-D



PROFILE STA 30+50 TO STA 38+50

PROFILE STA 38+50 TO STA 45+22.21



2050 WWF  
 Q = 3.640 MGD  
 V = 4.38 FPS  
 ID = 20.6-INCH  
 S = 0.60%  
 d/D = 0.54  
 N = 0.013

2050 WWF  
 Q = 3.640 MGD  
 V = 4.23 FPS  
 ID = 20.3-INCH  
 S = 0.55%  
 d/D = 0.57  
 N = 0.013

MH No. 18  
 STA. 44+75.00  
 RIM=162.51  
 DEPTH=23.45'  
 MH STRUCTURE No. 19  
 STA. 45+22.21  
 POINT OF CONNECTION  
 RIM=155.75  
 DEPTH=16.47'

SCALE  
 1"=40' HORIZ.  
 1"=4' VERT.

SEE DWG C-6 FOR PLAN

C-12

BALBOA TERRACE TRUNK SEWER  
 EASEMENT  
 PROFILE  
 STA 38+50 TO STA 45+22.21

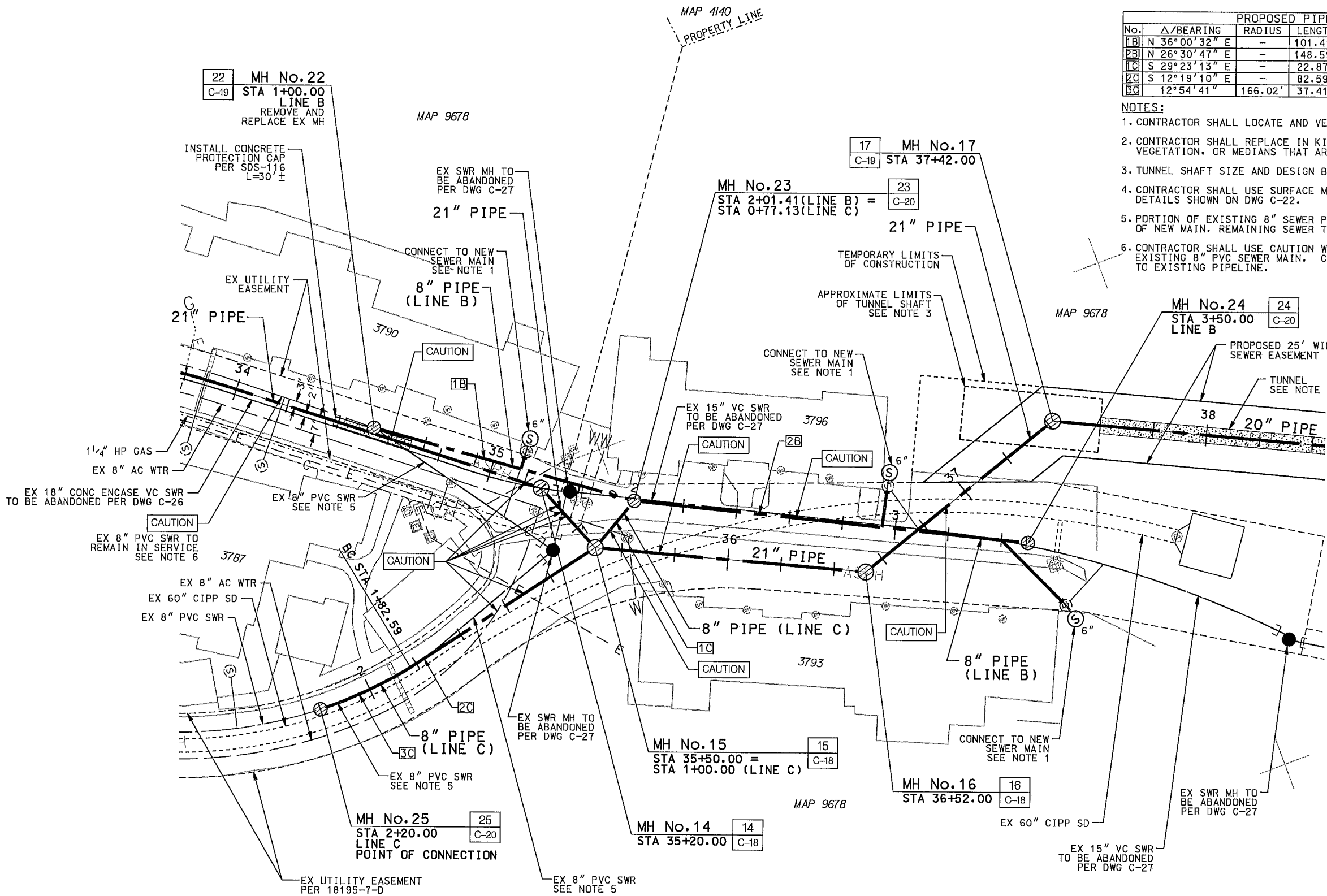
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 13 OF 37 SHEETS					WATER WBS N/A
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER					DATE 2/22/12
SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER					SEWER WBS S-12035
DESCRIPTION	BY	APPROVED	DATE	FILMED	CHECKED BY: BRIAN VITELLE PROJECT ENGINEER
ORIGINAL	XX/XX				234-1701 CCS27 COORDINATE
					6262407-1874444 CCS83 COORDINATE
CONTRACTOR		DATE STARTED		30360-13-D	
INSPECTOR		DATE COMPLETED			



PROPOSED PIPE DATA TABLE				
No.	Δ/BEARING	RADIUS	LENGTH	REMARKS
1B	N 36°00'32" E	-	101.41'	8" SDR-35 PVC
2B	N 26°30'47" E	-	148.59'	8" SDR-35 PVC
1C	S 29°23'13" E	-	22.87'	8" SDR-35 PVC
2C	S 12°19'10" E	-	82.59'	8" SDR-35 PVC
3C	12°54'41"	166.02'	37.41'	8" SDR-35 PVC

**NOTES:**

1. CONTRACTOR SHALL LOCATE AND VERIFY SIZE OF EXISTING SEWER SERVICE LATERALS.
2. CONTRACTOR SHALL REPLACE IN KIND ANY PAVEMENT, CURB, GUTTER, SIDEWALK, VEGETATION, OR MEDIANS THAT ARE DAMAGED DURING CONSTRUCTION OPERATIONS.
3. TUNNEL SHAFT SIZE AND DESIGN BY CONTRACTOR PER SPECIFICATION SECTION 306-9.
4. CONTRACTOR SHALL USE SURFACE MONITORING DURING TUNNELING OPERATIONS PER DETAILS SHOWN ON DWG C-22.
5. PORTION OF EXISTING 8" SEWER PIPE TO BE REMOVED AS NEEDED FOR CONSTRUCTION OF NEW MAIN. REMAINING SEWER TO BE ABANDONED PER WP-03.
6. CONTRACTOR SHALL USE CAUTION WHEN CONSTRUCTING NEW PIPELINE PARALLEL TO EXISTING 8" PVC SEWER MAIN. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE TO EXISTING PIPELINE.



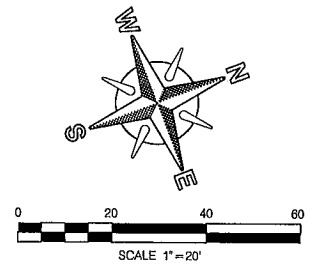
- REFERENCE:**
- WATER: 18195-7-D, 18195-8-D
  - SEWER: 18195-7-D, 18195-8-D, 18195-9-D
  - STORM DRAIN: 18195-13-D, 18195-14-D, 18195-19-D, 18195-26-D
  - GAS: 5I-350, 5I-351
  - ELECTRIC: 234-1704, 236-1704
  - CABLE TV: C2341704
  - TELEPHONE: PB0201BA, PB0201BC
  - IMPROVEMENTS: 18195-18-D, 18195-19-D
  - 100' SCALE/FIELD BOOK: DI3S
  - THOMAS BROS.: I248-D4

SEE DWGS C-14 AND C-15 FOR PROFILES

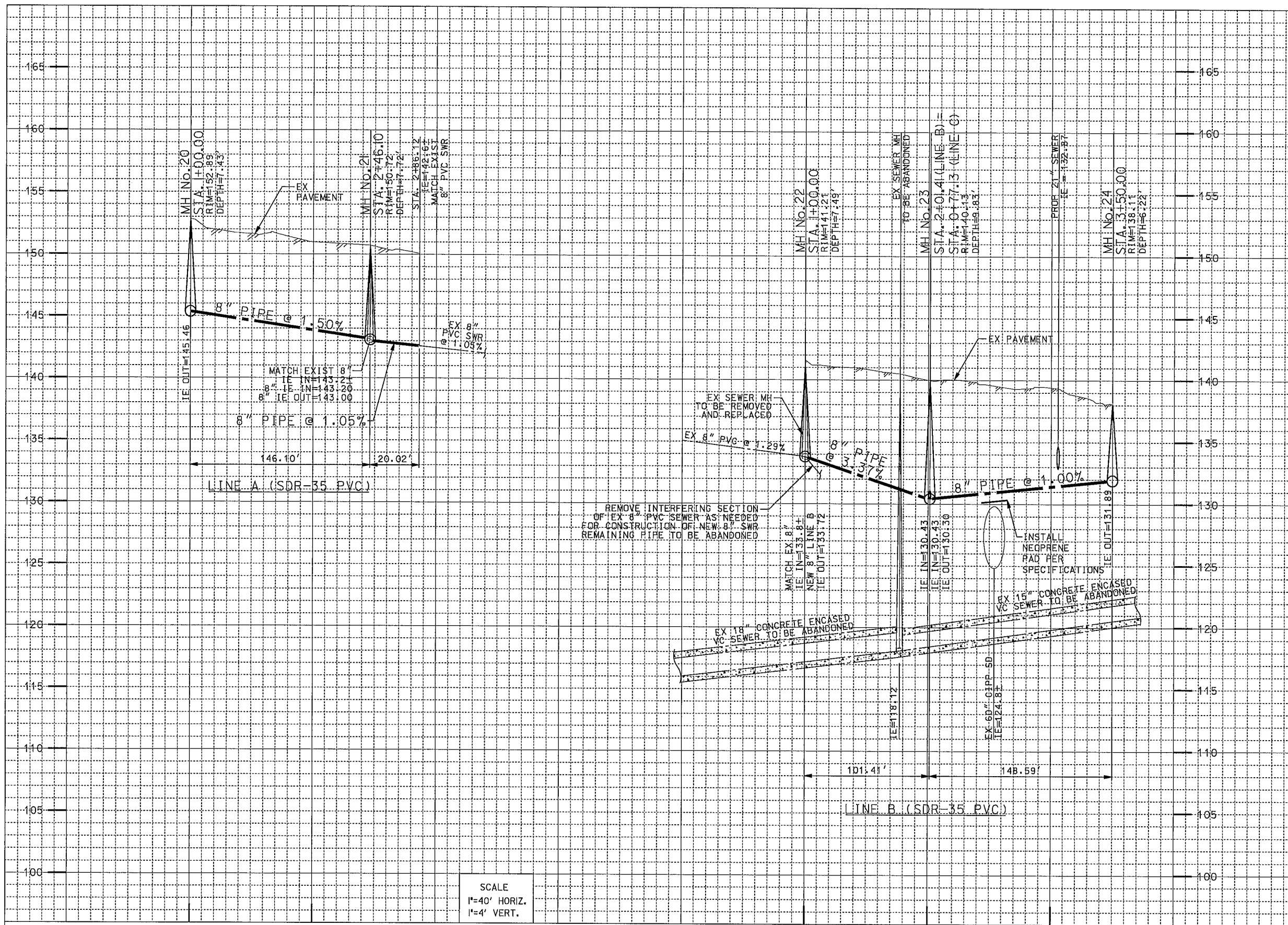
C-13

**BALBOA TERRACE TRUNK SEWER  
ENLARGED PLAN  
LINE B STA 1+00 TO STA 3+50  
LINE C STA 0+77.13 TO STA 2+20**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 14 OF 38 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED BY: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION: ORIGINAL	BY: BC	PROJECT ENGINEER: BRIAN VITELLE
	APPROVED: [ ]	DATE: [ ]
	APPROVED: [ ]	DATE: [ ]
	APPROVED: [ ]	DATE: [ ]
	APPROVED: [ ]	DATE: [ ]
CONTRACTOR: [ ]	DATE STARTED: [ ]	DATE COMPLETED: [ ]
INSPECTOR: [ ]	DATE STARTED: [ ]	DATE COMPLETED: [ ]







SCALE  
1"=40' HORIZ.  
1"=4' VERT.

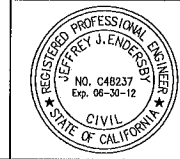
SEE DWG C-4 FOR LINE A PLAN

SEE DWG C-13 FOR LINE B PLAN

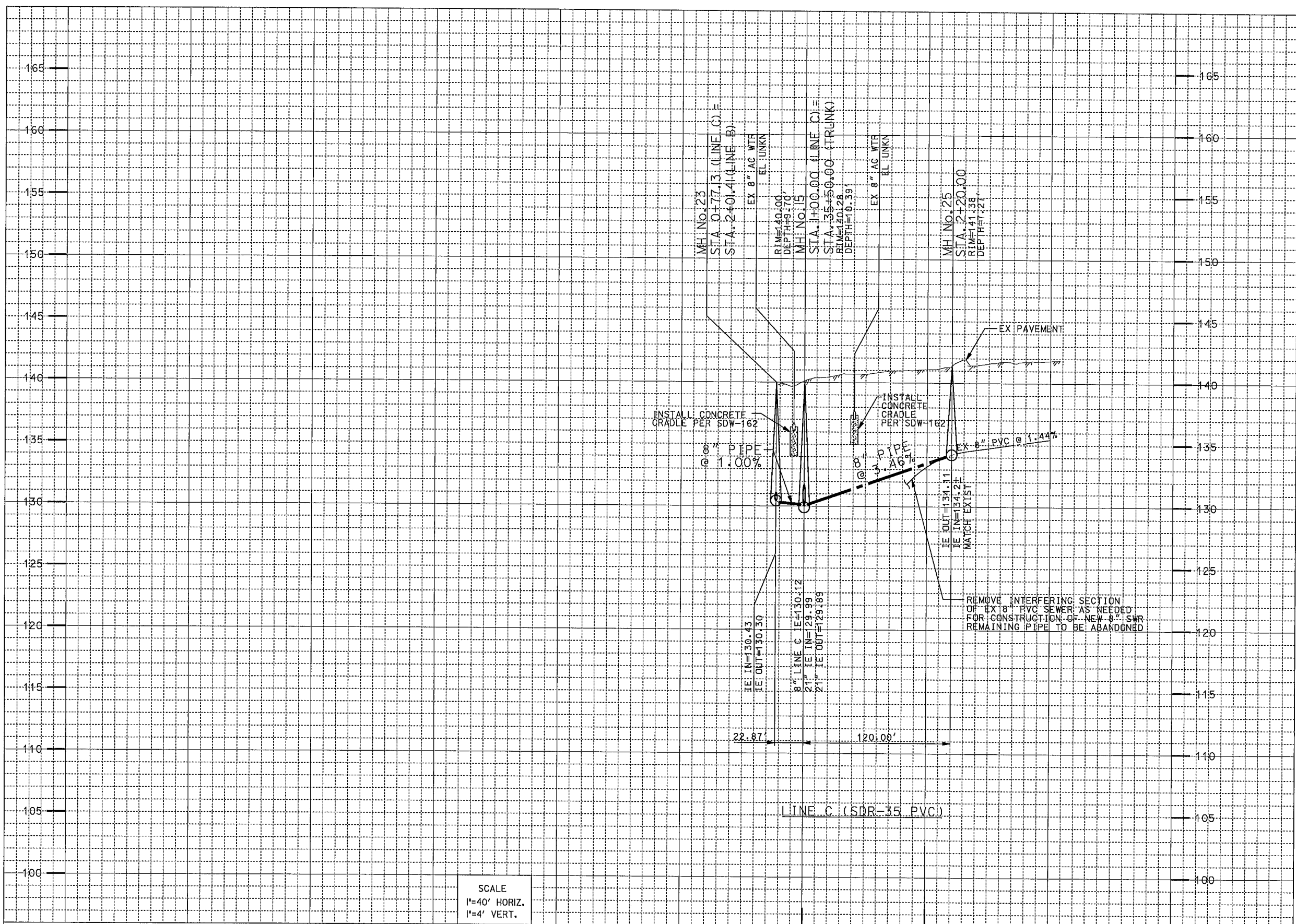
C-14

BALBOA TERRACE TRUNK SEWER  
EASEMENT PROFILES  
LINE A AND LINE B

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 15 OF 37 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGHOLY ASSOCIATE ENGINEER	
DESCRIPTION: ORIGINAL	BY: XX/XX	APPROVED:	DATE:
FILMED:		PROJECT ENGINEER: BRIAN VITELLE	
		234-1701 CCS27 COORDINATE	
		6262407-1874444 CCS83 COORDINATE	
CONTRACTOR:	DATE STARTED:	30360-15 -D	
INSPECTOR:	DATE COMPLETED:		



PROFILES LINE A AND LINE B



SCALE  
1"=40' HORIZ.  
1"=4' VERT.

LINE C (SDR-35 PVC)

SEE DWG C-13 FOR LINE C PLAN C-15

BALBOA TERRACE TRUNK SEWER  
EASEMENT PROFILE  
LINE C

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 16 OF 37 SHEETS

APPROVED: *[Signature]* 2/22/12  
FOR CITY ENGINEER DATE

DESIGNER: JIM HAGHGOUY  
ASSOCIATE ENGINEER

PROJECT ENGINEER: BRIAN VITELLE

234-1701  
CCS27 COORDINATE

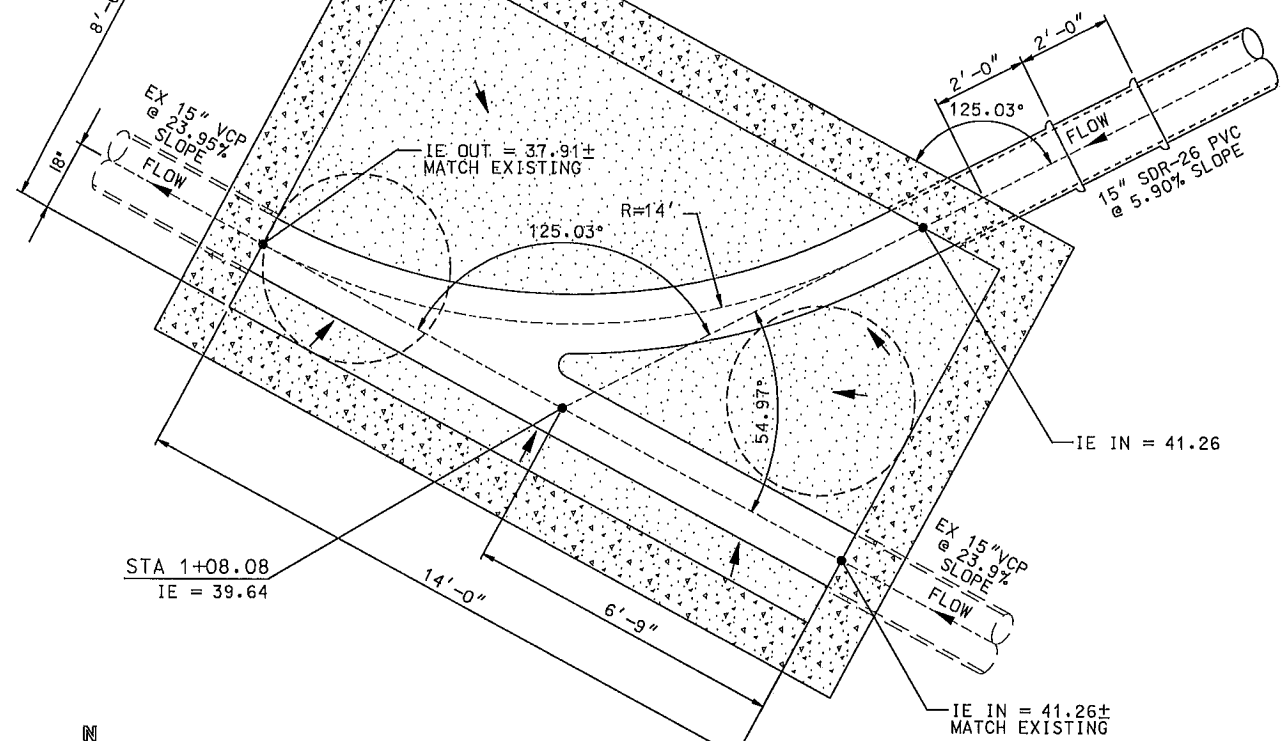
6262407-1874444  
CCS83 COORDINATE

CONTRACTOR: \_\_\_\_\_ DATE STARTED: \_\_\_\_\_  
INSPECTOR: \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_

30360-16 -D

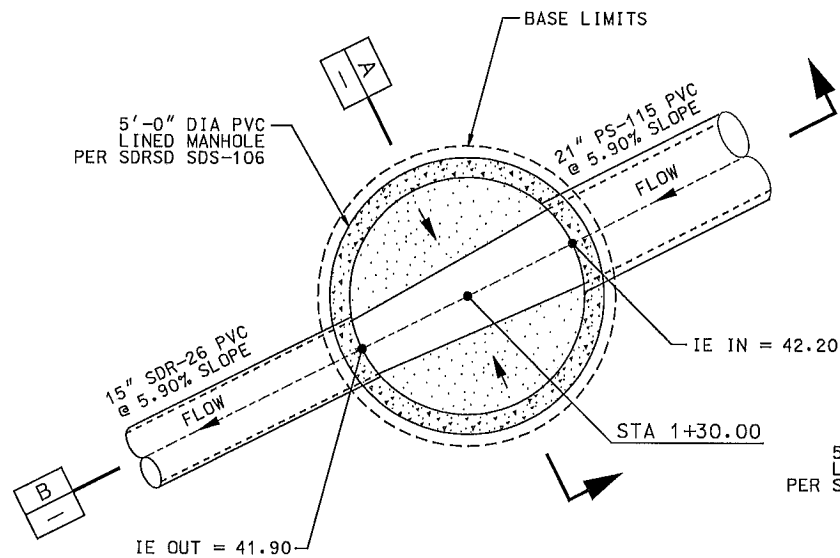
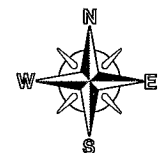


- NOTES:
1. ALL INSIDE SURFACES SHALL BE T-LOCK LINED PER SPECIFICATIONS.
  2. SEE DWG S-1 FOR STRUCTURAL PLAN AND SECTIONS.
  3. CUT EXISTING PIPE FLUSH WITH INSIDE WALL.



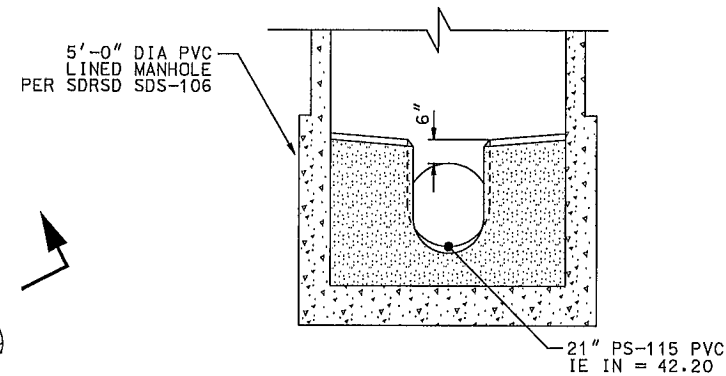
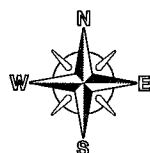
JUNCTION STRUCTURE No.1 @ STA 1+08.08

DETAIL 1  
SCALE: 1" = 2'-0" C-1



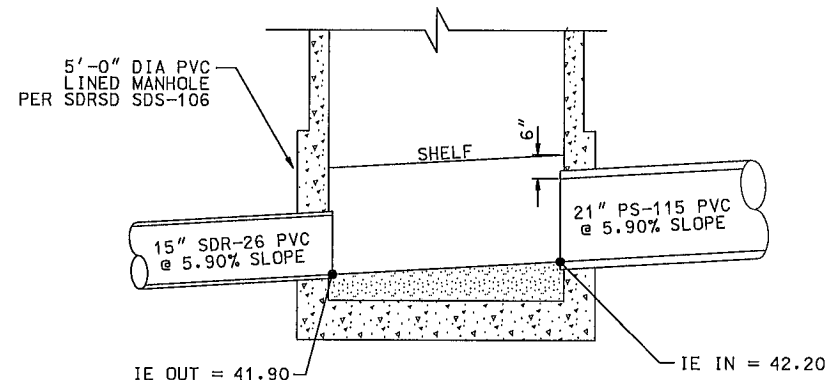
MH No.2 @ STA 1+30.00

DETAIL 2  
SCALE: 1" = 2'-0" C-1



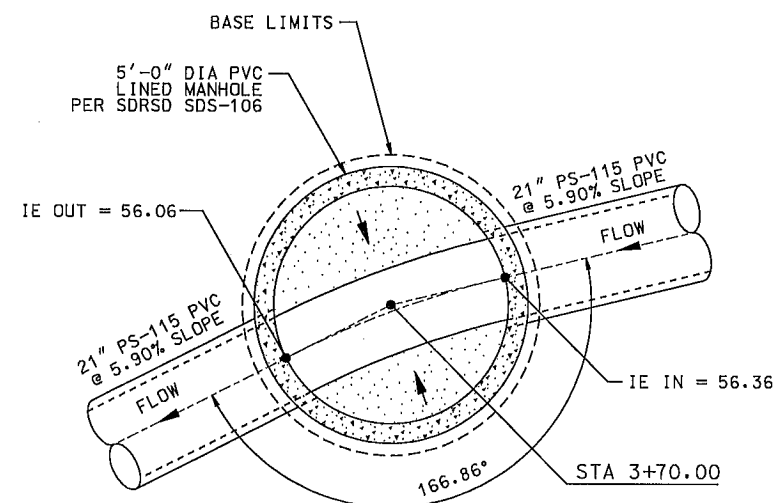
MH No.2 @ STA 1+30.00

SECTION A  
SCALE: 1" = 2'-0"



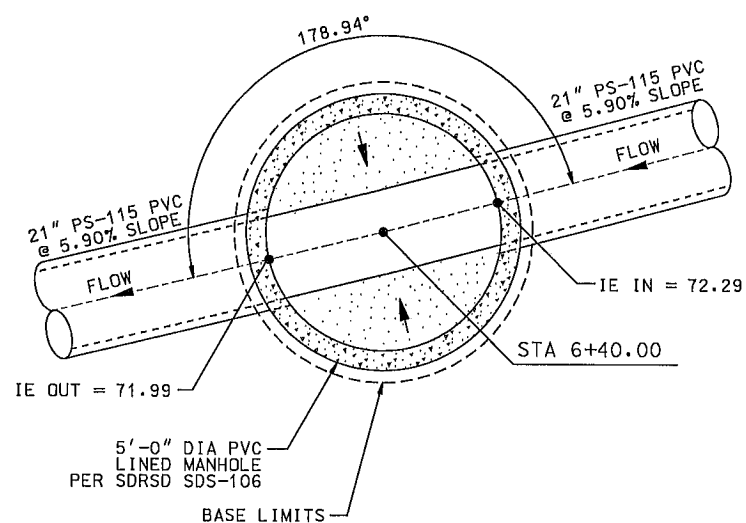
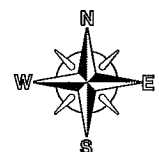
MH No.2 @ STA 1+30.00

SECTION B  
SCALE: 1" = 2'-0"



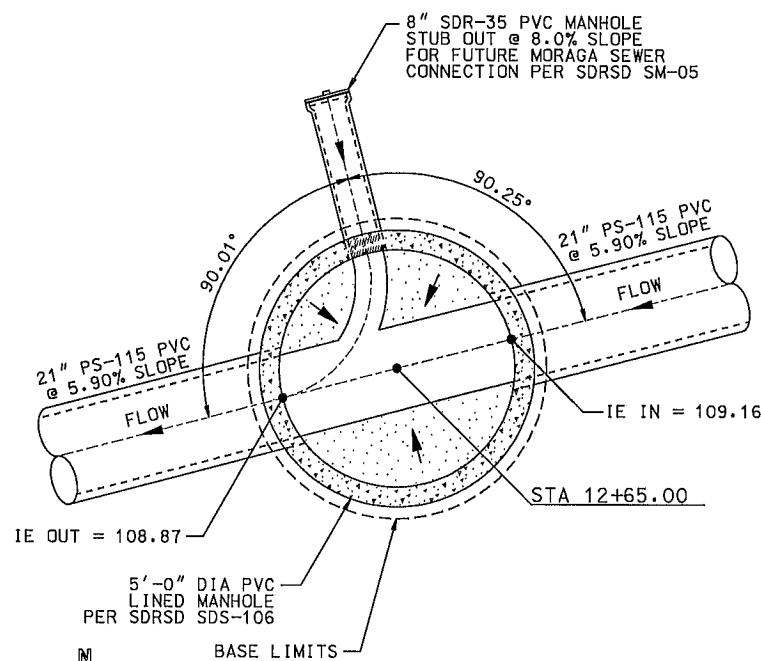
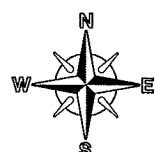
MH No.3 @ STA 3+70.00

DETAIL 3  
SCALE: 1" = 2'-0" C-1



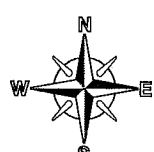
MH No.4 @ STA 6+40.00

DETAIL 4  
SCALE: 1" = 2'-0" C-1



MH No.5 @ STA 12+65.00

DETAIL 5  
SCALE: 1" = 2'-0" C-2



**Brown AND Caldwell**

C-16

BALBOA TERRACE TRUNK SEWER

MANHOLE DETAILS 1

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 17 OF 38 SHEETS

WATER WBS N/A  
SEWER WBS S-12035

APPROVED: *Jim Haghgouy* 2/22/12 DATE  
FOR CITY ENGINEER

DESIGNED BY: JIM HAGHGOUY  
PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			

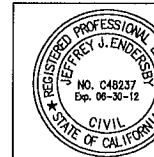
CHECKED BY: BRIAN VITELLE  
PROJECT ENGINEER

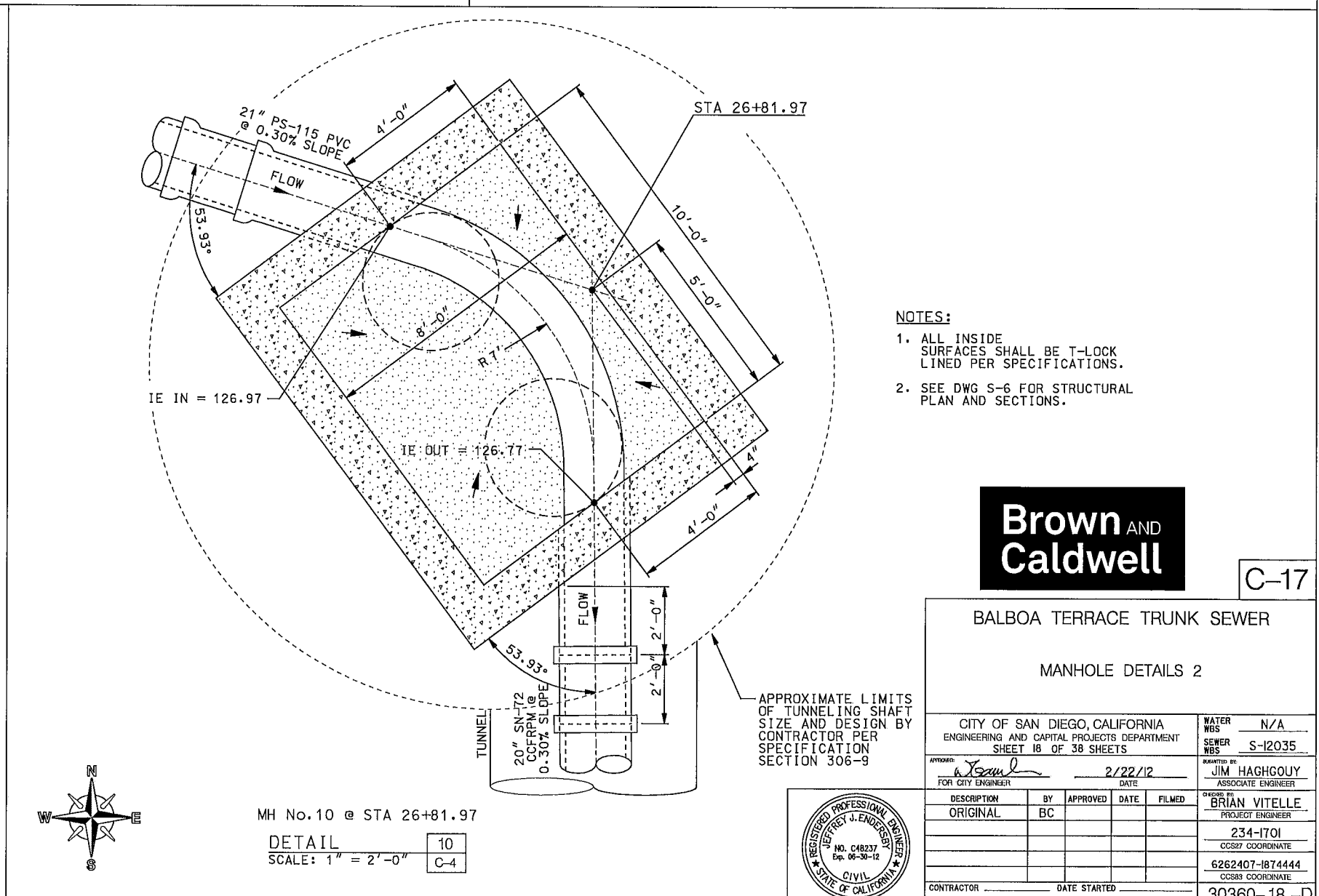
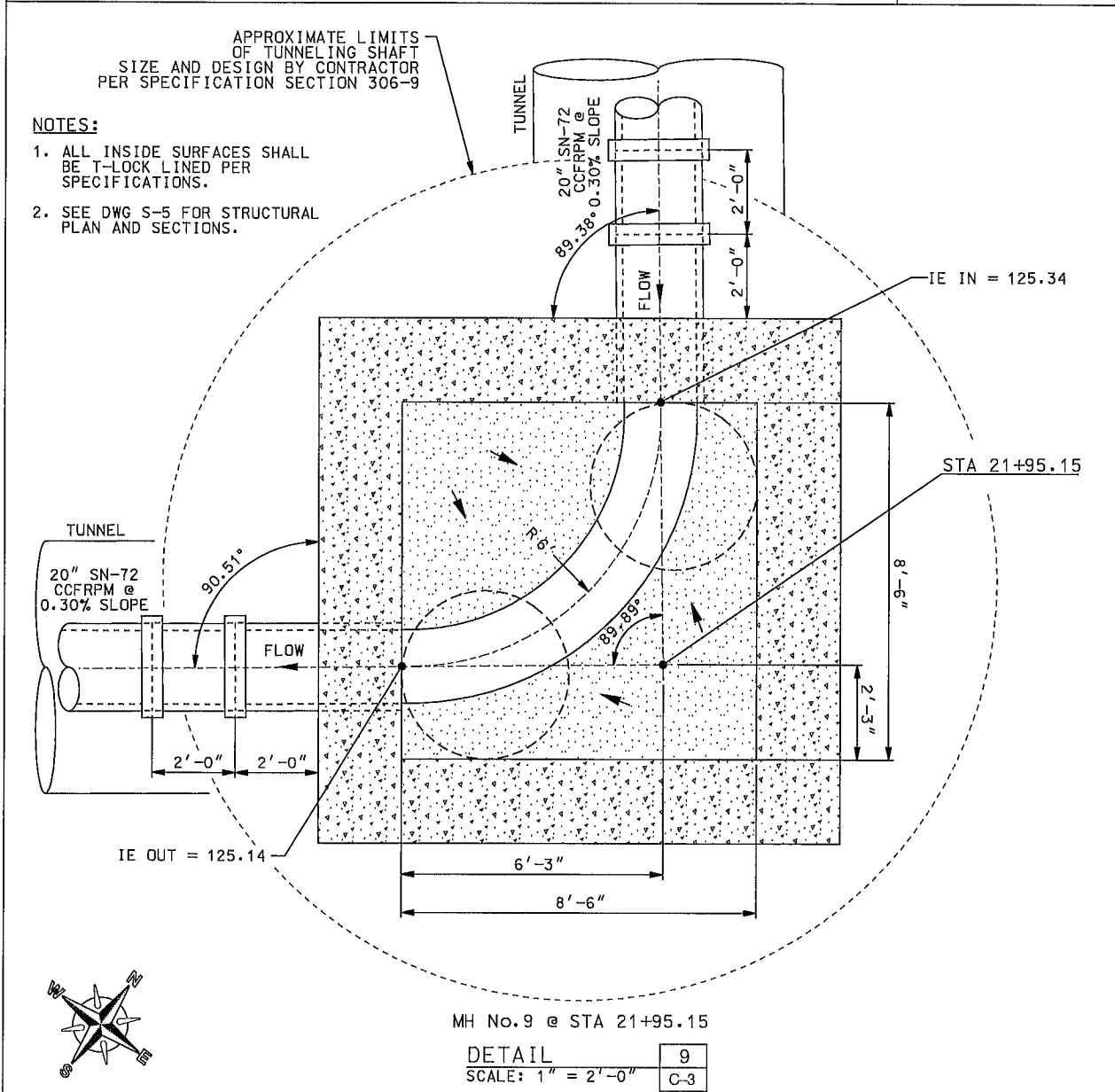
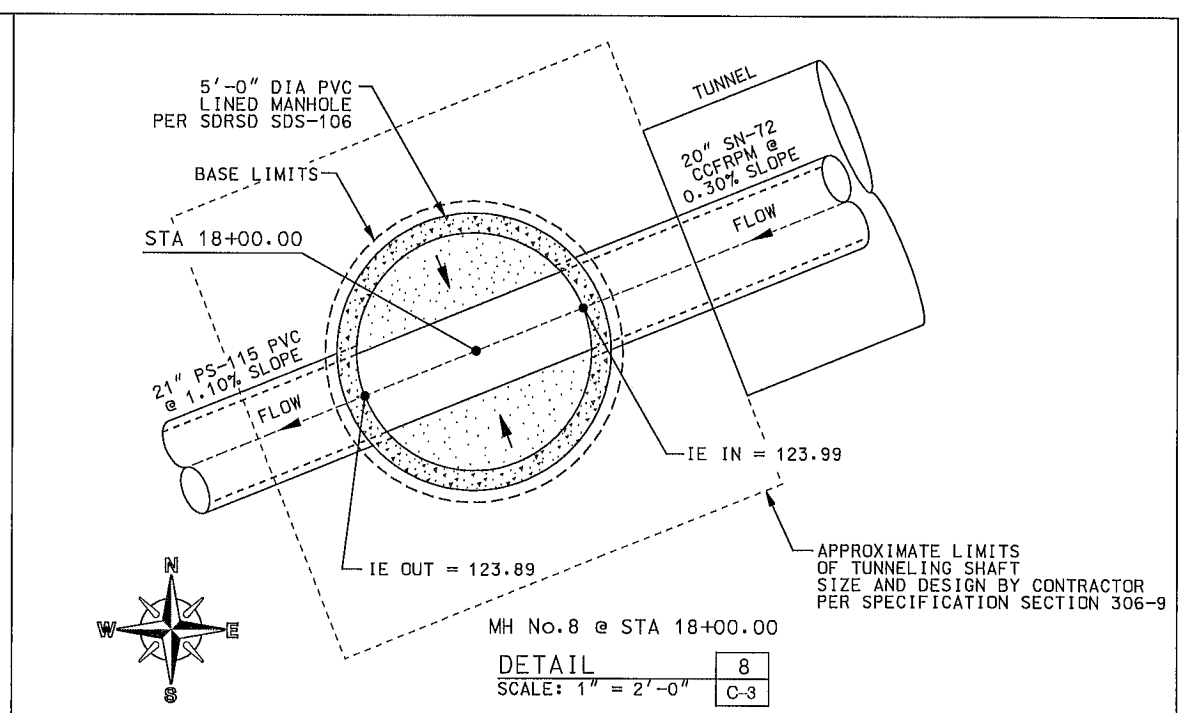
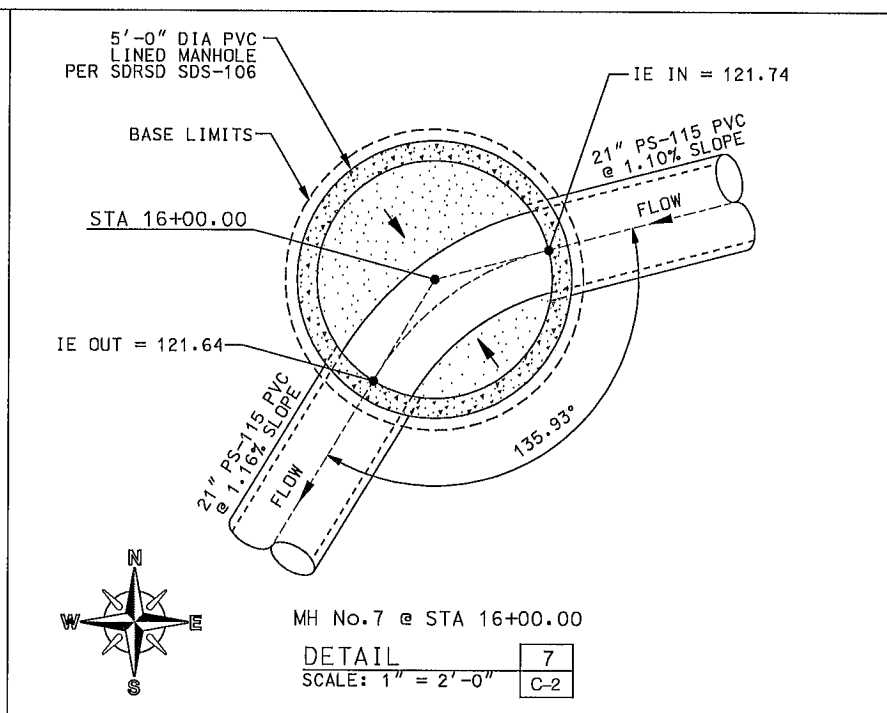
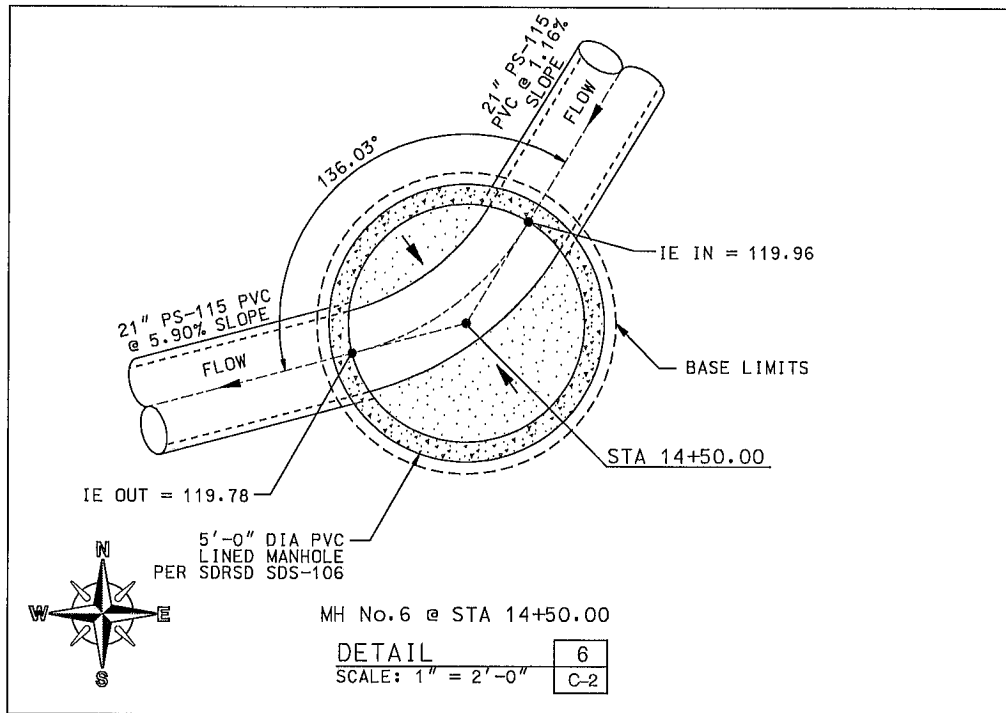
234-1701  
CDS27 COORDINATE

6262407-1874444  
CDS83 COORDINATE

CONTRACTOR \_\_\_\_\_ DATE STARTED \_\_\_\_\_  
INSPECTOR \_\_\_\_\_ DATE COMPLETED \_\_\_\_\_

30360-17 -D





**NOTES:**

1. ALL INSIDE SURFACES SHALL BE T-LOCK LINED PER SPECIFICATIONS.
2. SEE DWG S-5 FOR STRUCTURAL PLAN AND SECTIONS.

**NOTES:**

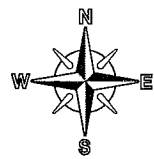
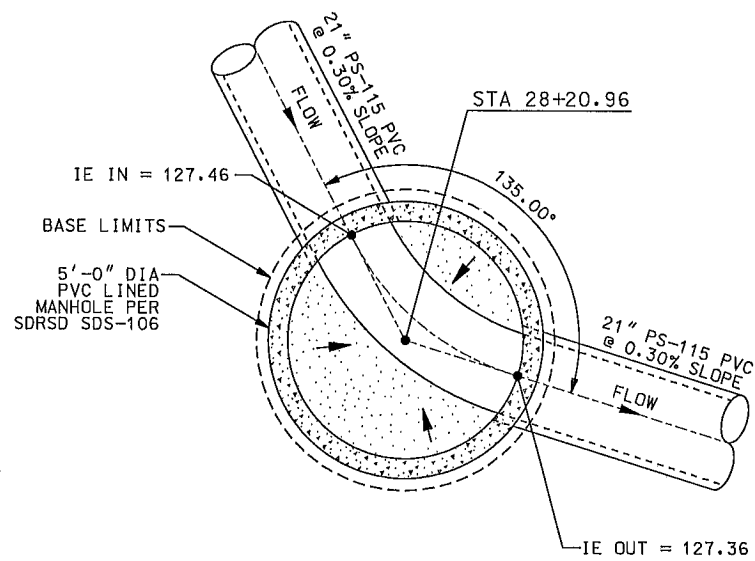
1. ALL INSIDE SURFACES SHALL BE T-LOCK LINED PER SPECIFICATIONS.
2. SEE DWG S-6 FOR STRUCTURAL PLAN AND SECTIONS.



C-17

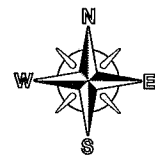
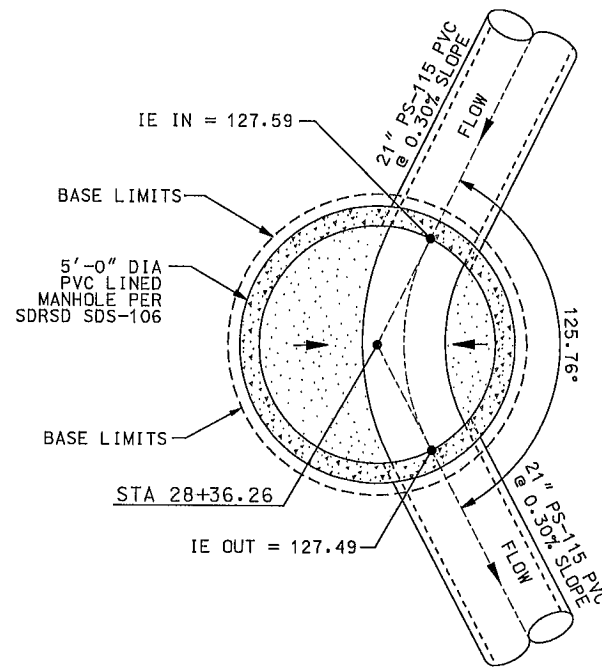
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 18 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035
APPROVED BY: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	BC	
CREATED BY: BRIAN VITELLE PROJECT ENGINEER		
NO. C48237 Exp. 06-30-12		234-I701 CCS87 COORDINATE
CONTRACTOR		6262407-1874444 CCS88 COORDINATE
INSPECTOR	DATE STARTED	30360-18 -D
	DATE COMPLETED	





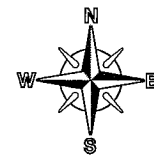
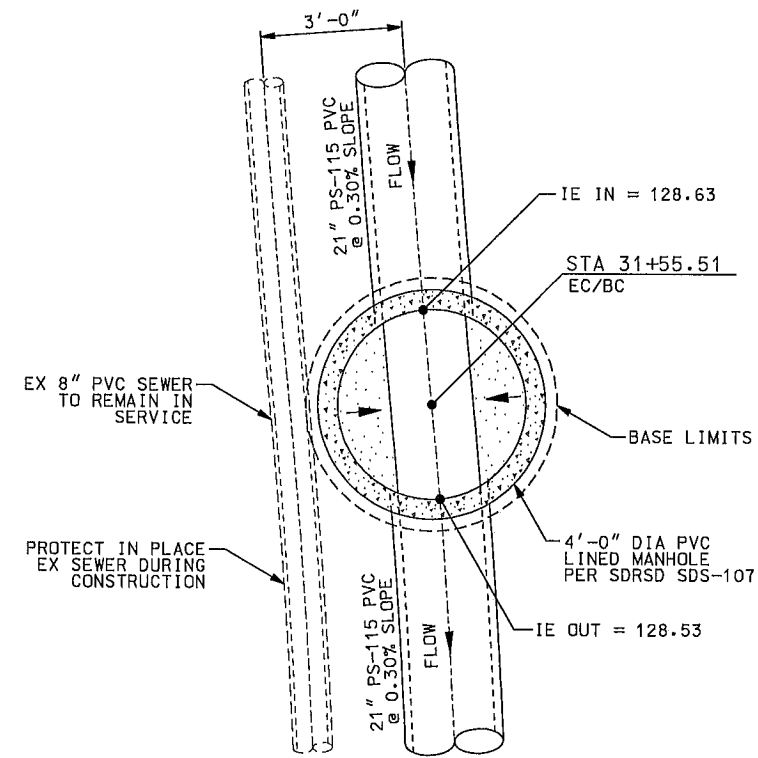
MH No. 11 @ STA 28+20.96

DETAIL 11  
SCALE: 1" = 2'-0" C-4



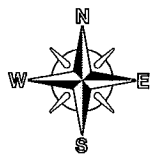
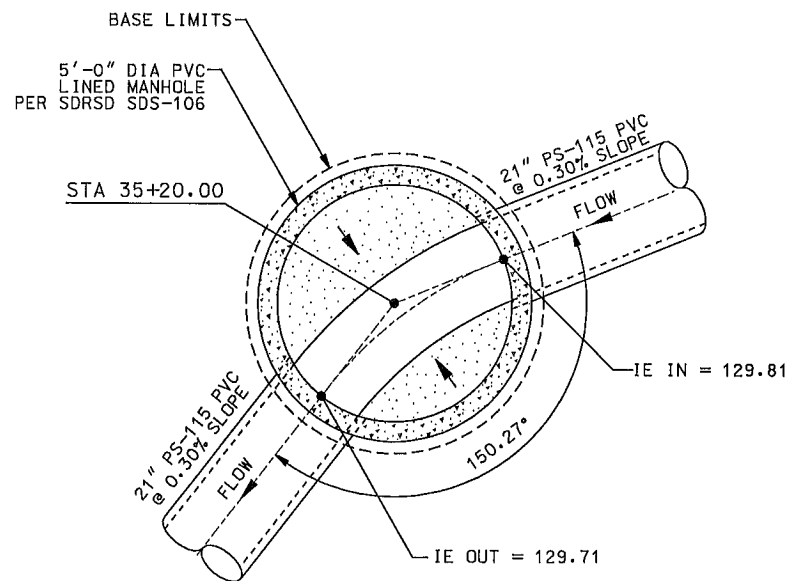
MH No. 12 @ STA 28+36.26

DETAIL 12  
SCALE: 1" = 2'-0" C-4



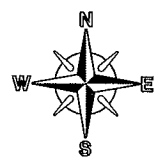
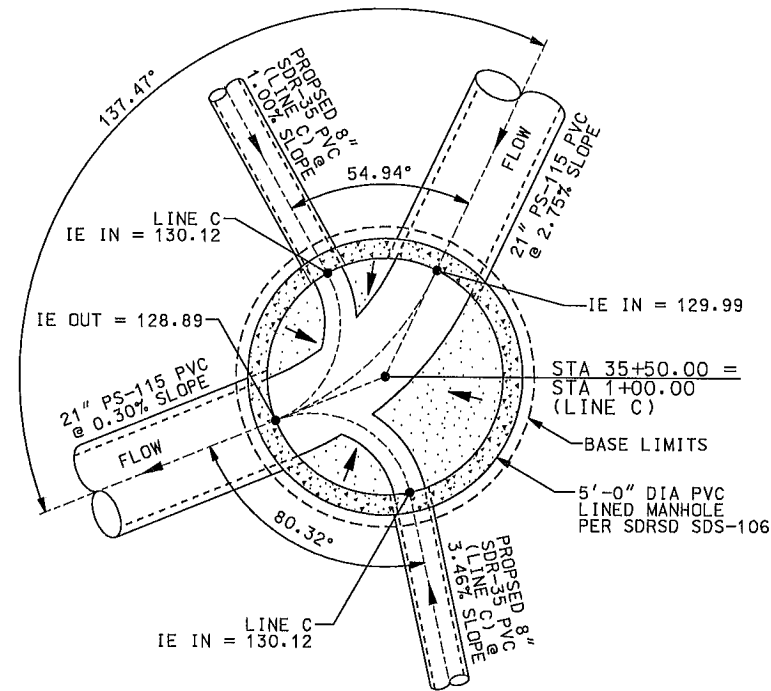
MH No. 13 @ STA 31+55.51

DETAIL 13  
SCALE: 1" = 2'-0" C-5



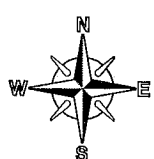
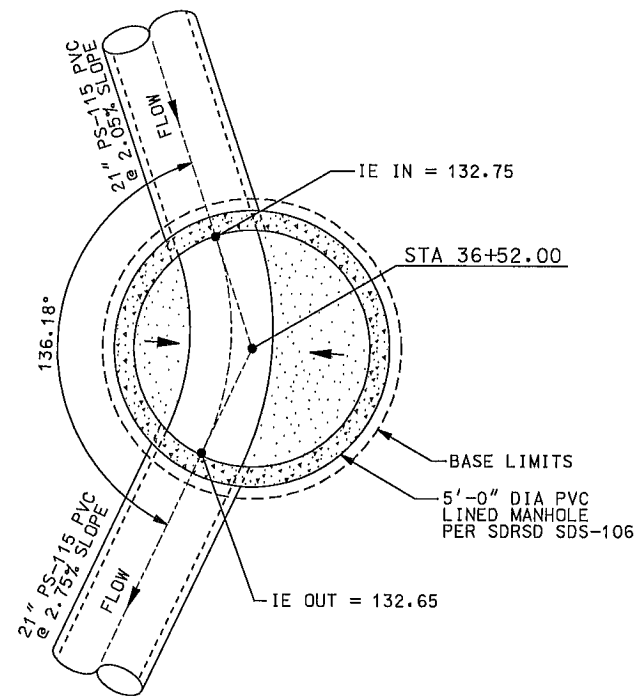
MH No. 14 @ STA 35+20.00

DETAIL 14 14  
SCALE: 1" = 2'-0" C-5 C-13



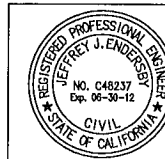
MH No. 15 @ STA 35+50.00  
MH No. 15 @ STA 1+00.00 (LINE C)

DETAIL 15 15  
SCALE: 1" = 2'-0" C-5 C-13



MH No. 16 @ STA 36+52.00

DETAIL 16 16  
SCALE: 1" = 2'-0" C-5 C-13



C-18

BALBOA TERRACE TRUNK SEWER

MANHOLE DETAILS 3

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 19 OF 38 SHEETS

WATER WBS N/A  
SEWER WBS S-I2035

APPROVED: *[Signature]* 2/22/12  
FOR CITY ENGINEER DATE

SUBMITTED BY: JIM HAGGOUY  
ASSOCIATE ENGINEER

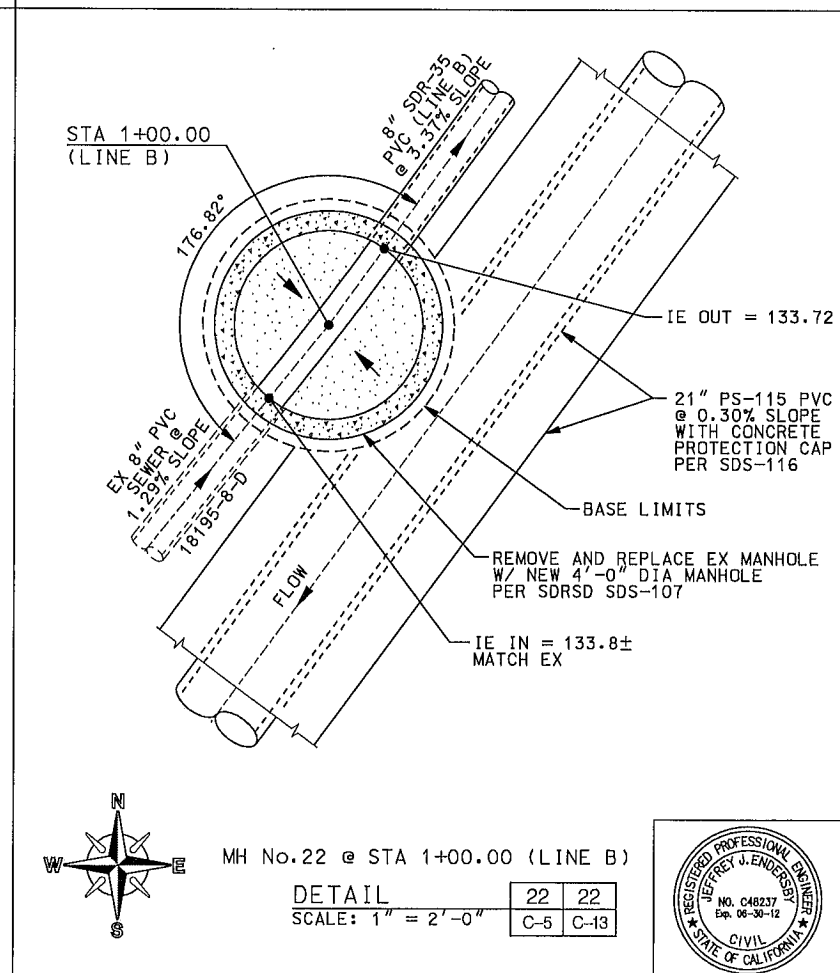
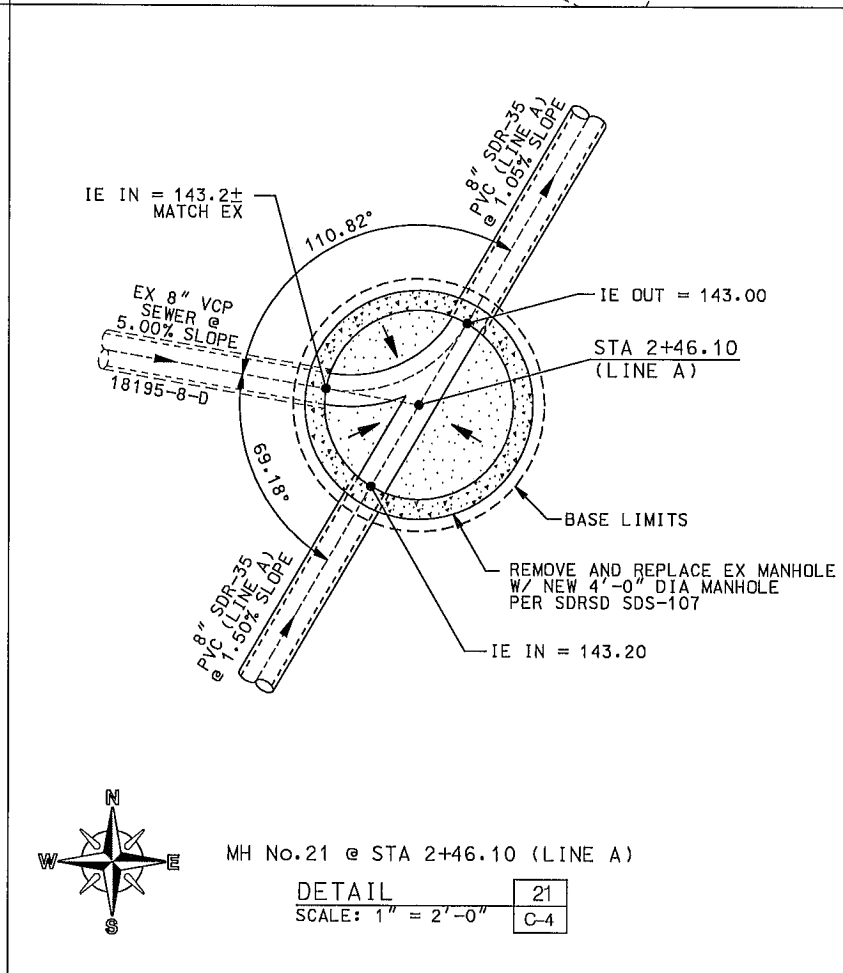
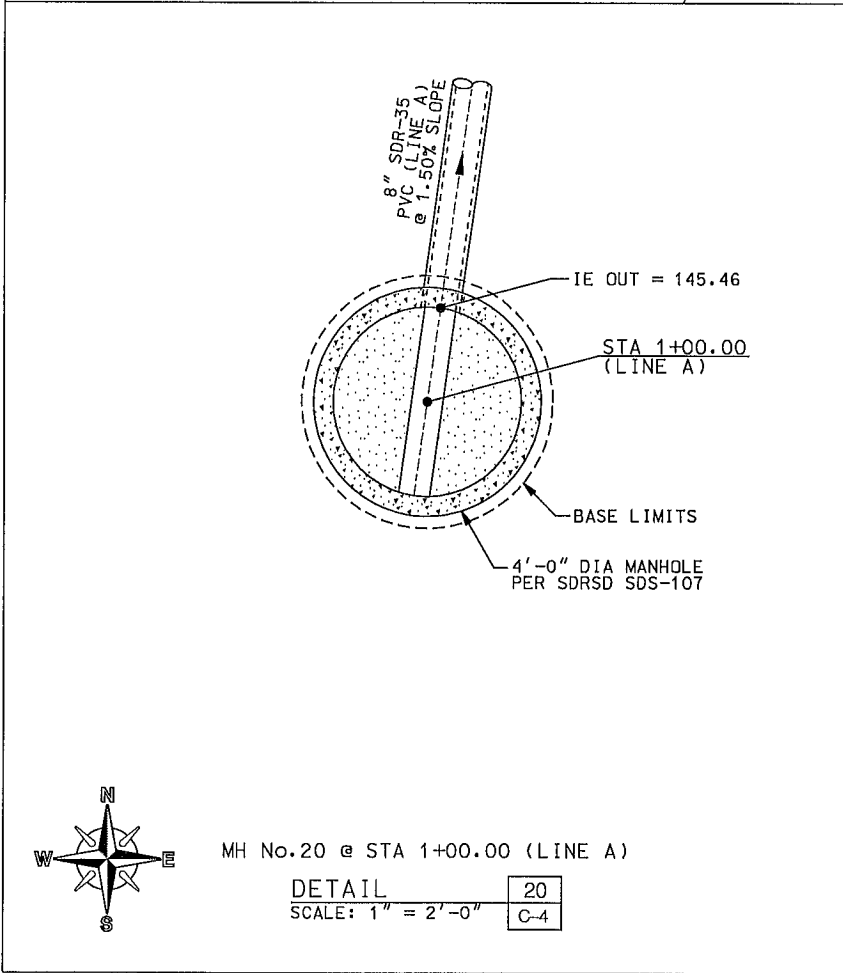
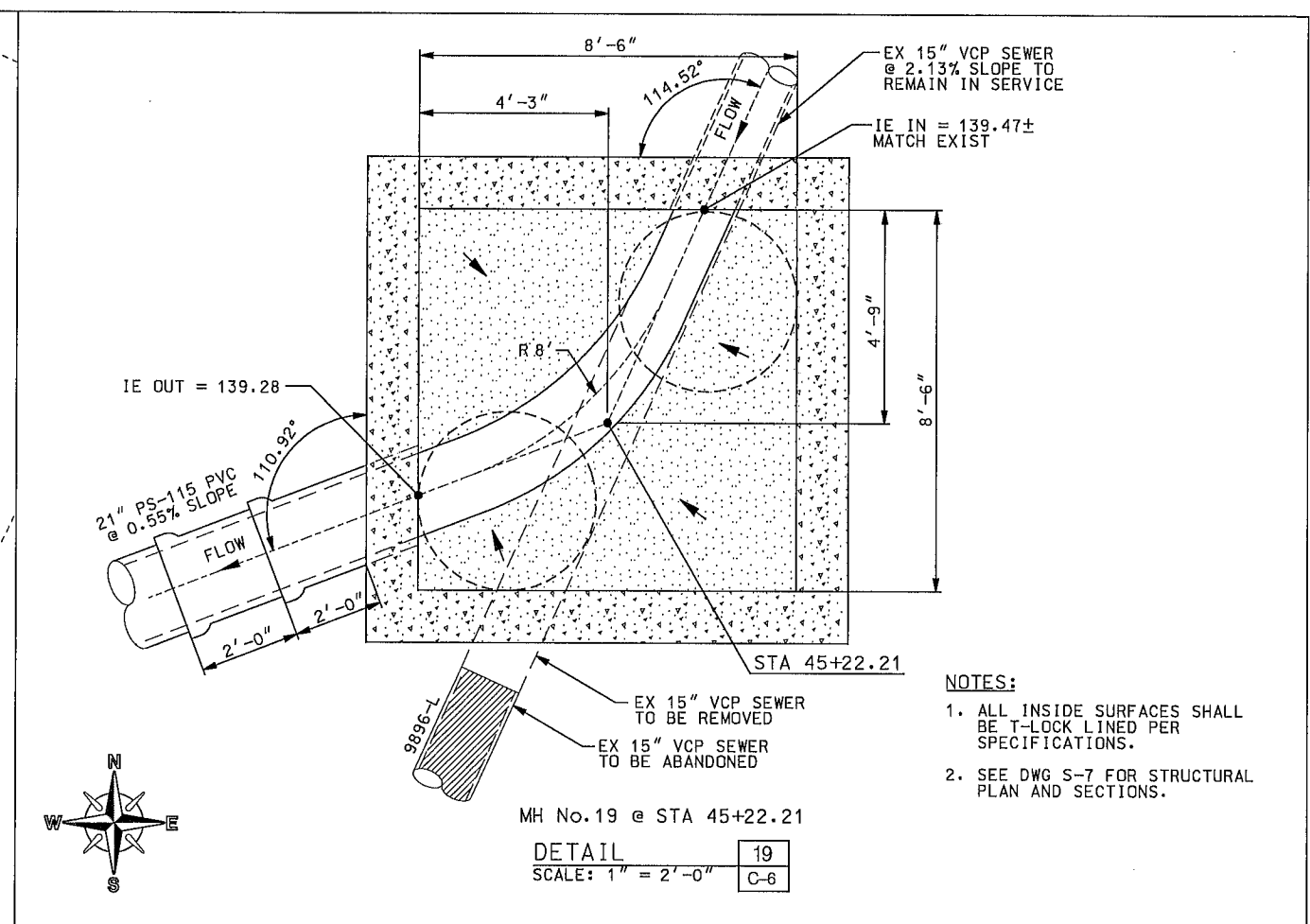
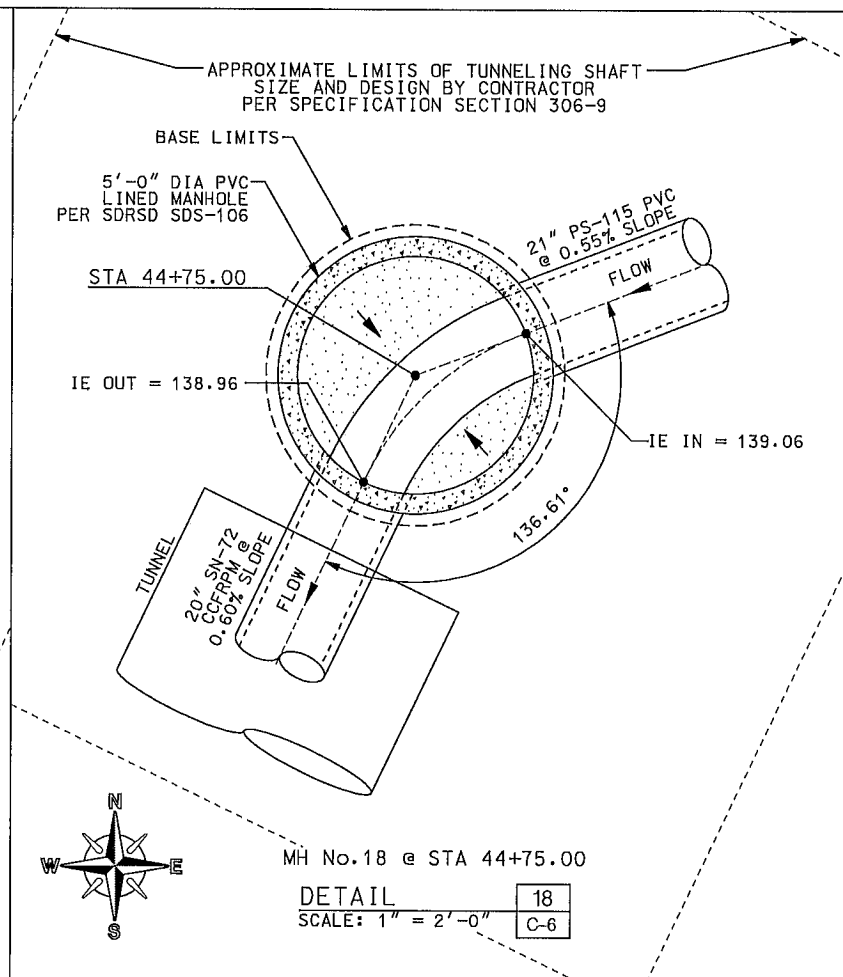
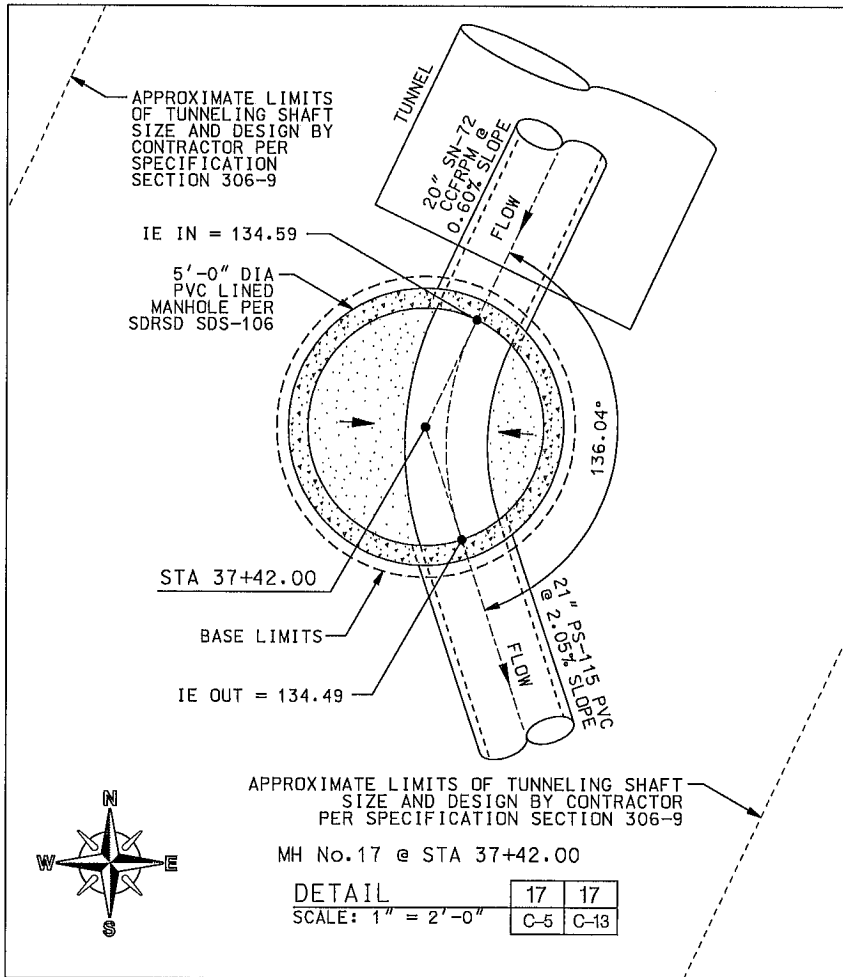
DESIGNED BY: BRIAN VITELLE  
PROJECT ENGINEER

NO. 234-1701  
CCS27 COORDINATE

6262407-1874444  
CCS83 COORDINATE

CONTRACTOR \_\_\_\_\_ DATE STARTED \_\_\_\_\_  
INSPECTOR \_\_\_\_\_ DATE COMPLETED \_\_\_\_\_

30360-19-D



**Brown AND Caldwell**

C-19

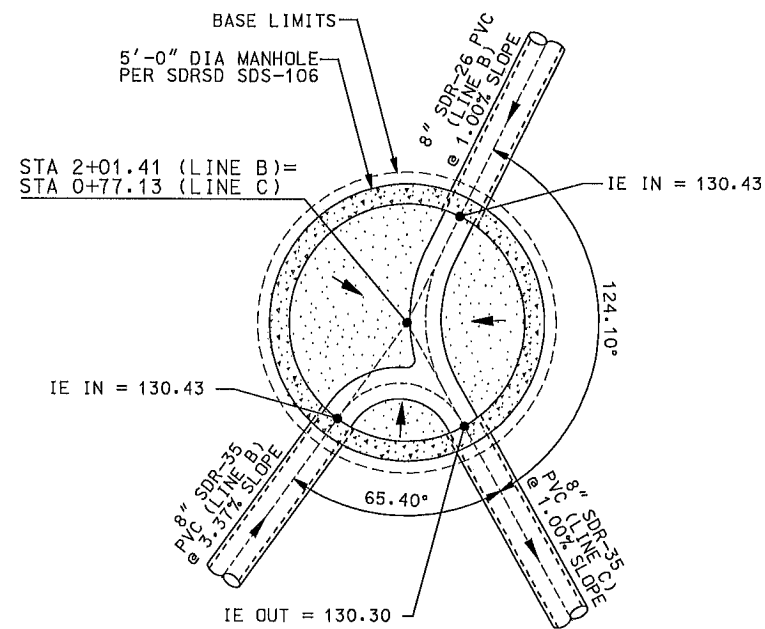
BALBOA TERRACE TRUNK SEWER

MANHOLE DETAILS 4

CITY OF SAN DIEGO, CALIFORNIA		WATER WBS	N/A
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		SEWER WBS	S-12035
SHEET 20 OF 38 SHEETS			
APPROVED:	<i>[Signature]</i>	DATE	2/22/12
FOR CITY ENGINEER			
DESIGNED BY:	BRIAN VITELLE	PROJECT ENGINEER	
	234-1701	CC87 COORDINATE	
	6262407-1B74444	CC83 COORDINATE	
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
			30360-20-D

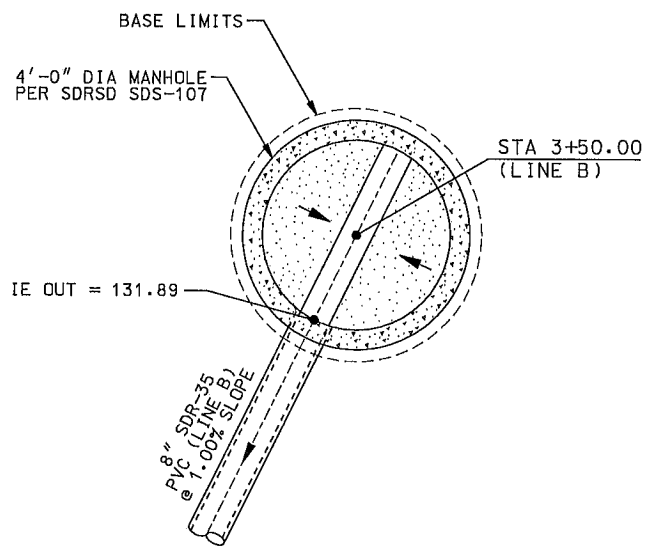
REGISTERED PROFESSIONAL ENGINEER  
JEFFREY J. ENDERBY  
No. C48237  
Exp. 06-30-12  
CIVIL  
STATE OF CALIFORNIA





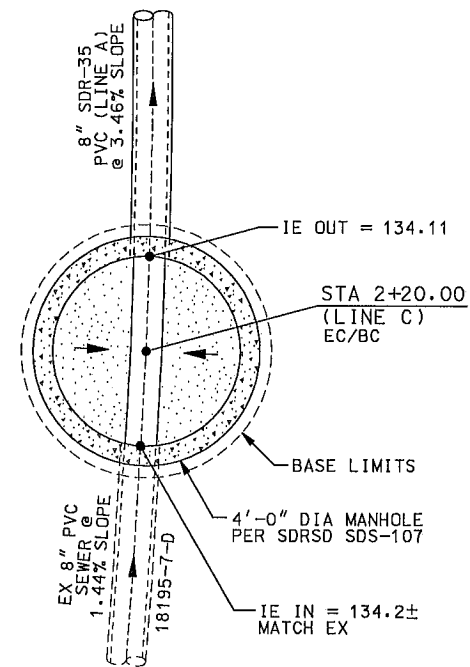
MH No. 23 @ STA 2+01.41 (LINE B)  
 MH No. 23 @ STA 0+77.13 (LINE C)

DETAIL	23	23
SCALE: 1" = 2'-0"	C-5	C-13



MH No. 24 @ STA 3+50.00 (LINE B)

DETAIL	24	24
SCALE: 1" = 2'-0"	C-5	C-13



MH No. 25 @ STA 2+20.00 (LINE C)

DETAIL	25	25
SCALE: 1" = 2'-0"	C-5	C-13

C-20

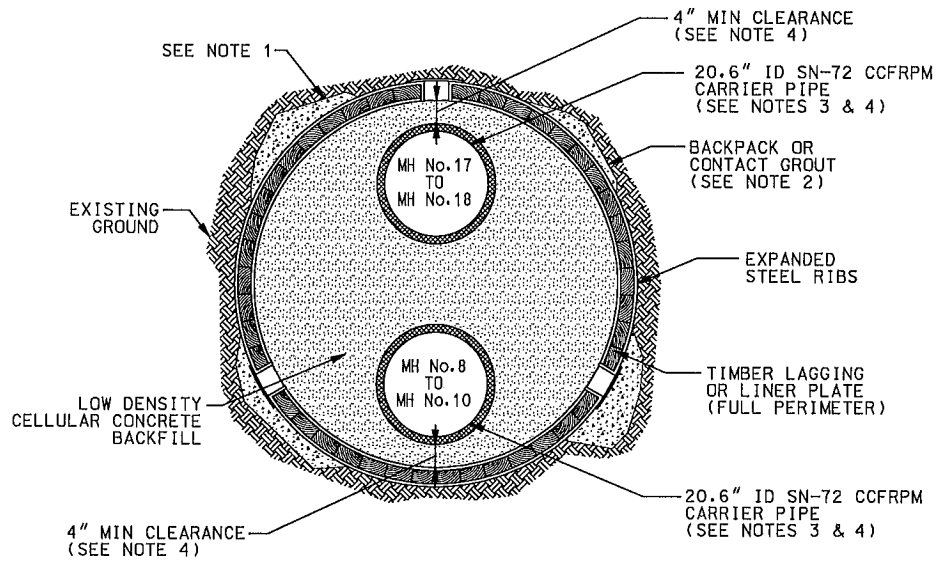
BALBOA TERRACE TRUNK SEWER

MANHOLE DETAILS 5

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 20 OF 38 SHEETS				WATER WBS	N/A
APPROVED: <i>[Signature]</i> 2/22/12 FOR CITY ENGINEER				SEWER WBS	S-I2035
DATE				DATE	DATE
SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER				DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER	
DESCRIPTION				BY	APPROVED
ORIGINAL				BC	
DATE				DATE	DATE
FILMED					
CONTRACTOR				DATE STARTED	
INSPECTOR				DATE COMPLETED	
				30360-21-D	

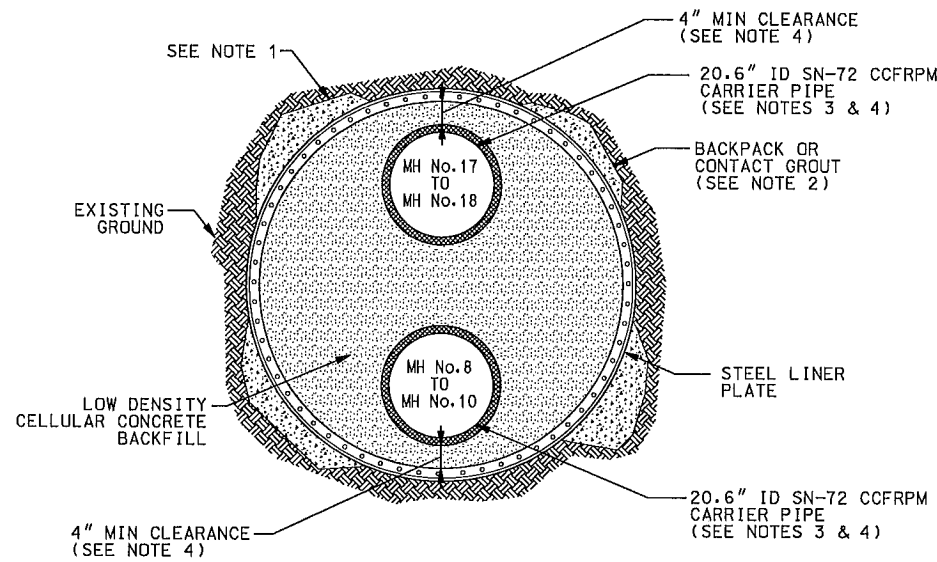
**Brown AND Caldwell**





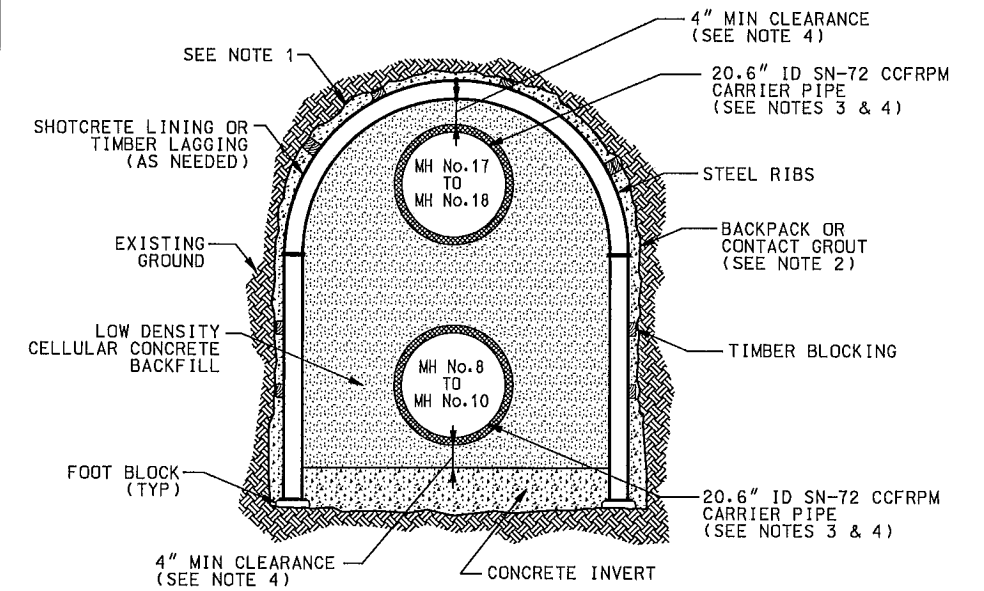
TYPICAL SECTION, STEEL RIB  
INITIAL SUPPORT ALTERNATIVE

DETAIL 1  
NOT TO SCALE VAR



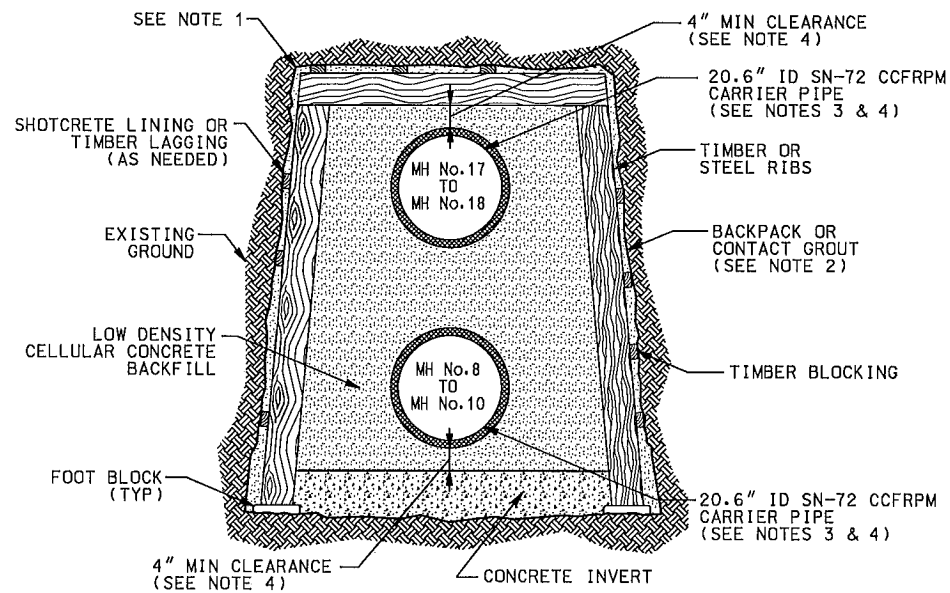
TYPICAL SECTION, STEEL LINER PLATE  
INITIAL SUPPORT ALTERNATIVE

DETAIL 2  
NOT TO SCALE VAR



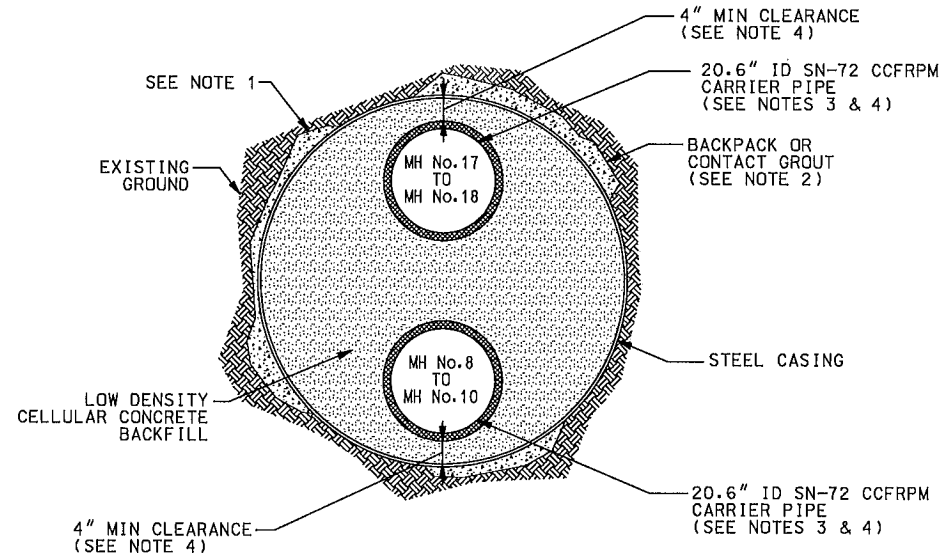
TYPICAL, MODIFIED  
HORSESHOE TUNNEL SECTION

DETAIL 3  
NOT TO SCALE VAR



A-FRAME TUNNEL SECTION

DETAIL 4  
NOT TO SCALE VAR



TYPICAL SECTION, JACKED STEEL CASING  
INITIAL SUPPORT ALTERNATIVE

DETAIL 5  
NOT TO SCALE VAR

**NOTES:**

- EXCAVATED TUNNEL DIAMETER TO BE DETERMINED BY CONTRACTOR, BUT SHALL NOT EXCEED 72-IN. IN HEIGHT OR WIDTH FOR THE INITIAL SUPPORT PROVISIONS INDICATED.
- BACKPACK/CONTACT GROUTING BEHIND TUNNEL INITIAL SUPPORT SYSTEMS SHALL BE PLACED IMMEDIATELY AFTER INSTALLATION OF TUNNEL SUPPORT.
- CARRIER PIPE SHALL BE PLACED AT ALIGNMENT, ELEVATIONS AND GRADES SHOWN ON DRAWINGS. TUNNEL INVERT ELEVATION/ENVELOPE MAY BE VARIED AS DETERMINED BY CONTRACTOR SUCH THAT CARRIER PIPE IS SECURED AT TUNNEL INVERT OR THE TUNNEL CROWN. THE LOCATION OF THE PLACEMENT OF THE CARRIER PIPE SHALL BE CONSISTENT THROUGHOUT THE ENTIRE LENGTH OF THE TUNNEL.
- CONTRACTOR SHALL PROVIDE ACCEPTABLE MEANS OF SUPPORTING/ SECURING THE CARRIER PIPE TO PREVENT FLOATATION DURING BACKFILLING WITH LOW DENSITY CELLULAR CONCRETE. THE LOCATION AND METHOD OF PLACING/ATTACHING/SECURING THE CARRIER PIPE WITHIN THE TUNNEL ENVELOPE SHALL BE APPROVED BY THE ENGINEER.

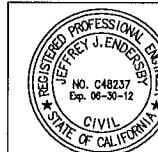
C-21

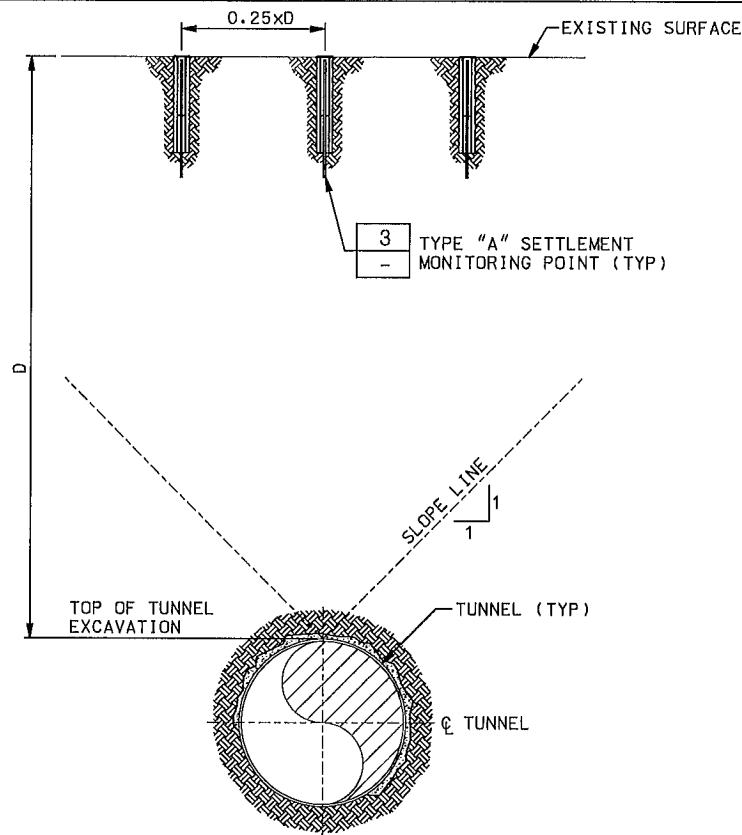
BALBOA TERRACE TRUNK SEWER

TUNNELING DETAILS 1

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 22 OF 38 SHEETS					WATER WBS N/A
APPROVED: <i>[Signature]</i> 2/22/12 FOR CITY ENGINEER DATE					SEWER WBS S-I2035
SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER					
DESCRIPTION	BY	APPROVED	DATE	FILMED	DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER
ORIGINAL	BC				234-I701 CC827 COORDINATE
					6262407-I874444 CC883 COORDINATE
CONTRACTOR	DATE STARTED				30360-22-D
INSPECTOR	DATE COMPLETED				

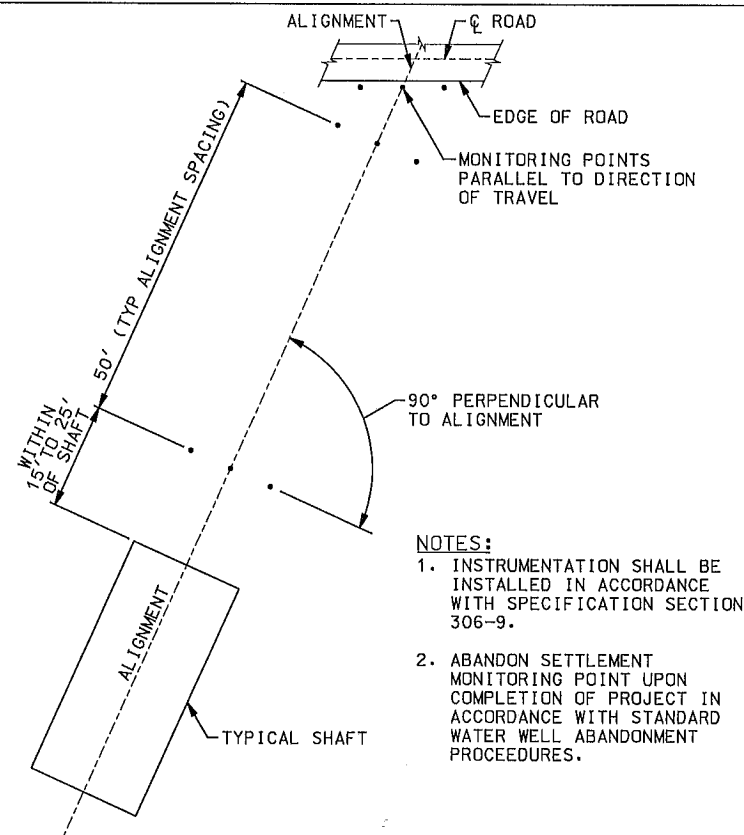
**Brown AND Caldwell**





TYPE "A" SURFACE MONITORING POINT

DETAIL SCALE: NONE 1  
VAR

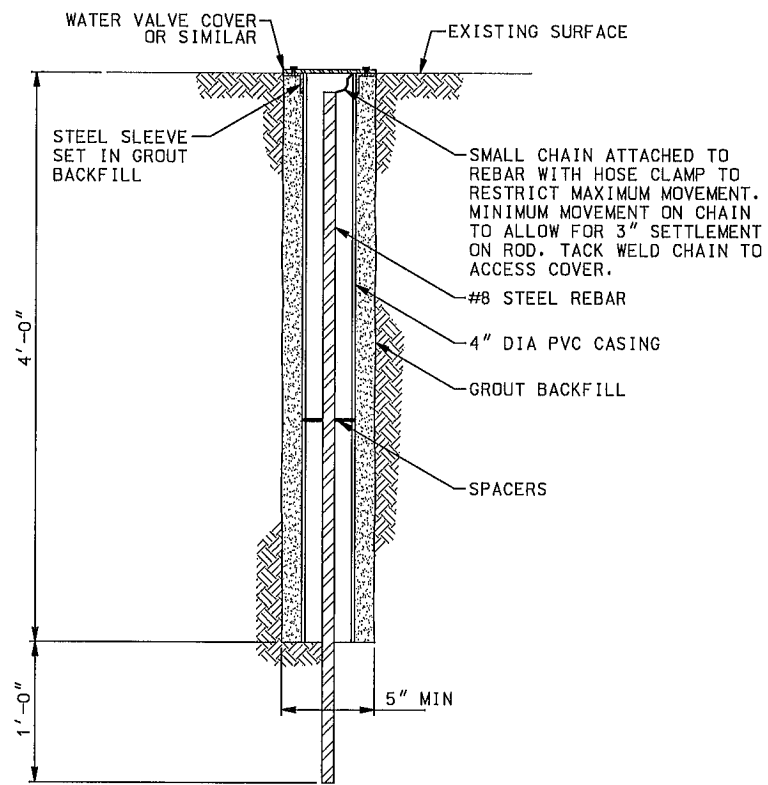


TYPE "A" SURFACE MONITORING POINT

DETAIL SCALE: NONE 2  
VAR

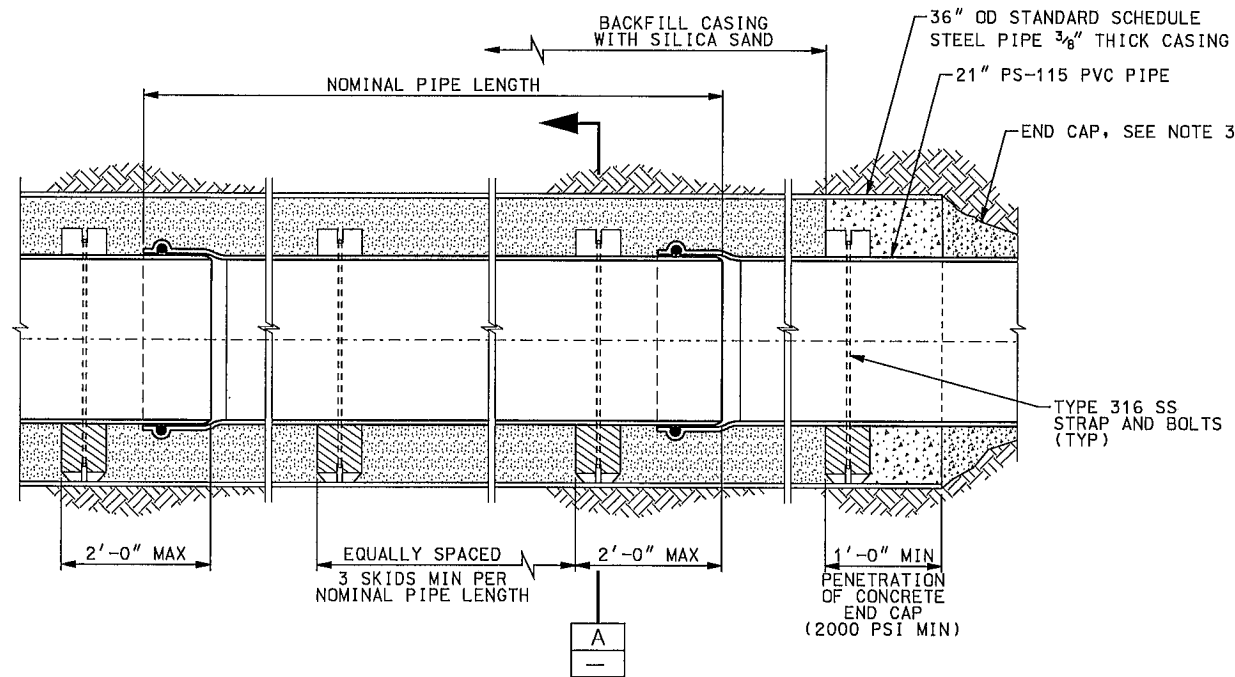
**NOTES:**

1. INSTRUMENTATION SHALL BE INSTALLED IN ACCORDANCE WITH SPECIFICATION SECTION 306-9.
2. ABANDON SETTLEMENT MONITORING POINT UPON COMPLETION OF PROJECT IN ACCORDANCE WITH STANDARD WATER WELL ABANDONMENT PROCEDURES.



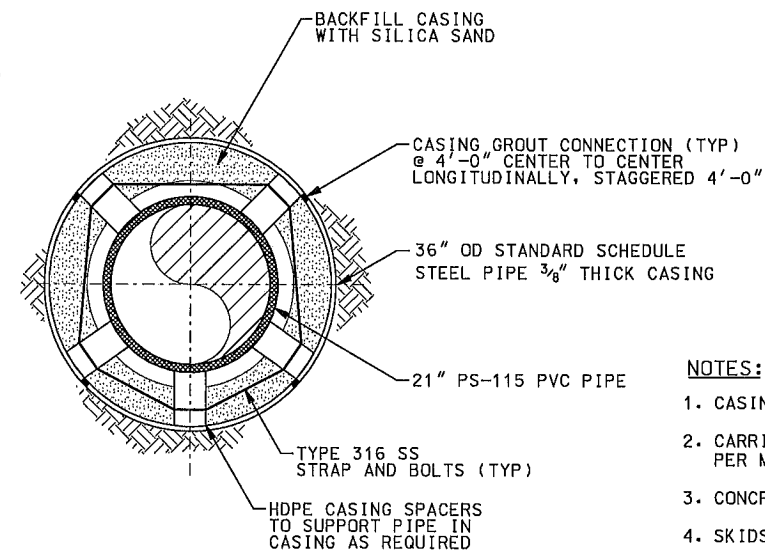
TYPE "A" SETTLEMENT MONITORING POINT

DETAIL SCALE: NONE 3  
VAR



STEEL CASING FOR PIPE  
STA 14+70 TO STA 15+35

DETAIL SCALE: NONE 4  
C-2



SECTION SCALE: NONE A

**NOTES:**

1. CASING SHALL BE STEEL PIPE.
2. CARRIER PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3. CONCRETE END CAP.
4. SKIDS SHALL BE SPACED AT 9'-0" MAXIMUM.
5. CASING PIPE TO BE SUPPLIED IN NOMINAL CONTINUOUS 20-FOOT LENGTHS. JOINTS TO BE SINGLE WELDED, FULL CIRCUMFERENCE, DEVIATIONS TO BE APPROVED BY OWNER'S REPRESENTATIVE.

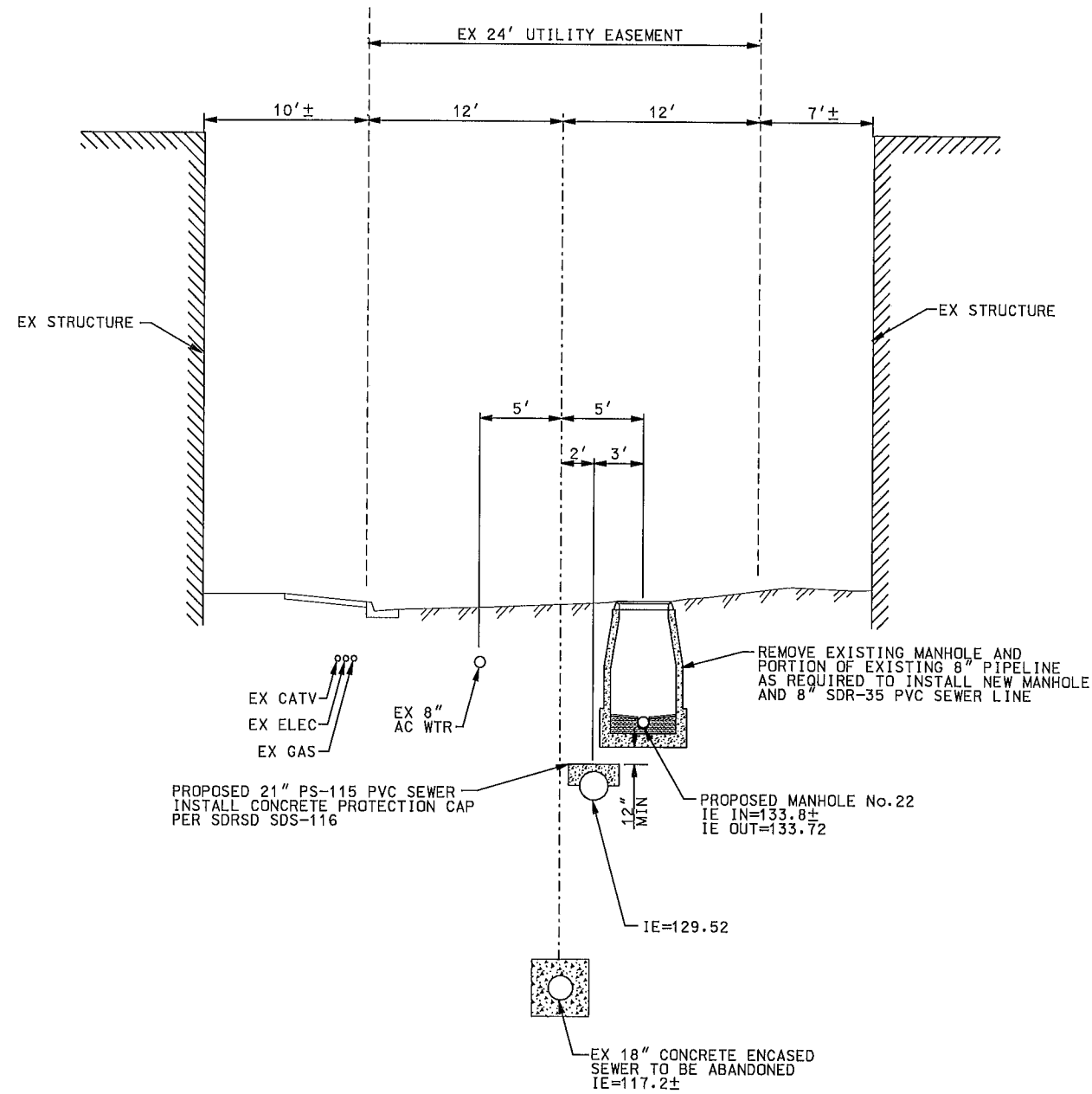
C-22

BALBOA TERRACE TRUNK SEWER

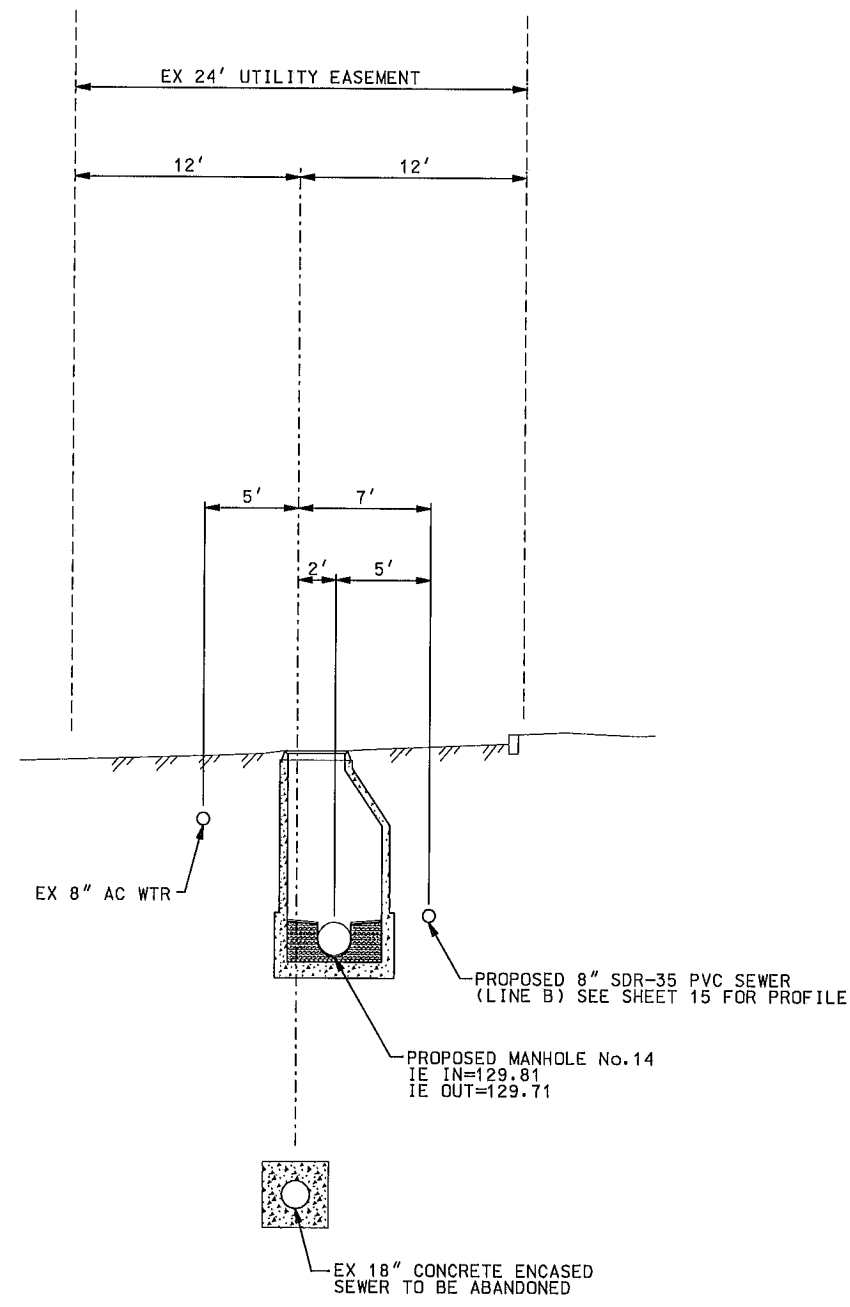
TUNNELING DETAILS 2

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 23 OF 38 SHEETS					WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGGOLY ASSOCIATE ENGINEER		DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	BC				
					234-1701 CCS27 COORDINATE
					6262407-1874444 CCS83 COORDINATE
CONTRACTOR	DATE STARTED	DATE COMPLETED		30360-23-D	





SECTION @ STA. 34+53.40  
(LOOKING DOWNSTREAM)  
SCALE: 1" = 5'

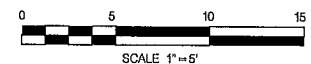


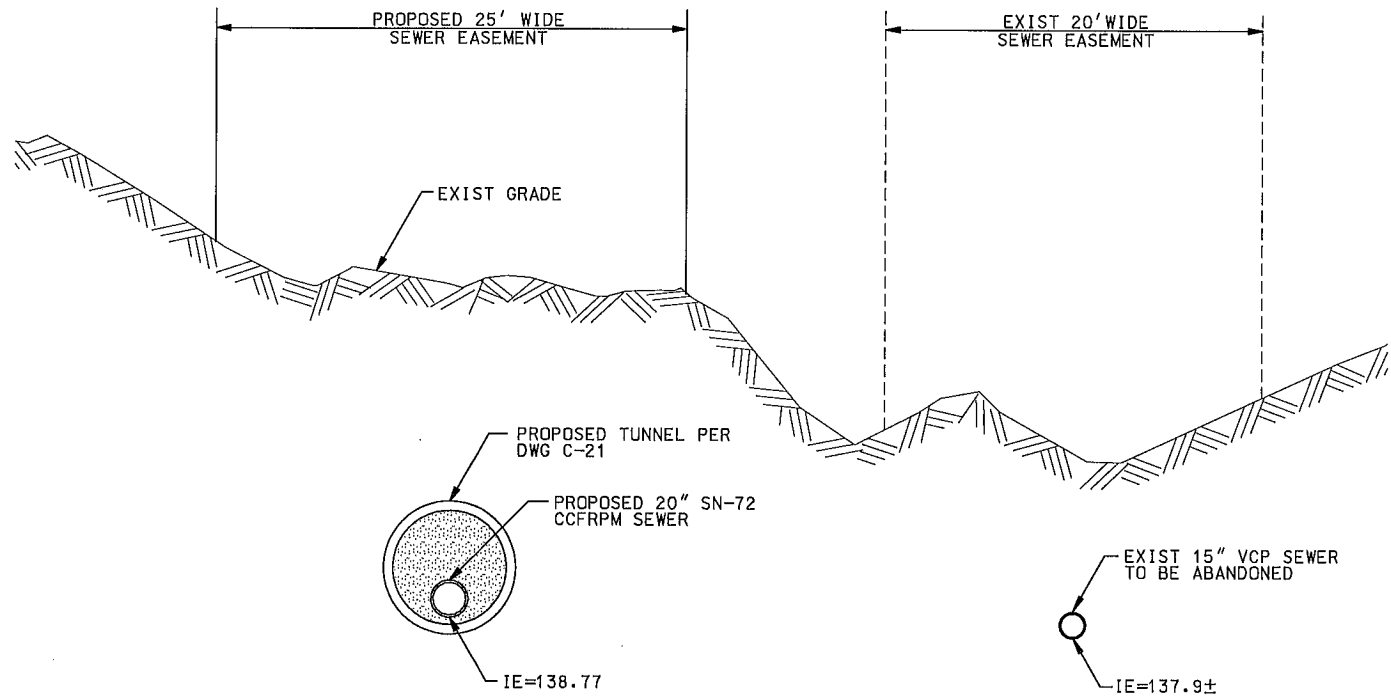
SECTION @ MH No. 14  
(LOOKING DOWNSTREAM)  
SCALE: 1" = 5'

CROSS SECTIONS

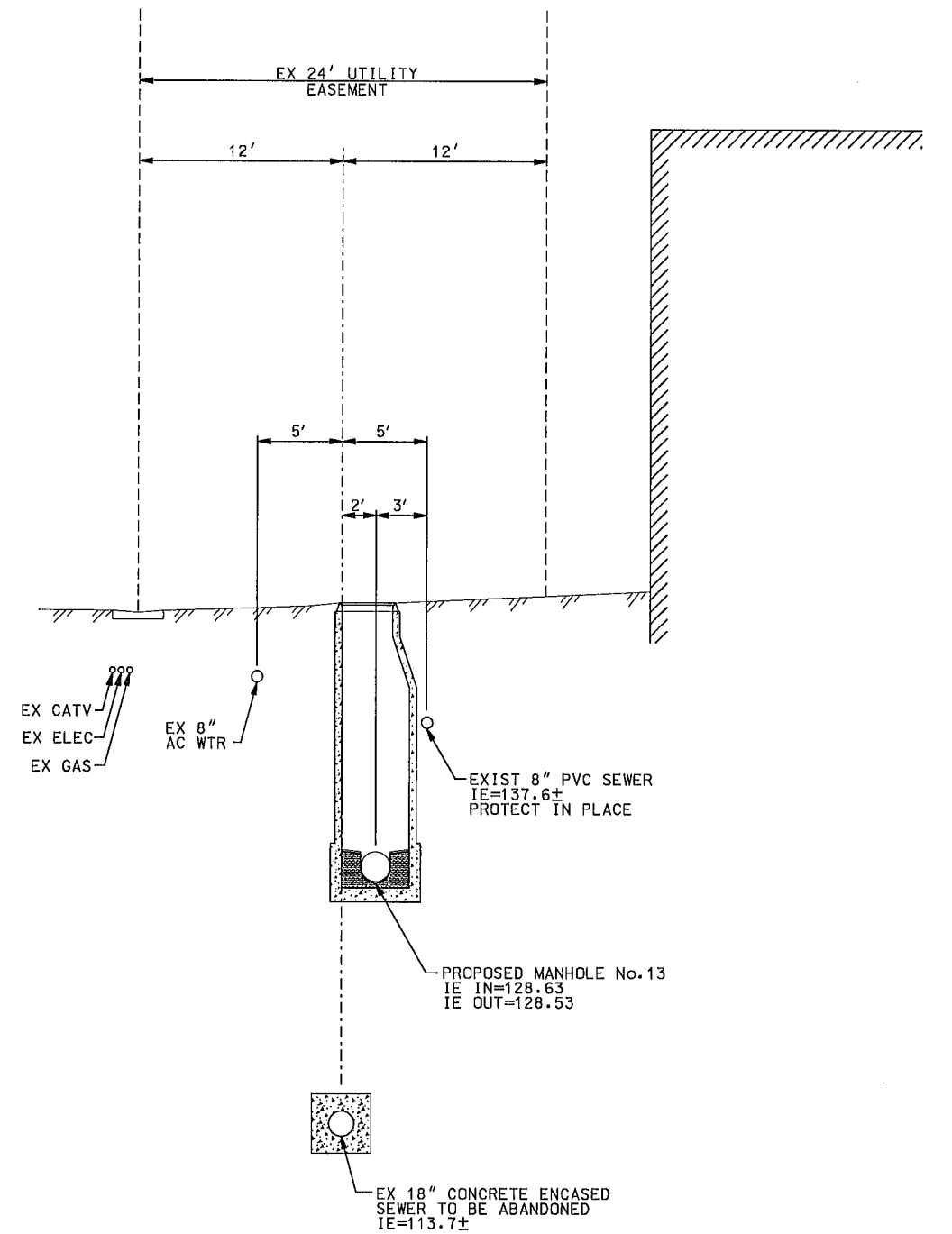
C-23

<b>BALBOA TERRACE TRUNK SEWER</b>				
CROSS SECTIONS 1				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 24 OF 38 SHEETS			WATER WBS N/A	SEWER WBS S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12		SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			
DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER				
234-I701 CC827 COORDINATE				
6262407-1874444 CC583 COORDINATE				
CONTRACTOR	DATE STARTED		30360-24 -D	
INSPECTOR	DATE COMPLETED			

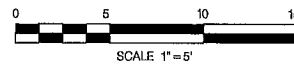




SECTION @ STA. 44+40.00  
(LOOKING UPSTREAM)  
SCALE: 1" = 5'



SECTION @ MH No. 13  
(LOOKING DOWNSTREAM)  
SCALE: 1" = 5'



**Brown AND Caldwell**



CROSS SECTIONS

C-24

BALBOA TERRACE TRUNK SEWER

CROSS SECTIONS 2

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 25 OF 38 SHEETS					WATER WBS SEWER WBS	N/A S-12035
APPROVED FOR CITY ENGINEER	DATE			SUBMITTED BY		
<i>[Signature]</i>	2/22/12			JIM HAGGOUY ASSOCIATE ENGINEER		
DESCRIPTION	BY	APPROVED	DATE	FILMED	PROJECT ENGINEER	
ORIGINAL	BC				BRIAN VITELLE	
					234-1701 CCS27 COORDINATE	
					6262407-1874444 CCS83 COORDINATE	
CONTRACTOR	DATE STARTED			30360-25-D		
INSPECTOR	DATE COMPLETED					

HORIZONTAL ALIGNMENT NAME : INTERCEPTOR

Table with columns: STATION, NORTHING, EASTING. Contains stationing data for INTERCEPTOR alignment, including junctions and manholes (MH) with their respective coordinates and curve data.

Table with columns: STATION, NORTHING, EASTING. Contains stationing data for INTERCEPTOR alignment, including manholes (MH) with their respective coordinates and curve data.

HORIZONTAL ALIGNMENT NAME : LINE A

Table with columns: STATION, NORTHING, EASTING. Contains stationing data for LINE A alignment, including manholes (MH) with their respective coordinates and curve data.

HORIZONTAL ALIGNMENT NAME : LINE B

Table with columns: STATION, NORTHING, EASTING. Contains stationing data for LINE B alignment, including manholes (MH) with their respective coordinates and curve data.

HORIZONTAL ALIGNMENT NAME : LINE C

Table with columns: STATION, NORTHING, EASTING. Contains stationing data for LINE C alignment, including manholes (MH) with their respective coordinates and curve data.

BALBOA TERRACE TRUNK SEWER

HORIZONTAL CONTROL INDEX REPORT

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 26 OF 38 SHEETS

APPROVED: [Signature] 2/22/12 DATE FOR CITY ENGINEER DATE SUBMITTED BY: JIM HAGHOUY ASSOCIATE ENGINEER

DESCRIPTION: ORIGINAL BY: BC APPROVED: DATE: FILMED: PROJECT ENGINEER: BRIAN VITELLE

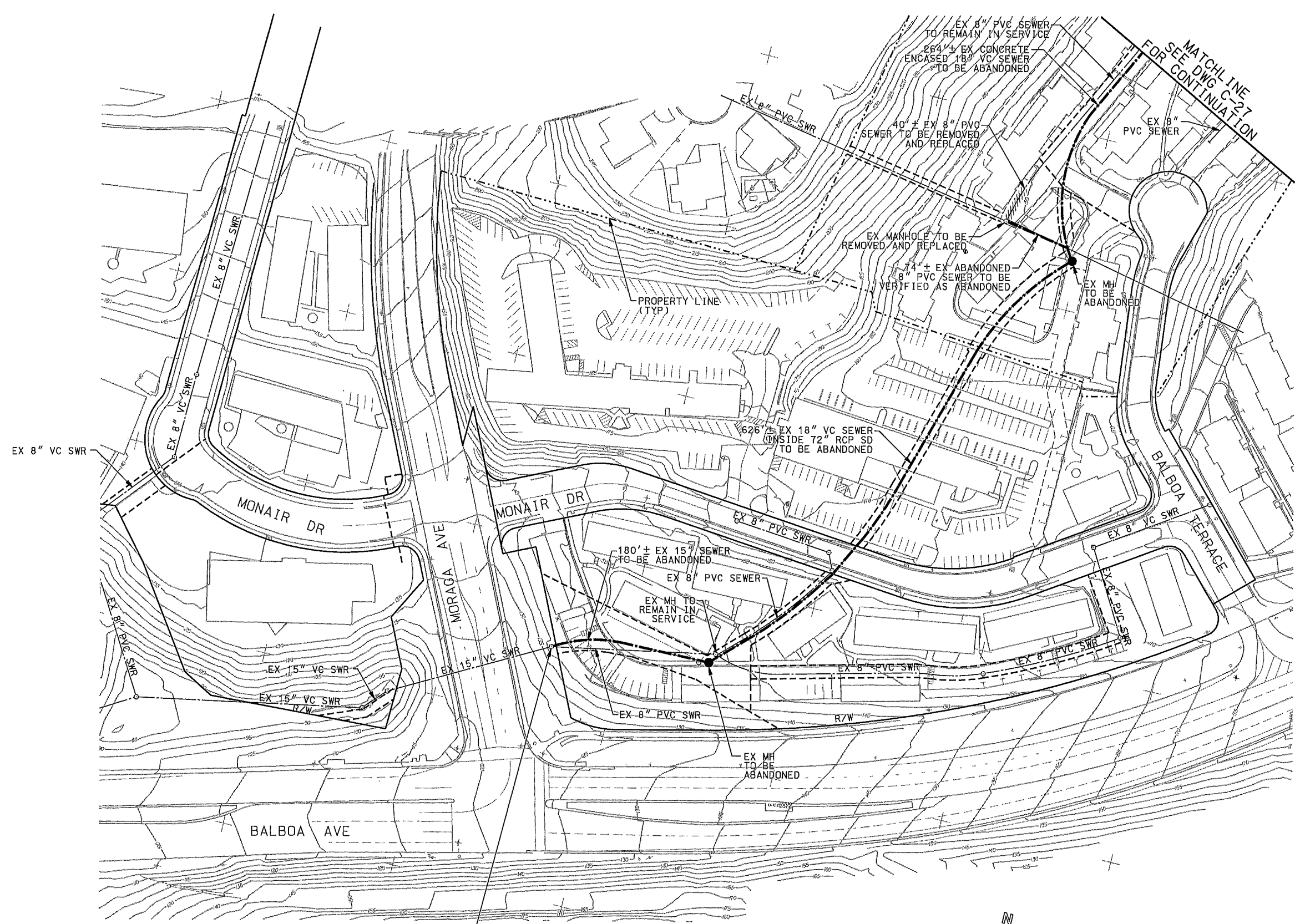
234-1701 CCS27 COORDINATE 6262407-1B74444 CCS83 COORDINATE

CONTRACTOR DATE STARTED DATE COMPLETED INSPECTOR 30360-26-D





SEWER ABANDONMENT

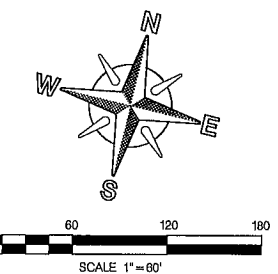


- LEGEND**
- EXISTING SEWER MAIN TO REMAIN IN SERVICE
  - - - EXISTING SEWER MAIN TO BE SLURRY FILLED
  - ////// EXISTING SEWER MAIN TO BE REMOVED
  - EXISTING MANHOLE OUTSIDE OF CANYON TO BE ABANDONED PER SDRSD SM-08
  - EXISTING MANHOLE TO REMAIN IN SERVICE

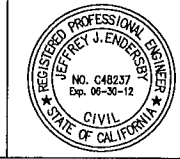
C-26

BALBOA TERRACE TRUNK SEWER  
SEWER ABANDONMENT 1

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 27 OF 38 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED BY: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	BC		
CREATED BY: BRIAN VITELLE PROJECT ENGINEER		234-1701	
		6262407-1874444	
		30360-27-D	

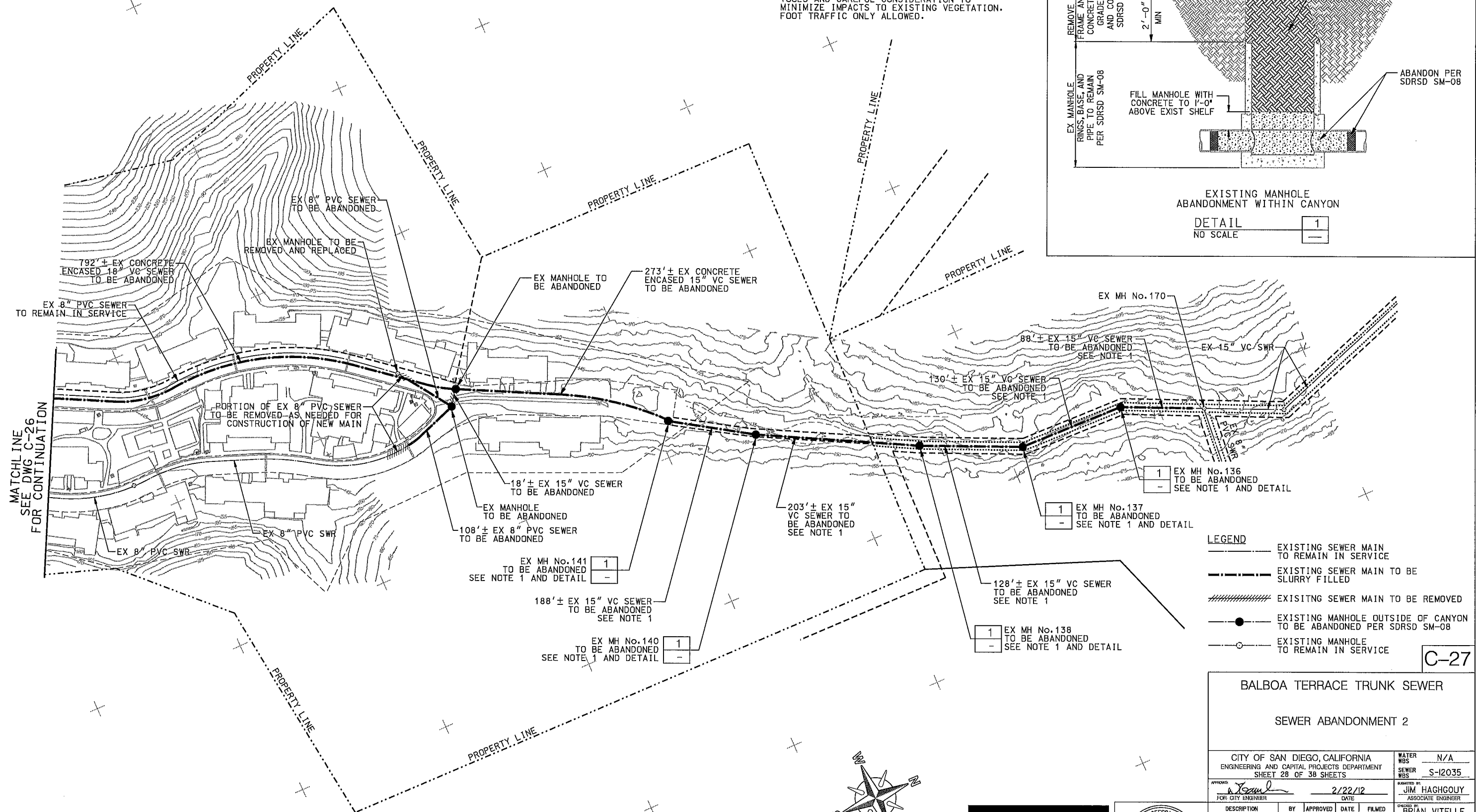
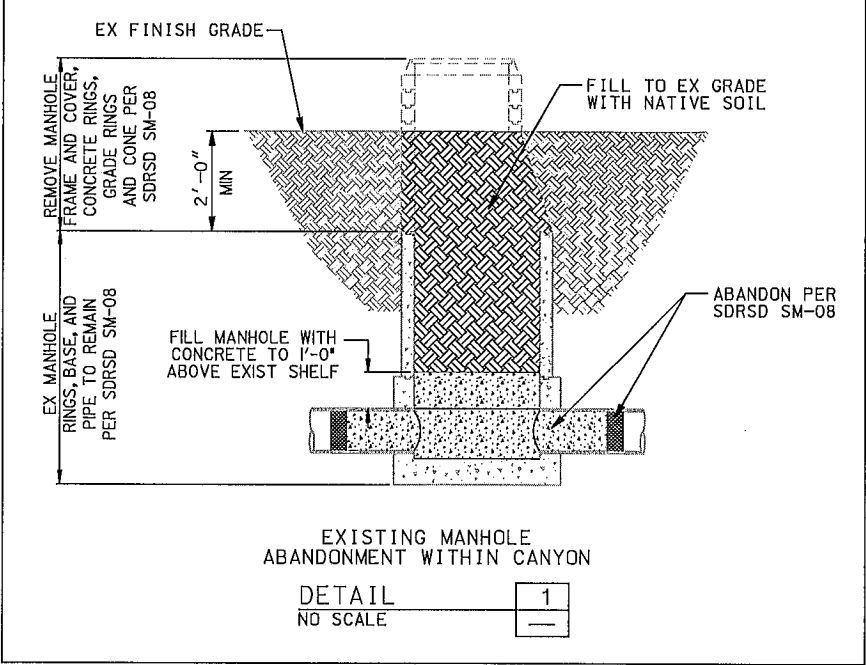


**Brown AND Caldwell**



EX MANHOLE TO REMAIN, PLUG ABANDONED EX 15" SEWER MAIN IN (EX 8" SEWER IN AND EX 15" SEWER OUT TO REMAIN ACTIVE)

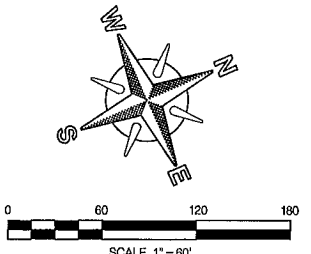
**NOTES:**  
 1. CONTRACTOR SHALL NOT EMPLOY THE USE OF HEAVY EQUIPMENT FOR DEMOLITION OR ABANDONMENT WORK WITHIN THE CANYON. ALL WORK SHALL BE COMPLETED USING HAND TOOLS AND CAREFUL CONSIDERATION TO MINIMIZE IMPACTS TO EXISTING VEGETATION. FOOT TRAFFIC ONLY ALLOWED.



MATCHLINE SEE DWG C-26 FOR CONTINUATION

**LEGEND**

- EXISTING SEWER MAIN TO REMAIN IN SERVICE
- - - EXISTING SEWER MAIN TO BE SLURRY FILLED
- ////// EXISTING SEWER MAIN TO BE REMOVED
- EXISTING MANHOLE OUTSIDE OF CANYON TO BE ABANDONED PER SDRSD SM-08
- EXISTING MANHOLE TO REMAIN IN SERVICE



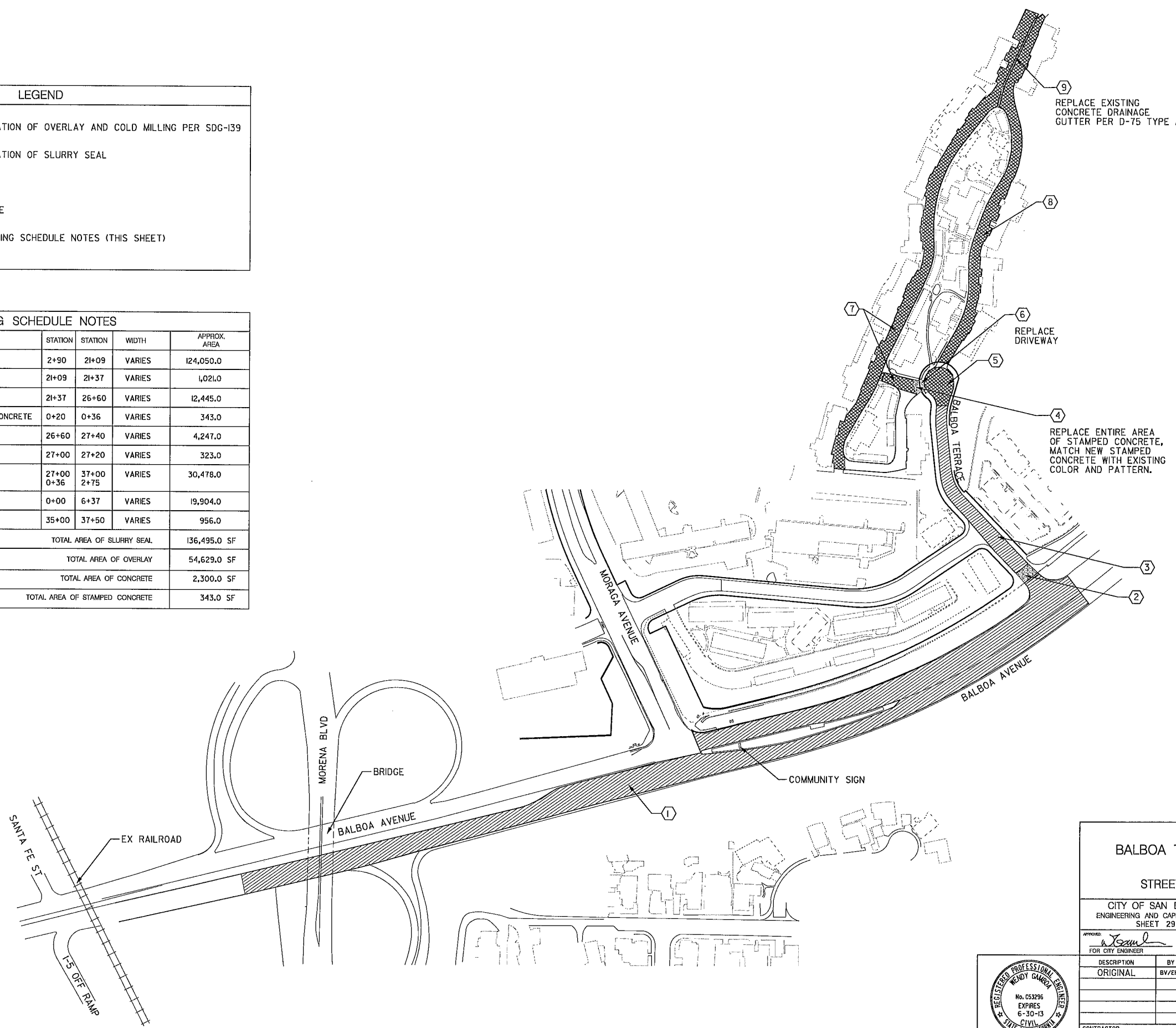
**Brown AND Caldwell**



<b>BALBOA TERRACE TRUNK SEWER</b>			
<b>SEWER ABANDONMENT 2</b>			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 28 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-12035	SUBMITTED BY: <b>JIM HAGHGOUY</b> ASSOCIATE ENGINEER CHECKED BY: <b>BRIAN VITELLE</b> PROJECT ENGINEER 234-1701 CS27 COORDINATE 6262407-1874444 CS83 COORDINATE
APPROVED: <i>Jeffrey J. Engstrom</i> FOR CITY ENGINEER	DATE 2/22/12	DATE STARTED DATE COMPLETED	
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	BC		
CONTRACTOR			30360-28-D

LEGEND	
	APPROXIMATE LOCATION OF OVERLAY AND COLD MILLING PER SDG-139
	APPROXIMATE LOCATION OF SLURRY SEAL
	CONCRETE
	STAMPED CONCRETE
	LOCATION PER PAVING SCHEDULE NOTES (THIS SHEET)

PAVING SCHEDULE NOTES						
NO.	LOCATION	RESTORATION REQUIRED	STATION	STATION	WIDTH	APPROX. AREA
①	BALBOA AVENUE	SLURRY	2+90	21+09	VARIES	124,050.0
②	BALBOA TERRACE	CONCRETE	21+09	21+37	VARIES	1,021.0
③	BALBOA TERRACE	SLURRY	21+37	26+60	VARIES	12,445.0
④	EASEMENT	STAMPED CONCRETE	0+20	0+36	VARIES	343.0
⑤	BALBOA TERRACE	OVERLAY	26+60	27+40	VARIES	4,247.0
⑥	BALBOA TERRACE	CONCRETE	27+00	27+20	VARIES	323.0
⑦	EASEMENT	OVERLAY	27+00 0+36	37+00 2+75	VARIES	30,478.0
⑧	EASEMENT	OVERLAY	0+00	6+37	VARIES	19,904.0
⑨	EASEMENT	CONCRETE	35+00	37+50	VARIES	956.0
TOTAL AREA OF SLURRY SEAL						136,495.0 SF
TOTAL AREA OF OVERLAY						54,629.0 SF
TOTAL AREA OF CONCRETE						2,300.0 SF
TOTAL AREA OF STAMPED CONCRETE						343.0 SF

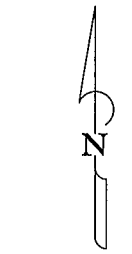


⑨ REPLACE EXISTING CONCRETE DRAINAGE GUTTER PER D-75 TYPE A

⑧ REPLACE DRIVEWAY

⑥ REPLACE DRIVEWAY

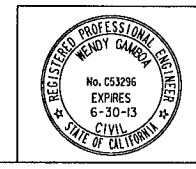
④ REPLACE ENTIRE AREA OF STAMPED CONCRETE, MATCH NEW STAMPED CONCRETE WITH EXISTING COLOR AND PATTERN.



NO SCALE

C-28

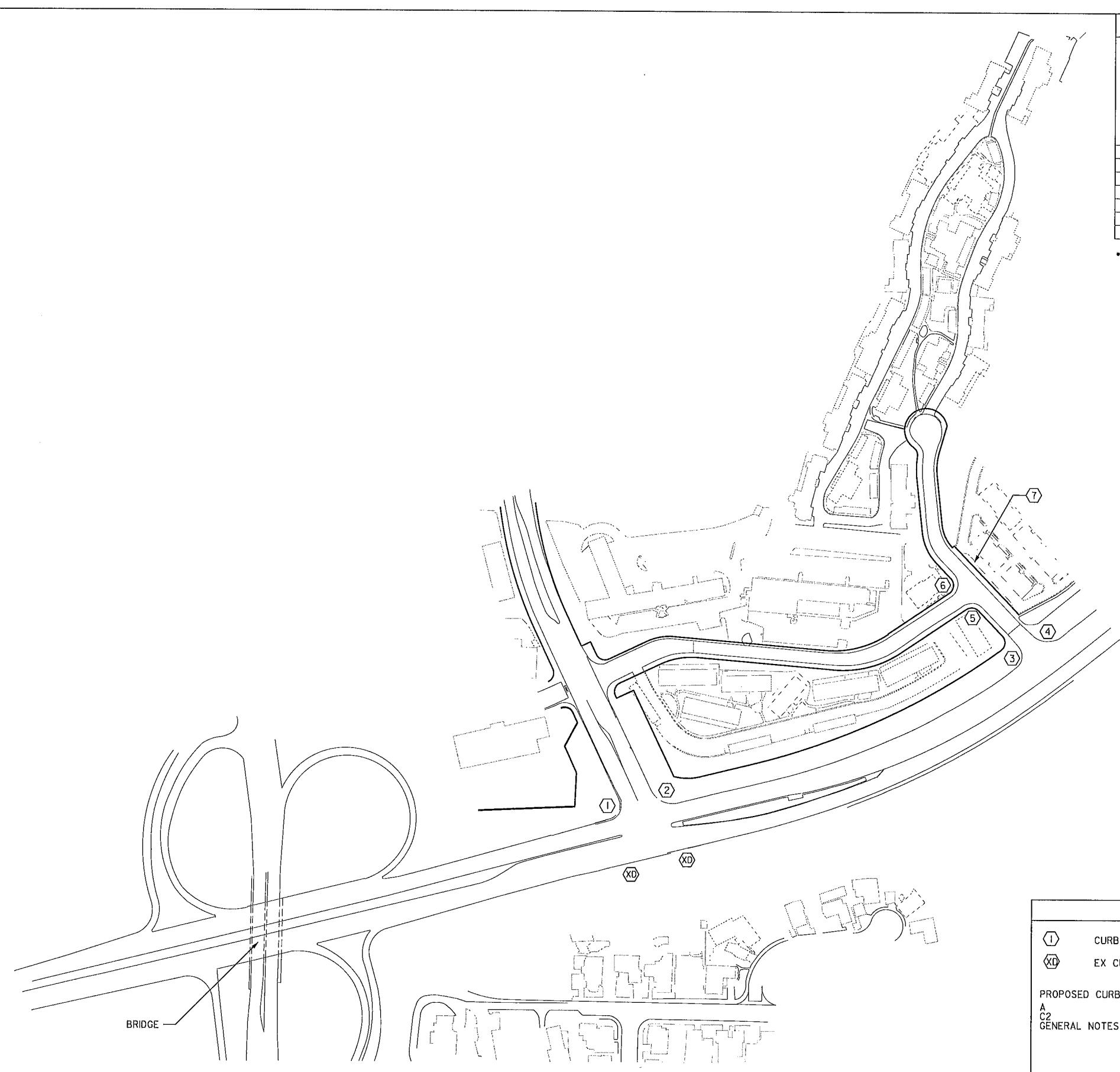
<b>BALBOA TERRACE TRUNK SEWER</b>			
CIVIL STREET RESURFACING PLAN			
CITY OF SAN DIEGO, CALIFORNIA		WATER WBS	N/A
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		SEWER WBS	S-12035
SHEET 29 OF 38 SHEETS		DATE	2/22/12
APPROVED BY	<i>[Signature]</i>	FOR CITY ENGINEER	
DESIGNED BY	BRIAN VITELLE	PROJECT ENGINEER	
DESCRIPTION	ORIGINAL	BY/EH	
APPROVED		DATE	
FILED			
SEE SHEETS	CC827 COORDINATE	SEE SHEETS	CC883 COORDINATE
CONTRACTOR	DATE STARTED	INSPECTOR	DATE COMPLETED
			30360-29-D



STREET RESURFACING

CURB RAMP NOTES TABLE								
LOCATION NO.	RAMP TYPE	NEW	REPLACEMENT	HISTORIC STAMPS	TRUNCATED DOME MATERIAL		CONSTRAINTS	COMMENTS / MODIFICATIONS
					• STAINLESS STEEL	• OTHER		
1	C2		X	N/A		X	N/A	
2	C2		X	N/A		X	N/A	
3	C2		X	N/A		X	N/A	CURB RAMP SHOULD BE DIRECTIONAL AND FACE OPPOSING RAMP.
4	C2		X	N/A		X	N/A	CURB RAMP SHOULD BE DIRECTIONAL AND FACE OPPOSING RAMP.
5	C2		X	N/A		X	N/A	
6	A		X	N/A		X	N/A	
7	A		X	N/A		X	N/A	

• THE DETECTABLE WARNING TILES SHALL BE PER THE CITY'S APPROVED MATERIALS LIST



NO SCALE

**NOTE:**  
CONTRACTOR TO NOTIFY SURVEYING 30 DAYS PRIOR TO REMOVAL OF SIDEWALK FOR CURB RAMP CONSTRUCTION TO RELOCATE ANY SURVEY MARKERS.

C-29

**LEGEND**

① CURB RAMP NO's  
 XD EX CURB RAMP WITH DOME

PROPOSED CURB RAMP PER STANDARD DRAWINGS:  
 A SDG-132  
 C2 SDG-135  
 GENERAL NOTES SDG-130



**BALBOA TERRACE TRUNK SEWER  
CURB RAMP LOCATION PLAN**

CITY OF SAN DIEGO, CALIFORNIA  
 ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
 SHEET 30 OF 38 SHEETS

WATER WBS 0-00000  
 SEWER WBS S-12035

APPROVED: *[Signature]* 2/22/12  
 FOR CITY ENGINEER DATE

DESIGNED BY: JIM HAGGOUY  
 ASSOCIATE ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILED
ORIGINAL	BV/EH			

PROJECT ENGINEER: BRIAN VITELLE  
 SEE SHEETS: CCS27 COORDINATE  
 SEE SHEETS: CCS83 COORDINATE

CONTRACTOR: \_\_\_\_\_ DATE STARTED: \_\_\_\_\_  
 INSPECTOR: \_\_\_\_\_ DATE COMPLETED: \_\_\_\_\_

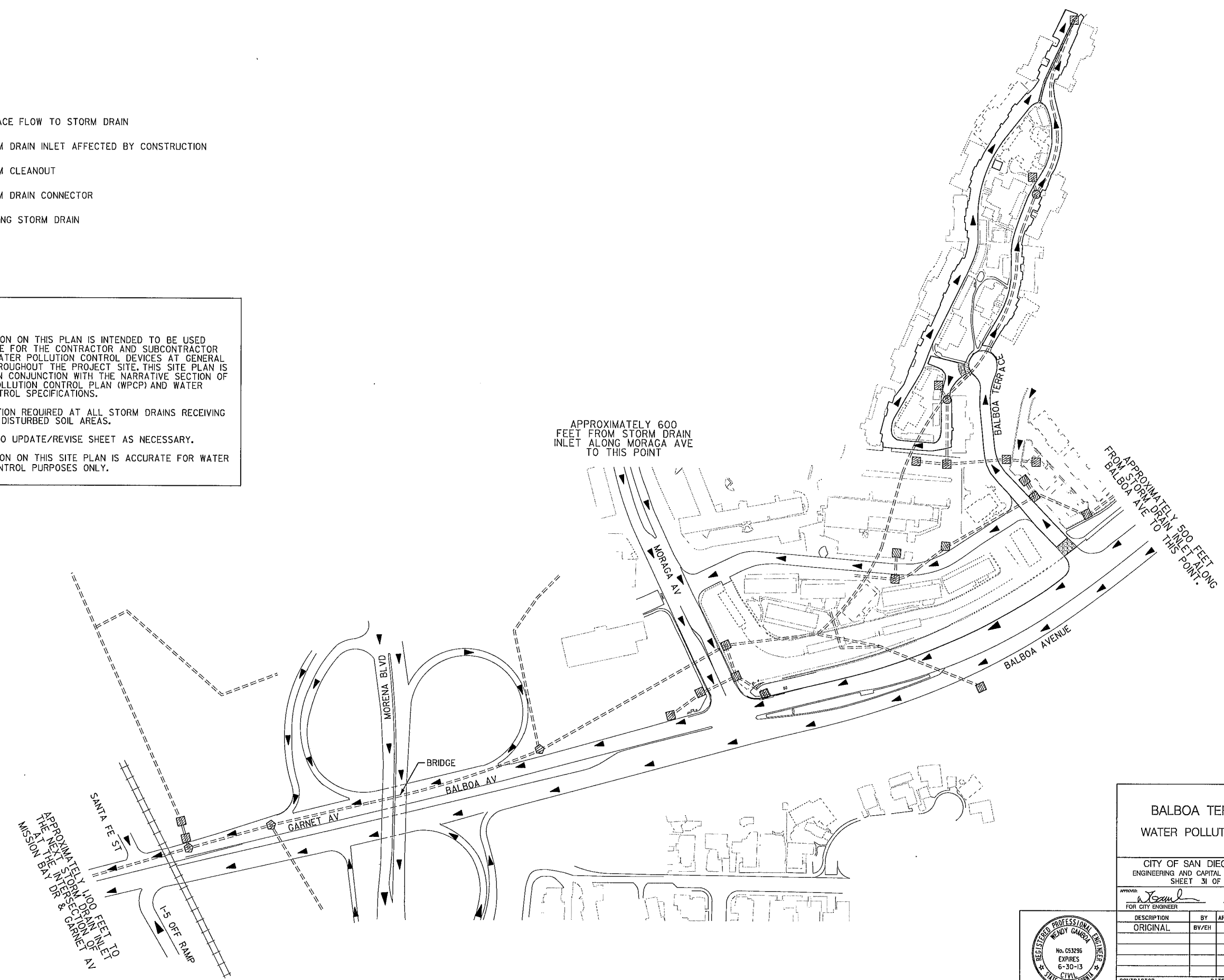
30360-30-D

**LEGEND:**

- ▲ SURFACE FLOW TO STORM DRAIN
- ▨ STORM DRAIN INLET AFFECTED BY CONSTRUCTION
- STORM CLEANOUT
- ◊ STORM DRAIN CONNECTOR
- ===== EXISTING STORM DRAIN

**NOTES**

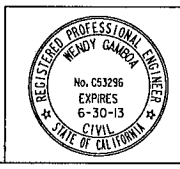
1. THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTOR TO INSTALL WATER POLLUTION CONTROL DEVICES AT GENERAL LOCATIONS THROUGHOUT THE PROJECT SITE. THIS SITE PLAN IS TO BE USED IN CONJUNCTION WITH THE NARRATIVE SECTION OF THE WATER POLLUTION CONTROL PLAN (WPCP) AND WATER POLLUTION CONTROL SPECIFICATIONS.
2. INLET PROJECTION REQUIRED AT ALL STORM DRAINS RECEIVING RUNOFF FROM DISTURBED SOIL AREAS.
3. CONTRACTOR TO UPDATE/REVISE SHEET AS NECESSARY.
4. THE INFORMATION ON THIS SITE PLAN IS ACCURATE FOR WATER POLLUTION CONTROL PURPOSES ONLY.



NO SCALE

C-30

<b>BALBOA TERRACE TRUNK SEWER WATER POLLUTION CONTROL SITE PLAN</b>			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 31 OF 38 SHEETS			WATER WBS N/A SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/22/12
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	BV/EH		
SUBMITTED BY			JIM HAGHGOUY ASSOCIATE ENGINEER
CHECKED BY			BRIAN VITELLE PROJECT ENGINEER
SEE SHEETS			CC827 COORDINATE
SEE SHEETS			CC883 COORDINATE
CONTRACTOR	DATE STARTED	30360-31-D	
INSPECTOR	DATE COMPLETED		



**CONCRETE:**

- ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF A.C.I. 318-LATEST EDITION "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS CONTAINED HEREIN OR SHOWN ON THE DRAWINGS.
- ALL CONCRETE SHALL BE 150 P.C.F. HARDROCK, MIXED PER A.S.T.M. C-94, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 P.S.I. AT 28 DAYS W/ MAX W/C RATIO OF 0.45.
- THE MAXIMUM SIZE AGGREGATE IN FOUNDATION AND MASS CONCRETE WORK SHALL BE 1 INCH. THE MAXIMUM SIZE AGGREGATE IN SLABS ON GRADE, WALLS, AND ALL OTHER CONCRETE SHALL BE 3/4 INCH.
- CEMENT SHALL CONFORM TO A.S.T.M. C-150, TYPE V, LOW ALKALI. AGGREGATES FOR NORMAL WEIGHT SHALL CONFORM TO A.S.T.M. C-33.
- ADMIXTURES AND COLORS (EXCEPT AS NOTED HEREIN) SHALL NOT BE USED UNLESS SUBSTANTIATING DATA IS SUBMITTED TO AND REVIEWED BY THE ENGINEER AND ARCHITECT OF RECORD.
- CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY. THE MIX DESIGNS SHALL CONFORM TO C.B.C. SEC. 1905 UNLESS OTHERWISE NOTED.
- NON-STRUCTURAL STEEL EMBEDDED IN CONCRETE SHALL BE GALVANIZED OR PAINTED. ALL DAMAGED GALVANIZED AREAS SHALL BE REPAIRED PRIOR TO EMBEDMENT.
- PROVIDE 2- #5 DIAGONAL BARS AT CORNERS OF WALL, FLOOR, AND ROOF OPENINGS AND INSIDE CORNERS OF FLOORS.
- PROVIDE WATERSTOPS IN ALL BELOW GRADE FOUNDATION WALL CONSTRUCTION JOINTS.
- READY MIXED CONCRETE SHALL CONFORM TO (A.S.T.M. C-94).
- PLACEMENT OF CONCRETE SHALL CONFORM TO A.C.I. 304. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE FOR ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
- ALL EXPOSED CONCRETE SHALL HAVE A SMOOTH FORM FINISH USING B-B PLYFORM, CLASS I, EXT-A.P.A. PLYWOOD.
- ALL SLABS SHALL HAVE A TROWELED FINISH EXCEPT AS NOTED ON THE DRAWINGS.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
- IF THE CONTRACTOR DESIRES TO MAKE ANY CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THESE DRAWINGS, HE SHALL SUBMIT DETAILS OF CHANGES TO THE ENGINEER OF RECORD FOR REVIEW BEFORE STARTING WORK.
- NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOUNDATION STEEL OFF THE GROUND.
- PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED CONCRETE CORNERS, U.O.N.
- SLEEVE PLUMBING OPENINGS IN SLABS WITH NON-CORROSIVE SLEEVE BEFORE PLACING CONCRETE AND BEND REINFORCING AROUND SLEEVES.
- ALL REINFORCING BARS SHALL BE PROVIDED WITH THE FOLLOWING CONCRETE MINIMUM COVER:  
FOOTINGS CAST AGAINST EARTH 3"  
FORMED CONCRETE EXPOSED TO EARTH, WEATHER OR LIQUID 2"  
BEAMS AND GIRDERS 1 1/2"  
WALLS 1 1/2"  
COLUMN TIES 1 1/2"  
SLABS (#11 AND SMALLER) 3/4"
- CONCRETE CURING: TYPICALLY REQUIRED A MINIMUM OF 10 DAYS.

**REINFORCING:**

- ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE C.B.C., AND THE "MANUAL OF STANDARD PRACTICE" BY THE C.R.S.I. OR AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
- REINFORCING BARS SHALL CONFORM TO A.S.T.M. A-615, DEFORMED GRADE 60, EXCEPT #3 BARS MAY BE GRADE 40. REINFORCING BARS THAT ARE TO BE WELDED SHALL CONFORM TO A.S.T.M. A-706, DEFORMED GRADE 60.
- WELDING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH A.S.T.M. A-706 WITH LOW HYDROGEN ELECTRODES AND STRUCTURAL WELDING CODE REINFORCING STEEL SHALL CONFORM TO A.N.S.I. / A.W.S. D1.4. MINIMUM TENSILE STRENGTH OF WELD METAL SHALL BE 90 K.S.I. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
- ALL REINFORCING BAR BENDS SHALL BE MADE COLD, UNLESS OTHERWISE PERMITTED BY THE BUILDING OFFICIAL.
- WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A-185, AND SHALL BE LAPPED 1 SPACE AND 12" MINIMUM.
- DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE LAPPED WITH THE SAME GRADE, SIZE, SPACING AND NUMBER AS THE VERTICAL REINFORCEMENT.
- REINFORCING SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS.
- ALL VERTICAL REINFORCING SHALL BE CONTINUOUS BETWEEN TWO LEVELS, UNLESS OTHERWISE NOTED.
- SLAB ON GRADE REINFORCING SHALL BE POSITIONED AT MID-DEPTH, UNLESS OTHERWISE NOTED.
- PROVIDE #3 SPACER TIES AT 2'-6" ON CENTER IN ALL BEAMS AND FOOTINGS TO SECURE REINFORCING BARS IN PLACE, UNLESS OTHERWISE NOTED.
- PIPING AND CONDUIT SHALL BE SO FABRICATED AND INSTALLED THAT CUTTING, BENDING, OR DISPLACEMENT OF REINFORCEMENT FROM ITS PROPER LOCATION WILL NOT BE REQUIRED. A.C.I. #6.3.12

**DESIGN BASIS:**

CODE: 2010 C.B.C. (CALIFORNIA BUILDING CODE) CCR, TITLE 24, PART 2.

**LATERAL LOADS:**

- SEISMIC LOAD  
SEISMIC DESIGN CATEGORY = D  
SITE CLASS = D  
S<sub>s</sub> = 1.701  
S<sub>1</sub> = 0.679  
F<sub>a</sub> = 1.0  
F<sub>v</sub> = 1.5  
S<sub>ps</sub> = 1.134  
S<sub>pt</sub> = 0.679  
I = 1.25
- WIND LOAD:  
BASIC WIND SPEED = 85 MPH  
EXPOSURE C  
I<sub>w</sub> = 1.15

**GENERAL NOTES:**

- THE PROJECT SPECIFICATIONS SHALL BE PART OF THE CONTRACT DOCUMENTS.
- THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH CIVIL DRAWINGS.
- THE CONTRACTOR SHALL REVIEW EXISTING CONDITIONS ON THE SITE DURING THE BIDDING. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES PRIOR TO PROCEEDING.
- UNLESS NOTED OR SHOWN OTHERWISE, ALL PHASES OF WORK ARE TO CONFORM TO THE MINIMUM STANDARDS OF THE CALIFORNIA BUILDING CODE (2010 EDITION), AND ANY A.S.T.M. SPECIFICATIONS ON WHICH THESE STANDARDS ARE BASED. WHERE CONFLICT BETWEEN BUILDING CODES AND SPECIFICATIONS OCCUR, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
- ALL A.S.T.M. DESIGNATIONS REFERRED TO ON THESE DRAWINGS SHALL BE THE LATEST ADOPTED OR REVISED SPECIFICATION, AS OF THE DATE OF THESE DRAWINGS.
- ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS. DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
- NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- THE STRUCTURAL DRAWINGS SHOW ONLY THE BASIC STRUCTURAL REQUIREMENTS. REFER TO CIVIL AND MECHANICAL DRAWINGS FOR NON-STRUCTURAL ITEMS, SUCH AS:  
A. SIZE AND LOCATION OF ALL OPENINGS.  
B. SIZE AND LOCATION OF ALL NON-BEARING WALLS.  
C. SIZE AND LOCATION OF ALL CONCRETE CURBS, WALKS, ROOF AND FLOOR DRAINS, SLOPES, DEPRESSED SLAB AREAS, ETC.  
D. FLOOR, ROOF AND WALL FINISHES.  
E. DIMENSIONS WHICH ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
- THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS NOTED OTHERWISE, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.
- NEITHER THE OWNER NOR THE ARCHITECT/STRUCTURAL ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING AND BRACING AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS AND REGULATIONS. SITE OBSERVATION VISITS BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE SAFETY ITEMS.
- SATISFACTORY EXECUTION OF CONSTRUCTION IS DEPENDENT UPON CONFORMANCE WITH THE INTENT OF THESE DRAWINGS. THE OWNER SHALL RETAIN A CALIFORNIA LICENSED CIVIL OR STRUCTURAL ENGINEER DURING CONSTRUCTION TO OBSERVE THE CONSTRUCTION AND STATE THAT THE STRUCTURE HAS BEEN BUILT IN GENERAL CONFORMANCE WITH THE INTENT OF THESE DRAWINGS.
- CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD FOR EACH PARTICULAR LEVEL. WHEN WEIGHT OF MATERIALS OR EQUIPMENT MAY EXCEED DESIGN LOAD, STRUCTURAL SYSTEMS SHALL BE SHORED.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.

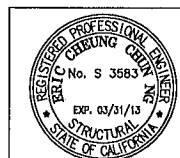
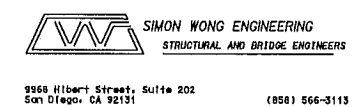
**FOUNDATION:**

- PRIOR TO THE POURING OF CONCRETE AND PRIOR TO THE CONTRACTOR REQUESTING A BUILDING DEPARTMENT FOUNDATION INSPECTION, THE GEOTECHNICAL ENGINEER SHALL INSPECT AND APPROVE THE FOOTING EXCAVATIONS. HE SHALL POST NOTICE ON THE JOB SITE AND ADVISE THE BUILDING INSPECTOR IN WRITING THAT THE WORK SO INSPECTED MEETS THE CONDITIONS OF THE REPORT. A WRITTEN CERTIFICATION TO VERIFY THAT:  
A. THE STRUCTURE WAS PREPARED IN ACCORDANCE WITH THE SOILS REPORT.  
B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED, AND  
C. THE FOUNDATION EXCAVATIONS COMPLY WITH THE INTENT OF THE SOILS REPORT.
- SOILS REPORT PREPARED BY:  
NINYO & MOORE GEOTECHNICAL AND ENVIRONMENTAL SCIENCES CONSULTANTS SAN DIEGO, CALIFORNIA  
PROJECT NO. 106859001 DATED DEC 2, 2010 (REV. SEPT 7, 2011)
- SOIL REMOVAL AND RECOMPACTION SHALL BE DONE PER SOILS REPORT RECOMMENDATIONS UNDER GEOTECHNICAL ENGINEER'S SUPERVISION AND INSPECTION.
- TYPE OF FOOTING:  
DESIGN SOIL PRESSURE:  
FOOTING TYPE                      STATIC BEARING PRESSURE  
MAT FOOTING                      3,000 P.S.F.
- SLAB BASE AND COMPACTION TO BE IN ACCORDANCE WITH SOILS REPORT.
- NO PIPES OR DUCTS SHALL BE PLACED IN SLABS OR WALLS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ENGINEER.
- ALL WALLS RETAINING EARTH SHALL DRAIN TO DAYLIGHT OR OTHER DRAINAGE.
- ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
- THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN AREAS TO BE EXCAVATED BEFORE BEGINNING EXCAVATION. EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING. DAMAGE CAUSED AS A RESULT OF FAILING TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, APPROVALS, PERMITS, INSTALLATION AND MONITORING OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN TEMPORARY EXCAVATIONS.
- ALL PLANTERS IN CLOSE PROXIMITY TO THE STRUCTURES SHALL HAVE ADEQUATE DRAINAGE OF SURFACE WATER TO PREVENT SATURATION OF SOIL UNDER FOUNDATION.

S-1

BALBOA TERRACE TRUNK SEWER  
STRUCTURAL  
GENERAL NOTES 1

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 32 OF 38 SHEETS		WATER WBS N/A	SEWER WBS S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	DESIGNED BY: JIM HAGHOUBY ASSOCIATE ENGINEER	DRAWN BY: BRIAN VITELLE PROJECT ENGINEER
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	BC		
234-IT01 CC827 COORDINATE			6262407-1874444 CC583 COORDINATE
CONTRACTOR	DATE STARTED	30360-32-D	
INSPECTOR	DATE COMPLETED		





SUMMARY OF SPECIAL INSPECTION

REQUIRED VERIFICATION AND INSPECTION OF SOILS		
VERIFICATION AND INSPECTION	CONTINUOUS INSPECTION	PERIODIC INSPECTION
1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIALS.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	X	-
5. PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

SPECIAL INSPECTION NOTES - APPLIES TO ALL TABLES

- A. THE SPECIAL INSTRUCTIONS LISTED ARE IN ADDITION TO THE CALLED INSPECTIONS REQUIRED BY APPENDIX CHAPTER 1 SECTION 109 OF THE C.B.C., AS AMENDED. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY A CITY INSPECTOR.
- B. THE SPECIAL INSPECTORS MUST BE CERTIFIED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES, TO PERFORM THE TYPE OF INSPECTION SPECIFIED.  
EXCEPTIONS:  
1. SOILS INSPECTIONS BY THE SOILS ENGINEER OF RECORD.  
2. WHEN WAIVED BY THE BUILDING OFFICIAL.
- C. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE SPECIAL INSPECTOR OR INSPECTION AGENCY AT LEAST ONE WORKING DAY PRIOR TO PERFORMING ANY WORK THAT REQUIRES SPECIAL INSPECTION.
- D. SPECIALLY INSPECTED WORK THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE CITY INSPECTOR IS SUBJECT TO REMOVAL OR EXPOSURE.
- E. THE CONSTRUCTION MATERIALS TESTING LABORATORY MUST BE APPROVED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES, FOR TESTING OF MATERIALS, SYSTEMS, COMPONENTS AND EQUIPMENTS.
- F. A PROPERTY OWNER'S FINAL REPORT OF WORK REQUIRING SPECIAL INSPECTION, TESTING, AND STRUCTURAL OBSERVATIONS MUST BE COMPLETED BY THE CONTRACTOR AS THE PROPERTY OWNER'S AGENT OF RECORD, ARCHITECT OF RECORD, OR ENGINEER OF RECORD AND SUBMITTED TO THE INSPECTION SERVICES DIVISION.

SUMMARY OF SPECIAL INSPECTION

REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION		
VERIFICATION AND INSPECTION	CONTINUOUS INSPECTION	PERIODIC INSPECTION
1. INSPECTION OF REINFORCING STEEL, AND PLACEMENT.	-	X
2. INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED.	X	-
3. VERIFYING USE OF REQUIRED DESIGN MIX.	-	X
4. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-
5. INSPECTION OF CONCRETE FOR PROPER APPLICATION TECHNIQUES.	X	-
6. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X
7. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POSTTENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X
8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X
9. EXPANSION ANCHORS	-	X
10. EPOXY ANCHORS: VERIFY DRILLING OF ANY HOLES, THE CLEANLINESS OF THE HOLE, THE MOISTURE IN THE HOLE, MIXING THE EPOXY, THE BRAND OF THE EPOXY, AND THE PROPER MATERIAL FOR THE ASSEMBLY	-	X

S-2

BALBOA TERRACE TRUNK SEWER  
STRUCTURAL  
GENERAL NOTES 2

CITY OF SAN DIEGO, CALIFORNIA  
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
SHEET 33 OF 38 SHEETS

WATER WBS N/A  
SEWER WBS S-12035

APPROVED: *[Signature]* 2/22/12  
FOR CITY ENGINEER DATE

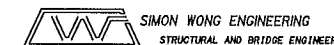
DESIGNED BY: JIM HAGGOUY  
ASSOCIATE ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			

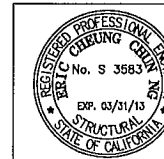
CHECKED BY: BRIAN VITELLE  
PROJECT ENGINEER  
234-1701  
CS227 COORDINATE  
6262407-1874444  
CS283 COORDINATE

CONTRACTOR \_\_\_\_\_ DATE STARTED \_\_\_\_\_  
INSPECTOR \_\_\_\_\_ DATE COMPLETED \_\_\_\_\_

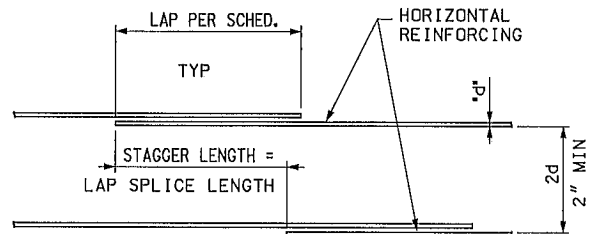
30360-33-D



9958 Hilbert Street, Suite 202  
San Diego, CA 92131 (619) 566-3113



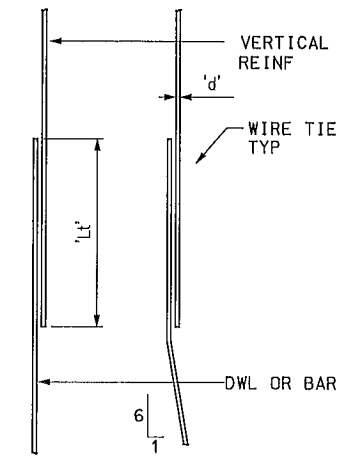
STRUCTURAL NOTES 2



- NOTES:
- SPLICE LENGTH SHALL BE DETERMINED FROM THE SIZE OF THE SMALLER BAR SPLICED.
  - MINIMUM COVER 1.5", MINIMUM BAR CLEAR SPACING 2 BAR DIAMETERS.
  - TOP BARS ARE DEFINED AS BARS WITH 12" OR MORE OF FRESH CONCRETE PLACED BELOW THEM.
  - CONCRETE MASONRY UNITS LAP 48d MIN HORIZ & VERT REINF.
  - L<sub>t</sub> VALUES IN SCHEDULE SHALL BE MULTIPLIED BY 1.3 FOR LIGHT WEIGHT CONCRETE.

BAR SIZE	TENSION LAP "L <sub>t</sub> " (IN.)					
	F' <sub>c</sub> =3,000 P.S.I.		F' <sub>c</sub> =4,500 P.S.I.		F' <sub>c</sub> =5,000 P.S.I.	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
#3	29	23	25	20	22	17
#4	38	30	33	26	29	23
#5	47	37	41	32	36	28
#6	56	44	49	38	44	34
#7	82	64	71	55	63	49
#8	94	73	81	63	72	56
#9	106	82	91	70	81	63
#10	119	92	103	80	91	70
#11	131	101	113	87	101	78

HARDROCK CONCRETE  
F'<sub>y</sub> = 60,000 PSI (CLASS "B")



BAR SIZE	TENSION LAP 'L <sub>t</sub> ' (IN.)			HOOK EMBED (IN.)
	F' <sub>c</sub> =3,000 PSI	F' <sub>c</sub> =4,500 PSI	F' <sub>c</sub> =5,000 PSI	
#3	22	19	17	8
#4	29	25	23	11
#5	36	31	28	14
#6	43	37	34	16
#7	63	54	49	19
#8	72	62	56	22
#9	81	70	63	25
#10	91	79	70	28
#11	101	87	78	31

F'<sub>y</sub> = 60 KSI

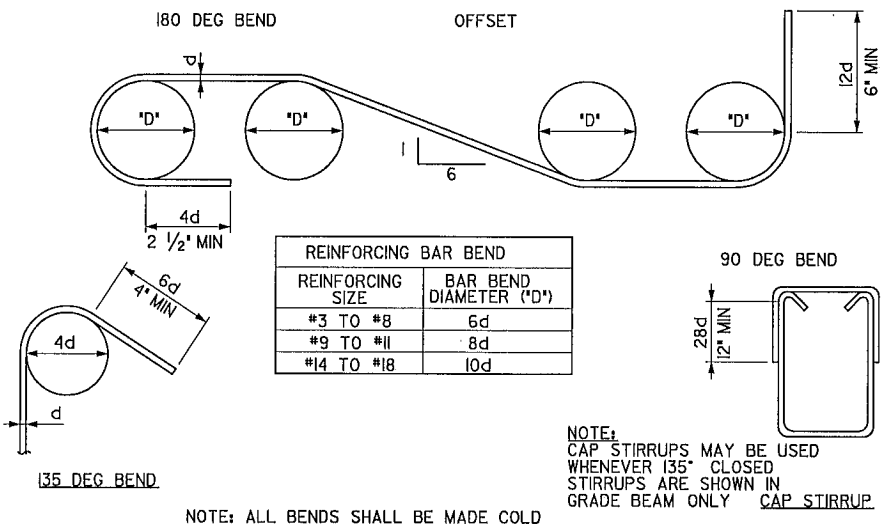
- NOTES:
- ALL VERTICAL REINFORCING FOR COLUMN, PIERS AND WALLS SHALL BE DOWELED AS SHOWN UON.
  - MINIMUM CLEAR SPACING 2d, MINIMUM COVER 1.5".
  - DOWELS SHALL BE THE SAME GRADE, SIZE, QUANTITY AND/OR SPACING AS VERTICAL REINFORCING.

HORIZONTAL REINFORCING LAP SPLICE

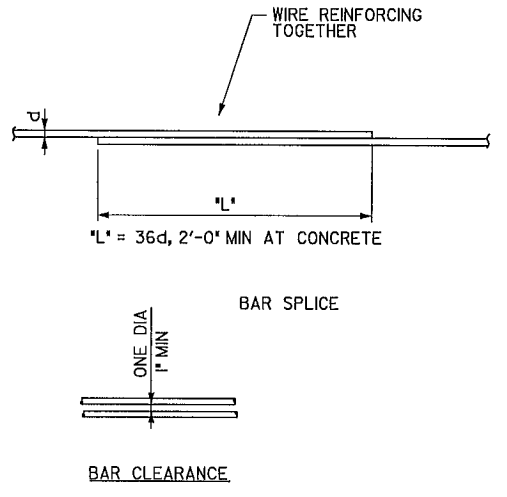
DETAIL 1  
SCALE: NTS

VERT REINF - TENSION LAP SPLICE

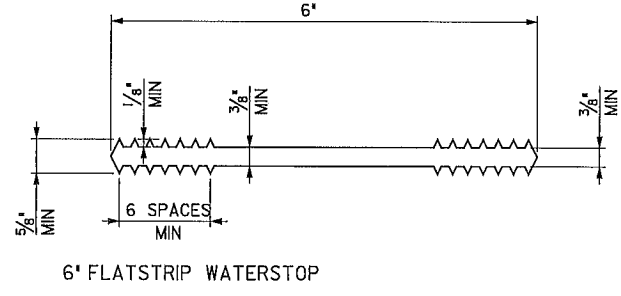
DETAIL 2  
SCALE: NTS



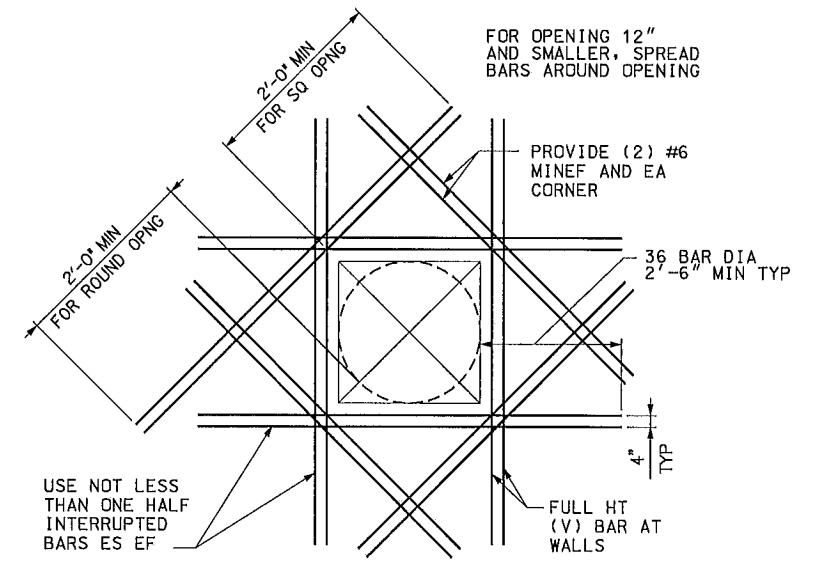
TYP BAR BENDS  
DETAIL 3  
SCALE: NTS



BAR CLEARANCE



WATER STOP  
DETAIL 4  
SCALE: NTS



TYP REINF AT LARGE OPNG IN CONC WALL  
DETAIL 5  
SCALE: NTS

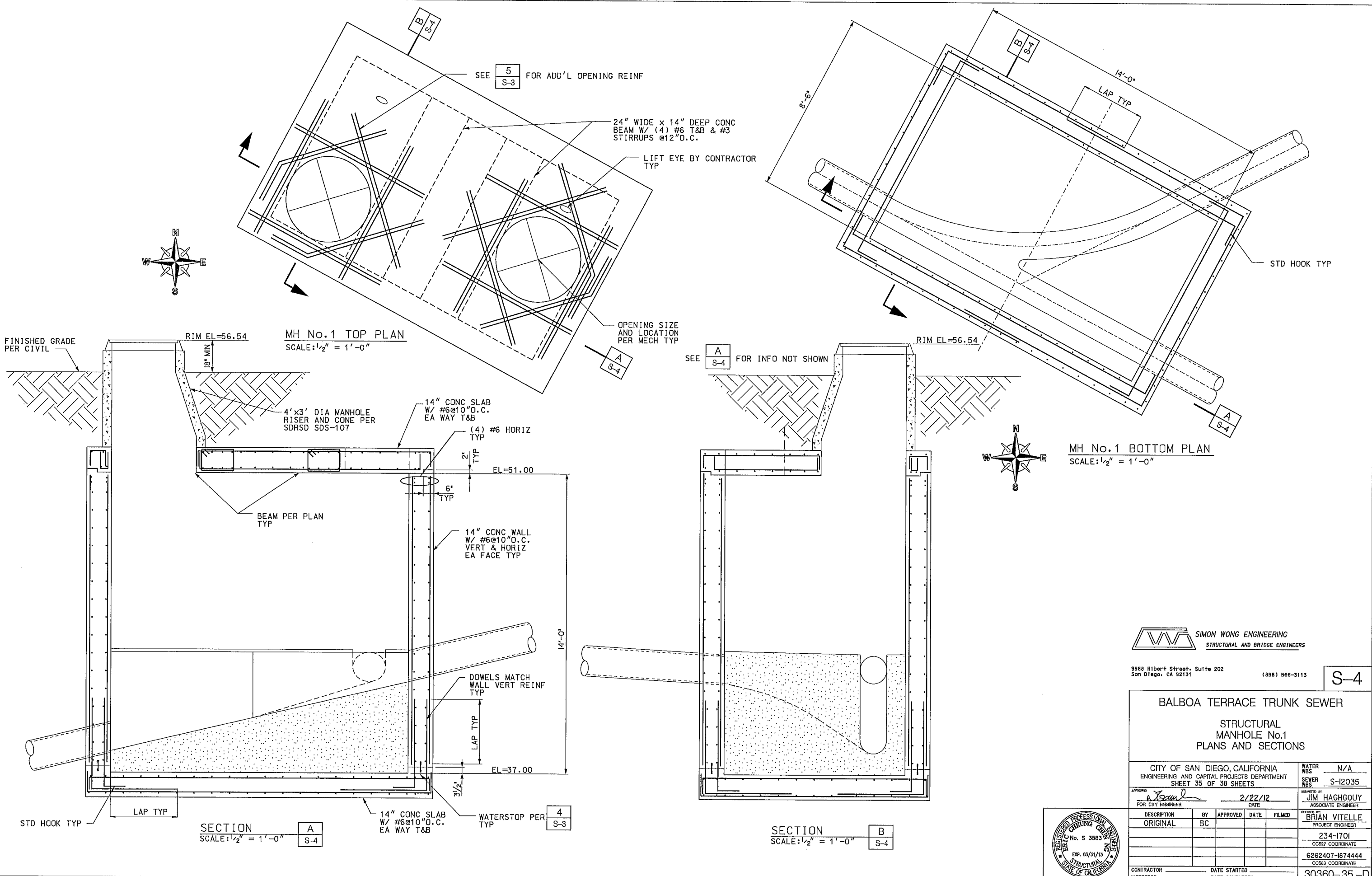
S-3

BALBOA TERRACE TRUNK SEWER  
STRUCTURAL  
TYPICAL DETAILS 1

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 34 OF 38 SHEETS				WATER WBS N/A SEWER WBS S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER		
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			
DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER				234-1701 CC827 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				6262407-1874444 CC883 COORDINATE
				30360-34-D

SIMON WONG ENGINEERING  
STRUCTURAL AND BRIDGE ENGINEERS  
9958 Hilbert Street, Suite 202  
San Diego, CA 92131 (858) 566-3115





MH No.1 TOP PLAN  
SCALE: 1/2" = 1'-0"

MH No.1 BOTTOM PLAN  
SCALE: 1/2" = 1'-0"

SECTION A  
SCALE: 1/2" = 1'-0"

SECTION B  
SCALE: 1/2" = 1'-0"

**SIMON WONG ENGINEERING**  
STRUCTURAL AND BRIDGE ENGINEERS

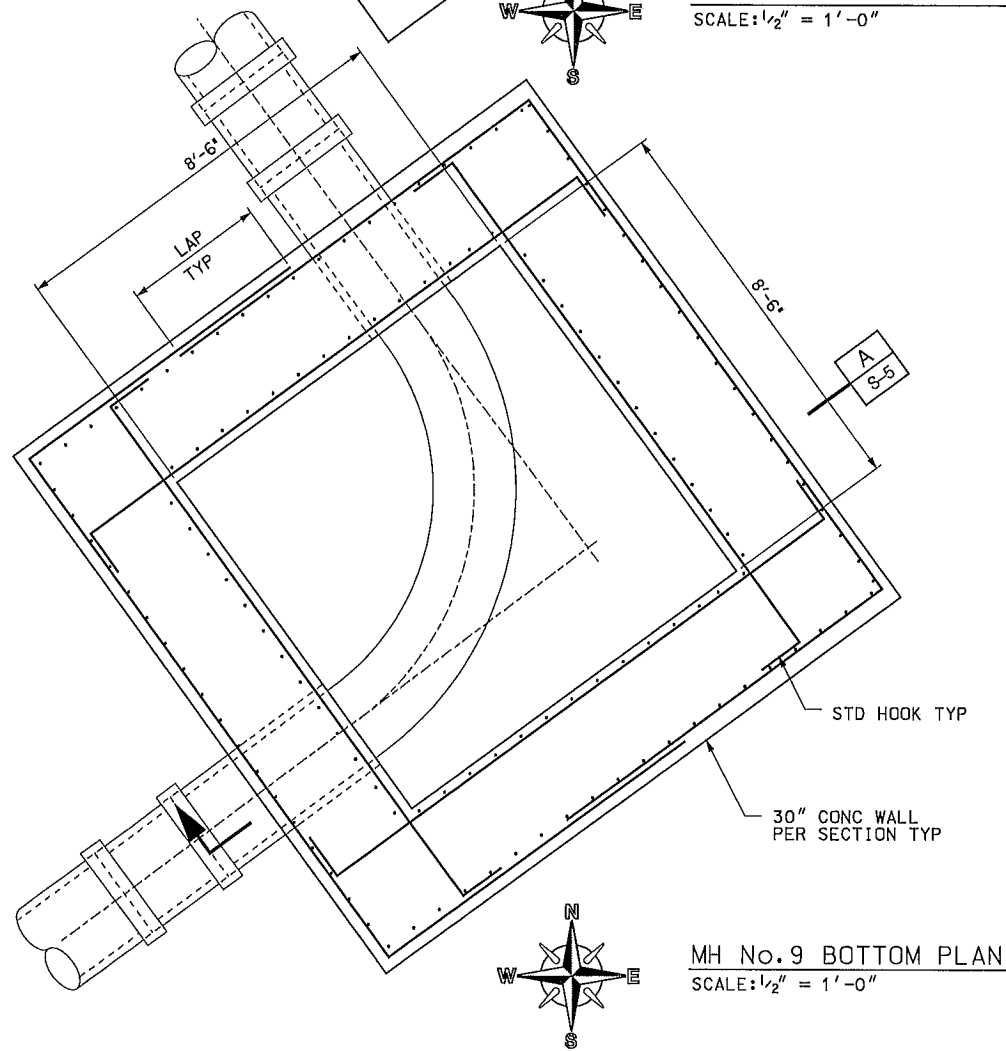
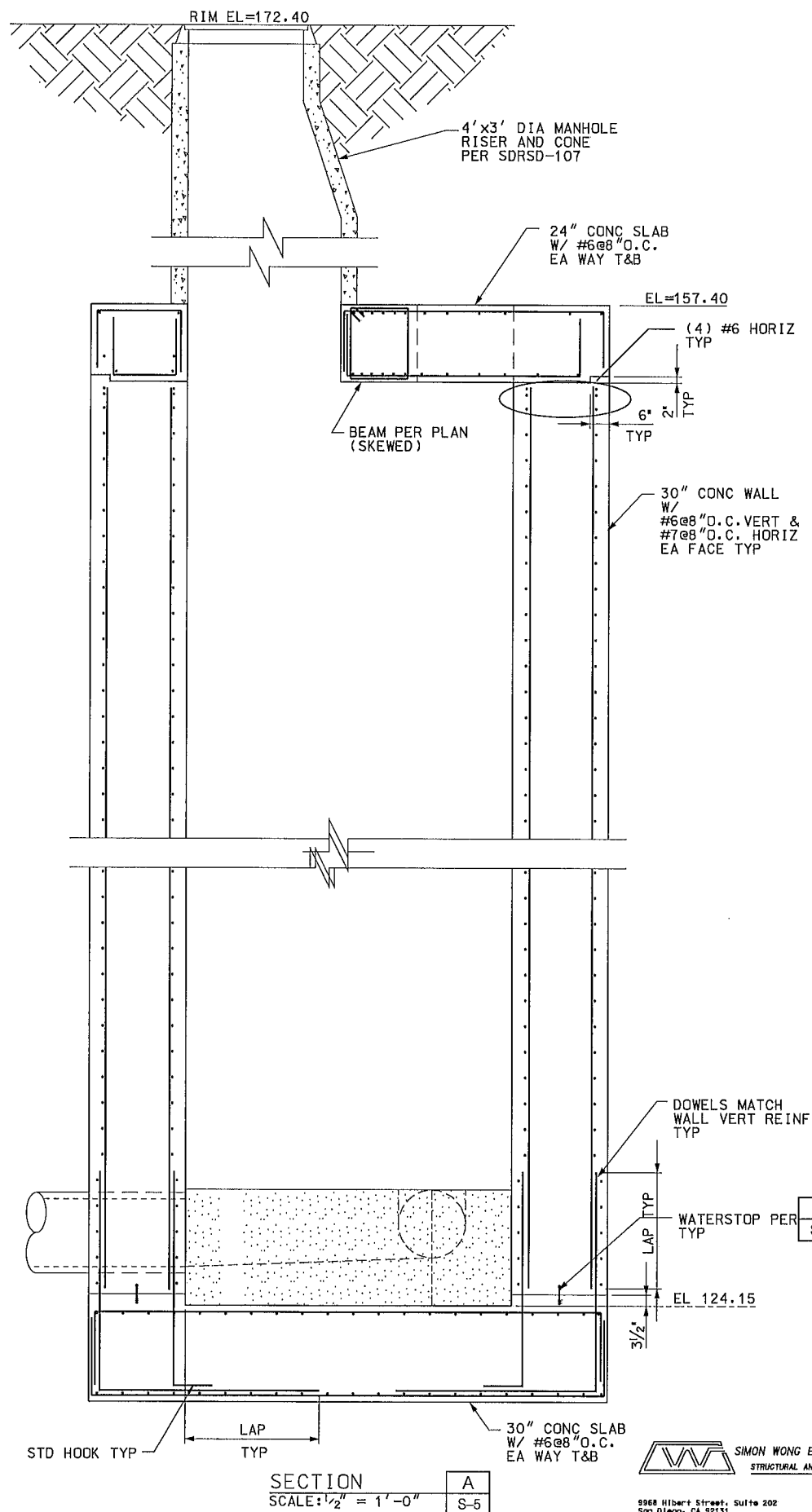
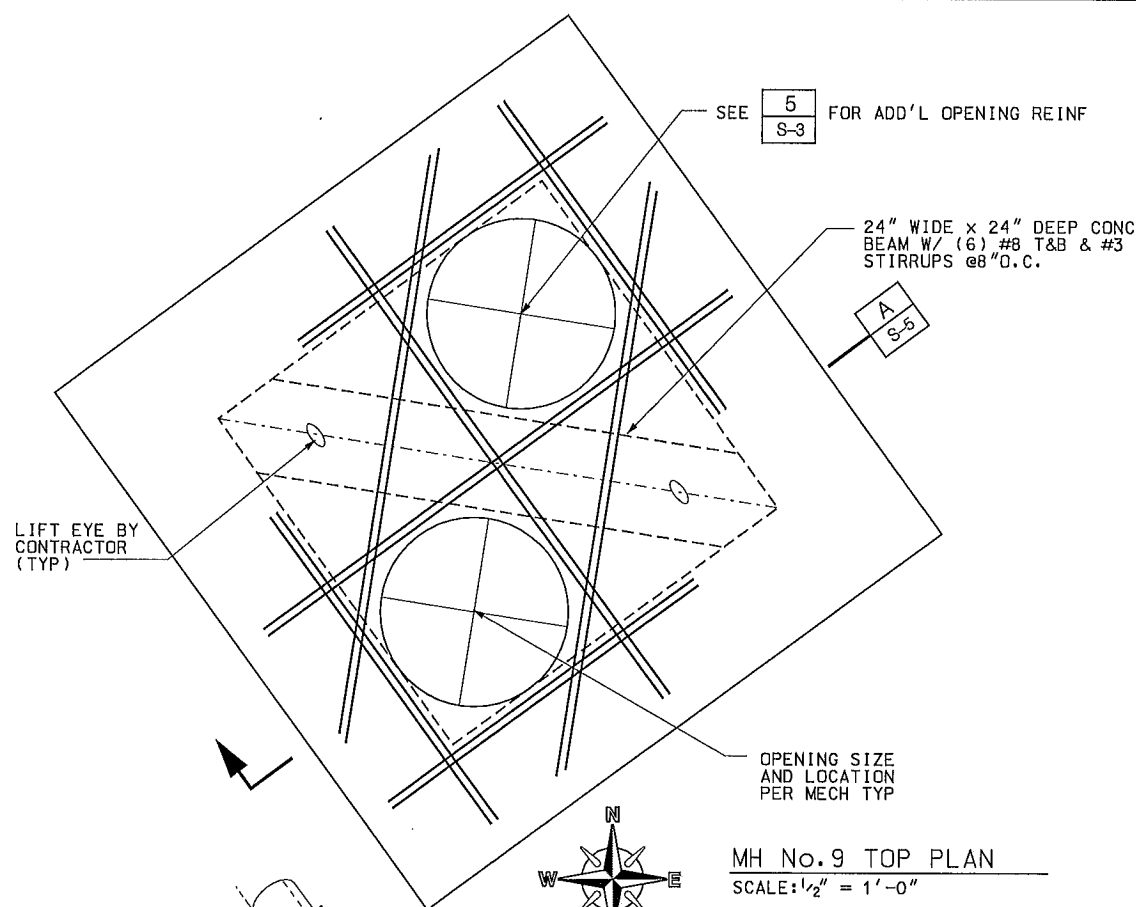
9968 Hibert Street, Suite 202  
San Diego, CA 92131 (858) 566-3113

S-4

BALBOA TERRACE TRUNK SEWER  
STRUCTURAL  
MANHOLE No.1  
PLANS AND SECTIONS

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 35 OF 38 SHEETS				WATER WBS N/A
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER				SEWER WBS S-12035
DATE: 2/22/12		SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER		
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			
DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER				
234-1701				
CC827 COORDINATE				
6262407-1874444				
CC883 COORDINATE				
CONTRACTOR	DATE STARTED	30360-35-D		
INSPECTOR	DATE COMPLETED			





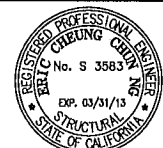
S-5

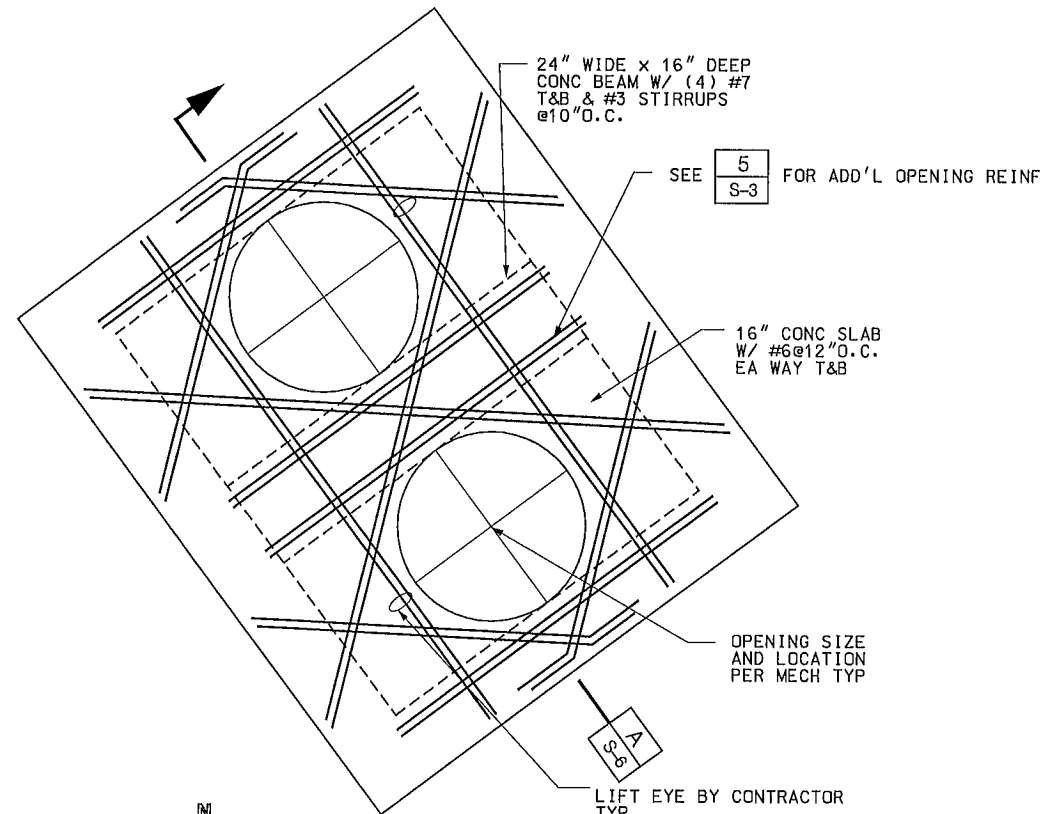
**BALBOA TERRACE TRUNK SEWER**  
**STRUCTURAL**  
**MANHOLE No.9**  
**PLANS AND SECTION**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 36 OF 38 SHEETS		WATER WBS N/A SEWER WBS S-I2035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE: 2/22/12	SUBMITTED BY: JIM HAGGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	BC	
DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER		234-1701 CC827 COORDINATE
6262407-1B74444 CC883 COORDINATE		30360-36-D
CONTRACTOR	DATE STARTED	
INSPECTOR	DATE COMPLETED	

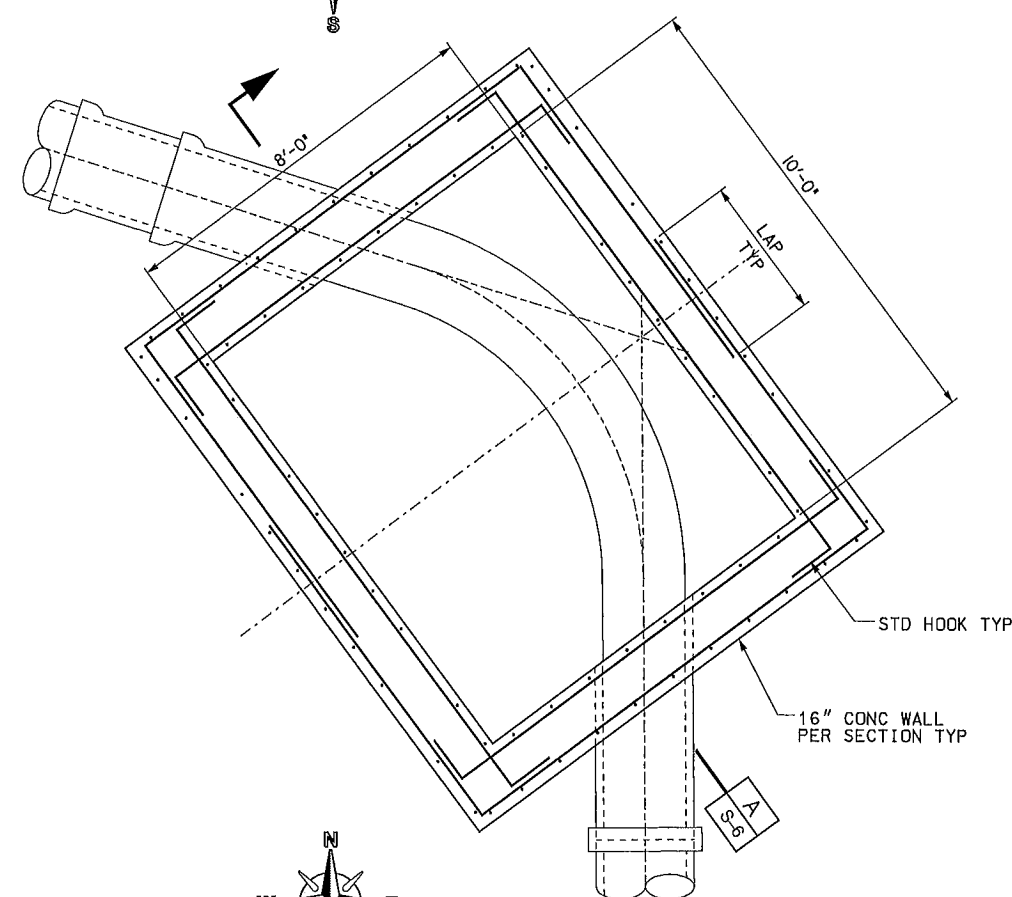
**SIMON WONG ENGINEERING**  
STRUCTURAL AND BRIDGE ENGINEERS

9268 Hilbert Street, Suite 202  
San Diego, CA 92131  
(619) 566-3113

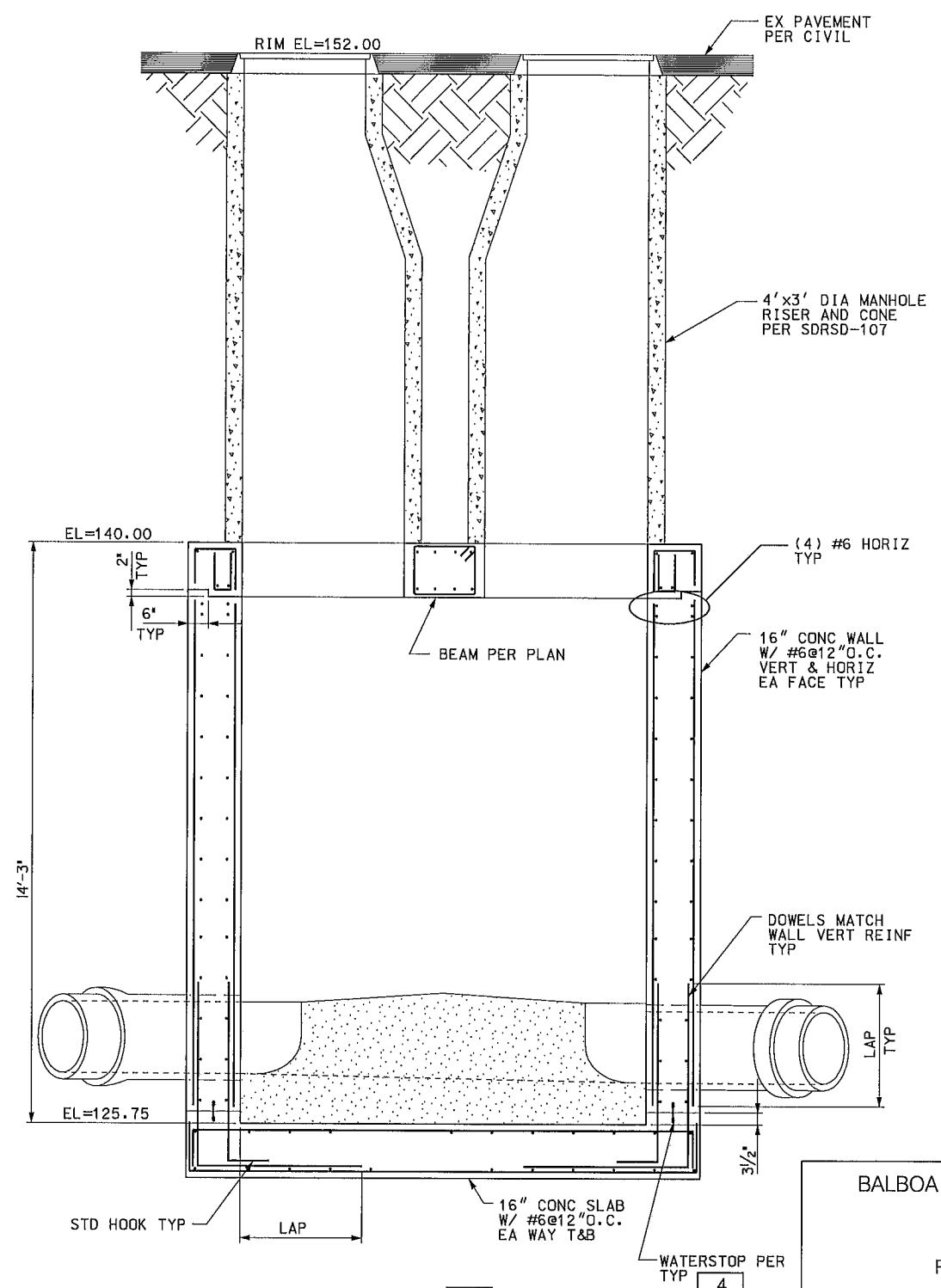




MH No. 10 TOP PLAN  
SCALE: 1/2" = 1'-0"



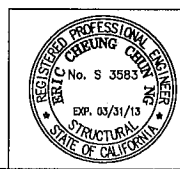
MH No. 10 BOTTOM PLAN  
SCALE: 1/2" = 1'-0"

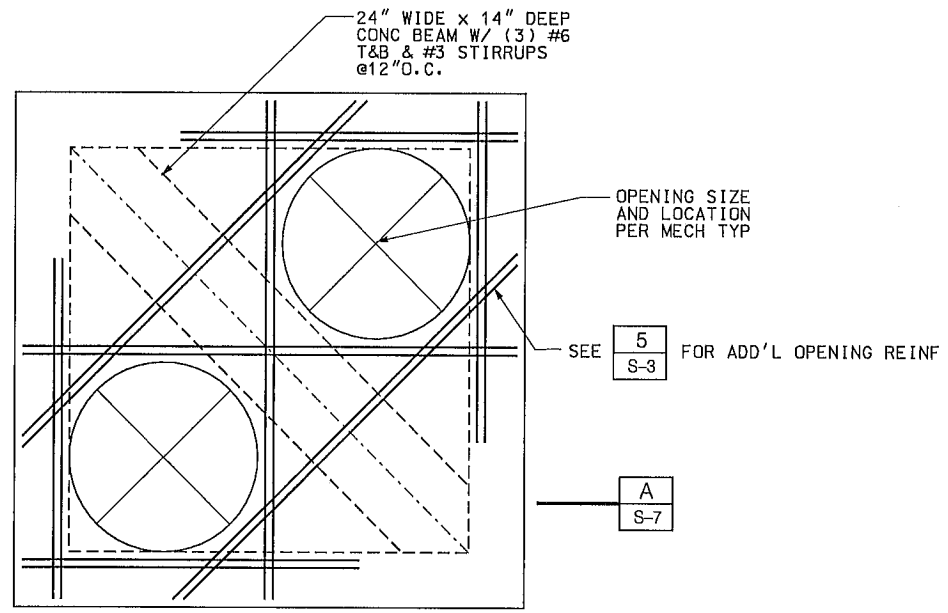


SECTION  
SCALE: 1/2" = 1'-0"

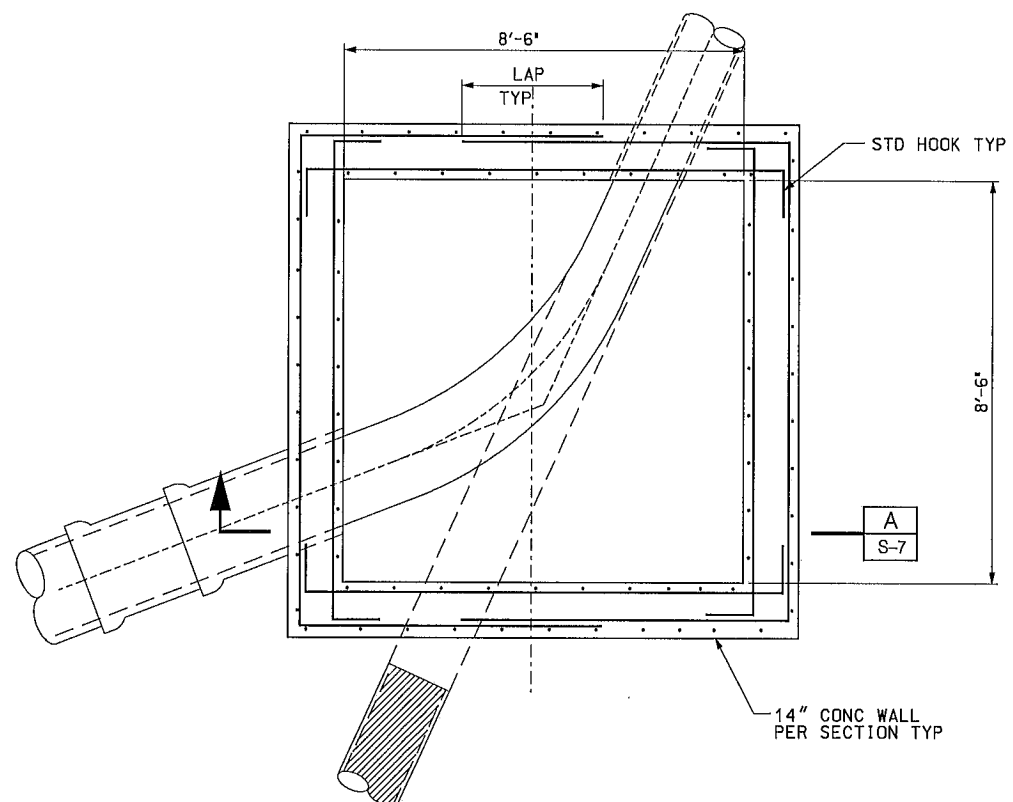
<b>BALBOA TERRACE TRUNK SEWER</b>				
STRUCTURAL MANHOLE No.10 PLANS AND SECTION				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 37 OF 38 SHEETS			WATER WBS N/A	SEWER WBS S-12035
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/22/12		SUBMITTED BY: JIM HAGHOJY ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			
DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER				
234-1701 CCS27 COORDINATE				
6262407-1874444 CCS83 COORDINATE				
CONTRACTOR	DATE STARTED	30360-37-D		
INSPECTOR	DATE COMPLETED			

**SIMON WONG ENGINEERING**  
STRUCTURAL AND BRIDGE ENGINEERS  
9968 Hibert Street, Suite 202  
San Diego, CA 92131  
(858) 566-3113

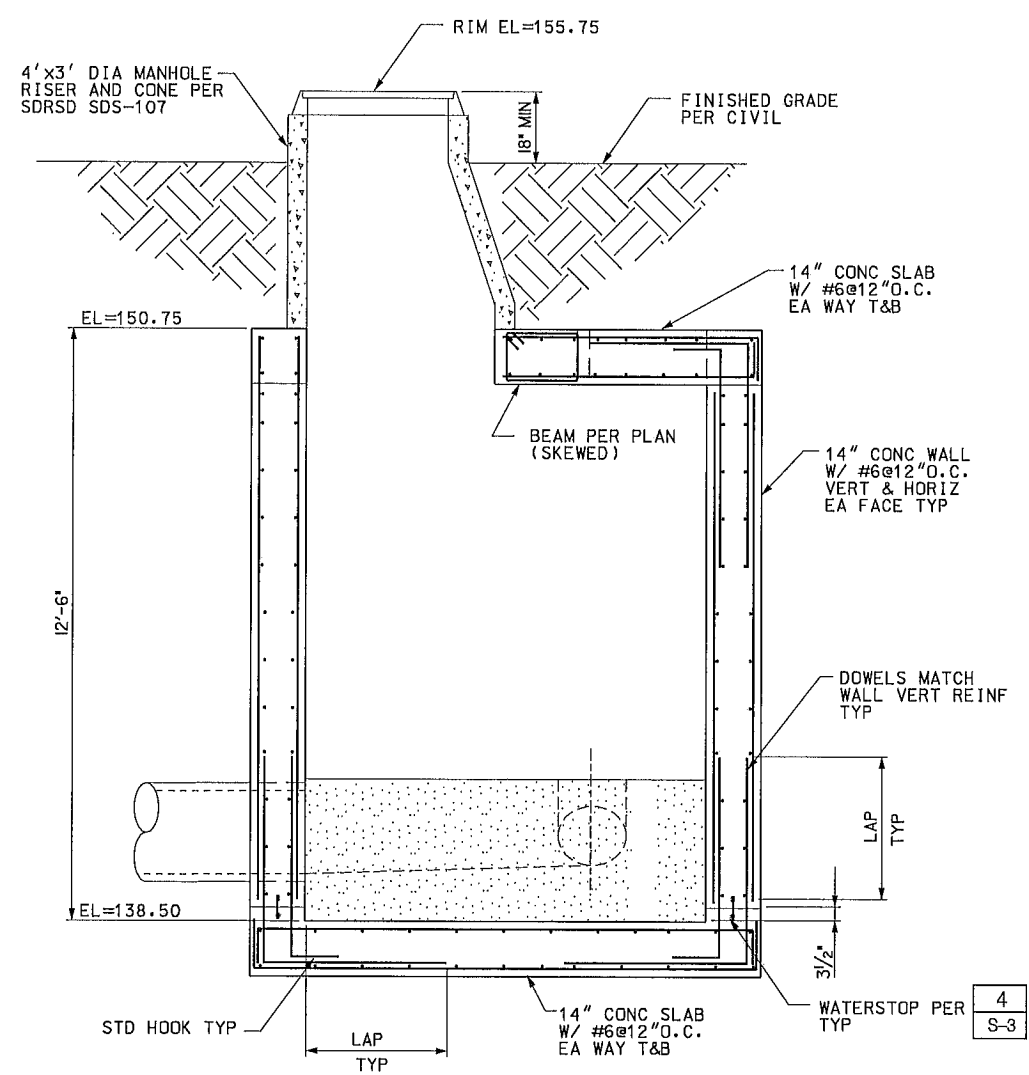




**MH No. 19 TOP PLAN**  
SCALE: 1/2" = 1'-0"



**MH No. 19 BOTTOM PLAN**  
SCALE: 1/2" = 1'-0"



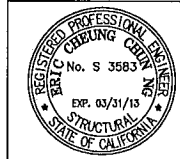
**SECTION A-A**  
SCALE: 1/2" = 1'-0"

S-7

<b>BALBOA TERRACE TRUNK SEWER</b>				
<b>MANHOLE No. 19</b>				
<b>PLANS AND SECTION</b>				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 38 OF 38 SHEETS			WATER WBS N/A	SEWER WBS S-12035
APPROVED FOR CITY ENGINEER	DATE 2/22/12		SUBMITTED BY JIM HAGGOUY ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	BC			
DESIGNED BY BRIAN VITELLE PROJECT ENGINEER				
234-I701 CC827 COORDINATE				
6262407-1874444 CC883 COORDINATE				
CONTRACTOR	DATE STARTED	DATE COMPLETED		30360-38-D

**SIMON WONG ENGINEERING**  
STRUCTURAL AND BRIDGE ENGINEERS

8968 Hilbert Street, Suite 202  
San Diego, CA 92131 (858) 566-3113





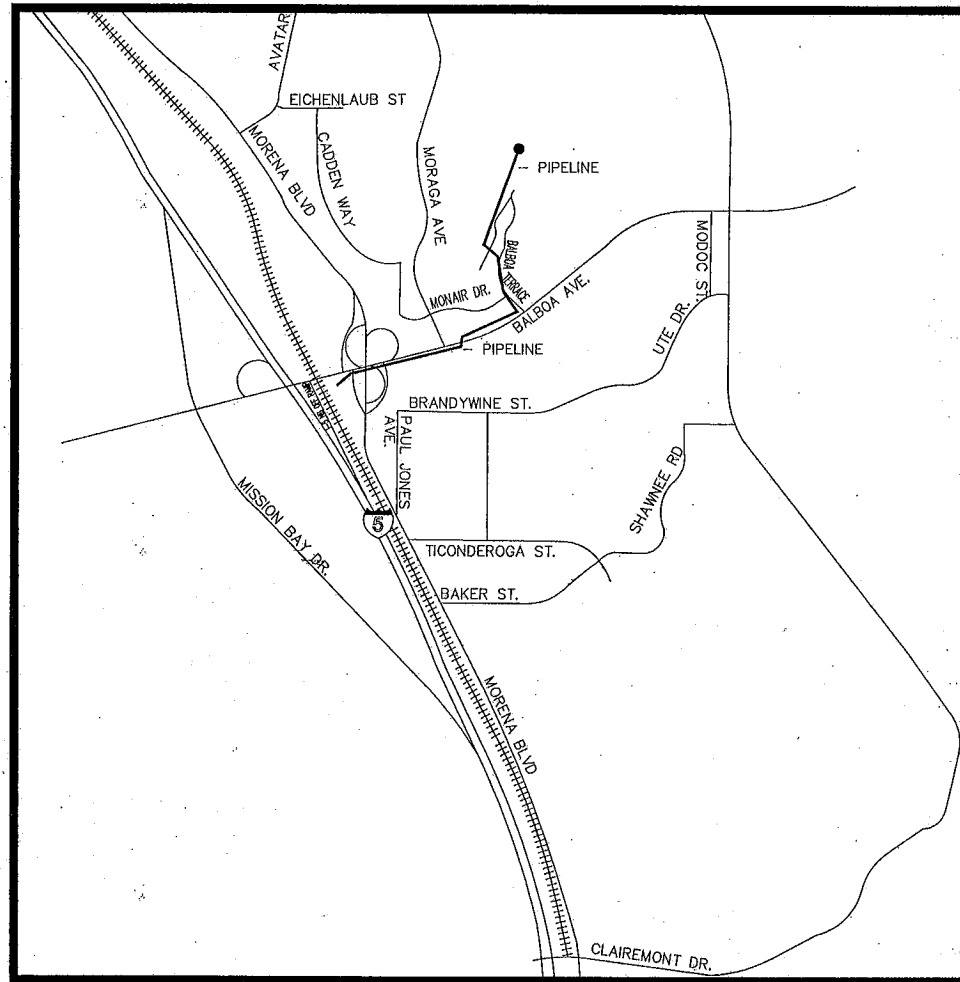
**TRAFFIC CONTROL NOTES**

1. VALIDATION: THIS TRAFFIC CONTROL PLAN IS NOT VALID UNTIL WORK DATES ARE APPROVED. THE CONTRACTOR SHALL, PER SECTION 7-10.2.3 OF THE CONTRACT SPECIAL PROVISIONS, CALL THE ENGINEER TRAFFIC CONTROL SECTION AT (858) 495-4741 TO OBTAIN A PERMIT. THE CONTRACTOR MUST CALL A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO STARTING WORK, OR FIVE (5) WORKING DAYS WHEN THE WORK WILL AFFECT A TRAFFIC SIGNAL.
2. STANDARDS: THIS TRAFFIC CONTROL PLAN SHALL CONFORM TO THE MOST RECENT ADOPTED EDITION OF EACH OF THE FOLLOWING MANUALS:
  - CITY OF SAN DIEGO STANDARD DRAWINGS, APPENDIX "A";
  - CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS; AND
  - STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREENBOOK"), INCLUDING REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT AMENDMENTS.
3. NOTIFICATIONS: THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AFFECTED AGENCIES A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO ANY EXCAVATION, CONSTRUCTION OR TRAFFIC CONTROL:
 

FIRE DEPARTMENT DISPATCH	(STREET OR ALLEY CLOSURE)	(858) 573-1300
POLICE DEPARTMENT TRAFFIC	(STREET OR ALLEY CLOSURE)	(858) 495-7800
WASTE MANAGEMENT DEPT	(REFUSE COLLECTION)	(858) 694-7000
STREET DIVISION/ELECTRICAL	(TRAFFIC SIGNALS)	(619) 527-7500
SAN DIEGO TRANSIT	(BUS STOPS)	(619) 595-7038
MTDB	(TAXI ZONES)	(619) 235-2643
UNDERGROUND SERVICE ALERT	(ANY EXCAVATION)	(800) 422-4133

THE CONTRACTOR SHALL NOTIFY PROPERTY OWNERS AND TENANTS A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CLOSURE OF DRIVEWAYS. THE CONTRACTOR SHALL POST SIGNS NOTIFYING THE PUBLIC A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO CLOSURE OF STREETS.
4. POSTING PARKING RESTRICTIONS: THE CONTRACTOR SHALL POST TOW-AWAY/NO PARKING SIGNS TWENTY-FOUR (24) HOURS IN ADVANCE FOR TEMPORARY PARKING REMOVAL. SIGNS SHALL INDICATE SPECIFIC DAYS, DATES AND TIMES OF RESTRICTIONS.
5. EXCAVATIONS: EXCEPT AS SHOWN ON THE PLANS, TRENCHES SHALL BE BACKFILLED OR TRENCH-PLATED AT THE END OF EACH WORK DAY. AN ASPHALT RAMP SHALL BE PLACED AROUND EACH TRENCH PLATE TO PREVENT THE PLATE FROM BEING DISLODGED. UPON COMPLETION OF EXCAVATION BACKFILL, THE CONTRACTORS SHALL PROVIDE A SATISFACTORY SURFACE FOR TRAFFIC. WHEN CONSTRUCTION OPERATIONS ARE NOT ACTIVELY IN PROGRESS, THE CONTRACTOR SHALL MAINTAIN ALL TRAVEL LANES OPEN TO TRAFFIC, EXCEPT AS SHOWN ON THE PLANS.
6. RESTORATION OF TRAFFIC CONTROL DEVICES: THE CONTRACTOR SHALL REPAIR OR REPLACE TRAFFIC CONTROL DEVICES (INCLUDING TRAFFIC SIGNS, STRIPING, PAVEMENT MARKERS, PAVEMENT MARKINGS, LEGENDS, CURB MARKINGS, LOOP DETECTORS, TRAFFIC SIGNAL EQUIPMENT, ETC) DAMAGED OR REMOVED AS A RESULT OF OPERATIONS AND NOT DESIGNATED FOR REMOVAL. REPAIRS AND REPLACEMENTS SHALL BE EQUAL TO EXISTING IMPROVEMENTS. LOOP DETECTORS SHALL BE REPLACED WITHIN THREE (3) WORKING DAYS OF COMPLETION OF UNDERGROUND WORK.
7. CHANGES IN WORK: THE RESIDENT ENGINEER WILL OBSERVE THESE TRAFFIC CONTROL PLANS IN OPERATION AND RESERVES THE RIGHT TO MAKE CHANGES AS THE FIELD CONDITIONS WARRANT. SUCH CHANGES SHALL SUPERSEDE THESE PLANS.
8. FOR WORK NOT COVERED BY THESE TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL, PER SECTION 7-10.2.1 OF THE CONTRACT SPECIAL PROVISIONS, PREPARE TRAFFIC CONTROL SHOP DRAWINGS AND SUBMIT THEM TO THE RESIDENT ENGINEER. THE CONTRACTOR SHALL ALLOW A MINIMUM OF TWENTY (20) WORKING DAYS FOR REVIEW OF THE SHOP DRAWINGS. UPON APPROVAL OF THE TRAFFIC CONTROL PLAN, THE ENGINEERING TRAFFIC CONTROL SECTION WILL ISSUE A TRAFFIC CONTROL PLAN (TCP) PERMIT FOR THIS WORK.

**VICINITY MAP**



**TRAFFIC SIGNS:**

C30 (CA)	G20-2	M4-10(LT)	M4-10(RT)	R3-5(RT)
R3-1	R11-2	R11-2 (RAMP)	R11-4	R18A(RT)
W1-6	W4-2 (RT)	W4-2 (LT)	W4-7(LT)	W9-3
W20-1	W20-2	W20-5(LT)	W20-5(RT)	R5-1
SC3(CA)	SC3(CA) (MOD)	SCB 'BALBOA'(CA)	R5-1A	
R6-1(RT)	W20-3	W20-3(RAMP)	SC18(CA)	C44(CA)

- TC-1 - TITLE SHEET
- TC-2 - STAGE 1 BALBOA TERRACE/BALBOA - STA. 21+00 TO 27+00
- TC-3 - STAGE 2 BALBOA TERRACE/BALBOA - STA. 17+90 TO 23+40
- TC-4 - STAGE 3 BALBOA AVE - STA. 1+00 TO 6+75
- TC-5 - STAGE 3 MORENA BLVD SB/NB RAMP'S DETOUR
- TC-6 - STAGE 4 BALBOA AVE - STA. 6+80 TO 12+40
- TC-7 - STAGE 4 NB MORENA BLVD TO EB BALBOA AVE RAMP CLOSURE
- TC-8 - STAGE 5 BALBOA AVE - STA. 11+90 TO 14+60
- TC-9 - STAGE 6 BALBOA AVE - STA. 14+60 TO 15+40
- TC-10 - STAGE 7 BALBOA AVE - STA. 15+40 TO 17+90

**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DRUMS (36" MIN.)
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)

PLANS PREPARED UNDER THE SUPERVISION OF:  
  
**Bill E. Darnell**, 2/3/2011  
 BILL E. DARNELL, DESIGN ENGINEER R.C.E. No. 22338, LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
 2870 4TH AVE SUITE A, SAN DIEGO, CA 92103, (619) 233-9373  
 DWG NAME: 102011S-01.dwg | DATE: 2-3-12 | BY: JMM

100% SUBMITTAL

TC-1

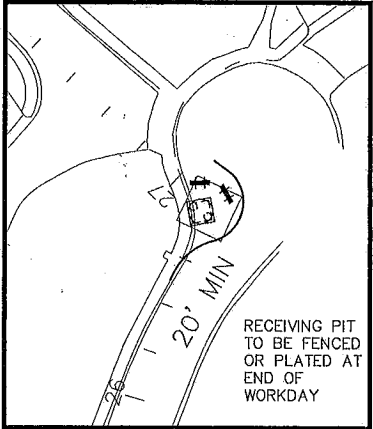
**BALBOA TERRACE TRUNK SEWER TRAFFIC CONTROL PLANS**  
TITLE SHEET

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		WATER SEWER S-12035	
SHEET 1 OF 10 SHEETS		DATE: 02/13/2012	
APPROVED:		SUBMITTED BY: JIM HAGHGOUY, ASSOCIATE ENGINEER	
FOR CITY ENGINEER		CHECKED BY: BRIAN VIELLE, PROJECT ENGINEER	
DESCRIPTION		CCS27 COORDINATE	
ORIGINAL	BY: DBA	APPROVED: DATE:	CCS83 COORDINATE
FILED			
CONTRACTOR:		DATE STARTED:	
INSPECTOR:		DATE COMPLETED:	
		<b>30360-TT-D</b>	

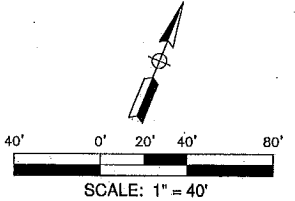
CONSTRUCTION NOTES:

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.

WORK HOURS  
7AM TO 4 PM

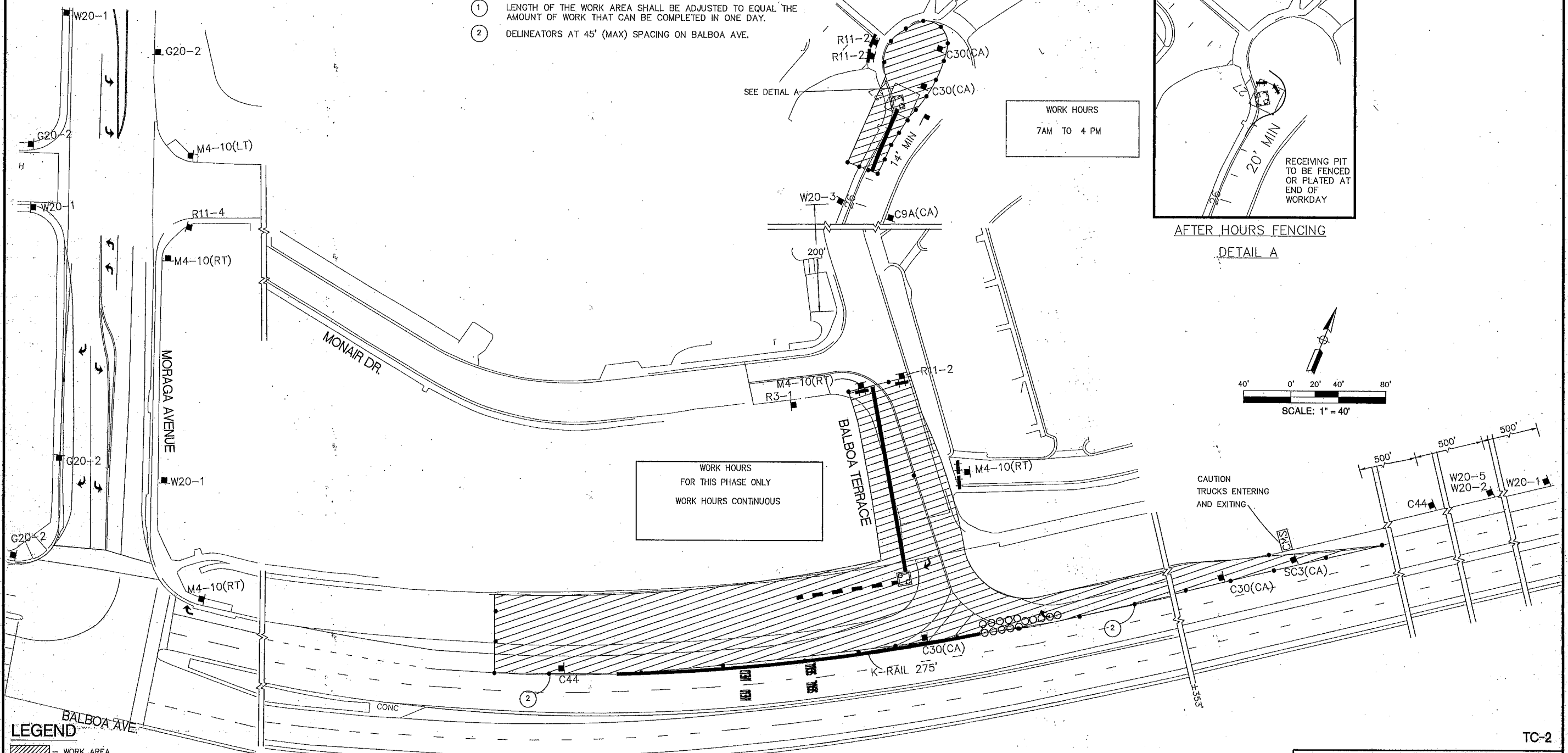


AFTER HOURS FENCING  
DETAIL A



WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS CONTINUOUS

CAUTION  
TRUCKS ENTERING  
AND EXITING



LEGEND

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLAGGER
- FLASHING ARROW BOARD (FAB)
- INSTALL ARRAY FORMATION U14

TC-2

BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 1 - BALBOA TERRACE AND BALBOA AVE  
STA. 21+00 TO 27+00

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 2 OF 10 SHEETS		WATER VBS: N/A SEWER VBS: S-12035
02/13/2012		SUBMITTED BY: JIM HAGGOUY, ASSOCIATE ENGINEER CHECKED BY: BRIAN VITELLE, PROJECT ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	D&A	
CONTRACTOR	DATE STARTED	CCS27 COORDINATE
SUPERVISOR	DATE COMPLETED	CCS83 COORDINATE
		30360-T2-D

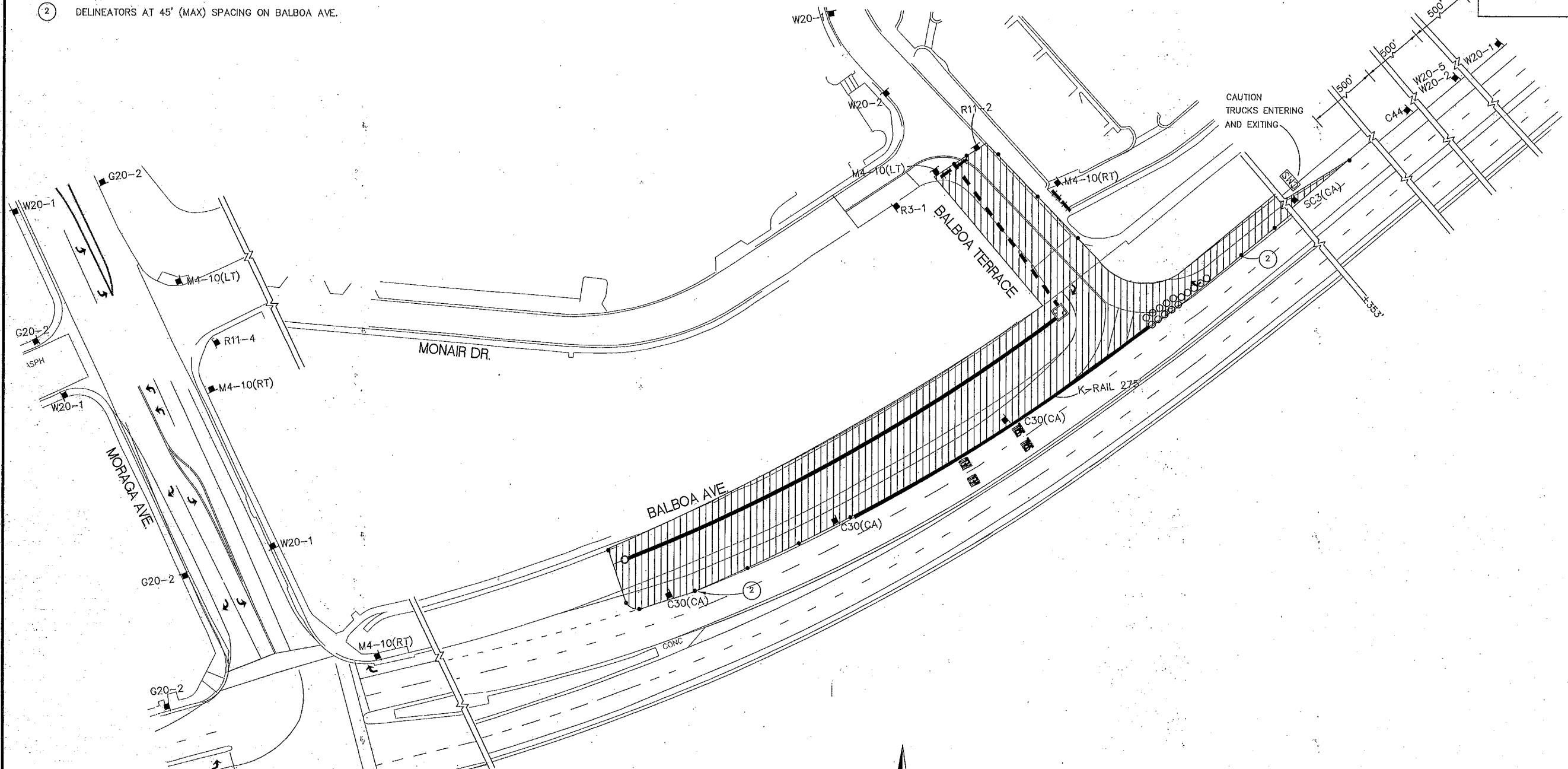
PLANS PREPARED UNDER THE SUPERVISION OF:  
*Bill E. Darnell* 2/13/2012  
BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13  
Darnell & ASSOCIATES, INC.  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373  
DWS NAME:102010-D-644 | DATE: 2-3-12 | BY: JIM

100%  
SUBMITTAL

**CONSTRUCTION NOTES:**

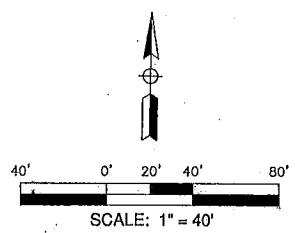
- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS CONTINUOUS



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- INSTALL ARRAY FORMATION U14
- FLASHING ARROW BOARD (FAB)



TC-3

**BALBOA TERRACE TRUNK SEWER**  
**TRAFFIC CONTROL PLANS**  
**STAGE 2 - BALBOA AVENUE**  
**STA. 17+90 TO STA. 23+40**

CITY OF SAN DIEGO, CALIFORNIA  
 ENGINEERING AND CAPITAL PROJECTS DEPARTMENT  
 SHEET 3 OF 10 SHEETS

APPROVED: *Jim Haghighi* 02/13/2012  
 FOR CITY CHECKER

DATE: 02/13/2012

DESIGNED BY: JIM HAGHIGHI  
 ASSOCIATE ENGINEER

CHECKED BY: BRIAN VITELLE  
 PROJECT ENGINEER

CCSP7 COORDINATE

CCSB9 COORDINATE

30360- T3-D

PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/8/2012  
 DATE

BILL E. DARNELL  
 DESIGN ENGINEER R.C.E. No. 22338  
 LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
 2870 4TH AVE SUITE A  
 SAN DIEGO, CA 92103  
 (619) 233-9373

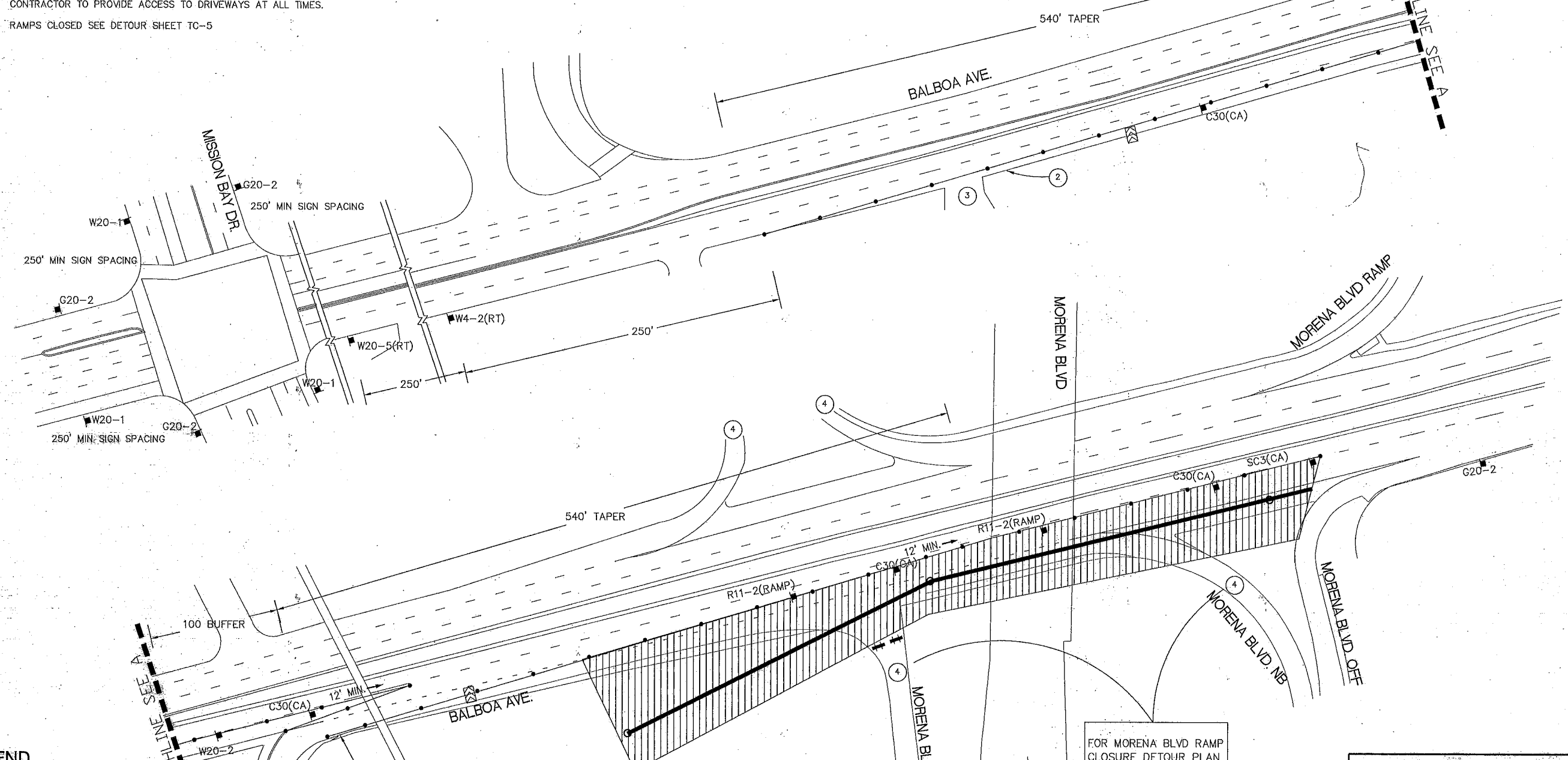
DWG NAME: 110201TD-E.dwg | DATE: 2-3-12 | BY: JMN

100%  
SUBMITTAL

**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.
- ④ RAMP CLOSED SEE DETOUR SHEET TC-5

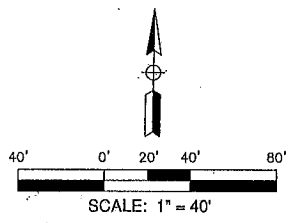
WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



**LEGEND**

- = WORK AREA
- = CONSTRUCTION NOTE
- = CONSTRUCTION SIGN LOCATION
- = DELINEATORS
- = DIRECTION OF TRAFFIC
- = CONSTRUCTION SIGN DETAIL No.
- = TYPE III BARRICADES
- = EXISTING PAVEMENT MARKINGS
- = FLASHING ARROW BOARD (FAB)

FOR MORENA BLVD RAMP  
CLOSURE DETOUR PLAN  
SEE SHEET TC-5

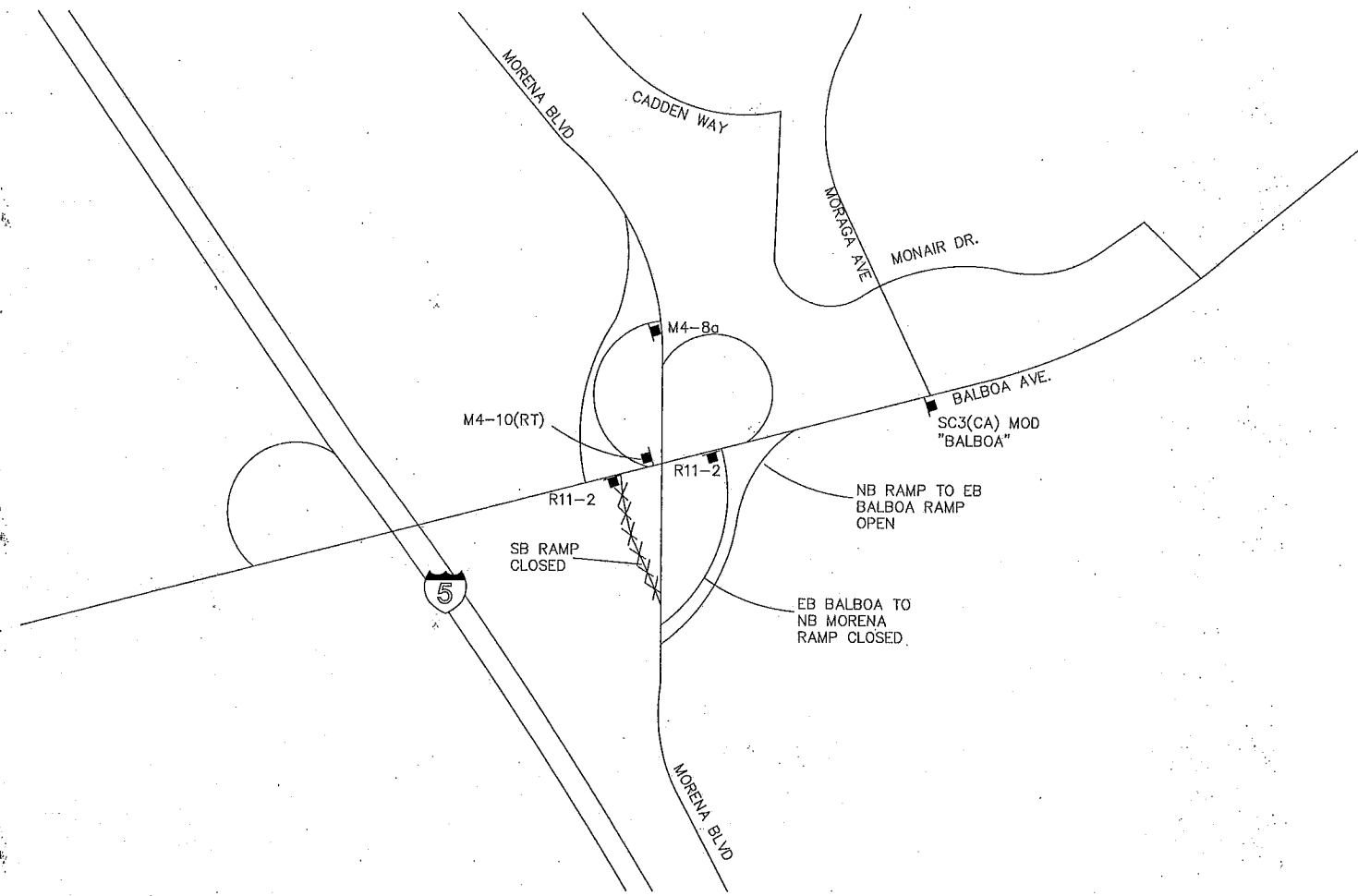


PLANS PREPARED UNDER THE SUPERVISION OF:  
*Bill E. Darnell* 2/13/2012  
DATE  
BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13  
Darnell & ASSOCIATES, INC.  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373  
DWG NAME: 110201TC-E1.dwg | DATE: 2-13-12 | BY: JMM

100%  
SUBMITTAL

<b>BALBOA TERRACE TRUNK SEWER</b>				TC-4
<b>TRAFFIC CONTROL PLANS</b>				
<b>STAGE 3 - BALBOA AVENUE</b>				
<b>STA. 1+00 TO STA. 6+75</b>				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 4 OF 10 SHEETS		WATER VBS N/A SEWER VBS S-12035		
<i>Mohamed Elmaghrabi</i> 02/13/2012 DATE		JMM HACHGOUY ASSOCIATE ENGINEER		
BRIAN VITELLE PROJECT ENGINEER		CCS27 COORDINATOR		
CCS27 COORDINATOR		CCS27 COORDINATOR		
30360-T4-D				

# STAGE 3 DETOUR FOR MORENA BLVD SB/NB RAMP CLOSURES




### LEGEND

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)
- CHANGEABLE MESSAGE SIGN

TC-5

<b>BALBOA TERRACE TRUNK SEWER</b>			
DETOUR PLAN FOR STAGE 3 NB MORENA BLVD TO EB BALBOA			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 3 OF 10 SHEETS		WATER VBS: N/A SEWER VBS: S-12035	
APPROVED BY: <i>Armed Hernandez</i> 02/13/2012		DESIGNED BY: JIM HAGGOUY ASSOCIATE ENGINEER	
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		COORDINATOR: CCS27 COORDINATE	
CONTRACTOR: _____		DATE STARTED: _____	
INSPECTOR: _____		DATE COMPLETED: _____	
		<b>30360 T5-D</b>	



PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012  
DATE

BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
2070 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

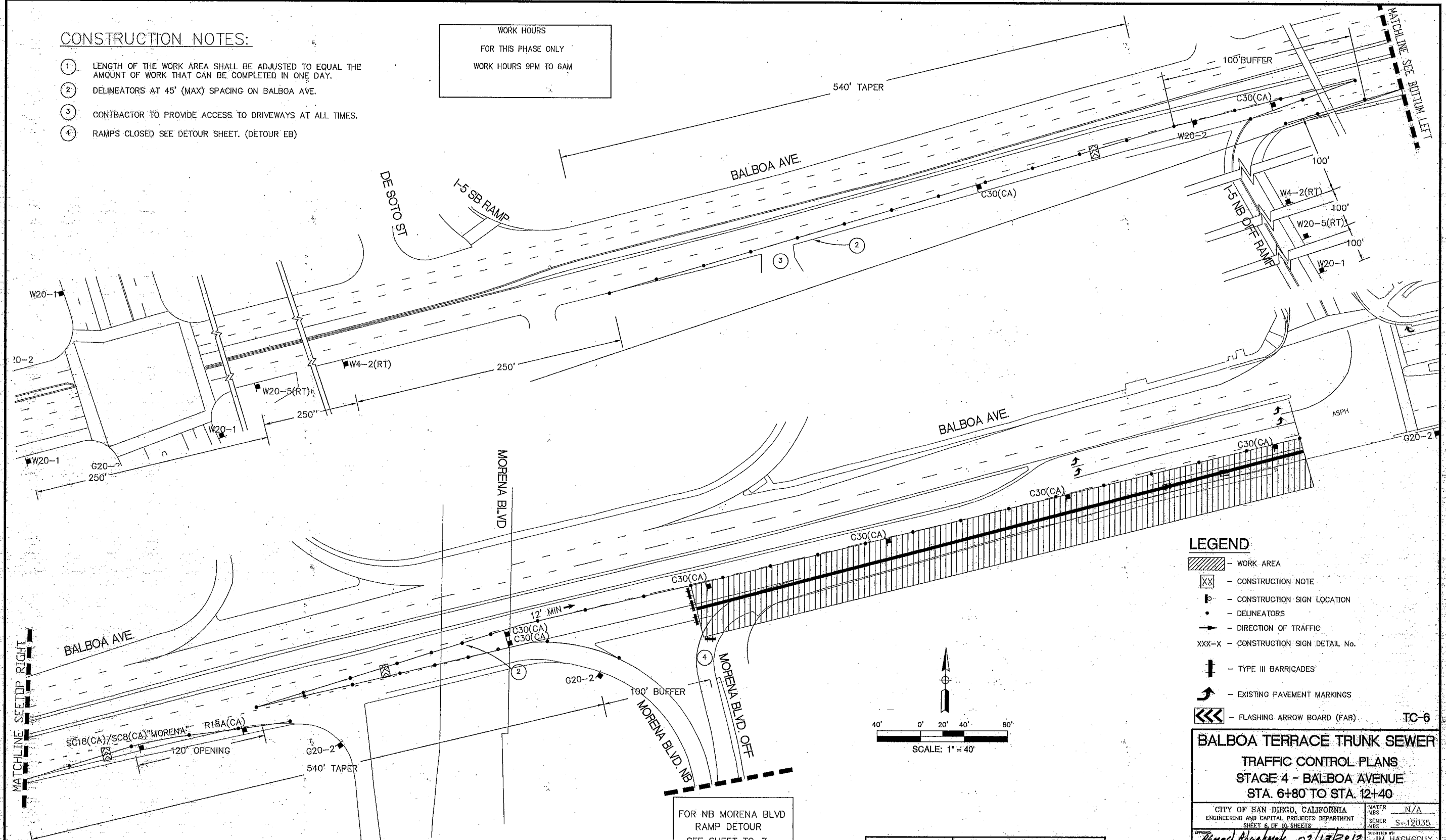
DWG. NAME: 11020TC-E1.dwg | DATE: 2-3-12 | BY: JMU

100%  
SUBMITTAL

**CONSTRUCTION NOTES:**

- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.
- ④ RAMPS CLOSED SEE DETOUR SHEET. (DETOUR EB)

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



FOR NB MORENA BLVD  
RAMP DETOUR  
SEE SHEET TC-7

**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB) TC-6

**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 4 - BALBOA AVENUE  
STA. 6+80 TO STA. 12+40**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 6 OF 10 SHEETS		WATER SEWER SUBS S-12035	N/A
APPROVED BY: <i>James Bushnell</i> 02/13/2012		DESIGNED BY: JIM HACHGOUY ASSOCIATE ENGINEER	CHECKED BY: BRIAN VITELLE PROJECT ENGINEER
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	D&A		
CONTRACTOR			DATE STARTED
INSPECTOR			DATE COMPLETED
CCSE7 COORDINATE			CCSE7 COORDINATE
30360-T6-D			

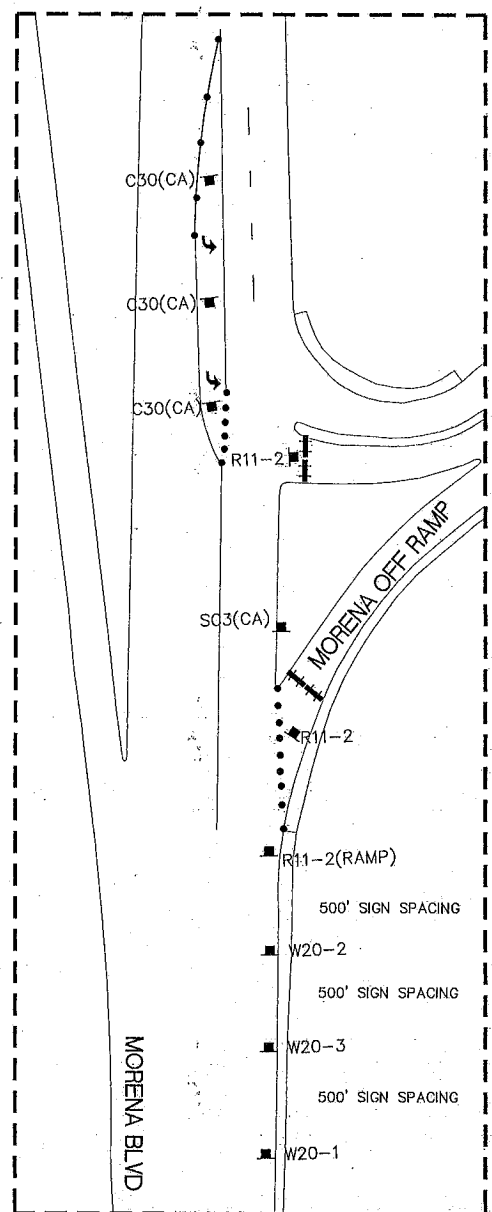
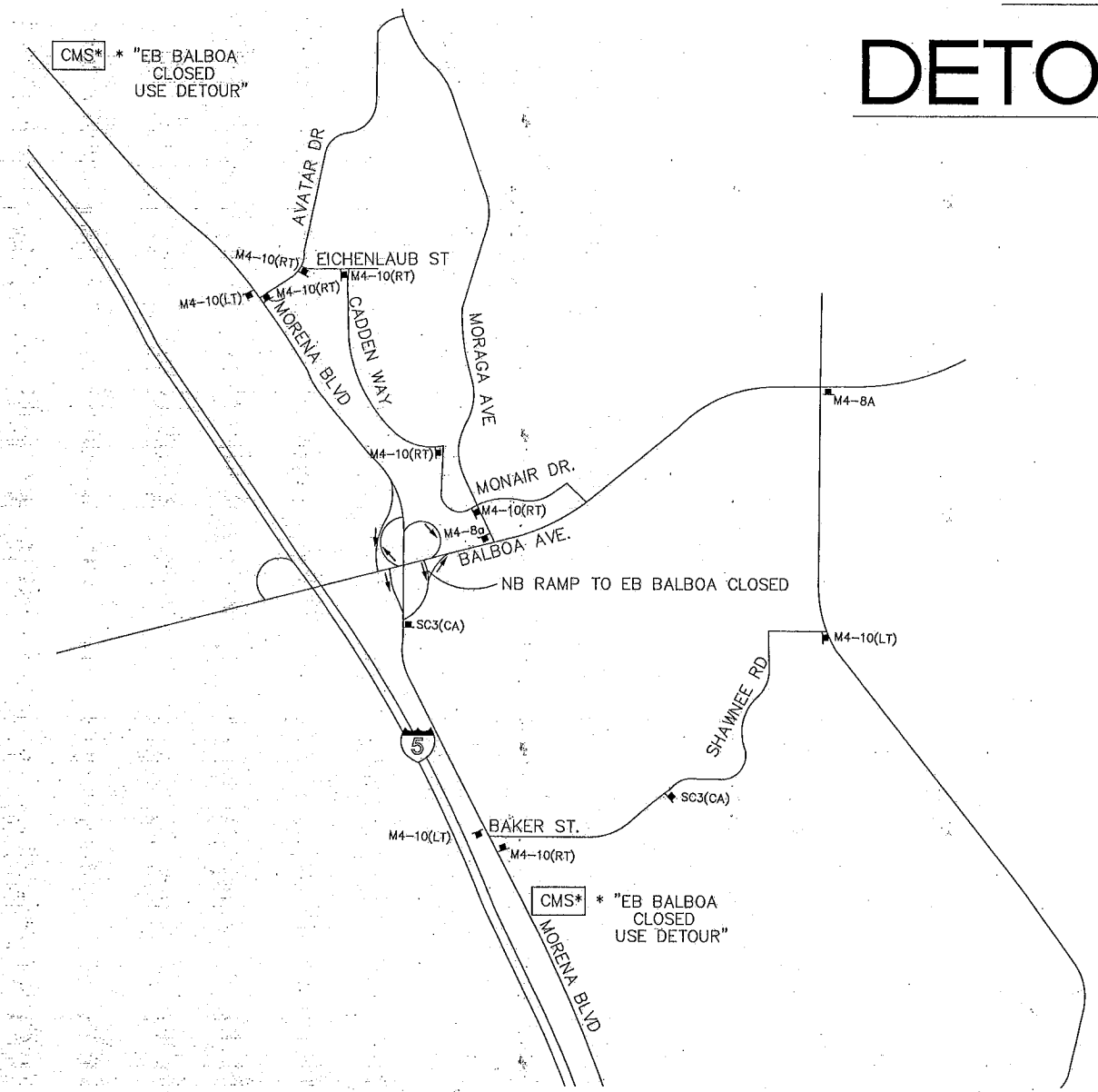
PLANS PREPARED UNDER THE SUPERVISION OF:  
*Bill E. Darnell* 2/13/2012  
DATE  
BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373  
DWG NAME: 110201TC-El.dwg | DATE: 2-3-12 | BY: JMM

100%  
SUBMITTAL



# STAGE 4 DETOUR EB RAMP

## DETAIL A



### LEGEND

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- CONSTRUCTION SIGN DETAIL NO.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)
- CHANGEABLE MESSAGE SIGN

TC-7

### BALBOA TERRACE TRUNK SEWER DETOUR PLAN FOR STAGE 4 - EB BALBOA AVE - NB AND SB MORENA BLVD RAMP CLOSURES

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 7 OF 10 SHEETS		WATER VBS: N/A SEWER VBS: S-12035
APPROVED BY: <i>James Haghgouy</i> 02/13/2012		SUBMITTED BY: JIM HAGHGOUY ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	DAE	
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		CCSB7 COORDINATE
CONTRACTOR		CCSB3 COORDINATE
INSPECTOR	DATE STARTED	30360-T7-D
	DATE COMPLETED	

PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012  
DATE

BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
2670 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

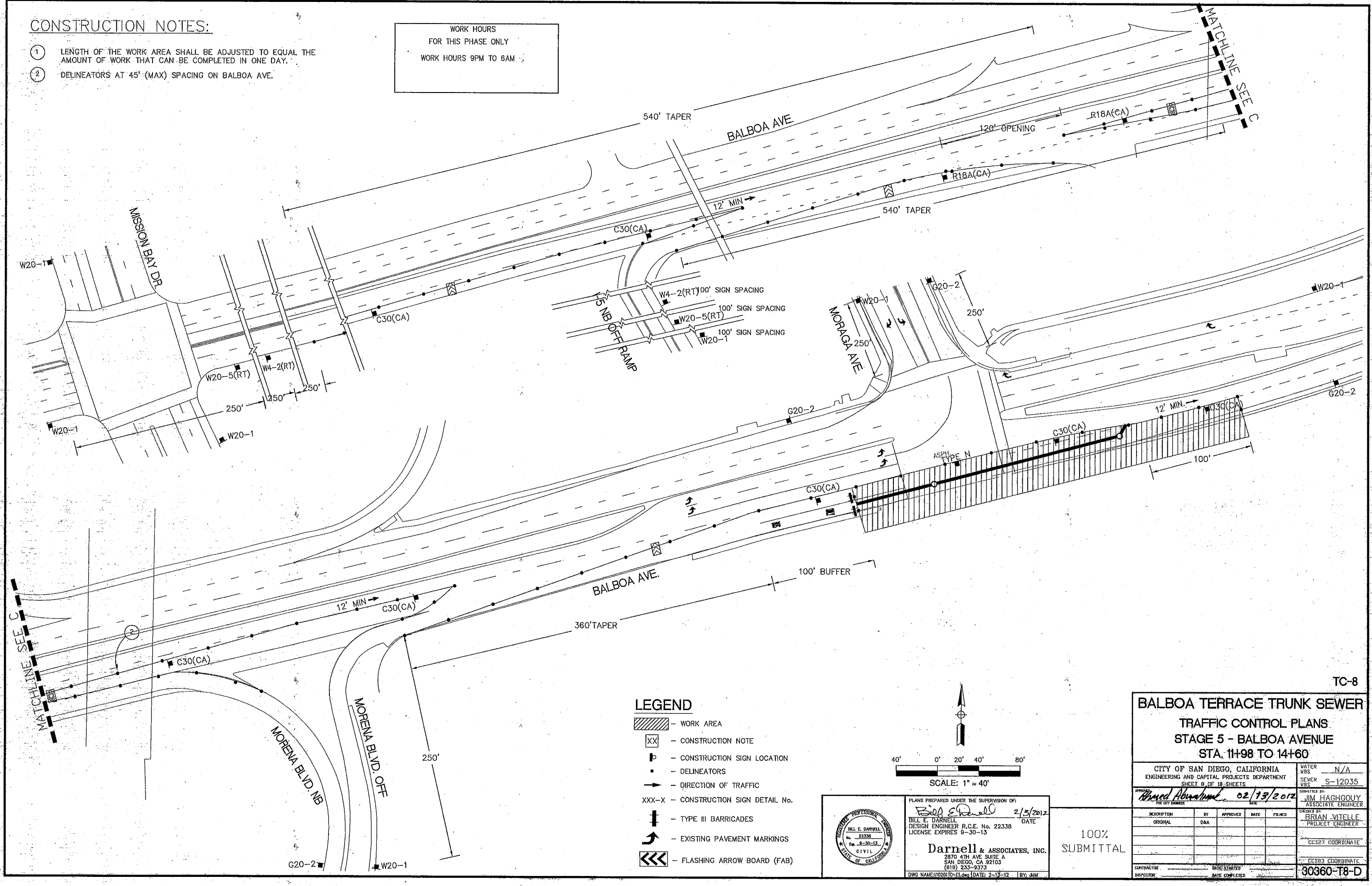
DWG NAME: 10201TC-FL.dwg | DATE: 2-3-12 | BY: JMM

100%  
SUBMITTAL

**CONSTRUCTION NOTES:**

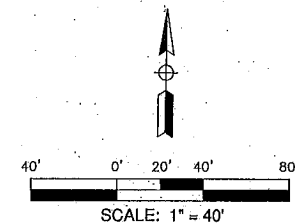
- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.

**WORK HOURS**  
 FOR THIS PHASE ONLY  
 WORK HOURS 9PM TO 6AM



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)



PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012 DATE

BILL E. DARNELL  
 DESIGN ENGINEER R.C.E. No. 22338  
 LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
 2870 4TH AVE SUITE A  
 SAN DIEGO, CA 92103  
 (619) 233-9373

DWG NAME: 102010-FL-4 DATE: 2-13-12 BY: JIM

100%  
SUBMITTAL

TC-8

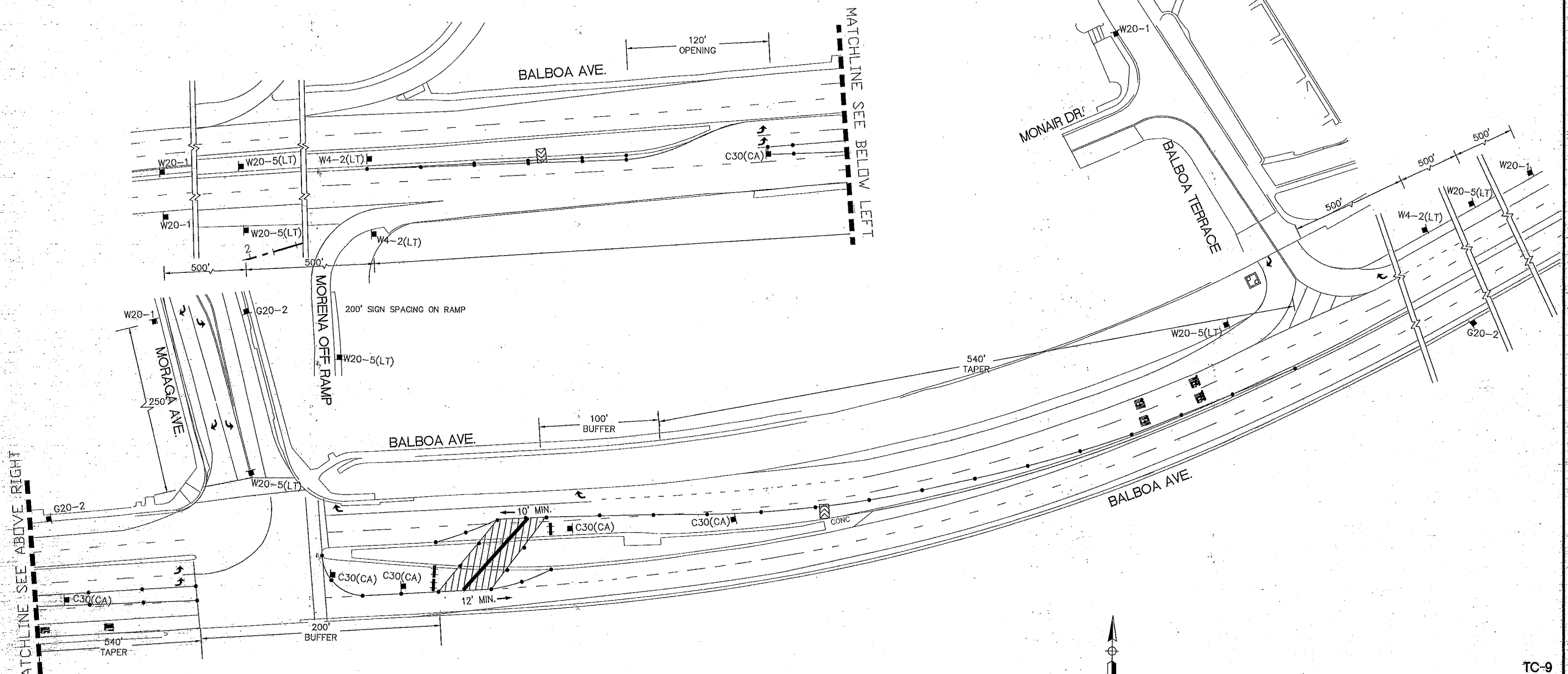
**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 5 - BALBOA AVENUE  
STA. 11+98 TO 14+60**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 9 OF 10 SHEETS		WATER VBS N/A SEWER VBS S-12035	
APPROVED: <i>Alfred Abad</i> 02/13/2012 DATE		SUBMITTED BY: JIM HAGHGOULY ASSOCIATE ENGINEER	
DESIGNED BY: <i>Bill E. Darnell</i>		CHECKED BY: BRIAN VITELLE PROJECT ENGINEER	
BY: DAA		DATE: _____	
APPROVED: _____		DATE: _____	
CONTRACTOR: _____		DATE STARTED: _____	
INSPECTOR: _____		DATE COMPLETED: _____	
		CCSP7 COORDINATE	
		CCS83 COORDINATE	
		<b>30360-T8-D</b>	

**CONSTRUCTION NOTES:**

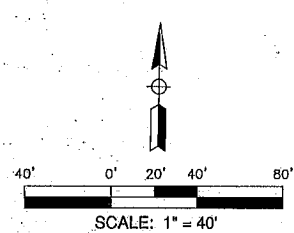
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- XXX-X - CONSTRUCTION SIGN DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)



TC-9

**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 6 - BALBOA AVENUE  
STA. 14+50 TO 15+40**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 9 OF 12 SHEETS		WATER VBS - N/A SEWER VBS - S-12035
APPROVED: <i>Jim Haghighi</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HAGHIGHI ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	DBA	
CHECKED BY: BRIAN VITELLE PROJECT ENGINEER		DATE
		FILED
		CCS27 COORDINATE
		CCS83 COORDINATE
CONTRACTOR	DATE STARTED	30360-T9-D
INSPECTOR	DATE COMPLETED	

PLANS PREPARED UNDER THE SUPERVISION OF:

*Bill E. Darnell* 2/3/2012  
DATE

BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
SAN DIEGO, CA 92103  
(619) 233-9373  
LICENSE EXPIRES 9-30-13

**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373

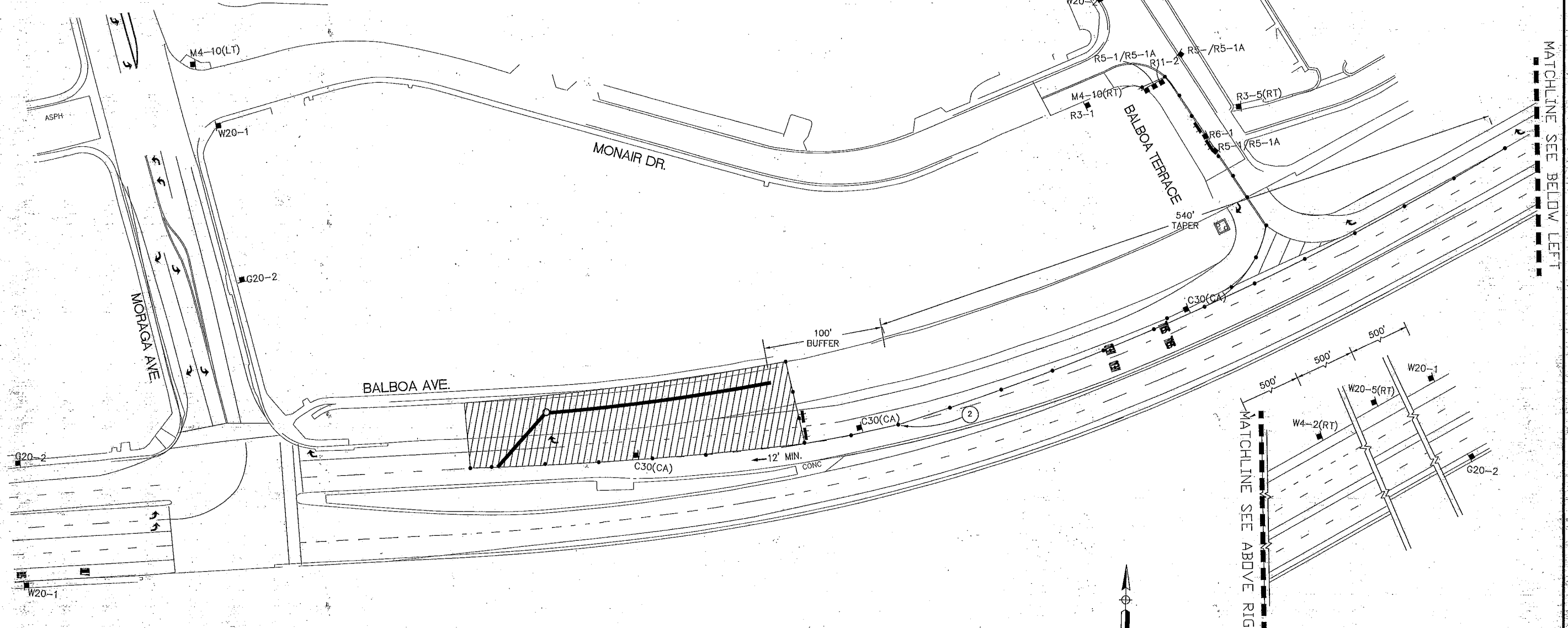
DWG NAME: 110281TC-E | DATE: 2-3-12 | BY: JMN

100%  
SUBMITTAL

**CONSTRUCTION NOTES:**

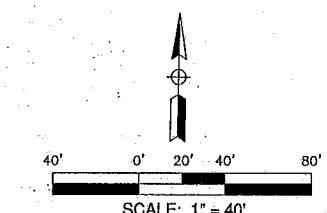
- ① LENGTH OF THE WORK AREA SHALL BE ADJUSTED TO EQUAL THE AMOUNT OF WORK THAT CAN BE COMPLETED IN ONE DAY.
- ② DELINEATORS AT 45' (MAX) SPACING ON BALBOA AVE.
- ③ CONTRACTOR TO PROVIDE ACCESS TO DRIVEWAYS AT ALL TIMES.

WORK HOURS  
FOR THIS PHASE ONLY  
WORK HOURS 9PM TO 6AM



MATCHLINE SEE BELOW LEFT

MATCHLINE SEE ABOVE RIGHT



**LEGEND**

- WORK AREA
- CONSTRUCTION NOTE
- CONSTRUCTION SIGN LOCATION
- DELINEATORS
- DIRECTION OF TRAFFIC
- CONSTRUCTION SIGN-DETAIL No.
- TYPE III BARRICADES
- EXISTING PAVEMENT MARKINGS
- FLASHING ARROW BOARD (FAB)

TC-10

**BALBOA TERRACE TRUNK SEWER  
TRAFFIC CONTROL PLANS  
STAGE 7 - BALBOA AVENUE  
STA. 15+40 TO 17+90**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 10 OF 10 SHEETS		WATER WBS: N/A SEWER WBS: S-12035
APPROVED: <i>Jim Haghighouy</i> 02/13/2012 FOR CITY ENGINEER		SUBMITTED BY: JIM HAGHIGHOUY ASSOCIATE ENGINEER
DESCRIPTION		DESIGNED BY: BRIAN VITELLE PROJECT ENGINEER
BY: D&A	APPROVED:	CCSP7 COORDINATE
DATE:	DATE:	CCS83 COORDINATE
FILED:	FILED:	30360-T10-D
CONTRACTOR: DATE STARTED: DATE COMPLETED:		INSPECTOR: DATE COMPLETED:

PLANS PREPARED UNDER THE SUPERVISION OF:  
**Bill E. Darnell** 2/13/2012  
DATE  
BILL E. DARNELL  
DESIGN ENGINEER R.C.E. No. 22338  
LICENSE EXPIRES 9-30-13  
**Darnell & ASSOCIATES, INC.**  
2870 4TH AVE SUITE A  
SAN DIEGO, CA 92103  
(619) 233-9373  
DWG NAME: 110201TC-E | DATE: 2-3-12 | BY: JHM

100%  
SUBMITTAL