

City of San Diego

CONTRACTOR'S NAME: _____
ADDRESS: _____
TELEPHONE NO.: _____ FAX NO.: _____
CITY CONTACT: MICHAEL NINH, 600 B Street Suite 800, MS 908A, San Diego, CA 92101
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NB/LJI/DS

CONTRACT DOCUMENTS FOR



WATER GROUP 914

VOLUME 1 OF 2

BID NO.: _____ K-12-5561-DBB-3-C
SAP NO. (WBS/IO/CC): _____ B-00125
CLIENT DEPARTMENT: _____ 2013
COUNCIL DISTRICT: _____ 2
PROJECT TYPE: _____ KB

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/>

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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	SLBE-ELBE Good Faith Documentations
9.	WITHIN 3 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTS	ALL BIDDERS	Proof of Valid DBE-MBE-WBE-DVBE Certification Status e.g., Certs.
10.	WITHIN 3 WORKING DAYS OF BID OPENING	ALL BIDDERS	Form AA60 – List of Work Made Available
11.	WITHIN 5 WORKING DAYS OF BID OPENING	APPARENT LOW BIDDER	Contractor Qualifications and References per Sections 807-1.6 and 807-1.7
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	Pre-Award Schedule (Phased Funded Contracts Only)

REQUIRED DOCUMENTS SCHEDULE

ITEM	WHEN	BY	WHAT
14.	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.
15.	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"> o Joint Venture Agreement o Joint Venture License
16.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Form BB05 - Work Force Report
17.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms - Agreement
18.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contract Forms - Payment and Performance Bond
19.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Certificates of Insurance and Endorsements
20.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - Drug-Free Workplace
21.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractor Certification - American with Disabilities Act
22.	WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS	APPARENT LOW BIDDER	Contractors Standards - Pledge of Compliance
23.	BY 5th OF EACH MONTH	CONTRACTOR	Form CC20 - Monthly Employment Report
24.	BY 5th OF EACH MONTH	CONTRACTOR	Form CC25 - Monthly Invoicing Report
25.	PRIOR TO ACCEPTANCE	CONTRACTOR	Form CC10 - Contract Change Order (CCO)
26.	PRIOR TO ACCEPTANCE	CONTRACTOR	Form CC15 - Final Summary Report
27.	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 EOCP 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 EOCP 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 EOCP 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:

28. 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.

29. 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.

30. 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.

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

32. Advertisements must state that assistance is available from the Bidder for SLBE-ELBE Subcontractors in obtaining necessary equipment, supplies, or materials.
33. Advertisements must state that assistance is available from the Bidder for SLBE-ELBE firms in obtaining bonding, lines of credit, or insurance.
34. 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 | 9.2% |
| 2. ELBE participation | 13.1% |
| 3. Total mandatory participation | 22.3% |
- 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 26, 2012** for performing work on the following project (Project):

WATER GROUP 914

- 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 of the 8-Inch, 12-Inch and 16-Inch water mains, water services, water valves, fire hydrants and markers, trench shoring, traffic control, pavement resurfacing, curb ramps and incidental work and appurtenances.

The Work shall be performed in accordance with:

- Bid No. **K-12-5561-DBB-3-C** and Plans numbered **36124-1-D** through **36124-53-D** and **T-1** through **T-16**, inclusive.

- 3. ENGINEER'S ESTIMATE:** The Engineer's estimate of the most probable price for this contract is in the range of **\$5,000,001 to \$6,000,000**.
- 4. LOCATION OF WORK:** The location of Work is Citywide unless specified otherwise as follows:

Communities of Peninsula and Ocean Beach

- 5. CONTRACT TIME:** The Contract Time for completion of the Work shall be **350 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

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 A.M., on April 10, 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. 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.
- 13. 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).

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 the 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 Projects 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.

- 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, SCOPE 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.

- 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 Department 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-responsible 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 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.

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.

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 his 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).

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/ 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:

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**.

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.

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 KTA CONSTRUCTION, INC., herein called "Contractor" for construction of WATER GROUP 914; Bid No. K-12-5561-DBB-3-C; in the amount of FOUR MILLION ONE HUNDRED THOUSAND DOLLARS AND 00/100 (\$4,100,000.00), which is comprised of the Base Bid.

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

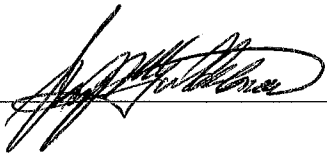
1. The following are incorporated into this contract as though fully set forth herein:
 - (a) The attached Faithful Performance and Payment Bonds.
 - (b) The attached Proposal included in the Bid documents by the Contractor.
 - (c) That certain documents entitled WATER GROUP 914, on file in the office of the City Clerk as Document No. B-00125, 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 WATER GROUP 914, Bid Number K-12-5561-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 Municipal Code §22.3610 authorizing such execution.

THE CITY OF SAN DIEGO

APPROVED AS TO FORM AND LEGALITY

By 

Jan I. Goldsmith, City Attorney
By 

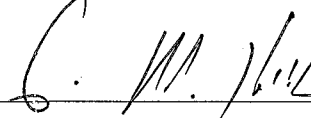
Print Name: Jay M. Goldstone, COO
Mayor or designee

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

Date: 8/29/12

Date: 9/6/12

CONTRACTOR

By 

Print Name: Paul M. Hennessey

Title: President

Date: 7-11-12

City of San Diego License No.: B 1995007394

State Contractor's License No.: 393234

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

FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:

KTA CONSTRUCTION, INC., a corporation, as principal, and The Guarantee Company of North America USA, 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 **FOUR MILLION ONE HUNDRED THOUSAND DOLLARS AND 00/100 (\$4,100,000.00)** for the faithful performance of the annexed contract, and in the sum of **FOUR MILLION ONE HUNDRED THOUSAND DOLLARS AND 00/100 (\$4,100,000.00)** for the benefit of laborers and materialmen designated below.

Conditions:

If the Principal shall faithfully perform the annexed contract **WATER GROUP 914, Bid Number K-12-5561-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

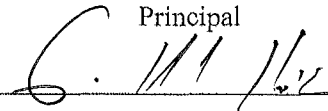
The Surety shall pay reasonable attorney's fees should suit be brought to enforce the provisions of this bond.

Dated July 10, 2012

Approved as to Form and Legality

KTA Construction, Inc.

Principal

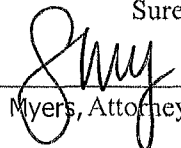
By 

Paul M. Hanarason
Printed Name of Person Signing for Principal

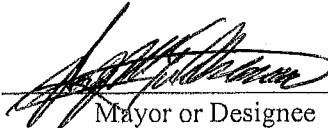
Jan I. Goldsmith, City Attorney

By 
Deputy City Attorney

The Guarantee Company of North America USA
Surety

By 
Sarah Myers, Attorney-in-fact

Approved:


Mayor or Designee

1800 Sutter Street, Suite 880
Local Address of Surety

Concord, CA 94520
Local Address (City, State) of Surety

(866) 364-6378
Local Telephone No. of Surety

Premium \$ 33,200.00

Bond No. 10274793

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

County of San Diego



On JUL 10 2012

Date

before me, Jennifer L. Cox

Insert Name of Notary exactly as it appears on the official seal

, Notary Public,

personally appeared Sarah Myers

Name(s) of Signer(s)



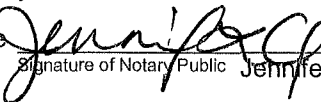
Place Notary Seal Above

who proved to me on the basis of satisfactory evidence to be the person(~~s~~) whose name(~~s~~) is/~~is~~ subscribed to the within instrument and acknowledged to me that ~~he~~/she/~~it~~/~~they~~ executed the same in ~~his~~/her/~~its~~/~~their~~ authorized capacity(~~ies~~), and that by ~~his~~/her/~~its~~/~~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



Signature of Notary Public Jennifer L. Cox

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 the 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: _____

Individual

Corporate Officer — Title(s): _____

Partner Limited General

Attorney in Fact

Trustee

Guardian or Conservator

Other: _____

RIGHT THUMBPRINT
OF SIGNER

Top of thumb here

Signer is Representing: _____

Signer's Name: _____

Individual

Corporate Officer — Title(s): _____

Partner Limited General

Attorney in Fact

Trustee

Guardian or Conservator

Other: _____

RIGHT THUMBPRINT
OF SIGNER

Top of thumb here

Signer is Representing: _____



THE GUARANTEE COMPANY OF NORTH AMERICA USA
Southfield, Michigan

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Lawrence F. McMahon, Maria Vhannenza Guise, Sarah Myers, Charlotte Aquino
Alliant Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon **THE GUARANTEE COMPANY OF NORTH AMERICA USA** as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of **THE GUARANTEE COMPANY OF NORTH AMERICA USA** at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner – Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 31st day of December 2003, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, **THE GUARANTEE COMPANY OF NORTH AMERICA USA** has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 18th day of January, 2011.



STATE OF MICHIGAN
County of Oakland

THE GUARANTEE COMPANY OF NORTH AMERICA USA

Stephen C. Ruschak, Vice President

Randall Musselman, Secretary

On this 18th day of January, 2011 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of said Company.



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2012
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by **THE GUARANTEE COMPANY OF NORTH AMERICA USA**, which is still in full force and effect.

IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this _____ day of **JUL 10 2012**



Randall Musselman, Secretary

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of San Diego

On July 11, 2012 before me, Brin Ragdale, Notary Public
(Here insert name and title of the officer)

personally appeared Paul M. Henderson

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.

Brin Ragdale
 Signature of Notary Public

(Notary Seal)



ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT
_____ (Title or description of attached document)
_____ (Title or description of attached document continued)
Number of Pages _____ Document Date _____
_____ (Additional information)

CAPACITY CLAIMED BY THE SIGNER
<input type="checkbox"/> Individual (s) <input type="checkbox"/> Corporate Officer _____ (Title)
<input type="checkbox"/> Partner(s) <input type="checkbox"/> Attorney-in-Fact <input type="checkbox"/> Trustee(s) <input type="checkbox"/> Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document

CONTRACTOR CERTIFICATION

DRUG-FREE WORKPLACE

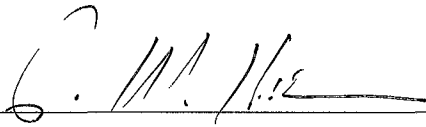
PROJECT TITLE: WATER GROUP 914

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;

KTA CONSTRUCTION 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 PAUL M. ANDERSON
Title PRESIDENT

CONTRACTOR CERTIFICATION

AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

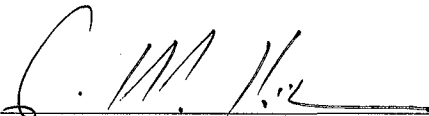
PROJECT TITLE: WATER GROUP 914

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;

KTA CONSTRUCTION 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 PAUL M. HENDERSON
Title PRELIMINARY

CONTRACTOR CERTIFICATION

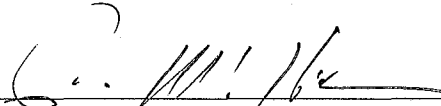
CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

PROJECT TITLE: WATER GROUP 914

I declare under penalty of perjury that I am authorized to make this certification on behalf of KTA CONSTRUCTION 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 11th Day of July, 2012.

Signed 

Printed Name Paul M. Henderson

Title PRESIDENT

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:

WATER GROUP 914

(Name of Project)

as particularly described in said contract and identified as Bid No. **K-12-5561-DBB-3-C; SAP No. (WBS/IO/CC) B-00125**; and **WHEREAS**, the specifications 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 _____, 2_____.

by _____ Contractor

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.

PHASED FUNDING SCHEDULE AGREEMENT

Check one:

- First Phased Funding Schedule Agreement
 Final Phased Funding Schedule Agreement

NOTE:

THIS IS A SAMPLE PHASED FUNDING SCHEDULE AGREEMENT FORM.

Particulars left blank in this sample, the total number of phases, and the amounts assigned to each phase will be filled with funding specific information as the result of the Pre-Award Schedule, and subsequent Schedules, required by these Bid Documents and approved by the City.

BID NUMBER: K-12-5561-DBB-3-C

CONTRACT OR TASK TITLE: WATER GROUP 914

CONTRACTOR: _____

Funding Phase	Phase Description	Phase Start	Phase Finish	Not-to-Exceed Amount
1				\$
	<u>Additional phases to be added</u>			
	<u>to this form as necessary.</u>			
Total				\$

Notes:

- (1) City Supplement 9-3.6, "PHASED 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 PHASED 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:** _____

By: Michael Ninh, Public Works-Engineering Department **By:** _____
 Project Manager & Department Name

Date: _____ **Date:** _____

- END OF PHASED FUNDING SCHEDULE AGREEMENT -

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.

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.

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 EOCIP 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.

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

The number of days as stated in the Contract Documents for the completion of the Work. The accounting for Contract Time starts with the Pre-construction meeting date.

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.

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

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

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.

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 50 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.

2-5.4.2 Asset Specific Red-lines (d). ADD the following:

- Dimensional changes to the drawings.
- Revisions to details shown on drawings.
- Depths of foundations below first floor.
- Locations and depths of underground utilities.
- Revisions to routing of piping and conduits.
- Revisions to electrical circuitry.
- Actual equipment locations.
- Duct size and routing.
- Locations of concealed internal utilities.
- Changes made by Change Order.
- Details not on original Plans.

ADD the following:

- h) Slurry Seal and Asphalt Overlay Red-Lines: The Contractor shall clearly record on the City provided forms in MS Excel format the actual dates and quantity of each Bid item applied to each street segment and comments regarding each segment. The Contractor shall record reasons if no work is performed.

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 November 4, 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/>

2-9.1 Permanent Survey Markers. DELETE in its entirety and SUBSTITUTE with the following:

The Contractor shall notify the Engineer or the owner on a Private Contract, at least 7 days before starting the Work to allow for the preservation of survey markers, survey monuments, lot stakes (tagged), and benchmarks. The Engineer or the owner on a Private Contract, will, at its cost, file a Corner Record Form referencing survey monuments subject to disturbance in the Office of the County Surveyor prior to the start of construction and also prior to the completion of construction for the replacement of survey monuments. The Contractor shall not disturb or permanently cover survey markers, survey monuments, lot stakes (tagged), or benchmarks without the consent of the Engineer or the owner on a Private Contract. The Contractor shall bear the expense of uncovering and replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Registered Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the State of California. When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 days of finished paving unless otherwise specified in the Special Provisions.

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.

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.prismcompliance.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.

SECTION 3 – CHANGES IN WORK

3-2.2.1 General. To The City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

3-2.2.1 General. Bid unit prices for additional temporary resurfacing, bedding, imported backfill, shoring, water services, abandoned water services i.e., water stiffes, water pollution control items, thrust blocks and anchor blocks for 16” water mains, highlining removed by contractor, pavement restoration for city forces final connection, house connection sewer, point repair for existing sewer main, additional point repair for existing sewer main, sewer lateral connection, and sewer lateral lining shall not be subject to adjustments regardless of quantity used or if none used

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

4-1.5 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 later than 5 Working Days after the determination of the Apparent Low Bidder** and on a City form when provided by the City.
- 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.

ADD: 4-1.11 Street Lighting And Traffic Signal Materials List. The Contractor shall be responsible for furnishing a Notice of Materials to Be Used at the preconstruction meeting. The list of materials shall identify Bid item number for which the material is to be incorporated, category of material to be supplied, and the name and address where the material can be inspected at the source where it is produced, not the Site. The Notice of Materials to Be Used shall include the following categories of material: signal poles, signal equipment and fixtures, foundation reinforcing steel, conduit, pull boxes, and conductor or cable. The Notice of Materials to Be Used form is provided in the Contract and shall be used to provide the required material information.

Certificates of Compliance conforming to 4-1.5, "Certificate of Compliance" are required for the major construction material categories identified above. A sample Certificate of Compliance is provided in the Contract. Certificates shall be furnished, to the Engineer, before the material is brought on the Site.

The payment for the material certification process shall be included in the lump sum price for the traffic signal system or be distributed in individual bid items if no lump sum quantity is identified in the bidding documents.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

6-1.2 Commencement of Work. To the GREENBOOK and 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 listed here:

No Work shall be allowed all across the project in the areas of:

- a) Summer Moratorium, Along Sunset Cliffs Blvd, from Memorial Day to Labor Day (**inclusive**).

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. Sunset Cliffs Boulevard

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: 6-7.4 Project Phasing. This project shall be constructed in accordance with the water high lining phasing shown on the Plans and in 3 phases as follows:

Phase I:

- a) Point Loma Ave, Bermuda Ave, Pescadero Ave and Orchard Ave from Froude St to Cable St.
- b) Ebers St from Orchard Ave to Del Monte Ave

Phase II:

- a) Point Loma Ave, Bermuda Ave, Pescadero Ave, from Santa Barbara to Savoy Circle
- b). Coronado Ave from Ebers St to Froude St
- c). Coronado Ave from Santa Barbara St to Catalina Blvd
- d). Froude St from Santa Cruz Ave to Del Mar Ave
- e). Savoy Circle from Point Loma Ave to Bermuda Circle

Phase III:

- a). Sunset Cliffs Blvd from Coronado Ave to Narrangasett Ave
- b). Coronado Ave from Sunset Cliffs Blvd to Ebers St
- c). Del Monte Ave from Ebers St to Froude St

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)
 - 4. 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)
- d) The Contractor shall involve the manufacturer in the installation and startup as needed to secure any extended warranty required.
- e) 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.
- f) 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.
- g) 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.
- h) 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.
- i) 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.
- j) 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:

<u>General Annual Aggregate Limit</u>	<u>Limits of Liability</u>
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.

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.

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.

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.

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.

Based on a preliminary assessment by the City, this contract is subject to **WPCP**.

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

7-10.2.6 Traffic Control Signs and Notices for Resurfacing and Slurry Sealing. To the first paragraph of the City Supplement ADD the following:

For each street segment in addition to resurfacing and slurry sealing, the Contractor shall be posted "NO PARKING" for any required preparatory work such as, but not limited to, damaged asphalt pavement replacement (mill & pave), crack seal, and tree trimming.

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.

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: 7-21 ELECTRONIC COMMUNICATION. The Contractor shall post all communications addressed to the Engineer concerning construction including RFIs, submittals, 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 207 – PIPE

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.

SECTION 213 – ENGINEERING FABRICS

213-1.1 General. To The City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

ADD: 213-1.1 General.

The Work shall consist of furnishing and installing a fiberglass/polyester interlayer-paving mat, i.e., TruPave Paving Mat, manufactured by Owens Corning or an approved equal, meeting these specifications and as shown on the Plans and Specifications. The paving mat shall be constructed of a wet-formed **nonwoven** material consisting of at least 60% fiberglass (by weight), the remainder comprised of polyester and binder. The material shall have a minimum average roll value (MARV) unit weight of 3.69 oz./sq. yd. (123 g/m²). The material shall be resistant to chemicals, mildew and rot, and shall not have any tears or holes that will adversely affect the in-situ performance and physical properties of the installed material. The paving mat shall meet the physical requirements in Table 213-1.1(A). Where a conflict exists between the specifications, the more stringent specification will apply. A copy of the manufacturer’s specifications shall be provided to the engineer at the preconstruction meeting or no later than 5 working days prior to installation.

Table 213-1.1(A)

PHYSICAL PROPERTIES OF ENGINEERED PAVING MAT

Property	Test Method	Units	Typical Value
Mass per unit area	ASTM D5261	g/m ² (oz	136 (4.0)
Tensile strength, MD	ASTM D50351	N/50 mm (lb/2 in)	>200 (45)
Tensile strength, CD	ASTM D5035	N/50 mm (lb/2 in)	>200 (45)
Elongation at maximum load, MD	ASTM D5035	percent	<5
Elongation at maximum load, CD	ASTM D5035	percent	<5
Melting point	ASTM D276	C (F)	>230 (>446)

*MARV = Minimum Average Roll Value
 Note: Conditions for tensile strength measurements:
 Sample width: 50 mm Sample length: 250 mm
 Gage length: 175 mm Crosshead speed: 50 mm/min

SECTION 216 – DETECTABLE WARNING TILES

216-1.2 Materials. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

Materials for DWT specified herein shall be per the City's Approved Materials List (AML). The tiles shall extend to the full width of the ramp (3' x 4' minimum) and shall have the manufacturer's logo stamped permanently on the product with identifying information such as model number and type.

The Stainless Steel Cast in Place DWT shall be of 16 gauge Type 304L with an integral micro-texture non-slip surface stamped into the stainless steel plate on the top of the domes and in the field surface between the domes. It shall have an ultra violet stabilized coating.

- a) Vitrified Polymer Composite (VPC) Cast in Place DWT shall be an epoxy polymer composition with an ultra violet stabilized coating employing aluminum oxide particles in the truncated domes. VPC Product shall be provided with a 5-year manufacturer written warranty form materials and installation.
- b) For others materials and a complete listing of material physical property requirements refer to the City's AML.

PART 3 – CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

300-1.4 Payment. To the City Supplement, First and Second paragraph DELETE in its entirety and SUBSTITUTE with the following:

Payment for the removal and disposal of existing pavement beyond 12” thick, within the excavation e.g., trench limits, shall be included in the Bid item for Additional Pavement Removal and Disposal, and no additional payment shall be made regardless of the total thickness and composition of existing pavement removed and disposed.

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

SECTION 302 – ROADWAY SURFACING

302-1.9 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.

302-4.1 Material. DELETE in its entirety and SUBSTITUTE with the following:

Material shall be Rubberized Emulsion-Aggregate Slurry (REAS) in accordance with 600-3.2 “Materials.”

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" for concrete streets or 302-5.9 "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 full depth AC per CSDSD SDG-107-Type "A".

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.

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.

302-13.5 Payment. To The City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

302-13.5 Payment. Payment for Crack Sealing including weed spray, cleaning, and sealing shall be included in the Bid item for Crack Seal unit price per pound. Payment for the weight of crack seal shall be obtained from daily Certified Weighmaster Certificates. The Contractor shall also present daily Weighmaster Certificates for the amount of such material remaining unused at the completion of the work at no cost to the Agency. Payment will be determined by deducting the amount of the unused material from the total amount of material delivered.

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

303-5.1.4 Historical Stamps and Impressions. To the City Supplement, second paragraph, DELETE last sentence.

303-5.10.2 Payment. To the City Supplement, 2nd 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

306-1.2.14 Thrust Blocks and Anchor Blocks. To the City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

At least 10 Working Days prior to construction of thrust blocks and anchor blocks for 16" and larger water mains, the Contractor shall excavate via potholing and expose the soil to the depth of the proposed water main at locations approved by the Engineer. The Engineer will confirm the design when shown on the Plans or will provide the design details within 10 Working Days after the Engineer has observed the exposed Site.

If there are conflicts with adjacent utilities that prohibit the installation of the concrete blocks, the Contractor shall immediately notify the Engineer.

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.

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.”

306-20 HORIZONTAL DIRECTIONAL DRILLING (HDD). To The City Supplement, ADD the following:

References to sewer construction shall not be applicable when HDD is intended for water installation.

306-20.8 CARRIER PIPE. To The City Supplement, DELETE in its entirety and SUBSTITUTE with the following:

ADD: 306-20.8 CARRIER PIPE. Carrier pipe materials shall be approved by the Engineer. The Contractor shall use only fusible polyvinylchloride (PVC) pipe. The Contractor shall furnish and install a continuous, monolithic, gasket-free, leak-free joint and fully restrained fusible PVC pipe system for installation by horizontal directional drilling. The Contractor shall be responsible for the sizing of the carrier pipe to withstand all installation forces, curvature, and residual forces and final in place loading. The selected material shall have an inside diameter no less than stated on the drawings. Contractor shall refer to Appendix “I” for additional requirements relevant to HDD carrier pipe.

306-23 PRESSURE REDUCING STATION (PRS). To The City Supplement, ADD the following:

Pressure Reducing Station shall include pre-cast concrete vault, vault hatch, pressure reducing valves, all piping, valves and appurtenances, see the Pressure Reducing Station details on Sheet 36124-45-D through 36124-46-D of the Plans.

The initial settings for the pressure reducing valves are shown below. The Contractor shall coordinate the final settings with the City Water Operations staff.

STATION	VALVE ELEVATION	UPSTREAM HGL	DOWNSTREAM HGL
Froude St & Orchard Ave	140	330	462
Froude St & Alley	170	330	462

The Lump Sum price for the Pressure Reducing Station shall include full compensation for all materials and labor needed to complete installation per the Specifications, Standard Drawings, and Construction Plans, sheets 36124-45-D through 36124-46-D and no additional payment will be allowed therefore.

ADD: 306-23.1 Pressure Reducing Valves

The Contractor shall provide pressure reducing valves indicated, complete and operable, with all accessories.

The Contractor shall furnish submittals in accordance with Section 2-5.3 of the Standard Specifications for Public Works Construction (GREENBOOK). Pressure reducing valves shall be installed in accordance with the manufacturer’s written instructions.

PART 7 – WATER WORKS

SECTION 700 – WORK INVOLVING THE CITY FORCES.

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

700-1 CITY FORCE WORK.

700-1.1 General.

- a) This subsection covers items of Work that involve coordination with and the services provided by the City Forces. The Contractor shall provide those services that are typically provided by the City Forces, in accordance with the applicable Specifications here if:
 - 1. additive alternates are awarded, or
 - 2. those services are shown on the Plans or in the Bridging Documents.

- b) The City Forces or the Contractor will be responsible for providing the residents with water service, by means of high-lining (i.e., temporary above ground supply lines), during construction as shown on the Plans.
- c) Only City Forces will isolate the water system, and perform all shutdowns by closing valves on water mains. Trial shutdowns will be performed by the City at all shutdown locations.
- d) The City's Public Utilities Department, (619) 527-7423, shall be notified by the Contractor 20 Working Days prior to beginning of Work that involves high-lining, cutting and plugging of, or making connection to the exiting water mains. The beginning of the Work shall be scheduled at the pre-construction meeting. The City is responsible for cost of the City Forces work. The Engineer will coordinate all interactions between the Contractor and the City Water Operations Division, the City Water Quality Laboratory, and other City organizations.
- e) The Work shall be done in accordance with the applicable AWWA standards and State Department of Public Health codes.
- f) The Contractor shall reconnect existing fire services and fire hydrants, after the acceptance of the new water main. The Contractor shall re-energize fire services and shall coordinate the Work with the property owner(s). The Contractor shall reconnect water services to the meters.

700-1.2 High-lining.

700-1.2.1 High-lining by the City Forces.

700-1.2.1.1 Furnishing Materials. If required in the Contract Documents and a separate Bid item is provided for Contractor furnished materials for City Force's highline work, the Contractor shall furnish the necessary materials for the City Forces' highline work as shown on the Plans to the City. The Contractor shall coordinate closely with the City Forces for the delivery of materials. The delivery location for furnished materials shall be determined by the City Forces. No materials shall be delivered to the City until the City Forces are ready to construct their work. **Unless otherwise specified in the Contract Documents**, the City will retain the high-lining materials at the end of construction if the City performs the high-lining.

700-1.2.1.2 High-Lining Removed by the Contractor. If the City Forces are not available to remove the high-lining materials, the Engineer will direct the Contractor to pickup and deliver all the City high-lining materials to Water Operations Division at: Chollas Station, 2797 Caminito Chollas, San Diego, CA 92105.

The City's Water Utilities coordinator, (619) 527-7423, shall be contacted by the Contractor 5 Working Days before delivery of the high-lining material. After removal of high-lining materials, the Contractor shall repair all trenches created for the installation of the high-line and remove all excess temporary resurfacing materials. No high-lining materials shall be removed until the City Forces have disconnected the high-line from the water system.

700-1.2.1.3 Payment. The payment for the furnished material for the City Force high-line work shall cover materials (i.e., fittings, valves, and hardware) including delivery and unloading. The Contractor will be paid under the Bid item for "Contractor Furnished Materials for the City Forces High-line Work."

If the Contractor requests the City Forces to high-line in excess of what is shown on the Plans, those costs for high-lining will be borne by the Contractor and billed to the Contractor. Costs will be billed at the current hourly rates (loaded) according to the schedule available for the Public Utilities Department.

If high-lining by Contractor is awarded under “Additive Alternate,” payment for high-lining removed by Contractor shall be included in the unit price bid for “High-lining by the Contractor”. Otherwise, if the City Forces install the high-line system and the Contractor is requested to remove the high-lining and deliver at the City designated location, payment shall be in accordance with the unit price bid for “High-lining Removed by Contractor” in the base Bid.

700-1.2.2 High-lining by the Contractor. When required, the Contractor shall bypass sections of the existing water main line with a temporary above-ground supply line (high-line) as shown on the Plans and in phases shown on the Schedule.

- a) The Contractor shall furnish all high-line materials.
- b) The Contractor shall provide the Engineer a schedule for the high-line work at least 20 working days prior to work required by the City Forces (e.g., connections or disconnects).
- c) Contractor shall phase the Project such that all structures in the area are within 1,000 feet of an active fire hydrant, measured using streets, private roads, or other routes driven by emergency vehicles. Phases are required so that the high-line provides sufficient water pressure to affected properties.
- d) The Work includes shutoff valves at intersections to isolate sections of the high-line if there is a leak or break to minimize the water service shutdowns.
- e) The high-line system shall have a dual feed and provide continuous full service to connected water services until the new water main line is installed and in operation. The Work shall be coordinated, scheduled, and performed to minimize disruption of water services during installation and removal of the high-line system.
- f) The Contractor shall flush, disinfect, and leak test the high-line in accordance with the applicable codes and regulations prior to connection work beginning.
- g) The Contractor will perform connections to high-lining system and disconnects to meters and fire hydrants, after the City has verified the high-lining system has passed bacteriological testing.
Bacteriological sampling and testing will be performed by the City Water Quality Laboratory.
- h) The Contractor shall ensure proper installation, pressure control, or operation of the high-line to avoid damage to water users’ property and related public health and safety issues.
- i) The Contractor shall transfer the new fire services and water services to the meter after the new mains have been accepted. While making the transfers the Contractor shall, once service is interrupted, diligently pursue the required work until service has been fully restored.
- j) The Contractor shall notify the Engineer 5 Working Days prior to any work that will affect water service. The Contractor shall prepare and distribute, after approval by the City, written notification 3 Working Days prior to starting Work on any water main that will affect service. This notification shall be delivered door-to-door to water users in the affected area. A copy shall be delivered to the Engineer on the date of user notification.

For each service connection, the Contractor shall also notify the customer immediately prior to beginning work which will interrupt service and will again notify the customer immediately after the service is restored.

The Contractor shall notify all consumers with fire services 20 Working Days in advance of any shutdown.

- k) The Contractor shall dismantle and remove the high-line system from the Site, and restore streets, gutters, fire hydrants, and other disturbed facilities and surface improvements within 5 Working Days from the time the reconnections are completed.
- l) Parallel mains, fire services and water services which are not high-lined shall be connected to the meter by the Contractor only after the adjacent sections of the new main have been fully constructed, hydrostatic and chlorine residual tested, and certified acceptable by the Public Utilities Department.
- m) Cleanliness of the main shall not be compromised; otherwise, the Engineer will decide whether re-disinfection is required at the Contractor's expense.

Services shall be thoroughly flushed by the Contractor prior to restoration of water supply to customer's premises.

700-1.2.2.1 Reference Specifications, Codes, and Standards. Reference specifications, codes, and standards shall be the latest unless a specific code issue date, edition, or adoption date is specified.

- a) The Work shall be in accordance with the applicable parts of the following codes and safety regulations:
 - i. Uniform Fire Code.
 - ii. Uniform Mechanical Code.
 - iii. Uniform Plumbing Code.
 - iv. City of San Diego Water and Municipal Sewer Approved Materials List, where applicable.
 - v. State Department of Public Health (previously known as DHS), Office of Drinking Water publication titled, "Approved for Service Isolation in California Public Water Systems."
 - vi. Applicable the City, local, state, and federal codes and regulations.
- b) The Work shall be in accordance with the following commercial and industrial standards:
 - i. ANSI/AWWA C606 - Grooved and Shouldered Pipe Joints.
 - ii. ASTM A53 - Specification for Pipe, Steel, Black and Hot-Dipped Zinc Coated, Welded and Seamless.
 - iii. ASTM A123 - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - iv. ASTM A153 - Standard Specification for Zinc Coating (Hot-Dipped) on Iron and Steel Hardware
 - v. ASTM A307 - Specification for Carbon Steel Bolts and Studs, 6,000 PSI Tensile Strength.
 - vi. ASTM A395 & 536 - Specification for Snap-Joint Coupling grade 65 45-15 and grade 64-45-12 coating orange enamel.
 - vii. AWWA C511 - Standard for Reduced Pressure Principle Backflow Prevention Assembly.
 - viii. AWWA C651 - Disinfecting Water Mains

700-1.2.2.2 Submittals. Prior to the start of the Work, the Contractor shall submit the following in accordance with 2-5.3, “Submittals:”

- a) Itemized list of high-lining materials to be used, including information on:
 - i. which parts are new and which have been used before and,
 - ii. verification that used parts have only been used to convey potable water.
- b) Catalog data for all high-lining materials and components required.
- c) High-line system installation and detail drawings (i.e., shop and working drawings) prior to ordering or purchasing material.
- d) High-lining schedule prior to ordering or purchasing material of any part of the high-lining system.
- e) Traffic control drawings to Traffic Control Section and shall obtain a permit a minimum of 2 Working Days (5 Working Days when the work affects a traffic signal) prior to ordering or purchasing material of each phase of the high-lining system.

700-1.2.2.3 Quality Assurance. The high-lining system shall be flushed, tested for leaks, and disinfected in accordance with 700-1.2.2.7, “Start-Up Procedures” and shall pass the specified bacteriological tests prior to connection.

700-1.2.2.4 Materials. Materials may have been used previously, but shall be in good working condition, free of defect, and have only been used to convey potable water. The Contractor shall procure pipe, fittings, adapters, materials, and components required for a complete and operable high-lining system installation. Products and materials shall be suitable for the intended purpose and recommended by the manufacturer for the application intended. Hoses shall be used only at corners and curves and for connections to user’s service meter(s).

- a) Pipe. Pipes shall be fabricated largely in sections of 2” Galvanized steel pipe and conform to the following:
 - i. ASTM A53 or other equal ASTM galvanized pipe standard.
 - ii. Minimum wall thickness shall be Schedule 40 (0.154”).
 - iii. Pipe ends shall be machine cut or rolled for grooved couplings and fittings in compliance with ANSI/AWWA C606.
 - iv. Fittings and Couplings.
- b) Fittings and Couplings. Fittings shall be ductile iron. Fittings and couplings, including tees, wyes, elbows, , reducers, caps, plugs, and adapters, shall have standard flexible grooved mechanical joint connections in compliance with ANSI/AWWA C 606. Minimum pressure rating shall be 200 psig.
 - i. Housing material shall be ductile iron coated with the manufacturer’s standard painting system. Coupling gasket material shall be standard Ethylene-Polypropylene Diene Monomer (EPDM) rubber.
 - ii. Couplings shall be Victaulic Style 78 or approved equal.
 - iii. The branch outlet of reducing tees shall be 1” male pipe thread. Connections of standard tees shall be grooved.
 - iv. Grooved elbows with 11¼, 22½, 45 and 90-degree bend angles will be required to configure the high-line piping system to existing bends and contours at the Site.

- v. Manufacturers: Victaulic, Mech-Line, or approved equal.
- c) Meter connections.
- i. For meters up to 1” size, the connections shall be 90-degree, long radius, brass elbow couplings with a swivel meter nut on one end and male pipe threads on the other.
 - A. The swivel meter nut shall be sized to fit the specific meter. The male pipe thread end shall be fitted with a galvanized steel “Chicago” two (2)-lug, quarter-turn, quick disconnect hose fitting-to-female pipe thread fitting.
 - B. Manufacturers: James Jones Co., Ford Meter Box Co., Inc., or approved equal.
 - ii. For meters larger than 1”, the connections shall be elbows with a 2-bolt Class 125 flange on one end and female pipe threads on the other.
 - A. The flange shall be sized to fit the specific meter. The female pipe thread end shall be fitted with a short pipe thread to grooved connection adapter nipple.
 - B. Alternately, the assembly can be a 2-bolt Class 125 flange-to-male pipe thread fitting, a threaded pipe elbow, and a short pipe thread-to-grooved connection adapter nipple.
 - C. Manufacturers: James Jones Co., Ford Meter Box Co., Inc., or approved equal.
 - D. Bushings, reducers, and adapters. The City Forces will be responsible for all fit-up and connections in the system. The Contractor shall provide all bushings, reducers, and adapters required to connect the high-line system to the existing fire hydrants, meters, and other facilities at the Site. Bushings, reducers, and adapters shall be provided at no additional cost to the City.
 - E. Pipe-to-hose adapters. For 1” hoses, the adapter shall be a 1”, galvanized steel, “Chicago” 2-lug, quarter-turn, quick disconnect hose-to-female pipe thread fitting.
 - F. Fire hydrant-to-pipe connectors, the actual connection to the live fire hydrant shall be a brass or bronze 1.5” female fire hydrant thread to 2” male pipe thread fitting.
- d) Bolts and Fasteners. Bolts and fasteners, including bolts, nuts, and washers, shall meet the minimum requirements of ASTM A 307, and shall be hot dipped galvanized according to ASTM A 153. Bolts shall be installed with nuts face down.
- e) Valves.
- i. Pipe shutoff valves shall be 2”, lever handle, two-position, manual butterfly valves with grooved mechanical connections in compliance with ASTM C 606. Minimum pressure rating shall be 200 psig.
 - A. Housing material shall be ductile iron coated with the manufacturer’s standard painting system. Seal material shall be standard EPDM rubber.
 - B. Manufacturers: Victaulic, Mech-Line, or approved equal.

- ii. Curb stop valves shall be bronze full-port ball valves without handles.
 - A. Seats shall be molded Buna-N rubber or other approved material. The ball shall be Teflon-coated brass or bronze. Approved plastic ball materials will be considered as substitutes.
 - B. Size shall be 1-inch with female pipe thread connections. Other sizes and end connections may be required to accommodate specific user connections.
 - C. Manufacturers: James Jones Co., Ford Meter Box Co., Inc., A. Y. McDonald Mfg. Co., or approved equal.
- f) Hoses.
 - i. User connection (Service Meters).

For meters up to 1”, the hose shall be a 1” standard general service air compressor hose with EPDM cover and 300 WP rating. End connections shall be galvanized steel, “Chicago” 2-lug, quarter-turn, quick disconnect fittings banded to the hose.

Manufacturer: Thermoid, or approved equal.
 - ii. Curves and curbs.

Hose shall be 2” standard general service air compressor hose with EPDM cover and 300 WP rating. End connections shall be galvanized steel grooved mechanical end fittings in compliance with ASTM C606 banded to the hose.

Manufacturer: Thermoid, or approved equal.
- g) Check Valves.
 - i. Check valves shall be swing check type with grooved mechanical connections in compliance with ASTM C606. Minimum pressure rating shall be 200 psig.
 - ii. Housing material shall be ductile iron coated with the manufacturer’s standard painting system. Seal material shall be standard EPDM rubber.
 - iii. Manufacturers: Victaulic, Mech-Line, or approved equal.
- h) Backflow Preventers.
 - i. Shall meet the requirements of AWWA C511.
 - ii. Manufacturer and model shall be approved by Department of Public Health (previously known as DHS).
- i) Pressure Regulators.
 - i. If required, the Contractor shall provide 2” pipe size of bronze or ductile iron construction. Materials, coatings, seals, diaphragms, and trim shall be approved for potable water service. Connections shall be pipe threaded union couplings.
 - ii. Pressure ratings and regulation ranges shall be approved for the pressure zones involved.
 - iii. Manufacturer: Braukmann or approved equal.
- j) Temporary Asphalt (Coldmix). Temporary asphalt shall be provided by the Contractor on a unit price basis.

- k) Pipe Supports.
 - i. Shall be adjustable type and fabricated from galvanized carbon steel.
 - ii. Manufacturers: Grinnell, Tolco, or approved equal.

700-1.2.2.5 Construction.

- a) Authorization. The Contractor shall not order/purchase material of any part of the high-lining system without an approved submittal and written authorization by the Engineer.
- b) Workmanship.
 - i. Contractor workmanship shall meet the accepted standards of the trades involved.
 - ii. High-lining system shall be installed and maintained such that it is neat, orderly, and leak-free, and shall be arranged to minimize interference with or present a hazard to normal usage of streets, sidewalks, driveways, and other affected facilities.
 - iii. High-lining system shall be installed in such a manner that it does not cause flooding to the surrounding area.
 - iv. Excess materials and debris shall be removed from the Site by the end of the Working Day on which they are generated.
- c) Water Users Notification. The Contractor shall coordinate the Work to minimize the duration of water shutdowns and outages.
- d) Emergency Telephone.
 - i. The 24-hour Emergency Services telephone number which shall be listed in user notifications, imprinted on safety barricades, and posted in the Work area shall be the Contractor's emergency number.
 - ii. On receipt of notification of a problem in the work area, the Contractor shall immediately notify the Engineer and Water Operations Division (City Forces). In case of emergency e.g., life threat, the Contractor shall contact Emergency Services.
- e) Repair and Maintenance.
 - i. The Contractor shall maintain the temporary asphalt ("coldmix") protective ramps for the duration of the high-line installation. Coldmix damage discovered or reported shall be repaired that same day by the Contractor.
 - ii. The Contractor shall repair and maintain the high-line system during Normal Working Hours.
 - iii. The Contractor shall provide replacement parts needed for highline repairs. Leaks or damage shall be repaired within one hour of discovery or reporting. These repair criteria shall apply to leaks or damage arising for any reason, including vandalism and damage by Contractor personnel, equipment, or work activities.
 - iv. If the repair involves any disassembly of the system, the Contractor shall disinfect and flush the affected components according to AWWA C651. This will be done in the presence of the City Public Utilities Department, Water Operations Division employee familiar with the water system.

- v. Repair work shall be inspected and approved by the Engineer and the City Public Utilities Department, Water Operations employee familiar with the water system. At the sole discretion of the Engineer, the Contractor shall be billed separately for non-responsive or otherwise unacceptable repair and maintenance work that the City must do to restore any service.
- f) Problem Reporting. High-line system problems discovered or reported and corrective actions taken shall be documented in the Contractor's daily log and reported to the Engineer within 24 hours of the discovery or report.
- g) Traffic Control. The Contractor shall provide traffic control for all high-line work.
- h) Schedules and Timing.
 - i. The time required to furnish and install the high-lining system as a whole or in accordance with phases, shall be included in the Contract Time. The high-lining schedule shall be submitted to the Engineer for review and approval in accordance with 2-5.3, "Submittals."
 - ii. The Contractor shall coordinate high-lining operations such that the Project's Schedule is not affected or delayed
- i) Installation of High-line Piping System.
 - i. The high-line piping system shall be installed in accordance with the approved schedule.
 - ii. Piping phases shall be installed in loop systems, with a fire hydrant connection to the water supply at each end.
 - iii. The high-line piping system shall be inspected and approved by the City Public Utilities Department, Operations Division familiar with the water system via the Engineer prior to the City Forces charging the system with potable water or connecting to any user service line.
 - iv. The high-line piping shall be installed along both sides of streets to supply water service connections to water meters. Meter service connection shall not be routed across a roadway, driveway, or other area subject to vehicular traffic.
 - v. Shutoff valves shall be installed at each fire hydrant connection, along the piping runs at the check valve, on either side of high-line tee fittings for user connections to all meters and at the ends of cul-de-sac blind runs to permit flushing. The lever handles shall be removed from the valves to prevent unauthorized operation.
 - vi. The 2-bolt grooved couplings shall be installed with the bolts oriented as shown on Figure 5, Typical Curb Piping Runs. This orientation permits the pipe to be laid closer to the curb and is less susceptible to damage by auto traffic. To prevent damage to auto tires, coupling bolts shall not extend beyond the thickness of the nut when installed and tightened.
- j) Fire Hydrant Connection.
 - i. The fire hydrant connection shall be laid as shown in the Standard Drawings for Fire Hydrant High-lining Connection. The Contractor shall make the final connection to the fire hydrant system.

- ii. The Contractor shall use elbows of different bend angles as required to align the connection fittings parallel to the sidewalk or curb.
 - iii. In situations where the fire hydrant is located such that piping must cross a sidewalk, piping shall be routed under the sidewalk surface in a 6" wide x 6" deep saw cut trench by the Contractor. The trench backfill and temporary asphalt surface shall be tamped and compacted to provide a smooth, safe surface for the duration of the high-lining by the Contractor. Routing the pipe above the sidewalk shall not be permitted.
- k) User Connection (Service Meters).
- i. The Contractor shall furnish and install all material and labor as specified; the Contractor shall connect the water services to the system, see Standard Drawings for Residential User High-lining Connection.
 - ii. Connection to meters sized up to 1-inch shall be as shown in the Standard Drawings for Residential User High-lining Connection.
 - iii. Connection to meters 1½" and larger shall be made with 2" galvanized steel pipe with grooved connections.
 - iv. A shutoff valve in the user connection line shall be provided at the high-line tee fitting.
 - v. Meters 1½" and larger typically have 2-bolt flanged connections. Provide adapters as required to connect to specific meters.
 - vi. Sidewalk crossings may be routed above ground and ramped with temporary asphalt (coldmix), see Standard Drawings for Driveway High-lining Crossing or Curb Ramp High-lining Crossing, Typical Driveway or Handicapped Access Crossing, and as required elsewhere in this subsection.
 - vii. Field cut, groove, and fit 2" galvanized steel pipe, as required to make user connections. Sections of the high-line piping shall be cut such that service tees are as close as possible to the user meters and service connection hose or piping length is minimized.
 - viii. Provide barricades and cones as required by the approved Traffic Control Plan, at service tees and meters, and as required to ensure public safety.
- l) Roadway Crossing and Trenching.
- i. Portions of the high-line system should be trenched and buried by the Contractor to avoid interference with roadways.
 - ii. Wherever piping is required to cross a roadway, piping shall be routed below the roadway surface in a 6" wide x 6" deep (approximate dimensions) saw cut trench. Routing the pipe above the roadway shall not be permitted. The trench backfill and temporary asphalt surface shall be tamped and compacted to provide a smooth, safe surface for the duration of the high-lining.
- m) Vehicle Driveway or Curb Ramp Crossing.
- Wherever the high-line piping crosses a vehicle driveway or curb ramp crossing, the piping shall be provided with temporary asphalt crossing ramps as shown in the Standard Drawings Typical Driveway or Curb Ramp Crossing. The temporary asphalt crossing ramps shall be tamped and compacted to provide a smooth, safe surface for the duration of the high-lining. The temporary asphalt crossing ramps shall be constructed such that they do not interfere with normal storm water or other drainage flows. They shall not divert drainage flows either into the street or onto adjacent properties. Where required to achieve proper drainage, sections of galvanized steel piping shall be installed in the crossing ramp parallel to the high-line piping to

allow for drainage past the crossing ramp. Crossing ramp installations shall be inspected and approved by the Engineer

n) Corners and Curves.

- i. Routing the high-lining system around corners and curves shall typically be accomplished by use of 2" hose.
- ii. A 2" shutoff valve shall be installed at each end of the curve.
- iii. Portions of corners and curves with driveways or curb ramps shall be crossed with galvanized steel pipe as shown on the Standard Drawings Driveway or Curb Ramp High-lining Crossing. Use of hose shall not be permitted at these crossings.
- iv. Corners and curves with bend radii too short to be accommodated by hose shall be routed with short sections of galvanized steel pipe and grooved elbows of different bend angles. Pipe shall be cut, grooved, and fitted in the field as required.
- v. Portions of the piping and fittings extending 12" or more from the curb shall be protected with temporary asphalt covering of not less than 1 inch thickness above the pipe and fittings. The temporary asphalt covering shall be sloped over the pipe and tamped in place to provide a durable surface.

700-1.2.2.7 Start-up Procedures.

a) System leak test. The Contractor shall:

- i. Charge the system with available water pressure, bleed the system of air, and verify that the entire system is filled.
- ii. Visually inspect the system for leaks and repair any leaks discovered. The system will not be accepted by the Engineer until all leaks are repaired.

b) Flushing, disinfection, and bacteriological testing of high-line mains.

- i. The Contractor shall not use the high-lining system to fill and flush any main or piping.
- ii. After the high-line system is fully assembled but not hooked-up to the consumer meters, the Contractor shall flush the piping with potable water from a commercial metered source until the effluent is clear and free of dirt and debris. The Contractor shall designate the disposal of flushing water via approved methods.
- iii. The Contractor shall disinfect the high-lining piping according to AWWA C651 and 306-1.4.7, "Disinfection."
- iv. The transport, storage, and handling of disinfection materials shall be in accordance with the CFR 1910.120, Hazardous Waste Operations and Emergency Response, CFR 49.12 Hazardous Materials Regulations, and the General Industry Safety Orders of the California Code of Regulations, Title 8, Section 5194.
- v. Pipeline disinfection shall be accomplished with calcium hypochlorite tablets. Short pipe sections, valves, fittings, and similar small portions of the system shall be disinfected with a solution of sodium hypochlorite.

- vi. The Contractor shall notify the Engineer 5 Working Days in advance of the date that the high-line system will be disinfected and ready for bacteriological testing.
 - vii. The City Water Quality Laboratory will collect samples from three points in the high-lining piping. Two points shall be from taps near the fire hydrant connections at each end, and one from a tap near the center of the piping.
 - viii. The City Water Quality Laboratory shall perform bacteriological testing in accordance with AWWA C651 and the City standards.
 - ix. The high-line system shall not be accepted until two consecutive sets of acceptable samples collected 24 hours apart pass tests administered by the City Water Quality Laboratory, and until written notice of acceptance is issued by the Engineer. The City Water Quality Laboratory shall be the sole judge as to whether or not the test samples meet or exceed the established test criteria.
 - x. In the event that the high-line piping system fails to pass the required bacteriological testing, the Contractor shall re-flush and re-disinfect the lines at no additional cost to the City. Disposal of chlorinated water shall be in accordance with the City standards and regulations. Indiscriminate disposal of chlorinated water shall not be permitted.
 - xi. On acceptance of bacteriological testing, the Contractor shall drain and flush the highline piping system according to AWWA C651 and the City standards. Disposal of chlorinated water shall be in accordance with the City standards and regulations. Indiscriminate disposal of chlorinated water will not be permitted.
- c) Restoration of Normal Service.
- i. Flushing of the New Main Line. The Contractor shall not flush the new main line with water from the high-line system.
 - ii. User Hook-up to the New Main Line.
 - A. Restoration of user service to the new water main line shall be done only after installation, disinfection, and bacteriological testing of the new water main line is verified by the City, and user connection lines are completed.
 - B. Transfer of the water service from the high-line to the new water main line shall be performed by the Contractor.

700-1.2.2.8 Disassembly of High-line System.

- a) After restoration of normal service to water users, the Contractor shall disconnect high-lining from all services and breakdown and fully disassembles the high-line system and removes all high-line construction materials and debris from the area by the end of the Working Day.
- b) The Contractor shall remove all high-lining construction material and debris, and shall restore streets, curbs, gutters, sidewalks, fire hydrants, and other disturbed facilities in accordance with 7-9, "Protection and Restoration of Existing Improvements." Street resurfacing shall be restored in accordance with 302-6, "Portland Cement Concrete Pavement" and City of San Diego Standard Drawings.
- c) High-Lining Materials. High-lining materials shall become the Contractor's property.

ADD: 700-1.2.2.10 Payments. The Bid item provided for high-lining Work shall cover the Work described in 700-1.2.2, “High-lining by the Contractor” and include the following:

The lump sum bid item for “High-lining by the Contractor” shall be full compensation for furnishing all materials necessary to install the high-lining system, for installing the high-lining system complete and dismantling it after the restoration of normal service to water users, for connections including water services, restoration of the surface improvements, and maintaining and repairing the high-lining system during construction.

700-1.3 Connections to the Existing System. Unless required in the Contract Documents and bid item for connections by Contractor are provided in the contract proposal; City Forces will be responsible for making connections and cut-ins to the existing mains as part of the base Bid.

700-1.3.1 Connection by the City Forces. The Contractor shall provide the following information about the main prior to connections:

- a) condition of pipes and valves,
- b) type of fitting and joint to which connection is to be made (i.e., construction), and
- c) alignment, elevation, and location of the water main and any fittings.

700-1.3.1.1 Connection by the City Forces When the City Forces Cut and Plug the Existing Main. The City Forces will isolate existing water main to be replaced by the Contractor. The City forces will mark location, elevation, and approximate grade of existing main on street pavement and record this information for future use. The Contractor shall consult and cooperate with the City Forces’ supervisor to ensure that the information is understood and used correctly. Within the last 10' to be installed by the Contractor, the Contractor shall install bends, concrete thrust blocks, short lengths of pipe, and other appurtenances necessary to put the new installation on line and grade with the existing pipe.

700-1.3.1.2 Connection by the City Forces When the City Forces Do Not Cut and Plug the Existing Main. The Contractor shall expose the existing water main where the Work ends.

The Contractor shall be responsible for determining the elevations of existing water mains and fittings. The new water main shall be at the same grade and parallel alignment as the existing main and shall be no farther away than 1' from the existing water main. At the option of the Contractor, one or two bends or pulled joints may be used to accomplish this condition.

700-1.3.1.3 Furnishing Materials. If required in the Contract Documents, the Contractor shall furnish the necessary materials for the City Forces’ connection and cut-in work as shown on the Plans to the City. The Contractor shall coordinate closely with the City Forces for the delivery of materials. The delivery location for furnished materials shall be determined by the City Forces. No materials shall be delivered to the City until the City Forces are ready to construct the work, unless otherwise specified, in writing, by the City.

700-1.3.1.4 Pavement Restoration for the City Forces Final Connection. Within 10 days following the completion of the City Forces final connection work in the Project areas, the Contractor shall remove all temporary resurfacing, saw cut trench area, compact sub-grade and restore affected area with permanent resurfacing in accordance with 302-6, “Portland Cement Concrete Pavement” and City of San Diego Standard Drawings.

700-1.3.1.5 Payment. The payment for the furnished material for the City Force connection and cut-in work shall cover materials (i.e., fittings, valves, and hardware) including delivery and unloading. The Contractor will be paid under the lump sum Bid item for "Contractor Furnished Materials for City Forces Connection and Cut-in Work for Mains 16-inch and Larger."

Traffic control, saw cutting the trench area, trench cap, and other spot repairs in the vicinity of disturbed area at each restored connection shall be included in the Bid item for Pavement Restoration for the City Forces Final Connection. Asphalt Overlay and Slurry Seal will be paid under separate Bid items.

700-1.3.2 Connections to the Existing System by Contractor. If required in the Contract Documents, the Contractor shall make the connection (e.g., cut-in or tie-in) to the existing mains as shown on the Plans, specified in these specifications, and in conformance with the latest standards of the State Department of Public Health. Suitable facilities shall be provided by the Contractor for proper de-watering, drainage, and disposal of all water removed from the excavation and pipe without damage to adjacent property. The Contractor shall locate and expose the existing water main to which connection is to be made prior to and in advance of trenching to permit grade and alignment changes as approved by the Engineer. In the presence of the Engineer or an authorized City Public Utilities Department, Water Operations Division employee familiar with the water system), the Contractor shall make the connections as shown on the Plans regardless of the condition or location of the existing pipe, valves, and fittings with no adjustment in the Contract Price.

700-1.3.2.1 Submittals. The Contractor shall submit Shop Drawings, Working Drawings, and other information in accordance with 2-5.3, “Submittals” prior to start of construction. The drawings and other descriptive material shall adequately describe procedures to be used, materials to be furnished, any related pipeline appurtenances, and trench shoring. Each drawing shall be reproducible original, accompanied by 6 copies of all submitted information. If approved without change or correction, two approved copies will be returned to the Contractor. The Contractor shall include all time impacts of protecting the existing water main in the Schedule.

700-1.3.2.2 Utility Verification for Connection Location. The Contractor shall pothole the location and depth of all utilities to verify that there are no utility conflicts prior to excavation.

The Contractor shall locate and confirm vertical and horizontal locations, size, shape, materials, and construction of existing water mains.

700-1.3.2.3 Notification and Timing of Shutdowns. The Contractor shall coordinate the Work with the City Water Operations Division, and notify them a minimum of 20 Working Days after Engineer’s approval of the Contractor’s work plan and prior to any shutdown of an existing water line. The City Forces will perform all shutdowns including trial and final attempts. If the Contractor fails to keep the field appointments, the City will bill the Contractor for scheduled the City Forces waiting or standby time and the costs incurred by the City for notification of its customers for the subsequent appointment.

The Contractor shall schedule the requested shutdowns during low demand times. Unless otherwise shown on the Plans, the Contractor shall assume residential areas may be done during the day, and all commercial and industrial areas, including all areas with schools, or businesses, shall be shut down at night. The Contractor shall coordinate with the City’s Public Utilities Department to verify the appropriate times prior to construction. The City may refuse to shutdown a water line on the day requested by the Contractor due to operational circumstances (e.g.,, business cannot withstand a shutdown of water at that time; other connecting distribution systems are out of service at the same time; high water demands by customers; etc.) or other reasonable concerns by the City. No request will be denied for arbitrary reasons.

The Contractor shall notify the Engineer 5 Working Days prior to any work that will affect water service. The Contractor shall prepare and distribute, after approval by the City, written notification 3 Working Days prior to starting Work on any water main that will affect service. This notification shall be delivered door-to-door to water users in the affected area. A copy shall be delivered to the Engineer on the date of user notification.

The Contractor shall notify all consumers with fire services 20 Working Days in advance of any shutdown.

700-1.3.2.4 Connection. Prior to connecting to existing water main, the Contractor shall have all personnel, material and equipment ready to connect the fittings to the existing mains to minimize the shutdown time. The City may postpone or reschedule any shutdown operation if for any reason the City determines that the Contractor is improperly prepared with competent personnel, equipment, or materials to proceed with the connection.

When installing a cut-in tee or cross with new valves, reducers or other fittings that is larger than the existing pipe, the new assembly shall be installed at the depth sufficient to allow the valve to remain below the subgrade of the street which may necessitate lowering the existing pipe. The Contractor shall provide and install the entire assembly -including valves and reducers and any other hardware necessary under the City inspection in accordance with the City Standards. The entire assembly shall be connected in advance to facilitate the expedient connection to existing main.

The Contractor shall clean and disinfect the connection in accordance with AWWA C651.

Shutdown of the water main and Connection operations shall be coordinated with high-lining operation and shall be completed within timeline specified in these specifications.

If Connection operation exceeds the time as identified in the notification, causes health and safety risks, or disruption of water service to the consumers, the Contractor shall notify the Engineer and the City's Station 38 at (619) 527-7660 for assistance to provide potable water and temporary high-lines to restore water to the affected consumers. The City will order necessary corrective measures. All costs for corrective measures shall be paid by the Contractor. The Contractor shall be liable to the City for the costs of the City Forces' emergency work.

If existing valves leak excessively once closed during the isolation of the segment that is going to be connected, the Contractor shall use methods at the Contractor's disposal to work with the resulting leakage. If the influx of water cannot be controlled with two 2-inch pumps sufficiently to complete the work, then the shutdown shall be rescheduled, as agreed upon by the City and Contractor.

700-1.3.2.5 Quality Control. The connection Work shall be in the presence of the Engineer or a Public Utilities Department, Water Operations Division employee familiar with the water system. The Contractor shall take every precaution necessary to prevent trench water, dirt or debris from entering the water mains during connection operation.

Under no circumstances shall a non-disinfected water main, which cannot be isolated and has not passed bacteriological test, be connected to an existing disinfected water main.

700-1.3.2.6 Operation of Valves. Valves on the City's water main system shall be cleaned and operated only by the City Forces. The Contractor may exercise valves on services as necessary to complete the Work.

700-1.3.2.7 Repair. If the water main is damaged by the Contractor's operations, the Contractor shall immediately notify the Engineer and the City Water Operations Division representative or the City's Station 38. The City Forces will perform all necessary repairs to the water main. The Contractor shall be liable to the City for the costs of the City Forces' repair work.

700-1.3.2.8 Compaction. Compaction of the trench after installation of the water main shall be in accordance with 306-1.3, "Backfill and Densification."

If the Work is located within a different jurisdiction or agency other than the City or private easement, compaction shall meet the requirements of that agency or utility granting the permit.

700-1.3.2.9 Surface Restoration. The Contractor shall restore to its original grade and condition surfaced areas in accordance with 7-9, "Protection and Restoration of Existing Improvements." After final connection is completed, the Contractor shall remove all temporary resurfacing, compact sub-grade and restore affected area with permanent resurfacing in accordance with 302-6, "Portland Cement Concrete Pavement" and City of San Diego Standard Drawings.

700-1.3.2.10 Payment. "Connection to The Existing System by the Contractor" e.g., cut-in or tie-in will be paid under Bid unit prices for connections, and cut-ins and include furnishing and installing all materials and labor to complete the work. Potholing for and protecting the water main while performing the Work, information essential for making the connection, coordination of Work with the City Forces, scheduling impacts, community outreach, and traffic control shall be included in the payment.

700-1.3.3 Connections to City Forces' Cut-in by Contractor. If required in the Contract Documents. The Contractor shall make connection to cut-ins installed by City Forces. All applicable requirements outlined in 700-1.3.2 shall be adhered to. The Contractor shall coordinate with City Forces for the handling o valves installed as part of the cut-ins.

700-1.3.3.1 Payment. Connections to City Forces' Cut-in by Contractor will be paid under the bid item "Connection by Contractor to City Forces' Cut-in" and shall include furnishing and installing all materials and labor to complete the Work. Potholing and protection of the water main while performing the Work, coordination with the City Forces, scheduling impacts and traffic control shall be included in the payment.

700-1.4 Cut and Plug of the Existing System by the Contractor. The cut and plugs of the existing system as part of the base Bid shall be performed by the City Forces.

700-1.4.1 Submittals. The Contractor shall submit Shop Drawings and Working Drawings and other information for the cut and plug of existing water mains in accordance with 2-5.3, "Submittals." The submittals shall adequately describe procedures to be used e.g., distance from valves, thrust blocks for temporary plugs, materials to be furnished, any related pipeline appurtenances, and trench shoring. Each drawing shall be reproducible original, accompanied by 6 copies of all submitted information. If approved without change or correction, 2 approved copies will be returned to the Contractor. The Contractor shall include in the Schedule all time impacts to protect the existing water mains.

The Contractor shall submit traffic control drawings and obtain the Traffic Control Permit from the City prior to the start of the cut and plug and reconnection operations.

700-1.4.2 Utility Verification for Cut & Plug location. The Contractor shall pothole the location and depth of all utilities to verify that there are no utility conflicts prior to excavation.

The Contractor shall locate and confirm vertical and horizontal locations, size, shape, materials, and construction of existing water mains.

700-1.4.3 Notification and Timing of Shutdowns. The Contractor shall coordinate the Work with the City Water Operations Division, and notify them a minimum of 20 Working Days after Engineer's approval and prior to any shutdown of an existing water line. The City Forces will perform all shutdowns. If the Contractor fails to keep the field appointments, the City will bill the Contractor for scheduled the City Forces waiting or standby time and the costs incurred by the City for notification of its customers for the subsequent appointment.

The Contractor shall schedule the requested shutdowns during low demand times, Unless otherwise shown on the Plans, the Contractor shall assume residential areas may be done during the day, and all commercial and industrial areas, including all areas with schools, or businesses, shall be shut down at night. The Contractor shall coordinate with the City's Public Utilities Department to verify the appropriate times prior to construction. The City may refuse to shutdown a water line on the day requested by the Contractor due to operational circumstances (i.e., business cannot withstand a shutdown of water at that time; other connecting distribution systems are out of service at the same time; high water demands by customers; etc.) or other reasonable concerns by the City. No request will be denied for arbitrary reasons.

The Contractor shall notify the Engineer 5 Working Days prior to any work that will affect water service. The Contractor shall prepare and distribute, after approval by the City, written notification 3 Working Days prior to starting Work on any water main that will affect service. This notification shall be delivered door-to-door to water users in the affected area. A copy shall be delivered to the Engineer on the date of user notification.

The Contractor shall notify all consumers with fire services 20 Working Days in advance of any shutdown.

700-1.4.4 Cut and Plug. Prior to cutting and plugging of the existing water mains, the Contractor shall have all personnel, material and equipment ready to minimize the shutdown time. The Contractor shall organize its workforce, equipment and operations to protect the existing water main while performing the Work.

Shutdown of water main and cut and plug operations shall be coordinated with high-lining operation and shall be performed during low demand times and shall be completed within the timeline specified in these specifications.

After isolation of the mains, rarely does a completely dry condition exist in the trench. If the existing valves leak excessively once closed *during the isolation of the segment that is going to be plugged*, the Contractor shall use methods at Contractor's disposal to work with the resulting leakage. If the influx of water cannot be controlled with two 2-inch pumps sufficiently to complete the work, then the shutdown shall be rescheduled, as agreed upon by the City and Contractor.

If the cut and plug operation exceeds the time as identified in the notification or causes health and safety issues or disruption of water service to the consumers, the Contractor shall notify the Engineer and the City's Station 38 at (619) 527-7660 for assistance. The City will provide potable water and or temporary high-lining to restore water to the affected consumers. The City will order necessary corrective measures.

All costs for corrective measures shall be paid by the Contractor. The Contractor shall be liable to the City for the costs of the City Forces' emergency work.

700-1.4.5 Quality Control. Cut and plug of existing water lines shall be completed in a safe, neat and orderly manner. Plugs shall be capable of blocking pressurized main with no visual leak detected. The Contractor shall take every precaution necessary to prevent trench water, dirt or debris from entering the water mains during the capping or plugging operation.

Cut and plug shall not proceed if the City Public Utilities Department, Operations Division employee familiar with the water system is not present for the duration of the cut and plug.

After the cut and plug operation, the water main and appurtenances shall be disinfected and field tested by the Contractor in accordance with the latest edition of AWWA C651. The City Forces shall take water samples for bacteriological tests in accordance with Section 7 of the AWWA C651.

Suitable facilities shall be provided for proper de-watering, drainage, and disposal of all water removed from the excavation or pipe without damage to adjacent property.

700-1.4.6 Operation of Valves. Valves on the City’s water system shall be cleaned and operated only by the City Forces. The Contractor shall exercise valves on services as necessary to complete the Work.

700-1.4.7 Repair. If the water system is damaged by the Contractor’s operations, the Contractor shall immediately notify the Engineer and the City’s Station 38 or the City Water Operations Division representative. The City Forces will perform all necessary repairs to the water main. The Contractor shall be liable to the City for the City Forces’ work for the repair.

700-1.4.8 Surfaced Areas Impacted by Cut & Plug. Surfaces impacted by excavation to install cut and plug shall be temporarily backfilled, resurfaced, and maintained.

700-1.4.9 Payment. Locating e.g., potholing for and protecting the water main, coordination of Work with the City Forces, any scheduling impacts, community outreach, furnishing and installing materials, and traffic control shall be included in the unit price payment for “Cut and Plug of The Existing System by the Contractor.”

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.

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 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 a Citywide Pipelines project master **Mitigated Negative Declaration (MND) Project No. 255100** that includes **Water Group 914, Project No. 233447**, as referenced in the Contract Appendix “A”. The Contractor shall comply with all requirements of the **Mitigated Negative Declaration (MND)** as set forth in Contract Appendix “A”.

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.

807-1.2 Archeological and Native American Monitoring Program. To the City Supplement, DELETE in its entirety and SUBSTITUTE within the following:

Monitoring may include any incidental work (e.g. borings, potholing, laterals, other underground utilities) required for construction of the Project.

Unless specified otherwise in the Contract Documents, the Contractor shall retain a qualified archaeologist approved by the City’s Environmental Analysis Section (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 archeologist shall retain the appropriate Native American representative. Archeologist and the Native American representative shall attend the pre-construction meeting. The areas shown on the Plans subject to monitoring are approximate. The archaeologist shall confirm the sites and implement the required monitoring per Contract Appendices.

If a discovery is made, the Contractor's archaeological 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.

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

If any significant archaeological sites are known to exist in the project area, they will be shown in the Archaeological Data Recovery Program as part of Appendix A. In the event of a significant discovery, foreseen or unforeseen, and if no bid item for Archaeological and Native American Mitigation and Curation 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.

807-1.4 Archaeological and Native American Mitigation and Curation. To the City Supplement, DELETE in its entirety and SUBSTITUTE within the following:

In the event of a significant Native American or archaeological discovery foreseen or unforeseen and after consultation with EAS 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, preparation and implementation of an Archaeological Data Recovery Program (ADRP), recovery, sorting, cleaning, cataloging/identifying/analyzing, curation (bagging, placement into archival boxes, delivery to an appropriate institution, and any fees required by the institution), and reporting, of artifact remains. The Archaeological Principal Investigator (PI) as defined in the MMRP shall make a recommendation if all or a portion, (i.e. representative sample) of the items discovered need to be curated.

Work for mitigation shall be paid from the Allowance Bid item for Archaeological and Native American Mitigation and Curation. The Contractor shall provide the Engineer with invoices for the Work performed, including the invoice from the archaeological monitor in the format shown in the attached Appendix, and be reimbursed from the amount allocated.

If there is an ADRP or known site that is indicated in the Contract Documents, the payment shall be included in the Allowance Bid item for Archeological and Native American Mitigation and Curation.

807-1.6 Historic Resources (Built Environment) Monitoring Program. To the City Supplement, ADD the following:

Unless specified otherwise in the Contract Documents, the Contractor shall retain a qualified historic resources consultant approved by the City's Environmental analysis Section (EAS) and Historic Resources Board (HRB). In addition to being approved by EAS/HRB and within 5 working days of the bid opening, the Contractor must provide a resume of the Principal Investigator (PI) and monitors as well as a list of 3 successful local projects the historic resources consultant 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 historic resources consultant shall be a PI overseeing the work and must be qualified pursuant the Historic Resources Regulations definitions for Architectural

History, Historical Preservation, and History; or a discipline listed and approved by EAS/HRB for conducting the work. The historic resources PI or monitor shall attend the pre-construction meeting. The historic resources PI shall confirm the sites and implement the required monitoring per Contract Appendices.

If a resource is identified, the Contractor's historic resources PI shall make a determination as to whether work or 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.

Unless included in the payment for the proposed item of Work e.g., utility main, the full compensation for Historic Resources (Built Environment) monitoring program and report preparation, as prescribed in Contract Appendices, shall be included as part of the contract Bid item for Historic Resources (Built Environment) Monitoring Program.

In the event a resource is identified, foreseen or unforeseen, and if no bid item for Historic Resources (Built Environment) mitigation and monitoring 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.

The Contractor shall coordinate its activities and Schedule with the activities and schedules of the Historic Resources consultant PI and monitor. The Contractor shall notify the engineer before noon of the working day before monitoring is required. See 2-11, "INSPECTION" for details.

807-1.7 Historic Resources (Built Environment) Mitigation. To the City Supplement, ADD the following:

In the event a resource is identified foreseen or unforeseen and after consultation with EAS/HRB 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, preparation and implementation of historic resources protections pursuant to the Historical Resources Regulations, the US Secretary of Interior's Standards, the Ocean Beach Cottage Emerging district, and historical elements including but not limited to sidewalks, stamps, curb ramps, lights, trees, landscape, and wall preservation and reporting. The PI shall make recommendations about mitigation and preservation activities.

Work for mitigation shall be paid from the Allowance Bid item for Historic Resources (Built Environment) Mitigation. The Contractor shall provide the Engineer with invoices for the Work performed, including the invoice from the historic resources PI and monitor in the format shown in the attached Appendix, and be reimbursed from the amount allocated.

If there is a historic district that is indicated in this section or the Contract Documents, the payment shall be included in the Allowance Bid item for Historic Resources (Built Environment) Mitigation.

END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

APPENDIX A
MITIGATED NEGATIVE DECLARATION



MITIGATED NEGATIVE DECLARATION

Project No. 255100
SCH No. 2011091045

SUBJECT: Citywide Pipeline Projects: COUNCIL APPROVAL to allow for the replacement, rehabilitation, relocation, point repair, new trenching, trenchless construction, and abandonment of water and/or sewer pipeline alignments and associated improvements such as curb ramps, sewer lateral connections, water service connections, manholes, new pavement/slurry, the removal and/or replacement of street trees and the removal and/or replacement of street lights. This environmental document covers the analysis for ~~five~~ four (4) near-term pipeline projects (Harbor Drive Pipeline, Water Group 949, ~~Sewer Group 787~~, Water Group 914, and Sewer/Water Group 732), as well as any subsequent future pipeline projects. The construction footprint for a typical pipeline project, including staging areas and other areas (such as access) would be located within the City of San Diego Public Right-of-Way (PROW) and/or within public easements and may include planned pipeline construction within private easements from the PROW to the service connection. A signed agreement between the City and the property owner would be required for work conducted on private property. Project types that would be included in the analysis contained herein would consist of sewer and water group jobs, trunk sewers, large diameter water pipeline projects, new and/or replacement manholes, new/or replacement fire hydrants, and other necessary appurtenances. All associated equipment would be staged within the existing PROW adjacent to the work areas. The near-term and future projects covered in the document would not impact *Sensitive Biological Resources* or *Environmentally Sensitive Lands (ESL)* as defined in the Land Development Code and would not encroach into the City's Multi-Habitat Planning Area (MHPA). Applicant: The City of San Diego Engineering and Capital Projects Department AND Public Utilities Department.

Update 10/20/2011

Revisions to this document have been made when compared to the Draft Mitigated Negative Declaration (DMND) dated September 9, 2011. In response to the Comment Letter received from The California Department of Fish and Game, further description and graphics of Water Group 949 as it relates to the MHPA has been added to the Final MND. Please note that Sewer Group 787, which is adjacent to the MHPA, has been removed from the project description and is no longer covered in this MND.

The modifications to the FMND are denoted by ~~strikeout~~ and underline format. In accordance with the California Environmental Quality Act, Section 15073.5 (c)(4), the addition of new information that clarifies, amplifies, or makes insignificant modification does not require recirculation as there are no new impacts and no new mitigation identified. An environmental document need only be recirculated when there is identification of new significant environmental impact or the addition of a new mitigation measure required to avoid a significant environmental impact. The addition

of corrected mitigation language within the environmental document does not affect the environmental analysis or conclusions of the MND.

Construction for the near-term and any future projects is anticipated to occur during the daytime hours Monday through Friday, but may occur during the weekend, if necessary. The contractor would comply with all applicable requirements described in the latest edition of the *Standard Specifications for Public Works Construction ("GREENBOOK")* and the latest edition of the *City of San Diego Standard Specifications for Public Works Construction ("WHITEBOOK")*. The City's supplement addresses unique circumstances to the City of San Diego that are not addressed in the GREENBOOK and would therefore take precedence in the event of a conflict. The contractor would also comply with the California Department of Transportation *Manual of Traffic Controls for Construction and Maintenance Work Zones*. If the Average Daily Traffic (ADT) within a given project(s) vicinity is 10,000 ADT or greater, a traffic control plan would be prepared and implemented in accordance with the *City of San Diego Standard Drawings Manual of Traffic Control for Construction and Maintenance Work Zones*. For proposals subject to 10,000 ADT or less, traffic control may be managed through shop drawings during construction. Construction methods to be employed would consist of, but not be limited to:

Open Trenching: The open trench method of construction would be used for complete replacement and new alignment portions of the project. Trenches are typically four feet wide and are dug with excavations and similar large construction equipment.

Rehabilitation: Rehabilitation of alignment involves installing a new lining in old pipelines. The insertion is done through existing manhole access points and does not require removal of pavement or excavation of soils.

Abandonment: Pipeline abandonment activities would be similar to rehabilitation methods in that no surface/subsurface disturbance would occur. This process may involve slurry or grout material injected into the abandoned lines via manhole access. The top portion of the manhole is then typically removed and the remaining space backfilled and paved over.

Potholing: Potholing would be used to verify reconnection of laterals to main where lines would be raised or realigned (higher than existing depth, but still below ground) or to verify utility crossings. These "potholes" are made by using vacuum type equipment to open up small holes into the street of pavement.

Point Repairs: Point repairs include replacing a portion of a pipe segment by open trench excavation methods in which localized structural defects have been identified. Generally, point repairs are confined to an eight-foot section of pipe.

The following near term project(s) have been reviewed by the City of San Diego, Development Services Department (DSD) for compliance with the Land Development Code and have been determined to be exempt from a Site Development Permit (SDP) and/or a Coastal Development Permit (CDP). These projects would involve excavation in areas having a high resource sensitivity and potential for encountering archaeological and paleontological resources during construction related activities. Therefore, mitigation would be required to reduce potential significant impacts to archaeological and paleontological resources to below a level of significance. With respect to Storm Water, all projects would be reviewed for compliance with the City's Storm Water Standards

Manual. All projects that are not-exempt from the Standard Urban Storm Water Mitigation Plan (SUSMP) would incorporate appropriate Permanent Best Management Practices (BMPs) and construction BMPs into the project design(s) and during construction, as required. As such, all projects would comply with the requirement of the Municipal Storm Water Permit.

HARBOR DRIVE PIPELINE (PROJECT NO. 206100)

The Harbor Drive Pipeline includes the replacement of 4.4 miles of 16-inch cast iron (CI) and asbestos cement (AC) pipe that comprises the Harbor Drive 1st and 2nd Pipelines (HD-1 and HD-2) at a depth no greater than five (5) feet. Facility age and cast iron main replacement are the primary drivers for these projects, but due to the history of AC breaks in the area, approximately 1.0 mile of AC replacement is also included. The project is anticipated to be awarded in Fiscal Year 2013.

HD-1 and HD-2 were built primarily in the 1940's and 1950's and were made out of cast iron or asbestos cement and serve the western most part of the University Heights 390 Zone and the northern section of the Point Loma East 260 Zone. The pipelines also serve as redundancy to each other. Several segments were replaced by various City of San Diego Public Utilities Department projects throughout the years and those segments are not a part of the current scope. Previously replaced segments were 16 inch PVC, except for the bridge crossing which used 24-inch CMLC. The pipeline is located entirely within the PROW, will not require any easements, and is not adjacent to the MHPA or located within any designated historical districts. The following streets would be affected by this project: West Laurel, Pacific Highway, North Harbor Drive (within the roadway, under the bridge and within landscape areas), Nimitz Boulevard, Rosecrans Street, Evergreen Street, Hugo Street, Locust Street, Canon Street, Avenida De Portugal, and Point Loma Avenue.

Mitigation for the Harbor Drive Pipeline: Historical Resources (Archaeological Monitoring)

WATER GROUP 949 (PROJECT NO. 232719)

Water Group 949 would consist of the replacement and installation of 5.27 miles of water mains within the Skyline- Paradise Hills, University, Clairemont Mesa, Southeastern San Diego (Greater Golden Hills) community planning areas. 16,931 Linear Feet (LF) of 16-inch cast iron water mains would be replace-in-place with new 16-inch polyvinyl chloride (PVC) pipe within the existing trench. The remaining 10,913 LF of new 16-inch PVC would be installed in new trenches. All work within Regents Road, Site 2 (Figure 8), adjacent to the MHPA would only occur within the developed footprint such as the paved right of way, and concrete sidewalk or slab areas. In addition, all work within 100 feet of the MHPA would observe mitigation such as but not limited to, bird breeding season measures, avoidance of discharge into the MHPA, and avoidance of direct lighting towards the MHPA areas. As such, no impacts to MHPA and/or sensitive resources would occur. The project would also include replacement and reinstallation of valves, water services, fire hydrants, and other appurtenances and would also included the construction of curb ramps, and street resurfacing. Traffic control measures and Best Management Practices (BMPs) would be implemented during construction. Any street tree removal, relocation, and/or trimming would be done under the supervision of the City Arborist. All staging of construction equipment will be located outside of any potentially sensitive areas. The following streets and nearby alleyways would be affected by this project: Tuther Way, Cielo Drive, Woodman Street, Skyline Drive, Regents Road, Hidalgo Avenue, Clairemont Mesa Boulevard, Luna Avenue, B Street, F Street, Ash Street, 25th Street, and 27th Street.

Mitigation Required for Water Group 949: This project would require the implementation of MHPA Land Use Adjacency Guidelines in the University and Clairemont Mesa Community Planning areas that are adjacent (within 100 feet) to the MHPA and Historical Resources (Built Environment) mitigation for the area of the project located within the Greater Golden Hill Historic District.

SEWER GROUP 787 (PROJECT NO. 231928)

~~Sewer Group 787 would consist of the replacement of 26,436 lineal feet (LF) of existing 16-inch east iron sewer pipe with new 16-inch polyvinyl chloride (PVC) pipe within the existing trench. A total of 1,267 LF of new 16-inch PVC sewer alignment would be installed in new trenches. In addition, the project would abandon 1,606 LF of existing 16-inch cast iron pipe. The proposed project would be installed by conventional excavation (open trench) in trenches from 3-5 feet deep. The project would affect the following streets and nearby alleyways: 42nd Street, Monroe Avenue, Edgware Road, Polk Avenue, Orange Avenue, Menlo Avenue, 47th Street, Dwight Street, Myrtle Avenue, Manzanita Place, Heather Street, Dahlia Street, Poplar Street, Columbine Street, Pepper Drive, Juniper Street, Marigold Street, Sumac Drive, 44th Street, Laurie Lane, and Roseview Place all within the City Heights and Kensington-Talmadge Community Planning Areas.~~

~~**Mitigation Required for Water Group 787: This project would require the implementation of MHPA Land Use Adjacency Guidelines in the City Heights and Kensington-Talmadge Community Planning areas that are adjacent (within 100 feet) to the MHPA, Historical Resources (Archaeological and Paleontological Monitoring).**~~

WATER GROUP 914 (PROJECT NO. 233447)

Water Group 914 would consist of the replacement and installation of approximately 21,729 lineal feet (LF) of existing 6-inch, 8-inch and 12-inch cast iron pipes and 6-inch asphalt concrete pipes with new 8-inch, 12-inch and 16-inch polyvinyl chloride (PVC) pipe. Also included would be the construction of two underground pressure regulator stations that measure 54 square-feet and 6.5 feet deep each. 17,472 LF would be located in existing trenches and 4,257 LF would be located in new trench lines. The proposed project would be installed by conventional excavation (open trench) in trenches from 3-5 feet deep. However two 300 LF parallel line sections (600 LF total) of the water alignment would be installed by trenchless methodology utilizing two (2) 40 square foot launch and receiver pits. The trenchless installation would occur at the intersection of Coronado Avenue and Ebers Street and is designed to avoid a recorded archaeological resource at this intersection. The trenchless methodology would employ directional underground boring that would install the pipe at a depth deeper than the recorded resource. In addition, a 4-inch AC water segment of approximately 520 LF located along Point Loma Avenue between Guizot Street and Santa Barbara Street will be abandoned in place. The project would affect the following streets and nearby alleyways: Point Loma Avenue, Santa Barbara Street, Bermuda Avenue, Pescadero Avenue, Cable Street, Orchard Avenue, Froude Street, Sunset Cliffs Boulevard, Savoy Circle, and Del Monte Avenue all within the Ocean Beach and Peninsula Community Planning Areas.

Mitigation for Water Group 914: Historical Resources (Archaeological Monitoring) and (Built Environment)

SEWER AND WATER GROUP 732 (PROJECT NO. 206610)

Sewer and Water Group Job 732 would consist of the installation of approximately 5,500 total linear feet (LF) of 8 inch Polyvinyl Chloride (PVC) sewer pipe, and approximately 3,000 total linear feet (LF) of 12 inch PVC water pipe. Approximately, 1,035 LF of water pipe would be rehabilitated using trenchless technology in the same trench, with the remainder of the installation accomplished through open trenching. Related work would include construction of new manholes, replacement and re-plumbing of sewer laterals, installation of curb ramps, pavement restoration, traffic control, and storm water best management practices. Construction of the project would affect portions of the following streets and adjacent alleys in the Peninsula Community Plan area: Xenophon Street, Yonge Street, Zola Street, Alcott Street, Browning Street, Plum Street, Willow Street, Evergreen Street, Locust Street, and Rosecrans Street.

Mitigation Required for Sewer and Water Group 732: Historical Resources (Archaeological and Paleontological Monitoring).SUBSEQUENT PIPELINE PROJECT REVIEW (LONG TERM)

Applications for the replacement, rehabilitation, relocation, point repair, open trenching and abandonment of water and/or sewer pipeline alignments within the City of San Diego PROW as indicated in the Subject block above and in the Project Description discussion of the Initial Study would be analyzed for potential environmental impacts to Historical Resources (Archaeology, Paleontology and the Built Environment) and Land Use (MSCP/MHPA), and reviewed for consistency with this Mitigated Negative Declaration (MND). Where it can be determined that the project is "consistent" with this MND and no additional potential significant impacts would occur pursuant to State CEQA Guideline § 15162 (i.e. the involvement of new significant environmental effects of a substantial increase in the severity of previously identified effects) or if the project would result in minor technical changes or additions, then an Addendum to this MND would be prepared pursuant to §15164. Where future projects are found not to be consistent with this MND, then a new Initial Study and project specific MND shall be prepared.

- 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 near term projects and any future subsequent projects could have a significant environmental effect in the following areas(s): Land Use (MSCP/MHPA Land Use Adjacency), Historical Resources (Built Environment), Historical Resources (Archaeology) and Paleontology. When subsequent projects are submitted to DSD, the Environmental Analysis Section (EAS) will determine which of the project specific mitigation measures listed in Section V. would apply. Subsequent revisions in the project proposal create the specific mitigation identified in Section V of this Mitigated Negative Declaration. Projects as revised now avoid or mitigate the potentially significant environmental effects previously identified, and the preparation of an Environmental Impact Report will not be required.

IV. DOCUMENTATION:

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

V. MITIGATION, MONITORING AND REPORTING PROGRAM (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 as necessary:

Biologist, Archaeologist, Native American Monitor, Historian 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. 255100, or for subsequent future projects the associated PTS No, 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 as applicable.
- 4. MONITORING EXHIBITS:** All consultants are required to submit, to RE and MMC, a monitoring exhibit on a 11x17 reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline's work, and notes indicating when in the construction schedule that work will be performed. When necessary for clarification, a detailed methodology of how the work will be performed shall be included.
- 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	Prior to Pre-construction Mtg.
General	Consultant Const. Monitoring	Prior to or at Pre-Construction Mtg.
Biology	Biology Reports	Limit of Work Verification
Historical	Historical Reports	Historical observation (built envirnmt)
Archaeology	Archaeology Reports	Archaeology observation
Paleontology	Paleontology Reports	Paleontology observation
Final MMRP		Final MMRP Inspection

SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS:

A. LAND USE [MULTIPLE SPECIES CONSERVATION PROGRAM (MSCP) For PROJECTS WITHIN 100 FEET OF THE MHPA]

I. Prior to Permit Issuance

- A. Prior to issuance of any construction permit, the DSD Environmental Designee (ED) shall verify the Applicant has accurately represented the project's design in the Construction Documents (CDs) that are in conformance with the associated discretionary permit conditions and Exhibit "A", and also the City's Multi-Species Conservation Program (MSCP) Land Use Adjacency Guidelines for the Multiple Habitat Planning Area (MHPA), including identifying adjacency as the potential for direct/indirect impacts where applicable. In addition, all CDs where applicable shall show the following:
1. **Land Development / Grading / Boundaries** –MHPA boundaries on-site and adjacent properties shall be delineated on the CDs. The ED shall ensure that all grading is included within the development footprint, specifically manufactured slopes, disturbance, and development within or adjacent to the MHPA..
 2. **Drainage / Toxins** –All new and proposed parking lots and developed area in and adjacent to the MHPA shall be designed so they do not drain directly into the MHPA, All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials prior to release by incorporating the use of filtration devices, planted swales and/or planted detention/desiltation basins, or other approved permanent methods that are designed to minimize negative impacts, such as excessive water and toxins into the ecosystems of the MHPA.
 3. **Staging/storage, equipment maintenance, and trash** –All areas for staging, storage of equipment and materials, trash, equipment maintenance, and other construction related activities are within the development footprint. Provide a note on the plans that states: *"All construction related activity that may have potential for leakage or intrusion shall be monitored by the Qualified Biologist/Owners Representative to ensure there is no impact to the MHPA."*
 4. **Barriers** –All new development within or adjacent to the MHPA shall provide fencing or other City approved barriers along the MHPA boundaries to direct public access to appropriate locations, to reduce domestic animal predation, and to direct wildlife to appropriate corridor crossing. Permanent barriers may include, but are not limited to, fencing (6-foot black vinyl coated chain link or equivalent), walls, rocks/boulders, vegetated buffers, and signage for access, litter, and educational purposes.
 5. **Lighting** – All building, site, and landscape lighting adjacent to the MHPA shall be directed away from the preserve using proper placement and adequate shielding to protect sensitive habitat. Where necessary, light from traffic or other incompatible uses, shall be shielded from the MHPA through the utilization of including, but not limited to, earth berms, fences, and/or plant material.
 6. **Invasive Plants** – Plant species within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC142.0400 and per table 142-04F, Revegetation and Irrigation Requirements) and be non invasive. Landscape plans shall include a note that states: *"The ongoing maintenance requirements of the property owner shall*

prohibit the use of any planting that are invasive, per City Regulations, Standards, guidelines, etc., within 100 feet of the MHPA."

7. **Brush Management** –All new development adjacent to the MHPA is set back from the MHPA to provide the required Brush Management Zone (BMZ) 1 area (LDC Sec. 142.0412) within the development area and outside of the MHPA. BMZ 2 may be located within the MHPA and the BMZ 2 management shall be the responsibility of a HOA or other private entity.
8. **Noise-** Due to the site's location adjacent to or within the MHPA, construction noise that exceeds the maximum levels allowed shall be avoided, during the breeding seasons for protected avian species such as: *California Gnatcatcher (3/1-8/15)*; *Least Bell's vireo (3/15-9/15)*; and *Southwestern Willow Flycatcher (5/1-8/30)*. If construction is proposed during the breeding season for the species, U.S. Fish and Wildlife Service protocol surveys shall be required in order to determine species presence/absence. When applicable, adequate noise reduction measures shall be incorporated. Upon project submittal EAS shall determine which of the following project specific avian protocol surveys shall be required.

COASTAL CALIFORNIA GNATCATCHER

NO CLEARING, GRUBBING, GRADING, OR OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR BETWEEN MARCH 1 AND AUGUST 15, THE BREEDING SEASON OF THE COASTAL CALIFORNIA GNATCATCHER, 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 HABITAT AREAS WITHIN ADJACENT TO THE MHPA THAT WOULD BE SUBJECT TO CONSTRUCTION NOISE LEVELS EXCEEDING 60 DECIBELS [dB(A)] HOURLY AVERAGE FOR THE PRESENCE OF THE COASTAL CALIFORNIA GNATCATCHER. SURVEYS FOR THE COASTAL CALIFORNIA GNATCATCHER 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 ANY CONSTRUCTION. IF GNATCATCHERS ARE PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:

BETWEEN MARCH 1 AND AUGUST 15, NO CLEARING, GRUBBING, OR GRADING OF OCCUPIED GNATCATCHER HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND

1. BETWEEN MARCH 1 AND AUGUST 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 GNATCATCHER 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 CONSTRUCTION ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR

2. 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 COASTAL CALIFORNIA GNATCATCHER. 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 (AUGUST 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 COASTAL CALIFORNIA GNATCATCHERS 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 1 AND AUGUST 15 AS FOLLOWS:

1. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR COASTAL CALIFORNIA GNATCATCHER TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION A.III SHALL BE ADHERED TO AS SPECIFIED ABOVE.
2. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

LEAST BELL'S VIREO (State Endangered/Federally Endangered)

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:

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

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

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.

SOUTHWESTERN WILLOW FLYCATCHER (Federally Endangered)

1. Prior to the first reconstruction meeting, the City Manager (or appointed designee) shall verify that the following project requirements regarding the southwestern willow flycatcher are shown on the construction plans:

NO CLEARING, GRUBBING, GRADING, OR OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR BETWEEN MAY 1 AND SEPTEMBER 1, THE BREEDING SEASON OF THE SOUTHWESTERN WILLOW FLYCATCHER, 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 SOUTHWESTERN WILLOW FLYCATCHER. SURVEYS FOR 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 ANY CONSTRUCTION. IF THE SOUTHWESTERN WILLOW FLYCATCHER IS PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:

BETWEEN MAY 1 AND SEPTEMBER 1, NO CLEARING, GRUBBING, OR GRADING OF OCCUPIED SOUTHWESTERN WILLOW FLYCATCHER HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND

BETWEEN MAY 1 AND SEPTEMBER 1, 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 SOUTHWESTERN WILLOW FLYCATCHER 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 CONSTRUCTION ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR 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 SOUTHWESTERN WILLOW FLYCATCHER. 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 1).

* 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 SOUTHWESTERN WILLOW FLYCATCHER 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 MAY 1 AND SEPTEMBER 1 AS FOLLOWS:
- I. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR SOUTHWESTERN WILLOW FLYCATCHER 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.

II. Prior to Start of Construction

A. Preconstruction Meeting

The Qualified Biologist/Owners Representative shall incorporate all MHPA construction related requirements, into the project's Biological Monitoring Exhibit (BME).

The Qualified Biologist/Owners Representative is responsible to arrange and perform a focused pre-con with all contractors, subcontractors, and all workers involved in grading or other construction activities that discusses the sensitive nature of the adjacent sensitive biological resources.

III. During Construction

- A. The Qualified Biologist/Owners Representative, shall verify that all construction related activities taking place ~~within or~~ adjacent to the MHPA are consistent with the CDs, the MSCP/MHPA Land Use Adjacency Guidelines. The Qualified Biologist/Owners Representative shall monitor and ensure that:
1. **Land Development /Grading Boundaries** - The MHPA boundary and the limits of grading shall be clearly delineated by a survey crew prior to brushing, clearing, or grading. Limits shall be defined with orange construction fence and a siltation fence (can be combined) under the supervision of the Qualified Biologist/Owners Representative who shall provide a letter of verification to RE/MMC that all limits were marked as required. ~~Within or a~~ Adjacent to the MHPA, all manufactured slopes associated with site development shall be included within the development footprint.
 2. **Drainage/Toxics** - No Direct drainage into the MHPA shall occur during or after construction and that filtration devices, swales and/or detention/desiltation basins that drain into the MHPA are functioning properly during construction, and that permanent maintenance after construction is addressed. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g. clay compounds) when necessary and appropriate.
 3. **Staging/storage, equipment maintenance, and trash** - Identify all areas for staging, storage of equipment and materials, trash, equipment maintenance, and other construction related activities on the monitoring exhibits and verify that they are within the development footprint. Comply with the applicable notes on the plans
 - 4 **Barriers** - New development adjacent to the MHPA provides city approved barriers along the MHPA boundaries
 5. **Lighting** - Periodic night inspections are performed to verify that all lighting adjacent to the MHPA is directed away from preserve areas and appropriate placement and shielding is used.
 6. **Invasives** - No invasive plant species are used ~~in or~~ adjacent (within 100 feet) to the MHPA ~~and that within the MHPA, all plant species must be native.~~
 7. **Brush Management** - BMZ1 is within the development footprint and outside of the MHPA, and that maintenance responsibility for the BMZ 2 located within the MHPA is identified as the responsibility of an HOA or other private entity.
 8. **Noise** – For any area of the site that is adjacent to ~~or within~~ the MHPA, construction noise that exceeds the maximum levels allowed, shall be avoided, during the breeding seasons, for protected avian species such as: *California Gnatcatcher* (3/1-8/15); *Least Bell's vireo* (3/15-9/15); and *Southwestern Willow Flycatcher* (5/1-8/30). If construction is proposed during the breeding season for the species, U.S. Fish and Wildlife Service protocol surveys will be required in order to determine species presence/absence. When applicable, adequate noise reduction measures shall

be incorporated.

IV. Post Construction

A. Preparation and Submittal of Monitoring Report

The Qualified Biologist/Owners Representative shall submit a final biological monitoring report to the RE/MMC within 30 days of the completion of construction that requires monitoring. The report shall incorporate the results of the MMRP/MSCP requirements per the construction documents and the BME to the satisfaction of RE/MMC.

B. HISTORICAL RESOURCES (ARCHAEOLOGY)

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 Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to ADD

1. 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 archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.
2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.
3. Prior to the start of work, the applicant must obtain written approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

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

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM)

and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.

- a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.
2. 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 archaeological monitoring program.
 3. Identify Areas to be Monitored
 - b. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
 - c. The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).
 - d. MMC shall notify the PI that the AME 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 age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.
 5. Approval of AME and Construction Schedule
After approval of the AME by MMC, the PI shall submit to MMC written authorization of the AME and Construction Schedule from the CM.

III. During Construction

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

1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.**
2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and MMC. If prehistoric resources are

encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.

3. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.
4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVSR). The CSVSR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
 - a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
 - b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from MMC, CM and RE. ADRP 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. **Note: If a unique archaeological site is also an historical resource as defined in CEQA Section 15064.5, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.**
 - (1). Note: For pipeline trenching and other linear projects in the public Right-of-Way, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
 - c. If the resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

- (1). Note: For Pipeline Trenching and other linear projects in the public Right-of-Way, if the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant.
 - (2). Note, for Pipeline Trenching and other linear projects in the public Right-of-Way, if significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.
- D. Discovery Process for Significant Resources - Pipeline Trenching and other Linear Projects in the Public Right-of-Way
- The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities or for other linear project types within the Public Right-of-Way 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 artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.
 - 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 State of California Department of Park and Recreation forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number 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. Discovery of Human Remains

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

A. Notification

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

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can

be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.

2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.
 3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.
- C. If Human Remains **ARE** determined to be Native American
1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
 2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
 3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.
 4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
 5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:
 - a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission, OR;
 - b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN
 - c. To protect these sites, the landowner shall do one or more of the following:
 - (1) Record the site with the NAHC;
 - (2) Record an open space or conservation easement; or
 - (3) Record a document with the County.
 - d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.
- D. If Human Remains are **NOT** Native American
1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
 2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
 3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of

V. Night and/or Weekend Work

- A. If night and/or weekend work is included in the contract
1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.
 2. The following procedures shall be followed.
 - a. No Discoveries
In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.
 - b. Discoveries
All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.
 - c. Potentially Significant Discoveries
If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.
 - d. The PI shall immediately contact the RE and MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.
- B. If night and/or weekend work becomes necessary during the course of construction
1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.
 2. The RE, or BI, as appropriate, shall notify MMC immediately.
- C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

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

2. MMC shall return the Draft Monitoring Report to the PI 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 Artifacts
1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
 2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.
- C. Curation of artifacts: Accession Agreement and Acceptance Verification
1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
 2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection C.
 3. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
 4. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to MMC.
 5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.
- D. Final Monitoring Report(s)
1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC 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.

C. 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. 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. 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. c. MMC shall notify the PI that the PME has been approved.
- d. 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 (CSV). The CSV'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

- (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.

D. HISTORICAL RESOURCES (BUILT ENVIRONMENT)

When a future project requires implementation of this mitigation measure, the following paragraph shall be included in the subsequent environmental document and applicable Historic District name, boundary and district guidelines, if applicable shall be inserted as noted below in [brackets]:

The project is located within the [[insert District name]] Historic District, bounded by [[enter District boundary]] All work within the District boundary must be consistent with the City's Historical Resources Regulations, the U.S. Secretary of the Interior's Standards and the [[enter district guidelines if applicable]] District Design Guidelines. The following mitigation measures are required within the District boundary and shall ensure consistency with these regulations, Standards and guidelines.

- A. Prior to beginning any work at the site, a Pre Construction meeting that includes Historic Resources and MMC staff shall be held at the project site to review these mitigation measures and requirements within the District boundary.
- B. A Historic Sidewalk Stamp Inventory prepared by a qualified historic consultant or archaeologist and approved by HRB staff is required prior to the Pre-Construction (Pre-Con) meeting. The Inventory shall include photo documentation of all existing stamps within the project area keyed to a project site plan.
- C. Existing sidewalk stamps shall be preserved in place. Where existing sidewalk stamps must be impacted to accommodate right-of-way improvements, the following actions are required:
 1. A mold of the sidewalk stamp will be made to allow reconstruction of the stamp if destroyed during relocation.
 2. The sidewalk stamp shall be saw-cut to preserve the stamp in its entirety; relocated as near as possible to the original location; and set in the same orientation.
 3. If the sidewalk stamp is destroyed during relocation, a new sidewalk stamp shall be made from the mold taken and relocated as near as possible to the original location and set in the same orientation.
- D. No new sidewalk stamps shall be added by any contractor working on the project.
- E. Existing historic sidewalk, parkway and street widths shall be maintained. Any work that requires alteration of these widths shall be approved by Historic Resources staff.
- F. Existing historic curb heights and appearance shall be maintained. Any work that requires alteration of the existing height or appearance shall be approved by Historic Resources staff.

- G. Sections of sidewalk which may be impacted by the project shall be replaced in-kind to match the historic color, texture and scoring pattern of the original sidewalks. If the original color, scoring pattern or texture is not present at the location of the impact, the historically appropriate color, texture and scoring pattern found throughout the district shall be used.
- H. Truncated domes used at corner curb ramps shall be dark gray in color.
- I. Existing historic lighting, such as acorn lighting shall remain. New lighting shall be consistent with existing lighting fixtures, or fixtures specified in any applicable District Design Guidelines.
- J. Existing mature street trees shall remain. New street trees shall be consistent with the prevalent mature species in the District and/or species specified in any applicable District Design Guidelines.
- K. Any walls located within the right-of-way or on private property are considered historic and may not be impacted without prior review and approval by Historic Resources staff.

VI. PUBLIC REVIEW DISTRIBUTION:

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

United States Government

- Fish and Wildlife Service (23)
- MCAS Miramar (13)
- Naval Facilities Engineering Command Southwest (8)

State of California

- Department of Fish and Game (32A)
- State Clearing House (46)
- Resources Agency (43)
- Native American Heritage Commission (56)
- State Historic Preservation Officer (41)
- Regional Water Quality Control Board (44)
- Water Resources (45)
- Water Resources Control Board (55)
- Coastal Commission (48)
- Caltrans District 11 (31)

County of San Diego

- Department of Environmental Health (75)
- Planning and Land Use (68)
- Water Authority (73)

City of San Diego

- Office of the Mayor (91)
- Council President Young, District 4 (MS 10A)
- Councilmember Lightner, District 1 (MS 10A)
- Councilmember Faulconer, District 2 (MS 10A)
- Councilmember Gloria, District 3 (MS 10A)
- Councilmember DeMare, District 5 (MS 10A)

Councilmember Zapf, District 6 (MS 10A)
 Councilmember Emerald, District 7 (MS 10A)
 Councilmember Alvarez, District 8 (MS 10A)
 Historical Resource Board (87)
 City Attorney (MS 56A)
 Shannon Thomas (MS 93C)
 Engineering and Capital Projects
 Marc Cass (MS 908A)
 Allison Sherwood (MS 908A)
 Matthew DeBeliso (MS 908A)
 Akram Bassyouni (MS 908A)
 Michael Ninh (MS 908A)
 Roman Anissi (MS 908A)
 Daniel Tittle (MS 908A)
 Development Services Department
 Myra Herrmann (MS 501)
 Kristen Forburger (MS 401)
 Jeanne Krosch (MS 401)
 Kelley Stanco (MS 501)
 Library Dept.-Gov. Documents MS 17 (81)
 Balboa Branch Library (81B)
 Beckwourth Branch Library (81C)
 Benjamin Branch Library (81D)
 Carmel Mountain Ranch Branch (81E)
 Carmel Valley Branch Library (81F)
 City Heights/Weingart Branch Library (81G)
 Clairemont Branch Library (81H)
 College-Rolando Branch Library (81I)
 Kensington-Normal Heights Branch Library (81K)
 La Jolla/Riford branch Library (81L)
 Linda Vista Branch Library (81M)
 Logan Heights Branch Library (81N)
 Malcolm X Library & Performing Arts Center (81O)
 Mira Mesa Branch Library (81P)
 Mission Hills Branch Library (81Q)
 Mission Valley Branch Library (81R)
 North Clairemont Branch Library (81S)
 North Park Branch Library (81T)
 Oak Park Branch Library (81U)
 Ocean Beach Branch Library (81V)
 Otay Mesa-Nestor Branch Library (81W)
 Pacific Beach/Taylor Branch Library (81X)
 Paradise Hills Branch Library (81Y)
 Point Loma/Hervey Branch Library (81Z)
 Rancho Bernardo Branch Library (81AA)
 Rancho Peñasquitos Branch Library (81BB)
 San Carlos Branch Library (81DD)
 San Ysidro Branch Library (81EE)
 Scripps Miramar Ranch Branch Library (81FF)

Serra Mesa Branch Library (81GG)
 Skyline Hills Branch Library (81HH)
 Tierrasanta Branch Library (81II)
 University Community Branch Library (81JJ)
 University Heights Branch Library (81KK)
 Malcolm A. Love Library (457)

Other Interested Individuals or Groups

Community Planning Groups

Community Planners Committee (194)
 Balboa Park Committee (226 + 226A)
 Black Mountain Ranch –Subarea I (226C)
 Otay Mesa - Nestor Planning Committee (228)
 Otay Mesa Planning Committee (235)
 Clairemont Mesa Planning Committee (248)
 Greater Golden Hill Planning Committee (259)
 Serra Mesa Planning Group (263A)
 Kearny Mesa Community Planning Group (265)
 Linda Vista Community Planning Committee (267)
 La Jolla Community Planning Association (275)
 City Heights Area Planning Committee (287)
 Kensington-Talmadge Planning Committee (290)
 Normal Heights Community Planning Committee (291)
 Eastern Area Planning Committee (302)
 North Bay Community Planning Group (307)
 Mira Mesa Community Planning Group (310)
 Mission Beach Precise Planning Board (325)
 Mission Valley Unified Planning Organization (331)
 Navajo Community Planners Inc. (336)
 Carmel Valley Community Planning Board (350)
 Del Mar Mesa Community Planning Board (361)
 Greater North Park Planning Committee (363)
 Ocean Beach Planning Board (367)
 Old Town Community Planning Committee (368)
 Pacific Beach Community Planning Committee (375)
 Pacific Highlands Ranch – Subarea III (377A)
 Rancho Peñasquitos Planning Board (380)
 Peninsula Community Planning Board (390)
 Rancho Bernardo Community Planning Board (400)
 Sabre Springs Community Planning Group (406B)
 Sabre Springs Community Planning Group (407)
 San Pasqual - Lake Hodges Planning Group (426)
 San Ysidro Planning and Development Group (433)
 Scripps Ranch Community Planning Group (437)
 Miramar Ranch North Planning Committee (439)
 Skyline - Paradise Hills Planning Committee (443)
 Torrey Hills Community Planning Board (444A)
 Southeastern San Diego Planning Committee (449)
 Encanto Neighborhoods Community Planning Group (449A)

College Area Community Council (456)
Tierrasanta Community Council (462)
Torrey Highlands – Subarea IV (467)
Torrey Pines Community Planning Group (469)
University City Community Planning Group (480)
Uptown Planners (498)

Town/Community Councils - PUBLIC NOTICE ONLY

Town Council Presidents Association (197)
Harborview Community Council (246)
Carmel Mountain Ranch Community Council (344)
Clairemont Town Council (257)
Serra Mesa Community Council (264)
Rolando Community Council (288)
Oak Park Community Council (298)
Webster Community Council (301)
Darnell Community Council (306)
La Jolla Town Council (273)
Mission Beach Town Council (326)
Mission Valley Community Council (328 C)
San Carlos Area Council (338)
Ocean Beach Town Council, Inc. (367 A)
Pacific Beach Town Council (374)
Rancho Penasquitos Community Council (378)
Rancho Bernardo Community Council, Inc. (398)
Rancho Penasquitos Town Council (383)
United Border Community Town Council (434)
San Dieguito Planning Group (412)
Murphy Canyon Community Council (463)

Other Interested Individuals or Groups

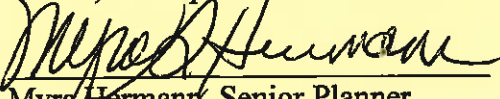
San Diego Unified Port District (109)
San Diego County Regional Airport Authority (110)
San Diego transit Corporation (112)
San Diego Gas & Electric (114)
Metropolitan Transit Systems (115)
San Diego Unified School District (125/132)
San Ysidro Unified School District (127)
San Diego Community College District (133)
The Beach and Bay Beacon News (137)
Sierra Club (165)
San Diego Canyonlands (165A)
San Diego Natural History Museum (166)
San Diego Audubon Society (167)
Jim Peugh (167A)
California Native Plant Society (170)
San Diego Coastkeeper (173)
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 (NOTICE ONLY 225A-T)
San Diego Historical Society (211)
Theresa Acerro (230)
Unified Port of San Diego (240)
Centre City Development Corporation (242)
Centre City Advisory Committee (243)
Balboa Avenue CAC (246)
Theresa Quiros (294)
Fairmount Park Neighborhood Association (303)
John Stump (304)
San Diego Baykeeper (319)
Debbie Knight (320)
Mission Hills Heritage (497)

VII. RESULTS OF PUBLIC REVIEW:

- () No comments were received during the public input period.
- () Comments were received but did not address the draft Mitigated Negative Declaration finding or the accuracy/completeness of the Initial Study. No response is necessary. The letters are attached.
- (x) Comments addressing the findings of the draft Mitigated Negative Declaration and/or accuracy or completeness of the Initial Study were received during the public input period. The letters and responses follow.

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


Myra Herrmann, Senior Planner
Development Services Department

September 14, 2011
Date of Draft Report

October 24, 2011
Date of Final Report

Analysts: J. Szymanski/M. Herrmann

Attachments:

- Figure 1 - Harbor Drive Pipeline Location Map**
- Figure 2 - Water Group 949 Site 1 Location Map**
- Figure 3- Water Group 949 Site 2 Location Map**
- Figure 4- Water Group 949 Site 3 Location Map**
- Figure 5- Sewer Group 787 Location Map**
- Figure 6- Water Group 914 Location Map**
- Figure 7- Sewer and Water Group 732 Location Map**
- Figure 8- Water Group 949-Site 2 with the MHPA**
- Initial Study Checklist**

APPENDIX B
FIRE HYDRANT METER PROGRAM

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 1 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

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.)

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SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 2 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

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.

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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.

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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.

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SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 5 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

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

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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

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
SUBJECT FIRE HYDRANT METER PROGRAM (FORMERLY: CONSTRUCTION METER PROGRAM)	PAGE 7 OF 10	EFFECTIVE DATE October 15, 2002
	SUPERSEDES DI 55.27	DATED April 21, 2000

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

CITY OF SAN DIEGO CALIFORNIA DEPARTMENT INSTRUCTIONS	NUMBER DI 55.27	DEPARTMENT Water Department
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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.

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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.

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- 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 Camino Chiles • San Diego, California 92105-5097 • FAX 619 527 3125

WS Req: _____	Fee #: _____
Date: _____	By: _____

Application Date: _____	Requested Install Date: _____
-------------------------	-------------------------------

Meter Information

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

City Meter Private Meter

GIS 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-xxxx.

Sincerely,

City of San Diego Water Department



Fire Hydrant Meter Relocate/Removal Request

(EXHIBIT D)

<i>For Office Use Only</i>	
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
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#:			Contract Name:		Billing Period:				
Item #	Item Description	Contract Authorization				Previous Estimate		This Estimate		Total 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	\$33.00	\$39,360.00						
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 Order	AL	1	\$0.00	\$0,000.00						
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						
CHANGE ORDERS											
Change Order 1		4,890									
Item 1-4						\$11,250.00					
Item 5-Deduct Bid Item 3		LF	120	-\$53.00	(\$6,360.00)						
Change Order 2		160,480									
Item 1-3						\$95,000.00					
Item 4 Deduct Bid Item 1		LF	380	-\$340.00	(\$12,920.00)						
Item 5-Increase 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)						
Item 3-9				1	-\$50,500.00	(\$50,500.00)					
SUMMARY						Total This		\$ -	Total Billed		\$0.00
A. Original Contract Amount					Retention and/or Escrow Payment Schedule						
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 (3% of D)					Amt to Release to Contractor from PO/Escrow:						
F. Less Total Previous Payments											
G. Payment Due Less Retention					Contractor Signature and Date:						
H. Remaining Authorized Amount											

APPENDIX D

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 Discharge of Hydrostatic Test Water and Potable Water to Surface Water and Storm Drains as referenced by (http://www.swrob.ca.gov/rwqcb/board_decisions/adopted_orders/2002/2002_0020.shtml), and as follows:

Discharged water has been dechlorinated to below 0.1 (mg/l) level; and effluent has been maintained between 6 and 9 (PH) based on:							<i>is discharge within acceptable limits?</i>		Comment
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:						
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	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.

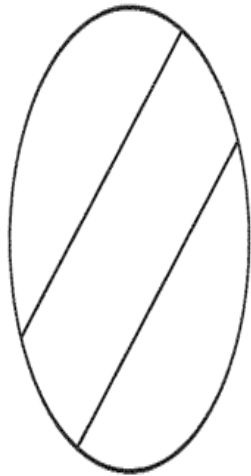
Project Name: _____ Work Order No.(s): _____

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 E
PREFORMED LOOP CONSTRUCTION

MODIFIED TYPE 'E'
LIMIT LINE / CROSSWALK
DETECTOR

ROUND CORNERS
TO REDUCE WEAR
OF LOOP WIRES



PLAN DRAWING SYMBOL



DIRECTION
OF TRAVEL

NOTES:

- LOOP DIAMETER = 6' TYP.
- DEPTH OF CUT = 3/8" MIN.

SAWCUT & WINDING
DETAIL

APPENDIX F

AGREEMENT FOR APPLICATION OF EMULSION-AGGREGATE SLURRY

**AGREEMENT FOR APPLICATION OF
EMULSION-AGGREGATE SLURRY**

RELATED TO WATER GROUP 914

THIS Agreement for Application of Emulsion-Aggregate Slurry Related to **WATER GROUP 914** [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 **WATER GROUP 914** [Contract], SAP No. (WBS/CC/IO) **B-00125**.

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 *sheets 36124-38-D and 36124-39-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.

4.3 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 Public Works 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 G

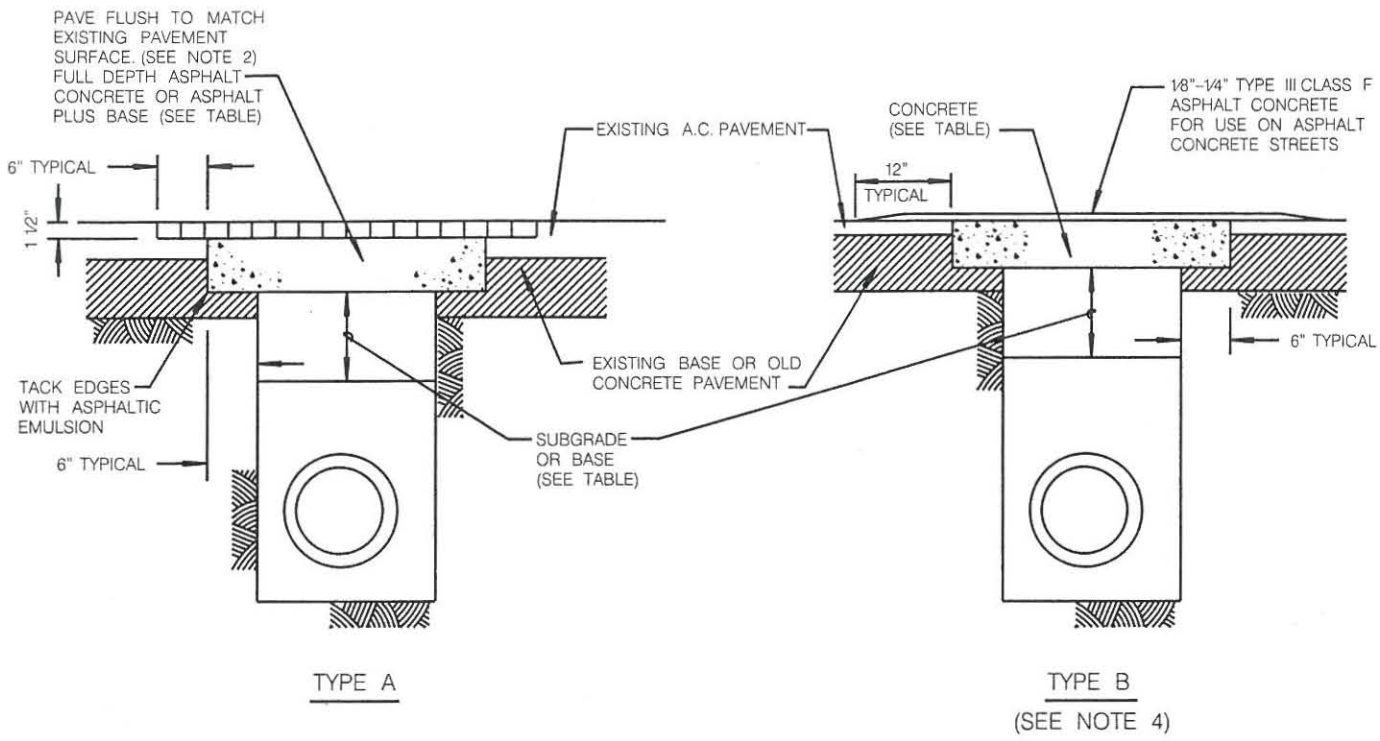
MATERIALS TYPICALLY ACCEPTED BY CERTIFICATE OF COMPLIANCE

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 H

CITY STANDARD DRAWINGS - UPDATES APPROVED FOR USE



	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

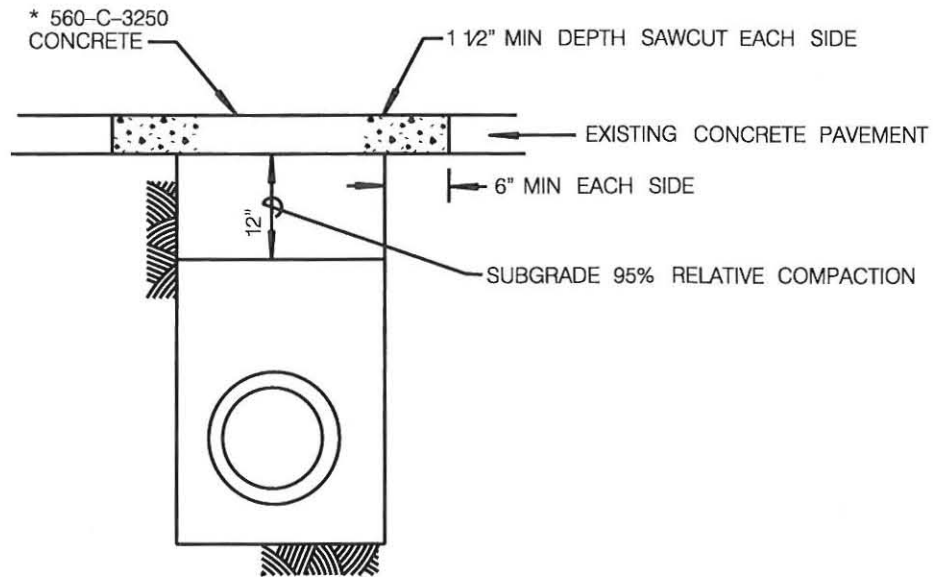
CITY OF SAN DIEGO - STANDARD DRAWING

**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

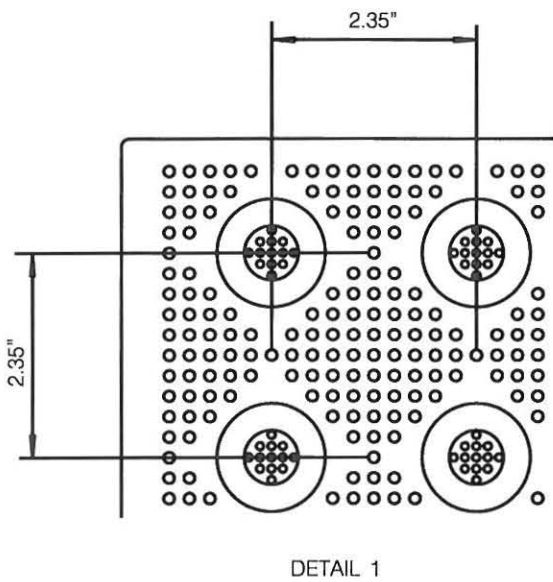
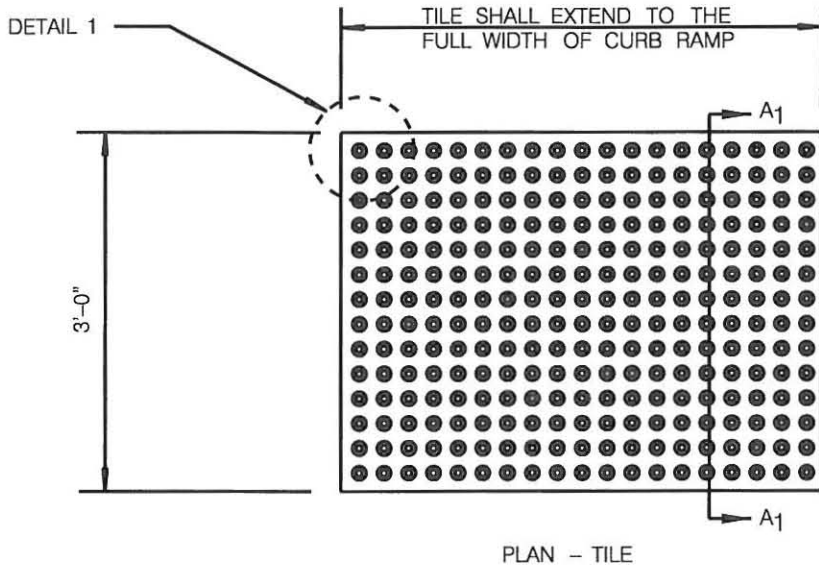
1. EXISTING CONCRETE PAVEMENT SHALL BE REMOVED.
 2. PRIOR TO PLACING CONCRETE, PAVEMENT EDGES SHALL BE TRIMMED TO NEAT HORIZONTAL AND VERTICAL LINES.
 3. UNLESS OTHERWISE SPECIFIED, CONCRETE TRENCH COVER SHALL BE A MINIMUM OF 5 1/2" FOR ALLEYS, 7" FOR LOCAL THROUGH FOUR LANE COLLECTOR STREETS AND 9" THICK FOR ALL MAJOR OR GREATER STREET CLASSIFICATIONS.
 4. ANY STREET TRENCH 7" IN WIDTH OR GREATER AND LONGER THAN 100' IN LENGTH SHALL BE RECONSTRUCTED WITH THE PAVEMENT SECTION FOR THE STREET CLASSIFICATION PER SCHEDULE "J" (SDG-113). STREET TRENCH SECTIONS 7" IN WIDTH OR GREATER BUT LESS THAN 100' IN OVERALL LENGTH SHALL BE RESURFACED TO A THICKNESS OF 1" GREATER THAN REQUIRED BY NOTE 3 ABOVE.
- * IN FOUR-LANE MAJOR OR GREATER STREETS, AN APPROVED SET ACCELERATING ADMIXTURE SUCH AS CALCIUM CHLORIDE, SHALL BE USED IN THE CONCRETE.

REVISION	BY	APPROVED	DATE
ORIGINAL		J. CASEY	01/89
UPDATED	KA	A. OSKOUI	09/10

CITY OF SAN DIEGO - STANDARD DRAWING

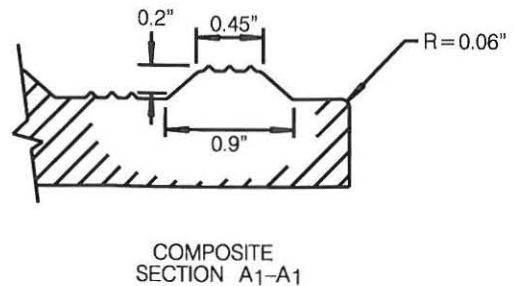
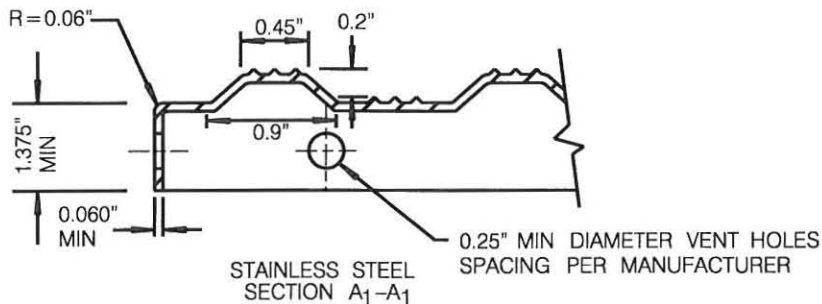
**TRENCH RESURFACING FOR PCC
SURFACED STREETS**

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE		
COORDINATOR	R.C.E. 65271	DATE
DRAWING NUMBER	SDG-108	



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

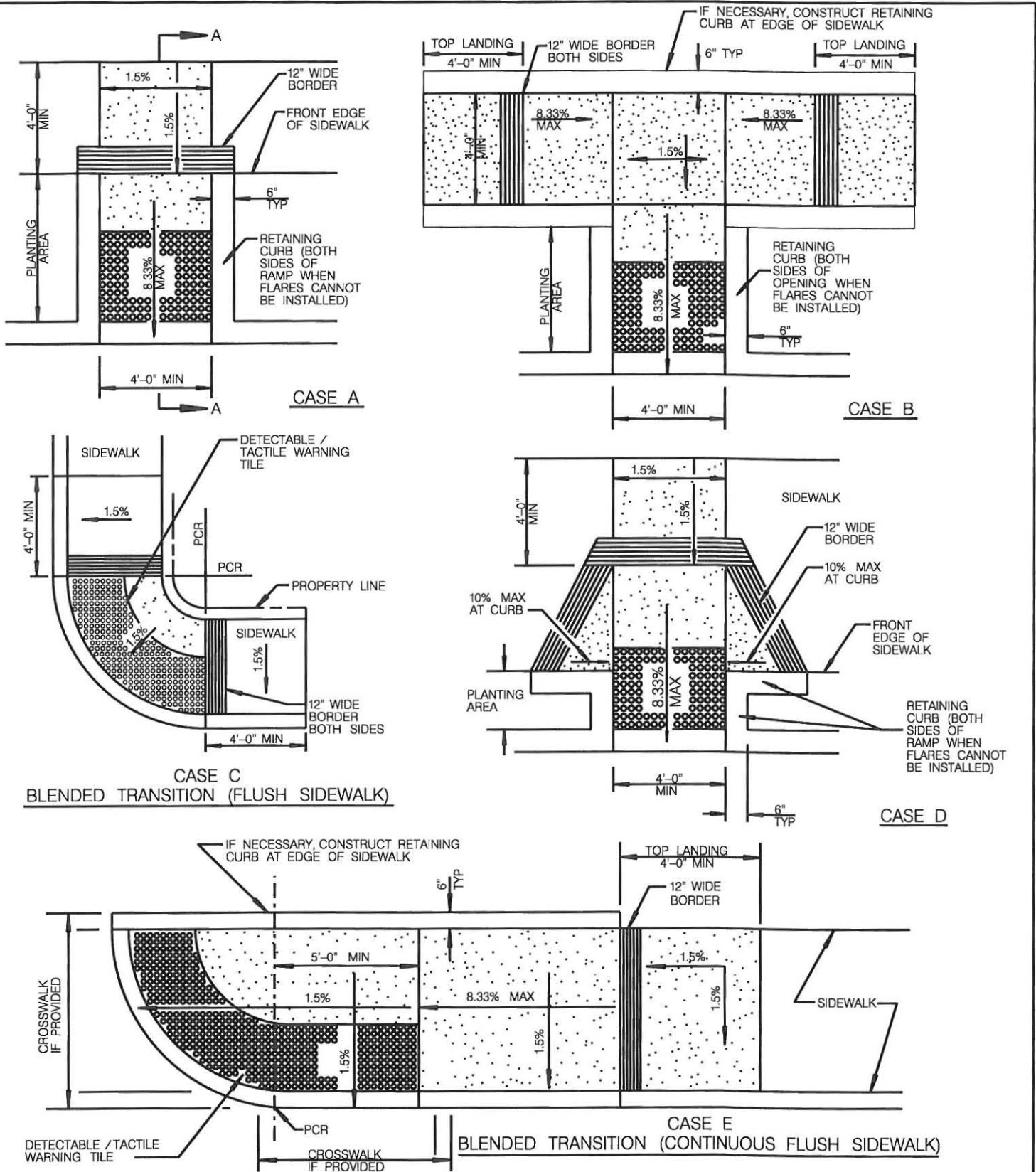
CITY OF SAN DIEGO - STANDARD DRAWING

**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.

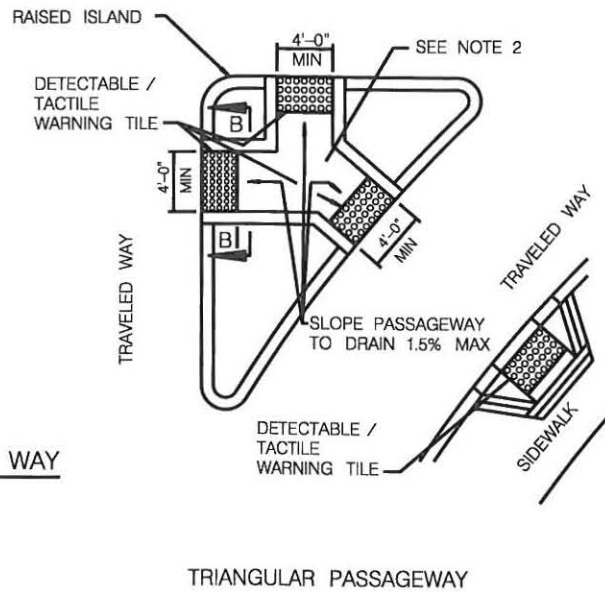
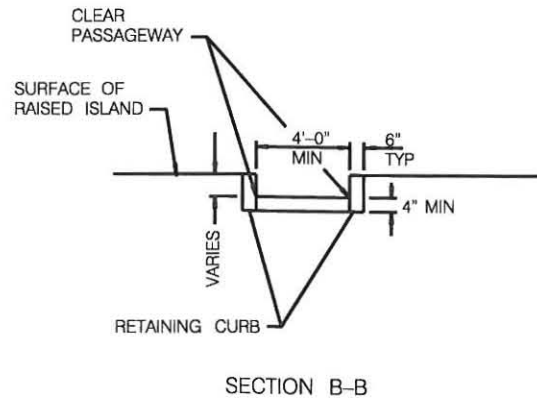
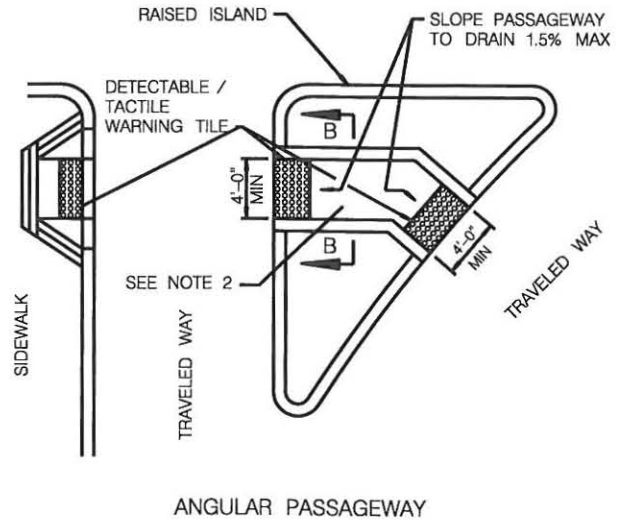
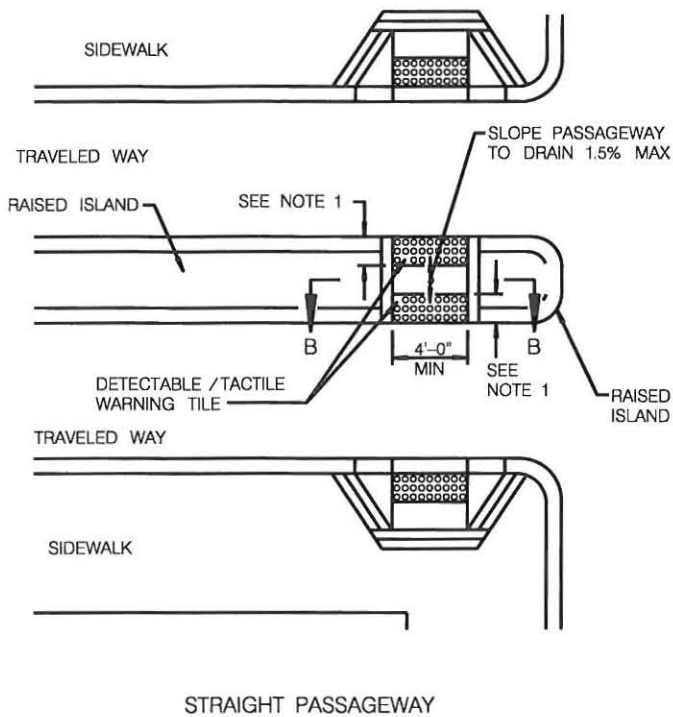
SHEET 2 OF 5

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	SDG-130	



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.

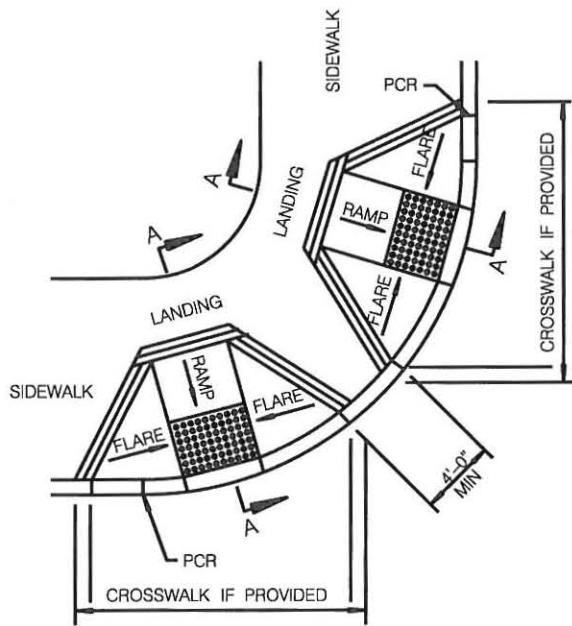
SHEET 3 OF 5

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

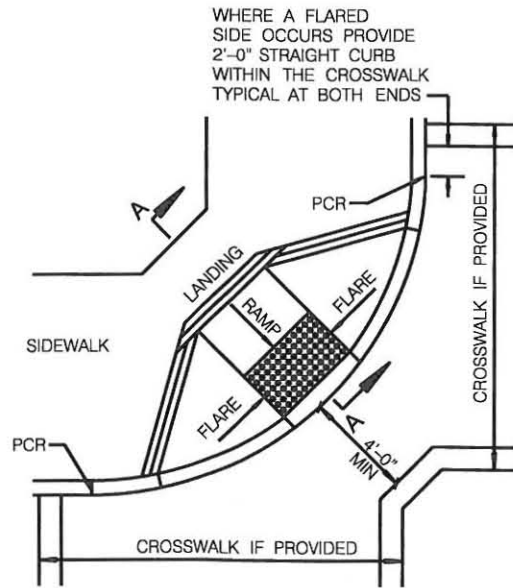
CITY OF SAN DIEGO - STANDARD DRAWING

**GENERAL CURB RAMP NOTES
& SUPPLEMENTAL DETAILS**

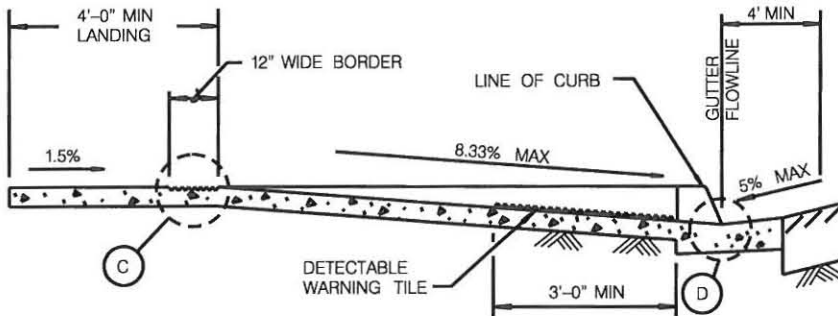
RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE		
COORDINATOR	R.C.E. 65271	DATE
DRAWING NUMBER	SDG-130	



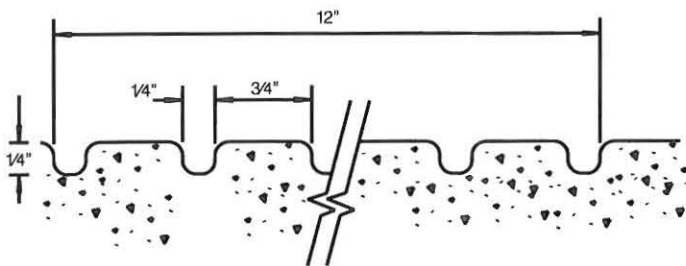
DETAIL A
TWO-RAMP CORNER INSTALLATION



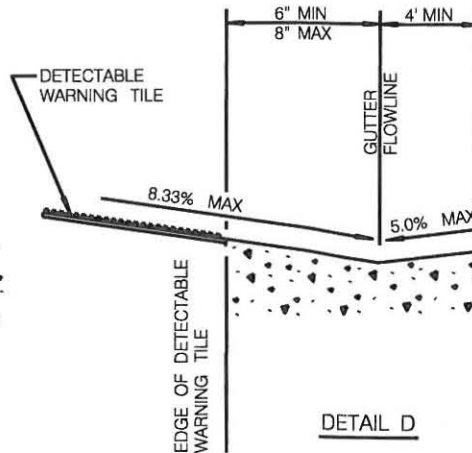
DETAIL B
TYPICAL ONE-RAMP
CORNER INSTALLATION



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

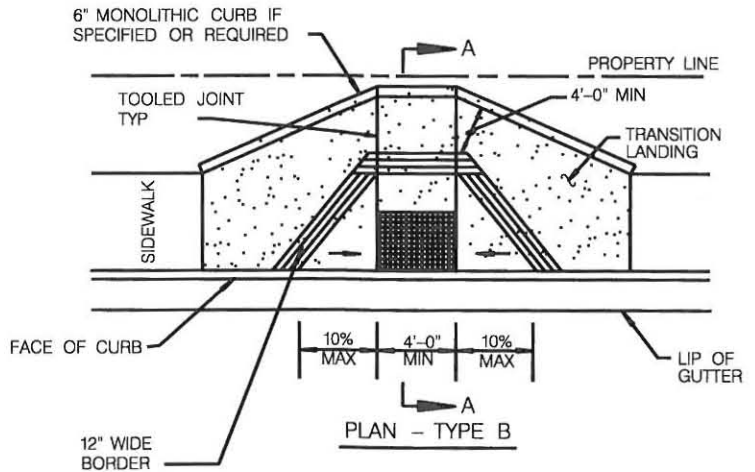
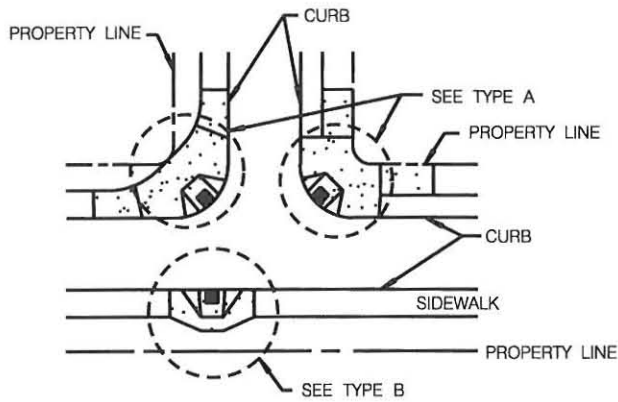
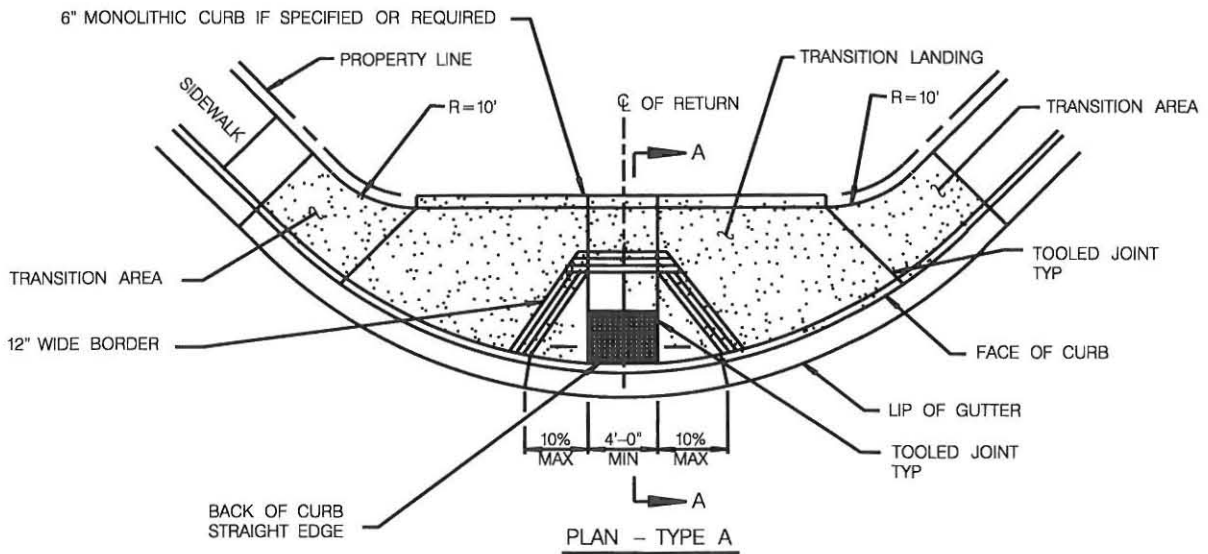
DRAWING NUMBER **SDG-130**

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.

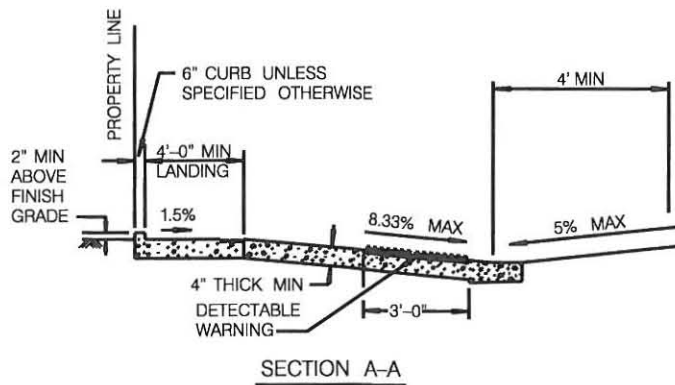
SHEET 5 OF 5

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	GENERAL CURB RAMP NOTES & SUPPLEMENTAL DETAILS	COORDINATOR R.C.E. 65271 DATE
UPDATE	FC	A. OSKOUI	12/08		
UPDATE	KA	A. OSKOUI	09/10		DRAWING NUMBER
					SDG-130



NOTE:

1. SEE SDG-130 FOR ADDITIONAL CURB RAMP DETAILS AND INFORMATION.



REVISION	BY	APPROVED	DATE
ORIGINAL	FC	A. OSKOUI	1203
UPDATE	FC	A. OSKOUI	1206
UPDATE	FC	A. OSKOUI	1208
UPDATE	KA	A. OSKOUI	0910

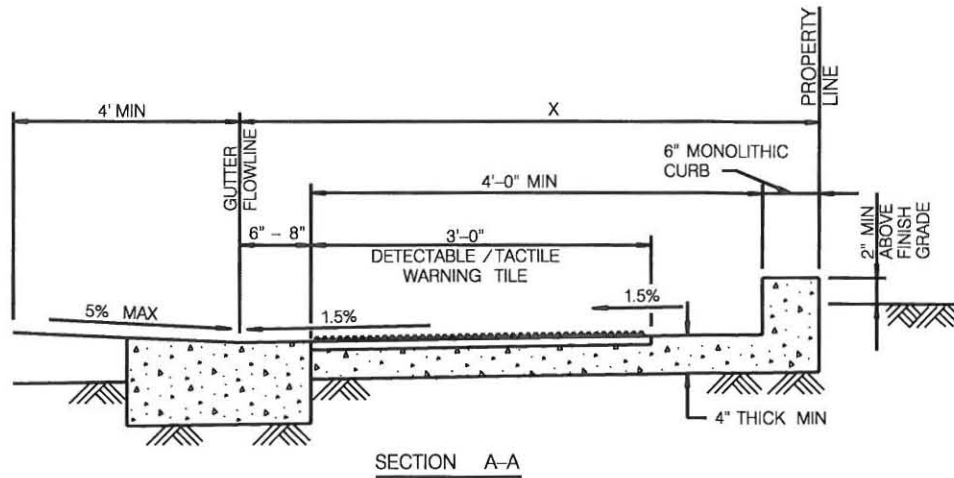
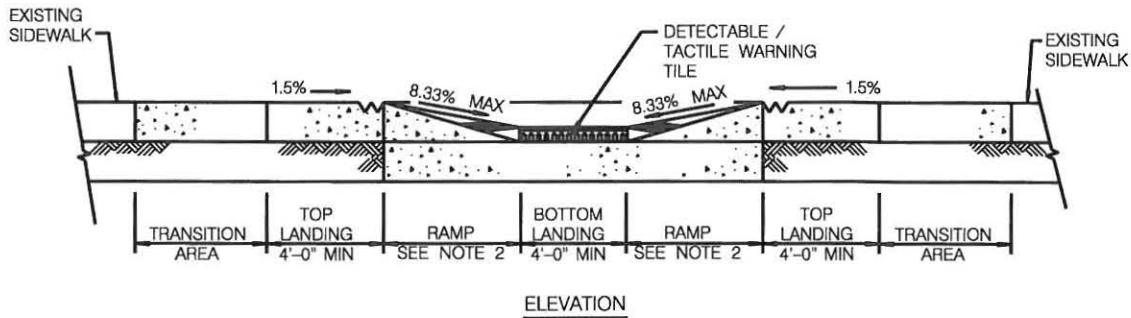
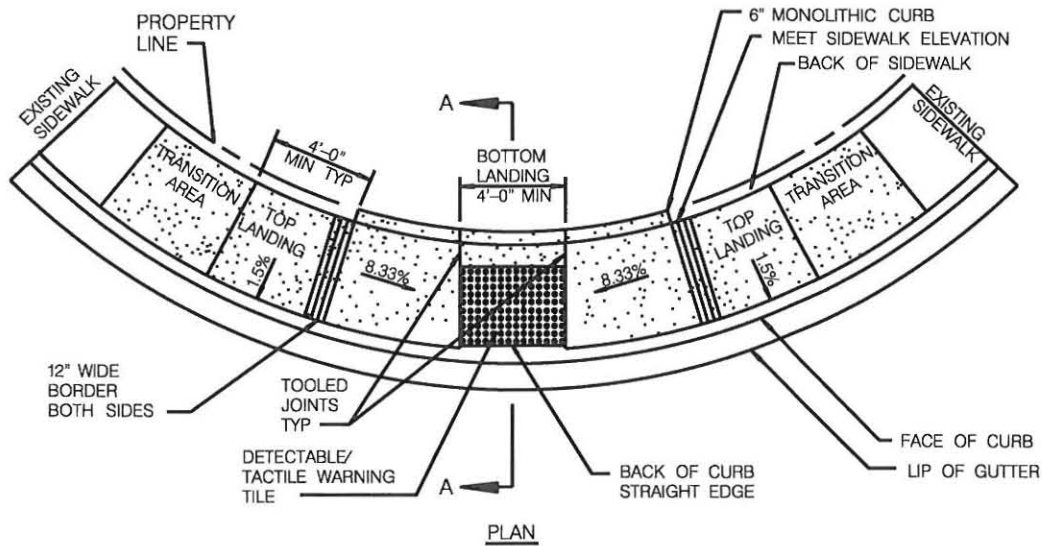
CITY OF SAN DIEGO - STANDARD DRAWING

CURB RAMP - TYPES A AND B

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE

COORDINATOR R.C.E. 65271 DATE

DRAWING NUMBER **SDG-132**



NOTES

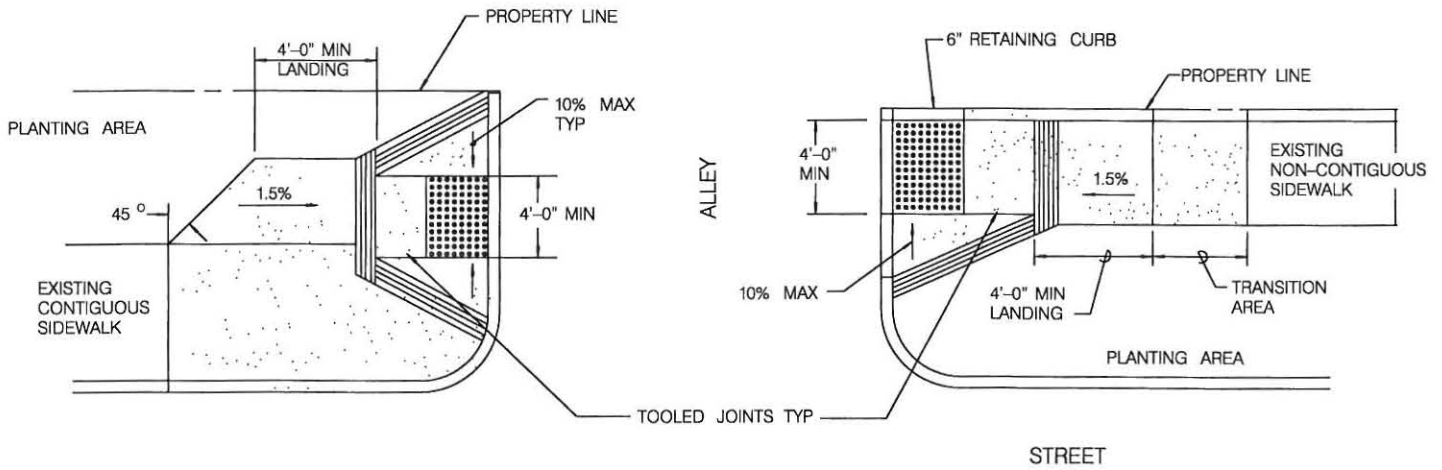
1. TYPE C1 CURB RAMP SHALL ONLY BE USED TO MITIGATE EXISTING CONDITIONS WHERE INADEQUATE RIGHT OF WAY EXISTS. TYPE C1 SHALL BE USED WHEN $X < 8'$. X =DISTANCE FROM FACE OF CURB TO PROPERTY LINE.
2. SEE SDG-130 FOR ADDITIONAL CURB RAMP DETAILS AND INFORMATION.

REVISION	BY	APPROVED	DATE
ORIGINAL	SS	A. OSKOU	1203
UPDATE	FC	A. OSKOU	1206
UPDATE	FC	A. OSKOU	1208
UPDATE	KA	A. OSKOU	0910

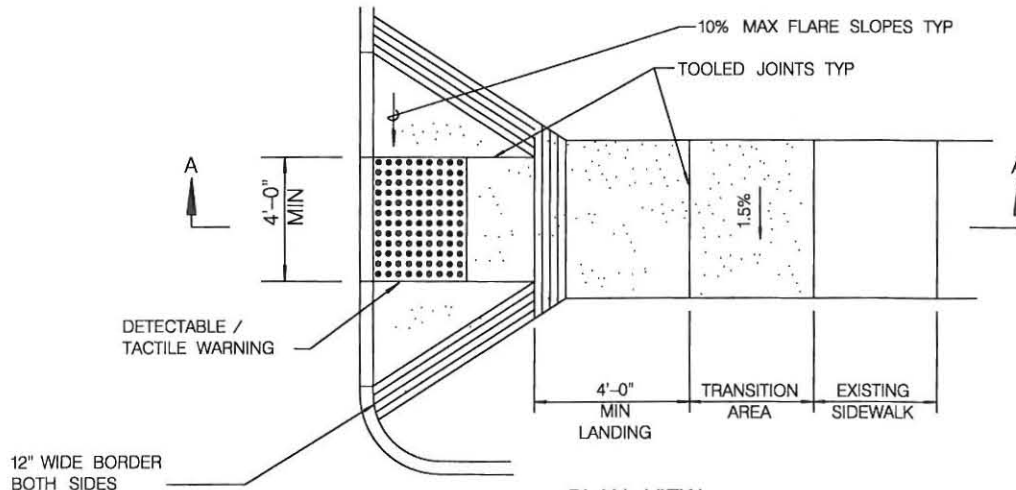
CITY OF SAN DIEGO - STANDARD DRAWING

CURB RAMP - TYPE C1

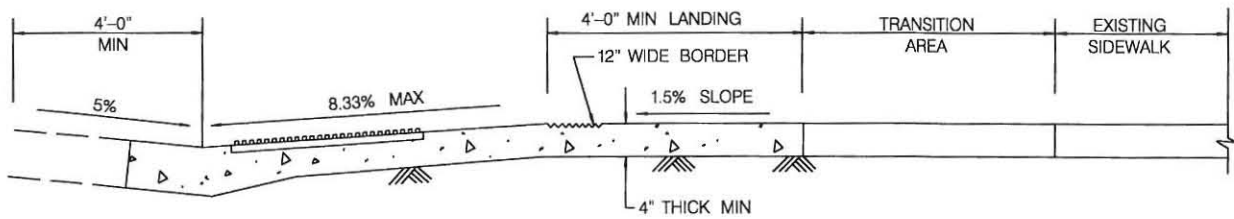
RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE		
COORDINATOR	R.C.E. 65271	DATE
DRAWING NUMBER	SDG-134	



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

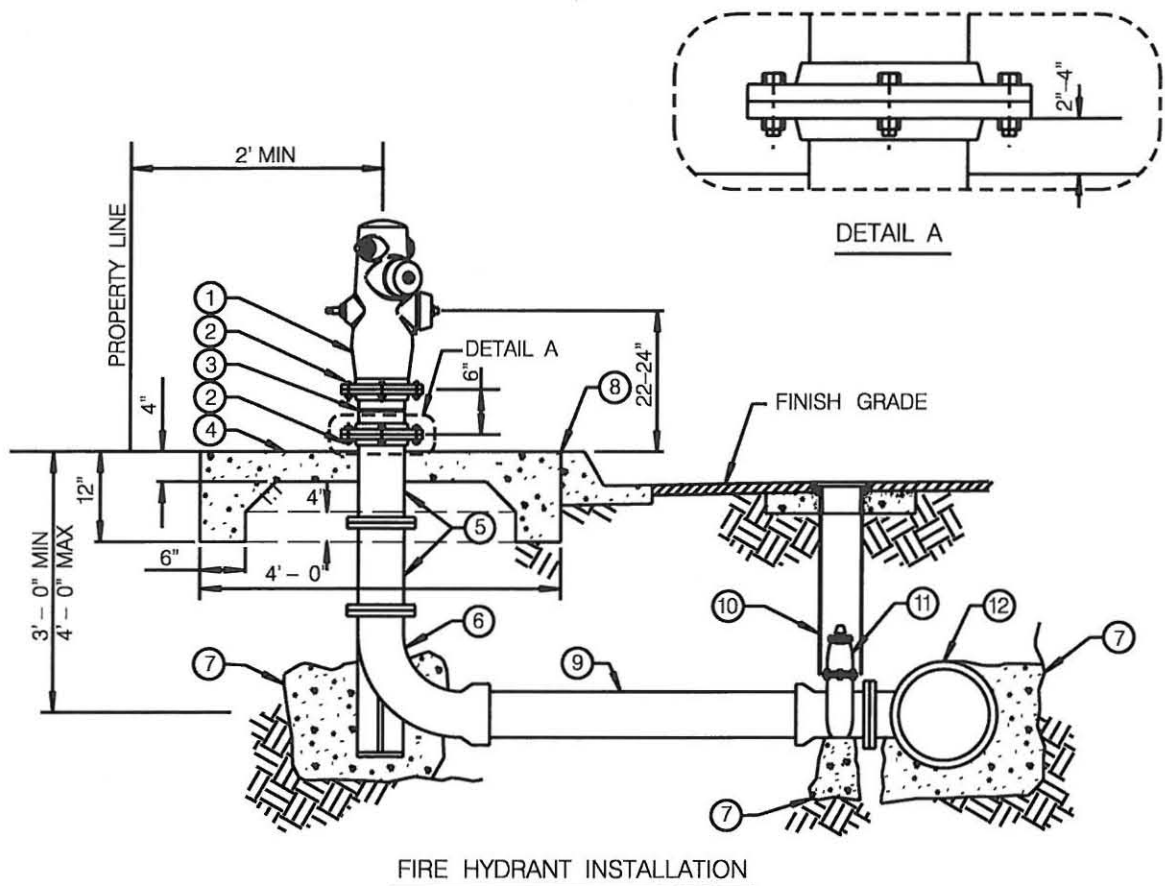
CITY OF SAN DIEGO - STANDARD DRAWING

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE

COORDINATOR R.C.E. 65271 DATE

CURB RAMP - TYPE D

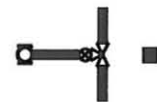
DRAWING NUMBER **SDG-136**



ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	6" WET BARREL FIRE HYDRANT	5	6" CAST IRON EXTENSION NON-GROOVED SPOOL - AS REQUIRED (F, F)
2	.75" X 3.5" MIN HEX HEAD BREAKAWAY (SHEAR) BOLTS AND NUTS (ASTM A307) SHALL BE 3/4" NC THREAD. HEX HEAD ON TOP OF FLANGES (ALL)	6	6" LONG RADIUS DI BASE ELBOW (F, PO /MJ)
3	6" CAST IRON BREAKAWAY SPOOL WITH 0.25"-V (SINGLE OR DOUBLE) BREAK OFF GROOVE	7	CONCRETE THRUST BLOCK
4	4' X 4' X 4" THICK CONCRETE PAD WITH 6" X 12" DEEP THICKENED EDGE AROUND PERIMETER OF CONCRETE PAD	8	COLD JOINT STRIP
		9	PIPE - 6" C-900 PVC
		10	GATE WELL WITH CAP
		11	6" GATE VALVE (MJ / PO, F)
		12	TEE - SIZE X 6" (MJ, MJ, F)

NOTES:

- NUMBER OF OUTLETS SHALL BE AS SHOWN ON THE PLANS.
- CONNECT TO BASE OF THE HYDRANT WITH SHEAR BOLTS INSTALLED WITH HEX HEAD ON TOP OF THE FLANGE. (31/64" DIAMETER HOLE 2" DEEP IN BOLTS, GALVANIZED AFTER BORING)



LEGEND ON PLANS

SHEET 1 OF 3

REVISION	BY	APPROVED	DATE
ORIGINAL	KA	J. NAGELVOORT	10/11

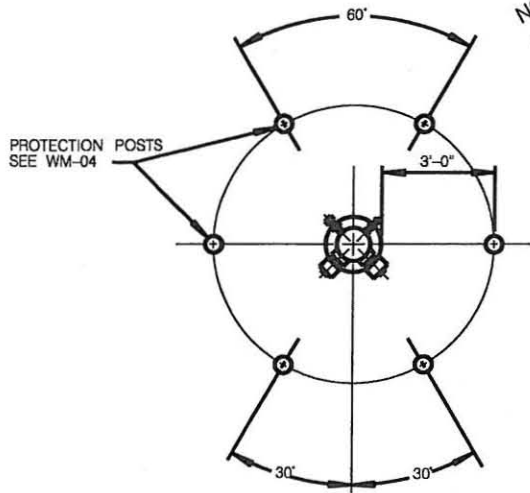
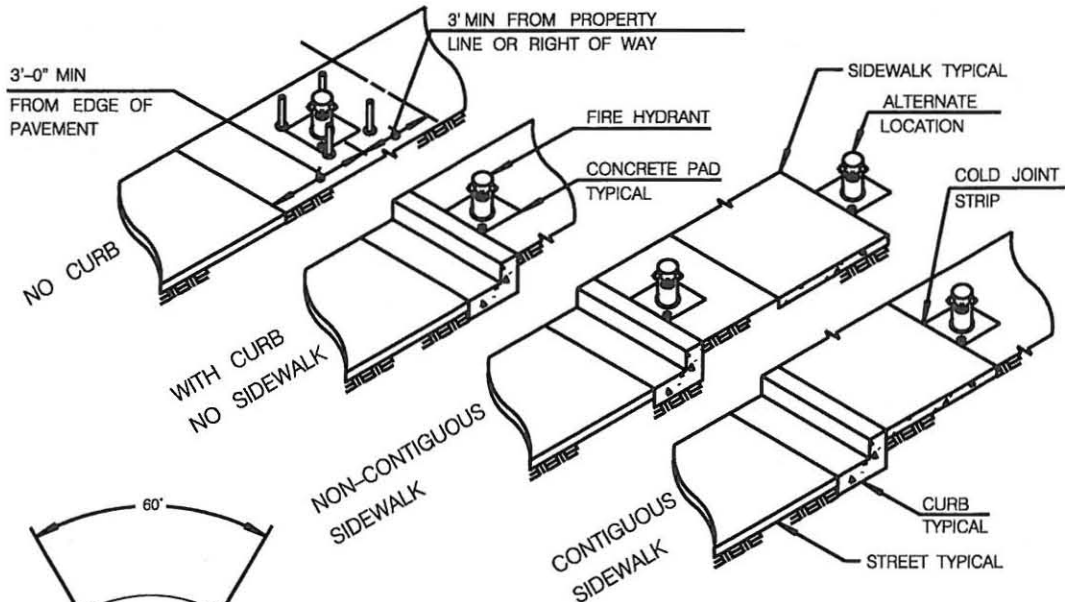
CITY OF SAN DIEGO - STANDARD DRAWING

RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE

**FIRE HYDRANT
INSTALLATION**

COORDINATOR R.C.E. 65271 DATE

DRAWING NUMBER **SDW-104**

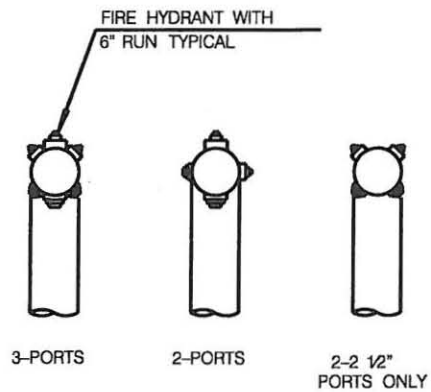


PROTECTION POSTS
SEE WM-04

NOTE:

WHEN REQUIRED, NUMBER OF POSTS AND LOCATION TO BE SHOWN ON THE PLANS.

PROTECTION POSTS



3-PORTS

2-PORTS

2-2 1/2" PORTS ONLY

PORT ORIENTATION

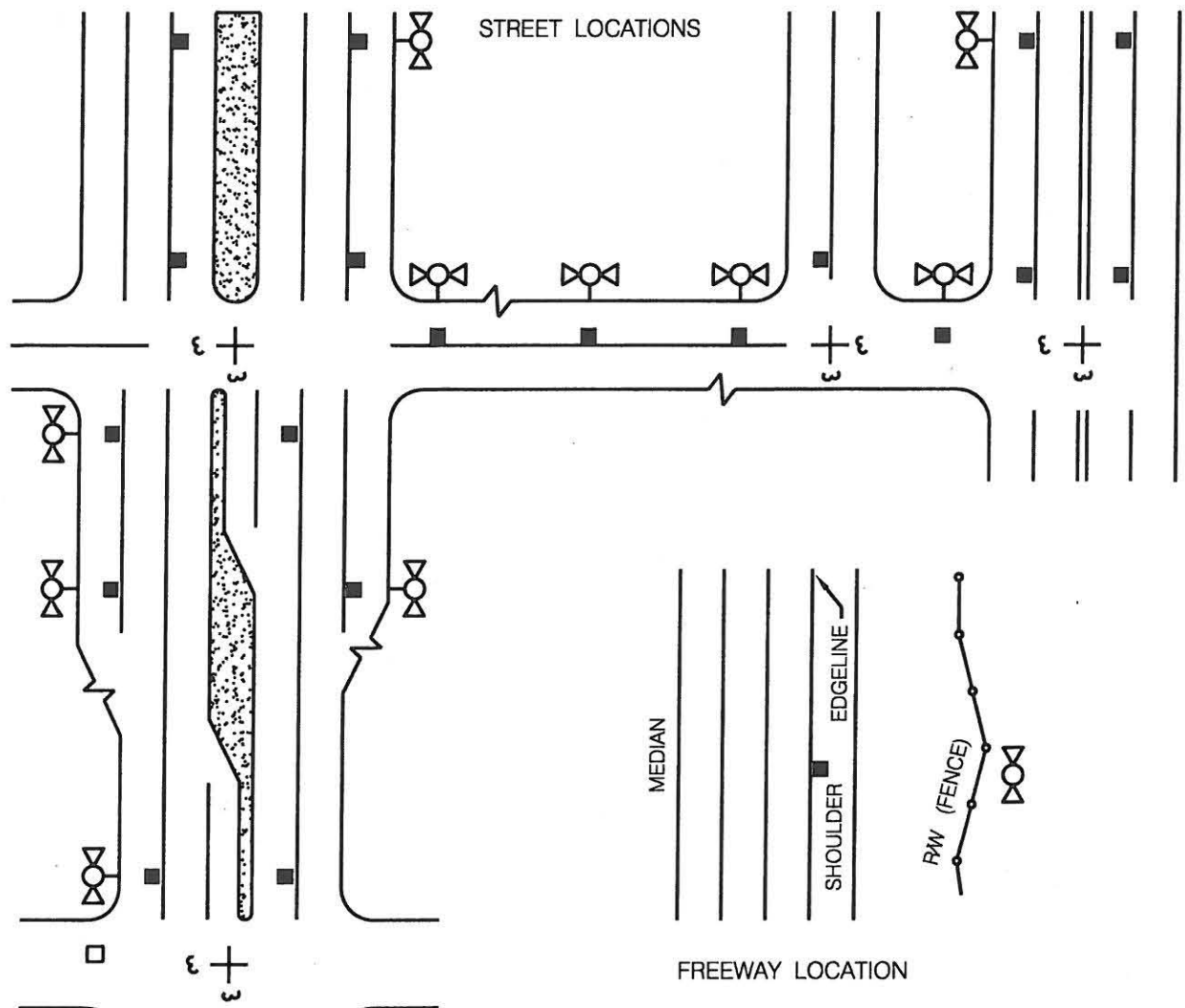
FIRE HYDRANT LOCATIONS AND PORT ORIENTATION

NOTES:

- 1) LOCATE FIRE HYDRANT AS SHOWN ABOVE OR AS DIRECTED BY THE ENGINEER.
- 2) FIRE HYDRANTS SHALL BE INSTALLED WITH THE LARGEST PORT PERPENDICULAR TO THE STREET.
- 3) IF THE CONCRETE SLAB IS TO BE INSTALLED ADJACENT TO A CONCRETE CURB OR SIDEWALK, A COLD JOINT STRIP SHALL BE INSTALLED.
- 4) CONCRETE APRON SHALL BE REQUIRED WHERE THE FIRE HYDRANT IS INSTALLED IN AN UNPAVED LOCATION. THE APRON SHALL BE 4" THICK 520-C-2500 CONCRETE.
- 5) WHEN DISTANCE FROM THE FIRE HYDRANT TO THE TOP OR TOE OF THE SLOPE OR WALLS IS LESS THAN 2', SPECIAL HYDRANT INSTALLATION DETAIL SHALL BE SHOWN ON THE PLANS.
- 6) THE DISTANCE FROM THE FACE OF THE CURB TO THE CENTERLINE OF THE FIRE HYDRANT SHALL BE 2 1/2' MINIMUM.

SHEET 2 OF 3

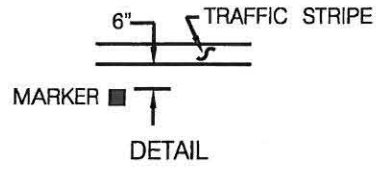
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL	KA	J. NAGELVOORT	10/11		COORDINATOR R.C.E. 65271 DATE
				FIRE HYDRANT INSTALLATION	DRAWING NUMBER SDW-104



MARKERS - SHALL BE BLUE 2-WAY STIMSONITE LIFELITE 88AB OR EQUAL.

ADHESIVE - AN AMPLIFIED AMOUNT OF 2 (A&B) EPOXY OR EQUAL.

SURFACES - CLEAN AND DRY TO INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.
 INSTALL MARKERS WITH REFLECTIVE SURFACES FACING ONCOMING VEHICLES AND OFFSET 2" FROM LANE LINES TOWARD FIRE HYDRANT.



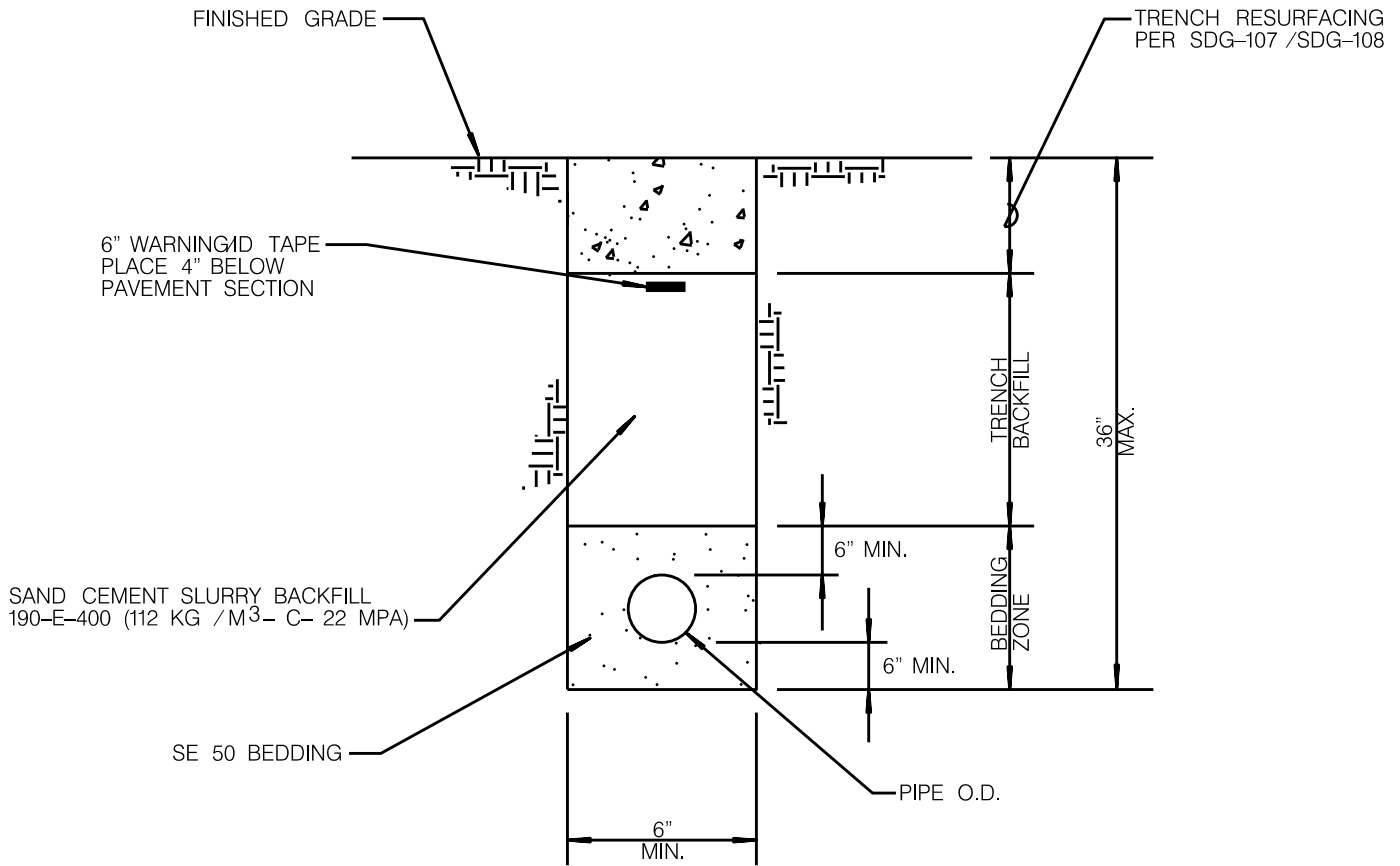
FIRE HYDRANT MARKERS

NOTES

1. FIRE DEPARTMENT WILL PROVIDE LOCATION(S) FOR ALL MARKERS IN PRD'S COMMERCIAL LOTS AND OTHER AREAS OUTSIDE OF PUBLIC RIGHT OF WAY.
2. MARKERS SHALL BE INSTALLED AT THE NEW AND RELOCATED HYDRANTS AND WITHIN ALL RESURFACING PROJECTS.
3. FOR STREETS WITHOUT LANE LINES OR STREETS WITH RAISED PAVEMENT MARKERS AND NO PAINTED LANE LINES, INSTALL MARKERS 6" FROM CENTERLINE OR EXISTING MARKERS.

SHEET 3 OF 3

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL	KA	J. NAGELVOORT	1011		COORDINATOR R.C.E. 65271 DATE
				FIRE HYDRANT INSTALLATION	DRAWING NUMBER SDW-104



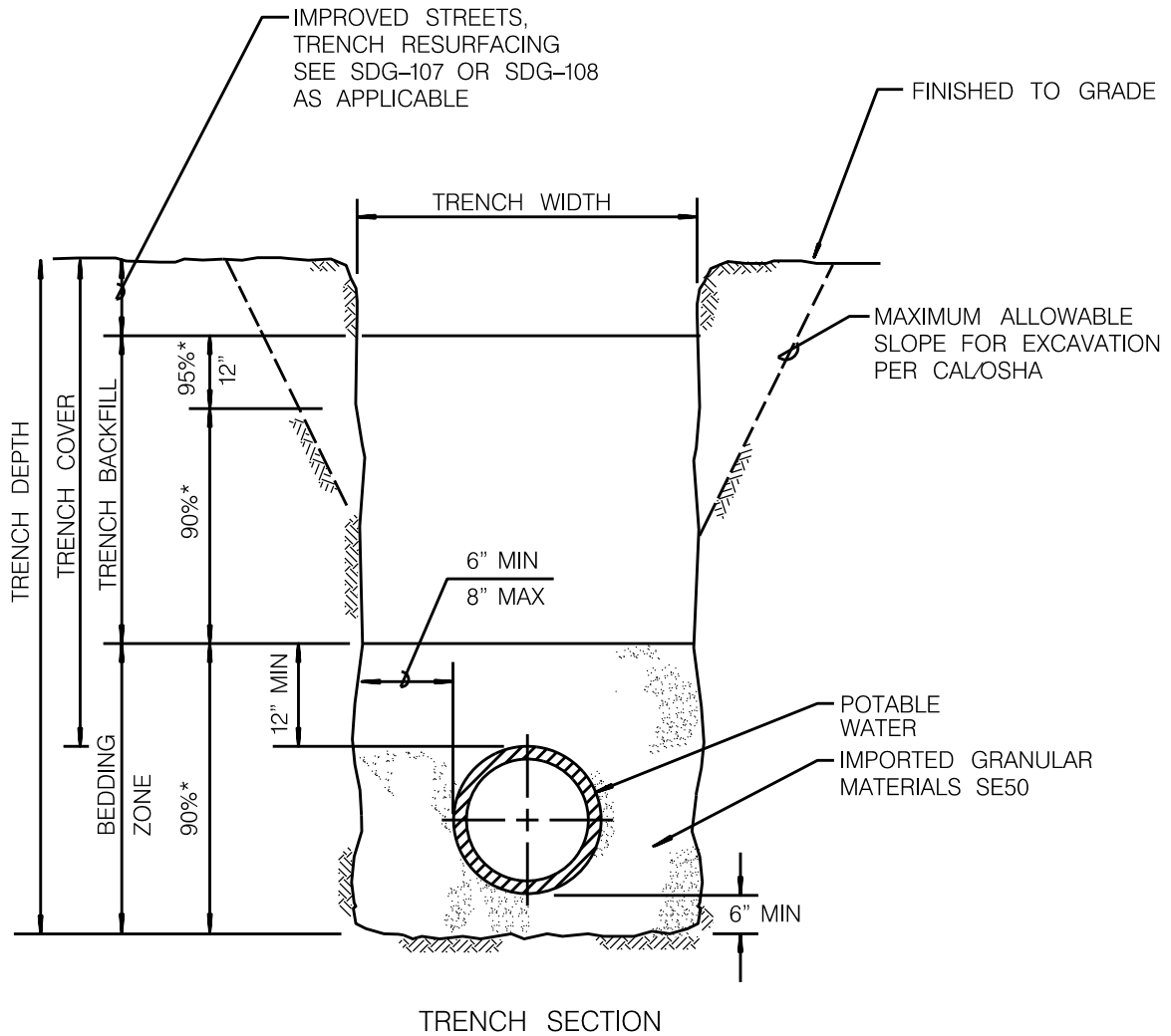
TRENCH SECTION

NOTES:

1. THE PROPOSED WATER SERVICE SHALL BE SECURED IN CENTER OF THE TRENCH.
2. SAND CEMENT SLURRY BACKFILL SHALL BE THOROUGHLY CONSOLIDATED TO ENCASE CONDUITS. TAMPERS OR VIBRATORS SHALL BE USED.
3. EXISTING PAVEMENT WILL NOT REQUIRE SAW CUTTING WHEN USING ROCKWHEEL FOR EXCAVATION EXCEPT WHEN THE EXISTING PAVEMENT IS CONCRETE AND TRENCH FINISH IS CONCRETE.
4. ALL CUTS SHALL BE PARALLEL OR PERPENDICULAR TO STREET CENTERLINE, WHEN PRACTICAL.
5. IN MAJOR OR PRIME ARTERIAL STREETS, ON APPROVAL SET ACCELERATING ADMIXTURE, SUCH AS CALCIUM CHLORIDE, MAY BE USED ONLY WITH PRIOR APPROVAL OF THE AGENCY'S ENGINEER OTHERWISE THE CONTRACTOR SHALL PROTECT THE TRENCH WITH THE APPROVAL OF THE AGENCY'S ENGINEER.

NARROW TRENCH

SDW-107



NOTES:

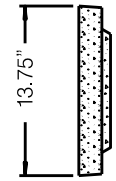
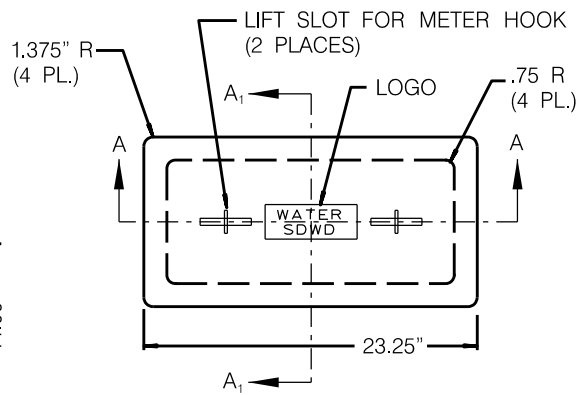
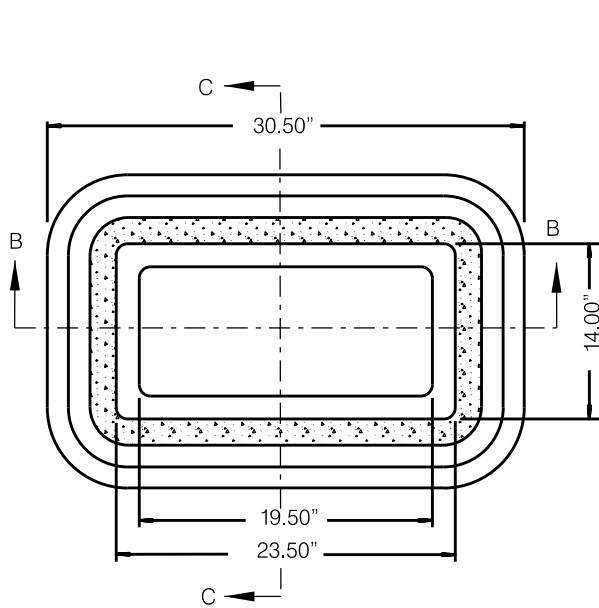
1. (*) INDICATES MINIMUM RELATIVE COMPACTION.
2. MINIMUM COVER: 3' FOR DISTRIBUTION MAINS; 5' FOR TRANSMISSION MAINS.
3. 6" METAL TAPE SHALL BE INSTALLED ABOVE PIPE 4" BELOW TRENCH CAP AND 12" BELOW FINISH GRADE IN UNIMPROVED STREETS.
4. 1' SAND CUSHION OR A 6" MINIMUM SAND CUSHION WITH 1" NEOPRENE PAD SHALL BE PLACED FOR ALL CROSSINGS UTILITIES WHEN VERTICAL CLEARANCE IS 1' OR LESS. THE NEOPRENE PAD SHALL BE PLACED ON THE MOST FRAGILE UTILITY.

TRENCH WIDTH

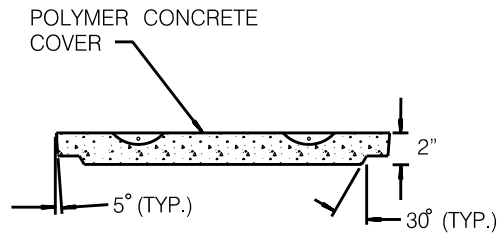
NOMINAL PIPE INSIDE DIAMETER	MINIMUM DISTANCE	MAXIMUM DISTANCE
4" & SMALLER	18"	28"
6" & 8"	24"	32"
10" & 12"	28"	36"
16" THRU 36"	OD PLUS 24"	OD PLUS 36"

**PIPE BEDDING AND TRENCH
BACKFILL FOR POTABLE
WATER MAINS**

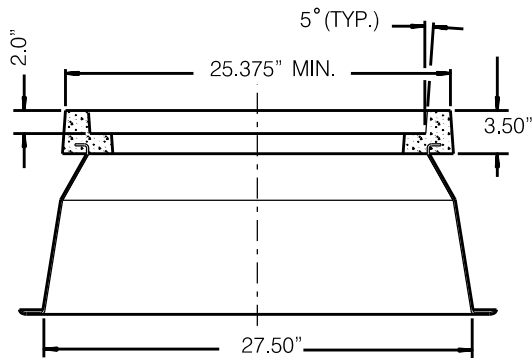
SDW-110



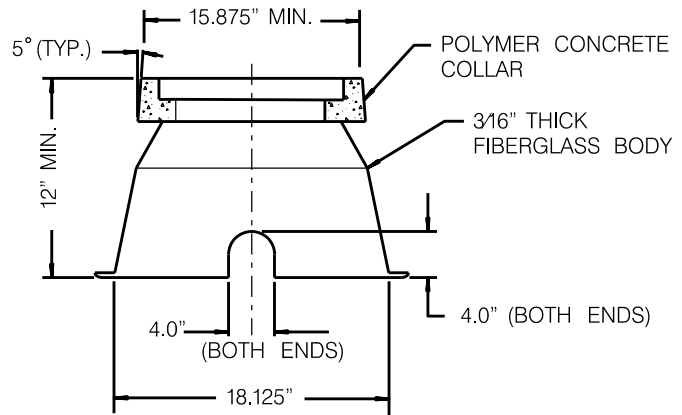
SECTION A₁-A₁



SECTION A-A



SECTION B-B



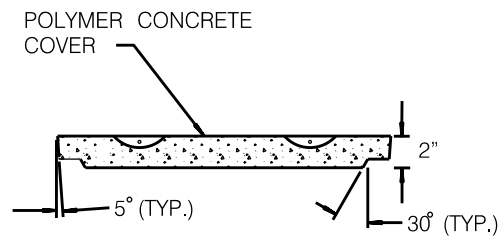
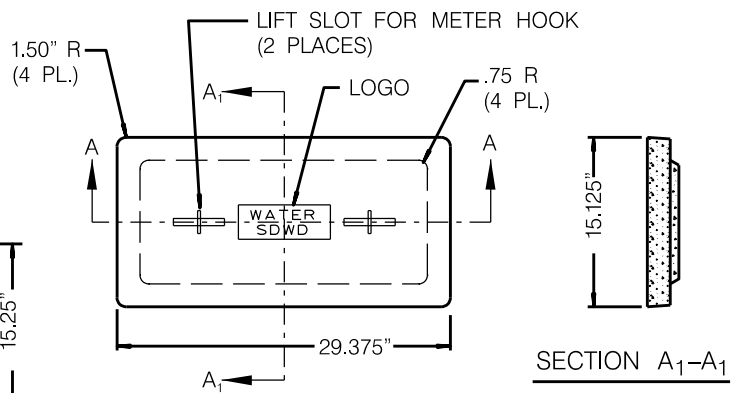
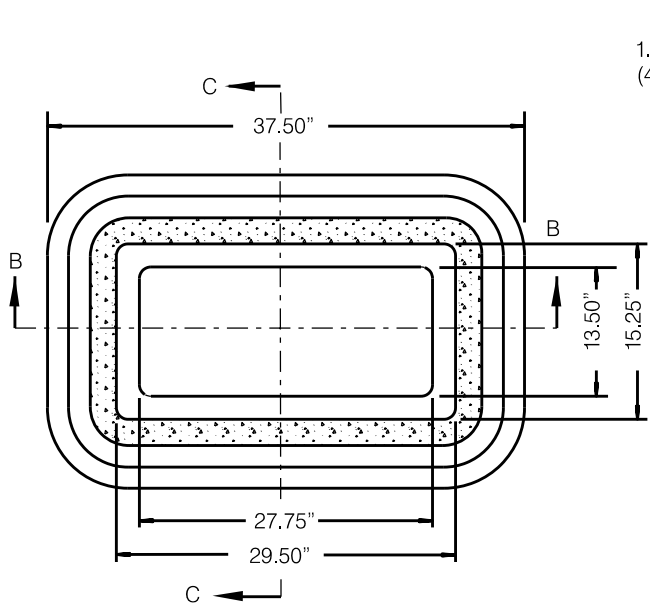
SECTION C-C

NOTES:

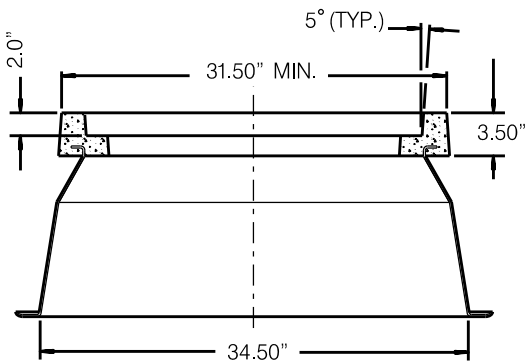
1. METER BOX COLLAR AND COVER SHALL BE OF POLYMER CONCRETE REINFORCED WITH CONTINUOUS LAYERS OF WOVEN FIBERGLASS.
2. BOX AND COVER SHALL WITHSTAND 20K LOAD RATING.
3. LOGO - SDWD WATER
4. FOR COVER DETAIL WITH READER LID, SEE SDW-136
5. SEE SDW-137 FOR INSTALLATION PROCEDURE.

POLYMER CONCRETE WITH LAYER OF
WOVEN FIBERGLASS WATER
METER BOX FOR 1" WATER SERVICE

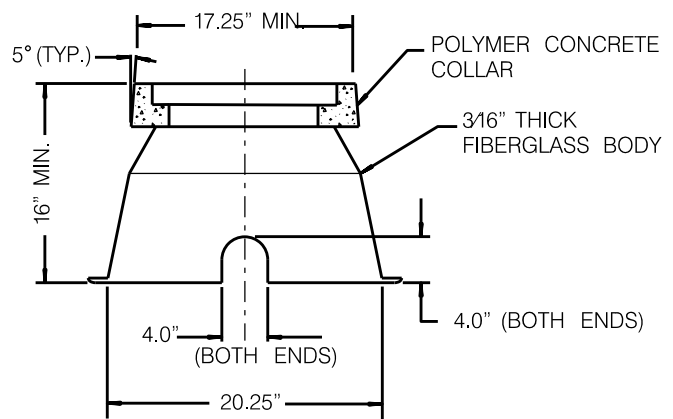
SDW-134



SECTION A-A



SECTION B-B



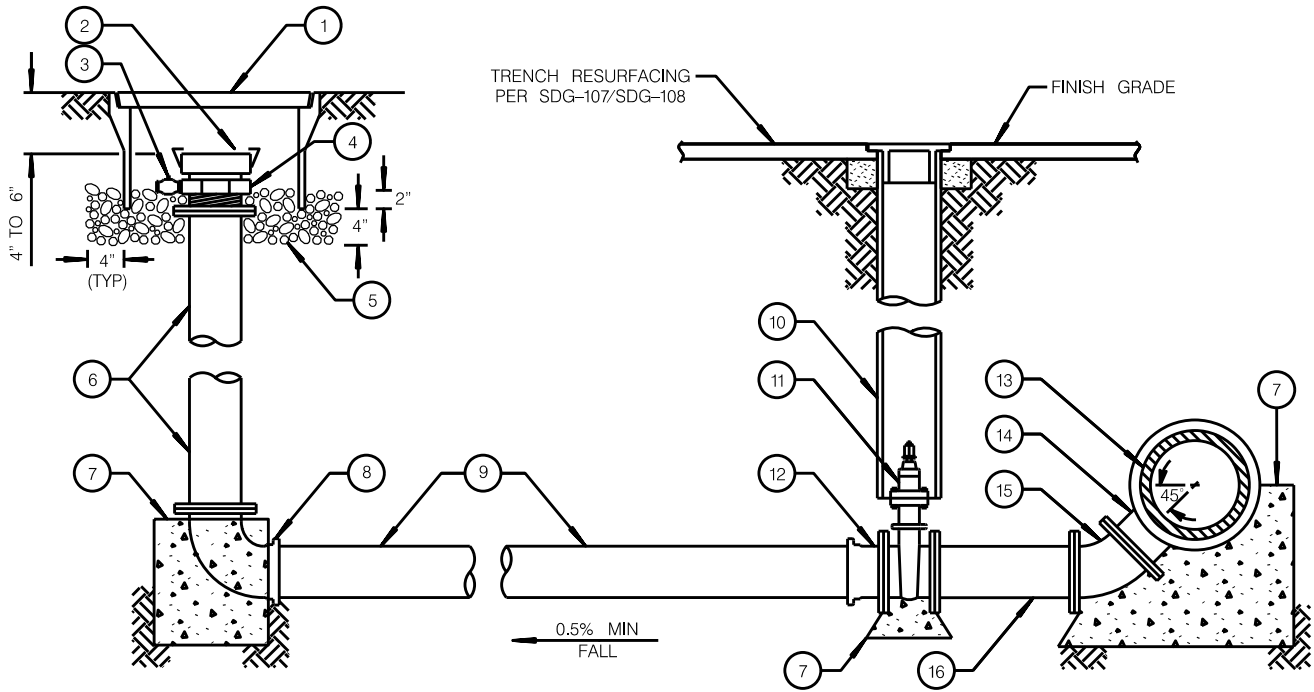
SECTION C-C

NOTES

1. METER BOX COLLAR AND COVER SHALL BE OF POLYMER CONCRETE REINFORCED WITH CONTINUOUS LAYERS OF WOVEN FIBERGLASS.
2. BOX AND COVER SHALL WITHSTAND 20K LOAD RATING.
3. LOGO = SDWD WATER
4. FOR COVER DETAIL WITH READER LID, SEE SDW-136.
5. SEE SDW-137 FOR INSTALLATION PROCEDURE.

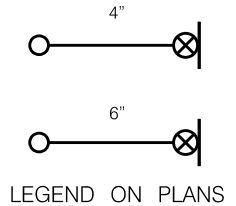
POLYMER CONCRETE WITH LAYER OF
WOVEN FIBERGLASS WATER
METER BOX FOR 2" WATER SERVICE

SDW-135



NOTES:

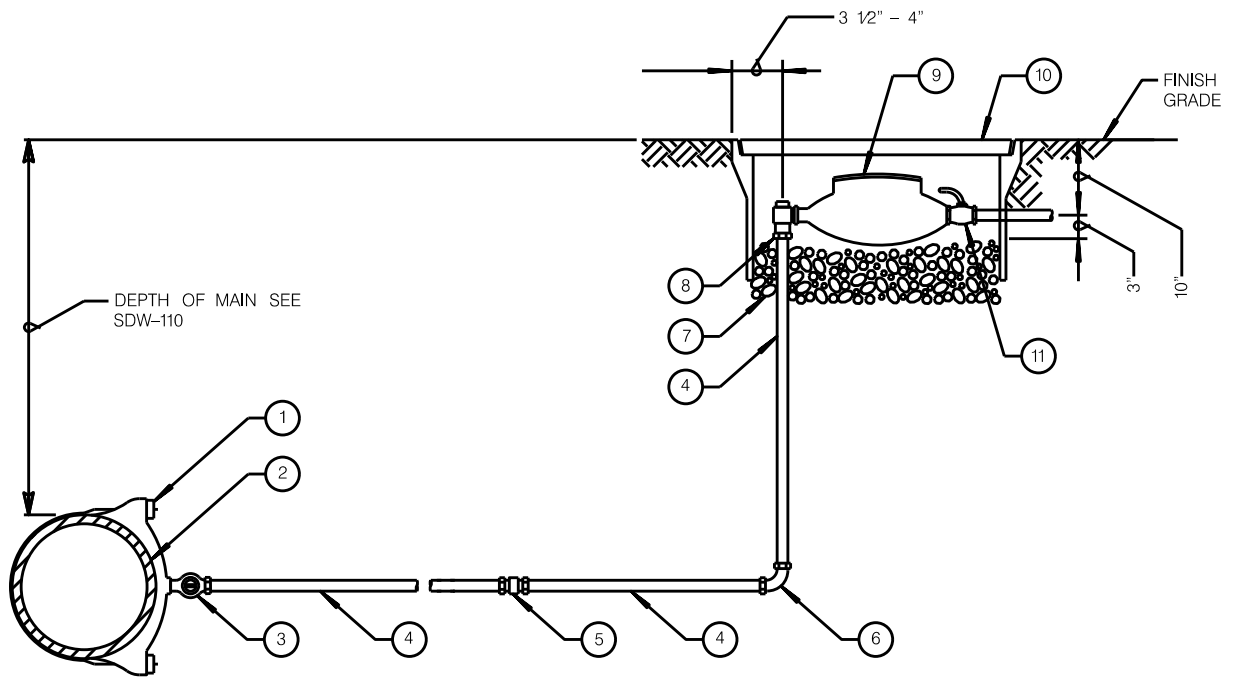
- 1) SET TOP OF METER BOX FLUSH WITH SIDEWALK, CURB OR FINISH GRADE
- 2) LOCATE METER BOX AS SHOWN ON WS-03
- 3) INSTALL WARNING / IDENTIFICATION TAPE AS SHOWN ON SDW-148
- 4) FOR BLOW-OFF INSTALLATION AT END OF MAIN SEE SDW-146
- 5) BLOW-OFF ASSEMBLIES INSTALLED FOR THE USE OF RECYCLED WATER SHALL BE IDENTIFIED AS DESCRIBED IN SPECIFICATIONS
- 6) 45° BEND SHALL BE USED FOR MAINS UP TO 30°. 90° BEND SHALL BE USED FOR MAINS IN EXCESS OF 30° AS DIRECTED BY THE ENGINEER
- 7) CAM & GROOVE ADAPTER SHALL BE DRILLED AND TAPPED AS REQUIRED FOR THE PRESSURE PET COCK



ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	POLYMER METER BOX WITH LID 17" x 30", SEE NOTE 2	8	4" OR 6" FLG x MJPO 90° BEND
2	4" OR 6" CAM & GROOVE ADAPTER x MIPT WITH LOCKING DUST CAP, SEE NOTE 7	9	USE STEEL PIPE ONLY
3	1/4" PRESSURE PET COCK	10	VALVE WELL FRAME AND COVER (SEE SDW-153, SDW-154)
4	4" OR 6" FLANGED COMPANION x FIPT	11	4" OR 6" FLG x MJPO/FLG RWGV
5	3/8" ROCK 4" TO 6" DEEP	12	4" OR 6" FLG x MJPO ADAPTER (IF REQUIRED)
6	4" OR 6" FLG DIPIPE x REQUIRED LENGTH (MAXIMUM OF 2 SPOOLS)	13	WATER MAIN
7	CONCRETE THRUST BLOCK SEE SDW-151	14	SIZE x 4" OR 6" MJPO/FLG x FLG TEE
		15	4" OR 6" FLANGED 45° BEND
		16	4" OR 6" x 24" FLG DISPOOL

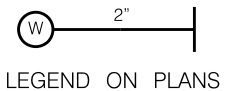
**4" & 6" BLOW-OFF
INSTALLATION TYPE A**

SDW-144



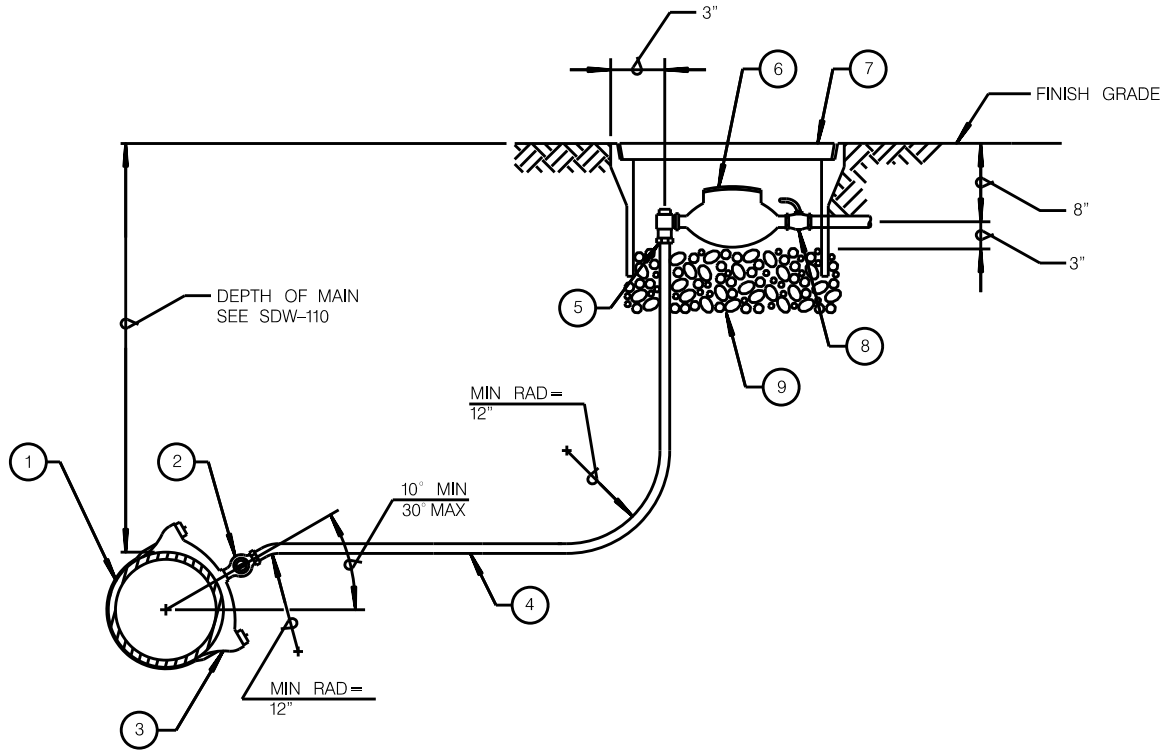
NOTES:

- 1) INSTALL CORPORATION STOP WITH KEY IN THE SIDE POSITION
- 2) SET TOP OF METER BOX FLUSH WITH SIDEWALK, CURB, OR FINISH GRADE
- 3) LOCATE METER BOX AS SHOWN ON WS-03
- 4) INSTALL WARNING IDENTIFICATION TAPE AS SHOWN ON SDW-148
- 5) SILVER SOLDER JOINTS SHALL NOT BE USED
- 6) ON STEEL MAINS USE WELD ON COUPLINGS, ON DUCTILE IRON MAINS USE DUCTILE IRON SERVICE SADDLES (INSULATING BUSHINGS ARE REQUIRED)
- 7) TOP TAPS NOT PERMITTED. ANY GLUE JOINT SHALL BE BEVELED PRIOR TO ASSEMBLY



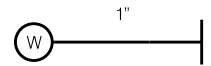
ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	SIZE x 2" BRONZE SERVICE SADDLE DOUBLE STRAP	8	2" 50mm BRONZE ANGLE METER STOP WITH LOCKWING
2	WATER MAIN	9	WATER METER FURNISHED AND INSTALLED BY THE CITY
3	2" BRONZE CORPORATION STOP	10	METER BOX WITH LID, #6: 35"x 21"
4	2" x REQUIRED LENGTH COPPER PIPE TYPE "K" SOFT/RIGID OR UNLESS OTHERWISE SPECIFIED BY AGENCY OF JURISDICTION	11	CUSTOMER SHUT-OFF VALVE (LOCKABLE)
5	2" BRONZE COMPRESSION COUPLING COPPER TO COPPER (IF REQUIRED)		
6	2" BRONZE COMPRESSION ELL		
7	3/8" ROCK, 4" TO 6" DEEP		

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL	BB	OSKOU	01/10		
				2" WATER SERVICE INSTALLATION	COORDINATOR R.C.E. 65271 DATE
					DRAWING NUMBER
					SDW-149



NOTES:

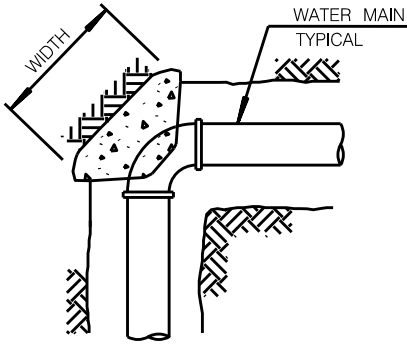
- 1) INSTALL CORPORATION STOP WITH KEY IN THE SIDE POSITION
- 2) SET TOP OF METER BOX FLUSH WITH SIDEWALK, CURB, OR FINISH GRADE
- 3) LOCATE METER BOX AS SHOWN ON WS-03
- 4) INSTALL WARNING / IDENTIFICATION TAPE AS SHOWN ON SDW-148
- 5) SILVER SOLDER JOINTS SHALL NOT BE USED
- 6) ON STEEL MAINS USE WELD ON COUPLINGS, ON DUCTILE IRON MAINS USE DUCTILE IRON SERVICE SADDLES (INSULATING BUSHINGS ARE REQUIRED)
- 7) BRONZE PIPE SADDLES ARE REQUIRED FOR ALL TAPS INTO POLYVINYL CHLORIDE (PVC) PIPE. TOP TAPS ARE NOT PERMITTED.



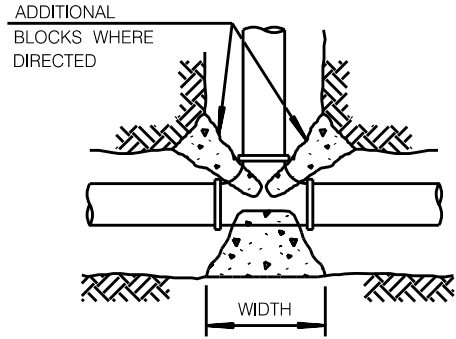
LEGEND ON PLANS

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	WATER MAIN	6	WATER METER FURNISHED & INSTALLED BY THE WATER AGENCY OF JURISDICTION
2	1" BRONZE CORPORATION STOP	7	METER BOX WITH LID, #37: 28" x 18"
3	SIZE x 1" SERVICE SADDLE	8	CUSTOMER SHUT-OFF VALVE (LOCKABLE) FURNISHED AND INSTALLED BY THE WATER AGENCY OF JURISDICTION
4	USE COPPER TUBING TYPE (K) SOFT FOR 1 INCH SERVICES ONLY. NO INTERMEDIATE JOINTS PERMITTED WITHIN THE FIRST 60 FEET FROM THE MAIN FOR LENGTHS LONGER THAN 60 FEET USE FLARE JOINT UNION OR LOK-PAC FITTINGS WITH LOCKING CLAMP AND STAINLESS STEEL BOLT ONLY. NO SWEAT JOINTS ARE ALLOWED	9	3/8" ROCK, 4" TO 6" DEEP
5	BRONZE ANGLE METER STOP WITH LOCKWING DEVICE AND METER COUPLING ATTACHED. "FURNISH AND INSTALL BRONZE PROPERTY VALVE. USE SPACER FOR METER"		

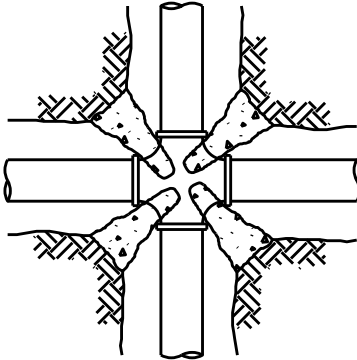
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO – STANDARD DRAWING	CITY OF SAN DIEGO STANDARDS COMMITTEE	
ORIGINAL	BB	OSKOUJ	0110			
				1" WATER SERVICE INSTALLATION	COORDINATOR R.C.E. 65271 DATE	
					DRAWING NUMBER	SDW-150



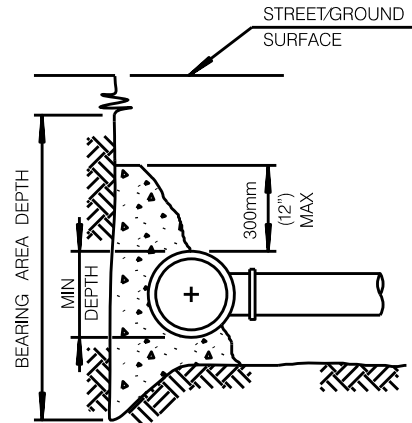
BEND



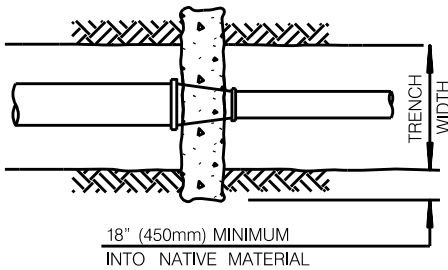
TEE PLAN



CROSS

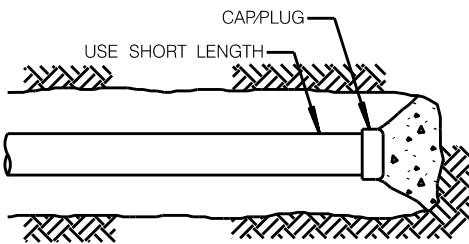
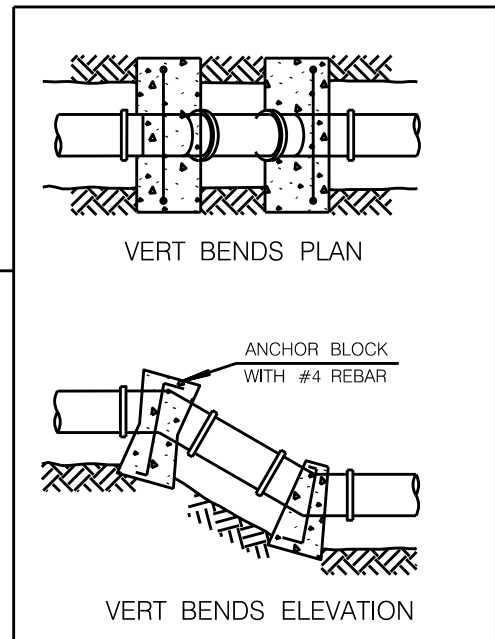


TEE ELEVATION



REDUCER

SEE NOTE 1 BELOW



END CAP

NOTES:

- 1) THE ANCHOR BLOCKS ON VERTICAL BENDS REQUIRE ENGINEER APPROVAL.
- 2) A MINIMUM OF 6" OF CONCRETE SHALL BE Poured ON WETTED VIRGIN OR COMPACTED SOIL BENEATH EACH INSTALLATION.
- 3) TEE SHALL BE CONCRETE BLOCKED A MINIMUM OF 6" ON ALL THREE SIDES.
- 4) USE 12" - 18" LENGTH OF PIPE BETWEEN THE END CAP AND THE LAST JOINT AS A BOND BREAKER ON DEAD END BLOCKING.

SHEET 1 OF 3

CONCRETE THRUST AND ANCHOR BLOCK INSTALLATIONS

SDW-151

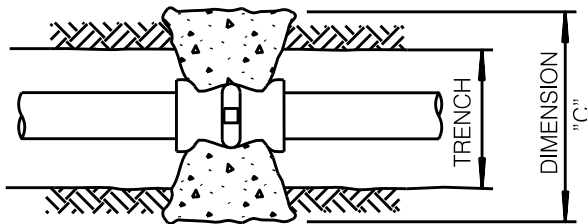
VALVE SUPPORT BLOCK

VALVE SIZE	DIMENSION "A"	DIMENSION "B"
4"	12"	12"
6"	12"	12"
8"	13"	14"
10"	14"	16"
12"	15"	18"

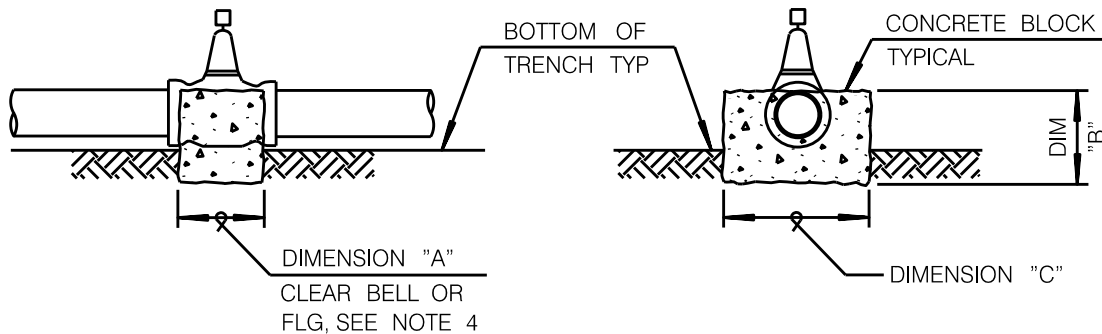
DIMENSION "C" = TRENCH WIDTH PLUS TWO TIMES THE PIPE DIAMETER

THRUST AND ANCHOR BLOCKS

MINIMUM BEARING AREA IN SQUARE FOOT (SQURE METERS) SEE NOTE 2				
MAIN SIZE	TEES	90° BEND	45° BEND	22 ¹ / ₂ ° BEND
4"	4	5	3	1.5
6"	8	10	5	2.5
8"	12	16	9	4.5
10"	17	24	13	6.5
12"	24	33	19	9.5



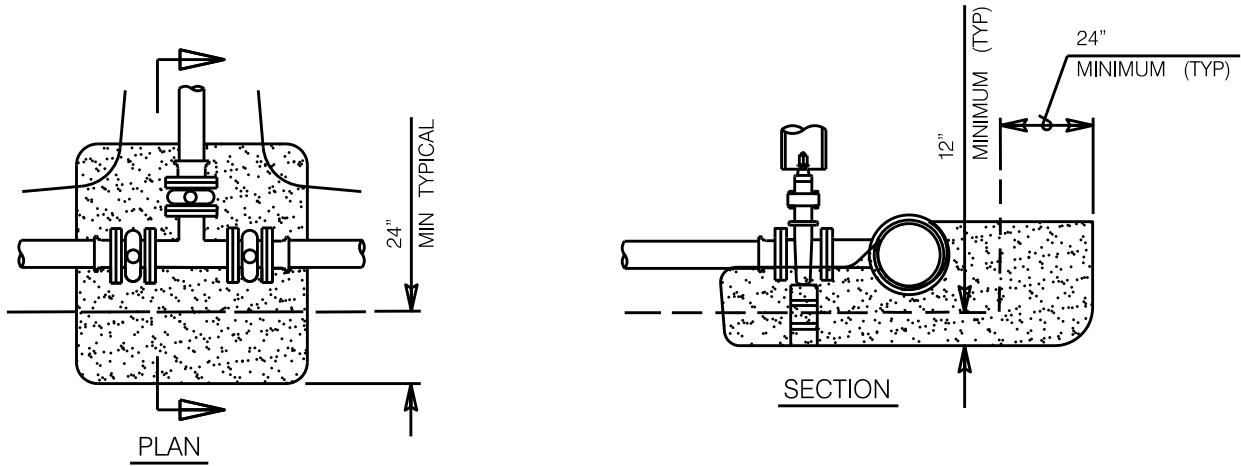
VALVE SUPPORT PLAN



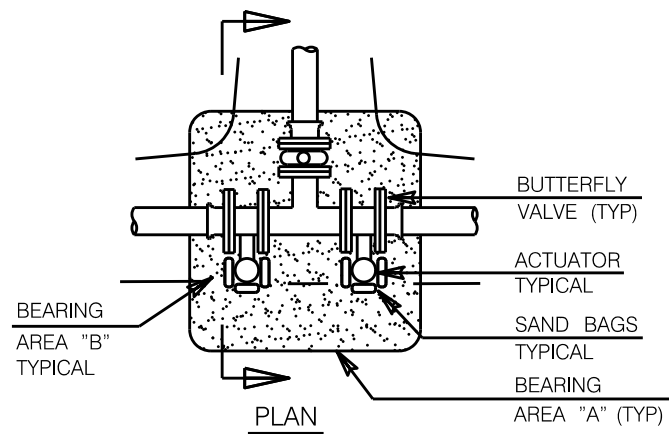
VALVE SUPPORT ELEVATION

NOTES:

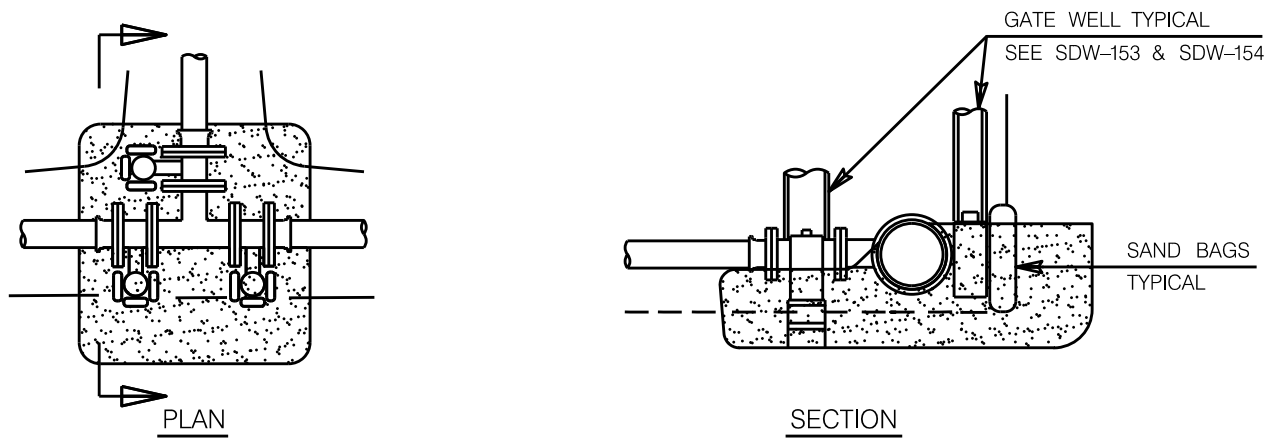
- 1) BEARING AREA BASED ON SOIL BEARING VALUE OF 1500 PSF AND 225 PSI LINE PRESSURE AND A MINIMUM OF 36" COVER:
 FOR BEARING = 1000 PSF, 1.5 x AREA SHOWN
 FOR BEARING = 500 PSF, 3.0 x AREA SHOWN
- 2) ENGINEER SHALL DETERMINE SIZES, REFER TO SPECIFICATIONS FOR THRUST AND ANCHOR BLOCK SIZING.
- 3) THRUST BLOCKS SHALL BE CENTERED ON THE FITTING SO THAT THE BEARING AREA IS EXACTLY OPPOSITE THE RESULTANT DIRECTION OF THRUST.
- 4) CONCRETE SHALL BE PLACED SO THAT FITTINGS AND VALVES WILL BE ACCESSABLE FOR REPAIR OR REPLACEMENT.



TEE WITH GATE VALVES



TEE WITH BUTTERFLY VALVES ON MAIN



TEE WITH BUTTERFLY VALVES

NOTES:

- 1) BEARING AREA "B" MUST BE EQUAL TO OR GREATER THAN THE AREA REQUIRED FOR A 90° ELBOW INSTALLATION.
- 2) INSTALL SAND BAGS AROUND BUTTERFLY VALVE ACTUATOR TO ISOLATE IT FROM CONCRETE.
- 3) BFV'S INSTALLED AT CROSSES OR TEES REQUIRE A FLANGED DUCTILE IRON SPOOL TO BE INSTALLED BETWEEN THE FITTING AND VALVE IN ACCORDANCE WITH THE SPECIFICATIONS.

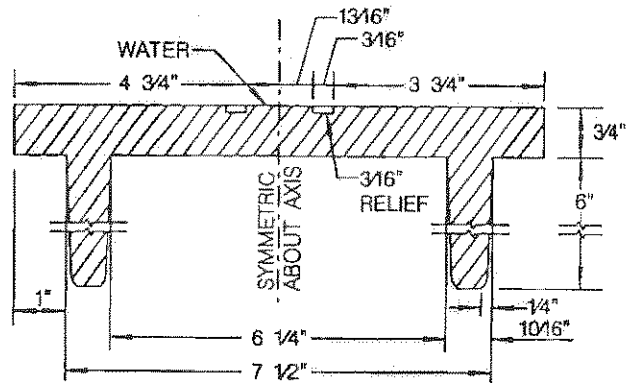
CONCRETE THRUST AND ANCHOR BLOCK INSTALLATIONS

SDW-151



POTABLE
WATER

GATE WELL LID



CAST IRON VALVE WELL CAP DETAIL

COLOR	GATE WELL AND LIDS USED FOR:
RED	NORMALLY CLOSED SYSTEM VALVES (NCV)
WHITE	RESILIENT WEDGE GATE VALVES
YELLOW	BUTTERFLY VALVES

INSIDE GATE WELL LID PAINTED IDENTIFICATION MARKING

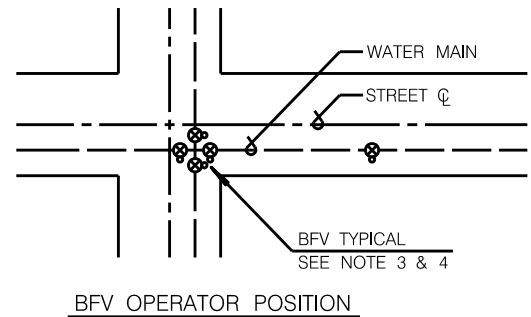
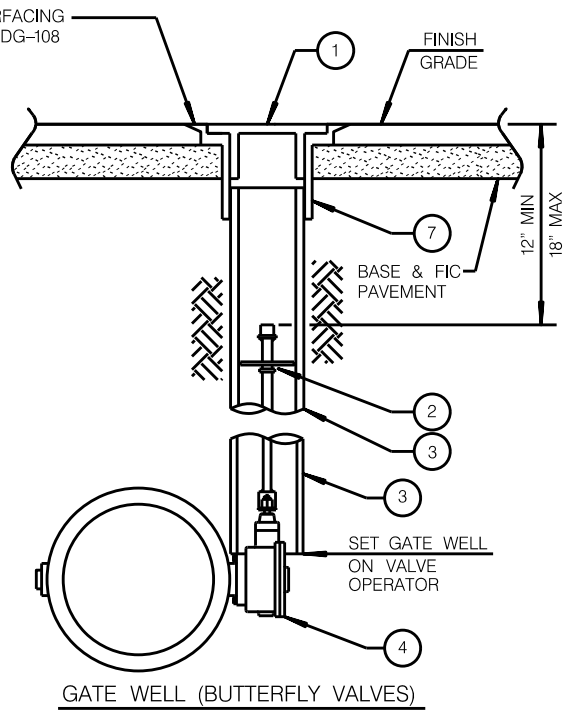
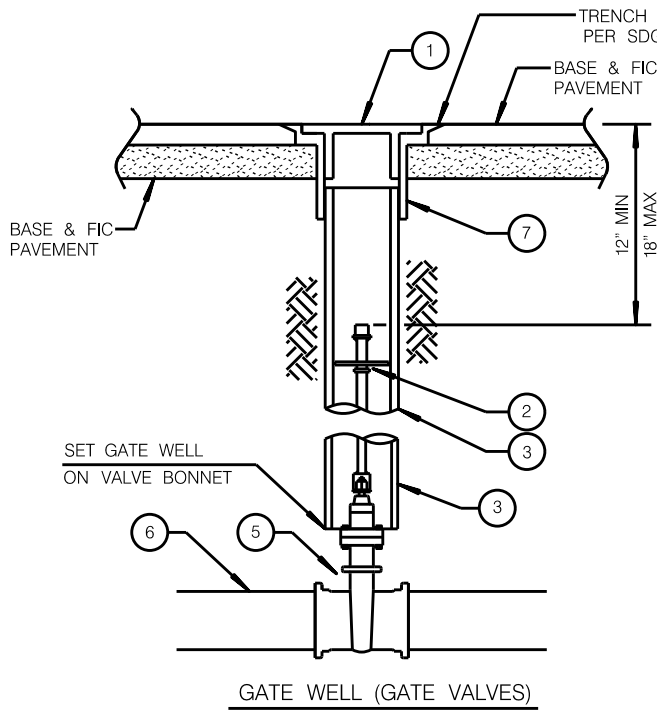
VALVE CONDITION	BUTTERLY VALVE	GATE VALVE
PERMANENTLY CLOSED	RED	RED
TEMPORARILY CLOSED	YELLOW W/RED DOT	WHITE W/RED DOT
PERMANENTLY OPEN	YELLOW	WHITE

GATE WELL LID TOP COLOR & CONDITION

NOTES:

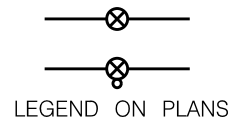
- GATE WELL LIDS SHALL BE CAST IRON WITH "CITY OF SAN DIEGO" AND THE WORD "WATER" FOR USE WITH POTABLE WATER SYSTEMS AND "RECYCLED" FOR USE WITH RECYCLED WATER SYSTEMS. LIDS SHALL INCLUDE A 1" LIFTING SLOT
- FOR RECYCLED WATER REFER TO SDRW-104

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY	
ORIGINAL	KA	OSKOUR	0110		GATE WELL IDENTIFICATION	CITY OF SAN DIEGO STANDARDS COMMITTEES
REPLACED WW-03	KA	OSKOUR	0913	COORDINATOR R.C.E. 65271 DATE		
				DRAWING NUMBER		SDW-152



NOTES:

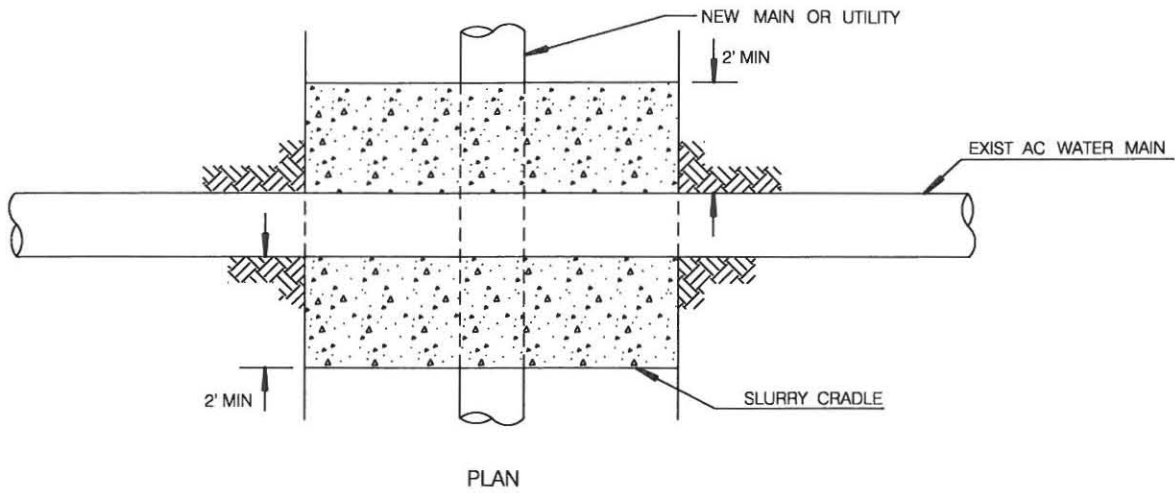
- 1) VALVES DEEPER THAN 6' REQUIRE A VALVE STEM EXTENSION
- 2) EXTENSION STEMS SHALL NOT BE ATTACHED/BOLTED TO OPERATING NUT
- 3) GATE WELL AND CAP SHALL BE SET SO THAT NO MORE THAN TWO 1" ADJUSTMENT RINGS ARE USED
- 4) BFV OPERATORS TO BE LOCATED TO THE CURBLINE SIDE OF WATER MAIN
- 5) BFV'S INSTALLED AT CROSSES OR TEES REQUIRE A FLANGED DUCTILE IRON SPOOL TO BE INSTALLED BETWEEN THE FITTING AND VALVE IN ACCORDANCE WITH THE SPECIFICATIONS
- 6) GATE WELLS AND CAPS SHALL BE IDENTIFIED AS DESCRIBED ON SDW-152
- 7) FOR INLINE VALVE ANCHOR BLOCK INSTALLATION SEE SDW-151
- 8) VALVE WELL FRAME SHALL BE SET TO SLOPE OF STREET



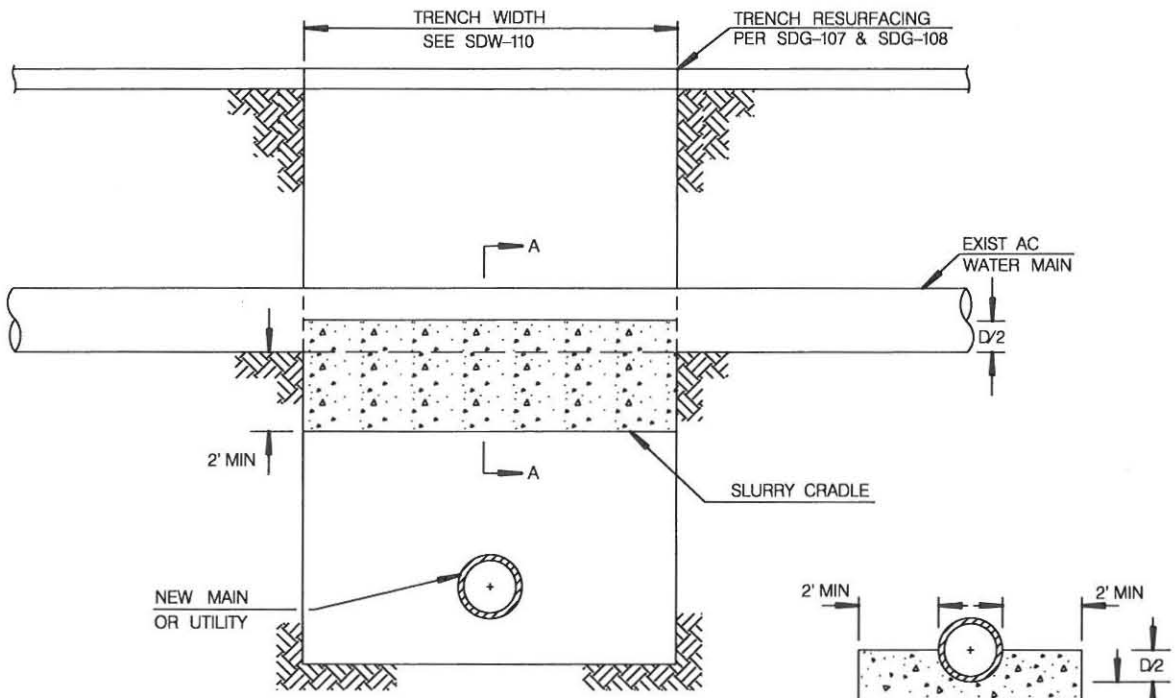
ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
①	GATE WELL WITH CAP SEE NOTE 6	⑤	RESILIENT WEDGE GATE VALVE
②	VALVE STEM EXTENSION SEE NOTES 1 & 2	⑥	WATER MAIN
③	8" OD x 18" STEEL CASING x REQUIRED LENGTH GATE WELL SEE NOTE 6	⑦	1/8" THICK, 8 5/8" OD STEEL PIPE
④	BUTTERFLY VALVE		

GATE WELL CAP & CAN INSTALLATION FOR VALVES 4" AND LARGER

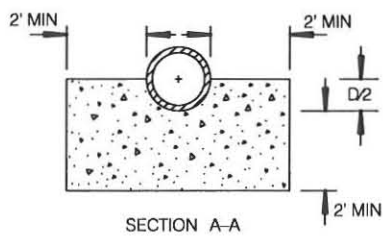
SDW-153



PLAN



ELEVATION



SECTION A-A

- NOTES:
- 1) REFER TO SPECIFICATIONS FOR PROTECTION OF EXISTING FACILITIES
 - 2) SLURRY SHALL BE CONTROLLED LOW STRENGTH MATERIAL CLSM (100-E-100)
 - 3) SLURRY SHALL BE PLACED ON FIRMLY COMPACTED BACKFILL
 - 4) FOR PIPE BEDDING AND TRENCH BACKFILL, SEE SDW-110, SDS-110, OR SDRW-101.

REVISION	BY	APPROVED	DATE
ORIGINAL	KA	OSKOUJ	0910

CITY OF SAN DIEGO - STANDARD DRAWING

**PIPE SUPPORT FOR UNDERCUT
AC WATER MAIN**

RECOMMENDED BY THE CITY OF SAN DIEGO
STANDARDS COMMITTEE

COORDINATOR R.C.E. 65271 DATE

DRAWING NUMBER **SDW-162**

APPENDIX I

**FUSIBLE POLYVINYLCHLORIDE PIPE FOR INSTALLATION
BY HORIZONTAL DIRECTIONAL DRILLING (HDD)**

**FUSIBLE POLYVINYLCHLORIDE PIPE FOR INSTALLATION
BY HORIZONTAL DIRECTIONAL DRILLING (HDD)**

PART 1 –GENERAL

1.01 DESCRIPTION

A SCOPE

1. This section specifies fusible polyvinylchloride pipe, including standards for dimensionality, testing, quality, acceptable fusion practice, safe handling, storage and installation of the pipe by horizontal directional drilling, directional boring, or guided boring.

B REQUIREMENTS:

1. Contractor shall provide fusible polyvinylchloride pipe conforming to all standards and procedures, and meeting all testing and material properties as described in this specification for installation by horizontal directional drilling.
2. Contractor shall be responsible for all installation processes and procedures associated with the installation by horizontal directional drilling in accordance with this specification.

C PIPE DESCRIPTION

1. Pipe Supplier shall furnish fusible polyvinylchloride pipe conforming to all standards and procedures, and meeting all testing and material properties as described in this specification.
2. Pipe shall conform to the following dimensionality and general characteristics table:

PIPE DESCRIPTION	NOMINAL DIAMETER (in.)	DR	COLOR	PRESSURE CLASS (psi)	REQUIRED INNER DIAMETER (in.)
FUSIBLE PVC PIPE FOR HDD	9.05"	14	BLUE	235	8"
FUSIBLE PVC PIPE FOR HDD	13.20"	14	BLUE	235	12"

1.02 QUALITY ASSURANCE

A REFERENCES:

1. This section contains references to the following documents. They are a part of this section as specified and modified. Where a referenced document contains references to other standards, those other standards are included as references under this section as if referenced directly. In the event of a conflict between the requirements of this section and those of the listed documents, the requirements of this section shall prevail.

2. Unless otherwise specified, references to documents shall mean the documents in effect at the time of design, bid, or construction, whichever is earliest. If referenced documents have been discontinued by the issuing organization, references to those documents shall mean the replacement documents issued or otherwise identified by that organization or, if there are no replacement documents, the last version of the document before it was discontinued.
3. Where document dates are given in the following listing, references to those documents shall mean the specific document version associated with that date, regardless of whether the document has been superseded by a version with a later date, discontinued or replaced.

Reference	Title
ANSI/AWWA C110/A21.10	American National Standard for Ductile-Iron and Gray-Iron Fittings, 3-inch through 48-inch, for Water and Other Liquids
ANSI/AWWA C111/A21.11	American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings
ANSI/AWWA C153/A21.53	AWWA Standard for Ductile-Iron Compact Fittings for Water Service
AWWA C605	Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water
AWWA C651	Standard for Disinfecting Water Mains
AWWA C900	Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 in. through 12 in. (100mm Through 300mm), for Water Distribution
AWWA C905	Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 14 in. through 48 in. (350mm Through 1200mm), for Water Distribution and Transmission
AWWA M23	AWWA Manual of Supply Practices PVC Pipe—Design and Installation, Second Edition
ASTM C923	Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes and Laterals
ASTM D1784	Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds
ASTM D1785	Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120
ASTM D2152	Test Method for Degree of Fusion of Extruded Poly(Vinyl Chloride) (PVC) Pipe and Molded Fittings by Acetone Immersion
ASTM D2241	Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR-PR)
ASTM D2665	Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
ASTM D3034	Standard Specification for Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings
ASTM F477	Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F679	Standard Specification for Poly(Vinyl Chloride) (PVC) Large Diameter Plastic Gravity Sewer Pipe and Fittings

Reference	Title
ASTM F1057	Standard Practice for Estimating the Quality of Extruded Poly (Vinyl Chloride) (PVC) Pipe by the Heat Reversion Technique
ASTM F1417	Standard Test Method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low-Pressure Air
UNI-B-6	Recommended Practice for Low-Pressure Air Testing of Installed Sewer Pipe
UNI-PUB-08	Tapping Guide for PVC Pressure Pipe
NSF-14	Plastics Piping System Components and Related Materials
NSF-61	Drinking Water System Components--Health Effects
PPI TR-2	PVC Range Composition Listing of Qualified Ingredients

B MANUFACTURER REQUIREMENTS

1. All piping shall be made from PVC compound conforming to cell classification 12454 per ASTM D1784.

C FUSION TECHNICIAN REQUIREMENTS

1. Fusion Technician shall be fully qualified by the pipe supplier to install fusible polyvinylchloride pipe of the type(s) and size(s) being used. Qualification shall be current as of the actual date of fusion performance on the project.

D SPECIFIED PIPE SUPPLIERS

1. Fusible polyvinylchloride pipe shall be used as manufactured under the trade names Fusible C-900®, Fusible C-905®, and FPVC®, for Underground Solutions, Inc., Poway, CA, (858) 679-9551. Fusion process shall be as patented by Underground Solutions, Inc., Poway, CA, Patent No. 6,982,051. Owner and engineer are aware of no other supplier of fusible polyvinylchloride pipe that is an equal to this specified pipe supplier and products.

E WARRANTY

1. The pipe shall be warranted for one year per the pipe supplier's standard terms.
2. In addition to the standard pipe warranty, the fusion services shall be warranted for one year per the fusion service provider's standard terms.

F PRE-CONSTRUCTION SUBMITTALS

1. The following PRODUCT DATA is required from the pipe supplier and/or fusion provider:
 - 1) Pipe Size
 - 2) Dimensionality
 - 3) Pressure Class per applicable standard
 - 4) Color
 - 5) Recommended Minimum Bending Radius
 - 6) Recommended Maximum Safe Pull Force
 - 7) Fusion technician qualification indicating conformance with this specification

2. The following WORK PLAN AND INFORMATION is required from the contractor and/or horizontal directional drilling Contractor. This WORK PLAN AND INFORMATION shall also be supplied to the pipe supplier, should it be requested:
 - 1) Work plan shall include for each HDD installation any excavation locations and dimensions, interfering utilities, bore dimensions and locations including bend radii used, and traffic control schematics.
 - 2) A project safety and contingency plan which shall include but shall not be limited to drilling fluid containment and cleanup procedures, equipment and plan for compromised utility installations including electrical and power lines, water, wastewater and any other subsurface utility in the area.
 - 3) An HDD schedule identifying daily work hours and working dates for each installation.

G POST-CONSTRUCTION SUBMITTALS

1. The following AS-RECORDED DATA is required from the contractor and/or fusion provider to the owner or pipe supplier upon request:
 - 1) Approved datalogger device reports
 - 2) Fusion joint documentation containing the following information:
 - a) Pipe Size and Thickness
 - b) Machine Size
 - c) Fusion Technician Identification
 - d) Job Identification
 - e) Fusion Joint Number
 - f) Fusion, Heating, and Drag Pressure Settings
 - g) Heat Plate Temperature
 - h) Time Stamp
 - i) Heating and Cool Down Time of Fusion
 - j) Ambient Temperature
 - 3) As-recorded Information
 - a) The as-recorded plan and profile will reflect the actual installed alignment, and reflect the horizontal offset from the baseline and depth of cover.
 - b) All fittings, valves, or other appurtenances will also be referenced and shown.
 - c) A daily project log, along with tracking log sheets, should they be used, shall be provided. Tracking log sheet data, should it be employed, shall include any and all that apply, including inclination, depth, azimuth, and hydraulic pull-back and rotational force measured.

PART 2 - PRODUCTS

2.01 FUSIBLE POLYVINYLCHLORIDE PRESSURE PIPE FOR POTABLE WATER

- A** Fusible polyvinylchloride pipe shall conform to AWWA C900, AWWA C905, ASTM D2241 or ASTM D1785 for standard dimensions, as applicable. Testing shall be in accordance with the referenced AWWA standards for all pipe types.

- B Fusible polyvinylchloride pipe shall be extruded with plain ends. The ends shall be square to the pipe and free of any bevel or chamfer. There shall be no bell or gasket of any kind incorporated into the pipe.
- C Fusible polyvinylchloride pipe shall be manufactured in a standard 40' nominal length, or custom lengths as specified.
- D Fusible polyvinylchloride pipe shall be blue in color for potable water use.
- E Pipe shall be marked as follows:
 1. Nominal pipe size
 2. PVC
 3. Dimension Ratio, Standard Dimension Ratio, or Schedule
 4. AWWA pressure class, or standard pressure rating for non-AWWA pipe, as applicable
 5. AWWA standard designation number, or pipe type for non-AWWA pipe, as applicable
 6. NSF-61 mark verifying suitability for potable water service
 7. Extrusion production-record code
 8. Trademark or trade name
 9. Cell Classification 12454 and/or PVC material code 1120 may also be included
- F Pipe shall be homogeneous throughout and be free of visible cracks, holes, foreign material, blisters, or other visible deleterious faults.

2.02 FUSION JOINTS

- A Unless otherwise specified, fusible polyvinylchloride pipe lengths shall be assembled in the field with butt-fused joints. The Contractor shall follow the pipe supplier's written guidelines for this procedure. All fusion joints shall be completed as described in this specification.

2.03 CONNECTIONS AND FITTINGS FOR PRESSURE APPLICATIONS

- A Connections shall be defined in conjunction with the coupling of project piping, as well as the tie-ins to other piping systems.

B DUCTILE IRON MECHANICAL AND FLANGED FITTINGS

Acceptable fittings for use with fusible polyvinylchloride pipe shall include standard ductile iron fittings conforming to AWWA/ANSI C110/A21.10, or AWWA/ANSI C153/A21.53 and AWWA/ANSI C111/A21.11.

1. Connections to fusible polyvinylchloride pipe may be made using a restrained or non-restrained retainer gland product for PVC pipe, as well as for MJ or flanged fittings.
2. Bends, tees and other ductile iron fittings shall be restrained with the use of thrust blocking or other means as indicated in the construction documents.
3. Ductile iron fittings and glands must be installed per the manufacturer's guidelines.

C PVC GASKETED, PUSH-ON FITTINGS

Acceptable fittings for use with fusible polyvinylchloride pipe shall include standard PVC pressure fittings conforming to AWWA C900 or AWWA C905.

1. Acceptable fittings for use joining fusible polyvinylchloride pipe other sections of fusible polyvinylchloride pipe or other sections of PVC pipe shall include gasketed

PVC, push-on type couplings and fittings, including bends, tees, and couplings as shown in the drawings.

2. Bends, tees and other PVC fittings shall be restrained with the use of thrust blocking or other restraint products as indicated in the construction documents.
3. PVC gasketed, push-on fittings and mechanical restraints, if used, must be installed per the manufacturer's guidelines.

D FUSIBLE POLYVINYL CHLORIDE SWEEPS OR BENDS

1. Fusible polyvinyl chloride sweeps or bends shall conform to the same sizing convention, diameter, dimensional tolerances and pressure class of the pipe being joined using the sweep or bend.
2. Fusible polyvinyl chloride sweeps or bends shall be manufactured from the same fusible polyvinyl chloride pipe being used for the installation, and shall have at least 2 feet of straight section on either end of the sweep or bend to allow for fusion of the sweep to the pipe installation. There shall be no gasketed connections utilized with a fusible polyvinyl chloride sweep.
3. Standard fusible polyvinyl chloride sweep or bend angles shall not be greater than 22.5 degrees, and shall be used in nominal diameters ranging from 4 inch through 16 inch.

E SLEEVE-TYPE COUPLINGS

1. Sleeve-type mechanical couplings shall be manufactured for use with PVC pressure pipe, and may be restrained or unrestrained as indicated in the construction documents.
2. Sleeve-type couplings shall be rated at the same or greater pressure carrying capacity as the pipe itself.

F EXPANSION AND FLEXIBLE COUPLINGS

1. Expansion-type mechanical couplings shall be manufactured for use with PVC pipe, and may be restrained or unrestrained as indicated in the construction documents.
2. Expansion-type mechanical couplings shall be rated at the same or greater pressure carrying capacity as the pipe itself.

G CONNECTION HARDWARE

Bolts and nuts for buried service shall be made of non-corrosive, high-strength, low-alloy steel having the characteristics specified in ANSI/AWWA C111/A21.11, regardless of any other protective coating.

2.04 DRILLING SYSTEM EQUIPMENT

A GENERAL

1. The directional drilling equipment, as a minimum, shall consist of a directional drilling rig of sufficient capacity to perform the bore(s) and pull-back of the pipe(s), a drilling fluid mixing & delivery system of sufficient capacity to successfully complete the crossing, a guidance system to accurately guide boring operations, and trained and competent personnel to operate the system. All equipment shall be in good, safe operating condition with sufficient supplies, materials and spare parts on hand to maintain the system in good working order for the duration of this project.

All required equipment shall be included in the emergency and contingency plan as submitted per these specifications.

B DRILLING RIG

1. The directional drilling machine shall consist of a hydraulically powered system to rotate, push and pull drill pipe while delivering a pressurized fluid mixture to a drill head. The machine shall be anchored to withstand the pulling, pushing and rotating forces required to complete the project.
2. The drilling rig hydraulic system shall be of sufficient pressure and volume to power drilling operations. The hydraulic system shall be free from leaks.
3. The drilling rig shall have a system to monitor pull-back hydraulic pressure during pull-back operations.

C DRILL HEAD

1. The horizontal directional drilling equipment shall produce a stable fluid lined tunnel with the use of a steer-able drill head and any subsequent pre-reaming heads.
2. The system must be able to control the depth and direction of the drilling operation.
3. Drill head shall contain all necessary cutters and fluid jets for the operation, and shall be of the appropriate design for the ground medium being drilled.

D DRILLING FLUID SYSTEM

1. DRILLING FLUID (DRILLING MUD)

- a) Drilling fluid shall be composed of clean water and the appropriate additive(s) for the fluid to be used. Water shall be from a clean source and shall meet the mixing requirements of the mixture manufacturer(s).
- b) The water and additives shall be mixed thoroughly to assure the absence of any clumps or clods. No hazardous additives may be used.
- c) Drilling fluid shall be maintained at a viscosity sufficient to suspend cuttings and maintain the integrity of bore wall(s).
- d) Drilling fluid shall be disposed of off-site in accordance with local, state and federal requirements and/or permit conditions.
- e) No additional chemicals or polymer surfactants shall be allowed to be added to the drilling fluid unless they have been submitted per this specification.

2. MIXING SYSTEM

- a) A drilling fluid mixing system shall be of sufficient size to mix and deliver drilling fluid for the project.
- b) The mixing system shall be able to ensure thorough mixing of the drilling fluid. The drilling fluid reservoir tank shall be sized for adequate storage of the fluid.
- c) The mixing system shall continually agitate the drilling fluid during drilling operations.

3. DRILLING FLUID DELIVERY AND RECOVERY SYSTEM

- a) The drilling fluid pumping system shall have a minimum capacity to supply drilling fluid in accordance with the drilling equipment pull-back rating at a constant required pressure.
- b) The delivery system shall have filters or other appropriate in-line equipment to prevent solids from being pumped into the drill pipe.
- c) Used drilling fluid and drilling fluid spilled during drilling operations shall be contained and properly disposed of. The use of spill containment measures shall be maintained around drill rigs, drilling fluid mixing system, entry and exit pits and drilling fluid recycling system (if used) to prevent spills into the surrounding environment. Pumps, vacuum truck(s), and/or storage of sufficient size shall be in place to contain excess drilling fluid.
- d) A closed-loop drilling fluid system and a drilling fluid cleaning system should be used to whatever extent practical, depending upon project size and conditions. Under no circumstances shall drilling fluid that has escaped containment be reused in the drilling system.

E DRILLING CONTROL SYSTEM

1. Calibration of the electronic detection and control system shall be verified prior to the start of the bore.
2. The drilling head shall be remotely steer-able by means of an electronic or magnetic detection system. The drilling head location shall be monitored in three dimensions:
 - a) Offset from the baseline,
 - b) Distance along the baseline, and
 - c) Depth of cover.
3. Point of rotation of the head shall also be monitored.
4. For gravity application and on-grade drilling, sonde/beacon or approved equipment applicable for grade increments of 1/10th of one percent shall be used.

2.05 PIPE PULL HEADS

- A Pipe pull heads shall be utilized that employ a positive through-bolt design assuring a smooth wall against the pipe cross-section at all times.
- B Pipe pull heads shall be specifically designed for use with fusible polyvinylchloride pipe, and shall be as recommended by the pipe supplier.

2.06 PIPE ROLLERS

- A Pipe rollers, if required, shall be of sufficient size to fully support the weight of the pipe during handling and pullback operations.
- B A sufficient quantity of rollers and spacing, per the pipe supplier's guidelines shall be used to assure adequate support and excessive sagging of the product pipe.

PART 3 – EXECUTION

3.01 DELIVERY AND OFF-LOADING

- A All pipes shall be bundled or packaged in such a manner as to provide adequate protection of the ends during transportation to the site. Any pipe damaged in shipment shall be replaced as directed by the owner or engineer.
- B Each pipe shipment should be inspected prior to unloading to see if the load has shifted or otherwise been damaged. Notify owner or engineer immediately if more than immaterial damage is found. Each pipe shipment should be checked for quantity and proper pipe size, color, and type.
- C Pipe should be loaded, off-loaded, and otherwise handled in accordance with AWWA M23, and all of the pipe supplier's guidelines shall be followed.
- D Off-loading devices such as chains, wire rope, chokers, or other pipe handling implements that may scratch, nick, cut, or gouge the pipe are strictly prohibited.
- E During removal and handling, be sure that the pipe does not strike anything. Significant impact could cause damage, particularly during cold weather.
- F If appropriate unloading equipment is not available, pipe may be unloaded by removing individual pieces. Care should be taken to insure that pipe is not dropped or damaged. Pipe should be carefully lowered, not dropped, from trucks.

3.02 HANDLING AND STORAGE

- A Any length of pipe showing a crack or which has received a blow that may have caused an incident fracture, even though no such fracture can be seen, shall be marked as rejected and removed at once from the work. Damaged areas, or possible areas of damage may be removed by cutting out and removing the suspected incident fracture area. Limits of the acceptable length of pipe shall be determined by the owner or engineer.
- B Any scratch or gouge greater than 10% of the wall thickness will be considered significant and can be rejected unless determined acceptable by the owner or engineer.
- C Pipe lengths should be stored and placed on level ground. Pipe should be stored at the job site in the unit packaging provided by the manufacturer. Caution should be exercised to avoid compression, damage, or deformation to the ends of the pipe. The interior of the pipe, as well as all end surfaces, should be kept free from dirt and foreign matter.
- D Pipe shall be handled and supported with the use of woven fiber pipe slings or approved equal. Care shall be exercised when handling the pipe to not cut, gouge, scratch or otherwise abrade the piping in any way.
- E If pipe is to be stored for periods of 1 year or longer, the pipe should be shaded or otherwise shielded from direct sunlight. Covering of the pipe which allows for temperature build-up is strictly prohibited. Pipe should be covered with an opaque material while permitting adequate air circulation above and around the pipe as required to prevent excess heat accumulation.
- F Pipe shall be stored and stacked per the pipe supplier's guidelines.

3.03 FUSION PROCESS

A GENERAL

1. Fusible polyvinylchloride pipe will be handled in a safe and non-destructive manner before, during, and after the fusion process and in accordance with this specification and pipe supplier's guidelines.
2. Fusible polyvinylchloride pipe will be fused by qualified fusion technicians, as documented by the pipe supplier.
3. Each fusion joint shall be recorded and logged by an electronic monitoring device (data logger) connected to the fusion machine.
4. Only appropriately sized and outfitted fusion machines that have been approved by the pipe supplier shall be used for the fusion process. Fusion machines must incorporate the following elements:
 - a) HEAT PLATE - Heat plates shall be in good condition with no deep gouges or scratches. Plates shall be clean and free of any debris or contamination. Heater controls shall function properly; cord and plug shall be in good condition. The appropriately sized heat plate shall be capable of maintaining a uniform and consistent heat profile and temperature for the size of pipe being fused, per the pipe supplier's guidelines.
 - b) CARRIAGE – Carriage shall travel smoothly with no binding at less than 50 psi. Jaws shall be in good condition with proper inserts for the pipe size being fused. Insert pins shall be installed with no interference to carriage travel.
 - c) GENERAL MACHINE - Overview of machine body shall yield no obvious defects, missing parts, or potential safety issues during fusion.
 - d) DATA LOGGING DEVICE – An approved datalogging device with the current version of the pipe supplier's recommended and compatible software shall be used. Datalogging device operations and maintenance manual shall be with the unit at all times. If fusing for extended periods of time, an independent 110V power source shall be available to extend battery life.
5. Other equipment specifically required for the fusion process shall include the following:
 - a) Pipe rollers shall be used for support of pipe to either side of the machine
 - b) A weather protection canopy that allows full machine motion of the heat plate, fusion assembly and carriage shall be provided for fusion in inclement, extreme temperatures, and /or windy weather, per the pipe supplier's recommendations.
 - c) An infrared (IR) pyrometer for checking pipe and heat plate temperatures.
 - d) Fusion machine operations and maintenance manual shall be kept with the fusion machine at all times.
 - e) Facing blades specifically designed for cutting fusible polyvinylchloride pipe shall be used.

B JOINT RECORDING

Each fusion joint shall be recorded and logged by an electronic monitoring device (data logger) connected to the fusion machine. The fusion data logging and joint report shall be generated by software developed specifically for the butt-fusion of fusible polyvinyl chloride pipe. The software shall register and/or record the parameters required by the pipe supplier and these specifications. Data not logged by the data logger shall be logged manually and be included in the Fusion Technician's joint report.

3.04 DRILLING OPERATIONS

A GENERAL

1. Bore path and alignment are as indicated in the contract documents. The path of the bore may be modified based on field and equipment conditions. Entry and exit locations and control-point elevations shall be maintained as indicated in the contract documents.
2. Bend radii shown in the contract documents are minimum allowable radii and shall not be reduced.

B LOCATION AND PROTECTION OF UNDERGROUND UTILITIES

1. Correct location of all underground utilities that may impact the HDD installation is the responsibility of the Contractor, regardless of any locations shown on the drawings or previous surveys completed.
2. Utility location and notification services shall be contacted by the Contractor prior to the start of construction.
3. All existing lines and underground utilities shall be positively identified, including exposing those facilities that are located within an envelope of possible impact of HDD installation as determined for the project specific site conditions. It is the Contractor and HDD system operator's responsibility to determine this envelope of safe offset from existing utilities. This will include, but is not limited to, soil conditions and layering, utility proximity and material, HDD system and equipment, and foreign subsurface material.

C SITE LOCATION PREPARATION

1. Work site as indicated on drawings shall be graded or filled to provide a level working area. No alterations beyond what is required for operations are to be made
2. Contractor shall confine all activities to designated work areas.

D DRILLING LAYOUT AND TOLERANCES

1. The drill path shall be accurately surveyed with entry and exit areas placed in the appropriate locations within the areas indicated on drawings. If using a magnetic guidance system, drill path will be surveyed for any surface geomagnetic variations or anomalies.
2. Instrumentation shall be provided and maintained at all times that accurately locates the pilot hole, measures drill-string axial and torsional loads and measures drilling fluid discharge rate and pressure.
3. Entry and exit areas shall be drilled so as not to exceed the bending limitations of the pipe as recommended by the pipe supplier.

E PILOT HOLE BORE

1. Pilot hole shall be drilled along bore path. In the event that the pilot bore does deviate from the bore path, it may require contractor to pull-back and re-drill from the location along bore path before the deviation.
2. The Contractor shall limit curvature in any direction to reduce force on the pipe during pull-back. The minimum radius of curvature shall be no less than that specified by the pipe supplier and as indicated on the drawings.

F REAMING

1. After successfully completing the pilot hole, the bore hole shall be reamed to a diameter which meets the requirements of the pipe being installed. The following table is offered as an estimated guide:

Nominal Pipe Diameter	Bore Hole Diameter
< 8 inches	Pipe Dia. + 4 inches
8 inches to 24 inches	Pipe Dia. X 1.5
> 24 inches	Pipe Dia. + 12 inches

2. Multiple reaming passes shall be used at the discretion of the Contractor and shall conform to this specification.
3. In the event of a drilling fluid fracture, returns loss or other loss of drilling fluid, the Contractor shall be responsible for restoring any damaged property to original condition and cleaning up the area in the vicinity of the damage or loss.

3.05 PIPE PULL-BACK AND INSERTION

- A Pipe shall be fused prior to insertion, if the site and conditions allow, into one continuous length.
- B Contractor shall handle the pipe in a manner that will not over-stress the pipe prior to insertion. Vertical and horizontal curves shall be limited so that the pipe does not bend past the pipe supplier’s minimum allowable bend radius, buckle, or otherwise become damaged. Damaged portions of the pipe shall be removed and replaced.
- C The pipe entry area shall be graded as needed to provide support for the pipe and to allow free movement into the bore hole.
1. The pipe shall be guided into the bore hole to avoid deformation of, or damage to, the pipe.
 2. The fusible polyvinylchloride pipe may be continuously or partially supported on rollers or other Owner and Engineer approved friction decreasing implement during joining and insertion, as long as the pipe is not over-stressed or critically abraded prior to, or during installation.
 3. A swivel shall be used between the reaming head and the fusible polyvinylchloride pipe to minimize torsion stress on the pipe assembly.
- D Buoyancy modification shall be at the sole discretion of the Contractor, and shall not exceed the pipe supplier’s guidelines in regards to maximum pull force or minimum bend

radius of the pipe. Damage caused by buoyancy modifications shall be the responsibility of the Contractor.

- E Once pull-back operations have commenced, the operation shall continue without interruption until the pipe is completely pulled through the bore hole.
- F The pipe shall be installed in a manner that does not cause upheaval, settlement, cracking, or movement and distortion of surface features. Any damages caused by the Contractor's operations shall be corrected by the Contractor.

3.06 INSTALLATION CLEANUP

- A Following the installation, the project site shall be returned to a condition equal to or better than the pre-construction condition of the site. All excavations will be backfilled and compacted per the construction documents and jurisdictional standards. All pavement and hardscape shall be repaired per applicable jurisdictional standards, excess materials shall be removed from the site, and disturbed areas shall be re-landscaped. All drilling fluid shall be properly disposed of per these specifications and all applicable jurisdictional laws.
- B Contractor shall verify that all utilities, structures, and surface features in the project area are sound.

3.07 PREPARATION PRIOR TO MAKING CONNECTIONS INTO EXISTING PIPING SYSTEMS

- A Approximate locations for existing piping systems are shown in the construction documents. Prior to making connections into existing piping systems, the contractor shall:
 1. Field verifies location, size, piping material, and piping system of the existing pipe.
 2. Obtain all required fittings, which may include saddles, sleeve type couplings, flanges, tees, or others as shown in the construction documents.
 3. Have installed all temporary pumps and/or pipes in accordance with established connection plans.
- B Unless otherwise approved, new piping systems shall be completely assembled and successfully tested prior to making connections into existing pipe systems.

3.08 PIPE SYSTEM CONNECTIONS

- A Pipe connections shall be installed per applicable standards and regulations, as well as per the connection manufacturer's guidelines and as indicated in the construction documents. Pipe connections to structures shall be installed per applicable standards and regulations, as well as per the connection manufacturer's guidelines.
- B If possible, pipe installed via HDD shall be filled with water prior to making any connections to the existing system or other portions of the project.

3.09 TAPPING FOR POTABLE AND NON-POTABLE WATER APPLICATIONS

- A Tapping shall be performed using standard tapping saddles designed for use on PVC piping in accordance with AWWA C605. Tapping shall be performed only with use of tap saddles or sleeves. **NO DIRECT TAPPING WILL BE PERMITTED.** Tapping shall be performed in accordance with the applicable sections for Saddle Tapping per Uni-Pub-8.

- B All connections requiring a larger diameter than that recommended by the pipe supplier, shall be made with a pipe connection as specified and indicated on the drawings.
- C Equipment used for tapping shall be made specifically for tapping PVC pipe:
 1. Tapping bits shall be slotted “shell” style cutters, specifically made for PVC pipe. ‘Hole saws’ made for cutting wood, steel, ductile iron, or other materials are strictly prohibited.
 2. Manually operated or power operated drilling machines may be used.
- D Taps may be performed while the pipeline is filled with water and under pressure (‘wet’ tap,) or when the pipeline is not filled with water and not under pressure (‘dry’ tap).

3.10 TESTING

- A Testing shall comply with all applicable jurisdictional building codes, statutes, standards, regulations, and laws.

B HYDROSTATIC TESTING AND LEAKAGE TESTING FOR PRESSURE PIPING

1. Hydrostatic and leakage testing for piping systems that contain mechanical jointing as well as fused PVC jointing shall comply with AWWA C605.
2. Unless agreed to or otherwise designated by the owner or engineer, for a simultaneous hydrostatic and leakage test following installation, a pressure equal to 150% of working pressure at point of test, but not less than 125% of normal working pressure at highest elevation shall be applied. The duration of the pressure test shall be for two (2) hours.
3. If hydrostatic testing and leakage testing are performed at separate times, follow procedures as outlined in AWWA C605.
4. In preparation for pressure testing the following parameters must be followed:
 - 1) All air must be vented from the pipeline prior to pressurization. This may be accomplished with the use of the air relief valves or corporation stop valves, vent piping in the testing hardware or end caps, or any other method which adequately allows air to escape the pipeline at all high points. Venting may also be accomplished by ‘flushing’ the pipeline in accordance with the parameters and procedures as described in AWWA C605.
 - 2) The pipeline must be fully restrained prior to pressurization. This includes complete installation of all mechanical restraints per the restraint manufacturer’s guidelines, whether permanent or temporary to the final installation. This also includes the installation and curing of any and all required thrust blocking. All appurtenances included in the pressure test, including valves, blow-offs, and air-relief valves shall be checked for proper installation and restraint prior to beginning the test.
 - 3) Temporary pipeline alignments that are being tested, such as those that are partially installed in their permanent location shall be configured to minimize the amount of potentially trapped air in the pipeline.

C DISINFECTION OF THE PIPELINE FOR POTABLE WATER PIPING

1. After installation, the pipeline, having passed all required testing, shall be disinfected prior to being put into service. Unless otherwise directed by the owner or engineer, the pipeline will be disinfected per AWWA C651.

D PARTIAL TESTING

1. Segments of the pipe may be tested separately in accordance with standard testing procedure, as approved by the owner and engineer. Testing of each HDD installation prior to connection to the system or other piping is preferred.

****END OF SECTION****

APPENDIX J
SAMPLE ARCHEOLOGICAL INVOICE

(FOR ARCHAEOLOGY ONLY)

Company Name

Address, telephone, fax

Date: Insert Date

To: Name of Resident Engineer
City of San Diego
Field Engineering Division
9485 Aero Drive
San Diego, CA 92123-1801

Project Name: Insert Project Name

SAP Number (WBS/IO/CC): Insert SAP Number

Drawing Number: Insert Drawing Number

Invoice period: Insert Date to Insert Date

Work Completed: Bid item Number – Description of Bid Item – Quantity – Unit Price– Amount

Detailed summary of work completed under this bid item: Insert detailed description of Work related to Archaeology Monitoring Bid item. See Note 1 below.

Summary of charges:

Description of Services	Name	Start Date	End Date	Total Hours	Hourly Rate	Amount
Field Archaeologist	Joe Smith	8/29/2011	9/2/2011	40	\$84	\$3,360
Laboratory Assistant	Jane Doe	8/29/2011	9/2/2011	2	\$30	\$60
Subtotal						\$3,420

Work Completed: Bid item Number – Description of Bid Item – Quantity – Unit Price– Amount

Detailed summary of work completed under this bid item: Insert detailed description of Work related to Archaeology Curation/Discovery Bid item. See Note 2 below.

Summary of charges:

Description of Services	Where work occurred (onsite vs offsite/lab)	Name	Start Date	End Date	Total Hours	Hourly Rate	Amount
Field Archaeologist		Joe Smith	8/29/2011	9/2/2011	40	\$84	\$3,360
Laboratory Assistant		Jane Doe	8/29/2011	9/2/2011	2	\$30	\$60
Subtotal							\$3,420

Total this invoice: \$ _____

Total invoiced to date: \$ _____

Note 1:

For monitoring related bid items or work please include summary of construction work that was monitored from Station to Station, Native American monitors present, MMC coordination, status and nature of monitoring and if any discoveries were made.

Note 2:

For curation/discovery related bid items or work completed as part of a discovery and curation process, the PI must provide a response to the following questions along with the invoice:

1. Preliminary results of testing including tentative recommendations regarding eligibility for listing in the California Register of Historical Resources (California Register).
 - a. Please briefly describe your application (consideration) of all four California Register criteria.
 - b. If the resource is eligible under Criterion D, please define the important information that may be present.
 - c. Were specialized studies performed? How many personnel were required? How many Native American monitors were present?
 - d. What is the age of the resource?
 - e. Please define types of artifacts to be collected and curated, including quantity of boxes to be submitted to the San Diego Archaeological Center (SDAC). How many personnel were required? How many Native American monitors were present?
2. Preliminary results of data recovery and a definition of the size of the representative sample.
 - a. Were specialized studies performed? Please define types of artifacts to be collected and curated, including quantity of boxes to be submitted to the SDAC. How many personnel were required? How many Native American monitors were present?
3. What resources were discovered during monitoring?
4. What is the landform context and what is the integrity of the resources?
5. What additional studies are necessary?
6. Based on application of the California Register criteria, what is the significance of the resources?
 - a. If the resource is eligible for the California Register, can the resource be avoided by construction?
 - b. If not, what treatment (mitigation) measures are proposed? Please define data to be recovered (if necessary) and what material will be submitted to the SDAC for curation. Are any specialized studies proposed?

(After the first invoice, not all the above information needs to be re-stated, just revise as applicable).

City of San Diego



ADDENDUM "A"

FOR

WATER GROUP 914

BID NO.:	<u>K-12-5561-DBB-3-C</u>
SAP NO. (WBS/IO/CC):	<u>B-00125</u>
CLIENT DEPARTMENT:	<u>2013</u>
COUNCIL DISTRICT:	<u>2</u>
PROJECT TYPE:	<u>KB</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 15, 2012**.

Proposals will be received at the Public Works Contracting Group, 1200 Third Avenue, Suite 200, San Diego, California 92101.

B. 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.

Tony Heinrichs, Director
Public Works Department

Dated: *April 26, 2012*
San Diego, California

TH/ds/nb/lji/egz

City of San Diego

CONTRACTOR'S NAME: KTA Construction Inc.
ADDRESS: 1920 Cordell Ct #105, El Cajon, CA 92020
TELEPHONE NO.: 619-562-9404 FAX NO.: 619-562-1635
CITY CONTACT: MICHAEL NINH, 600 B Street Suite 800, MS 908A, San Diego, CA 92101
Email: mninh@sandiego.gov Phone: (619) 533-7443 Fax: (619) 533-5176
NB/LJ/DS



CONTRACT DOCUMENTS

FOR

WATER GROUP 914

VOLUME 2 OF 2

BID NO.:	<u>K-12-5561-DBB-3-C</u>
SAP NO. (WBS/IO/CC):	<u>B-00125</u>
CLIENT DEPARTMENT:	<u>2013</u>
COUNCIL DISTRICT:	<u>2</u>
PROJECT TYPE:	<u>KB</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 - 15
7. Form AA35 - List of Subcontractors.....	16
8. Form AA40 - Named Equipment/Material Supplier List.....	17

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:

- (1) Name under which business is conducted _____
- (2) Signature (Given and surname) of proprietor _____
- (3) Place of Business (Street & Number) _____
- (4) City and State _____ Zip Code _____
- (5) Telephone No. _____ Facsimile No. _____

IF A PARTNERSHIP, SIGN HERE:

- (1) Name under which business is conducted _____
- (2) Name of each member of partnership [indicate character of each partner, general or special (limited):

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 KTA Construction Inc.

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

(Signature)

Paul M. Henderson

(Printed Name)

President

(Title of Officer)

(Impress Corporate Seal Here)

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

(4) Place of Business (Street & Number) 1920 Cordell Ct. #105

(5) City and State El Cajon, CA Zip Code 92020

(6) Telephone No. 619-568-9464 Facsimile No. 619-568-1635

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

LICENSE NO. 398284 EXPIRES Jan 31, 2013

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.

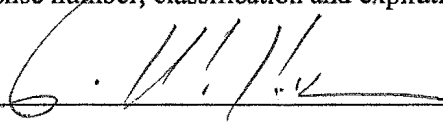
TAX IDENTIFICATION NUMBER (TIN): 95-3425247

E-Mail Address: N/A

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 President

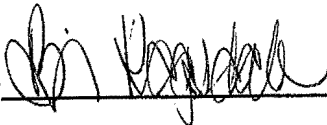
SUBSCRIBED AND SWORN TO BEFORE ME, THIS _____ DAY OF _____, 20____.

Notary Public in and for the County of _____, State of _____

(NOTARIAL SEAL)

County of San Diego

Subscribed and sworn to (or affirmed) before me on this 15th
day of May, 2012, by Paul M. Henderson,
proved to me on the basis of satisfactory evidence to be the
person(s) who appeared before me.

(Seal) Signature 



BIDDING DOCUMENTS

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That KTA Construction, Inc. as Principal, and
The Guarantee Company of North America USA 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

Water Group 914, K-12-5561-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 18th day of April, 20 12

KTA Construction, Inc. (SEAL)

(Principal)

By: _____

(Signature)

The Guarantee Company of
North America USA (SEAL)

(Surety)

By: _____

(Signature)

Sarah Myers, Attorney-In-Fact

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

County of San Diego }

On APR 18 2012 before me, Lilia Robinson, Notary Public
Date Here Insert Name and Title of the Officer

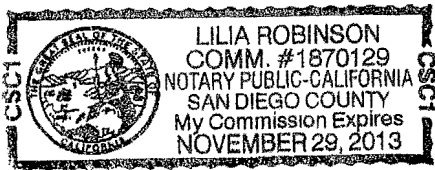
personally appeared Sarah Myers
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/~~is~~ 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 _____
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: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

**RIGHT THUMBPRINT
OF SIGNER**

Top of thumb here

Signer Is Representing:
Surety Company

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____

**RIGHT THUMBPRINT
OF SIGNER**

Top of thumb here

Signer Is Representing:



THE GUARANTEE COMPANY OF NORTH AMERICA USA

Southfield, Michigan

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS: That THE GUARANTEE COMPANY OF NORTH AMERICA USA, a corporation organized and existing under the laws of the State of Michigan, having its principal office in Southfield, Michigan, does hereby constitute and appoint

Lawrence F. McMahon, Maria Vhanneza Guise, Sarah Myers, Charlotte Aquino
Alliant Insurance Services, Inc.

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law, statute, rule, regulation, contract or otherwise.

The execution of such instrument(s) in pursuance of these presents, shall be as binding upon THE GUARANTEE COMPANY OF NORTH AMERICA USA as fully and amply, to all intents and purposes, as if the same had been duly executed and acknowledged by its regularly elected officers at the principal office.

The Power of Attorney is executed and may be certified so, and may be revoked, pursuant to and by authority of Article IX, Section 9.03 of the By-Laws adopted by the Board of Directors of THE GUARANTEE COMPANY OF NORTH AMERICA USA at a meeting held on the 31st day of December, 2003. The President, or any Vice President, acting with any Secretary or Assistant Secretary, shall have power and authority:

1. To appoint Attorney(s)-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto, bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof; and
2. To revoke, at any time, any such Attorney-in-fact and revoke the authority given, except as provided below
3. In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner – Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

Further, this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of the Company adopted at a meeting duly called and held on the 31st day of December 2003, of which the following is a true excerpt:

RESOLVED that the signature of any authorized officer and the seal of the Company may be affixed by facsimile to any Power of Attorney or certification thereof authorizing the execution and delivery of any bond, undertaking, contracts of indemnity and other writings obligatory in the nature thereof, and such signature and seal when so used shall have the same force and effect as though manually affixed.

IN WITNESS WHEREOF, THE GUARANTEE COMPANY OF NORTH AMERICA USA has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer, this 18th day of January, 2011.



STATE OF MICHIGAN
County of Oakland

THE GUARANTEE COMPANY OF NORTH AMERICA USA

Stephen C. Ruschak, Vice President

Randall Musselman, Secretary

On this 18th day of January, 2011 before me came the individuals who executed the preceding instrument, to me personally known, and being by me duly sworn, said that each is the herein described and authorized officer of The Guarantee Company of North America USA; that the seal affixed to said instrument is the Corporate Seal of said Company; that the Corporate Seal and each signature were duly affixed by order of the Board of Directors of said Company.



Cynthia A. Takai
Notary Public, State of Michigan
County of Oakland
My Commission Expires February 27, 2012
Acting in Oakland County

IN WITNESS WHEREOF, I have hereunto set my hand at The Guarantee Company of North America USA offices the day and year above written.

I, Randall Musselman, Secretary of THE GUARANTEE COMPANY OF NORTH AMERICA USA, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney executed by THE GUARANTEE COMPANY OF NORTH AMERICA USA, which is still in full force and effect.

IN WITNESS WHEREOF, I have thereunto set my hand and attached the seal of said Company this 18th day of April, 2012.



Randall Musselman, Secretary

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of San Diego

On April 20, 2012 before me, Brin Ragsdale, Notary Public
(Here insert name and title of the officer)

personally appeared Paul M. Henderson

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.

Brin Ragsdale
 Signature of Notary Public

(Notary Seal)

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

(Additional information)

CAPACITY CLAIMED BY THE SIGNER

Individual (s)

Corporate Officer

(Title)

Partner(s)

Attorney-in-Fact

Trustee(s)

Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he/she/they~~, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
 - ❖ Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
 - ❖ Indicate title or type of attached document, number of pages and date.
 - ❖ Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document

NON-COLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID UNDER 23 USC 112 AND PCC 7106

State of California)
County of San Diego) ss.

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

Signed: [Signature]
Title: President

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

Notary Public

See Attached

(SEAL)

Jurat

State of California

County of San Diego

Subscribed and sworn to (~~or affirmed~~) before me on this 15th day of May,
2012 by Paul M. Henderson

proved to me on the basis of satisfactory evidence to be the person~~s~~ who appeared before me.

Brin Ragsdale
Signature

(Notary seal)



OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

(Title or description of attached document)

(Title or description of attached document continued)

Number of Pages _____ Document Date _____

(Additional information)

INSTRUCTIONS FOR COMPLETING THIS FORM

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

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

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:

Multiple horizontal lines for providing details of complaints and resolutions.

Contractor Name KTA Construction Inc.

Certified By Paul M. Henderson Title President

Signature [Handwritten Signature] Date 5/15/12

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: <u>KTA Construction Inc.</u>	Contact Name: <u>Mike Henderson</u>
Company Address: <u>1920 Cordell Ct. #105</u> <u>El Cajon, CA 92020</u>	Contact Phone: <u>619-527-9404</u>
	Contact Email: <u>mike@ktaconstruction.com</u>

CONTRACT INFORMATION	
Contract Title:	Start Date:
Contract Number (if no number, state location):	End Date:

SUMMARY OF EQUAL BENEFITS ORDINANCE REQUIREMENTS

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

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

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

CONTRACTOR EQUAL BENEFITS ORDINANCE CERTIFICATION

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

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

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

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

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

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

Paul M. Henderson, President _____
 Name/Title of Signatory Signature

FOR OFFICIAL CITY USE ONLY			
Receipt Date:	EBO Analyst:	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved – Reason:

rev 02/15/2011

BIDDING DOCUMENTS

PROPOSAL (BID)

The Bidder agrees to the construction of **WATER GROUP 914**, 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 Federally funded contracts or 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
BASE BID							
1.	1	LS	2-4.1	237110	Bonds (Payment and Performance)	 	\$ 33,500 ⁻
2.	1	EA	3-3.2.2	237110	Certified Payroll	\$ 100 ⁻	\$ 100 ⁻
3.	1	LS	7-9.1.1	238990	Video Recording of Pre-existing Conditions	 	\$ 1500 ⁻
4.	1	LS	7-10.2.7	237310	Traffic Control	 	\$ 7500 ⁻
5.	97	EA	9-3	237110	1-Inch Pressure Reducing Valve (PRV) with Water Meter Concrete Box per Sheets 30, 31, 32, 37 and 48	\$ 400 ⁻	\$ 38,800 ⁻
6.	1	LS	9-3.4.1	237110	Mobilization	 	\$ 35,000
7.	1	AL	9-3.5	237110	Field Orders	 	\$220,000.00
8.	100	CY	300-1.4	237310	Additional Pavement Removal and Disposal	\$ 45 ⁻	\$ 4500 ⁻
9.	3	EA	301-1.7	237310	Adjusting Existing Manholes Frames & Cover to Grade	\$ 400 ⁻	\$ 1200 ⁻
10.	3	EA	302-1.12	238210	Traffic Detector Loop Replacement	\$ 450 ⁻	\$ 1350 ⁻
11.	9,158	LF	302-1.12	237310	Cold Milling Asphalt Concrete Pavement	\$ 3 ⁻	\$ 27,474 ⁻
12.	422,710	SF	302-4.5	237310	REAS Slurry Seal Type II and Striping	\$.27	\$ 114,131 ⁷⁹
13.	10	TON	302-4.5	237310	AC Patching for Slurry Seal	\$ 200 ⁻	\$ 2000 ⁻
14.	1	LS	302-4.5.1	237310	Bond for Slurry Seal	 	\$ 1 ⁻
15.	750	SF	302-5.1.2	237310	Damaged AC Pavement Replacement	\$ 45 ⁵⁰	\$ 3375 ⁻
16.	5,000	SF	302-5.2.1	237310	Pavement Restoration Adjacent to Trench	\$ 8 ⁻	\$ 40,000 ⁻
17.	1,870	TON	302-5.9	237310	1-1/2-Inch AC Overlay and Striping	\$ 100 ⁻	\$ 187,000 ⁻
18.	1,200	SF	302-6.8	237310	Concrete Pavement Replacement	\$ 6 ⁻	\$ 7200 ⁻
19.	11,217	SY	302-7.4	237310	Pavement Fabric	\$ 3 ⁻	\$ 33,651 ⁻

BIDDING DOCUMENTS

Item	Quantity	Unit	Payment Reference	NAICS	Description	Unit Price	Extension
20.	500	LB	302-13.5	237310	Crack Seal	\$ 11 ⁻	\$ 5500 ⁻
21.	36	EA	303-5.9	237310	Concrete Sidewalk/Curb Impression Relocation	\$ 100 ⁻	\$ 3600 ⁻
22.	300	LF	303-5.9	237310	Additional Curb & Gutter	\$ 25 ⁻	\$ 7500 ⁻
23.	1,100	SF	303-5.9	237310	Concrete Cross Gutter	\$ 6 ⁻	\$ 6600 ⁻
24.	500	SF	303-5.9	237310	Additional Sidewalk Removal & Replacement	\$ 4 ⁵⁰	\$ 2250 ⁻
25.	500	SF	303-5.9	237310	Concrete Driveway Removal & Replacement	\$ 6 ⁻	\$ 3000 ⁻
26.	13	EA	303-5.10.2	237310	Curb Ramp w/ Stainless Steel Detectable Warning Tiles Type A	\$ 1900 ⁻	\$ 24700 ⁻
27.	41	EA	303-5.10.2	237310	Curb Ramp w/ Detectable Warning Tiles Type A	\$ 1850 ⁻	\$ 75850 ⁻
28.	5	EA	303-5.10.2	237310	Curb Ramp w/ Detectable Warning Tiles Type C1	\$ 1900 ⁻	\$ 9500 ⁻
29.	20	EA	303-5.10.2	237310	Curb Ramp w/ Detectable Warning Tiles Type C2	\$ 1850 ⁻	\$ 37000 ⁻
30.	1	EA	303-5.10.2	237310	Curb Ramp w/ Stainless Steel Detectable Warning Tiles Type C2	\$ 1900 ⁻	\$ 1900 ⁻
31.	49	EA	303-5.10.2	237310	Curb Ramp w/ Detectable Warning Tiles Type D	\$ 1500 ⁻	\$ 73500 ⁻
32.	1	LS	306-1.1.6	237110	Trench Shoring	\$ 241.30	\$ 9,241.30
33.	293	CY	306-1.2.1.1	237110	Additional Bedding	\$ 1 ⁻	\$ 293 ⁻
34.	805	TON	306-1.5.1	237310	Temporary Resurfacing	\$ 110 ⁻	\$ 88,550 ⁻
35.	1,250	TON	306-1.6	237110	Imported Backfill	\$ 1 ⁻	\$ 1250 ⁻
36.	12,577	LF	306-1.6	237110	8-Inch Water Main	\$ 55 ⁻	\$ 691,735 ⁻
37.	300	LF	306-1.6	237110	8-Inch, DR 14 Water Main	\$ 57 ⁻	\$ 17100 ⁻
38.	3,674	LF	306-1.6	237110	12-Inch Water Main	\$ 82 ⁻	\$ 301,268 ⁻
39.	1,600	LF	306-1.6	237110	12-Inch, DR 14 Water Main	\$ 84 ⁻	\$ 134,400 ⁻
40.	1,377	LF	306-1.6	237110	16-Inch Water Main	\$ 115 ⁻	\$ 158,355 ⁻
41.	1,900	LF	306-1.6	237110	16-Inch, DR 14 Water Main	\$ 117 ⁻	\$ 222,300 ⁻
42.	30	EA	306-1.6	237110	Thrust Blocks And Anchor Blocks for 16" Water Mains	\$ 250 ⁻	\$ 7500 ⁻
43.	21	EA	306-1.6	237110	6-Inch Fire Hydrant Assembly & Marker, 2-Port	\$ 5000 ⁻	\$ 105,000 ⁻
44.	6	EA	306-1.6	237110	6-Inch Fire Hydrant Assembly & Marker, 3-Port	\$ 5900 ⁻	\$ 35,400 ⁻

BIDDING DOCUMENTS

Item	Quantity	Unit	Payment Reference	NAICS	Description	Unit Price	Extension
45.	37	EA	306-1.6	237110	8-Inch Gate Valve	\$ 1700 ⁻	\$ 62,900 ⁻
46.	15	EA	306-1.6	237110	12-Inch Gate Valve	\$ 2900 ⁻	\$ 43,500 ⁻
47.	4	EA	306-1.6	237110	16-Inch Butterfly Valve w/ Resilient Seat, EPDM rubber Class 250	\$ 4700 ⁻	\$ 18,800 ⁻
48.	1	LS	306-5.3	237110	Removal or Abandonment of the Existing Water Facilities	 	\$ 1000 ⁻
49.	491	EA	306-14.1	237110	1-Inch Copper Water Service	\$ 1,375 ⁻	\$ 675,125 ⁻
50.	3	EA	306-14.1	237110	2-Inch Copper Water Service	\$ 2200 ⁻	\$ 6600 ⁻
51.	7	EA	306-14.1	237110	1-Inch Water Service Transfer	\$ 350 ⁻	\$ 2,450 ⁻
52.	1	EA	306-14.1	237111	2-Inch Water Service Transfer	\$ 650 ⁻	\$ 650 ⁻
53.	8	EA	306-18	237110	2-Inch Blowoff Valve Assembly, Type A	\$ 3500 ⁻	\$ 28,000 ⁻
54.	15	EA	306-19	237110	1-Inch Air and Vacuum Valve Assembly	\$ 4500 ⁻	\$ 67,500 ⁻
55.	1	EA	306-18	237110	4-Inch Blowoff Valve Assembly, Type A	\$ 4500 ⁻	\$ 4,500 ⁻
56.	1	EA	306-19	237110	2-Inch Air and Vacuum Valve Assembly	\$ 2500 ⁻	\$ 2,500 ⁻
57.	300	LF	306-20.12	237110	8-Inch Water Main Trenchless	\$ 85 ⁻	\$ 25,500 ⁻
58.	300	LF	306-20.12	237110	12-Inch Water Main Trenchless	\$ 120 ⁻	\$ 36,000 ⁻
59.	2	EA	306-23	237110	8-Inch Pressure Reducer Station with Pre-cast Concrete Vault (6'x9')	\$ 45,000 ⁻	\$ 90,000 ⁻
60.	3	EA	309-4	541370	Survey Monument	\$ 500 ⁻	\$ 1,500 ⁻
61.	1	LS	700-1.2.1.3	237110	Contractor Furnished Materials for City Forces Work, per Table B, Sheet 43	 	\$ 22,000 ⁻
62.	30,000	LF	700-1.2.1.3	237110	High-lining Removed by Contractor	\$ 130 ⁻	\$ 39,000 ⁻
63.	7,500	SF	700-1.3.1.5	237110	Pavement Restoration for City Forces Final Connection	\$ 9 ⁻	\$ 67,500 ⁻
64.	15	EA	700-1.3.3.1	237110	8-Inch Connection By Contractor To City Forces' Cut-in	\$ 1400 ⁻	\$ 21,000 ⁻
65.	11	EA	700-1.3.3.1	237110	12-Inch Connection By Contractor To City Forces' Cut-in	\$ 2000 ⁻	\$ 22,000 ⁻
66.	4	EA	700-1.3.3.1	237110	16-Inch Connection By Contractor To City Forces' Cut-in	\$ 2500 ⁻	\$ 10,000 ⁻

BIDDING DOCUMENTS

Item	Quantity	Unit	Payment Reference	NAICS	Description	Unit Price	Extension
67.	1	LS	801-9.4	541330	Water Pollution Control Program Development	 	\$ 600 ⁻
68.	1	LS	801-9.4	237990	Water Pollution Control Program Implementation	 	\$ 2500 ⁻
69.	1,200	LF	807-1.2	541330	Archeological and Native American Monitoring Program	\$ 9 ⁻	\$ 10,800 ⁻
70.	1	AL	807-1.4	541330	Archeological and Native American Mitigation and Curation	 	\$25,000.00
71.	1	LS	807-1.6	541330	Historic Resources (Built Environment) Monitoring Program	 	\$ 3000 ⁻
72.	1	AL	807-1.7	541330	Historic Resources (Built Environment) Mitigation	 	\$25,000.00
73.	5	DAYS	807-1	541330	Work Suspension-Resources	\$ 100 ⁻	\$ 500 ⁻
74.	750	LF	808-1.3	237110	Handling and Disposal of Non-friable Asbestos Material	\$ 4 ⁻	\$ 3000 ⁻
ESTIMATED TOTAL BASE BID:							\$ 4,100,000. ⁰⁰

TOTAL BID PRICE FOR BID (Items 1 through inclusive 74) amount written in words:

FOUR MILLION ONE HUNDRED THOUSAND DOLLARS AND NO CENTS

21.73⁷⁴

The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on this Bid form.

List the Addenda received and being acknowledged: "A" & "B"

If an addendum or addenda has been issued by the City and not noted as being received by the Bidder, the Bid shall be rejected as being **non-responsive**.

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

Paul M. Henderson (PRESIDENT)
Marilyn L. Henderson (V.P./SECRETARY)

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.

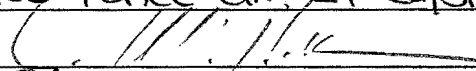
Bidder: Paul M. Henderson

Title: President

Business Address: 1900 Cordell Ct. #105, El Cajon, CA 92020

Place of Business: " " " " " " " "

Place of Residence: 2403 Pence dr., El Cajon, CA 92019

Signature: 

NOTES:

- A. The 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.

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, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>SEAL RIGHT PAVING</u> Address: <u>P.O. BOX 2753</u> City: <u>SPRING VALLEY</u> State: <u>CA</u> Zip: <u>91979</u> Phone: <u>619-465-7411</u>	CONSTRUCTOR	PAVING	\$318,896.07	SLBE	CITY	
Name: <u>J. CLOUD INC.</u> Address: <u>2094 WILLOW GLEN DR.</u> City: <u>EL CAJON</u> State: <u>CA</u> Zip: <u>92019</u> Phone: <u>619-593-9020</u>	CONSTRUCTOR	TRUCKING	\$125,280.00	ELBE	CITY	
Name: <u>YBS CONCRETE</u> Address: <u>365 E. J. ST.</u> City: <u>CHULA VISTA</u> State: <u>CA</u> Zip: <u>91910</u> Phone: <u>619-726-7317</u>	CONSTRUCTOR	CONCRETE FLATWORK	\$231,425 \$281,494.25	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>Terra West Inc.</u> Address: <u>1001 Tierra del Ray #204</u> City: <u>Chula Vista</u> State: <u>CA</u> Zip: <u>91910</u> Phone: <u>619-591-1057</u>	Designer	WPCP	\$590.00	SLBE	City of San Diego	
Name: <u>Underground Solutions</u> Address: <u>13135 Danielson St. #201</u> City: <u>Roway</u> State: <u>CA</u> Zip: <u>92004</u> Phone: <u>358-679-9551</u>	Constructor	Fused pipe	\$19,500.00			
Name: <u>California Boring</u> Address: <u>3030 E. Comrade St.</u> City: <u>Anaheim</u> State: <u>CA</u> Zip: <u>92804</u> Phone: <u>714-652-1596</u>	Constructor	boring	\$25,800.00			

- 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: Olympic Engineering PMH Address: PO Box 1073 PMH City: Lemon Grove PMH State: CA PMH Zip: 91942 PMH Phone: 619-704-8170 PMH	Constructor PMH	Concrete PMH Network PMH	\$26,400.00 PMH	ELBE PMH	City PMH of PMH San Diego PMH	
Name: <u>Statewide Stripes Inc.</u> Address: <u>PO Box 600710</u> City: <u>San Diego</u> State: <u>CA</u> Zip: <u>92160</u> Phone: <u>353-560-6287</u>	<u>Constructor</u>	<u>Striping</u>	<u>\$17,500.00</u>	<u>SLBE</u>	<u>City</u> <u>of</u> <u>San Diego</u>	
Name: <u>Brian F. Smith & Assoc.</u> Address: <u>1400 Poway Rd., Ste A</u> City: <u>Poway</u> State: <u>CA</u> Zip: <u>92064</u> Phone: <u>353-679-3218</u>	<u>Constructor</u>	<u>Archeo</u> <u>&</u> <u>NAM</u>	<u>\$13,970.00</u>	<u>SLBE</u>	<u>City</u> <u>of</u> <u>San Diego</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, SEBE, SDB, WoSB, HUBZone, OR SDVOSB	WHERE CERTIFIED	CHECK IF JOINT VENTURE PARTNERSHIP
Name: <u>G. Scott Asphalt Inc.</u> Address: <u>358 Inwood dr.</u> City: <u>Chula Vista</u> State: <u>CA</u> Zip: <u>91910</u> Phone: <u>619-400-1854</u>	Constructor	Slurry	\$87,904.00	SLBE	City of San Diego	
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						

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| Woman-Owned Small Business | WoSB | HUBZone Business | HUBZone |
| Service-Disabled Veteran Owned Small Business | SDVOSB | | |
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|--|--------|--|----------|
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| 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 |

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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: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						
Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____						

- 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):
- | | | | |
|---|--------|--|---------|
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- | | | | |
|--|--------|--|----------|
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| California Public Utilities Commission | CPUC | San Diego Regional Minority Supplier Diversity Council | SRMSDC |
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| State of California | CA | U.S. Small Business Administration | SBA |

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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	WHERE CERTIFIED
Name: J. CLOUD INC. Address: 2094 WILLOW GLEN DR. City: EL CAYON State: CA Zip: 92019 Phone: 619-593-9020	(MATERIALS) AGGREGATE	\$54,153. ⁰⁰	YES	NO	ELBE	CITY
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:

- | | | | |
|--|--------|--|----------|
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WATER GROUP 914

WORK TO BE DONE

UNDERGROUND UTILITIES

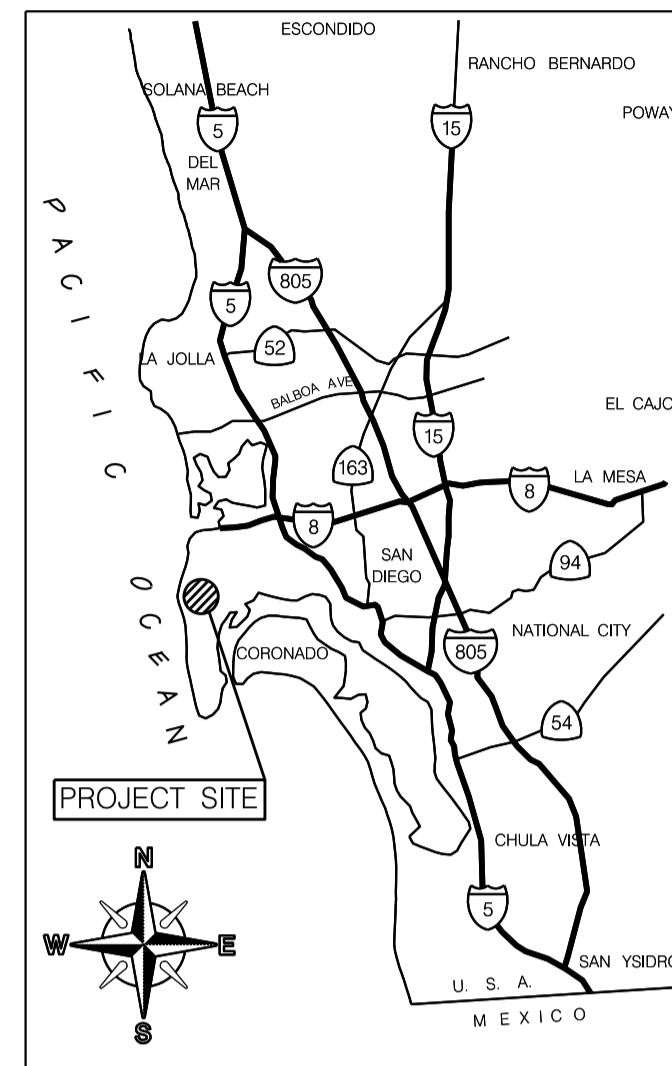
AT LEAST THREE (3) WORKING DAYS PRIOR TO EXCAVATION, THE CONTRACTOR SHALL REQUEST A MARKOUT OF UNDERGROUND UTILITIES BY CALLING THE BELOW LISTED REGIONAL NOTIFICATION CENTER FOR AN INQUIRY IDENTIFICATION NUMBER: UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-422-4133

CONTRACTOR'S RESPONSIBILITIES

- CONTRACTOR SHALL EXCAVATE AROUND WATER METER BOX (CITY PROPERTY SIDE) TO DETERMINE IN ADVANCE, THE SIZE OF EACH SERVICE BEFORE TAPPING MAIN.
- THE CITY FORCES, WHERE CALLED OUT WILL MAKE PERMANENT CUTS & PLUGS AND CONNECTIONS.
- EXISTING MAINS SHALL BE KEPT IN SERVICE IN LIEU OF HIGH-LINING, UNLESS OTHERWISE SHOWN ON PLANS.
- THE LOCATION OF EXISTING BUILDINGS AS SHOWN ON THE PLAN ARE APPROXIMATE.
- STORM DRAIN INLETS ARE TO REMAIN FUNCTIONAL/OPERATIONAL 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 THE SPECIFICATIONS SECTION 5-1.
- EXISTING UTILITY CROSSING AS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE NOT REPRESENTATIVE OF ACTUAL LENGTH AND LOCATION OF CONFLICT AREAS, SEE PLAN VIEW.
- ANY REPLACEMENT OR PROPOSED RELOCATION OF ORIGINAL/HISTORIC STREET LIGHTS WITHIN THE OCEAN BEACH EMERGING HISTORIC DISTRICT MUST OBTAIN PERMISSION, BY WAY OF REVIEW, BY PLAN HISTORIC RESOURCES PRIOR TO PROCEEDING. REPLACEMENT STANDARDS ARE AT THE SOLE DISCRETION OF THE PLAN HISTORIC RESOURCES SECTION OF THE DEVELOPMENT SERVICES DEPARTMENT.

STORM WATER PROTECTION

- THIS PROJECT IS SUBJECT TO MUNICIPAL STORM WATER PERMIT ORDER NO. R9-2007-0001 AND WPCP.



VICINITY MAP
NOT TO SCALE

LIMITS OF WORK

SHEET NO.	DISCIPLINE CODE	TITLE	LIMITS	PIPE SIZE (IN)	MATERIAL	LENGTH (FT)
WATER						
1	G-1	COVER SHEET				
2	C-1	POINT LOMA AVE	STA. 1+00 TO STA. 8+00	16	WATER	700
3	C-2	POINT LOMA AVE	STA. 8+00 TO STA. 15+00	16	WATER	700
4	C-3	POINT LOMA AVE	STA. 15+00 TO STA. 22+00	16	WATER	700
5	C-4	POINT LOMA AVE	STA. 22+00 TO STA. 25+30	16	WATER	319.05
6	C-5	SANTA BARBARA ST	STA. 25+19.05 TO STA. 32+31.25	16	WATER	712.20
7	C-6	BERMUDA AVE	STA. 1+00 TO STA. 7+00	8	WATER	600
8	C-7	BERMUDA AVE	STA. 7+00 TO FROUDE ST	8	WATER	694.50
9	C-8	BERMUDA AVE	STA. 1+00 TO STA 8+00	8	WATER	700
10	C-9	BERMUDA AVE	STA. 8+00 TO SANTA BARBARA ST	8	WATER	621.64
11	C-10	PESCADERO AVE	STA. 1+00 TO STA. 8+00	8	WATER	700
12	C-11	PESCADERO AVE	STA. 8+00 TO STA. 15+00	8	WATER	700
13	C-12	PESCADERO AVE	STA. 15+00 TO STA. 17+88.33	8	WATER	288.33
13	C-13	CABLE ST	STA. 1+00 TO OCEAN FRONT ST	8	WATER	195.26
14	C-13	PESCADERO AVE	STA. 1+00 TO STA. 8+00	8	WATER	700
15	C-14	PESCADERO AVE	STA. 8+00 TO SANTA BARBARA ST	8	WATER	621.64
16	C-15	ORCHARD AVE	STA. 1+00 TO STA. 7+00	12	WATER	600
17	C-16	ORCHARD AVE	STA. 7+00 TO STA. 14+00	12	WATER	700
18	C-17	ORCHARD AVE	STA. 14+00 TO FROUDE ST	12	WATER	503.59
18	C-18	FROUDE ST	ORCHARD AVE TO STA. 1+87.50	12	WATER	41.52
19	C-18	CORONADO AVE	STA 1+00 TO STA. 8+00	8	WATER	700
20	C-19	CORONADO AVE	STA. 8+00 TO FROUDE ST	8	WATER	644.71
21	C-20	CORONADO AVE	STA. 1+00 TO STA. 8+00	8	WATER	700
22	C-21	CORONADO AVE	STA. 8+00 TO CATALINA BLVD	8	WATER	617.75
23	C-22	POINT LOMA AVE	STA. 1+00 TO STA 8+00	8	WATER	700
24	C-23	POINT LOMA AVE	STA. 8+00 TO STA. 11+20.57	8	WATER	330.57
24	C-23	POINT LOMA AVE	STA. 1+00 TO STA. 3+14.12	8	WATER	224.13
25	C-24	SUNSET CLIFFS BL	STA. 1+00 TO STA. 8+00	12	WATER	700
26	C-25	SUNSET CLIFFS BL	STA. 8+00 TO NARRAGANSETT AVE	12	WATER	459.99
27	C-26	FROUDE ST	CORONADO AVE TO STA. 4+79.14	12	WATER	379.14
28	C-27	SAVOY CIRCLE	STA. 1+00 TO STA. 7+00	8	WATER	600
29	C-28	SAVOY CIRCLE	STA. 7+00 TO BERMUDA CIRCLE	8	WATER	414.28
30	C-29	ORCHARD AVE	STA. 1+00 TO EBERS STREET	8	WATER	658.06
31	C-30	EBERS ST	ORCHARD AVE TO STA. 7+00	8	WATER	600
32	C-31	EBERS ST	STA. 7+00 TO SANTA CRUZ AVE	8	WATER	600
33	C-32	EBERS ST	STA. 13+00 TO DEL MONTE AVE	8	WATER	315
33	C-32	FROUDE ST	STA 1+00 TO CORONADO AVE	8	WATER	397.37
34	C-33	EBERS ST	ORCHARD AVE TO STA. 7+00	12	WATER	600
35	C-34	EBERS ST	STA. 7+00 TO SANTA CRUZ AVE	12	WATER	600
36	C-35	EBERS ST	STA. 13+00 TO DEL MONTE AVE	12	WATER	330
37	C-36	DEL MONTE AVE	EBERS STREET FROUDE STREET	12	WATER	659.32
38	C-37	STREET RESURFACING				
39	C-38	STREET RESURFACING				
40	C-39	CURB RAMP PLAN				
41	C-40	CURB RAMP PLAN				
42	C-41	CURB RAMP DATA TABLE				
43, 44	C-42, C-43	CITY FORCES				
45, 46	C-44, C-45	PRS DETAILS				
47, 48	C-46, C-47	PRS DETAILS / MISCELLANEOUS DETAILS				
49, 50	C-48, C-49	STORM DRAIN INLET PROTECTION PLAN				
51, 52	C-50, C-51	HORIZONTAL ALIGNMENT CONTROL DATA WATER				
53	C-52	HORIZONTAL ALIGNMENT CONTROL DATA WATER				
T1-T16	T	TRAFFIC PLANS				
						TOTAL WATER = 22,027.53

DISCIPLINE CODE

- G GENERAL
- C CIVIL
- T TRAFFIC CONTROL

EXISTING STRUCTURES

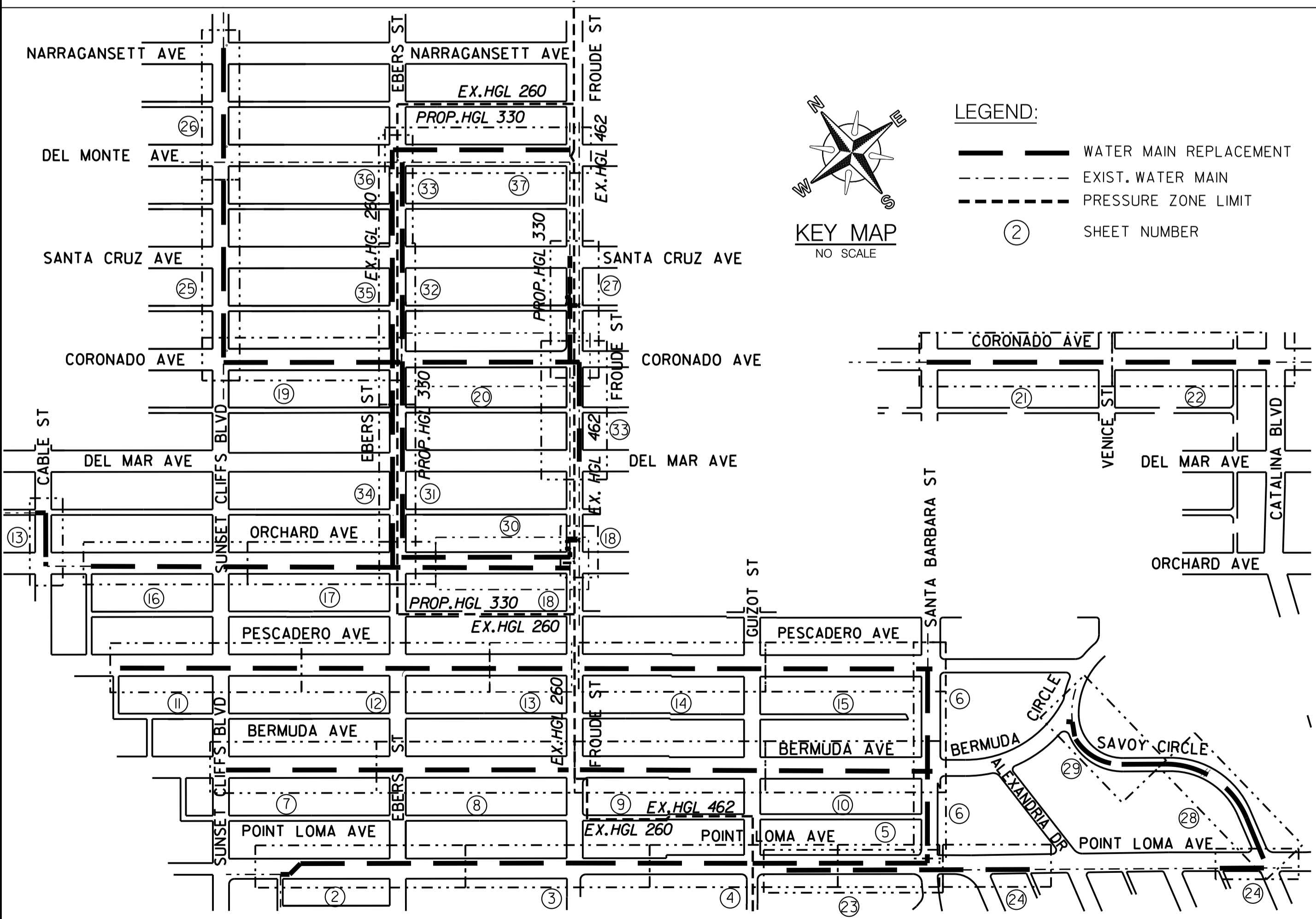
- EX WATER MAIN & VALVES
- EX WATER METER
- EX FIRE HYDRANT
- EX SEWER MAIN & MANHOLES
- EX DRAINS
- EX PAVEMENT (PROFILE)
- EX GROUND LINE (PROFILE)
- EX TRAFFIC SIGNAL
- GAS MAIN
- ELEC. COND., TEL. COND., CATV

FIELD DATA

REFERENCES:
City of San Diego
PRELIMINARY SURVEY FIELD NOTES:
UG 735, J. Dodds, W.O. 177131, 206-1692,
5/9/02, Sunset Cliffs TS, Davis, W.O. 178091,
208-1689, 6/14/02 Harbor Dr Pipe
Replacement, Davis, W.O. 189371, 202-1695, 11/18/09
BASIS OF BEARINGS/COORDINATES:
The Basis of Bearings for this project
was derived from a previous STATIC
GPS Survey using GPS 214 and GPS
215 as show on R.O.F S. 14492 I.E.
S 23° 43' 39" W, NAD 83 feet,
Zone 6 (epoch 91.35), utilizing RTK/
GPS field procedures with the
Base Station located at an
autonomous position, constraining
to GPS 214 and GPS 215.
BENCHMARK:
SBP Point Loma Blvd, and Sunset
Cliffs Blvd., Elev. 26.448' MSL.
Based on NOV029 FEET as shown
in the City of San Diego Bench Book.
STREETS REQUIRING 12" TRENCH CAP:
Sunset Cliffs Blvd.



CITY OF SAN DIEGO PUBLIC WORKS PROJECT



- LEGEND:
- WATER MAIN REPLACEMENT
 - - - EXIST. WATER MAIN
 - - - PRESSURE ZONE LIMIT
 - ② SHEET NUMBER



LEGEND

IMPROVEMENTS	STANDARD DRAWINGS	SYMBOL
TRENCH RESURFACING	SDG-107 *, SDG-108 *	△
SURVEY MONUMENT	M-10	△
CUTTING AND PLUGGING ABANDONED WATER MAIN	WP-03	E - - - - -
WATER MAIN & APPURTENANCES	SDW-100, SDW-110 *, SDW-148 *, SDW-151 *, SDW-152 *, SDW-153 *, SDW-162 *, THRUST AND ANCHOR BLOCKS FOR 16" MAINS, SEE SHEET 48	△
TRENCHLESS WATER MAIN	SEE PLANS & SPECS.	TRENCHLESS
1" WATER SERVICE WITH PRV	SEE PLANS & SPECS.	WM --- PRV --- W
VALVES WITH CAPS AND WELLS	WV-05, SDW-109, SDW-152 *, SDW-153 *	△
1" WATER SERVICE UNLESS OTHERWISE SPECIFIED	WS-03, WP-01, SDW-100, SDW-107 *, SDW-134 *, SDW-135 *, SDW-138, SDW-150 *, SDW-149 *	WM --- W
WATER SERVICE TRANSFER	SDW-100, WS-01, WS-02	WM --- T
6" FIRE HYDRANT ASSEMBLY & MARKER, 2-PORT UNLESS SPECIFIED AS 3-PORT	SDW-104 *, SDW-109, SDW-152 *, SDW-153 *	△
BLOWOFF ASSEMBLY	SDW-106, SDW-144 *, SDW-146 *	B.O.
AIR & VACUUM VALVE ASSY.	SDW-100, WA-02	A.V.
CROSS GUTTER	G-12, G-13	△

* SEE APPENDIX 'H' IN SPECS FOR CITY STANDARD DRAWINGS-APPROVED UPDATES FOR USE.
SEE FOLLOWING SHEETS BELOW FOR ADDITIONAL SYMBOLS:
STREET RESURFACING, CURB RAMP PLAN, CITY FORCES, PRS DETAILS, MISCELLANEOUS DETAILS, STORM DRAIN INLET PROTECTION PLAN, HORIZONTAL ALIGNMENT COORDINATE DATA WATER AND TRAFFIC CONTROL PLANS.

ABBREVIATIONS

ABAND	ABANDON	EL, ELEV	ELEVATION	PRS	PRESSURE REDUCER STATION
ABAND'D	ABANDONED	ELEC	ELECTRIC	PRV	PRESSURE REDUCING VALVE
AC	ASBESTOS	EX, EXIST.	EXISTING	E/O	EAST OF
AHD	AHEAD	F	FLANGE	RCP	REINFORCED CONCRETE PIPE REDUCER
ASSY	ASSEMBLY	GV	GATE VALVE	HDPE	HIGH-DENSITY POLYETHYLENE
BK	BACK	HP	HIGH PRESSURE	RED.	REDUCER
BO	BLOWOFF	IE	INVERT ELEVATION	RT	RIGHT
BTWN	BETWEEN	LT	LEFT	SD	STORM DRAIN
CATV	CABLE TV	MJ	MECHANICAL JOINT	SD	SURVEY LINE
CI	CAST IRON PIPE	MTD	MULTIPLE TELEPHONE	S/O	STUB OUT
CL	CENTER LINE	N/O	NOT	S/O	SOUTH OF
COND	CONDUIT	MTD	MULTIPLE TELEPHONE	S/O	SOUTH OF
CONT	CONTINUED	N/O	NOT	SWR	SEWER
CONTR	CONTRACTOR	OVHD	OVER HEAD	TEL	TELEPHONE
C&P	CUT&PLUG	PH	POTHOLED	UNK	UNKNOWN
CU	COPPER	PVC	POLYVINYL CHLORIDE	VC	VITRIFIED CLAY PIPE
DB	DIRECT BURIED	PROP	PROPOSED	WM	WATER METER
DI	DUCTILE IRON			WTR	WATER
EB	ENCASED BURIED			W/O	WEST OF

G-1

PLANS FOR THE CONSTRUCTION OF WATER GROUP 914 COVER SHEET

CONSTRUCTION CHANGE / ADDENDUM			
CHANGE	DATE	AFFECTED OR ADDED SHEET NUMBERS	APPROVAL NO.

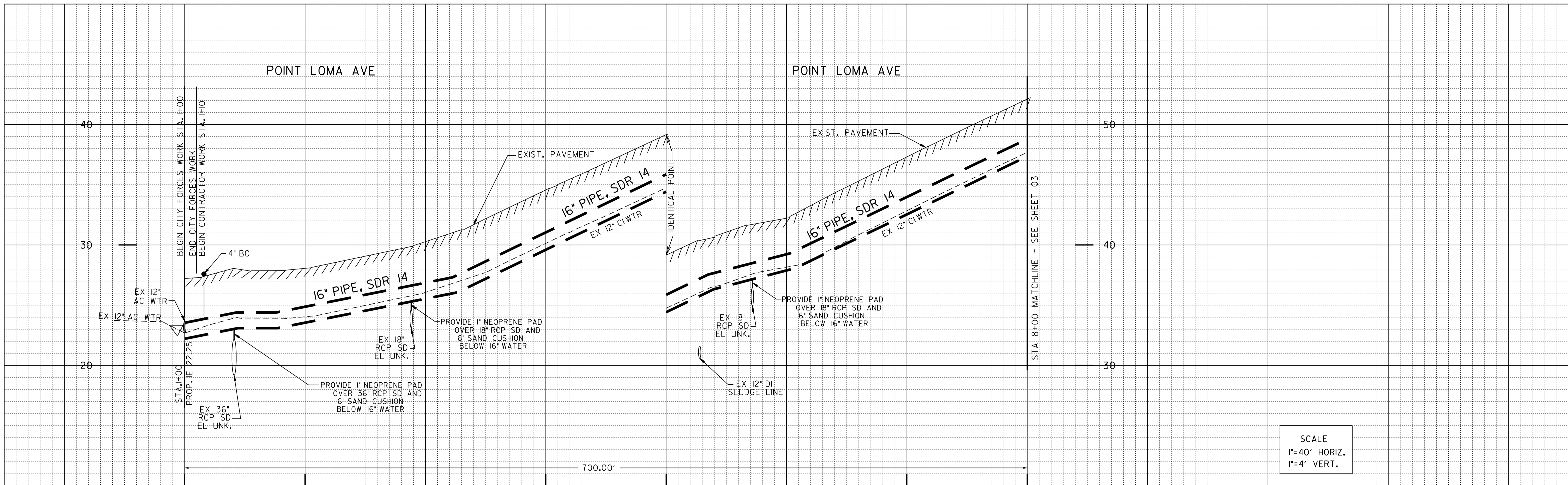
WARNING
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO SCALE.

AS-BUILT INFORMATION	
MATERIALS	MANUFACTURER
PIPE CL 235 (WATER)	-
PIPE CL 305 (WATER)	-
GATE VALVES	-
BUTTERFLY VALVES	-
FIRE HYDRANTS	-

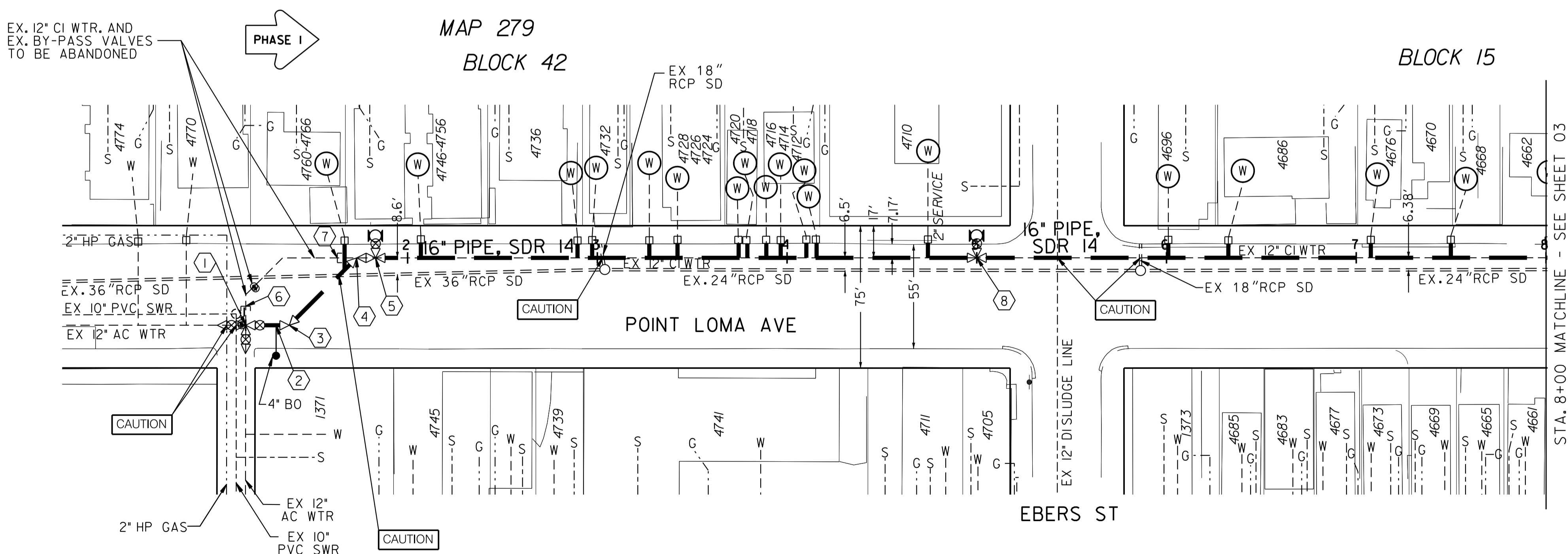


CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 01 OF 53 SHEETS				
APPROVED FOR CITY ENGINEER	DATE	2/27/12	DATE	2/27/12
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
SUBMITTED BY: MICHAEL NINH, ASSOCIATE ENGINEER				
PROJECT ENGINEER: ROBERTO VEJAR-PARRA				
VARIES: CCS27 COORDINATE				
VARIES: CCS83 COORDINATE				
CONTRACTOR	DATE STARTED	DATE COMPLETED		36124-01-D
INSPECTOR				

COVER SHEET



SCALE
1"=40' HORIZ.
1"=4' VERT.



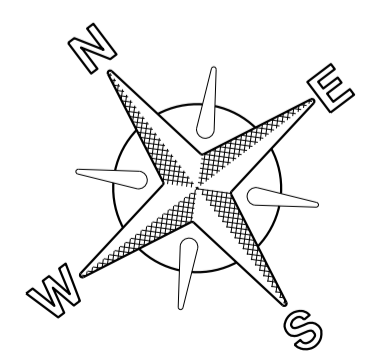
- ② ⑫ BY CONTRACTOR FURNISH & INSTALL
STA. 1+16
1-4" BLOWOFF ASSY
TYPE "A"
- ③ ⑬ BY CONTRACTOR FURNISH & INSTALL
STA. 1+22.98
1-16" 45° BEND (MJ)
- ④ ⑭ BY CONTRACTOR FURNISH & INSTALL
STA. 1+73.12
1-16" 45° BEND (MJ)
- ⑤ ⑮ BY CONTRACTOR FURNISH & INSTALL
STA. 1+83.12
1-16"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER
(3-PORT)
- ⑥ BY CONTRACTOR INSTALL - PHASE I
STA. 1+00 10' LT
PERM. CUT & PLUG EX. 12" CI WTR
- ⑦ BY CONTRACTOR INSTALL - PHASE I
STA. 1+58.76 10' LT
PERM. CUT & PLUG EX. 12" CI WTR
- ⑧ BY CONTRACTOR FURNISH & INSTALL
STA. 5+00
1-16"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER
(3-PORT)

① ⑪
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN TEE - PHASE I

STA. 1+00
1-16"x16" TEE (F)
3-16" BUTTERFLY VALVES (F, MJ) AHD, BK, RT
2-16"x12" REDUCERS (MJ) 3' BK, 3' RT
RECONNECT TO EX. 12" AC WTR BK, RT
OPEN 16" BUTTERFLY VALVES BK, RT
CLOSE 16" BUTTERFLY VALVE AND BLIND FLANGE AHD
AFTER NEW 16" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 16" BUTTERFLY VALVE AHD

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 16" PIPE AHD

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE POINT LOMA AVE
FROM STA. 1+00 TO STA. 8+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.



SCALE 1" = 40'

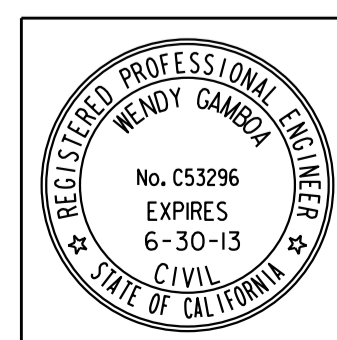
REFERENCE:
WATER: 6360-L
STORM DRAIN: 22232-D
GAS: 35-200
ELECTRIC: 208-1689B
TELEPHONE: te0703ac.dgn, te0703cb.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
12" - CI - 695.72' - 1945
1" SERVICE - 16 - CU
2" WATER SERVICE - 1 - CU

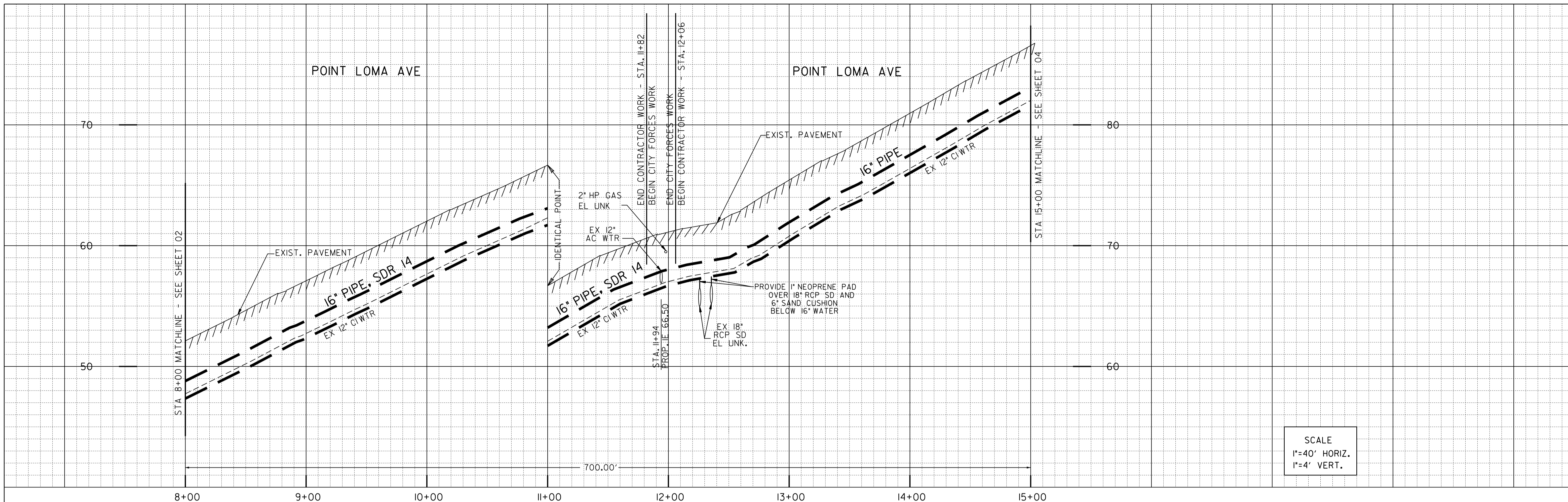
C-1

WATER GROUP 914
POINT LOMA AVENUE
STA 1+00 TO STA 8+00

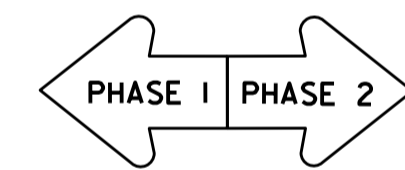
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 02 OF 53 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	DATE	2/27/12		SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				6250407-1846444 CCS83 COORDINATE
				36124-02-D



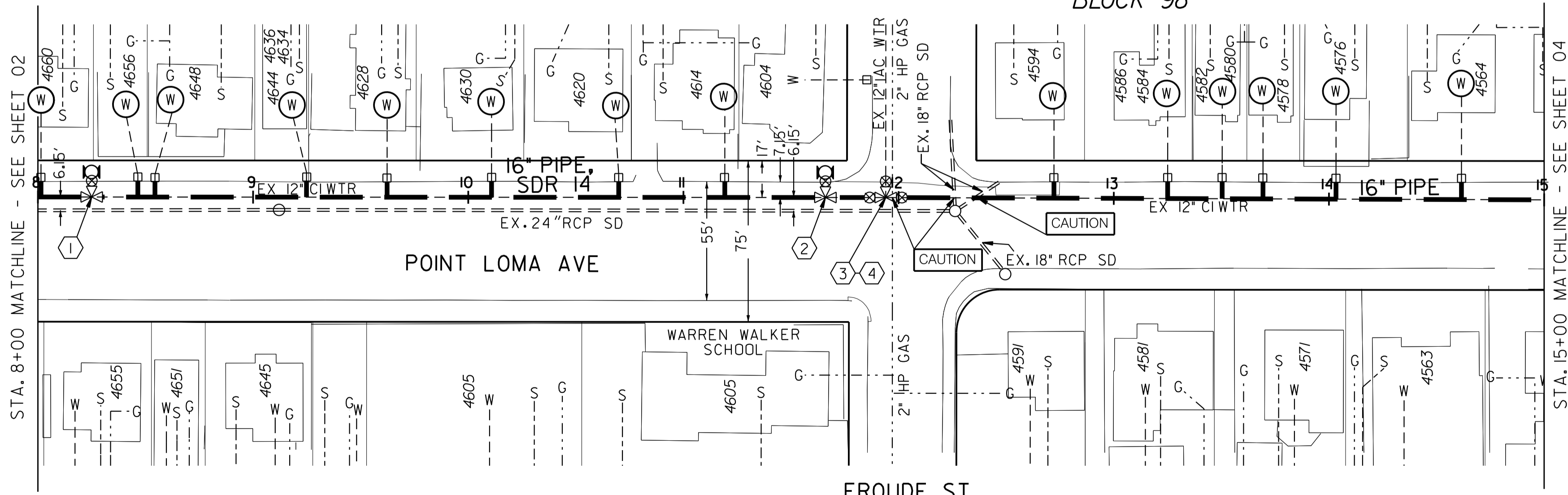
POINT LOMA AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.



BLOCK 15 FROUDE ST MAP 1106 BLOCK 98



HIGHLINING NOTE: (PHASE 1)
CITY FORCES TO HIGHLINE POINT LOMA AVE FROM STA. 8+00 TO STA. 11+94
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

NOTE:
THE CONTRACTOR SHALL CONTACT WARREN WALKER ELEMENTARY SCHOOL OFFICIALS TO COORDINATE CONSTRUCTION ACTIVITIES WITH SCHOOL DROP-OFF AND PICK-UP TIMES.

HIGHLINING NOTE: (PHASE 2)
CITY FORCES TO HIGHLINE POINT LOMA AVE FROM STA. 11+94 TO STA. 15+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

- ① BY CONTRACTOR FURNISH & INSTALL
STA. 8+25
1-16"x6" TEE (M,J,M,F)
1-6" FH ASSY & MARKER (3-PORT)
- ② ①⑥ BY CONTRACTOR FURNISH & INSTALL
STA. 11+65.98
1-16"x6" TEE (M,J,M,F)
1-6" FH ASSY & MARKER (3-PORT)

- ③ ①⑦ BY CITY FORCES AHD OF CONTRACTOR INSTALL
CUT-IN TEE - PHASE 1

STA. 11+94
1-16"x12" TEE (F)
2-16" BUTTERFLY VALVES (F,MJ) AHD, BK
1-12" GATE VALVE (F,MJ) LT
RECONNECT TO EX. 12" AC WTR LT AND TO EX. 12" CI WTR AHD, OPEN VALVES AHD, LT
CLOSE 16" BUTTERFLY VALVE AND BLIND FLANGE BK
AFTER NEW 16" PIPE HAS BEEN RECONNECTED BY CONTRACTOR OPEN 16" BUTTERFLY VALVE BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED RECONNECT TO NEW 16" PIPE BK

- ④ BY CITY FORCES AHD OF CONTRACTOR - PHASE 2

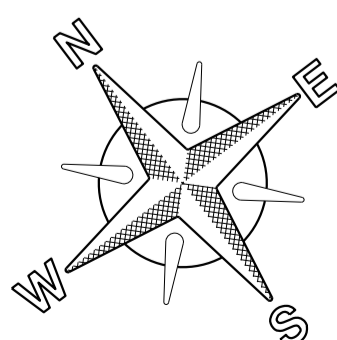
STA. 11+94.01
CLOSE 16" BUTTERFLY VALVE AND BLIND FLANGE AHD
AFTER NEW 16" PIPE HAS BEEN RECONNECTED BY CONTRACTOR OPEN 16" BUTTERFLY VALVE AHD

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED RECONNECT TO NEW 16" PIPE AHD

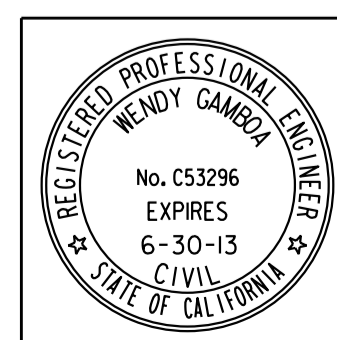
REFERENCE:
WATER: 6360-L, 6359-L
STORM DRAIN: 22232-ID, 22232-2D
GAS: 35-201, 35-202
TELEPHONE: te0703cb.dgn, te0703da.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B205
100' SCALE: 206-1689
THOMAS BROS.: 1267-JT
HGL: POINT LOMA (260)

RETIREMENTS:
12" - CI - 700' - 1945
1" SERVICE - 14 - CU



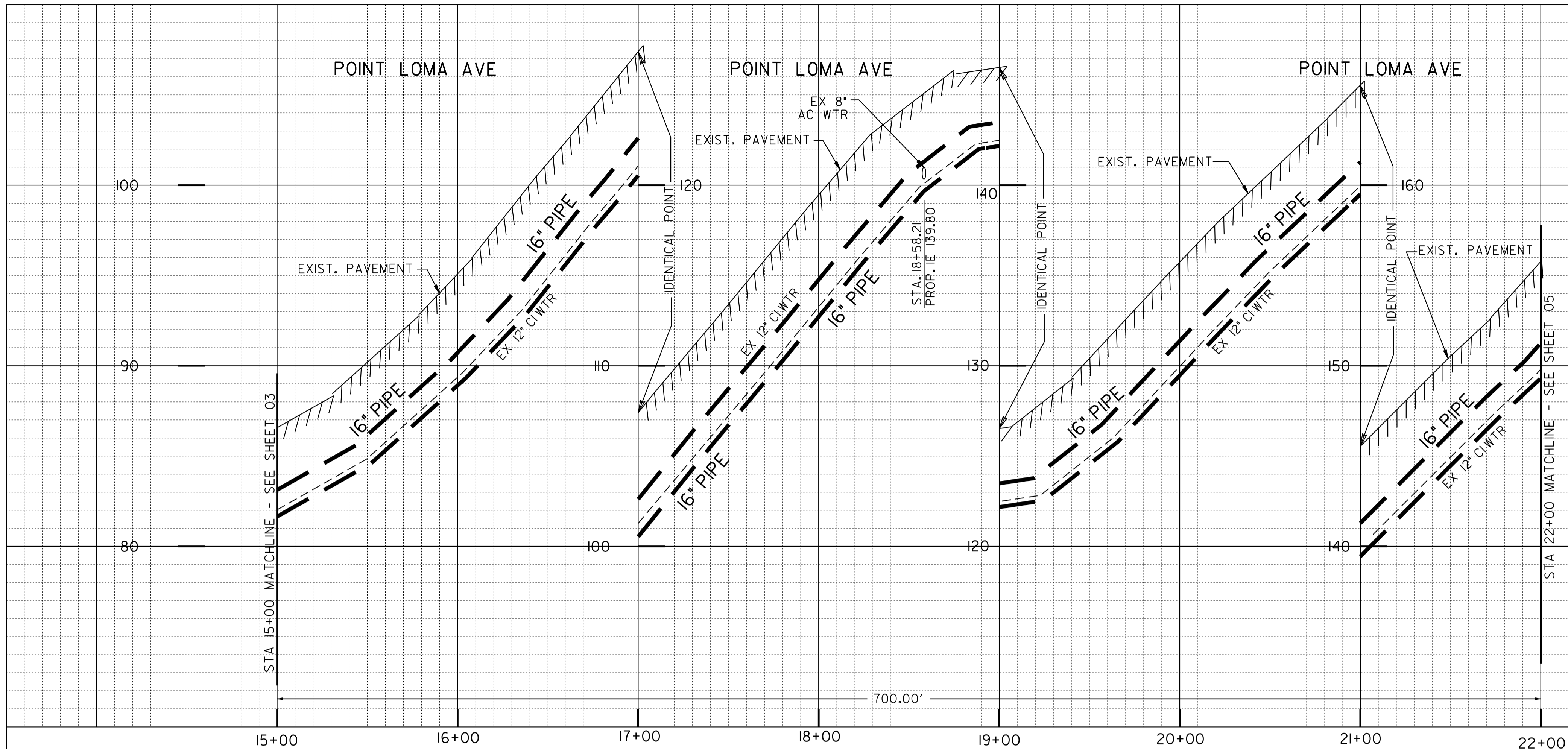
SCALE 1" = 40'



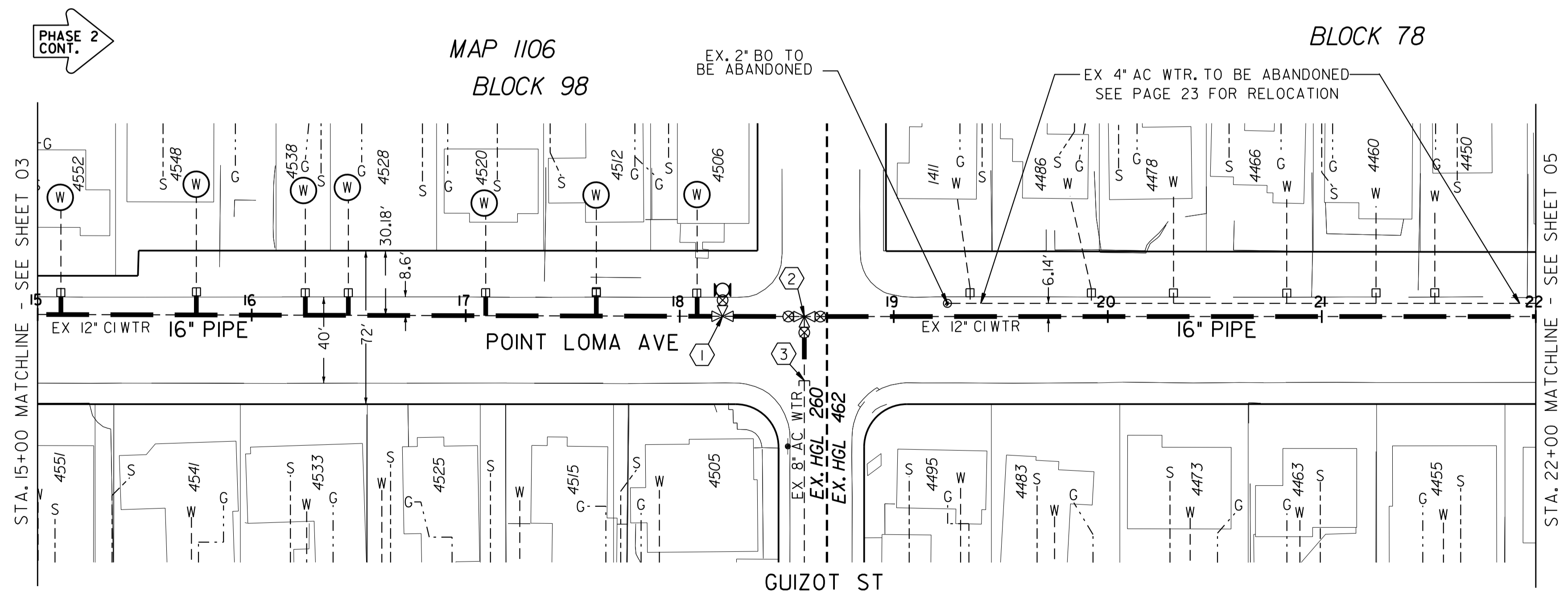
WATER GROUP 914
POINT LOMA AVENUE
STA 8+00 TO STA 15+00

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 03 OF 53 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	DATE	2/27/12	SUBMITTED BY: MICHAEL NINH, ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	CHECKED BY: ROBERTO VEJAR-PARRA, PROJECT ENGINEER
				206-1689, CCS27 COORDINATE
				6250407-1846444, CCS83 COORDINATE
CONTRACTOR	DATE STARTED	INSPECTOR	DATE COMPLETED	36124-03-D

C-2



SCALE
1"=40' HORIZ.
1"=4' VERT.



① 18
BY CONTRACTOR
FURNISH & INSTALL
STA. 18+20
1-16"x6" TEE (M,J,M,F)
1-6" FH ASSY & MARKER

② 19
BY CONTRACTOR
FURNISH & INSTALL
STA. 18+58.21
1-16"x8" TEE (F)
2-16" BUTTERFLY VALVES (F,MJ) BK, AHD
1-8" GATE VALVE (F,MJ), RT
8" PIPE 20' RT

③
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 2
STA. 18+58.21 30' RT
TEMP. CUT & PLUG EX. 8" AC WTR
RECONNECT AFTER NEW
MAIN HAS BEEN ACCEPTED

REFERENCE:
WATER: 6360-L, 6359-L
GAS: 35-202, 35-203
TELEPHONE: te0703da.dgn, te0703dd.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B205
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7 / 1287-J1
HGL: EX. 12" CIWTR - POINT LOMA (260)
EX. 4" AC - CATALINA (462)

RETIREMENTS:
12" - CI - 700' - 1945
1" SERVICE - 7 - CU

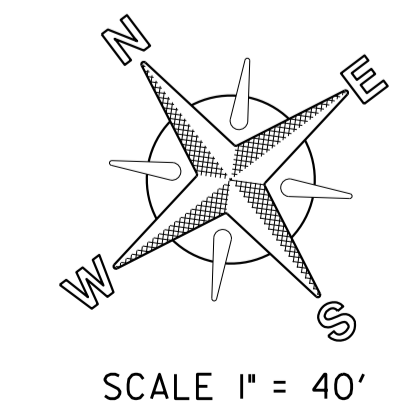
NOTE:
THE PROP. 16" PVC WATER MAIN SHALL BE OPERATING UNDER THE POINT LOMA (260) PRESSURE ZONE.

THE PROP. PARALLEL 8" PVC WATER MAIN SHALL BE OPERATING UNDER THE CATALINA (462) PRESSURE ZONE, SEE SHEET 23

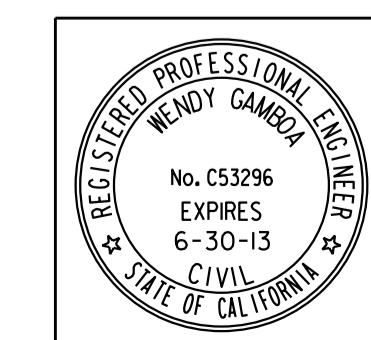
HIGHLINING NOTE:
CITY FORCES TO HIGHLINE POINT LOMA AVE FROM STA. 15+00 TO STA. 18+58.21
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

NOTE:
PROP. PARALLEL 8" WATER PIPE INCLUDED IN THIS CONTRACT, SEE SHEET 23

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES



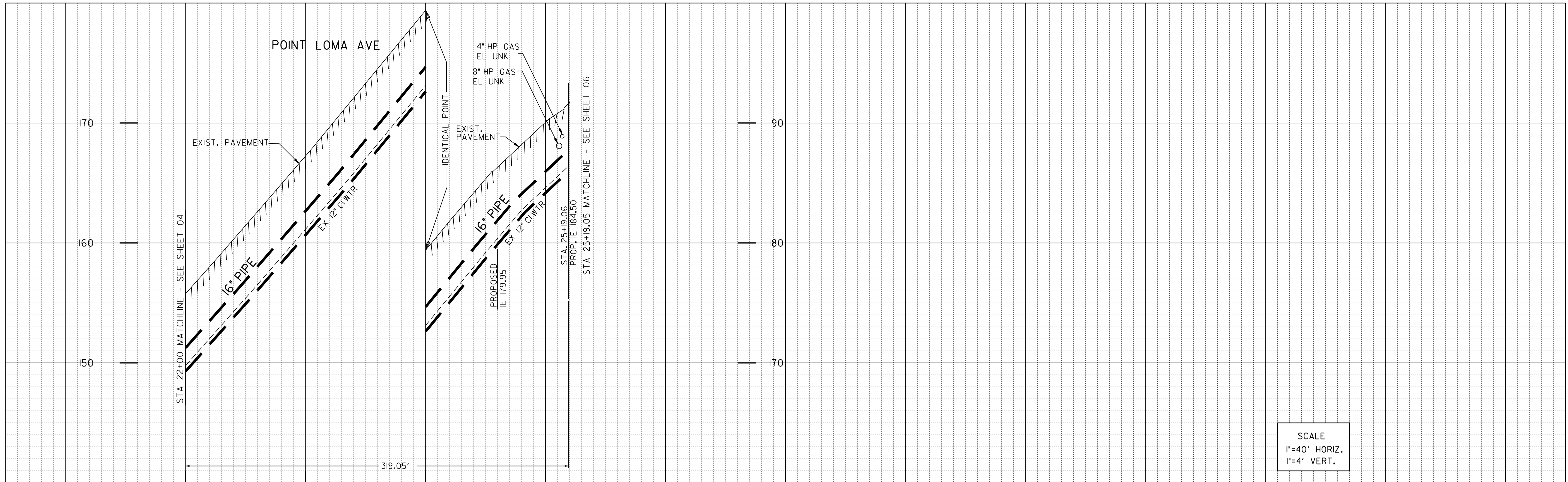
SCALE 1" = 40'



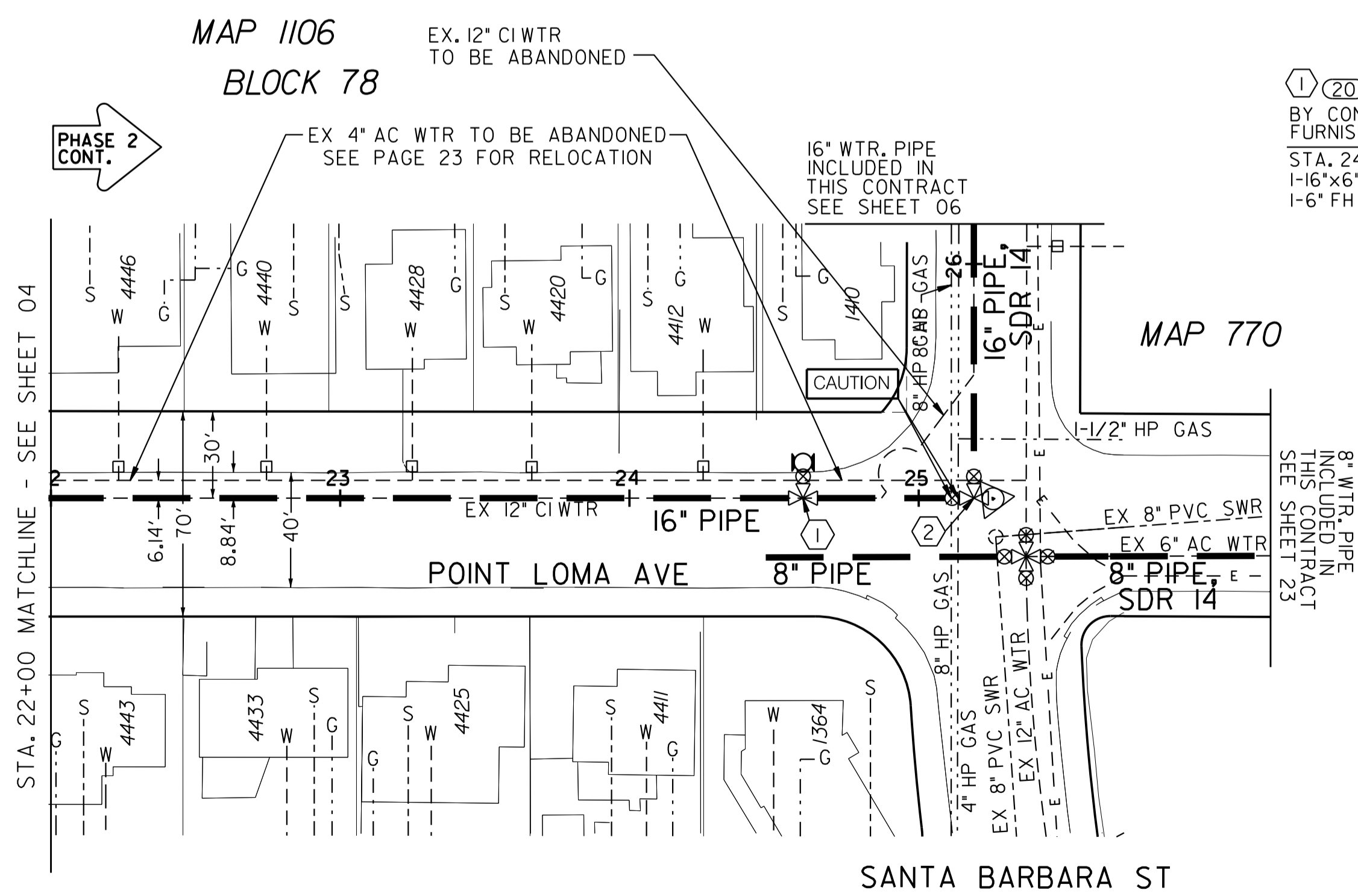
WATER GROUP 914 POINT LOMA AVENUE STA 15+00 TO STA 22+00				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 04 OF 53 SHEETS				WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12		SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				6250407-1846444 CCS83 COORDINATE
				36124-04-D

C-3

POINT LOMA AVENUE



SCALE
 1"=40' HORIZ.
 1"=4' VERT.



① 20
 BY CONTRACTOR
 FURNISH & INSTALL
 STA. 24+60
 1-16"x6" TEE (M,J,M,J,F)
 1-6" FH ASSY & MARKER

② 21
 BY CONTRACTOR
 FURNISH & INSTALL
 STA. 25+19.06 POINT LOMA AV =
 STA. 25+19.06 SANTA BARBARA ST, SHT. 06
 1-16"x16" TEE (F)
 2-16" BUTTERFLY VALVES (F,M,J) BK, LT
 1-16" BLIND FLANGE AHD

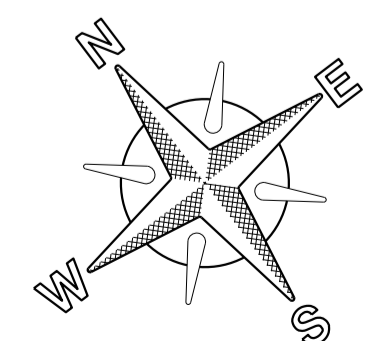
CAUTION NOTE:
 CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
 AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
 PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

HIGHLINING NOTE:
 CITY FORCES TO HIGHLINE POINT LOMA AVE
 FROM STA. 22+00 TO STA. 25+19.05
 CITY FORCES TO FURNISH HIGHLINE MATERIALS
 AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

NOTE:
 PROP. PARALLEL 8" WATER PIPE INCLUDED IN THIS
 CONTRACT, SEE SHEET 23

NOTE:
 THE PROP. 16" PVC WATER MAIN SHALL BE OPERATING
 UNDER THE POINT LOMA (260) PRESSURE ZONE.

 THE PROP. PARALLEL 8" PVC WATER MAIN SHALL BE
 OPERATING UNDER THE CATALINA (462) PRESSURE
 ZONE, SEE SHEET 23



SCALE 1" = 40'

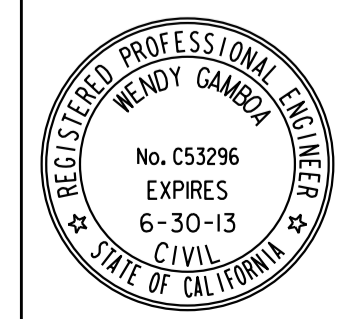
REFERENCE:
 WATER: 6359-L, 9952-I-D
 GAS: 35-203
 TELEPHONE: te0503cc.dgn, te0505aa.dgn

IMPROVEMENTS: NONE
 FIELD BOOK: B205
 100' SCALE: 206-1689
 THOMAS BROS.: 1287-JI
 HGL: EX. 12" CI WTR - POINT LOMA (260)
 EX. 4" AC - CATALINA (462)

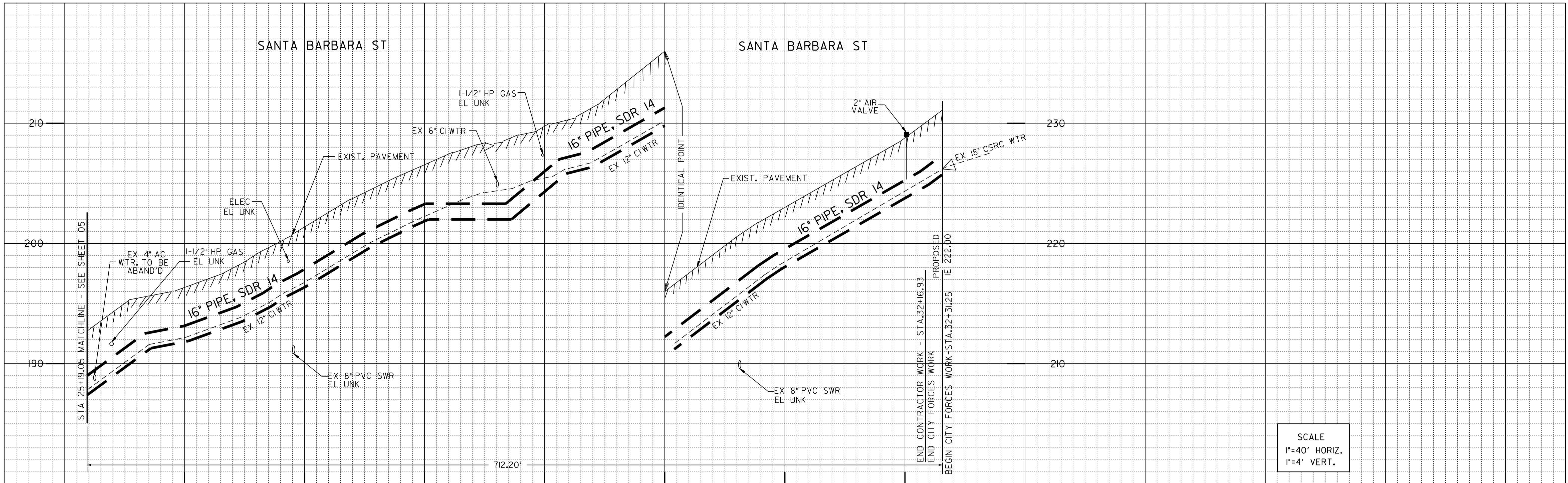
RETIREMENTS:
 12" - CI - 319.05' - 1945

C-4

WATER GROUP 914 POINT LOMA AVENUE STA 22+00 TO STA 25+19.05				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 05 OF 53 SHEETS				WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
				206-1689 CCS27 COORDINATE
				6250407-1846444 CCS83 COORDINATE
CONTRACTOR _____		DATE STARTED _____		36124-05-D
INSPECTOR _____		DATE COMPLETED _____		



POINT LOMA AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.

③ 23

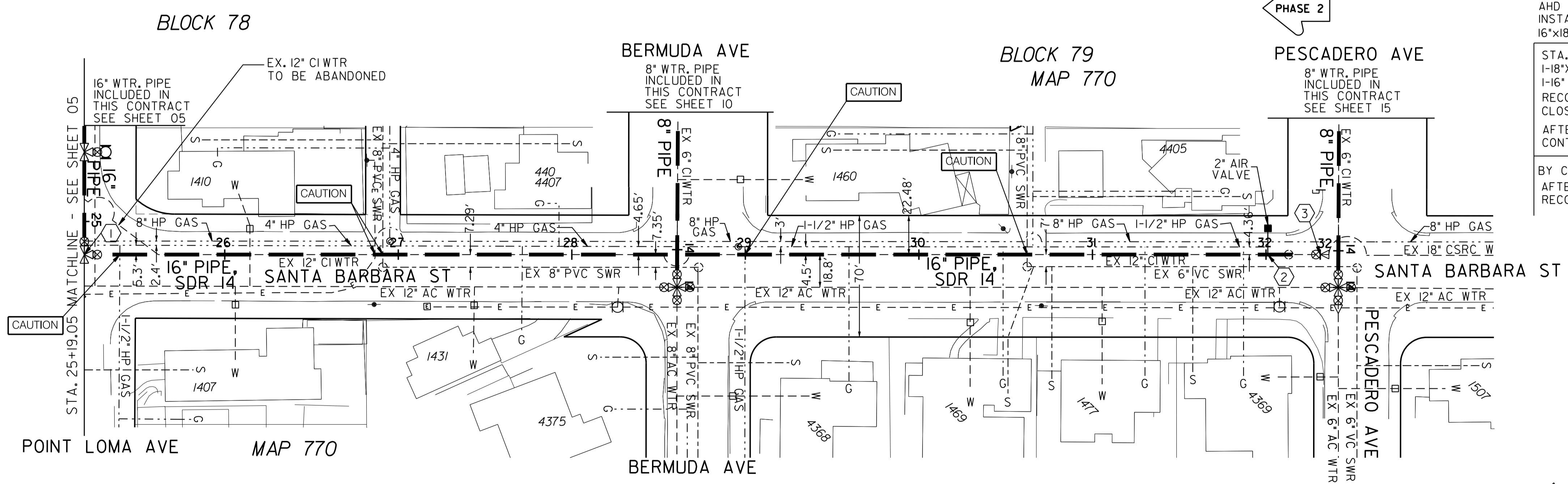
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
16"x18" CUT-IN REDUCER - PHASE 2

STA. 32+31.26
1-18"x16" RED. (MJ)
1-16" BUTTERFLY VALVE (MJ) 3' BK
RECONNECT TO EX. 18" CSRC WTR AHD
CLOSE 16" BUTTERFLY VALVE AND BLIND FLANGE BK
AFTER NEW 16" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 16" BUTTERFLY VALVE BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 16" PIPE BK

REFERENCE:
WATER: 6358-L, 28476-9-D
GAS: 32-124, 32-125
ELECTRIC: 208-1692A
TELEPHONE: te0503cc.dgn, te0503cd.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1287-JI
HGL: POINT LOMA (260)

RETIREMENTS:
12" - CI - 790.30' - 1945
2" AIR VALVE - 1

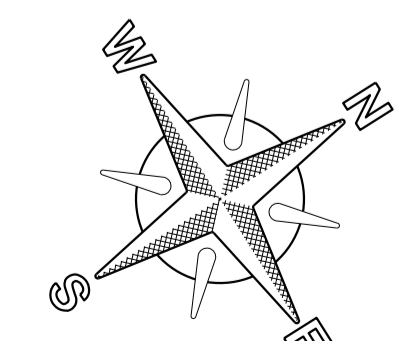


CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES

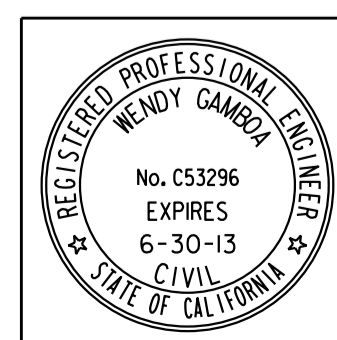
CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

①
BY CONTRACTOR
FURNISH & INSTALL
STA. 25+19.06 SANTA BARBARA ST =
STA. 25+19.06 POINT LOMA AV. SHT. 05
1-16"x16" TEE INSTALLED
PER NOTE ②, SHT 05

② 22
BY CONTRACTOR
FURNISH & INSTALL
STA. 32+01.04
1-2" AIR & VACUUM VALVE
ASSEMBLY



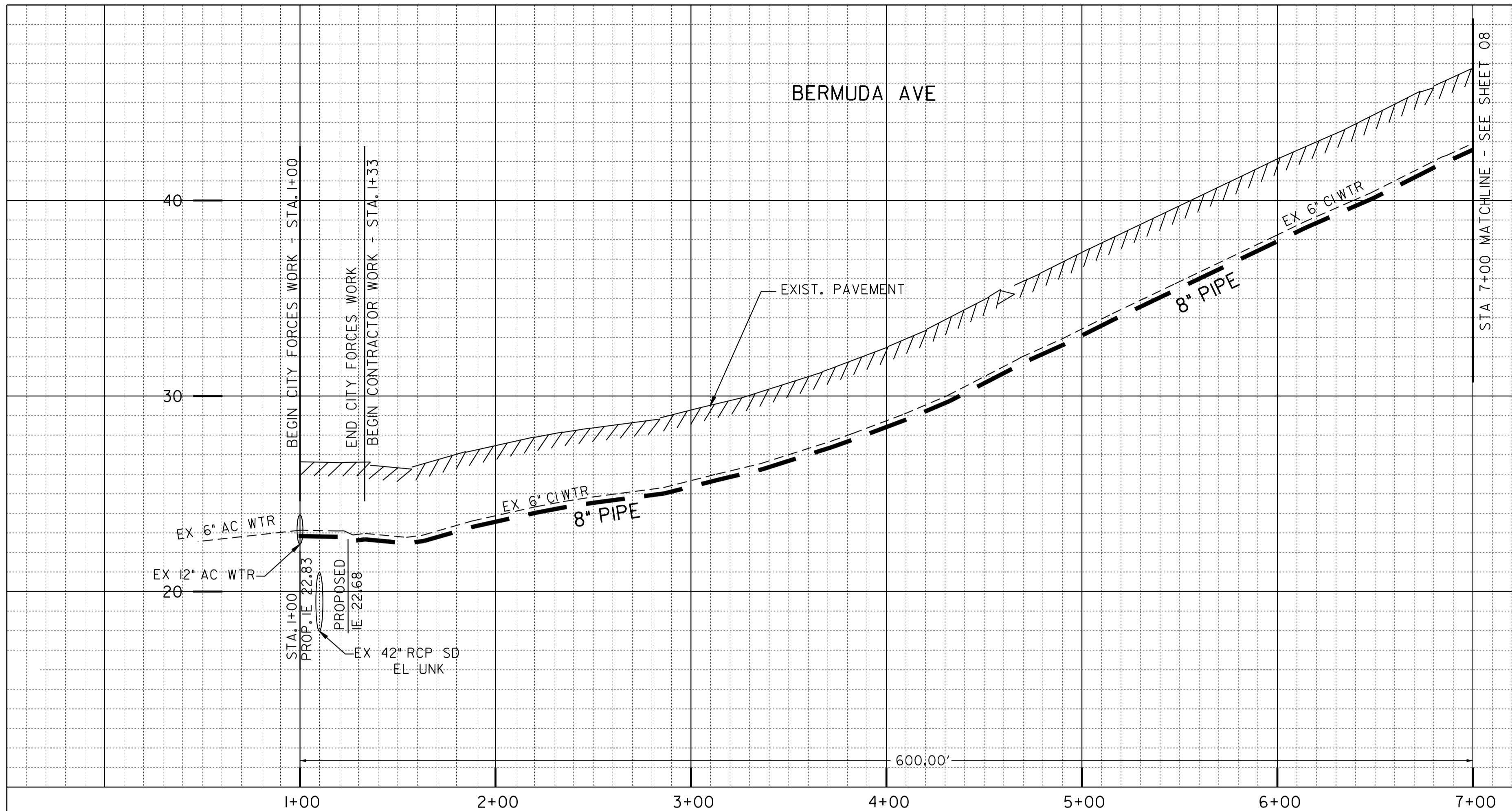
SCALE 1" = 40'



WATER GROUP 914 SANTA BARBARA ST POINT LOMA AVE TO STA 32+31.25				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 06 OF 53 SHEETS				WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	DATE 2/27/12		SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				6250407-1846444 CCS83 COORDINATE 36124-06-D

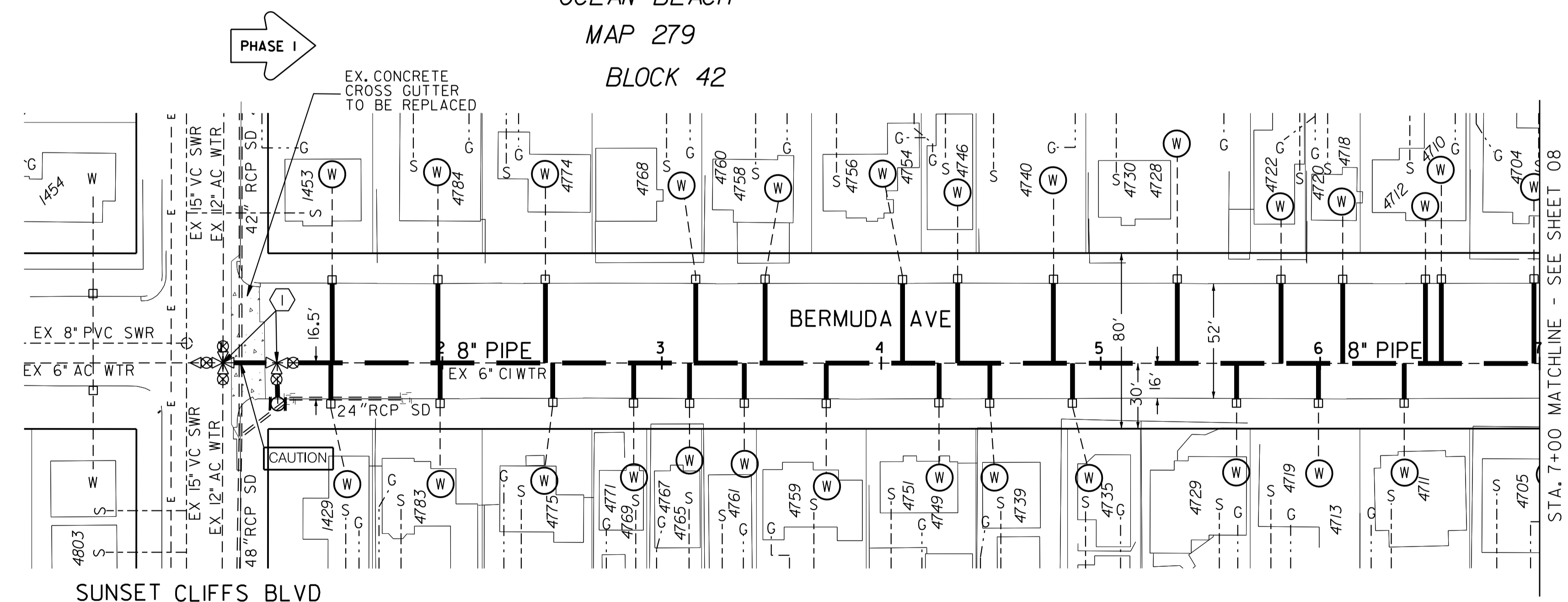
C-5

SANTA BARBARA ST



SCALE
 1"=40' HORIZ.
 1"=4' VERT.

OCEAN BEACH
 MAP 279
 BLOCK 42



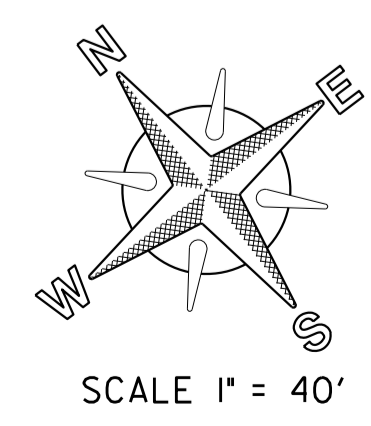
- ① 24
 BY CITY FORCES
 AHD OF CONTRACTOR
 INSTALL
 CUT-IN CROSS AND TEE - PHASE I
- STA. 1+00
 1-12"x8" CROSS (M,J,F,F)
 2-12" GATE VALVES (F,M,J) LT, RT
 1-8" GATE VALVE (F,M,J) BK
 1-8"x6" RED. (M,J) 3' BK
 23'- 8" PVC PIPE, AHD
 RECONNECT TO EX. 12" AC WTR LT, RT
 AND TO EX. 6" AC WTR BK
 INSTALL 8" PVC WTR. AND 6" FH AHD
 OPEN VALVES BK, LT, RT
- STA. 1+24.57 25
 1-8"x6" TEE (F,M,J,F)
 1-6" FH ASSY & MARKER
 1-8" GATE VALVE (F,M,J) AHD
 CLOSE 8" VALVE AND BLIND FLANGE AHD
 AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
 CONTRACTOR OPEN 8" VALVE AHD
- BY CONTRACTOR
 AFTER NEW MAIN HAS BEEN ACCEPTED
 RECONNECT TO NEW 8" PIPE AHD

REFERENCE:
 WATER: I2942-D, 25527-2D
 STORM DRAIN: 20036-D
 GAS: 32-76, 32-77
 ELECTRIC: 210-1692A
 TELEPHONE: te0703aa.dgn, te0703ab.dgn

IMPROVEMENTS: NONE
 FIELD BOOK: B205
 100' SCALE: 206-1689
 THOMAS BROS.: 1267-J7
 HGL: POINT LOMA (260)

RETIREMENTS:
 6" - CI - 600' - 1968
 FH (2-PORT) - 1
 1" SERVICE - 27 - CU

HIGHLINING NOTE:
 CITY FORCES TO HIGHLINE BERMUDA AVE
 FROM STA. 1+00 TO STA. 7+00
 CITY FORCES TO FURNISH HIGHLINE MATERIALS
 AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

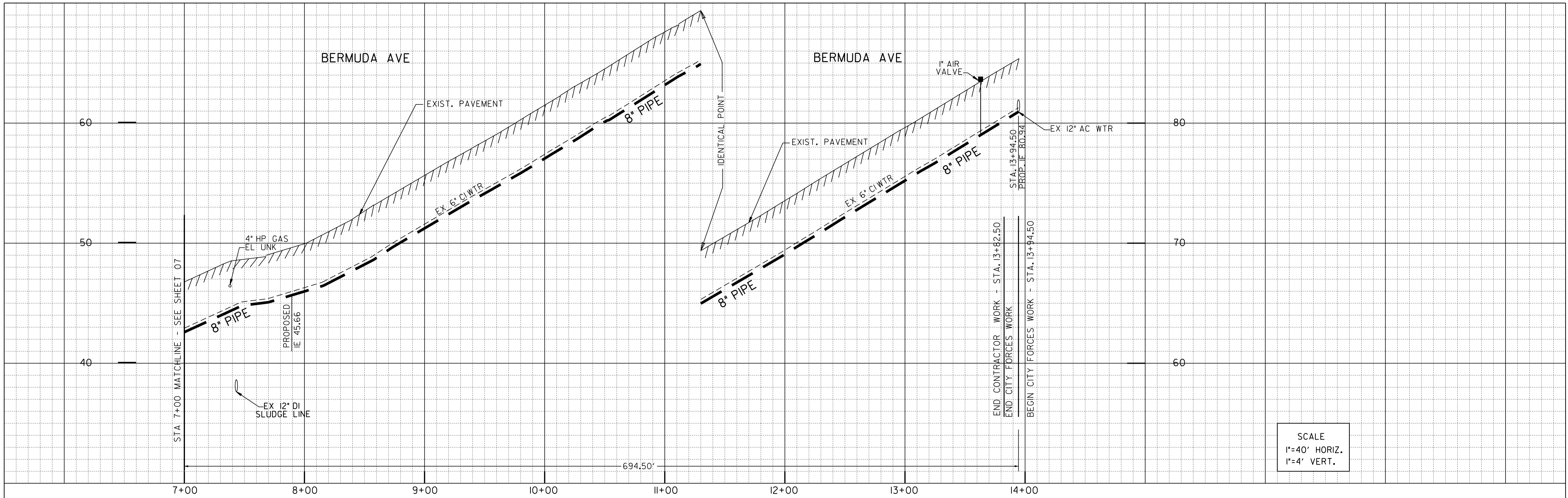


C-6

WATER GROUP 914 BERMUDA AVENUE SUNSET CLIFFS BLVD TO STA. 7+00				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 07 OF 53 SHEETS				WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER
DESCRIPTION ORIGINAL	BY FH	APPROVED 	DATE 	FILMED
				206-1689 CCS27 COORDINATE
				6250407-1846444 CCS83 COORDINATE
CONTRACTOR _____ INSPECTOR _____		DATE STARTED _____ DATE COMPLETED _____		36124-07-D

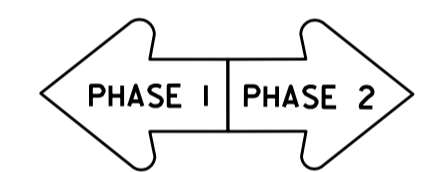


BERMUDA AVENUE



SCALE
 1"=40' HORIZ.
 1"=4' VERT.

MAP 279
 BLOCK 16



REFERENCE:
 WATER: 12942-D, 25527-2D
 GAS: 32-78, 32-79
 ELECTRIC: 208-1692A
 TELEPHONE: +e0703ad.dgn, +e0703bc.dgn
 IMPROVEMENTS: NONE
 FIELD BOOK: B20S
 100' SCALE: 206-1689
 THOMAS BROS.: 1267-J7
 HGL: POINT LOMA (260)

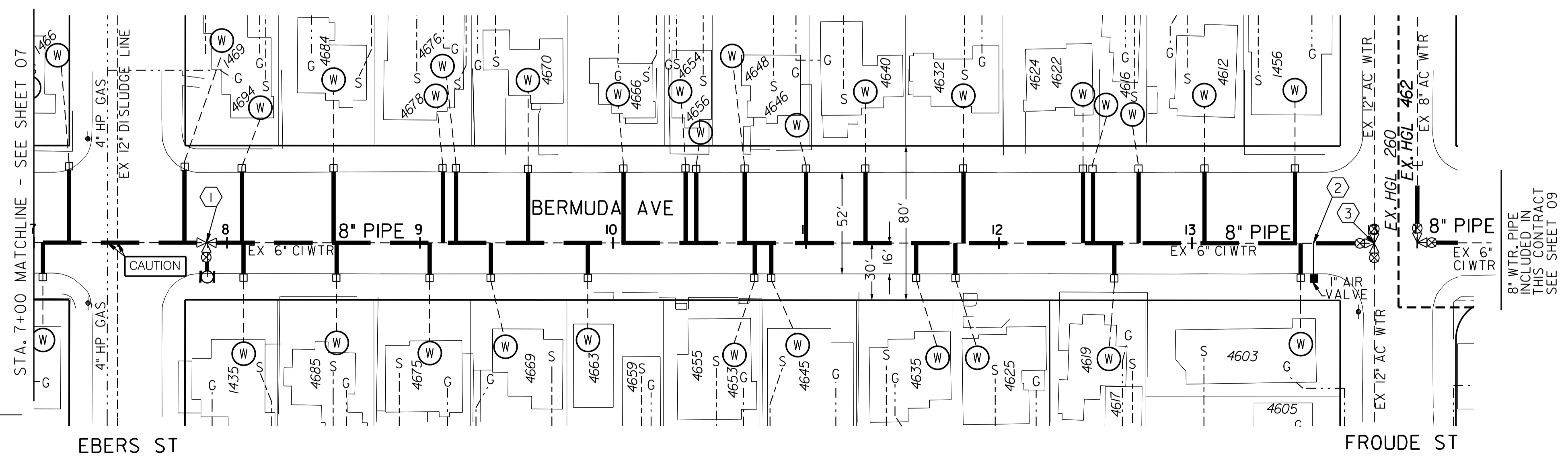
RETIREMENTS:
 6" - CI - 724,50' - 1968
 FH (2-PORT) - 1
 1" SERVICE - 31 - CU

① 26
 BY CONTRACTOR
 FURNISH & INSTALL
 STA. 7+89,41
 1-8"x6" TEE (MJ,MJ,F)
 1-6" FH ASSY & MARKER

② 27
 BY CONTRACTOR
 FURNISH & INSTALL
 STA. 13+63
 1-1" AIR & VACUUM VALVE
 ASSEMBLY

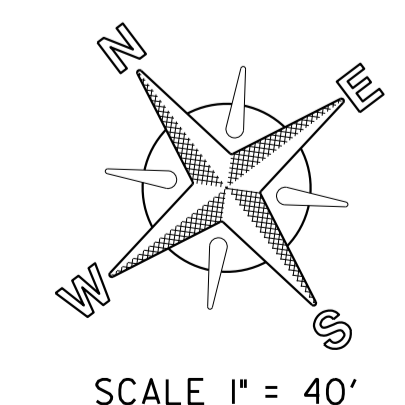
③ 28
 BY CITY FORCES
 AHD OF CONTRACTOR
 INSTALL
 CUT-IN TEE - PHASE 1
 STA. 13+94,50
 1-12"x8" TEE (F)
 1-8" GATE VALVE (F,MJ), BK
 2-12" GATE VALVES (F,MJ) LT, RT
 RECONNECT TO EX. 12" AC WTR LT, RT
 OPEN VALVES LT, RT
 CLOSE 8" VALVE AND BLIND FLANGE BK
 AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
 CONTRACTOR OPEN 8" VALVE BK

BY CONTRACTOR
 AFTER NEW MAIN HAS BEEN ACCEPTED
 RECONNECT TO NEW 8" PIPE BK

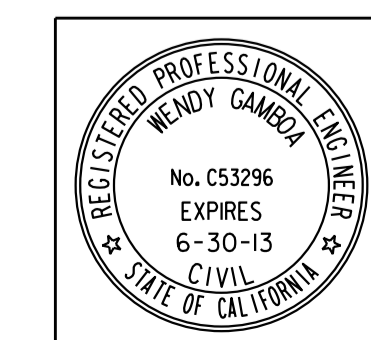



HIGHLINING NOTE:
 CITY FORCES TO HIGHLINE BERMUDA AVE
 FROM STA. 7+00 TO STA. 13+94.50
 CITY FORCES TO FURNISH HIGHLINE MATERIALS
 AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

CAUTION NOTE:
 CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
 AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
 PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.



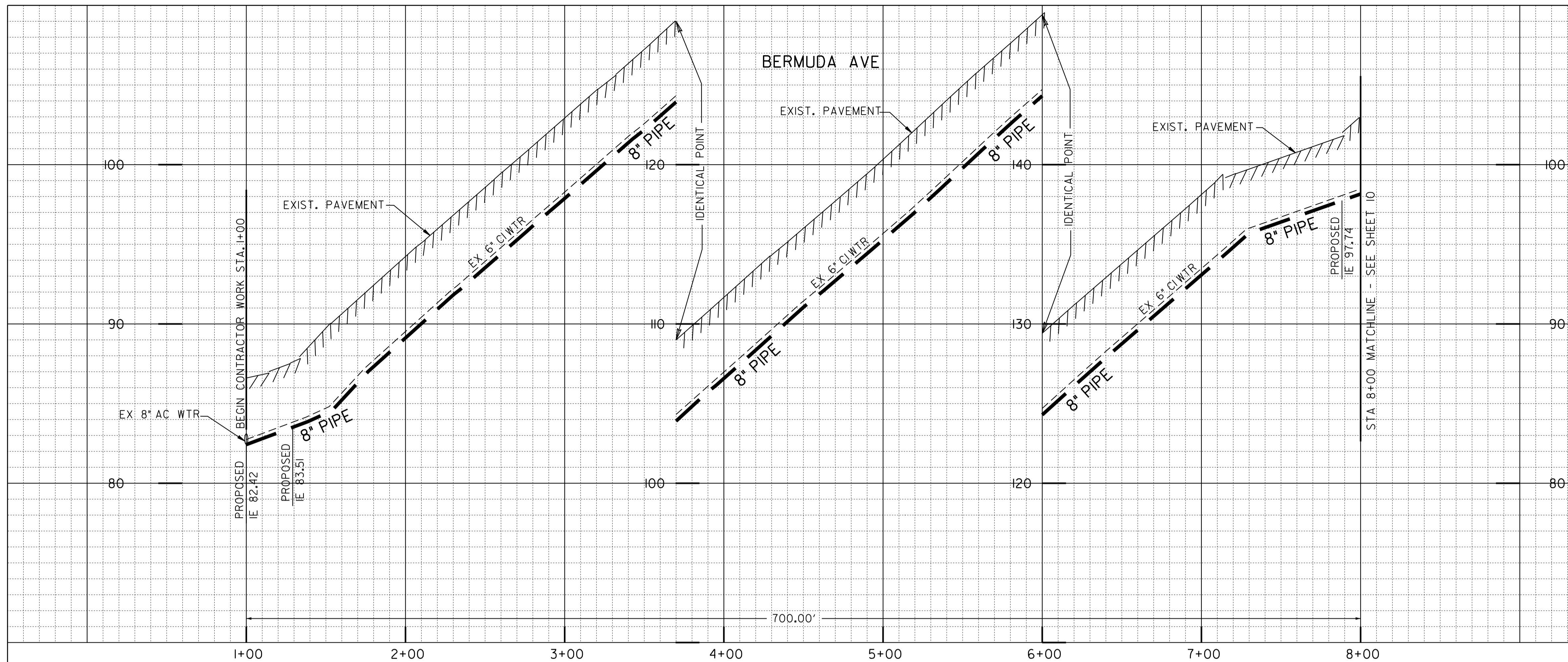
SCALE 1" = 40'



WATER GROUP 914 BERMUDA AVENUE EBERS ST TO FROUDE ST		CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 08 OF 53 SHEETS		WATER WBS B-00125
APPROVED:  FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER	CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CONTRACTOR		DATE STARTED		206-1689 CCS27 COORDINATE
INSPECTOR		DATE COMPLETED		6250407-1846444 CCS83 COORDINATE
				36124-08-D

C-7

BERMUDA AVENUE

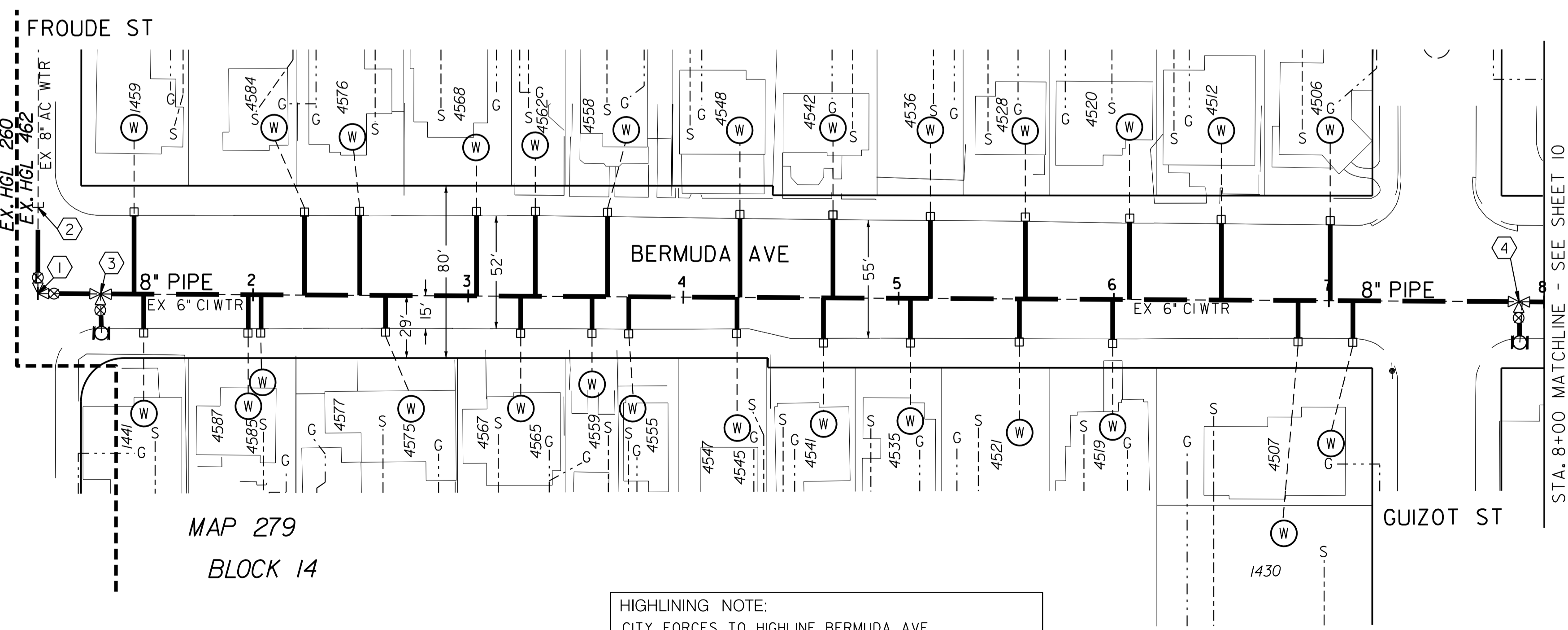


SCALE
1"=40' HORIZ.
1"=4' VERT.

- ① 29 BY CONTRACTOR FURNISH & INSTALL
STA. 1+00
1-8" 90° BEND (F)
2-8" GATE VALVES (F, MJ) AHD, LT
30'- 8" PIPE, LT
- ② BY CITY FORCES AHD OF CONTRACTOR - PHASE 2
STA. 1+00, 40' LT
TEMP. CUT & PLUG EX. 8" AC WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED
- ③ 30 BY CONTRACTOR FURNISH & INSTALL
STA. 1+29.14
1-8"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER
- ④ 31 BY CONTRACTOR FURNISH & INSTALL
STA. 7+88.31
1-8"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER

REFERENCE:
WATER: I2942-D, 25527-2D
GAS: 32-I22, 32-I23
ELECTRIC: 208-1692A
TELEPHONE: te0703da.dgn, te0703db.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: I267-J7 / I287-JI
HGL: CATALINA (462)

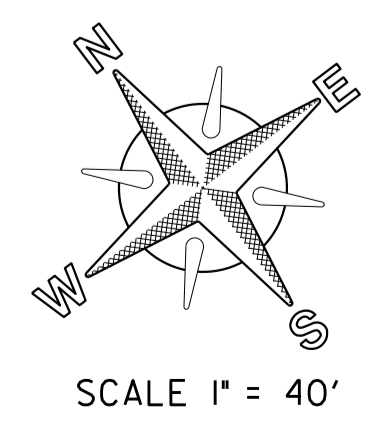
RETIREMENTS:
6" - CI - 700' - 1968
FH (2-PORT) - 2
1" SERVICE - 27 - CU



MAP 279
BLOCK 14

MAP 279
BLOCK 97

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE BERMUDA AVE FROM STA. 1+00 TO STA. 8+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

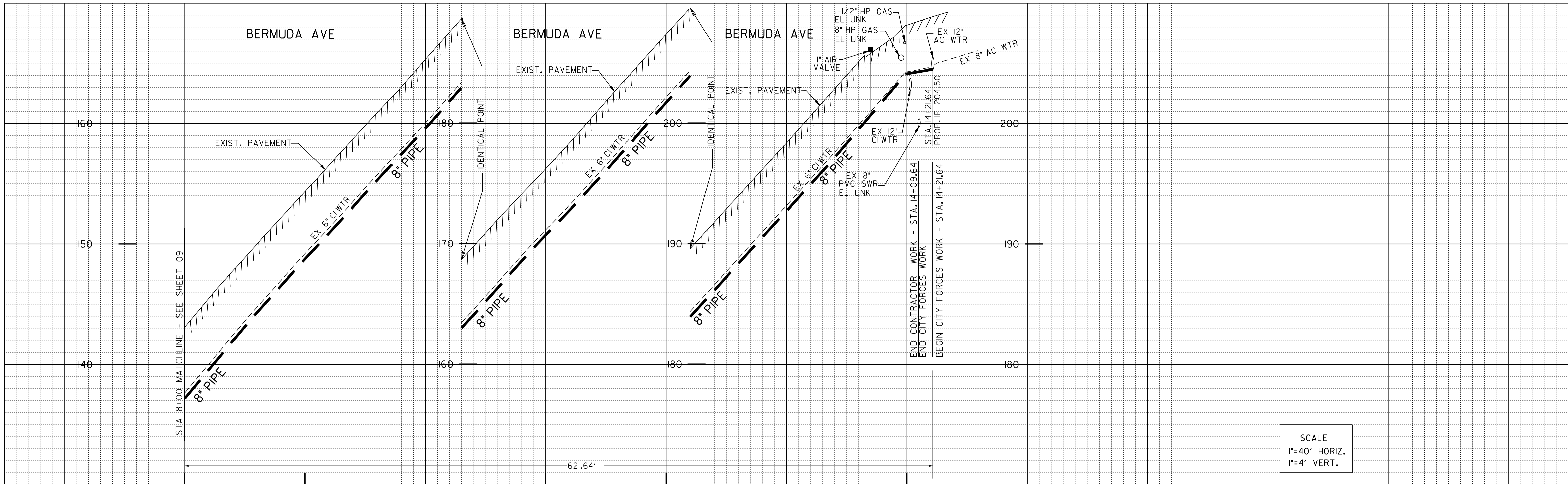


SCALE 1" = 40'

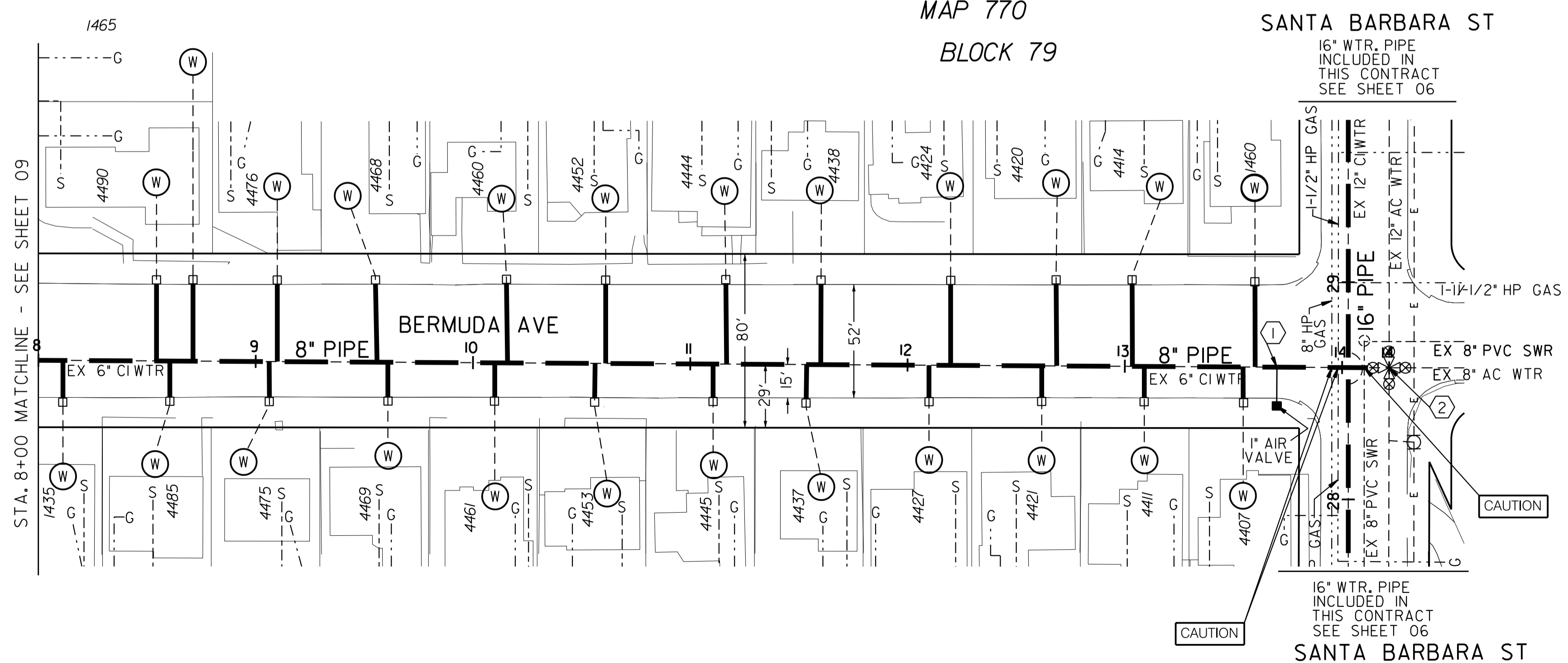
C-8

<p>WATER GROUP 914 BERMUDA AVENUE FROUDE ST TO GUIZOT ST</p>		
<p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 09 OF 53 SHEETS</p>		<p>WATER WBS B-00125</p>
<p>APPROVED: <i>[Signature]</i> FOR CITY ENGINEER</p>	<p>DATE 2/27/12</p>	<p>SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER</p>
<p>DESCRIPTION ORIGINAL</p>	<p>BY FH</p>	<p>CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER</p>
		<p>206-1689 CCS27 COORDINATE</p>
		<p>6250407-1846444 CCS83 COORDINATE</p>
<p>CONTRACTOR _____ INSPECTOR _____</p>	<p>DATE STARTED _____ DATE COMPLETED _____</p>	<p>36124-09-D</p>





SCALE
1"=40' HORIZ.
1"=4' VERT.



MAP 770
BLOCK 79

SANTA BARBARA ST

16" WTR. PIPE
INCLUDED IN
THIS CONTRACT
SEE SHEET 06

① 32
BY CONTRACTOR
FURNISH & INSTALL
STA. 13+70
1" AIR & VACUUM VALVE
ASSEMBLY

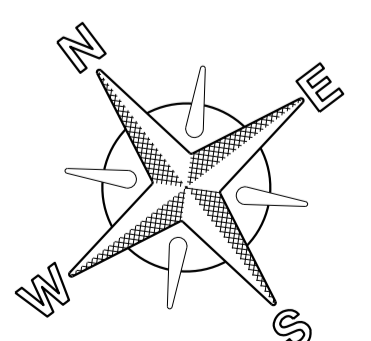
② 33
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS - PHASE 2

STA. 14+21.64
1-12"X8" CROSS (F)
2-12" GATE VALVES (F, MJ) LT, RT
2-8" GATE VALVES (F, MJ) BK, AHD
RECONNECT TO EX. 12" AC WTR LT, RT
AND 8" AC WTR AHD
OPEN VALVES AHD, LT, RT
CLOSE 8" VALVE AND BLIND FLANGE BK
AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 8" VALVE BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE BK

SANTA BARBARA ST

16" WTR. PIPE
INCLUDED IN
THIS CONTRACT
SEE SHEET 06



SCALE 1" = 40'

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE BERMUDA AVE
FROM STA. 8+00 TO STA. 14+21.64
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.


REFERENCE:

WATER: 19858-6D, 25527-2D
GAS: 32-124, 32-125
ELECTRIC: 208-1692A
TELEPHONE: te0703db.dgn, te0503cc.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 208-1689
THOMAS BROS.: 1287-JI
HGL: CATALINA (462)

RETIREMENTS:

6" - CI - 621.65' - 1968
1" SERVICE - 24 - CU

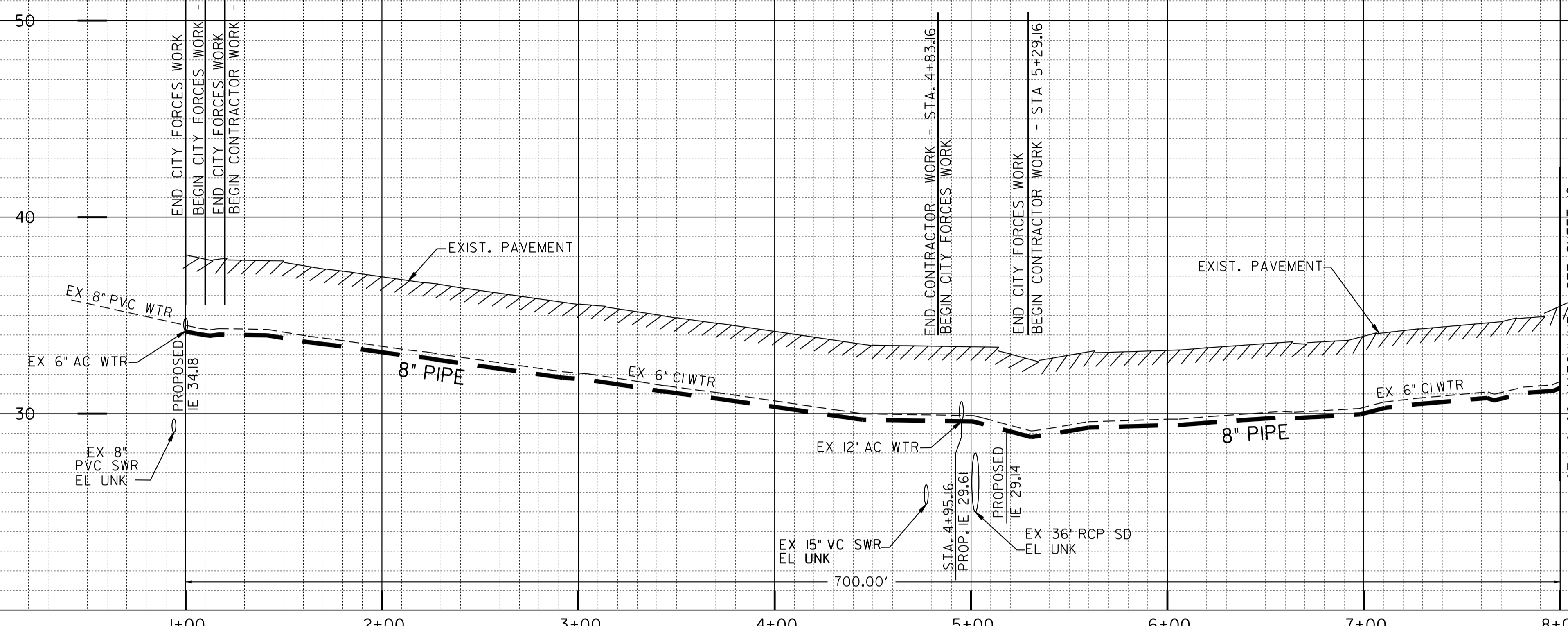
C-9

WATER GROUP 914 BERMUDA AVENUE STA 8+00 TO SANTA BARBARA ST				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 10 OF 53 SHEETS			WATER WBS B-00125	
APPROVED:  FOR CITY ENGINEER	DATE 2/27/12		SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER			206-1689 CCS27 COORDINATE	
CONTRACTOR			DATE STARTED	
INSPECTOR			DATE COMPLETED	
			6250407-1846444 CCS83 COORDINATE	
			36124-10-D	



BERMUDA AVENUE

PESCADERO AVE



SCALE
1"=40' HORIZ.
1"=4' VERT.

PHASE I

MAP 279
BLOCK 45

(1) (35)
BY CITY FORCES
AHD OF CONTRACTOR - PHASE I
STA. 1+10
TEMP. CUT & PLUG
AFTER NEW MAIN HAS BEEN ACCEPTED,
REMOVE 6" CI AND RECONNECT NEW 8" PVC
TO EX. 8" VALVE BK

MAP 279
BLOCK 40

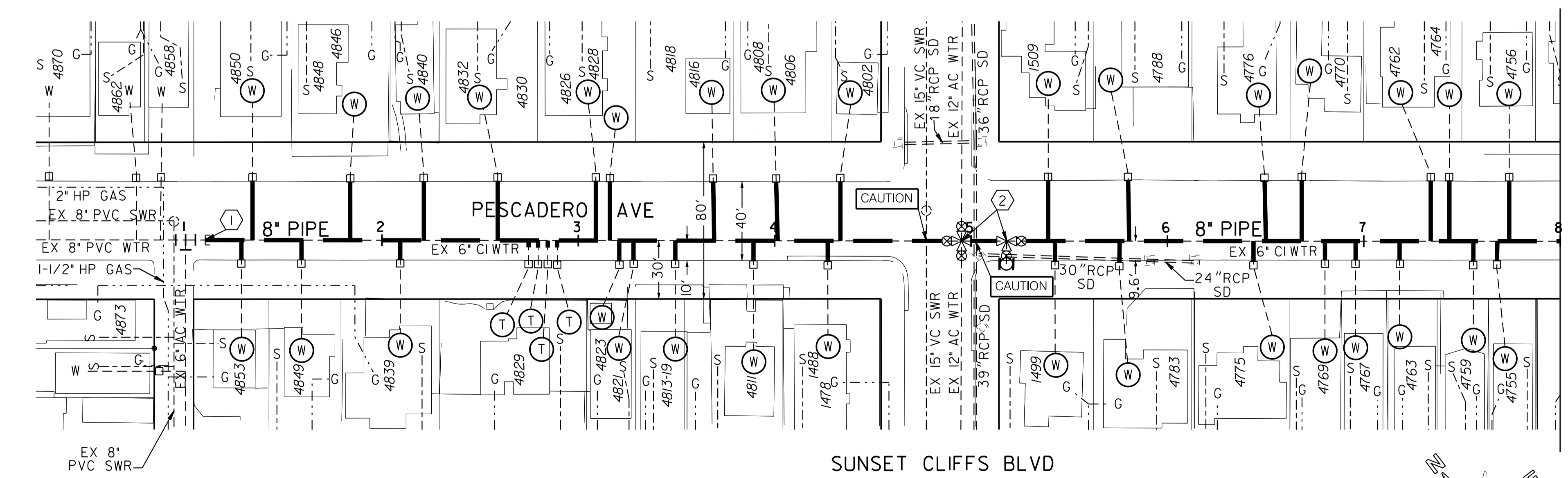
(2) (36)
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS AND TEE - PHASE I
STA. 4+95.16
1-12"x8" CROSS (M,J,F,F)
2-12" GATE VALVES (F,M,J) LT, RT
1-8" GATE VALVE (F,M,J) BK
23'- 8" PVC PIPE, AHD
RECONNECT TO EX. 12" AC WTR LT, RT
INSTALL 8" PVC WTR AND 6" FH AHD
OPEN VALVES LT, RT
CLOSE 8" VALVE AND BLIND FLANGE BK
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE BK
AND OPEN 8" VALVE BK

REFERENCE:
WATER: 4004-L, 28475-29-D
STORM DRAIN: 20036-2-D
GAS: 32-40, 32-41, 32-75, 32-76
ELECTRIC: 208-1689D
TELEPHONE: +e070lcc.dgn, +e0703ab.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1267-H7 / 1267-J7
HGL: POINT LOMA (260)

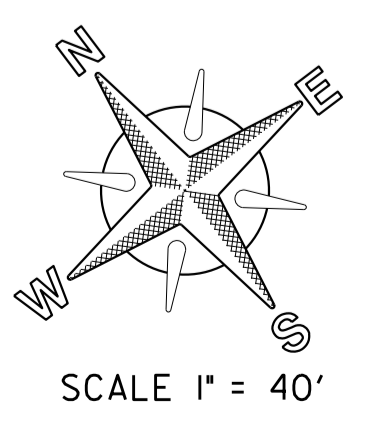
RETIREMENTS:
6" - CI - 700' - 1929
FH (2-PORT) - 1
1" SERVICE - 32 - CU

STA. 5+18.14 (37)
1-8"x6" TEE (F,M,J,F)
1-6" FH ASSY & MARKER
1-8" GATE VALVE (F,M,J) AHD
CLOSE 8" VALVE AND BLIND FLANGE AHD
AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 8" VALVE AHD


BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE AHD

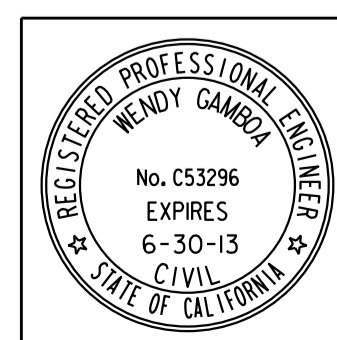


HIGHLINING NOTE:
CITY FORCES TO HIGHLINE PESCADERO AVE
FROM STA. 1+00 TO STA. 8+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

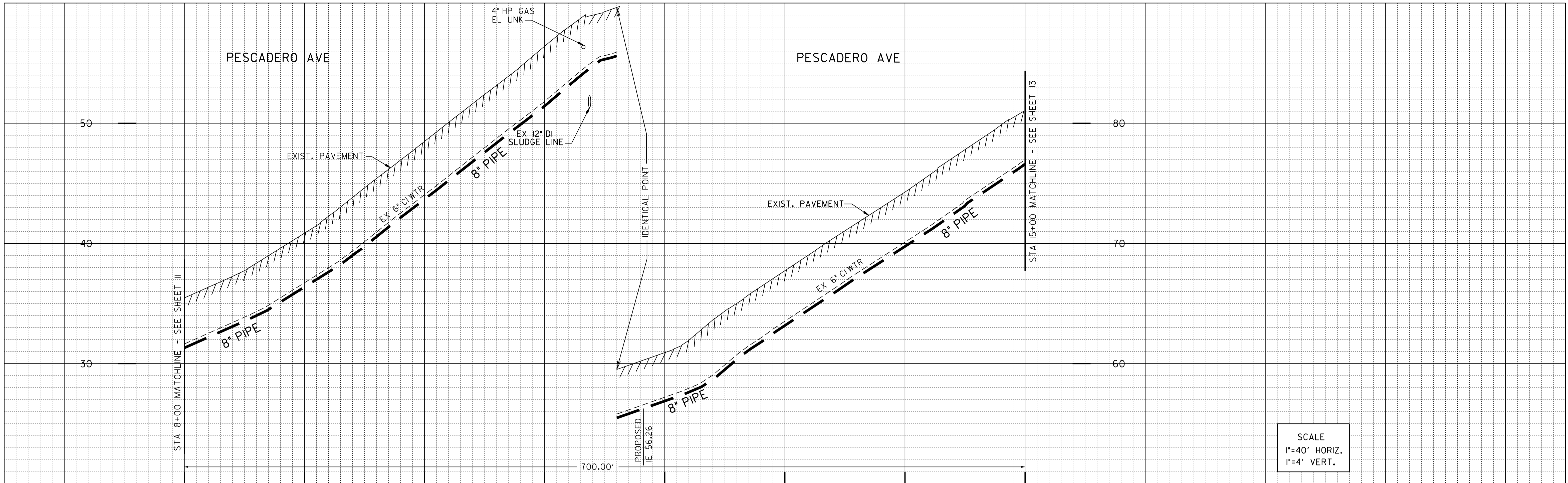


C-10

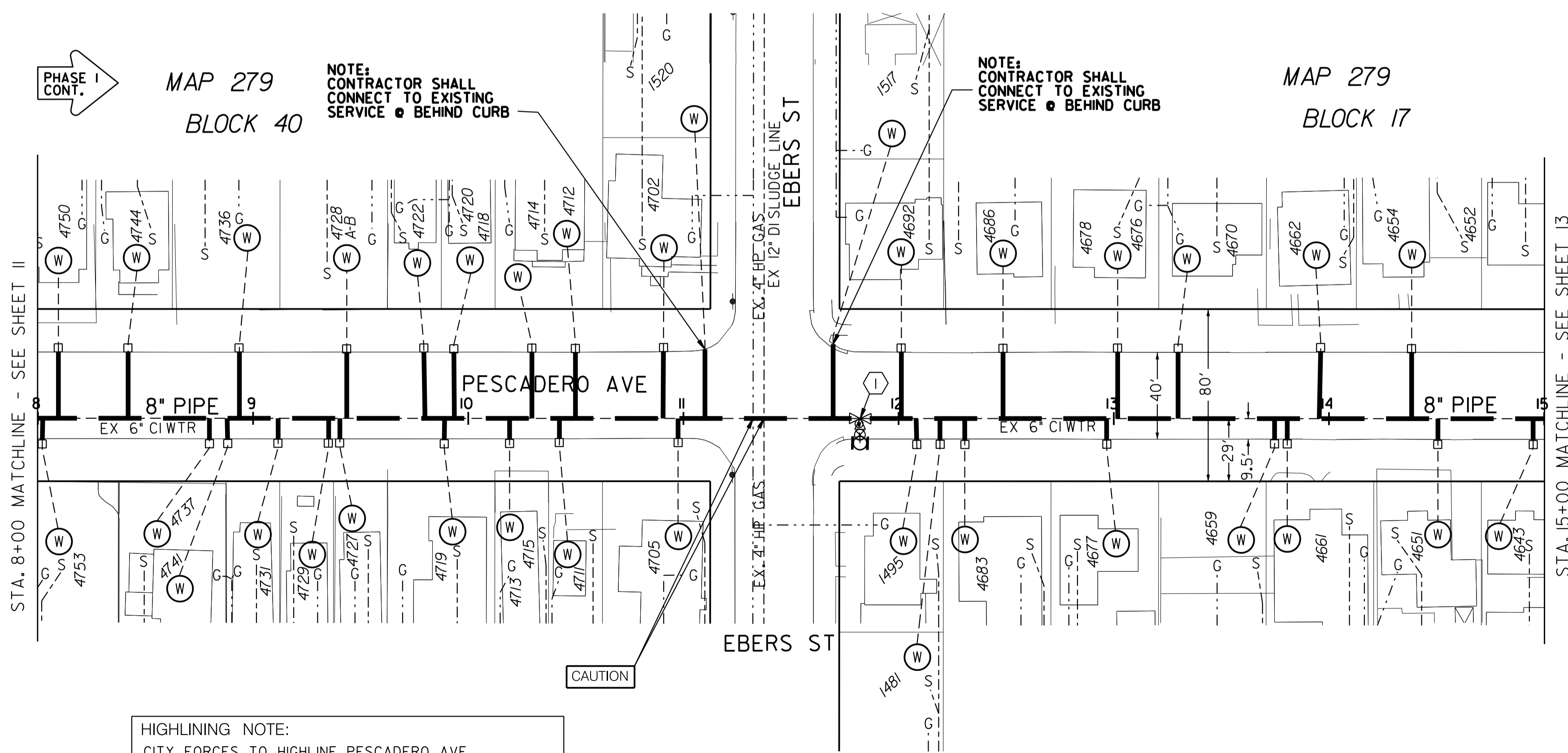
WATER GROUP 914 PESCADERO AVENUE STA 1+00 TO STA 8+00				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET II OF 53 SHEETS				WATER WBS B-00125
APPROVED:  FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
6250407-1846444 CCS83 COORDINATE				36124-11-D



PESCADERO AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.



PHASE I
CONT.

MAP 279
BLOCK 40

NOTE:
CONTRACTOR SHALL
CONNECT TO EXISTING
SERVICE ● BEHIND CURB

MAP 279
BLOCK 17

NOTE:
CONTRACTOR SHALL
CONNECT TO EXISTING
SERVICE ● BEHIND CURB

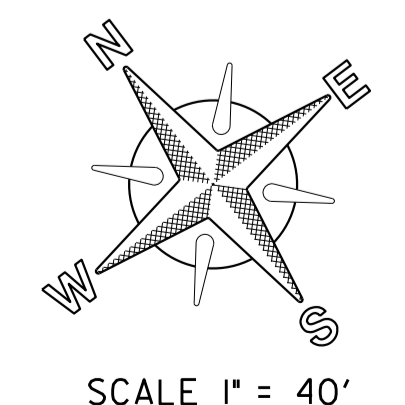
① 38
BY CONTRACTOR
FURNISH & INSTALL
STA. 11+82.18
1-8"x6" TEE (M,J,M,J,F)
1-6" FH ASSY & MARKER

REFERENCE:
WATER: 4004-L, 28475-29-D
GAS: 32-75, 32-76, 32-79, 32-80
ELECTRIC: 208-1692A
TELEPHONE: te0703ab.dgn, te0703ba.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B205
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
6" - CI - 700' - 1929
FH (2-PORT) - 1
1" SERVICE - 35 - CU

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE PESCADERO AVE
FROM STA. 8+00 TO STA. 15+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

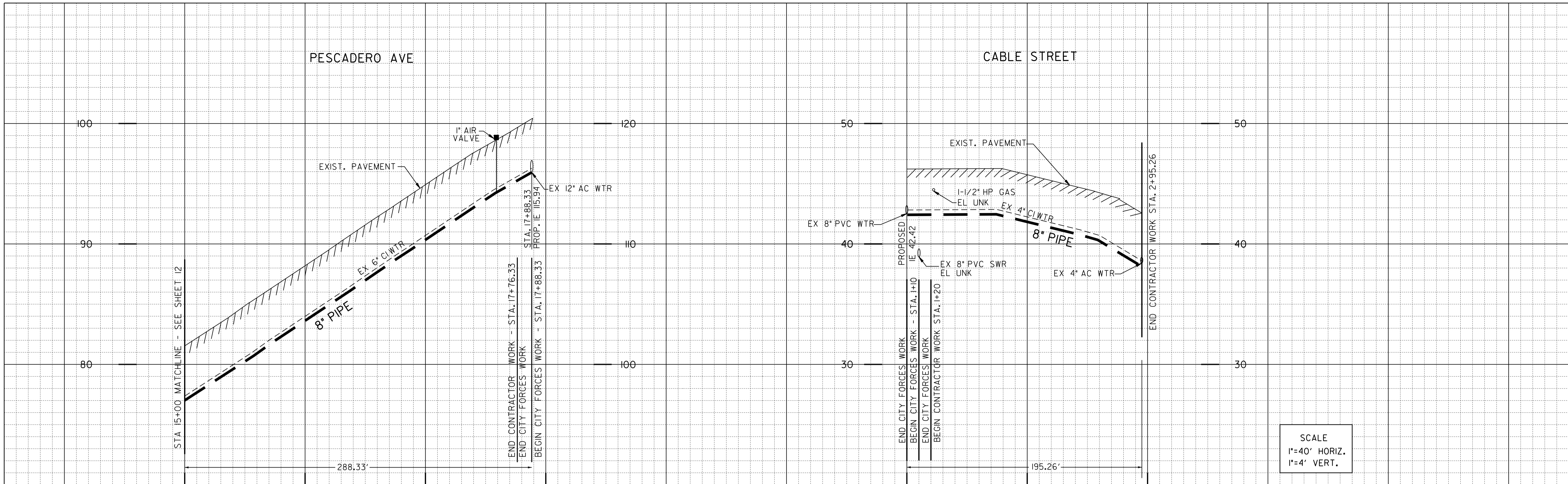
CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES



C-11

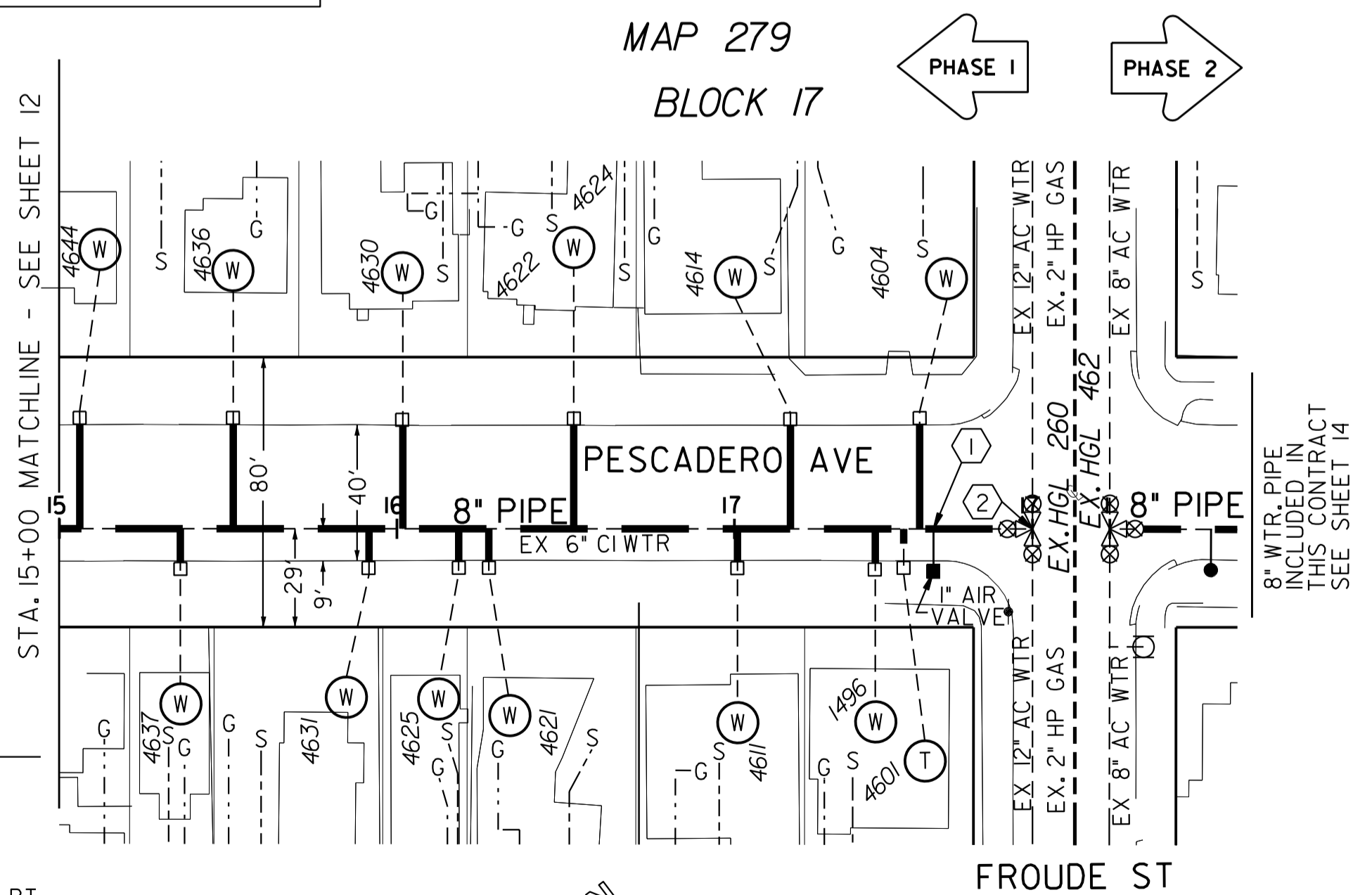
WATER GROUP 914 PESCADERO AVENUE STA 8+00 TO STA 15+00		WATER WBS	B-00125
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 12 OF 53 SHEETS		APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12
SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION ORIGINAL		BY FH	APPROVED DATE FILMED
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
		206-1689 CCS27 COORDINATE	
		6250407-1846444 CCS83 COORDINATE	
		36124-12-D	

PESCADERO AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.

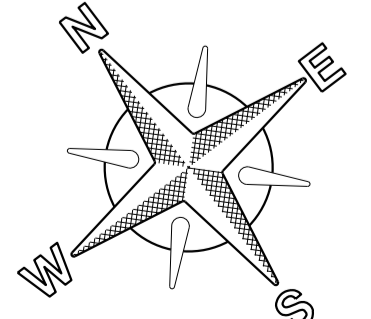
HIGHLINING NOTE:
CITY FORCES TO HIGHLINE PESCADERO AVE FROM STA. 15+00 TO STA. 17+88.33
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.



(1) (39)
BY CONTRACTOR FURNISH & INSTALL
STA. 17+59
1-1" AIR & VACUUM VALVE ASSEMBLY

(2) (40)
BY CITY FORCES AHD OF CONTRACTOR INSTALL CUT-IN TEE - PHASE I
STA. 17+88.33
1-12"x8" TEE (F)
1-8" GATE VALVE (F, MJ) BK
2-12" GATE VALVES (F, MJ) LT, RT
RECONNECT TO EX. 12" AC WTR LT, RT
OPEN VALVES LT, RT
CLOSE 8" VALVE AND BLIND FLANGE BK
AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY CONTRACTOR OPEN 8" VALVE BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED RECONNECT TO NEW 8" PIPE BK



SCALE 1" = 40'

(3) (42)
BY CITY FORCES AHD OF CONTRACTOR - PHASE I

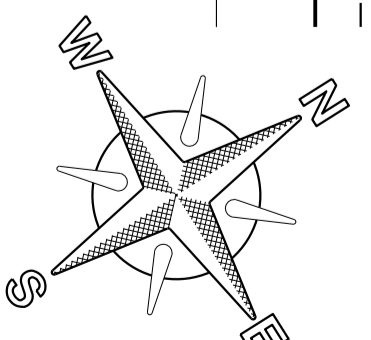
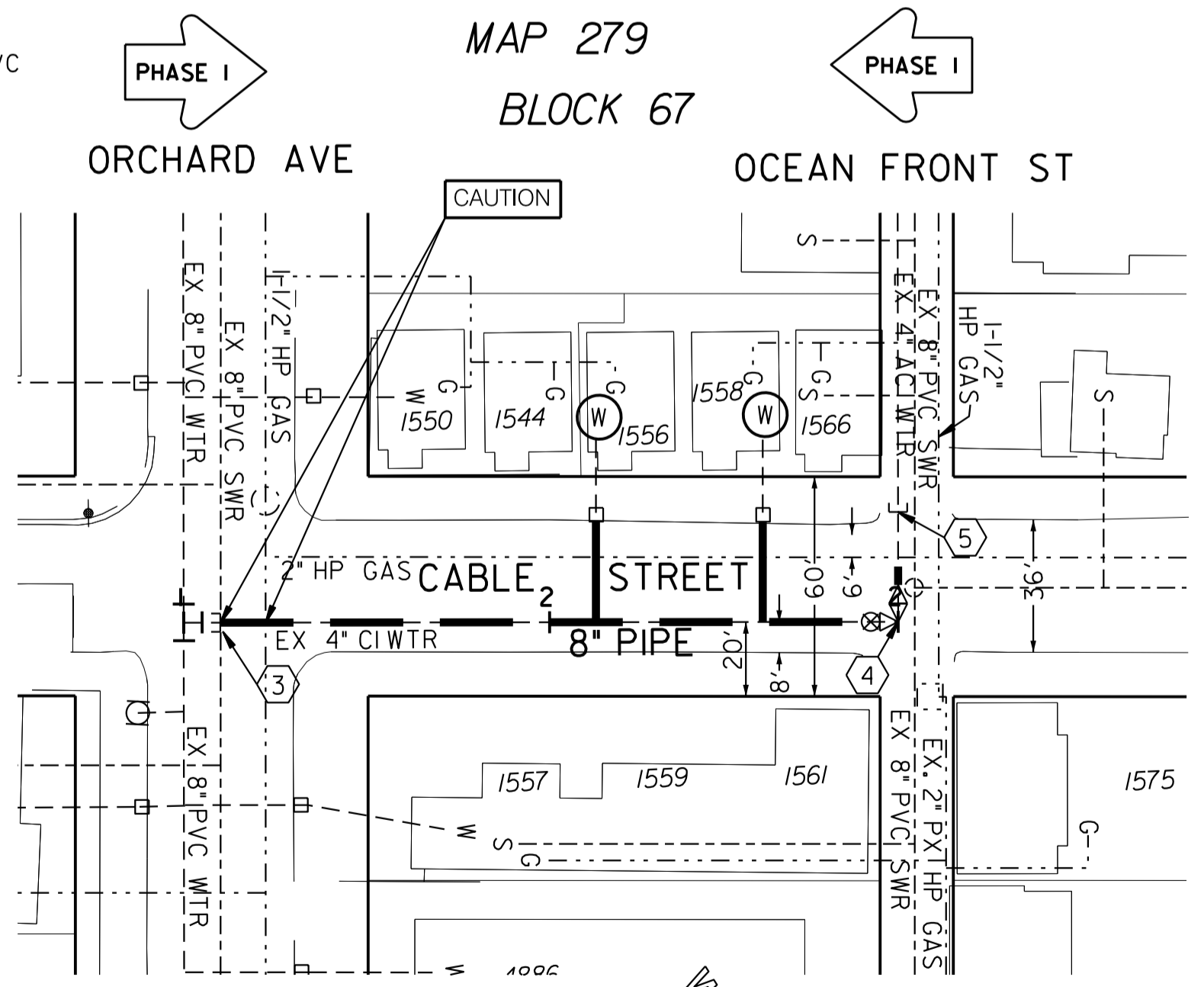
STA. 1+10
TEMP. CUT & PLUG
AFTER NEW MAIN HAS BEEN ACCEPTED, REMOVE 4" CI AND RECONNECT NEW 8" PVC TO EX. 8" VALVE BK

(4) (43)
BY CONTRACTOR FURNISH & INSTALL
STA. 2+95.26
1-8" 90° BEND (F, MJ)
1-8" GATE VALVE (F, MJ) BK
1-8"x4" RED. (MJ) 3" LT
8" PIPE 20' LT

(5)
BY CITY FORCES AHD OF CONTRACTOR-PHASE 3
STA. 2+95.26 30' LT
TEMP. CUT & PLUG EX. 4" AC WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE CABLE STREET FROM STA. 1+00 TO STA. 2+95.26
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.



SCALE 1" = 40'

REFERENCE:
WATER: 4004-L, 28475-30-D
10296-8D
GAS: 32-79, 32-80, 32-121, 32-122
32-37
ELECTRIC: 208-1692A, 210-1689B
TELEPHONE: te0703bc.dgn, te0703bd.dgn
te0701ca.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B 195, B205
100' SCALE: 206-1689
THOMAS BROS.: I267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
6" - CI - 288.33' - 1929
4" - CI - 195.26' - 1960
1" SERVICE - 15 - CU

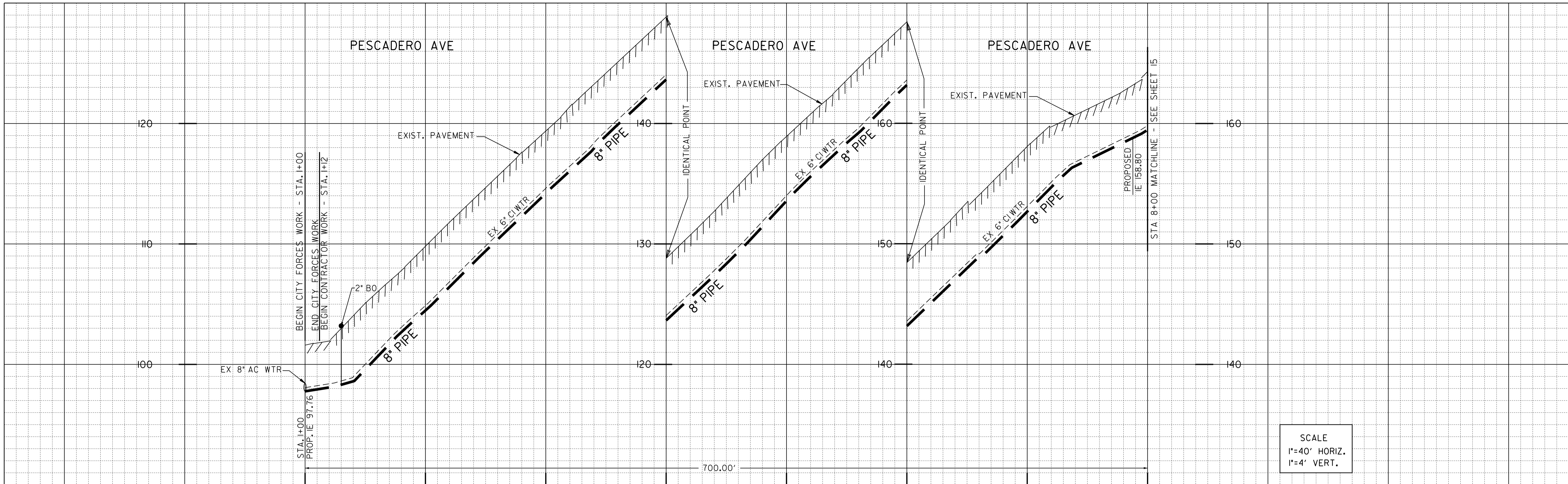
WATER GROUP 914
PESCADERO AVENUE
STA 15+00 TO STA 17+88.33
CABLE STREET
ORCHARD AVENUE TO OCEAN FRONT ST

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 13 OF 53 SHEETS

APPROVED FOR CITY ENGINEER	DATE	2/27/12	WATER WBS	B-00125
ROBERTO VEJAR-PARRA				
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
SUBMITTED BY: MICHAEL NINH, ASSOCIATE ENGINEER				CHIEF ENGINEER: ROBERTO VEJAR-PARRA, PROJECT ENGINEER
206-1689				CCS27 COORDINATE
6250407-1846444				CCS83 COORDINATE
CONTRACTOR	DATE STARTED	36124-13-D		
INSPECTOR	DATE COMPLETED			



C-12



SCALE
 1"=40' HORIZ.
 1"=4' VERT.

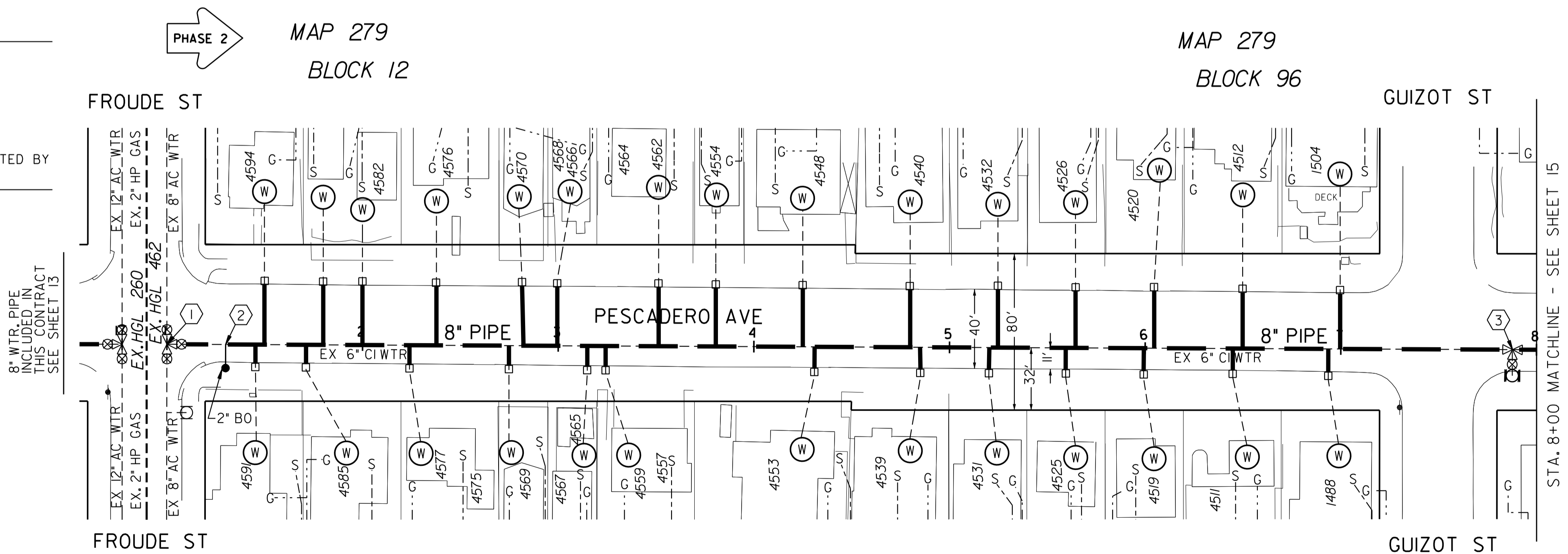
① 44
 BY CITY FORCES
 AHD OF CONTRACTOR
 INSTALL
 CUT-IN TEE - PHASE 2

STA. 1+00
 1-8"x8" TEE (F)
 3-8" GATE VALVES (F,MJ), LT, RT, AHD
 RECONNECT TO EX. 8" AC WTR LT, RT
 OPEN VALVES LT, RT
 CLOSE 8" VALVE AND BLIND FLANGE AHD
 AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
 CONTRACTOR OPEN 8" VALVE AHD

BY CONTRACTOR
 AFTER NEW MAIN HAS BEEN ACCEPTED
 RECONNECT TO NEW 8" PIPE AHD

② 45
 BY CONTRACTOR
 FURNISH & INSTALL
 STA. 1+30
 1-2" BLOWOFF ASSY
 TYPE 'A'

③ 46
 BY CONTRACTOR
 FURNISH & INSTALL
 STA. 7+87.77
 1-8"x6" TEE (M,J,M,F)
 1-6" FH ASSY & MARKER



REFERENCE:

WATER: 4004-L
 GAS: 32-121, 32-122, 32-125, 32-126
 ELECTRIC: 208-1692A
 TELEPHONE: te0703bd.dgn, te0503ca.dgn

IMPROVEMENTS: NONE
 FIELD BOOK: B20S
 100' SCALE: 206-1689
 THOMAS BROS.: 1267-J7 / 1287-J1
 HGL: CATALINA (462)

RETIREMENTS:

6" - CI - 700' - 1929
 FH (2-PORT) - 1
 1" SERVICE - 28 - CU

MAP 279
 BLOCK 12

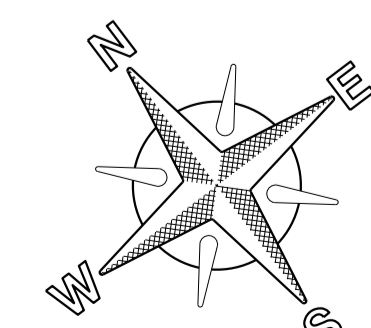
MAP 279
 BLOCK 96

C-13

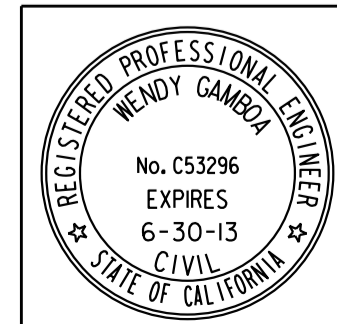
WATER GROUP 914
 PESCADERO AVENUE
 FROUDE ST TO STA 8+00

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 14 OF 53 SHEETS				WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	<i>[Signature]</i>	DATE 2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				6250407-1846.444 CCS83 COORDINATE
INSPECTOR		DATE STARTED	DATE COMPLETED	
			36124-14-D	

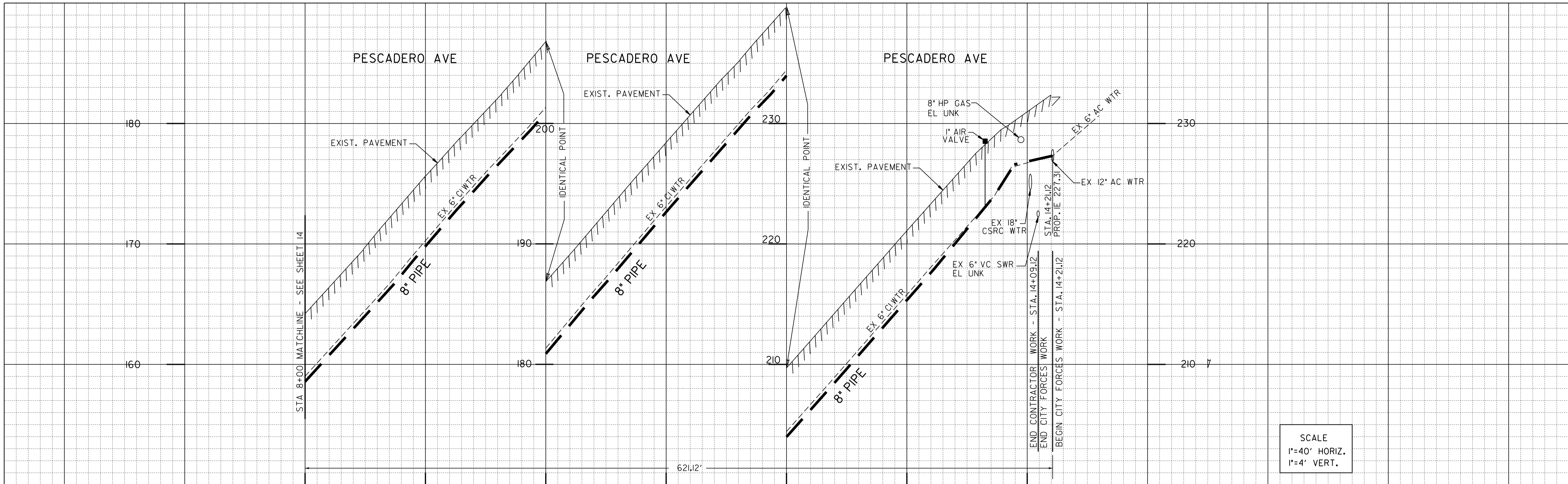
HIGHLINING NOTE:
 CITY FORCES TO HIGHLINE PESCADERO AVE
 FROM STA. 1+00 TO STA. 8+00
 CITY FORCES TO FURNISH HIGHLINE MATERIALS
 AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.



SCALE 1" = 40'



PESCADERO AVENUE



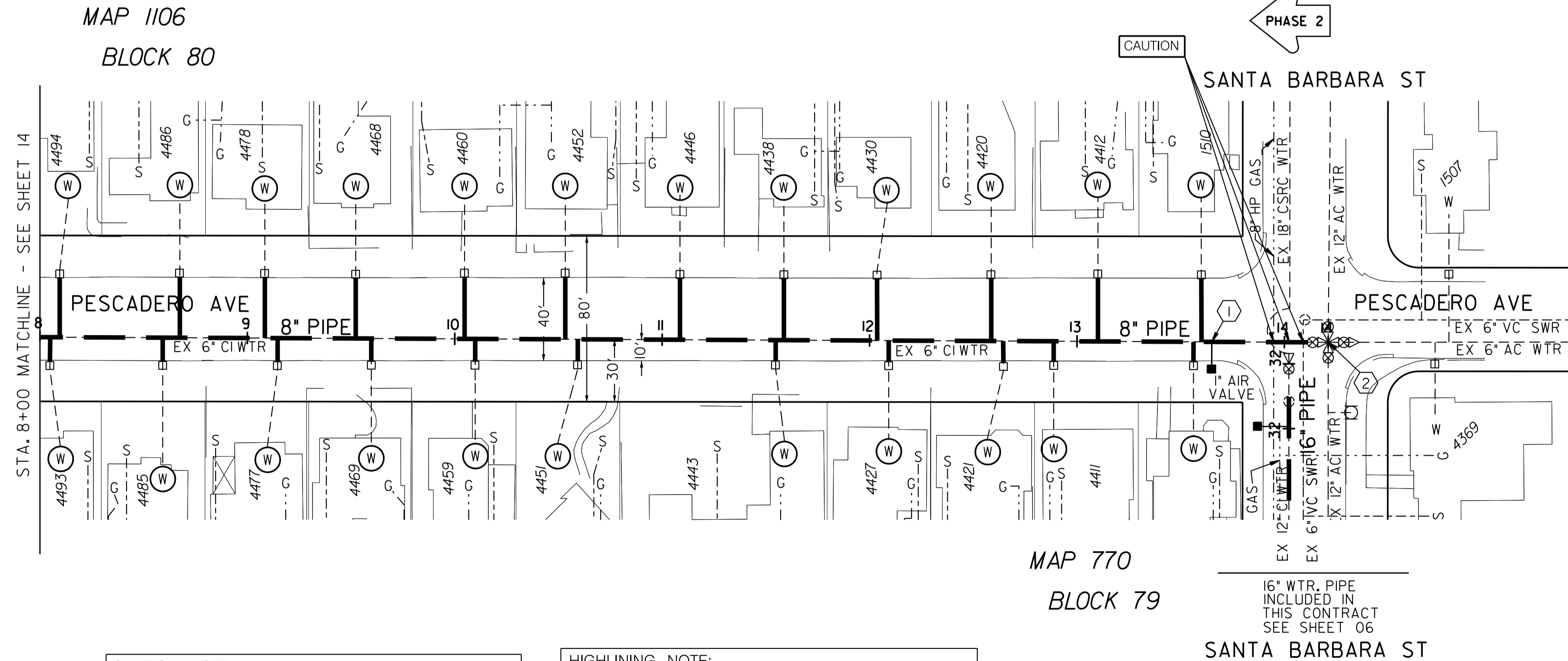
SCALE
 1"=40' HORIZ.
 1"=4' VERT.

① 47
 BY CONTRACTOR
 FURNISH & INSTALL
 STA. 13+65
 1-1" AIR & VACUUM VALVE
 ASSEMBLY

② 48
 BY CITY FORCES
 AHD OF CONTRACTOR
 INSTALL
 CUT-IN CROSS - PHASE 2

STA. 14+21.2
 1-12"x8" CROSS (F)
 2-8" GATE VALVES (F, MJ) AHD, BK
 2-12" GATE VALVES (F, MJ) LT, RT
 1-8"x6" RED. (MJ) 3' AHD
 RECONNECT TO EX. 12" AC WTR LT, RT
 AND TO EX. 6" AC WTR AHD
 OPEN VALVES AHD, LT, RT
 CLOSE 8" VALVE AND BLIND FLANGE BK
 AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
 CONTRACTOR OPEN 8" VALVE BK

BY CONTRACTOR
 AFTER NEW MAIN HAS BEEN ACCEPTED
 RECONNECT TO NEW 8" PIPE BK



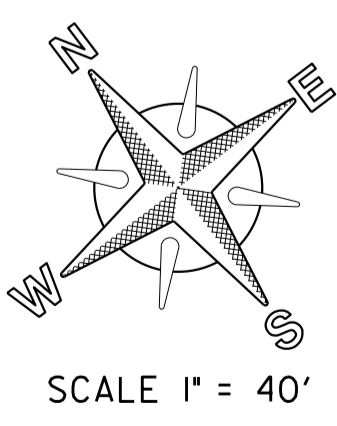
CAUTION NOTE:
 CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
 AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
 PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

HIGHLINING NOTE:
 CITY FORCES TO HIGHLINE PESCADERO AVE
 FROM STA. 8+00 TO STA. 14+21.2
 CITY FORCES TO FURNISH HIGHLINE MATERIALS
 AND TRANSFER SERVICES. SEE SHT. 43 FOR PHASING.

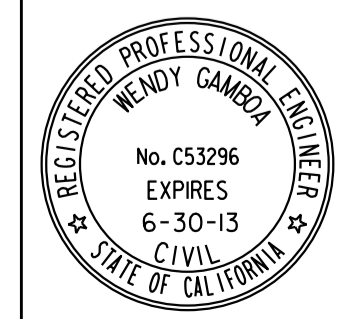
REFERENCE:
 WATER: 4004-L, 19858-8D
 GAS: 32-125, 32-126
 ELECTRIC: NONE
 TELEPHONE: te0503ca.dgn, te0503cb.dgn

IMPROVEMENTS: NONE
 FIELD BOOK: B20S
 100' SCALE: 206-1689
 THOMAS BROS.: 1287-JI
 HGL: CATALINA (462) / POINT LOMA (260)

RETIREMENTS:
 6" - CI - 247.35' - 1944
 1" SERVICE - 23 - CU



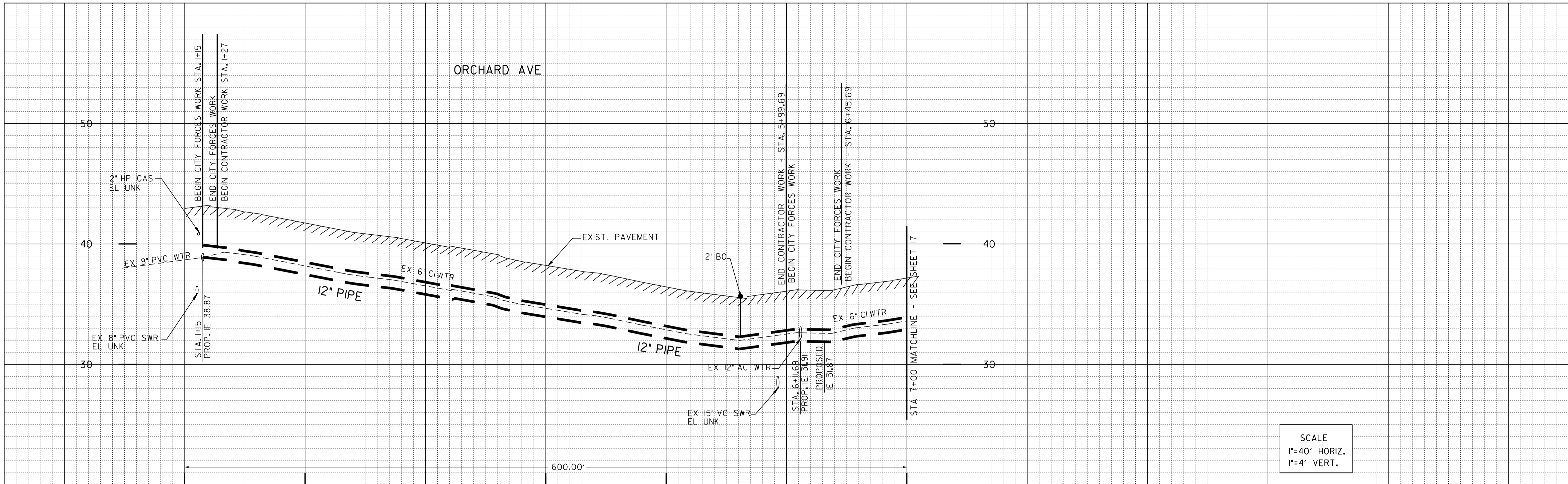
SCALE 1" = 40'



WATER GROUP 914 PESCADERO AVENUE STA 8+00 TO SANTA BARBARA ST				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 15 OF 53 SHEETS				WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER		
DESCRIPTION ORIGINAL	BY FH	APPROVED DATE FILMED		
			CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER	
			206-1689 CCS27 COORDINATE	
			6250407-1846.444 CCS83 COORDINATE	
CONTRACTOR _____ INSPECTOR _____		DATE STARTED _____ DATE COMPLETED _____		36124-15-D

C-14

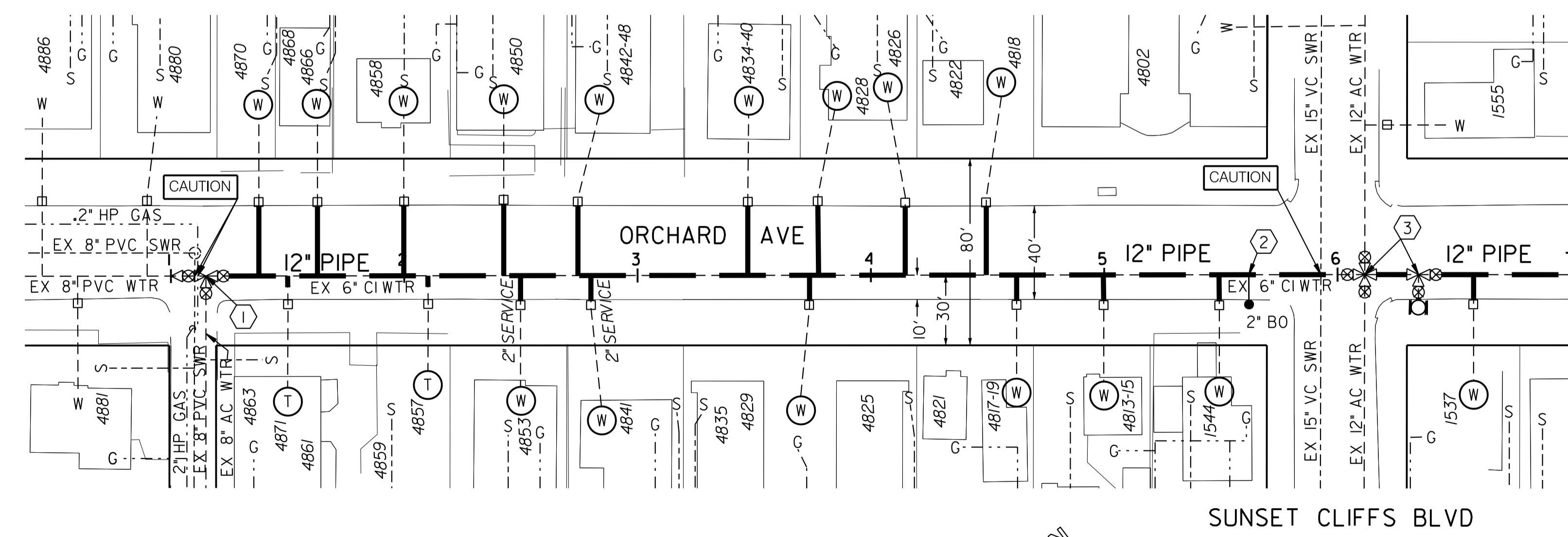
PESCADERO AVENUE



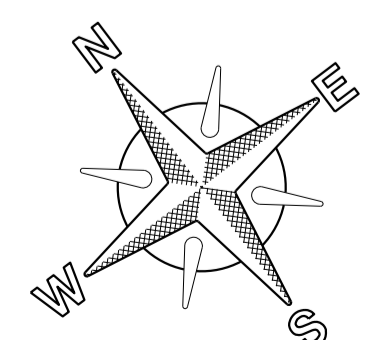
SCALE
1"=40' HORIZ.
1"=4' VERT.

PHASE I

MAP 279
BLOCK 46



HIGHLINING NOTE:
CITY FORCES TO HIGHLINE ORCHARD AVE
FROM STA. 1+00 TO STA. 7+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.



SCALE 1" = 40'

② 51
BY CONTRACTOR
FURNISH & INSTALL
STA. 5+61.98
1-2" BLOWOFF ASSY
TYPE "A"

③ 52
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS AND TEE - PHASE I

STA. 6+11.69
1-12"x12" CROSS (M,J,F,F,F)
3-12" GATE VALVES (F,M,J) BK, LT, RT
23'- 12" PVC PIPE, AHD
RECONNECT TO EX. 12" AC WTR LT, RT
INSTALL 12" PVC WTR AND 6" FH AHD
OPEN VALVES LT, RT
CLOSE 12" VALVE AND BLIND FLANGE BK
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 12" PIPE BK
AND OPEN 12" VALVE BK

STA. 6+34.69(53)
1-12"x6" TEE (F,M,J,F)
1-6" FH ASSY & MARKER
1-12" GATE VALVE (F,M,J) AHD
CLOSE 12" VALVE AND BLIND FLANGE AHD
AFTER NEW 12" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 12" VALVE AHD
BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 12" PIPE AHD

① 50
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN TEE - PHASE I

STA. 1+15
1-12"x8" TEE (F)
2-12" GATE VALVES (F, M,J) AHD, BK
1-8" GATE VALVE (F, M,J) RT
1-12"x8" RED. (M,J) 3" BK
RECONNECT TO EX. 8" PVC WTR BK
AND TO EX. 8" AC WTR RT
OPEN VALVES BK, RT
CLOSE 12" VALVE AND BLIND FLANGE AHD
AFTER NEW 12" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 12" VALVE AHD

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 12" PIPE AHD

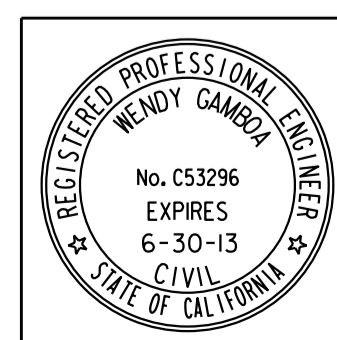
REFERENCE:
WATER: 4004-L, 28475-28-D
GAS: 32-41, 32-42
ELECTRIC: 208-1689D
TELEPHONE: te070lca.dgn,
te070lcd.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1267-H7 / 1267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
6" - CI - 700.00' - 1929
FH (2-PORT) - 1
1" SERVICE - 14 - CU
2" WATER SERVICE - 2 - CU

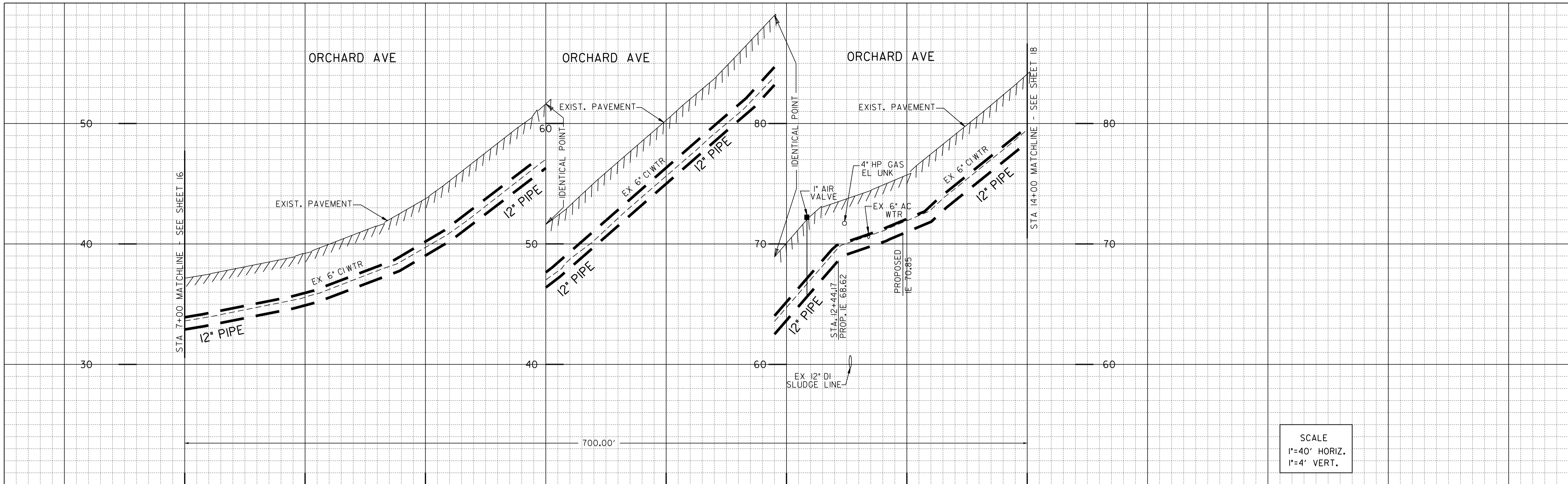
C-15

WATER GROUP 914
ORCHARD AVENUE
STA 1+00 TO STA 7+00

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 16 OF 53 SHEETS		WATER WBS B-00125	
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE 206-1689 CCS27 COORDINATE
FILMED		206-1689 CCS27 COORDINATE	
CONTRACTOR		DATE STARTED	36124-16-D
INSPECTOR		DATE COMPLETED	



ORCHARD AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.

7+00 8+00 9+00 10+00 11+00 12+00 13+00 14+00

NOTE:
PROP. PARALLEL 8" WATER PIPE INCLUDED IN THIS CONTRACT, SEE SHEET 30

NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE BEFORE RECONNECTIONS AND AFTER NEW MAIN HAS BEEN ACCEPTED

PHASE 1 CONT.
MAP 279
BLOCK 39

NOTE:
CONTRACTOR SHALL CONNECT TO EXISTING SERVICE BEHIND CURB

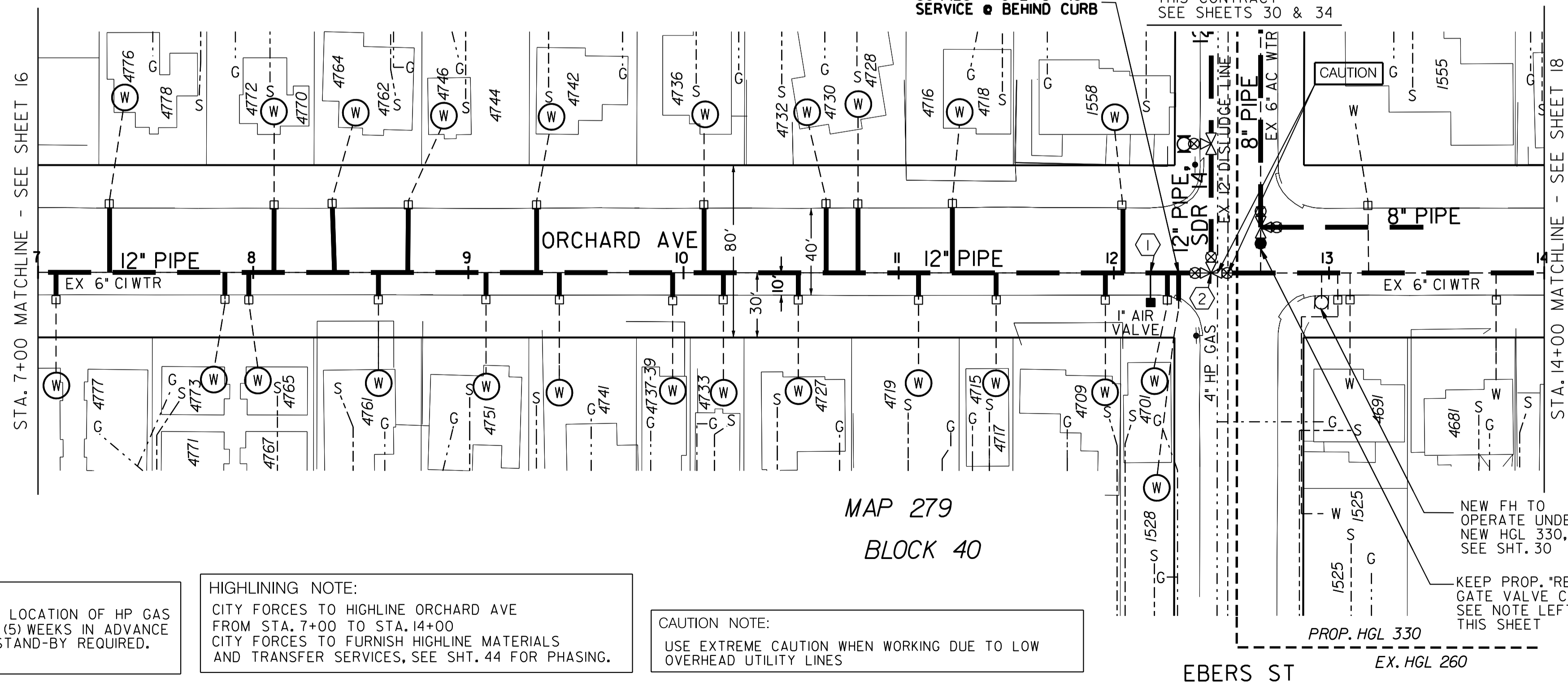
EBERS ST
8" & 12" WTR. PIPE INCLUDED IN THIS CONTRACT SEE SHEETS 30 & 34

① 54
BY CONTRACTOR FURNISH & INSTALL
STA. 12+17
1-1" AIR & VACUUM VALVE ASSEMBLY

REFERENCE:
WATER: 4004-L, 28475-28-D
GAS: 32-74, 32-75
ELECTRIC: 208-1692C
TELEPHONE: te070lcd.dgn, te070ldc.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B205
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
6" - CI - 700' - 1929
1" SERVICE - 24 - CU

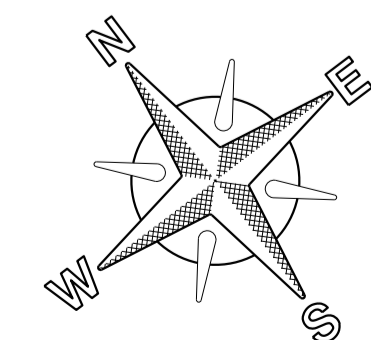


MAP 279
BLOCK 40

CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE ORCHARD AVE FROM STA. 7+00 TO STA. 14+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES

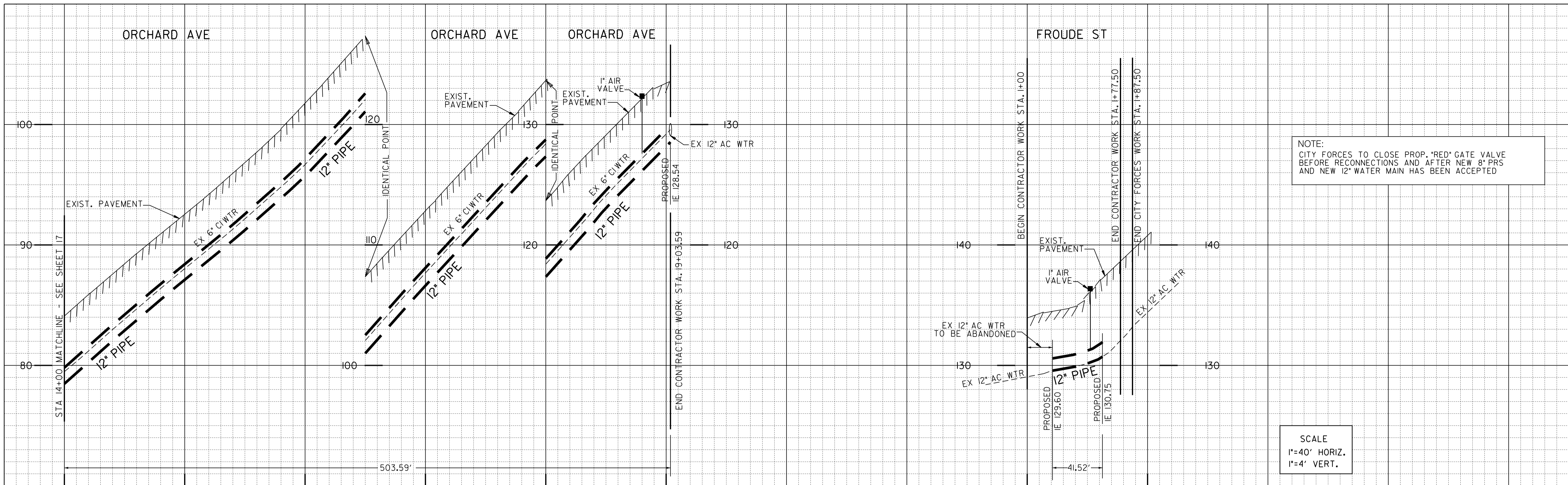


SCALE 1" = 40'

C-16

WATER GROUP 914 ORCHARD AVENUE STA 7+00 TO STA 14+00		WATER WBS B-00125
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 17 OF 53 SHEETS		APPROVED: <i>[Signature]</i> 2/27/12 FOR CITY ENGINEER DATE
DESCRIPTION ORIGINAL	BY FH	APPROVED DATE FILMED
SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER
206-1689 CCS27 COORDINATE		6250407-1846444 CCS83 COORDINATE
CONTRACTOR	DATE STARTED	36124-17-D
INSPECTOR	DATE COMPLETED	

ORCHARD AVENUE



NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE BEFORE RECONNECTIONS AND AFTER NEW 8" PRS AND NEW 12" WATER MAIN HAS BEEN ACCEPTED

SCALE
1"=40' HORIZ.
1"=4' VERT.

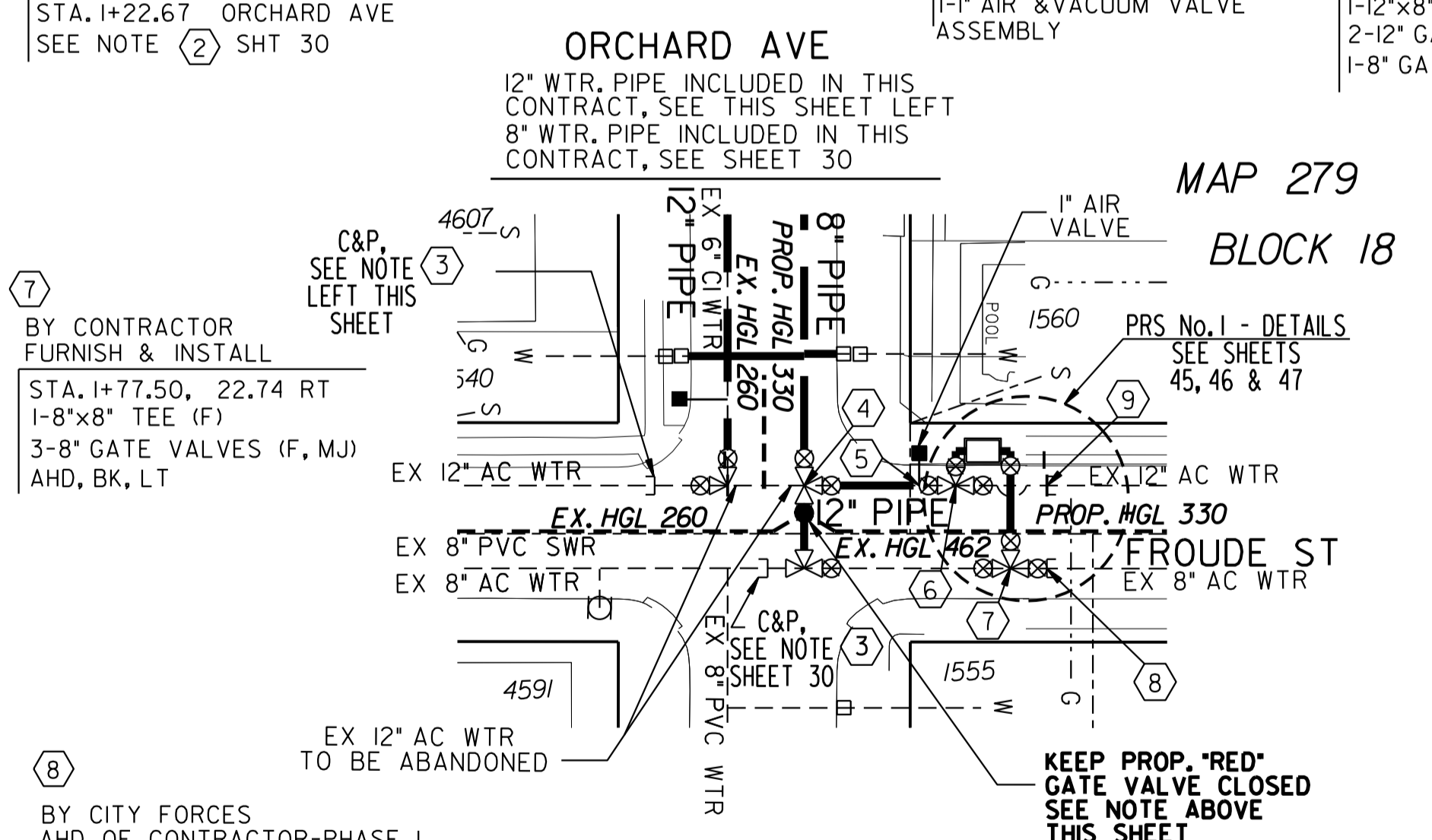
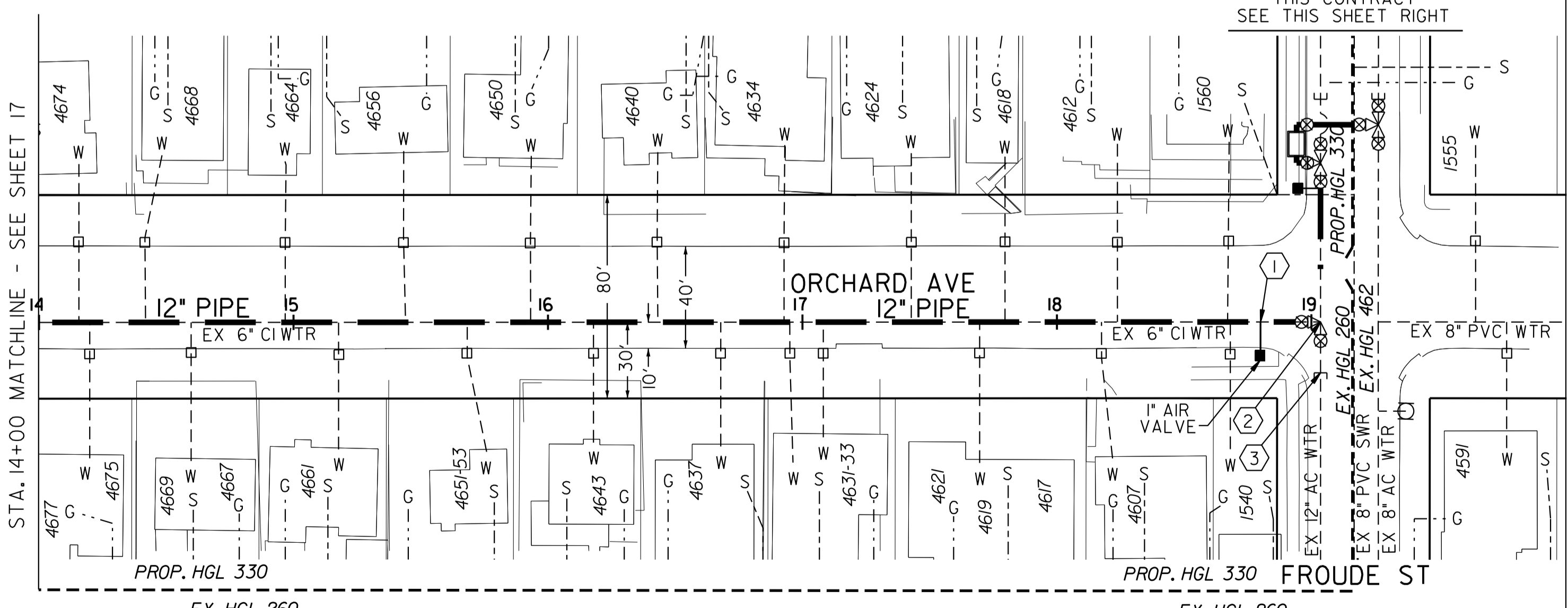
- ① ⑤⑥
BY CONTRACTOR FURNISH & INSTALL
STA. 18+80
1-1" AIR & VACUUM VALVE ASSEMBLY
- ② ⑤⑦
BY CONTRACTOR FURNISH & INSTALL
STA. 19+03.59
1-12" 90° BEND (F)
2-12" GATE VALVES (F, MJ) BK, RT
12" PIPE 10" RT
- ③
BY CITY FORCES AHD OF CONTRACTOR-PHASE I
STA. 19+03.59 12" RT
TEMP. CUT & PLUG EX. 12" AC WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED

PHASE I
FROUDE ST
PROPOSED PRS INCLUDED IN THIS CONTRACT
SEE THIS SHEET RIGHT

- ④
BY CONTRACTOR FURNISH & INSTALL-PHASE I
STA. 1+20.97 FROUDE ST =
STA. 1+22.67 ORCHARD AVE
SEE NOTE ② SHT 30
- ⑤ ⑤⑧
BY CONTRACTOR FURNISH & INSTALL
STA. 1+52.49
1-1" AIR & VACUUM VALVE ASSEMBLY
- ⑥ ⑤⑨
BY CONTRACTOR FURNISH & INSTALL
STA. 1+62.49
1-12"x8" TEE (F)
2-12" GATE VALVES (F, MJ) AHD, BK
1-8" GATE VALVE (F, MJ) LT

REFERENCE:
WATER: 4004-L, 28475-28-D
GAS: 32-80, 32-81
ELECTRIC: 208-1692C
TELEPHONE: te0703ba.dgn, te0703bb.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7
HGL: POINT LOMA (260) CATALINA (462)

RETIREMENTS:
6" - CI - 503.59' - 1929
12" - AC - 41.52' - 1982



MAP 279
BLOCK 18

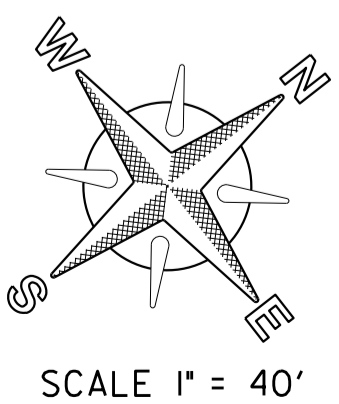
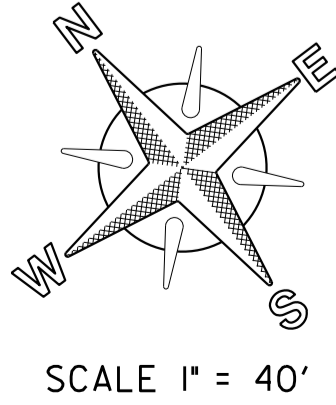
- ⑦
BY CONTRACTOR FURNISH & INSTALL
STA. 1+77.50, 22.74 RT
1-8"x8" TEE (F)
3-8" GATE VALVES (F, MJ) AHD, BK, LT

- ⑧
BY CITY FORCES AHD OF CONTRACTOR-PHASE I
STA. 1+87.50 22.74 RT
TEMP. CUT & PLUG EX. 8" AC WTR
RECONNECT TO EX. 8" AC WTR AFTER PRS HAS BEEN ACCEPTED AND AFTER "RED" VALVE IS CLOSED

- ⑨ ⑥⑩
BY CITY FORCES AHD OF CONTRACTOR-PHASE I
STA. 1+87.50
TEMP. CUT & PLUG EX. 12" AC WTR
RECONNECT TO EX. 12" AC WTR AFTER PRS HAS BEEN ACCEPTED

KEEP PROP. "RED" GATE VALVE CLOSED
SEE NOTE ABOVE THIS SHEET

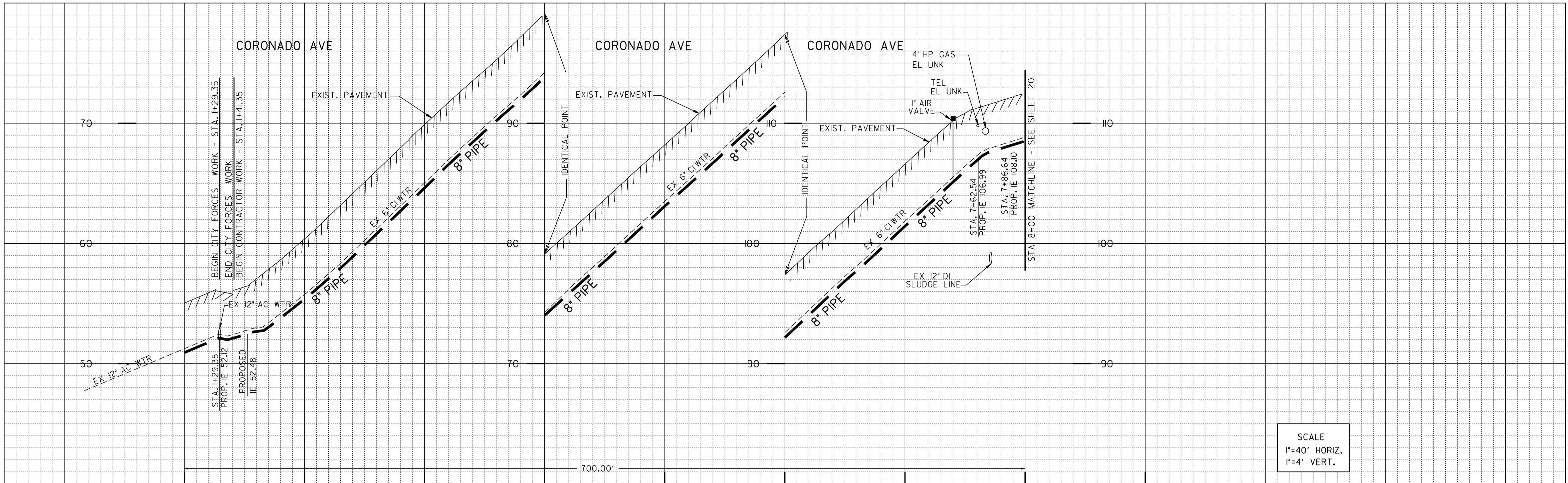
NOTE:
PROP. PARALLEL 8" WATER PIPE (NOT SHOWN HERE) ON ORCHARD AVE, INCLUDED IN THIS CONTRACT, SEE SHEET 30



WATER GROUP 914 ORCHARD AVENUE / FROUDE ST STA 14+00 TO FROUDE ST ORCHARD AVE TO STA. 1+87.50			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 18 OF 53 SHEETS			WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	FILED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER			206-1689 CCS27 COORDINATE
CONTRACTOR			6250407-1846444 CCS88 COORDINATE
INSPECTOR			36124-18-D

C-17

ORCHARD AVENUE / FROUDE STREET

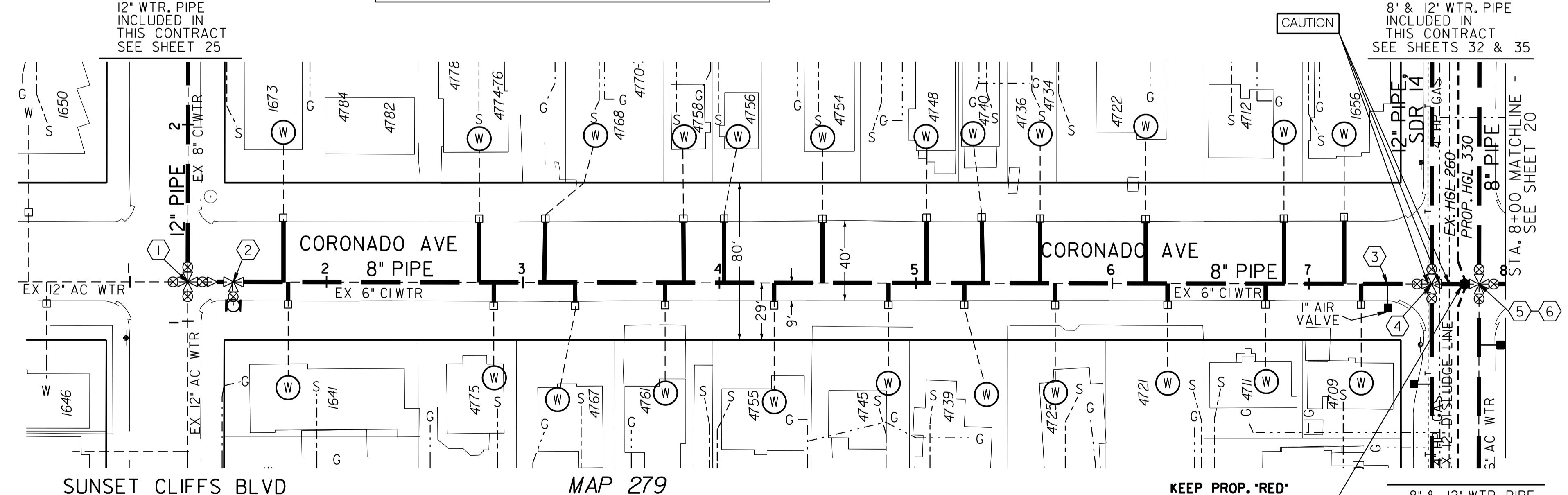


SCALE
1"=40' HORIZ.
1"=4' VERT.

PHASE 3

SUNSET CLIFFS BLVD

NOTE:
CITY FORCES TO HIGHLINE CORONADO AVE FROM STA. 1+00 TO STA. 8+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.



PHASE 3 **PHASE 1** **PHASE 1** **PHASE 2**

EBERS ST

8" & 12" WTR. PIPE INCLUDED IN THIS CONTRACT SEE SHEETS 32 & 35

1 **62**

BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS - PHASE 3

STA. 1+29.35
1-12"x12" CROSS (F)
4-12" GATE VALVES (F, M, J)
AHD, BK, LT, RT
1-12"x8" RED. (M, J) 3" AHD
RECONNECT TO EX. 12" AC WTR BK, RT
OPEN VALVES BK, RT
CLOSE 12" VALVES AND BLIND FLANGE AHD, LT
AFTER NEW 8" PIPE W/RED. AHD AND NEW 12" PIPE LT HAVE BEEN RECONNECTED BY CONTRACTOR OPEN 12" VALVES AHD, LT

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE W/RED. AHD AND TO NEW 12" PIPE LT

2 **63**

BY CONTRACTOR
FURNISH & INSTALL - PHASE 3

STA. 1+52.68
1-8"x6" TEE (M, J, F)
1-6" FH ASSY & MARKER

3 **64**

BY CONTRACTOR
FURNISH & INSTALL - PHASE 3

STA. 7+40.02
1-1" AIR & VACUUM VALVE ASSEMBLY

4 **65**

BY CONTRACTOR
FURNISH & INSTALL - PHASE 1

STA. 7+62.54
1-12"x8" CROSS (F, M, J, F, F)
2-12" GATE VALVES (F, M, J) LT, RT
1-8" GATE VALVE (F, M, J) BK

5 **66**

BY CONTRACTOR
FURNISH & INSTALL - PHASE 1

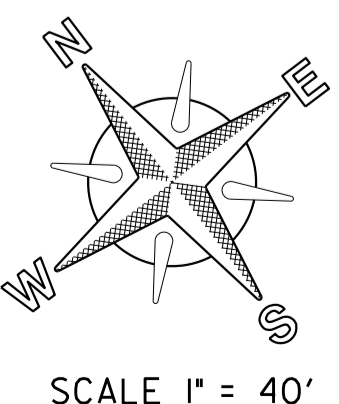
STA. 7+86.64
1-8"x8" CROSS (F)
3-8" GATE VALVES (F, M, J) AHD, LT, RT
1-8" "RED" GATE VALVE (F, M, J) BK

6 **66**

BY CITY FORCES
AFTER CONTRACTOR - PHASE 1

STA. 7+86.64
AFTER NEW MAIN HAS BEEN ACCEPTED
CLOSE PROP. "RED" GATE VALVE BK

NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE BEFORE RECONNECTIONS AND AFTER NEW MAIN HAS BEEN ACCEPTED



SCALE 1" = 40'

REFERENCE:
WATER: 4002-L
GAS: 32-72, 32-73
ELECTRIC: 210-1692C
TELEPHONE: te0701da.dgn, te0701db.dgn

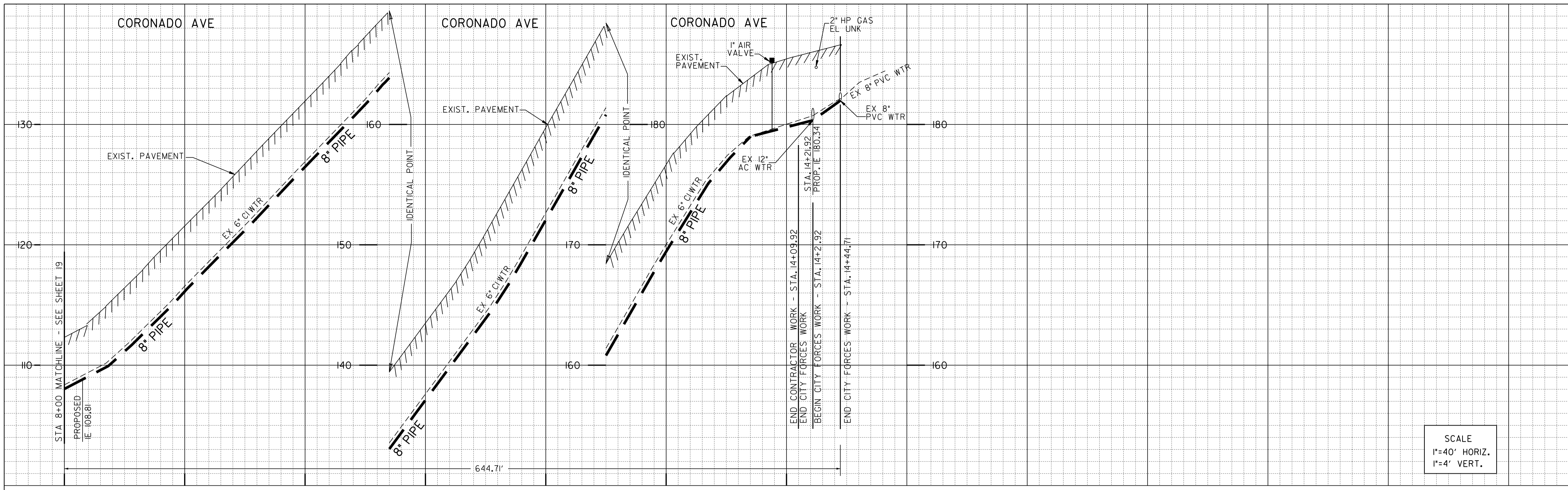
IMPROVEMENTS: NONE
FIELD BOOK: B19S / B20S
100' SCALE: 210-1689 / 206-1689
THOMAS BROS.: I267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
6" - CI - 700' - 1929
FH (2-PORT) - 1
1" SERVICE - 23 - CU

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 19 OF 53 SHEETS				WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER 210-1689 206-1689 CCS27 COORDINATE 6250407-1850444 6250407-1846444 CCS83 COORDINATE				CONTRACTOR DATE STARTED
CONTRACTOR				DATE COMPLETED
INSPECTOR				36124-19-D

C-18

CORONADO AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.

③ 275
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS - PHASE 2

REFERENCE:
WATER: 4002-L
GAS: 32-82, 32-83
ELECTRIC: 208-1692C
TELEPHONE: te070ldb.dgn, te050lcc.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7
HGL: CATALINA (462)

RETIREMENTS:
6" - CI - 644.91' - 1929
FH (2-PORT) - 1
1" SERVICE - 28 - CU

STA. 14+21.92
1-12"X8" CROSS (F)
2-12" GATE VALVES (F, MJ) LT, RT
1-8" "RED" GATE VALVE (F, MJ) AHD
1-8" GATE VALVE (F, MJ) BK
23' - 8" PVC PIPE AHD
RECONNECT TO EX. 12" AC WTR RT,
REMOVE EX. 6" CI WTR AHD,
RECONNECT TO NEW 8" PVC WTR AND TO
TO EX. 8" VALVE AHD
OPEN VALVES AHD, RT
CLOSE VALVES AND BLIND FLANGE BK, LT
AFTER NEW 8" PIPE BK AND NEW 12" PIPE LT
HAVE BEEN RECONNECTED BY CONTRACTOR
CLOSE PROP. "RED" GATE VALVE AHD
AND OPEN VALVES BK, LT

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE BK AND TO
NEW 12" PIPE LT

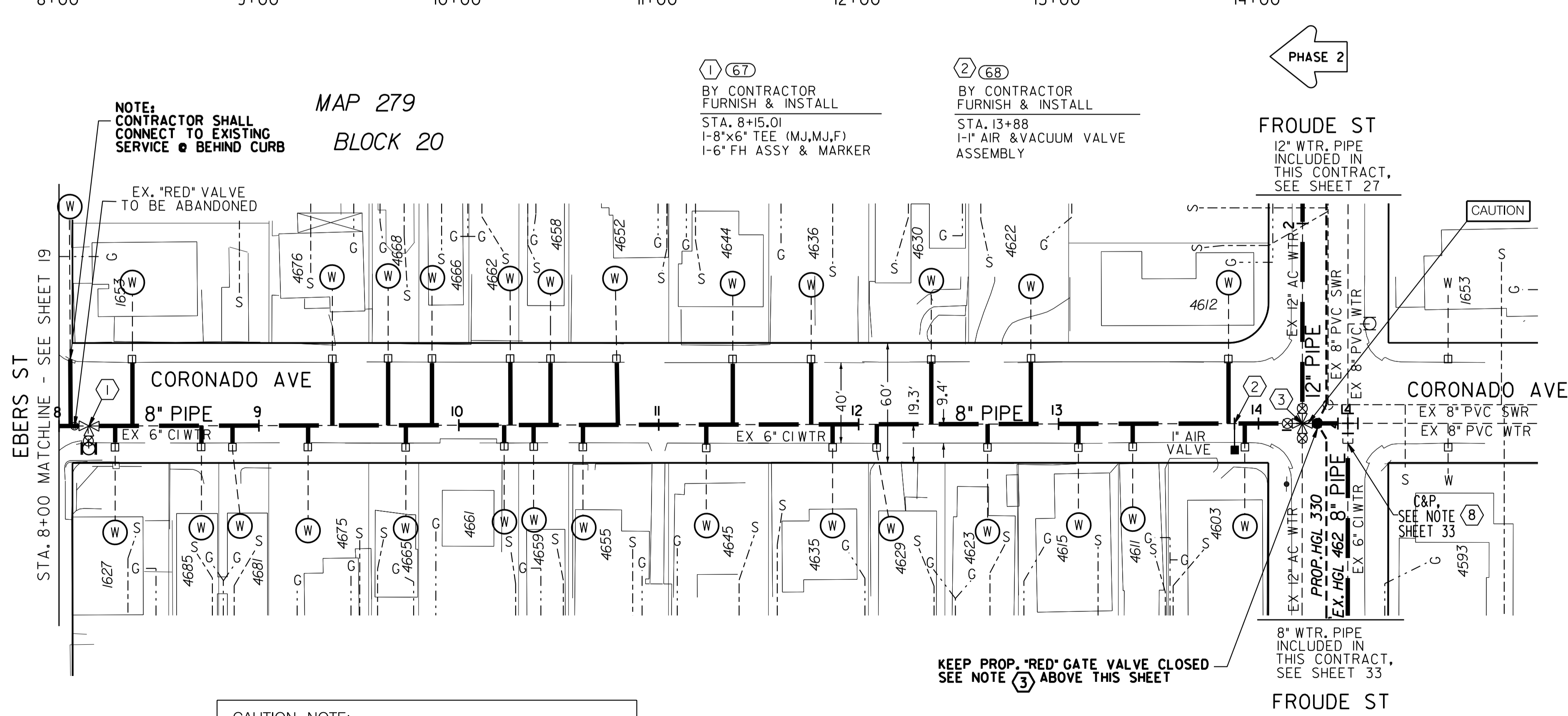
HIGHLINING NOTE:
CITY FORCES TO HIGHLINE CORONADO AVE
FROM STA. 8+00 TO STA. 14+44.71
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.

① 67
BY CONTRACTOR
FURNISH & INSTALL
STA. 8+15.01
1-8"x6" TEE (MJ, MJ, F)
1-6" FH ASSY & MARKER

② 68
BY CONTRACTOR
FURNISH & INSTALL
STA. 13+88
1-1" AIR & VACUUM VALVE
ASSEMBLY

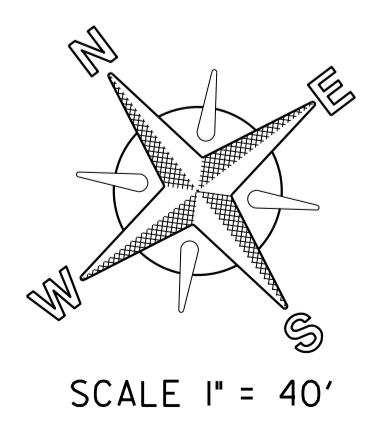
NOTE:
CONTRACTOR SHALL
CONNECT TO EXISTING
SERVICE • BEHIND CURB

MAP 279
BLOCK 20

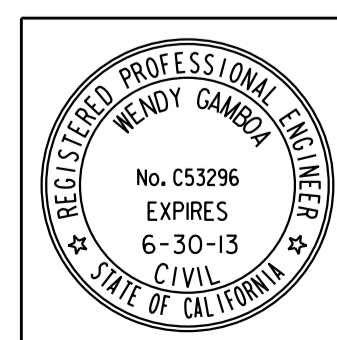


CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

KEEP PROP. "RED" GATE VALVE CLOSED
SEE NOTE ③ ABOVE THIS SHEET



SCALE 1" = 40'

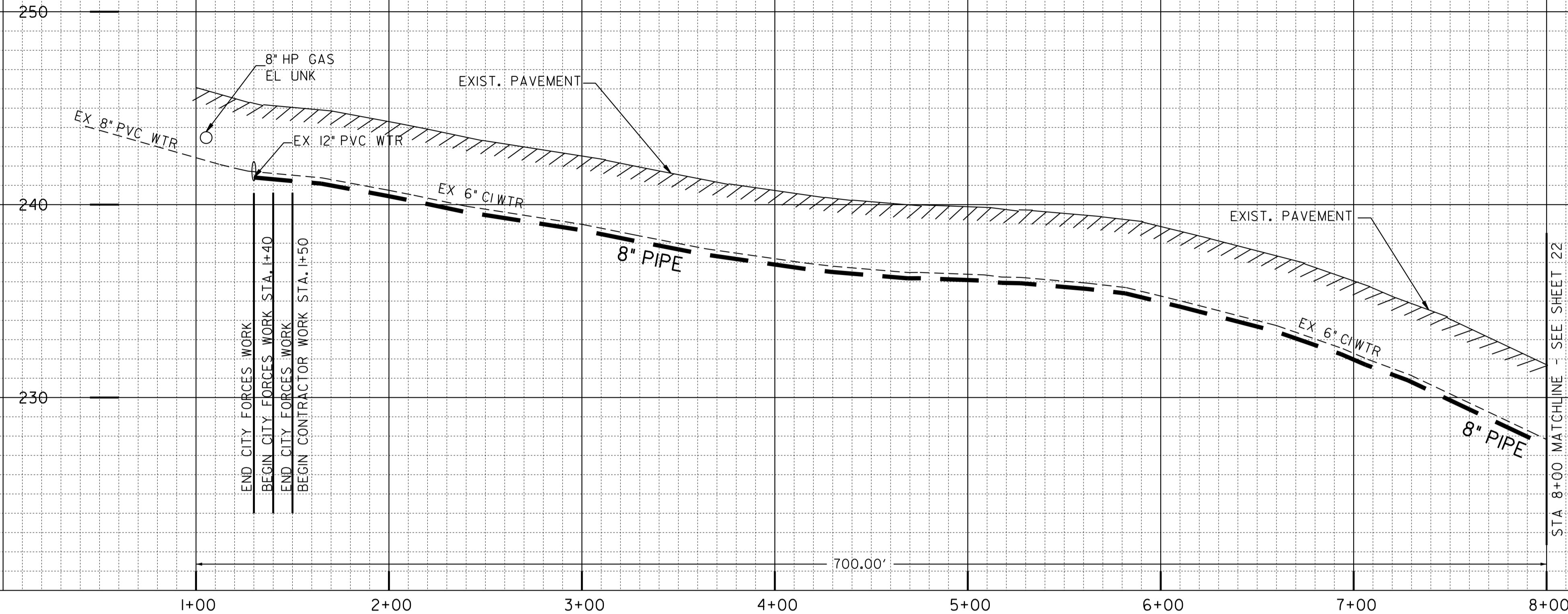


CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 20 OF 53 SHEETS					WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER			
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED	
CHECKED BY: ROBERTO VEJAR-PARRÁ PROJECT ENGINEER					
206-1689 CCS27 COORDINATE					
6250407-1846444 CCS83 COORDINATE					
CONTRACTOR	DATE STARTED	36124-20-D			
INSPECTOR	DATE COMPLETED				

C-19

CORONADO AVENUE

CORONADO AVE



SCALE
1"=40' HORIZ.
1"=4' VERT.

1+00 2+00 3+00 4+00 5+00 6+00 7+00 8+00

LOMA HEIGHTS
MAP 1106
BLOCK 72

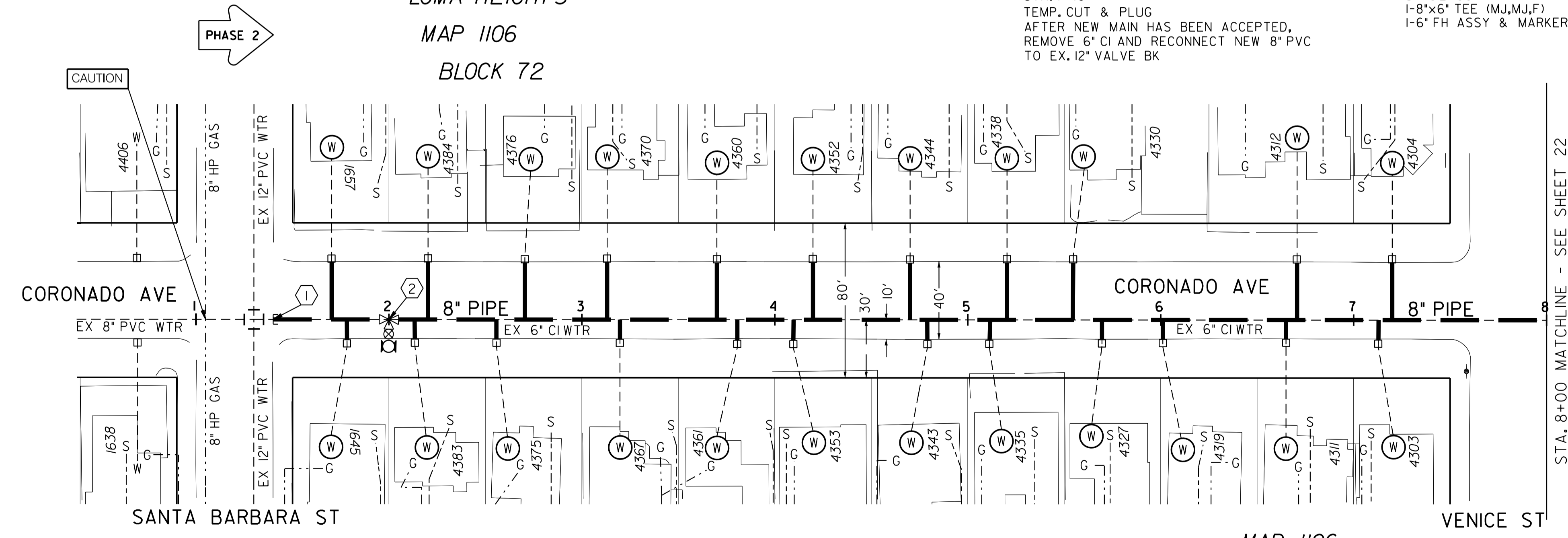
① 72
BY CITY FORCES
AHD OF CONTRACTOR-PHASE 2
STA. 1+40
TEMP. CUT & PLUG
AFTER NEW MAIN HAS BEEN ACCEPTED,
REMOVE 6" CI AND RECONNECT NEW 8" PVC
TO EX. 12" VALVE BK

②
BY CONTRACTOR
FURNISH & INSTALL
STA. 2+00
1-8"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER

REFERENCE:
WATER: 3658-0L
GAS: 32-163, 32-164
ELECTRIC: 208-1692B
TELEPHONE: te0503bc.dgn, te0503bd.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1268-A7
HGL: CATALINA (462)

RETIREMENTS:
6" - CI - 700' - 1929
1" SERVICE - 23 - CU



HIGHLINING NOTE:
CITY FORCES TO HIGHLINE CORONADO AVE
FROM STA. 1+00 TO STA. 8+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.

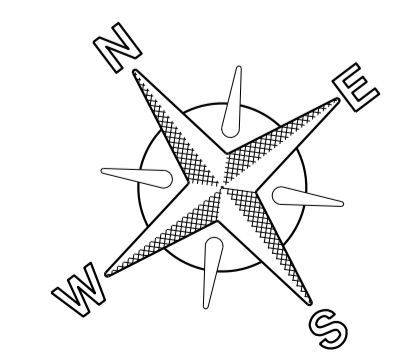
WATER GROUP 914
CORONADO AVENUE
SANTA BARBARA ST TO VENICE ST

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 21 OF 53 SHEETS		WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY FH	CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER
	APPROVED	DATE
		FILMED
		206-1689 CCS27 COORDINATE
		6250407-1846444 CCS83 COORDINATE
CONTRACTOR	DATE STARTED	36124-21-D
INSPECTOR	DATE COMPLETED	

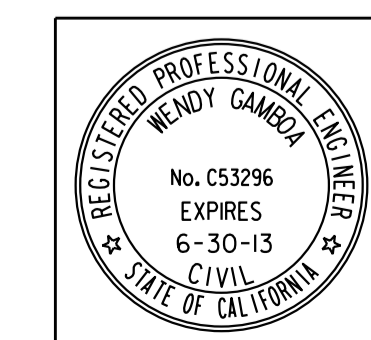
C-20

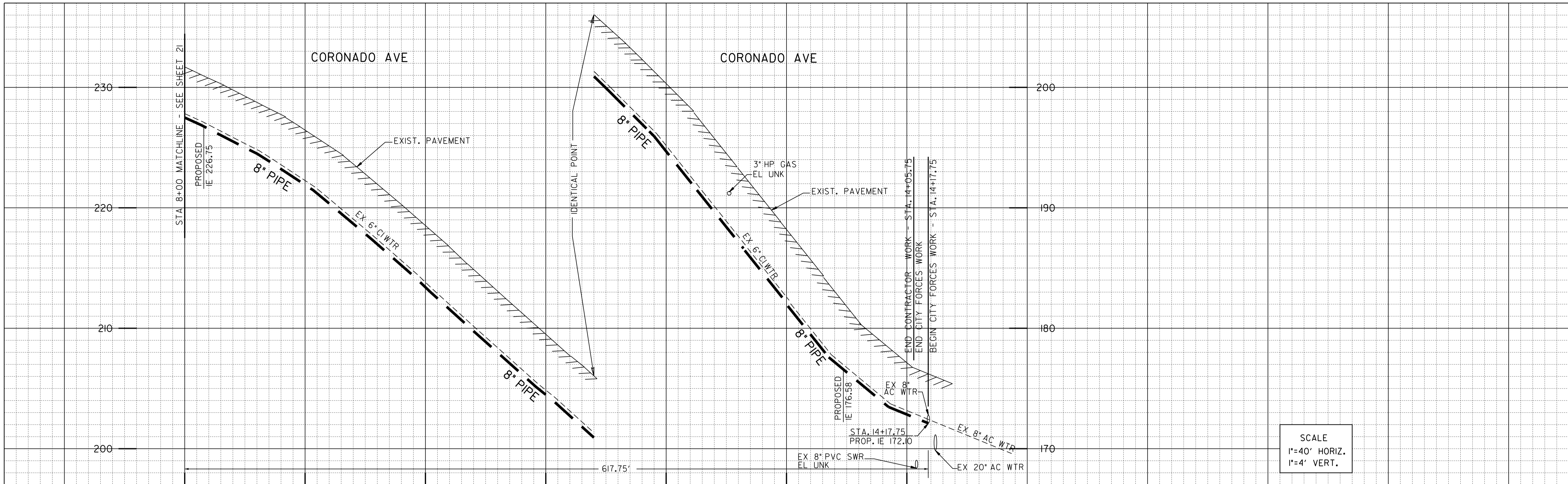
CORONADO AVENUE

MAP 1106
BLOCK 73



SCALE 1" = 40'

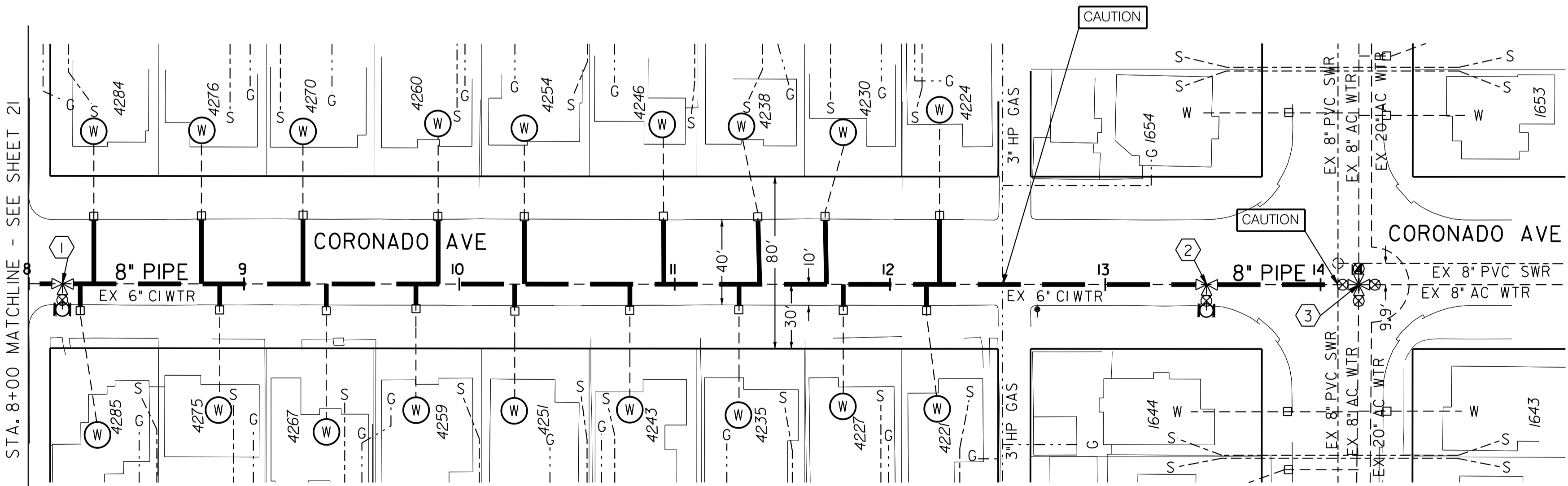




SCALE
1"=40' HORIZ.
1"=4' VERT.

MAP 1106
BLOCK 57

PHASE 2



① 73
BY CONTRACTOR
FURNISH & INSTALL
STA. 8+15.72
1-8"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER

② 74
BY CONTRACTOR
FURNISH & INSTALL
STA. 13+47.12
1-8"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER

③ 75
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS - PHASE 2

STA. 14+17.75
1-8"x8" CROSS (F)
4-8" GATE VALVES (F, MJ)
AHD, BK, LT, RT
RECONNECT TO EX. 8" AC WTR AHD, LT, RT
OPEN VALVES AHD, LT, RT
CLOSE 8" VALVE AND BLIND FLANGE BK
AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 8" VALVE BK

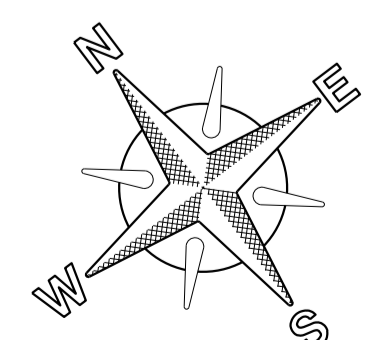
BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE BK

REFERENCE:
WATER: 3658-0L
GAS: 32-169, 32-170
ELECTRIC: te0503db.dgn, te0303ca.dgn

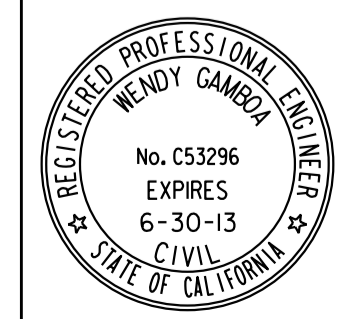
IMPROVEMENTS: NONE
FIELD BOOK: C20S
100' SCALE: 206-1695
THOMAS BROS.: 1268-A7
HGL: CATALINA (462)

RETIREMENTS:
6" - CI - 617.75' - 1929
FH (2-PORT) - 2
1" SERVICE - 18 - CU

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE CORONADO AVE
FROM STA. 8+00 TO STA. 14+17.75
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.



SCALE 1" = 40'

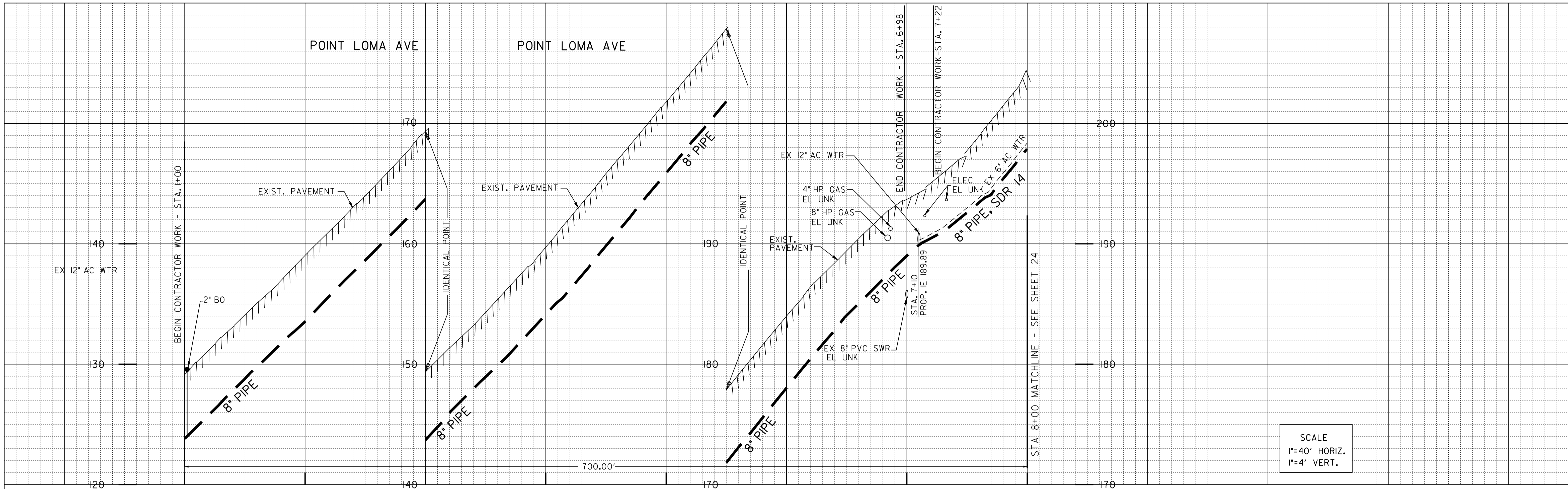


WATER GROUP 914
CORONADO AVENUE
VENICE ST TO CATALINA BLVD

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 22 OF 53 SHEETS				WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	<i>[Signature]</i>	DATE 2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1695 CCS27 COORDINATE
CONTRACTOR				6256407-1846444 CCS83 COORDINATE
INSPECTOR		DATE STARTED	36124-22-D	
		DATE COMPLETED		

C-21

CORONADO AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.

MAP 1106
BLOCK 78

NOTE:
PROP. PARALLEL 16" WATER PIPE INCLUDED IN THIS CONTRACT, SEE SHEET 5

① 76
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+00
1-8" PVC END CAP

② 77
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+02
1-2" BLOWOFF ASSY
TYPE "A"

③ 78
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS - PHASE 2

REFERENCE:
WATER: 6359-L, 9952-ID
GAS: 35-203
TELEPHONE: +e0503cc.dgn, +e0505aa.dgn

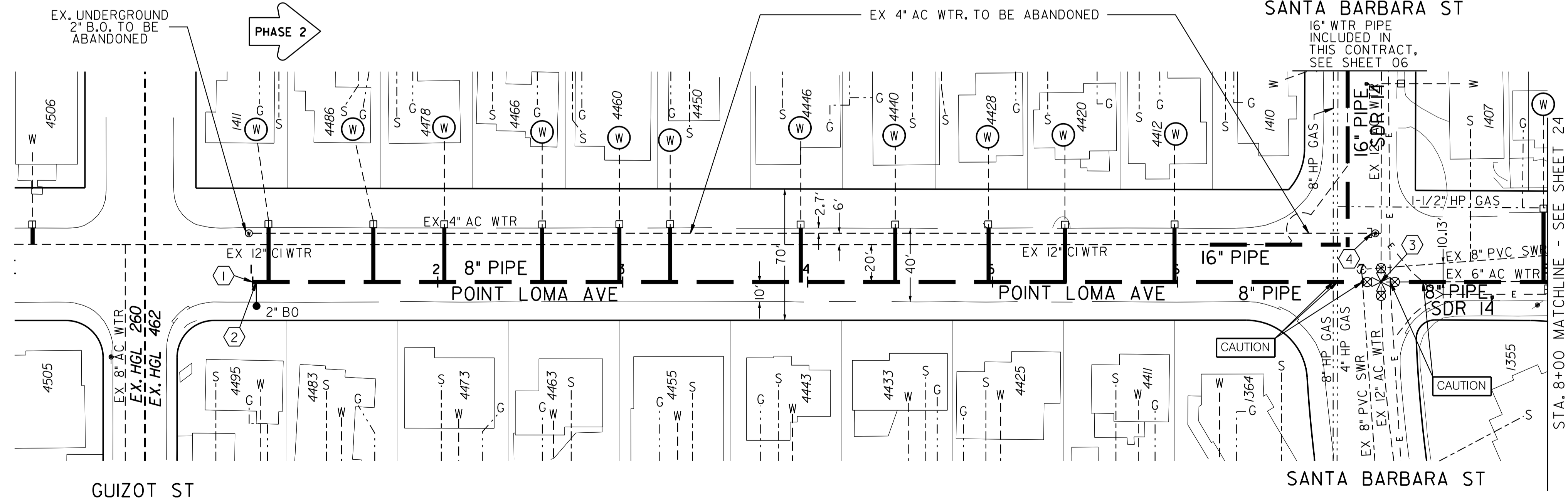
IMPROVEMENTS: NONE
FIELD BOOK: B205
100' SCALE: 206-1689
THOMAS BROS.: 1287-JI
HGL: EX. 12" CI WTR - POINT LOMA (260)
EX. 4" AC - CATALINA (462)

RETIREMENTS:
6" - AC - 90.00' - 1945
4" - AC - 610.00' - 1945
1" SERVICE - 12 - CU
2" BO - 1

STA. 7+10
1-12"x8" CROSS (F)
2-12" GATE VALVES (F, MJ) LT, RT
2-8" GATE VALVES (F, MJ) AHD, BK
RECONNECT TO EX. 12" AC WTR LT, RT
OPEN VALVES LT, RT
CLOSE 8" VALVES AND BLIND FLANGE AHD, BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE AHD, BK

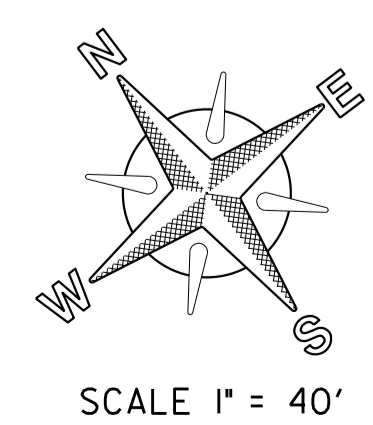
④
BY CITY FORCES
AFTER CONTRACTOR - PHASE 2
STA. 7+06.92 26.35' LT
PERM. CUT & PLUG EX. 4" AC PIPE
AFTER NEW PARALLEL 8" PIPE HAS BEEN ACCEPTED



CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

NOTE:
THE PROP. 8" PVC WATER MAIN SHALL BE OPERATING UNDER THE CATALINA (462) PRESSURE ZONE.
THE PROP. 16" PVC WATER MAIN SHALL BE OPERATING UNDER THE POINT LOMA (260) PRESSURE ZONE, SEE SHEET 05.

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE POINT LOMA AVE FROM STA. 7+10 TO STA. 8+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

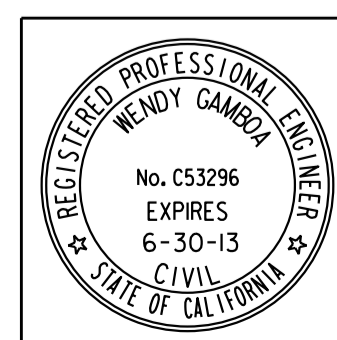


SCALE 1" = 40'

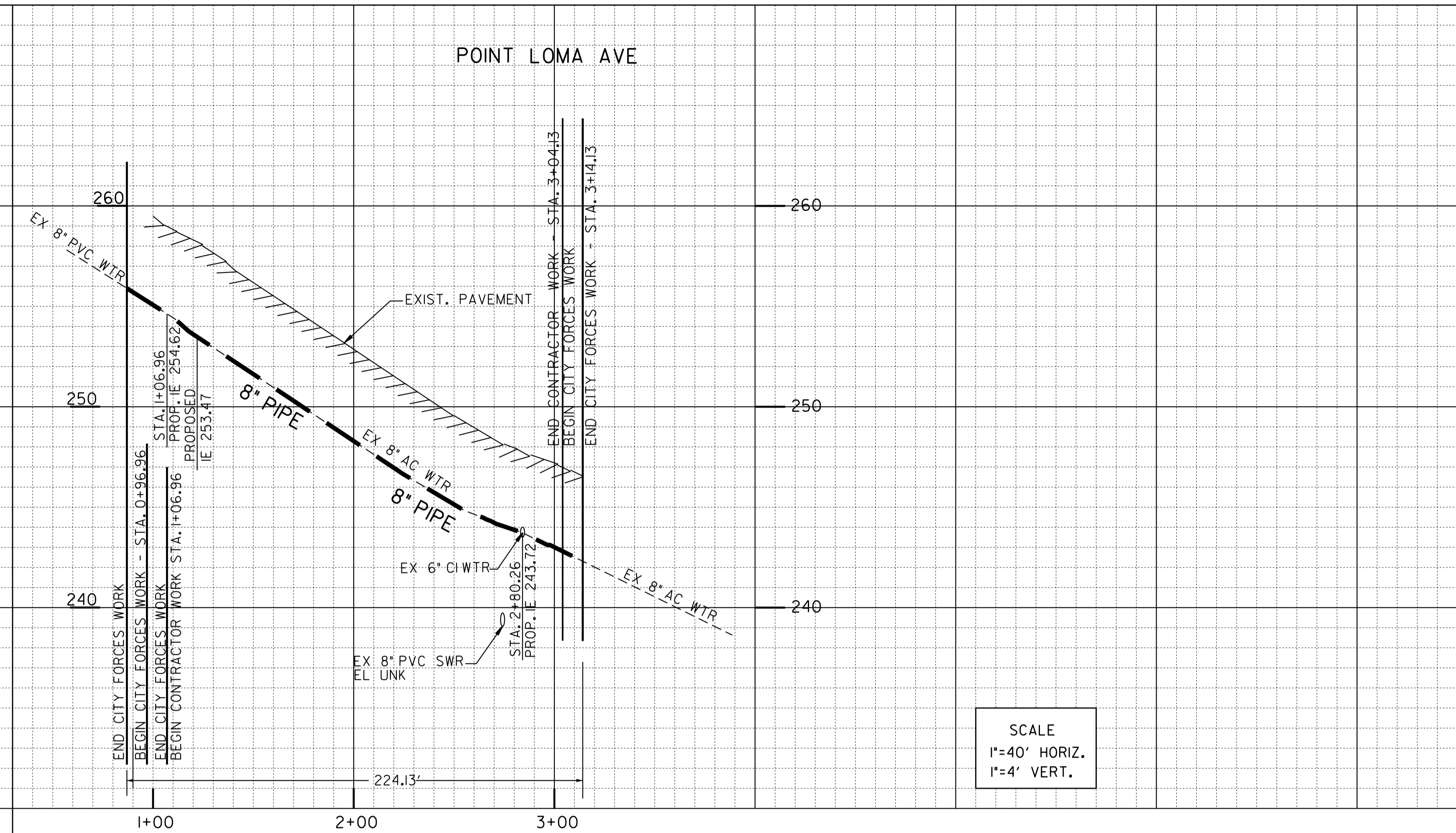
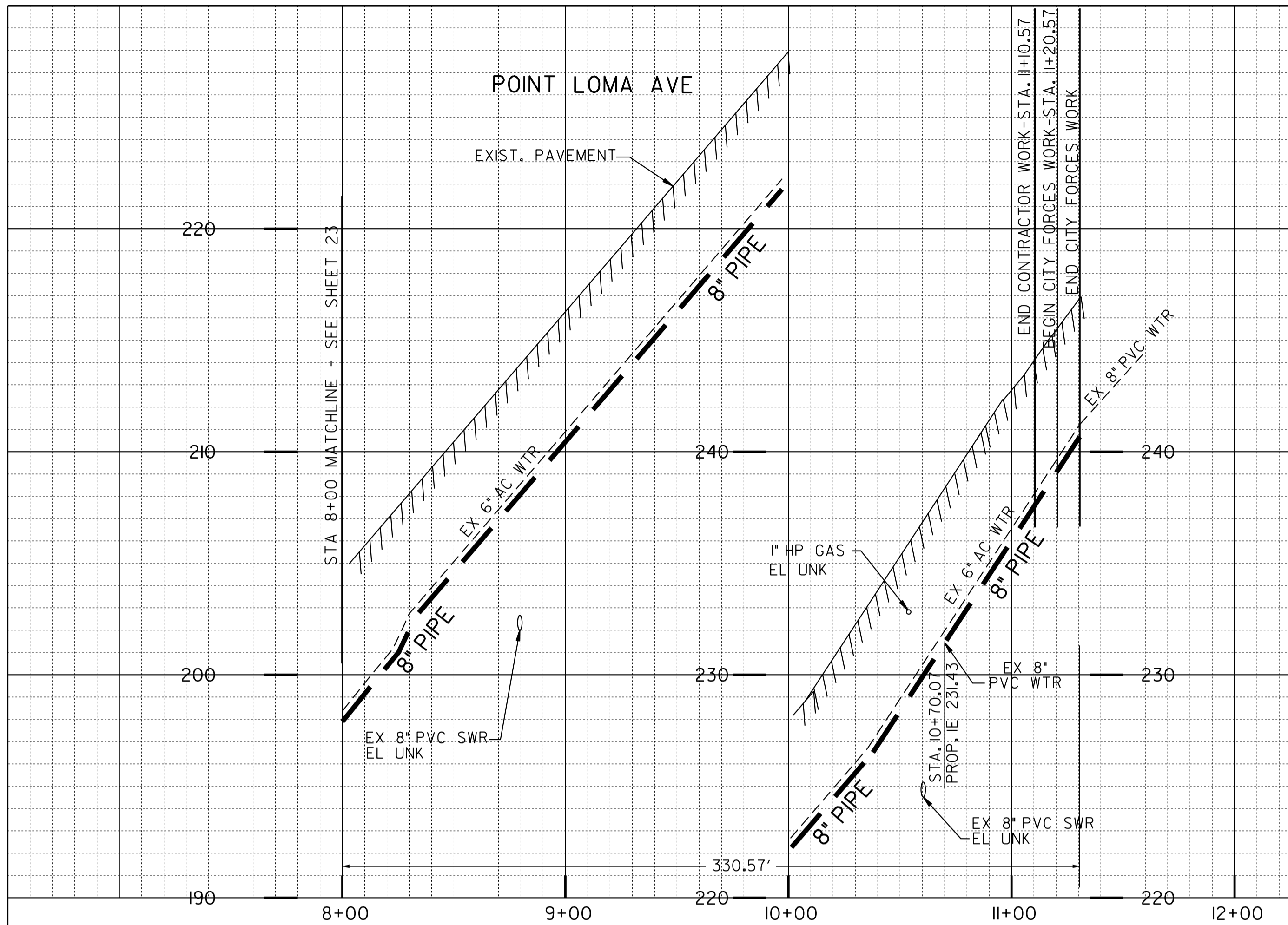
C-22

WATER GROUP 914
POINT LOMA AVENUE
STA 1+00 TO STA 8+00

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 23 OF 53 SHEETS				WATER WBS B-00125	
APPROVED:	<i>[Signature]</i>	2/27/12	DATE	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
FOR CITY ENGINEER				CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED	206-1689 CCS27 COORDINATE
ORIGINAL	FH				6250407-1846444 CCS83 COORDINATE
CONTRACTOR				DATE STARTED	36124-23-D
INSPECTOR				DATE COMPLETED	



POINT LOMA AVENUE



SCALE
1"=40' HORIZ.
1"=4' VERT.

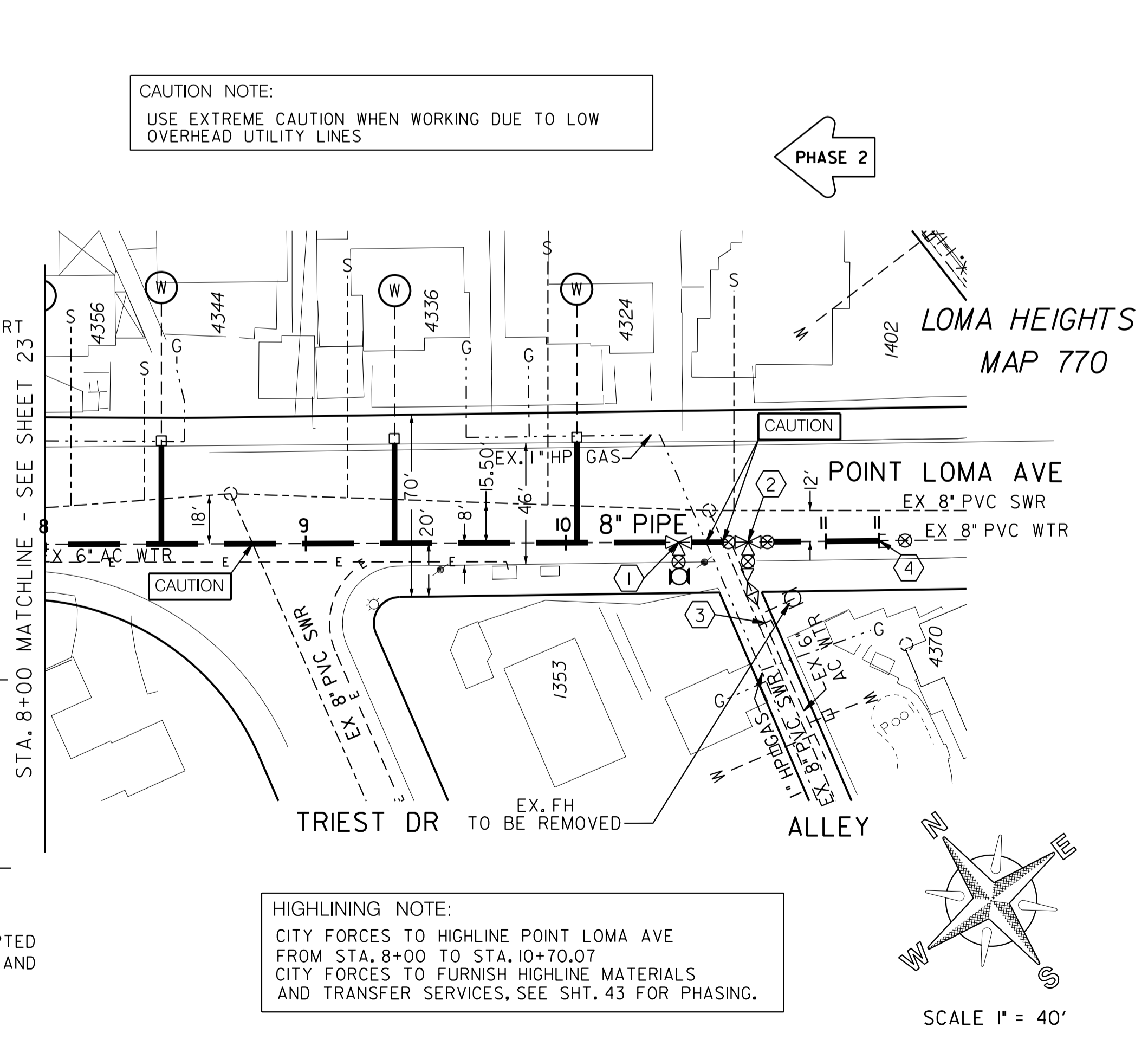
①
BY CONTRACTOR
FURNISH & INSTALL
STA. 10+43.47
1-8"x6" TEE (M,J,F)
1-6" FH ASSY & MARKER

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES

② (80)
BY CONTRACTOR
FURNISH & INSTALL
STA. 10+70.07
1-8"x8" TEE (F)
3-8" GATE VALVES (F,MJ), BK, AHD, RT
1-8", 11.25" BEND (M,J), 10' RT
8" PIPE, 20' RT

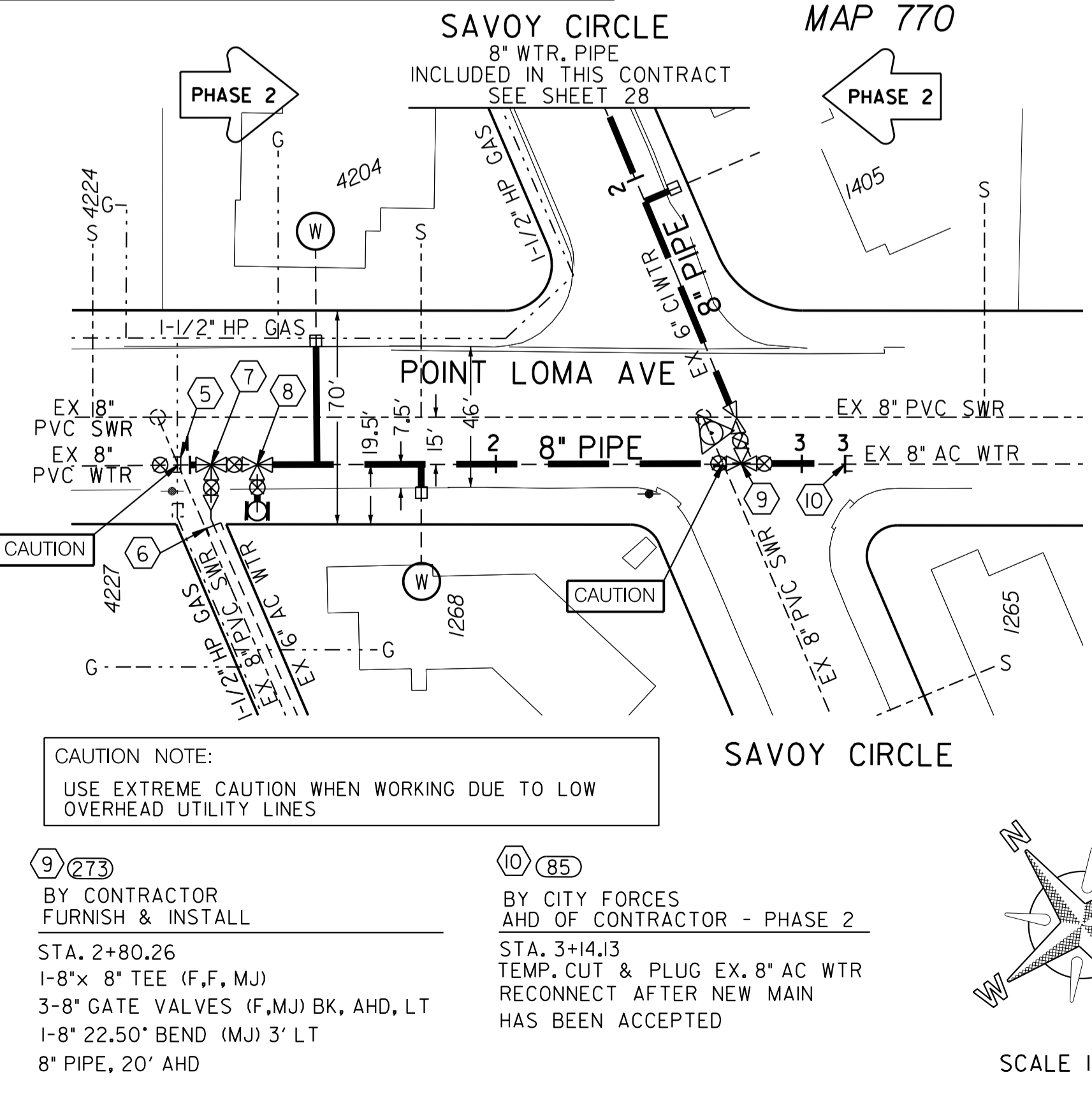
③
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 2
STA. 10+76.68 31.4' RT
TEMP. CUT & PLUG EX. 6" AC WTR
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED

④ (81)
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 2
STA. 11+20.57
TEMP. CUT & PLUG EX. 6" AC WTR
CLOSE EX. 8" GATE VALVE AHD
AFTER NEW MAIN HAS BEEN ACCEPTED
CONNECT TO NEW 8" PVC PIPE BK AND
OPEN EX. 8" GATE VALVE AHD



HIGHLINING NOTE:
CITY FORCES TO HIGHLINE POINT LOMA AVE
FROM STA. 8+00 TO STA. 10+70.07
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE POINT LOMA AVE
FROM STA. 0+90 TO STA. 3+14.13
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.



CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES

⑨ (273)
BY CONTRACTOR
FURNISH & INSTALL
STA. 2+80.26
1-8"x 8" TEE (F,F, M,J)
3-8" GATE VALVES (F,MJ) BK, AHD, LT
1-8" 22.50" BEND (M,J) 3' LT
8" PIPE, 20' AHD

⑩ (85)
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 2
STA. 3+14.13
TEMP. CUT & PLUG EX. 8" AC WTR
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED

⑤
BY CITY FORCES
AHD OF CONTRACTOR-PHASE 2
STA. 0+96.96
TEMP. CUT & PLUG EX. 8" AC WTR
CLOSE EX. 8" GATE VALVE BK
AFTER NEW MAIN HAS BEEN ACCEPTED,
CONNECT TO NEW 8" PVC AHD AND OPEN
EX. 8" GATE VALVE BK

⑥
BY CITY FORCES
AHD OF CONTRACTOR-PHASE 2
STA. 1+06.96 20' RT
TEMP. CUT & PLUG EX. 6" AC WTR
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED

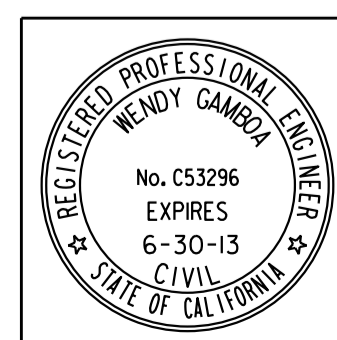
⑦ (83)
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+06.96
1-8"x8" TEE (M,J, F, F)
2-8" GATE VALVES (F, MJ) AHD, RT
1-8"x6" RED (M,J) 13' RT
8" PIPE, 10' RT

⑧ (84)
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+21.99
1-8"x6" TEE (M,J,M,J,F)
1-6" FH ASSY & MARKER

REFERENCE:
WATER: 20723-I2D, 6668-L, 28476-27D
GAS: 32-218A, 32-218B
TELEPHONE: te0505aa.dgn, te0505bc.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B205
206-1689
THOMAS BROS.: 1287-JI / 1288-AI
HGL: CATALINA (462)

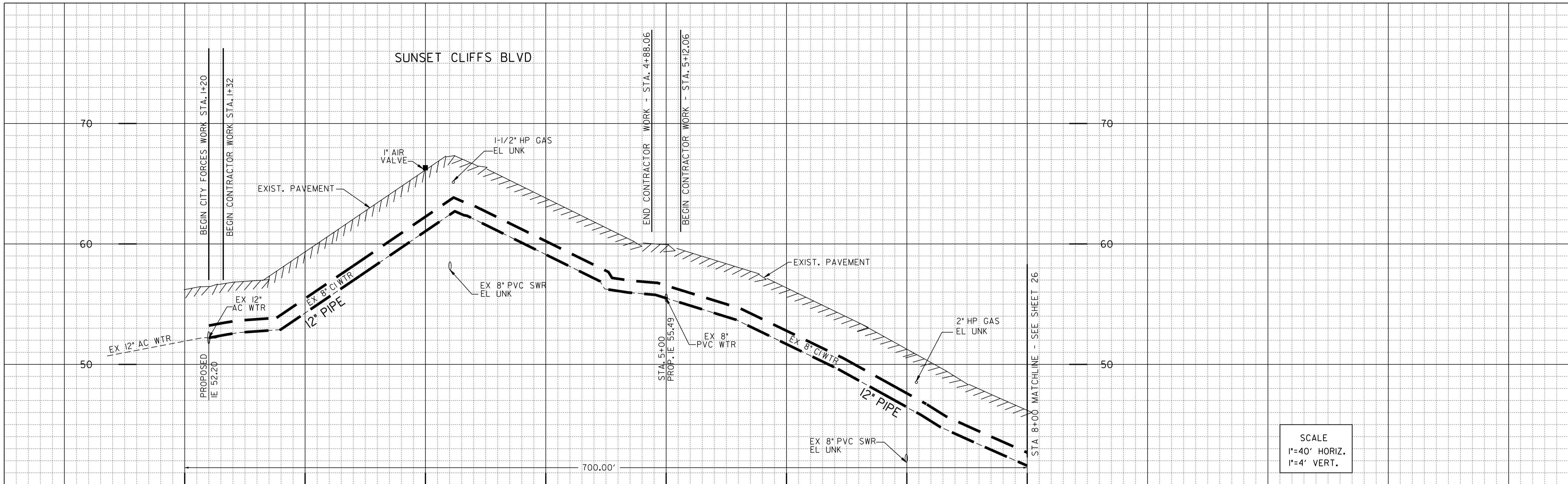
RETIREMENTS:
6" - AC - 430.57' - 1984
8" - AC - 234.13' - 1984
FH (2-PORT) - 2
1" SERVICE - 5 - CU

WATER GROUP 914 POINT LOMA AVENUE STA 8+00 TO STA 11+30.57 STA 1+00 TO STA 3+14.13				CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 24 OF 53 SHEETS		WATER WBS B-00125	
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER		DATE 2/27/12		SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER		CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED	206-1689 CCS27 COORDINATE		
ORIGINAL	FH				6250407-1846444 CCS83 COORDINATE		
CONTRACTOR		DATE STARTED		36124-24-D			
INSPECTOR		DATE COMPLETED					

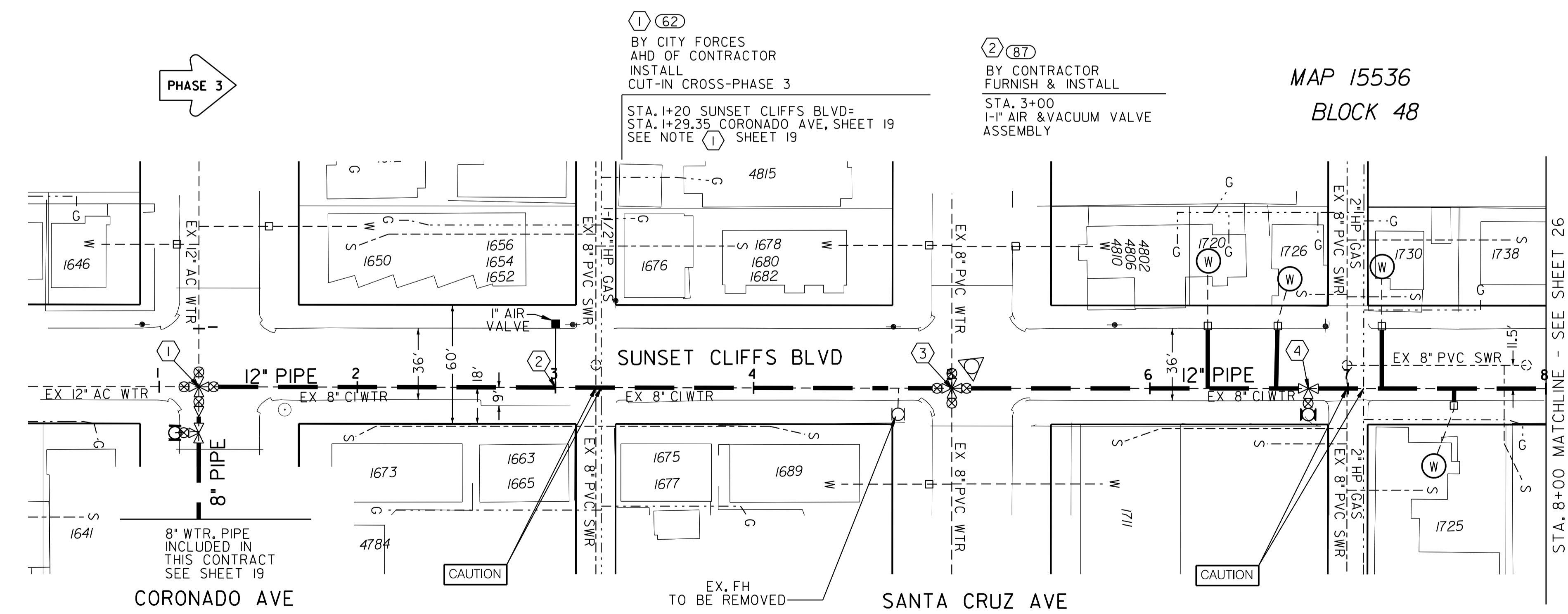


POINT LOMA AVENUE

C-23



SCALE
1"=40' HORIZ.
1"=4' VERT.



PHASE 3

① ⑥②
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS-PHASE 3
STA. 1+20 SUNSET CLIFFS BLVD=
STA. 1+29.35 CORONADO AVE, SHEET 19
SEE NOTE ① SHEET 19

② ⑧⑦
BY CONTRACTOR
FURNISH & INSTALL
STA. 3+00
1" AIR & VACUUM VALVE
ASSEMBLY

MAP 15536
BLOCK 48

③ ⑧⑧
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS-PHASE 3
STA. 5+00.06
1-1/2"X8" CROSS (F)
2-12" GATE VALVES (F, MJ) AHD, BK
2-8" GATE VALVES (F, MJ) LT, RT
RECONNECT TO EX. 8" PVC WTR LT, RT
OPEN VALVES LT, RT
CLOSE 12" VALVES AND BLIND FLANGE AHD, BK
AFTER NEW 12" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 12" VALVES AHD, BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 12" PIPE AHD, BK

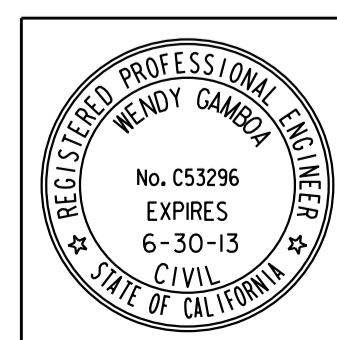
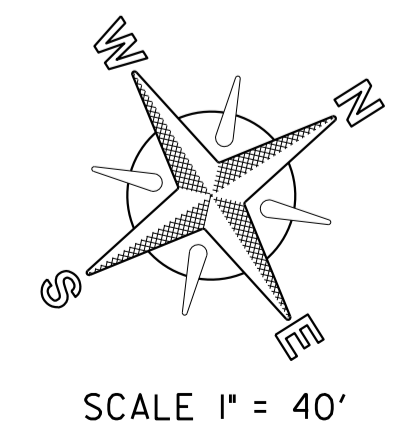
④ ⑧⑨
BY CONTRACTOR
FURNISH & INSTALL
STA. 6+80
1-1/2"X6" TEE (M, MJ, F)
1-6" FH ASSY & MARKER
(3-PORT)

REFERENCE:
WATER: 12942-13D
GAS: 32-72, 32-44, 32-45
ELECTRIC: 210-1692A
TELEPHONE: te070lbc.dgn, te070lbd.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B19S
100' SCALE: 210-1689
THOMAS BROS.: 1267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
8" - CI - 680.00' - 1968
FH (3-PORT) - 1
1" SERVICE - 4 - CU

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES

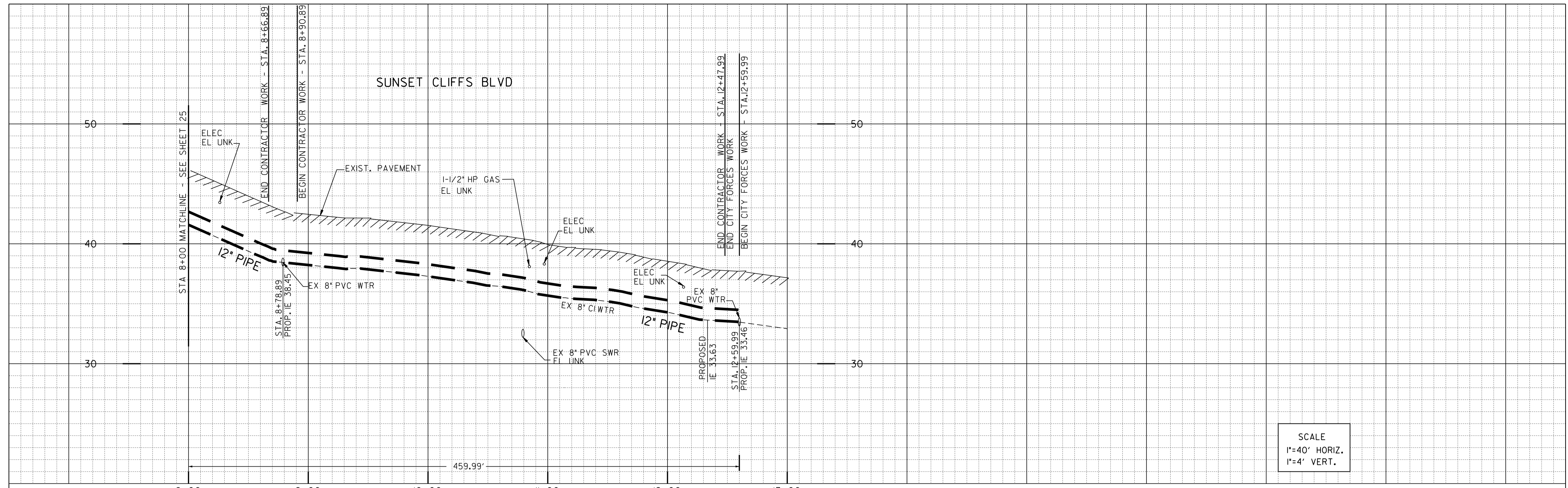
HIGHLINGING NOTE:
CITY FORCES TO HIGHLINE SUNSET CLIFFS BLVD
FROM STA. 1+00 TO STA. 8+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.



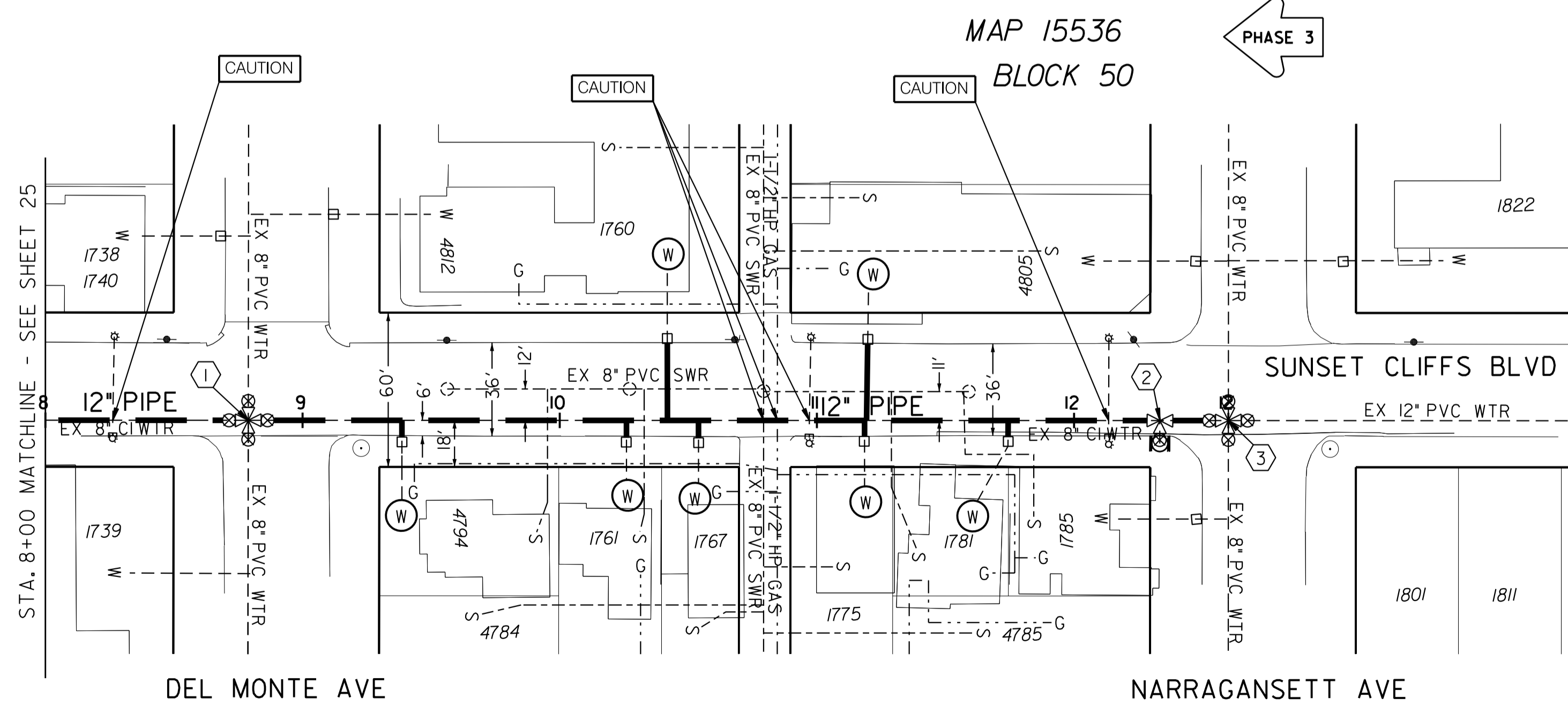
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 25 OF 53 SHEETS					WATER WBS	B-00125
APPROVED:	2/27/12		DATE		SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
FOR CITY ENGINEER					CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED	210-1689 CCS27 COORDINATE	
ORIGINAL	FH				6250407-1850444 CCS83 COORDINATE	
CONTRACTOR	DATE STARTED		DATE COMPLETED		36124-25-D	
INSPECTOR						

SUNSET CLIFFS BLVD

C-24



SCALE
1"=40' HORIZ.
1"=4' VERT.



MAP 15536
BLOCK 50
PHASE 3

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE SUNSET CLIFFS BLVD FROM STA. 8+00 TO STA. 12+59.99
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.

(1) 90
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS - PHASE 3
STA. 8+78.89
1-12"X8" CROSS (F)
2-12" GATE VALVES (F, MJ) AHD, BK
2-8" GATE VALVES (F, MJ) LT, RT
RECONNECT TO EX. 8" PVC WTR LT, RT
OPEN VALVES LT, RT
CLOSE VALVES AND BLIND FLANGE AHD, BK
AFTER NEW 12" PIPE HAS BEEN RECONNECTED BY CONTRACTOR OPEN 12" VALVES AHD, BK

(2) 91
BY CONTRACTOR
FURNISH & INSTALL
STA. 12+33.39
1-12"X6" TEE (MJ, MJ, F)
1-6" FH ASSY & MARKER (3-PORT)

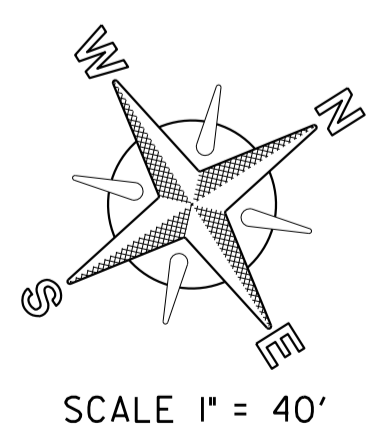
(3) 92
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN CROSS - PHASE 3
STA. 12+59.99
1-12"X8" CROSS (F)
2-12" GATE VALVES (F, MJ) AHD, BK
2-8" GATE VALVES (F, MJ) LT, RT
RECONNECT TO EX. 8" PVC WTR LT, RT AND TO EX. 12" PVC AHD
OPEN VALVES AHD, LT, RT
CLOSE 12" VALVE AND BLIND FLANGE BK
AFTER NEW 12" PIPE HAS BEEN RECONNECTED BY CONTRACTOR OPEN 12" VALVE BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED RECONNECT TO NEW 12" PIPE BK

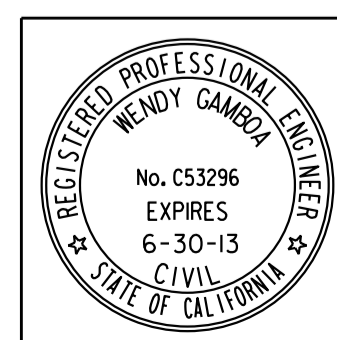
REFERENCE:
WATER: 12942-13D
GAS: 32-44, 32-45
ELECTRIC: 210-1692C
TELEPHONE: te070lbb.dgn, te070lbd.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B19S
100' SCALE: 210-1689
THOMAS BROS.: 1267-J6 / 1267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
8" - CI - 459.99' - 1968
FH (3-PORT) - 1
1" SERVICE - 7 - CU

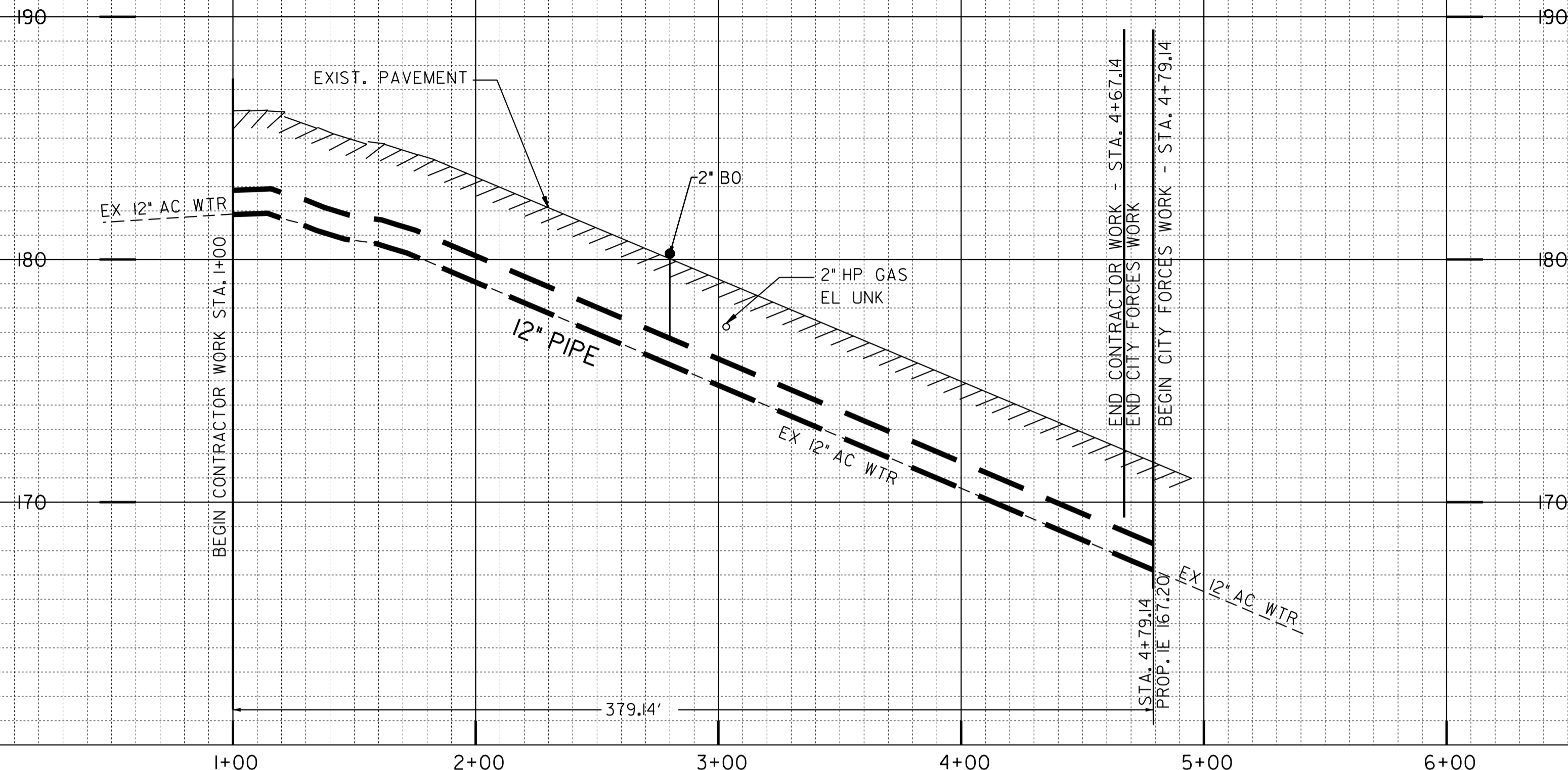


SCALE 1" = 40'



WATER GROUP 914 SUNSET CLIFFS BLVD STA 8+00 TO NARRAGANSETT AVE				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 26 OF 53 SHEETS				WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				210-1689 CCS27 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				6250407-1850444 CCS83 COORDINATE 36124-26-D

FROUDE ST



SCALE
1"=40' HORIZ.
1"=4' VERT.

① (275)
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+00 FROUDE ST =
STA. 14+21.91 CORONADO AVE
1-12"x8" CROSS (F)
SEE NOTE ③ SHT 20

②
BY CONTRACTOR
FURNISH & INSTALL
STA. 2+80
1-2" BLOWOFF ASSY
TYPE "A"

⑤ (280)
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN TEE - PHASE 2

STA. 4+79.14
1-12"x8" TEE (F)
1-8" GATE VALVE (F, MJ) LT
2-12" GATE VALVES (F, MJ) BK, AHD
PERM. CUT&PLUG 8" PVC WATER MAIN 3' RT
RECONNECT TO EX. 12" AC WTR AHD
AND TO EX. 8" PVC WTR LT
CLOSE 12" VALVE AND BLIND FLANGE BK
AFTER NEW PRS HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 12" VALVE BK

BY CONTRACTOR
AFTER PRS HAS BEEN ACCEPTED
RECONNECT TO NEW 12" PIPE BK

③
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN TEE - PHASE 2
STA. 3+15.70 22.70' RT
1-8"x8" TEE (F)
3-8" GATE VALVES (F, MJ) AHD, BK, LT
RECONNECT TO EX. 8" PVC WTR AHD, BK
CLOSE 8" VALVE AND BLIND FLANGE LT
AFTER NEW PRS HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 8" VALVE LT

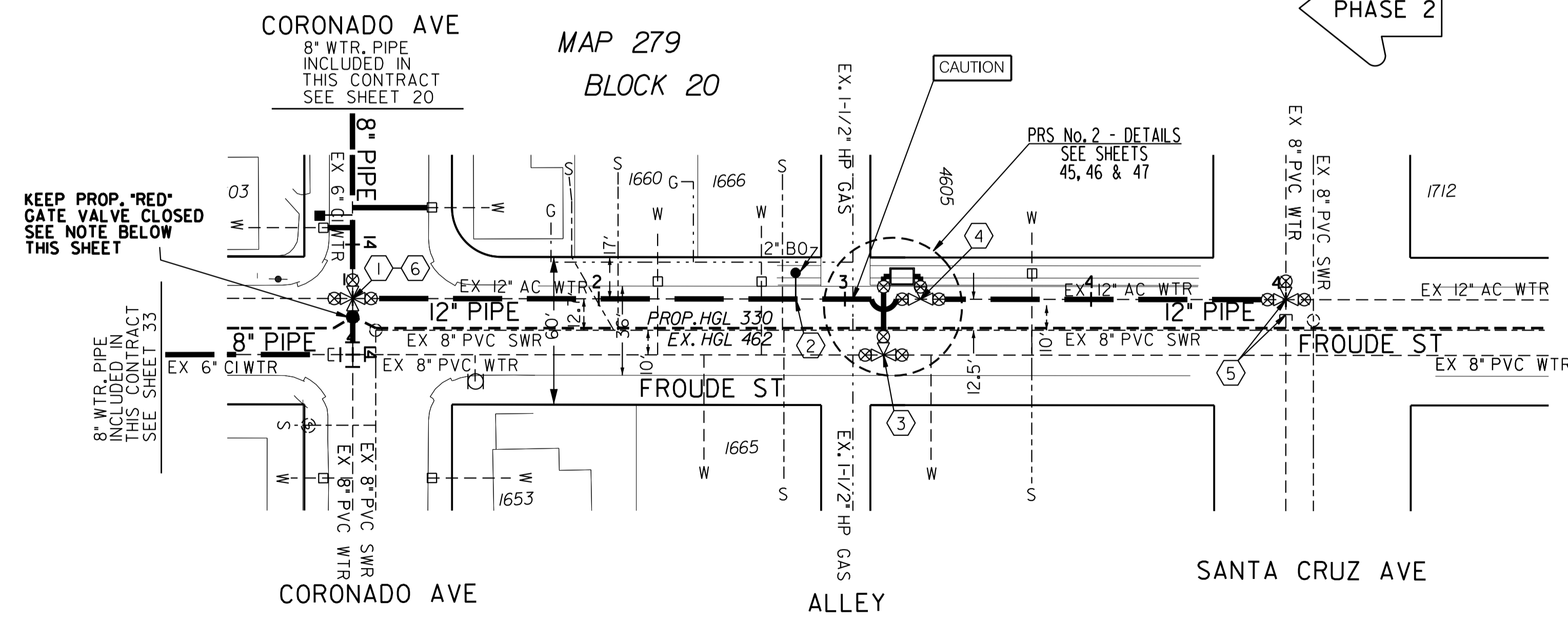
BY CONTRACTOR
AFTER PRS HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE LT

④ (278)
BY CONTRACTOR
FURNISH & INSTALL
STA. 3+30.71
1-12"x8" TEE (F)
2-12" GATE VALVE (F, MJ) AHD, BK
1-8" GATE VALVE (F, MJ) LT
CLOSE 12" VALVE AHD
AFTER 12" PVC WTR MAIN BK
HAS BEEN ACCEPTED
RECONNECT TO EX. 12" AC WTR AHD
AND OPEN 12" VALVE AHD

⑥ (275)
BY CITY FORCES
AFTER CONTRACTOR - PHASE 2
STA. 1+00 FROUDE ST =
STA. 14+21.91 CORONADO AVE
AFTER NEW MAIN HAS BEEN ACCEPTED
CLOSE PROP. "RED" GATE VALVE RT

REFERENCE:
WATER: 27762-200, 12119-7D
29105-25D, 31331-14D
GAS: 32-119, 32-120
ELECTRIC: 208-1692C
TELEPHONE: te050lcc.dgn,
te0503aa.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7
HGL: CATALINA (462)
HGL: POINT LOMA (260)

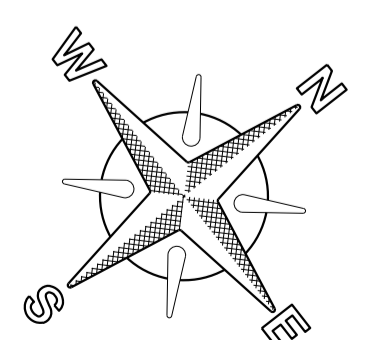
RETIREMENTS:
12" - AC - 379.14' - 1982



KEEP PROP. "RED"
GATE VALVE CLOSED
SEE NOTE BELOW
THIS SHEET

CONSTRUCTION NOTE:
NEW PRESSURE REDUCING STATION (PRS) WITH
PRECAST CONCRETE VAULT PER SEPARATE BID ITEM,
SEE PRS DETAILS, SHEETS 45, 46 & 47

NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE
BEFORE RECONNECTIONS AND AFTER NEW 8" PRS
AND NEW 12" WATER MAIN HAS BEEN ACCEPTED



SCALE 1" = 40'



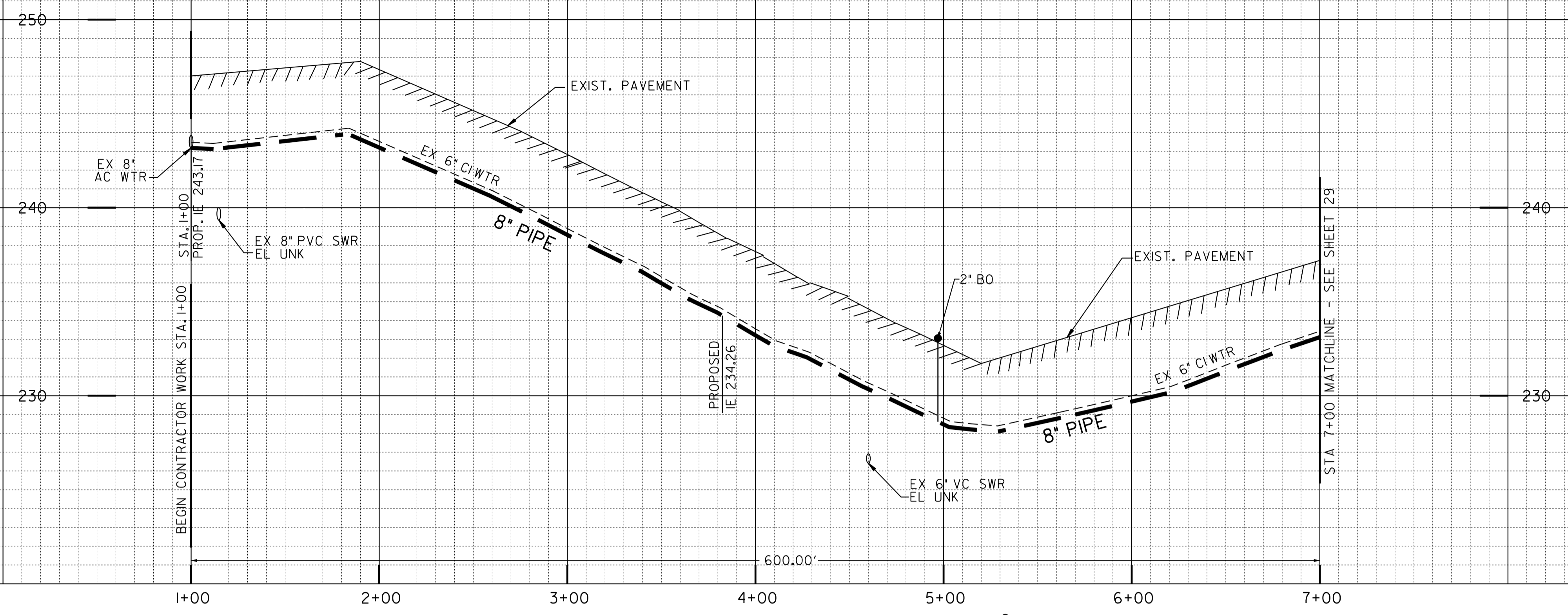
C-26

WATER GROUP 914
FROUDE STREET
CORONADO AVENUE TO STA. 4+79.14

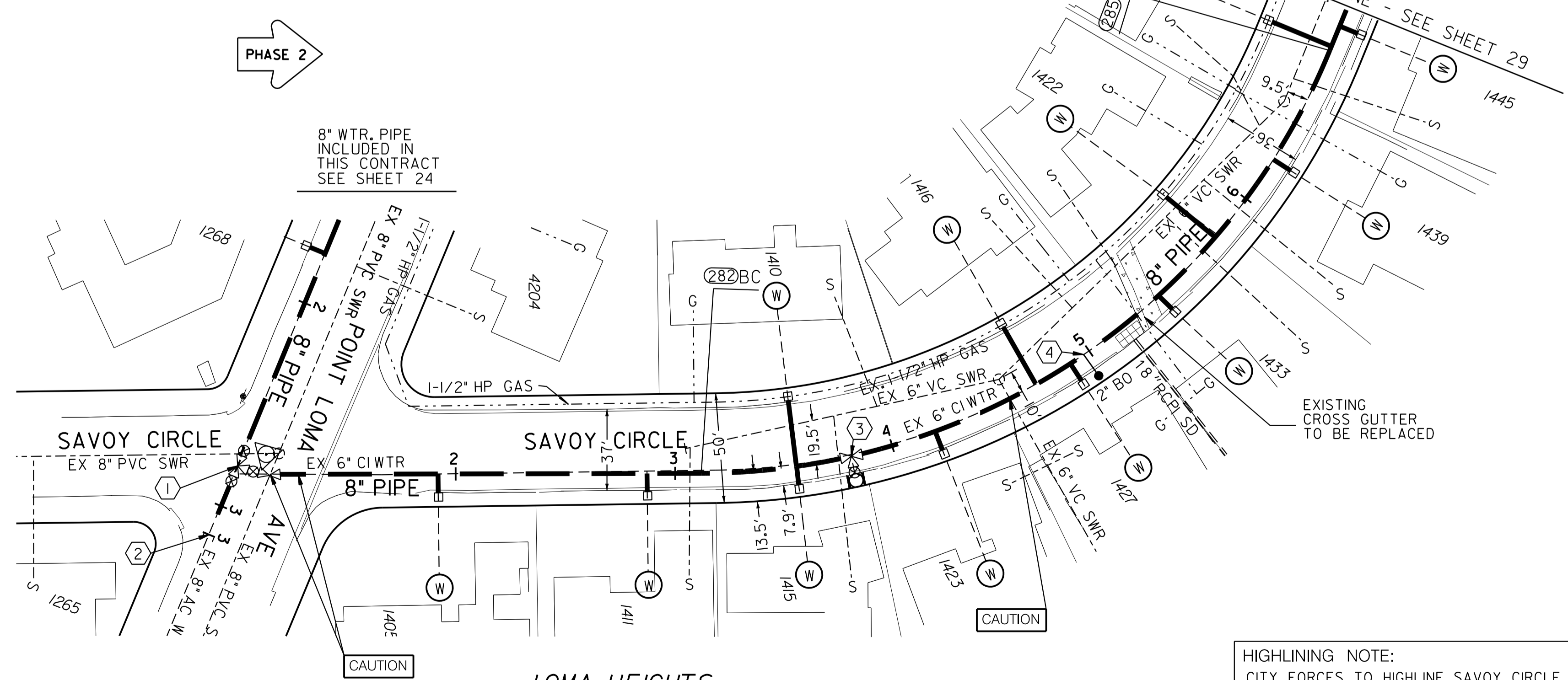
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 27 OF 53 SHEETS		WATER WBS B-00125	
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/27/12
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	FH		
SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER		CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER	
		206-1689 CCS27 COORDINATE	
		6250407-1846444 CCS83 COORDINATE	
CONTRACTOR	DATE STARTED	36124-27-D	
INSPECTOR	DATE COMPLETED		

FROUDE STREET

SAVOY CIRCLE



SCALE
1"=40' HORIZ.
1"=4' VERT.



LOMA HEIGHTS
MAP 770
BLOCK 97

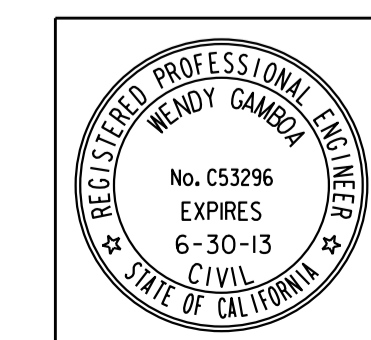
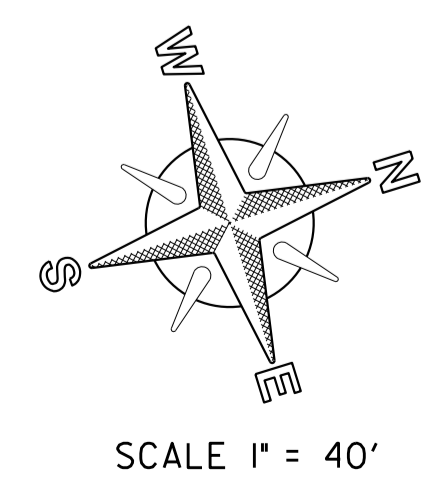
HIGHLINING NOTE:
CITY FORCES TO HIGHLINE SAVOY CIRCLE
FROM STA. 1+00 TO STA. 7+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.

- ① (273)
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+00 SAVOY CIRCLE = STA. 2+80.26
POINT LOMA AVE SHT 23
1-8"x8" TEE (F,F,MJ)
SEE NOTE ⑩, SHT 24
- ②
BY CITY FORCES
AHD OF CONTRACTOR-PHASE 2
STA. 1+00 20' RT
SEE NOTE ⑪, SHT 24
- ③
BY CONTRACTOR
FURNISH & INSTALL
STA. 3+80.82
1-8"x6" TEE (M,J,M,F)
1-6" FH ASSY & MARKER
- ④ (284)
BY CONTRACTOR
FURNISH & INSTALL
STA. 4+97.00
1-2" BLOWOFF ASSY
TYPE 'A'

REFERENCE:
WATER: 6668-L
STORM DRAIN: 6666-L
GAS: 32-218A, 32-218B, 32-218C
ELECTRIC: te0505bc.dgn, te0505ba.dgn
TELEPHONE:

IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1287-JI / 1288-AI
HGL: CATALINA (462)

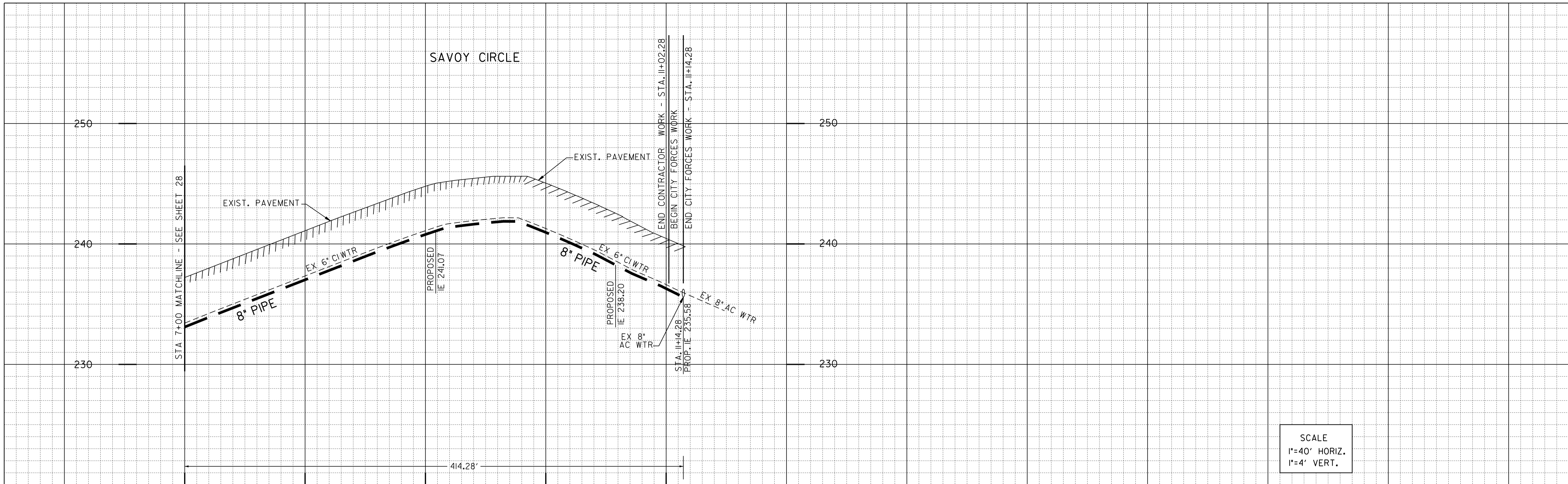
RETIREMENTS:
6" - CI - 600.08' - 1946
FH (2-PORT) - 1
1" SERVICE - 12 - CU



WATER GROUP 914 SAVOY CIRCLE POINT LOMA AVE TO STA 7+00				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 28 OF 53 SHEETS				WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				6250407-1846444 CCS83 COORDINATE 36124-28-D

C-27

SAVOY CIRCLE



SCALE
1"=40' HORIZ.
1"=4' VERT.

① 288
BY CONTRACTOR
FURNISH & INSTALL
STA. 8+85.12
1-8"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER

② 289
BY CONTRACTOR
FURNISH & INSTALL
STA. 9+17.73
1-8" 11.25' BEND (MJ)

③ 290
BY CONTRACTOR
FURNISH & INSTALL
STA. 9+83.20
1-8" 11.25' BEND (MJ)

④ 297
BY CONTRACTOR
FURNISH & INSTALL
STA. 10+56.22
1-8" 22.5' BEND (MJ)

⑤ 304
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN TEE - PHASE 2

STA. 11+14.28
1-8"x8" TEE (F)
3-8" GATE VALVES (F, MJ) AHD, BK, LT
RECONNECT TO EX. 8" AC WTR AHD, LT
CLOSE 8" VALVE AND BLIND FLANGE BK

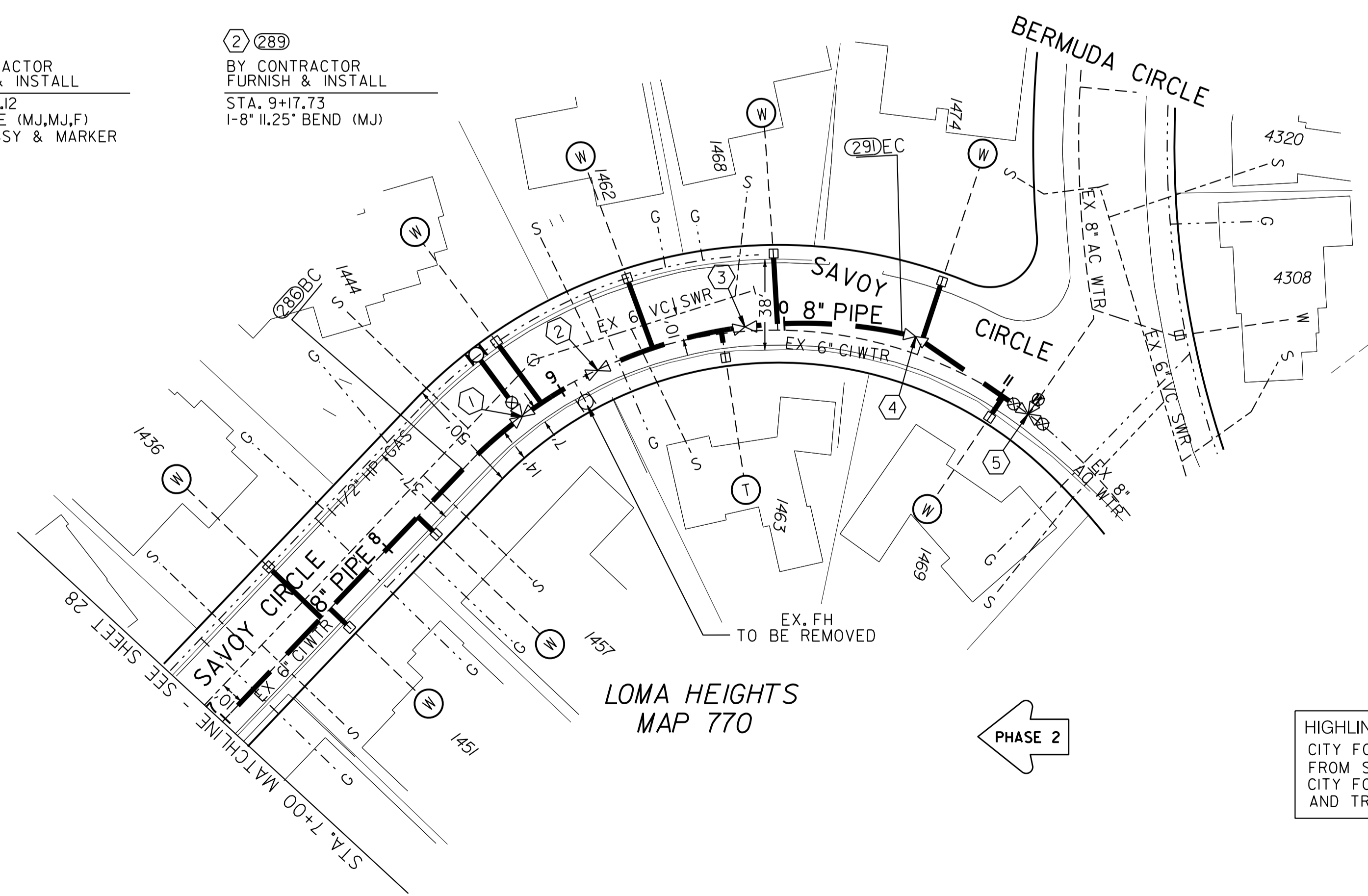
AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 8" VALVE BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE BK

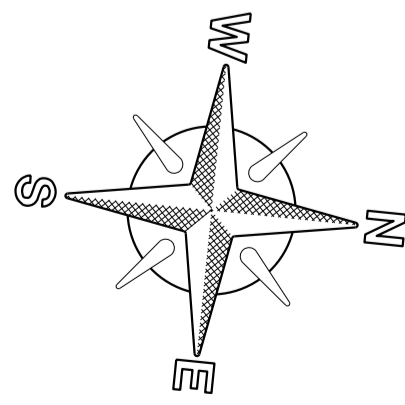
REFERENCE:
WATER: 6668-L
GAS: 32-218A, 32-218B, 32-218C
ELECTRIC: te0503cd.dgn, te0505ab.dgn
TELEPHONE:

IMPROVEMENTS: NONE
FIELD BOOK: B205
100' SCALE: 206-1689
THOMAS BROS.: 1287-JI / 1288-AI
HCL: CATALINA (462)

RETIREMENTS:
6" - CI - 412.63' - 1946
FH (2-PORT) - 1
1" SERVICE - 8 - CU



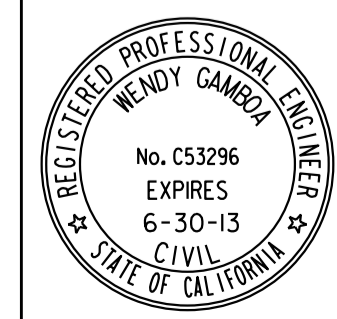
HIGHLING NOTE:
CITY FORCES TO HIGHLINE SAVOY CIRCLE
FROM STA. 7+00 TO STA. 11+14.28
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 43 FOR PHASING.



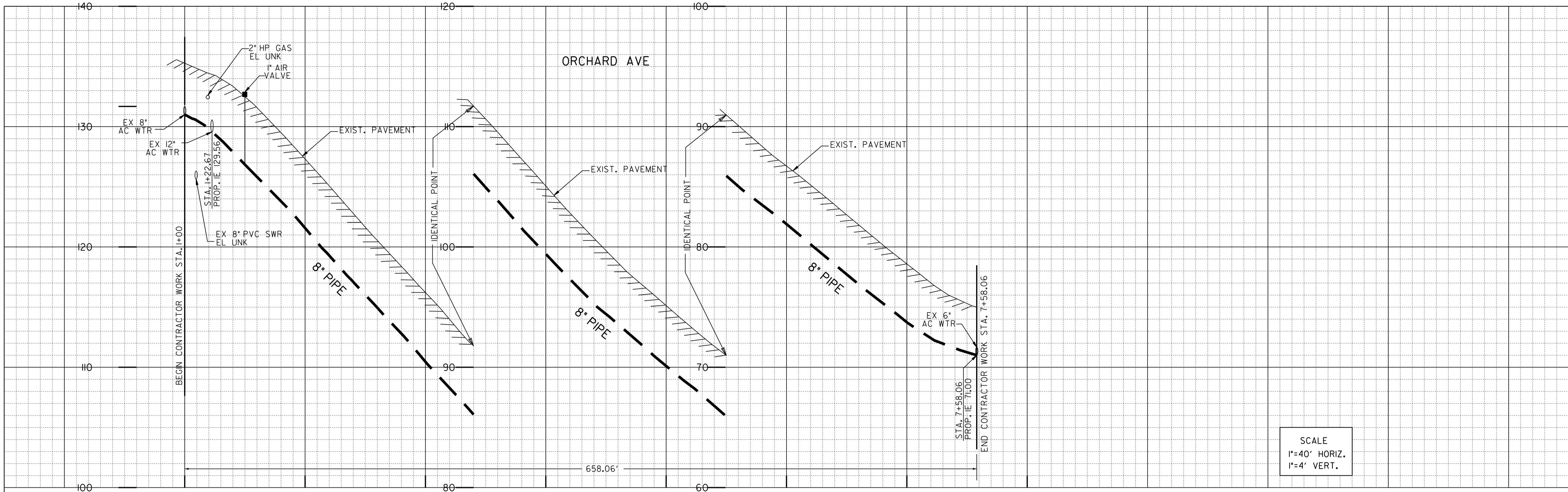
SCALE 1" = 40'

C-28

WATER GROUP 914 SAVOY CIRCLE STA 7+00 TO BERMUDA CIRCLE				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 29 OF 53 SHEETS				WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12			SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				6250407-184644 CCS83 COORDINATE
INSPECTOR		DATE STARTED	DATE COMPLETED	
			36124-29-D	



SAVOY CIRCLE



SCALE
1"=40' HORIZ.
1"=4' VERT.

① ①
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+00
1-8"x8" TEE (F,MJ,MJ)
1-8" GATE VALVE (F,MJ) RT



② ②
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+22.67
1-8"x12" TEE (F)
1-8" "RED" GATE VALVE (F,MJ) BK
1-8" GATE VALVE (F,MJ) AHD
1-12" GATE VALVE (F,MJ) RT

③
BY CITY FORCES
AHD OF CONTRACTOR - PHASE I
STA. 1+00 10' LT
TEMP. CUT & PLUG EX. 8" AC WTR
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED

④ ③
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+50
1-1" AIR & VACUUM VALVE
ASSEMBLY

NOTE:
CONTRACTOR SHALL
CONNECT TO EXISTING
SERVICE @ BEHIND CURB



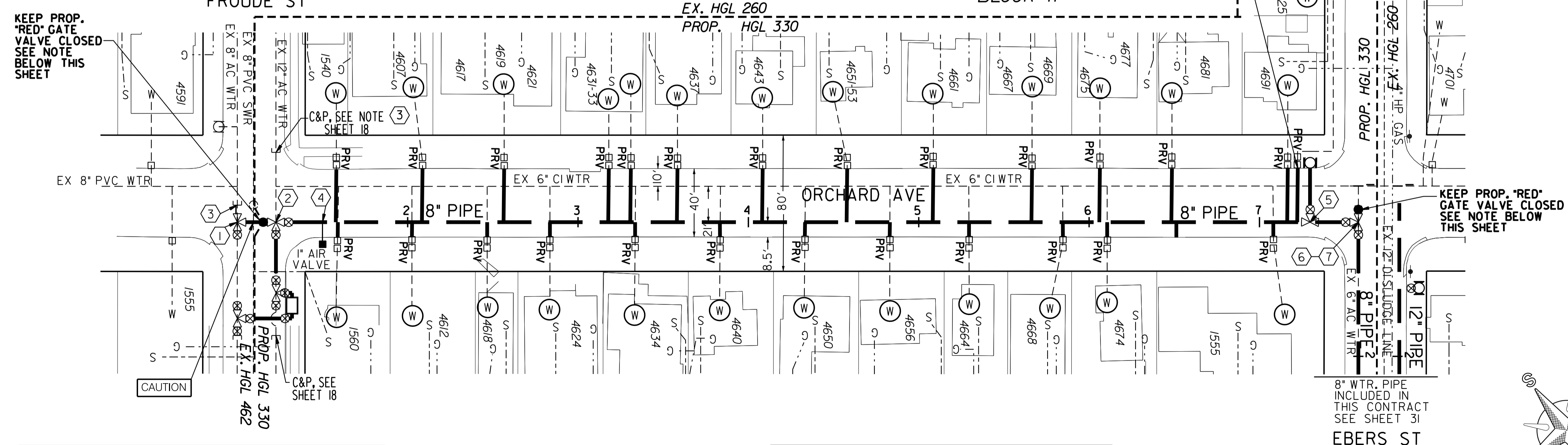
⑤ ④
BY CONTRACTOR
FURNISH & INSTALL
STA. 7+29.64
1-8"x6" TEE (MJ,MJ,F)
1-6" FH ASSY & MARKER

⑥ ⑤
BY CONTRACTOR
FURNISH & INSTALL
STA. 7+58.06
1-8"x8" TEE (F)
2-8" GATE VALVES (F,MJ) BK, RT
1-8" "RED" GATE VALVE (F,MJ) LT

⑦ ⑤
BY CITY FORCES
AFTER CONTRACTOR - PHASE I
STA. 7+58.06
AFTER NEW MAIN HAS BEEN ACCEPTED
CLOSE PROP. "RED" GATE VALVE LT

REFERENCE:
WATER: 28475-28D
GAS: 32-80, 32-81
ELECTRIC: 208-1692C
TELEPHONE: te0703ba.dgn, te0703bb.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1267-J7
HGL: POINT LOMA (260)

RETIREMENTS:
FH (2-PORT) - 1
1" SERVICE - 26 - CU



KEEP PROP. "RED" GATE VALVE CLOSED SEE NOTE BELOW THIS SHEET

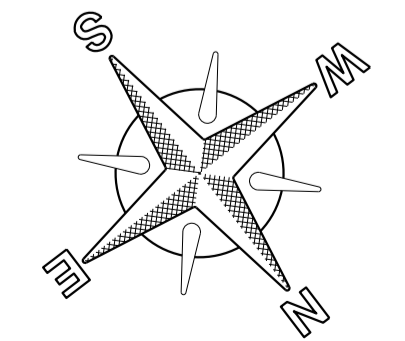
KEEP PROP. "RED" GATE VALVE CLOSED SEE NOTE BELOW THIS SHEET

NOTE:
PROP. PARALLEL 12" WATER PIPE (NOT SHOWN HERE) ON ORCHARD AVE, INCLUDED IN THIS CONTRACT, SEE SHEET 18

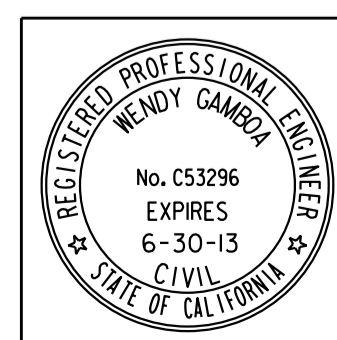
CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES

HIGHLIGHTING NOTE:
CITY FORCES TO HIGHLIGHT ORCHARD AVE FROM STA. 1+00 TO STA. 7+58.06
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.

NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE BEFORE RECONNECTIONS AND AFTER NEW MAIN HAS BEEN ACCEPTED



SCALE 1" = 40'

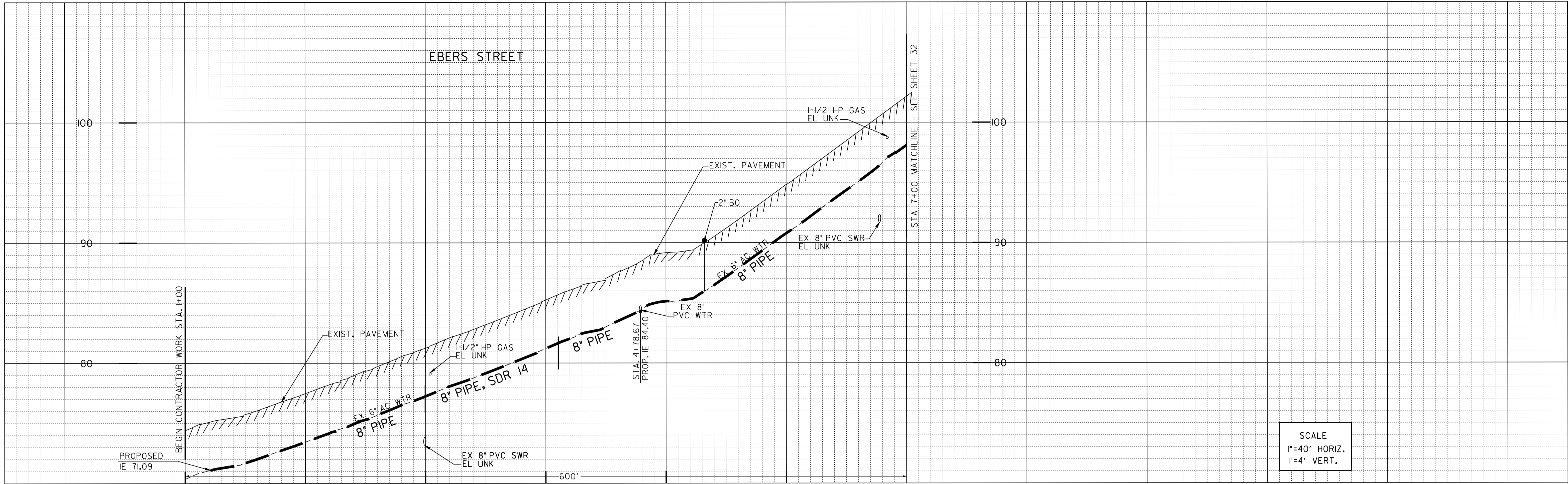


C-29

WATER GROUP 914
ORCHARD AVE
STA 1+00 TO EBERS STREET

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 30 OF 53 SHEETS		WATER WBS B-00125	
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/27/12
SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER		CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	FH		
206-1689 CCS27 COORDINATE		6250407-1846444 CCS83 COORDINATE	
CONTRACTOR	DATE STARTED	36124-30-D	
INSPECTOR	DATE COMPLETED		

ORCHARD AVE



SCALE
1"=40' HORIZ.
1"=4' VERT.

REFERENCE:
WATER: 20723-12D, 19858-6D, 27762-19D
GAS: 32-81,
ELECTRIC: 208-1692C
TELEPHONE: te070ldc.dgn, te070lidd.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1287-JI / 1288-AI
HGL: POINT LOMA (260)

RETIREMENTS:
6" - AC - 600' - 1982
1" SERVICE - 5 - CU



KEEP PROP. "RED" GATE VALVE CLOSED SEE NOTE ABOVE THIS SHEET

MAP 279
BLOCK 39

① ⑤
BY CONTRACTOR FURNISH & INSTALL
STA. 1+21.24 EBERS ST = STA. 7+58.06 ORCHARD AVE, SHT 30
1-8"x8" TEE INSTALLED PER NOTE ⑥ SHT 30

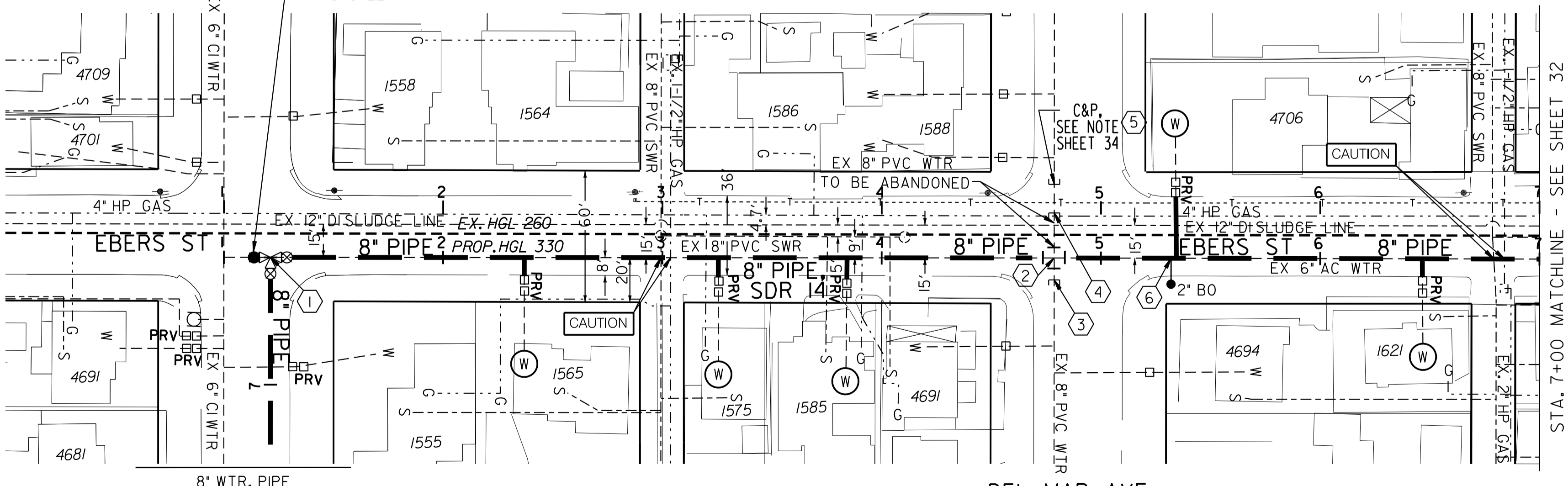
②
BY CONTRACTOR INSTALL - PHASE I
STA. 4+78.67
PERM. CLOSE AND BLIND FLANGE EX. 8" GATE VALVE LT
CLOSE EX. 8" GATE VALVES AND BLIND FLANGE AHD, BK

③
BY CITY FORCES AHD OF CONTRACTOR-PHASE I
STA. 4+78.67 10' RT
TEMP. CUT & PLUG EX. 8" PVC WTR
STA. 4+78.67
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED AND OPEN EX. 8" GATE VALVES AHD, BK

④
BY CONTRACTOR INSTALL - PHASE I
STA. 4+78.67 20.55' LT
PERM. CUT & PLUG EX. 8" PVC WTR

⑤
BY CITY FORCES AHD OF CONTRACTOR-PHASE I
STA. 4+78.67, 33.55' LT
PER NOTE ⑤ SHEET 34

⑥ ②②⑤
BY CONTRACTOR FURNISH & INSTALL
STA. 5+32.00
1-2" BLOWOFF ASSY TYPE "A"

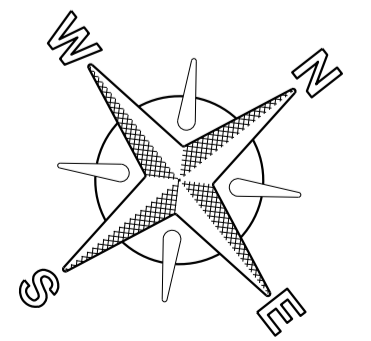


8" WTR. PIPE INCLUDED IN THIS CONTRACT SEE SHEET 30
ORCHARD AVE

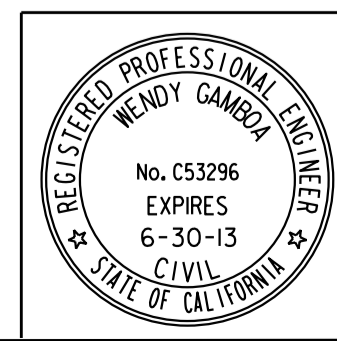
NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE BEFORE RECONNECTIONS AND AFTER NEW MAIN HAS BEEN ACCEPTED

NOTE:
PROP. PARALLEL 12" WATER PIPE (NOT SHOWN HERE) INCLUDED IN THIS CONTRACT, SEE SHEET 34

HIGHLINING NOTE:
CITY FORCES TO HIGHLIGHT EBERS STREET FROM STA. 1+00 TO STA. 7+00
CITY FORCES TO FURNISH HIGHLINE MATERIALS AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.



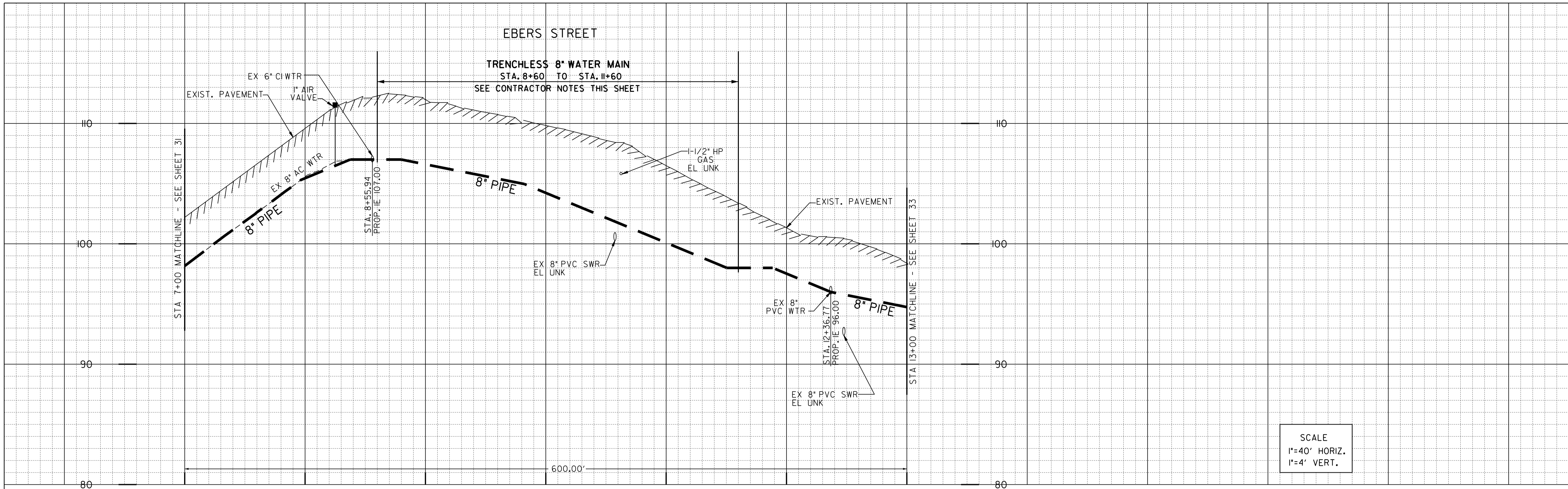
SCALE 1" = 40'



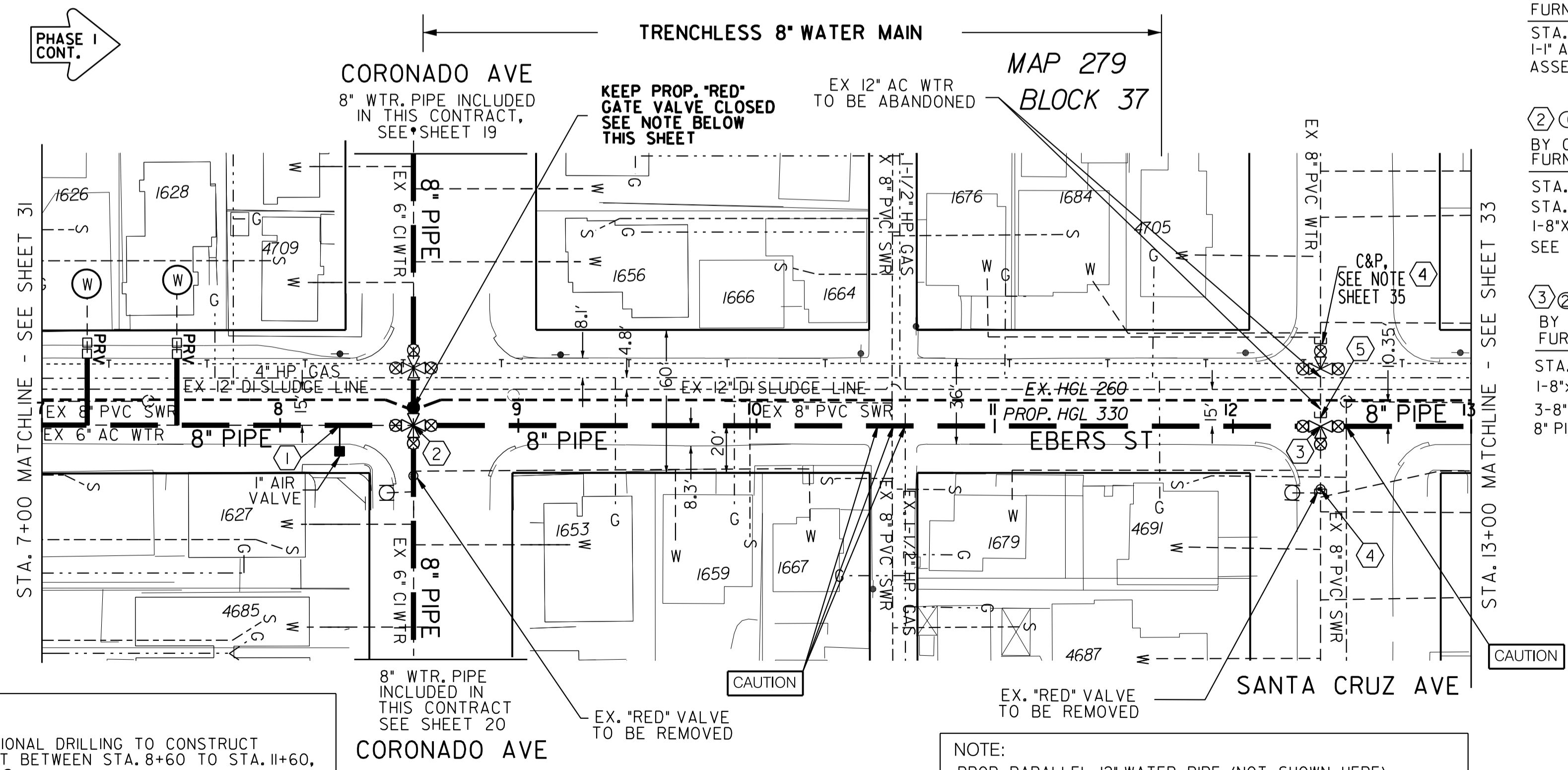
WATER GROUP 914 EBERS STREET ORCHARD AVE TO 7+00		CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 31 OF 53 SHEETS		WATER WBS B-00125
APPROVED:	<i>[Signature]</i>	DATE	2/27/12	SUBMITTED BY: MICHAEL NINH, ASSOCIATE ENGINEER
FOR CITY ENGINEER				CHECKED BY: ROBERTO VEJAR-PARRA, PROJECT ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
				206-1689 CCS27 COORDINATE
				6250407-1846444 CCS83 COORDINATE
CONTRACTOR	INSPECTOR	DATE STARTED	DATE COMPLETED	36124-31-D

C-30

EBERS STREET



SCALE
1"=40' HORIZ.
1"=4' VERT.



CONTRACTOR'S NOTE:

- CONTRACTOR SHALL USE DIRECTIONAL DRILLING TO CONSTRUCT 8" WATER MAIN IN EBERS STREET BETWEEN STA. 8+60 TO STA. 11+60. SEE SPECIFICATIONS FOR DETAILS.
- CONTRACTOR SHALL MAINTAIN A MINIMUM 4' OF COVER OVER TOP OF PIPE BETWEEN STA. 8+60 TO STA. 11+60
- THE TRENCHLESS PITS SHALL NOT BE LOCATED WITHIN STA. 8+60 TO STA. 11+60

NOTE:
PROP. PARALLEL 12" WATER PIPE (NOT SHOWN HERE) INCLUDED IN THIS CONTRACT, SEE SHEET 35

NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE BEFORE RECONNECTIONS AND AFTER NEW MAIN HAS BEEN ACCEPTED

- ① 207
BY CONTRACTOR FURNISH & INSTALL
STA. 8+25.00
1-1" AIR & VACUUM VALVE ASSEMBLY
- ② 66
BY CONTRACTOR FURNISH & INSTALL
STA. 8+55.94 EBERS ST = STA. 7+86.64 CORONADO AVE, SHT 19
1-8"x8" CROSS (F)
SEE NOTE ⑤ SHT 19
- ③ 208
BY CONTRACTOR FURNISH & INSTALL
STA. 12+36.77
1-8"x8" TEE (F)
3-8" GATE VALVES (F,M,J), BK, AHD, RT
8" PIPE 7' RT

- ④
BY CITY FORCES
AHD OF CONTRACTOR-PHASE I
STA. 12+36.76, 26.35' RT
TEMP. CUT & PLUG EX. 8" PVC WTR
AND REMOVE EX. "RED" GATE VALVE
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED
- ⑤
BY CONTRACTOR
INSTALL - PHASE I
STA. 12+36.76 10' LT
PERM. CUT & PLUG EX. 8" PVC WTR

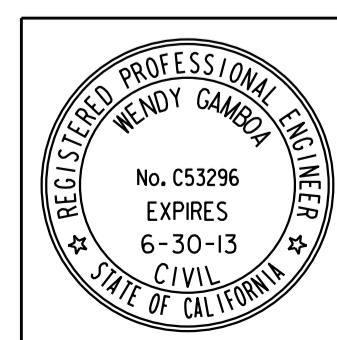
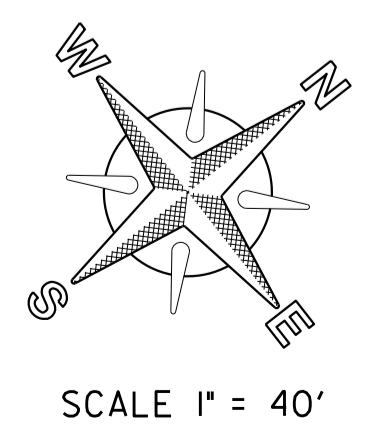
REFERENCE:

WATER: 20723-12D, 19858-6D
GAS: 32-218A, 32-218B, 32-218C
ELECTRIC: 210-1692A
TELEPHONE: +e070ldb.dgn, +e050lca.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1287-J1 / 1288-A1
HGL: POINT LOMA (260)

RETIREMENTS:

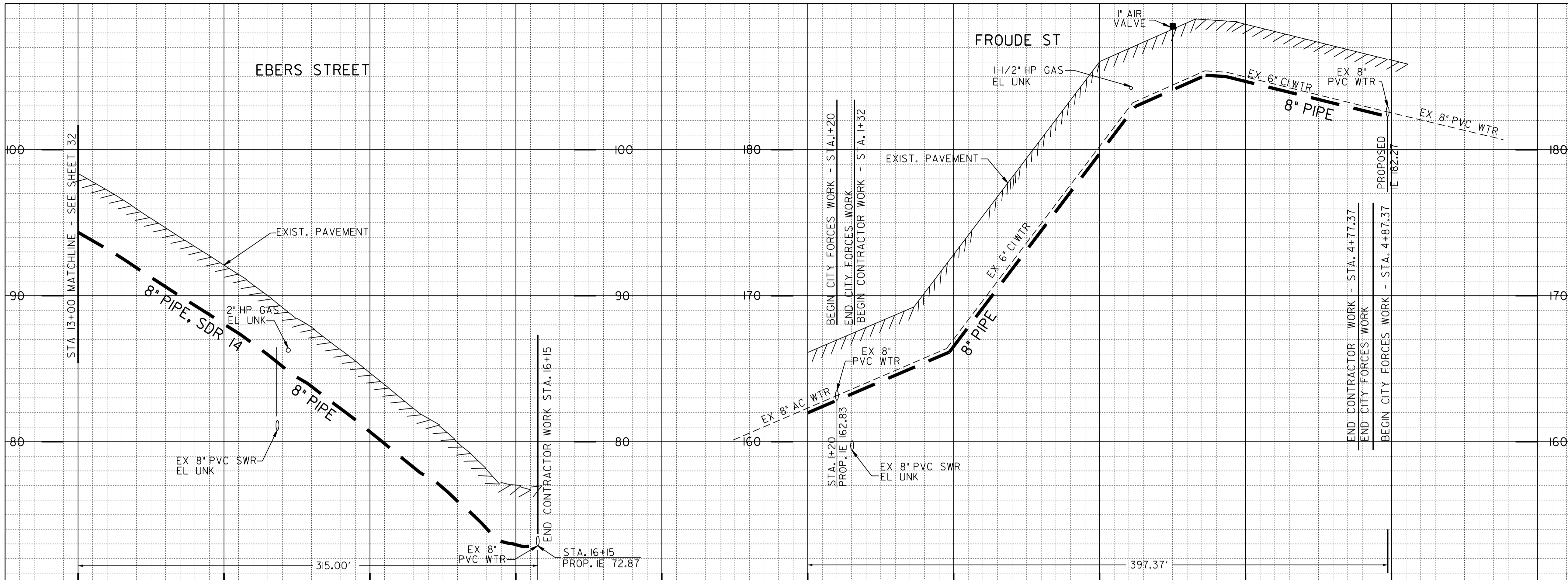
6" - AC - 155.97' - 1982
1" SERVICE - 2 - CU



WATER GROUP 914 EBERS STREET STA 7+00 TO SANTA CRUZ AVE				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 32 OF 53 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
CHECKED BY ROBERTO VEJAR-PARRÁ PROJECT ENGINEER				206-1689 CCS27 COORDINATE
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				6250407-184644 CCS83 COORDINATE 36124-32-D

C-31

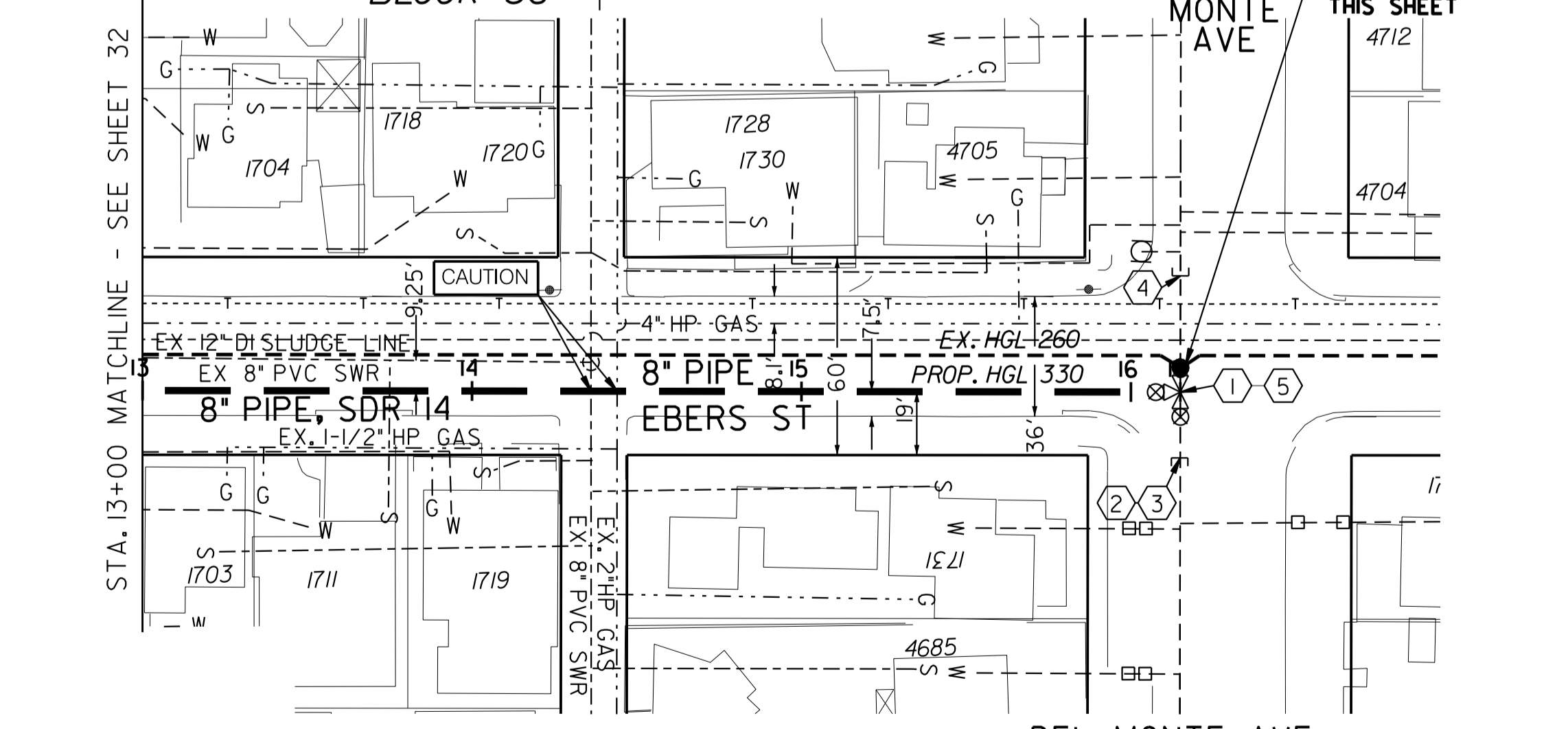
EBERS STREET



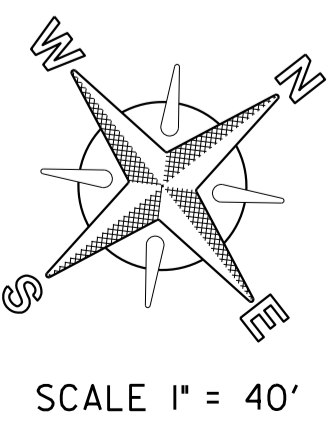
- ⑥ 100
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN TEE - PHASE 3
STA. 1+20
1-8"x8" TEE (F)
3-8" GATE VALVES (F, M, J), BK, AHD, RT
RECONNECT TO EX. 8" AC WTR. BK
AND TO EX. 8" PVC WTR. RT
CLOSE 8" VALVE AND BLIND FLANGE AHD
AFTER NEW 8" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 8" VALVE AHD
- BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 8" PIPE AHD
- ⑦ 101
BY CONTRACTOR
FURNISH & INSTALL
STA. 3+50
1-1" AIR & VACUUM VALVE
ASSEMBLY
- ⑧ 102
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 3
STA. 4+87.37
TEMP. CUT & PLUG EX. 6" CI WTR
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED

SCALE
1"=40' HORIZ.
1"=4' VERT.

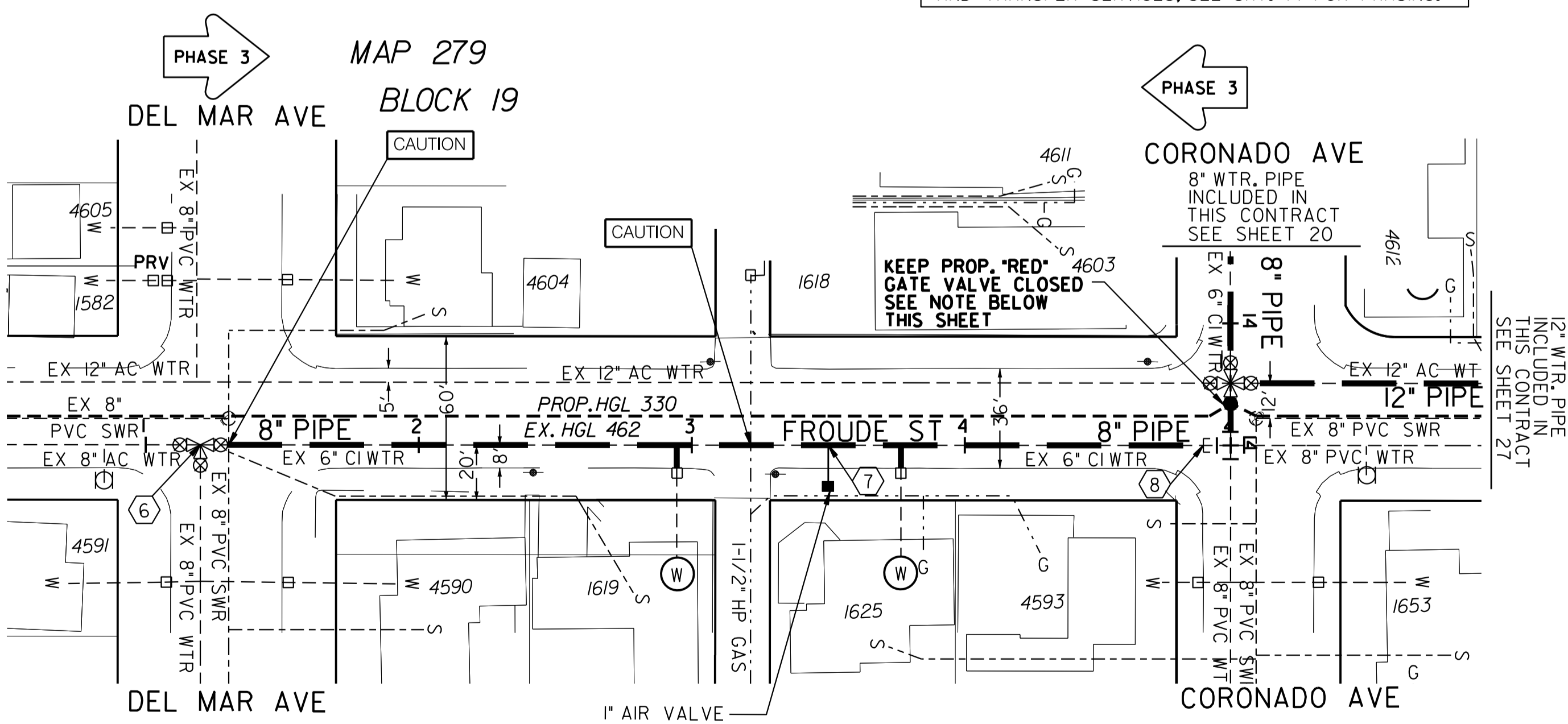
- ① 209
BY CONTRACTOR
FURNISH & INSTALL
STA. 16+15
1-8"x8" TEE (F)
2-8" GATE VALVES (F, M, J) BK, LT
1-8" "RED" GATE VALVE (F, M, J) LT
8" PIPE 25' LT
8" PIPE 10' RT
- ②
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 1
STA. 16+15, 20' RT
TEMP. CUT & PLUG EX. 8" PVC WTR
- ③
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 3
STA. 16+15, 20' RT
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED
- ④
BY CITY FORCES
AHD OF CONTRACTOR - PHASE 1
STA. 16+15, 35' LT
TEMP. CUT & PLUG EX. 8" PVC WTR
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED



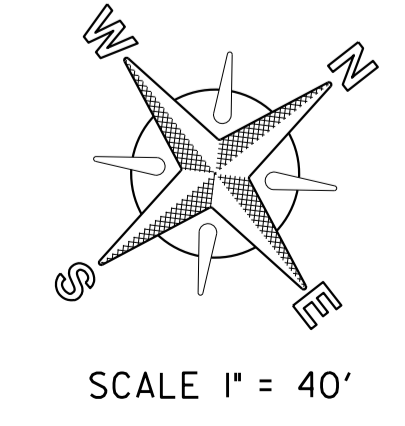
- ⑤ 209
BY CITY FORCES
AFTER CONTRACTOR - PHASE 1
STA. 16+15
AFTER NEW MAIN HAS BEEN ACCEPTED
CLOSE PROP. "RED" GATE VALVE BK
- NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE
BEFORE RECONNECTIONS AND AFTER NEW MAIN
HAS BEEN ACCEPTED
- NOTE:
PROP. PARALLEL 12" WATER PIPE (NOT SHOWN HERE)
INCLUDED IN THIS CONTRACT, SEE SHEET 37



- CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES
- HIGHLIGHTING NOTE:
CITY FORCES TO HIGHLIGHT FROUDE STREET
FROM STA. 1+00 TO STA. 4+87.37
CITY FORCES TO FURNISH HIGHLIGHT MATERIALS
AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.



- NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE
BEFORE RECONNECTIONS AND AFTER NEW MAIN
HAS BEEN ACCEPTED



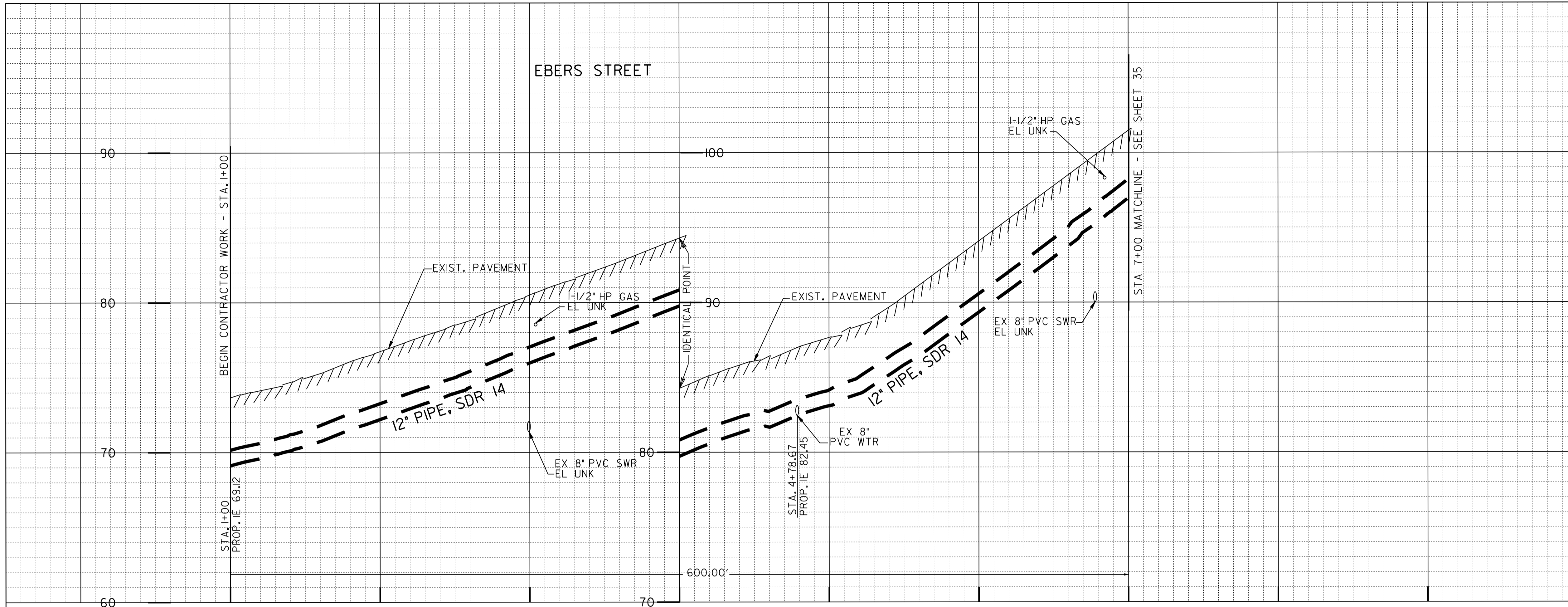
- REFERENCE:
- WATER: 20723-12D, 19858-6D
27762-20D, 12119-7D
31331-15D, 4006-0W
32-84, 32-71
32-119, 32-120
210-1692A
208-1692C
 - GAS: 210-1692A
208-1692C
 - ELECTRIC: 210-1692A
208-1692C
 - TELEPHONE: te050lcc.dgn, te050lca.dgn
te050lcc.dgn, te0503aa.dgn
 - IMPROVEMENTS: NONE
 - FIELD BOOK: B20S
 - 100' SCALE: 206-1689
 - THOMAS BROS.: 1287-J1 / 1288-A1, 1267- J7
 - HGL: POINT LOMA (260)
 - CATALINA (462)
- RETIREMENTS:
- 8" - CI - 412.63' - 1944
 - 6" - CI - 427.37' - 1965
 - 1" SERVICE - 2 - CU

WATER GROUP 914
EBERS STREET
STA 13+00 TO DEL MONTE AVE
FROUDE STREET
DELMAR AVENUE TO CORONADO AVENUE

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 33 OF 53 SHEETS		WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY FH	APPROVED DATE FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER		206-1689 CCS27 COORDINATE
CONTRACTOR		6250407-1846444 CCS83 COORDINATE
INSPECTOR	DATE STARTED	DATE COMPLETED
		36124-33-D

EBERS STREET / FROUDE STREET

C-32

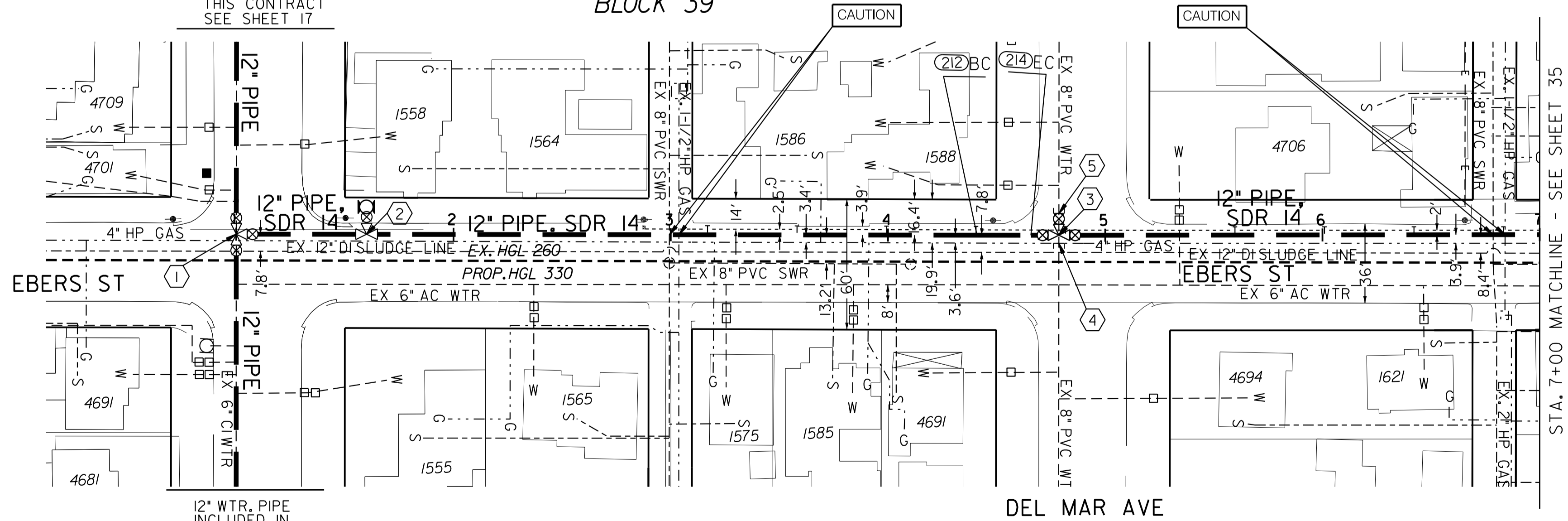


SCALE
1"=40' HORIZ.
1"=4' VERT.



ORCHARD AVE
12" WTR. PIPE
INCLUDED IN
THIS CONTRACT
SEE SHEET 17

MAP 279
BLOCK 39



ORCHARD AVE
12" WTR. PIPE
INCLUDED IN
THIS CONTRACT
SEE SHEET 17

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES

NOTE:
PROP. PARALLEL 8" WATER PIPE (NOT SHOWN HERE)
INCLUDED IN THIS CONTRACT, SEE SHEET 31

CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF ELECTRICAL
FACILITIES AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN
ADVANCE PRIOR TO EXCAVATION. SDG&E RELOCATION
REQUIRED.

① (210)
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+00 EBERS ST= STA. 12+44.17
ORCHARD AVE, SHT 17
1-12"x12" TEE (F)
SEE NOTE ② SHT 17

② (21)
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+60
1-12"x6" TEE (M.J,M,J,F)
1-6" FH ASSY & MARKER

③ (215)
BY CONTRACTOR
FURNISH & INSTALL
STA. 4+78.67
1-12"x 8" TEE (F)
1-8" GATE VALVE (F,M,J), LT
2-12" GATE VALVES (F,M,J), BK, AHD

④
BY CONTRACTOR
INSTALL - PHASE I
PERM. CUT & PLUG EX. 8" PVC WTR
SEE NOTE ⑤ SHT 30

⑤
BY CITY FORCES
AHD OF CONTRACTOR-PHASE I
STA. 4+78.67
TEMP. CUT & PLUG EX. 8" PVC WTR
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED

REFERENCE:

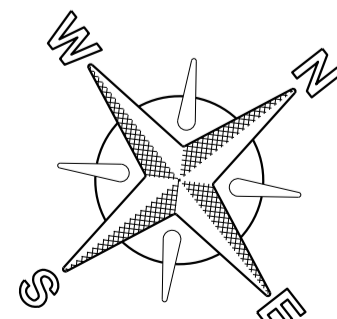
WATER: 20723-I2D , 19858-6D
GAS: 32-81,
ELECTRIC: 208-1692C
TELEPHONE: te070ldc.dgn, te070ldd.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1287-J1 / 1288-A1
HGL: POINT LOMA (260)

RETIREMENTS:

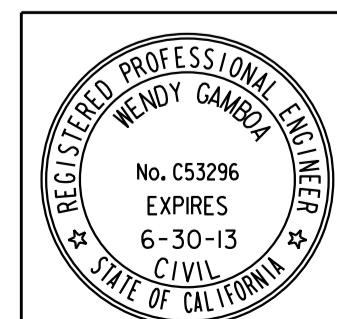
NONE

C-33

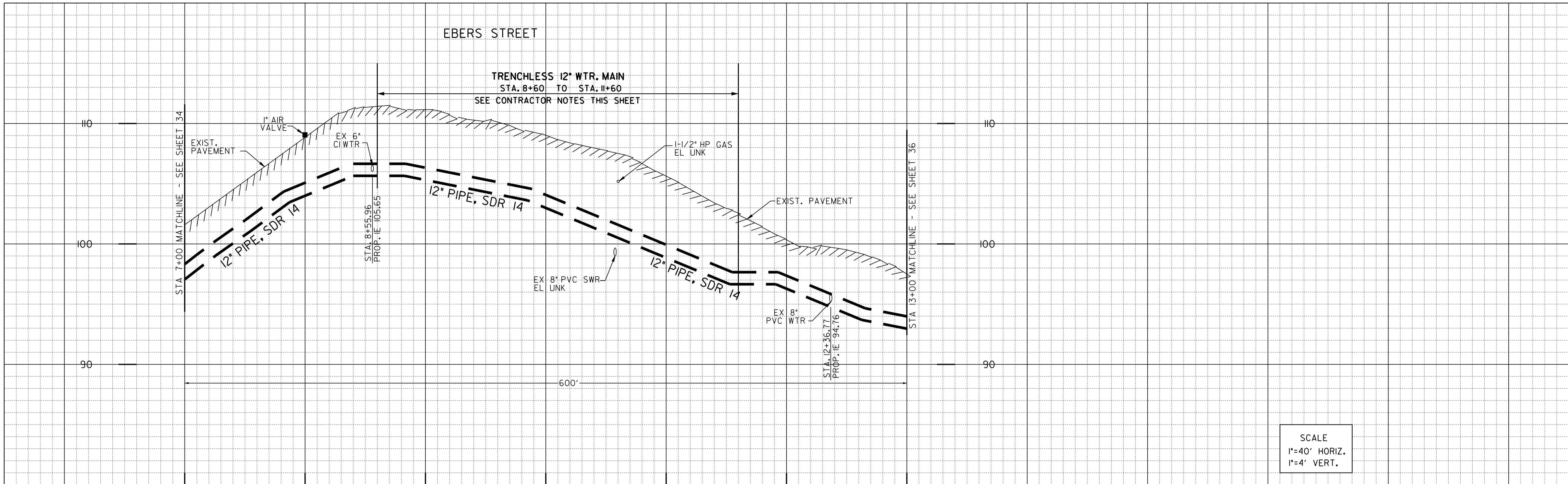
WATER GROUP 914 EBERS STREET ORCHARD AVE TO 7+00			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 34 OF 53 SHEETS			WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	FILED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER			206-1689 CCS27 COORDINATE
CONTRACTOR INSPECTOR			6250407-1846444 CCS83 COORDINATE
DATE STARTED		DATE COMPLETED	
		36124-34-D	



SCALE 1" = 40'

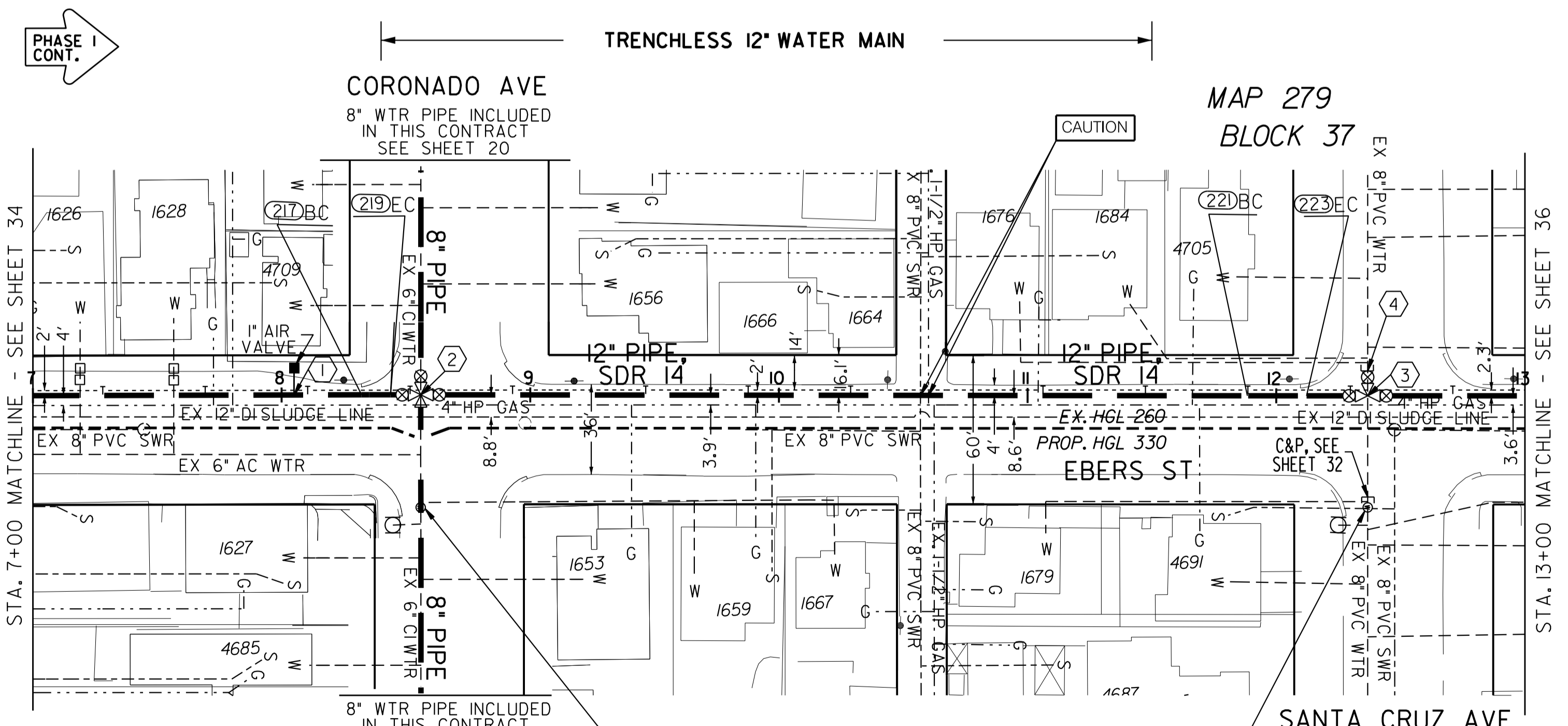


EBERS STREET



SCALE
1"=40' HORIZ.
1"=4' VERT.

7+00 8+00 9+00 10+00 11+00 12+00 13+00



CONTRACTOR'S NOTE:

- CONTRACTOR SHALL USE DIRECTIONAL DRILLING TO CONSTRUCT 12" WATER MAIN IN EBERS STREET BETWEEN STA. 8+60 TO STA. 11+60, SEE SPECIFICATIONS FOR DETAILS.
- CONTRACTOR SHALL MAINTAIN A MINIMUM 4' OF COVER OVER TOP OF PIPE BETWEEN STA. 8+60 TO STA. 11+60
- THE TRENCHLESS PITS SHALL NOT BE LOCATED WITHIN STA. 8+60 TO STA. 11+60

NOTE:
PROP. PARALLEL 8" WATER PIPE (NOT SHOWN HERE) INCLUDED IN THIS CONTRACT, SEE SHEET 32

- ① 216 BY CONTRACTOR FURNISH & INSTALL STA. 8+05 1-1" AIR & VACUUM VALVE ASSEMBLY
- ② 220 BY CONTRACTOR FURNISH & INSTALL STA. 8+55.96 EBERS ST = STA. 7+62.54 CORONADO AVE, SHT 19 1-12"x8" CROSS (F,F,MJ,F) SEE NOTE ④ SHT 19
- ③ 224 BY CONTRACTOR FURNISH & INSTALL STA. 12+36.77 1-12"x 8" TEE (F) 1-8" GATE VALVE (MJ), LT 2-12" GATE VALVES (F,MJ), BK, AHD
- ④ BY CITY FORCES AHD OF CONTRACTOR-PHASE I STA. 12+36.76 10' LT TEMP. CUT & PLUG EX. 8" PVC WTR RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED

CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES

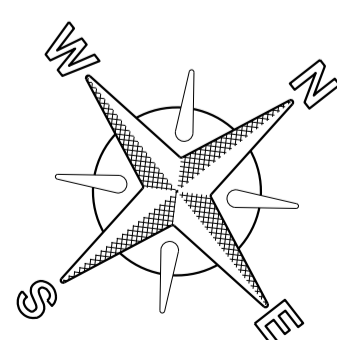
CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF ELECTRICAL FACILITIES AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE PRIOR TO EXCAVATION. SDG&E RELOCATION REQUIRED.

REFERENCE:

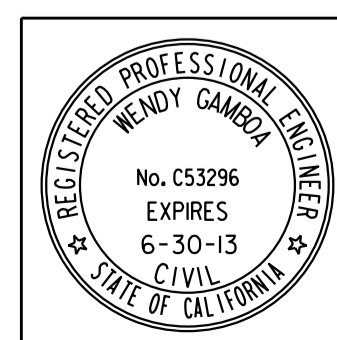
WATER: 20723-12D , 19858-6D
GAS: 32-218A, 32-218B, 32-218C
ELECTRIC: 210-1692A
TELEPHONE: te070ldb.dgn, te050lca.dgn

IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1287-J1 / 1288-A1
HGL: POINT LOMA (260)

RETIREMENTS:
NONE



SCALE 1" = 40'

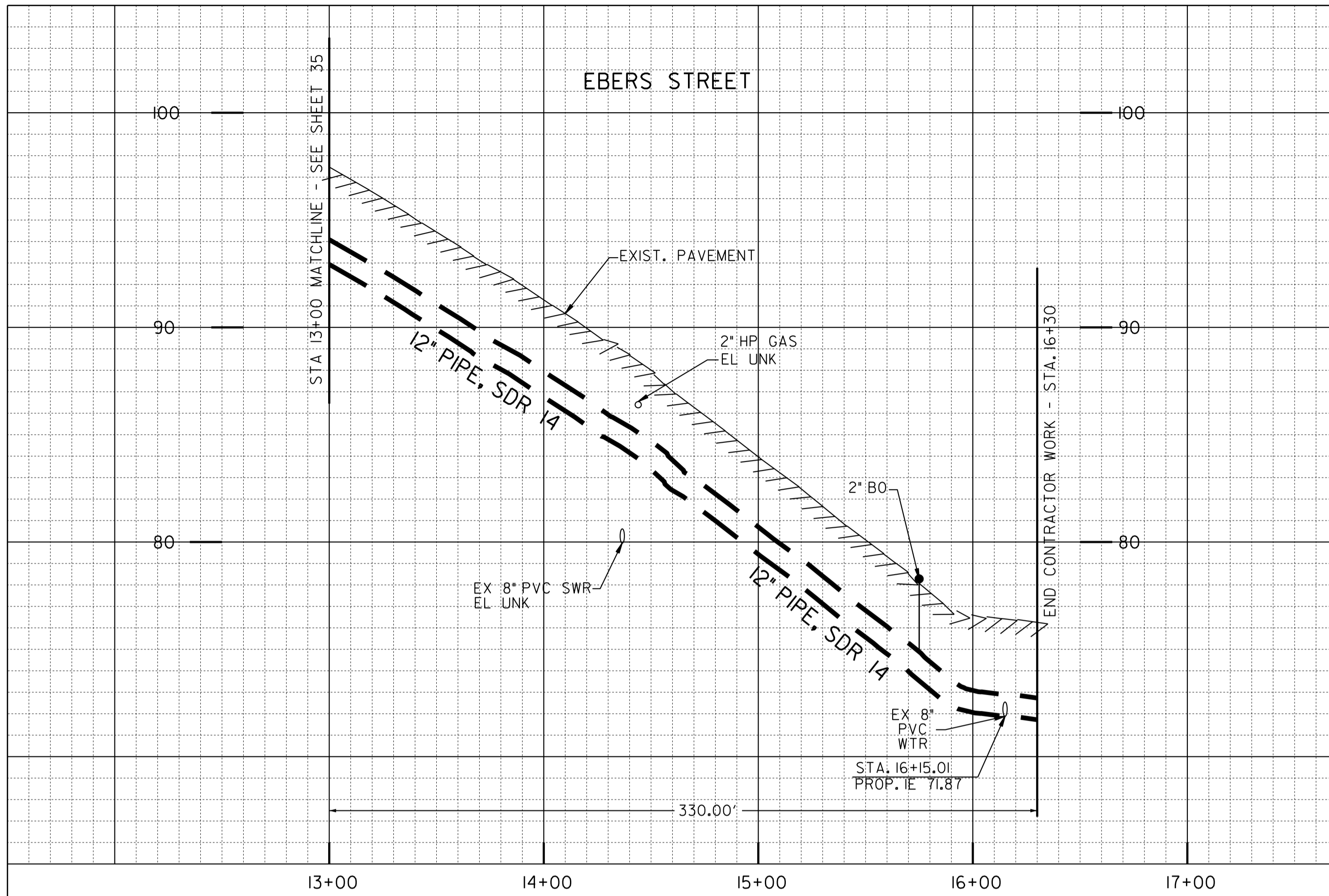


WATER GROUP 914
EBERS STREET
STA 7+00 TO SANTA CRUZ AVE

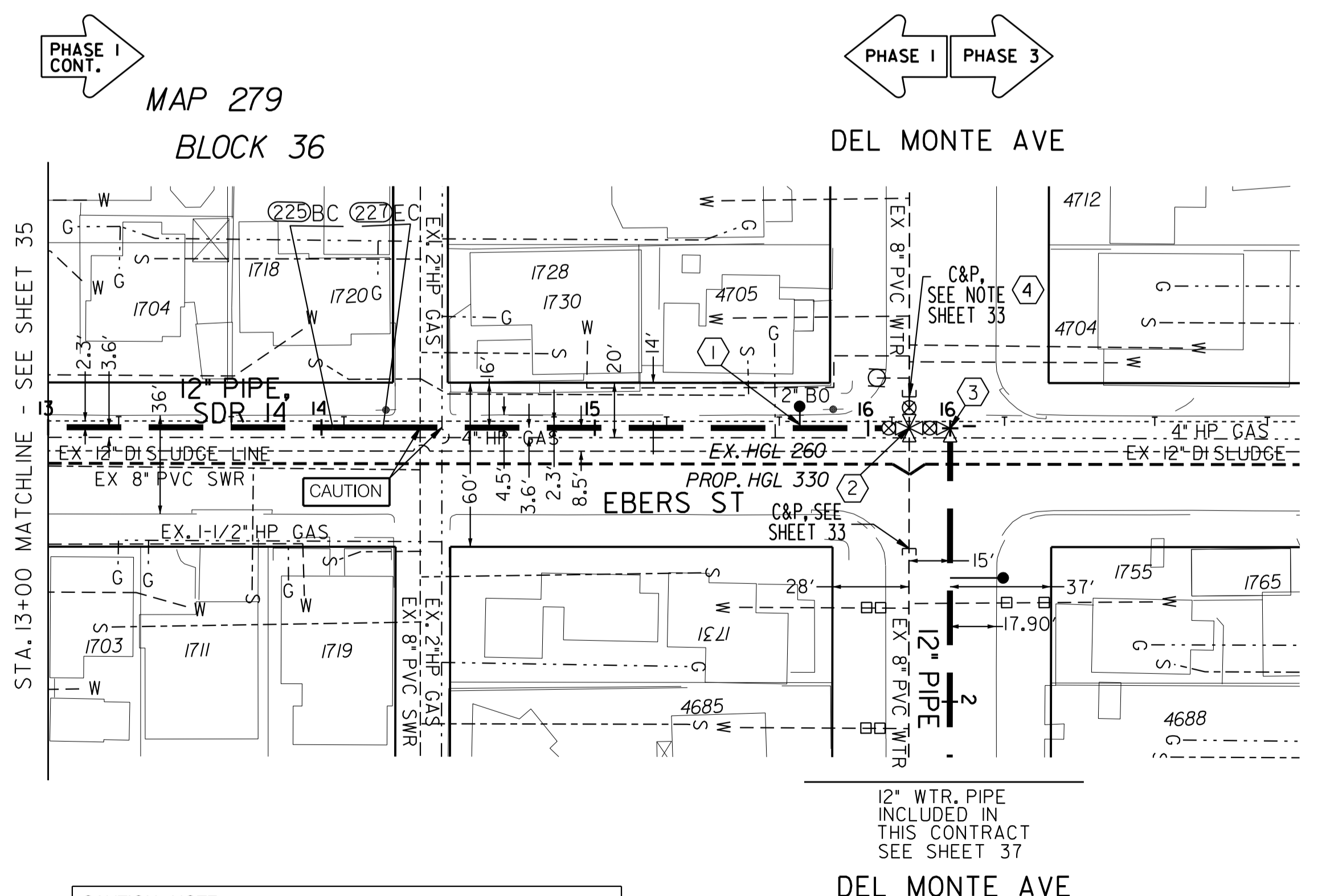
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 35 OF 53 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	DATE	SUBMITTED BY		
<i>[Signature]</i>	2/27/12	MICHAEL NINH ASSOCIATE ENGINEER		
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY				PROJECT ENGINEER
ROBERTO VEJAR-PARRA				206-1689 CCS27 COORDINATE
CONTRACTOR				6250407-1846444 CCS83 COORDINATE
INSPECTOR		DATE STARTED	DATE COMPLETED	
			36124-35-D	

C-34

EBERS STREET



SCALE
1"=40' HORIZ.
1"=4' VERT.



CAUTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW
OVERHEAD UTILITY LINES

① (228)
BY CONTRACTOR
FURNISH & INSTALL
STA. 15+75
1-2" BLOWOFF ASSY
TYPE "A"

② (229)
BY CONTRACTOR
FURNISH & INSTALL
STA. 16+15.01
1-12"X8" CROSS (F)
1-8" GATE VALVE (F, MJ) LT
2-12" GATE VALVE (F, MJ) BK, AHD
CLOSE 12" GATE VALVE AND BLIND FLANGE AHD
8" PIPE, 10' LT
8" PIPE, 10' RT

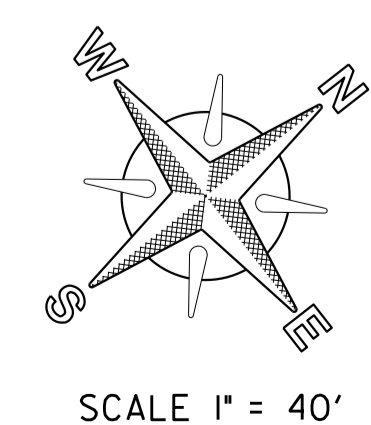
③ (201)
BY CONTRACTOR
FURNISH & INSTALL
STA. 16+30.01
1-12" 90° BEND (MJ)
1-12" BLIND FLANGE RT

CAUTION NOTE:
CONTRACTOR TO VERIFY EXACT LOCATION OF HP GAS
AND MUST NOTIFY SDG&E FIVE (5) WEEKS IN ADVANCE
PRIOR TO EXCAVATION. SDG&E STAND-BY REQUIRED.

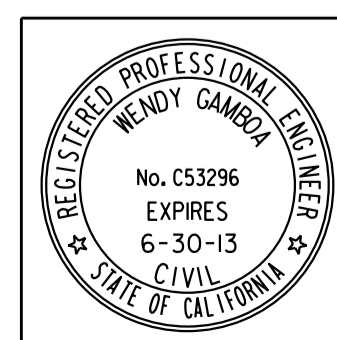
NOTE:
PROP. PARALLEL 8" WATER PIPE (NOT SHOWN HERE)
INCLUDED IN THIS CONTRACT, SEE SHEET 33

REFERENCE:
WATER: 20723-12D , 19858-6D
GAS: 32-84, 32-71
ELECTRIC: 210-1692A
TELEPHONE: te0501ac.dgn, te0501ca.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B20S
100' SCALE: 206-1689
THOMAS BROS.: 1287-J1 / 1288-A1
HGL: POINT LOMA (260)

RETIREMENTS:
NONE



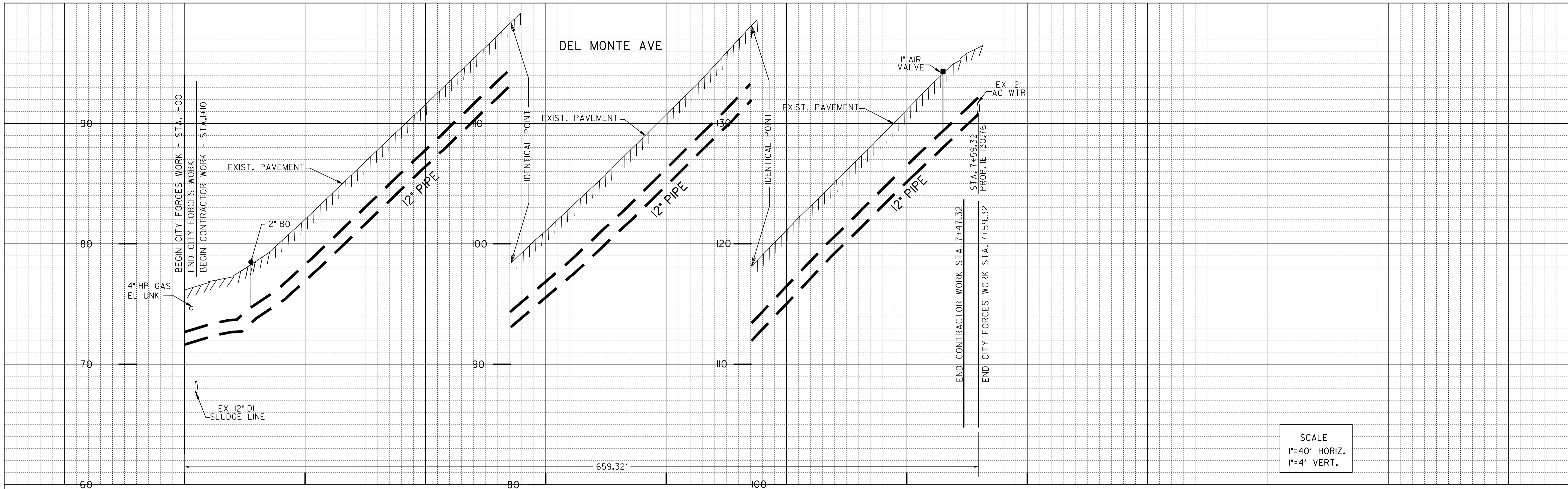
SCALE 1" = 40'



WATER GROUP 914 EBERS STREET STA 13+00 TO DEL MONTE AVE					
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 36 OF 53 SHEETS					WATER WBS B-00125
APPROVED: FOR CITY ENGINEER			DATE 2/27/12		SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED	CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER
					206-1689 CCS27 COORDINATE
					6250407-1846444 CCS83 COORDINATE
CONTRACTOR _____			DATE STARTED _____		36124-36-D
INSPECTOR _____			DATE COMPLETED _____		

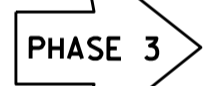
C-35

EBERS STREET



SCALE
1"=40' HORIZ.
1"=4' VERT.

PROP. "RED" GATE VALVE
SEE SHEET 33



NOTE:
CONTRACTOR TO COORDINATE WITH
ENGINEER TO DETERMINE
BEST LOCATION FOR PROPOSED
PRV AT THIS ADDRESS.

① (20)
BY CONTRACTOR
FURNISH & INSTALL - PHASE 1
STA. 1+00 DEL MONTE AVE=
STA. 16+29.05 EBERS STREET, SHT 36
1-12" 90° BEND INSTALLED
PER NOTE ③ SHT 36

②
BY CITY FORCES
AFTER CONTRACTOR - PHASE 3
STA. 1+00
RECONNECT AFTER NEW 12" MAIN
HAS BEEN ACCEPTED,
OPEN 12" VALVE RT

MAP 279
BLOCK 22



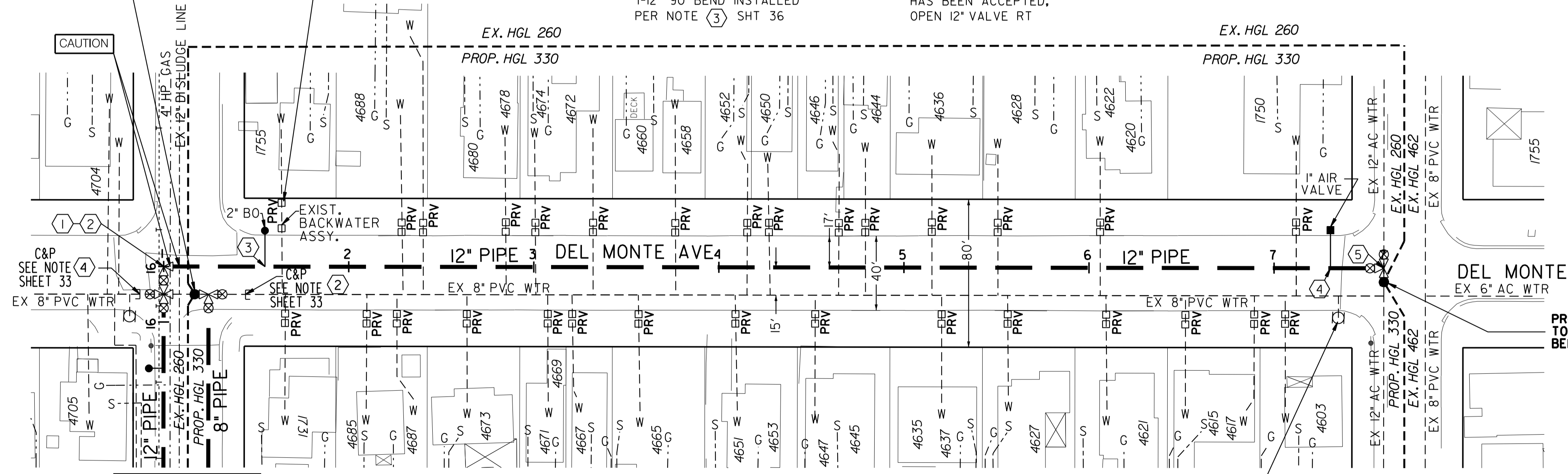
⑤ (204)
BY CITY FORCES
AHD OF CONTRACTOR
INSTALL
CUT-IN TEE - PHASE 3

STA. 7+59.32
1-12"x12" TEE (F)
2-12" GATE VALVES (F, MJ) BK, LT
1-12" "RED" GATE VALVE (F, MJ) RT
RECONNECT TO EX. 12" AC WTR LT, RT
OPEN VALVE LT AND RED VALVE RT
CLOSE 12" VALVE AND BLIND FLANGE BK
AFTER NEW 12" PIPE HAS BEEN RECONNECTED BY
CONTRACTOR OPEN 12" VALVE BK

BY CONTRACTOR
AFTER NEW MAIN HAS BEEN ACCEPTED
RECONNECT TO NEW 12" PIPE BK

REFERENCE:
WATER: 20723-12D , 19858-6D
GAS: 32-84
ELECTRIC: 210-1692B
TELEPHONE: te0501ac.dgn, te0501ab.dgn
IMPROVEMENTS: NONE
FIELD BOOK: B19S
100' SCALE: 210-1689
THOMAS BROS.: 1287-J1 / 1288-A1
HGL: POINT LOMA (260)

RETIREMENTS:
NONE



12" & 8" WTR. PIPE
INCLUDED IN
THIS CONTRACT
SEE SHEETS 33 & 36

EBERS ST

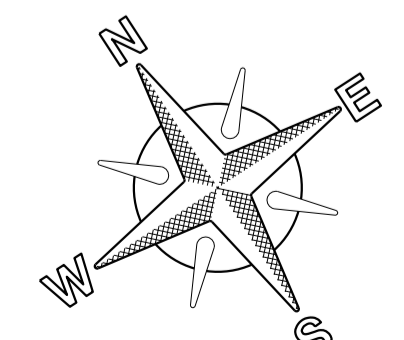
③ (202)
BY CONTRACTOR
FURNISH & INSTALL
STA. 1+54.73
1-2" BLOWOFF ASSY
TYPE "A"

④ (203)
BY CONTRACTOR
FURNISH & INSTALL
STA. 7+30.48
1-1" AIR & VACUUM VALVE
ASSEMBLY

NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE
BEFORE RECONNECTIONS AND AFTER NEW MAIN
HAS BEEN ACCEPTED

HIGHLINING NOTE:
CITY FORCES TO HIGHLINE DEL MONTE AVE
FROM STA. 1+00 TO STA. 7+60.34
CITY FORCES TO FURNISH HIGHLINE MATERIALS
AND TRANSFER SERVICES, SEE SHT. 44 FOR PHASING.

PROP. "RED" GATE VALVE
TO BE CLOSED PER NOTE
BELOW THIS SHEET

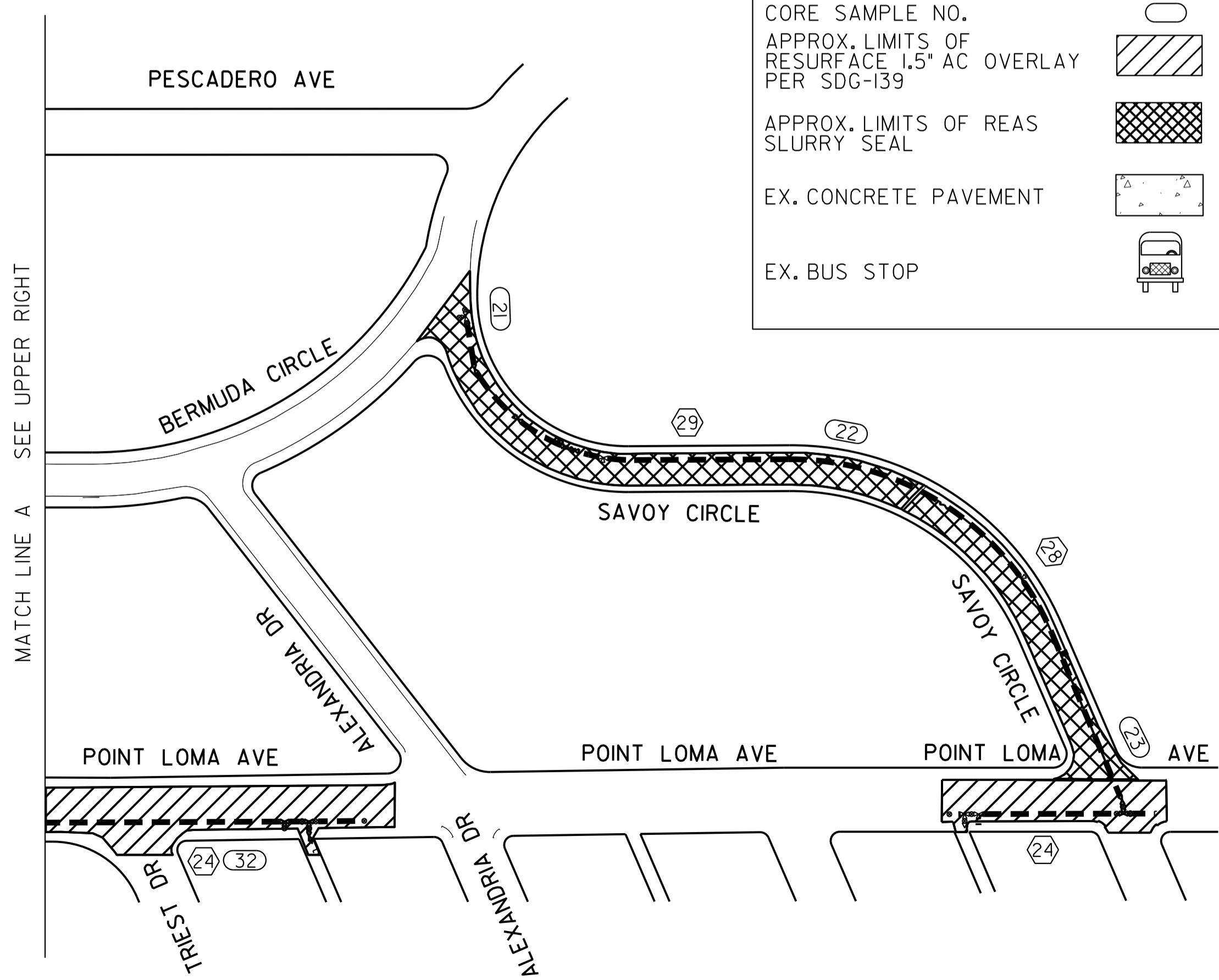
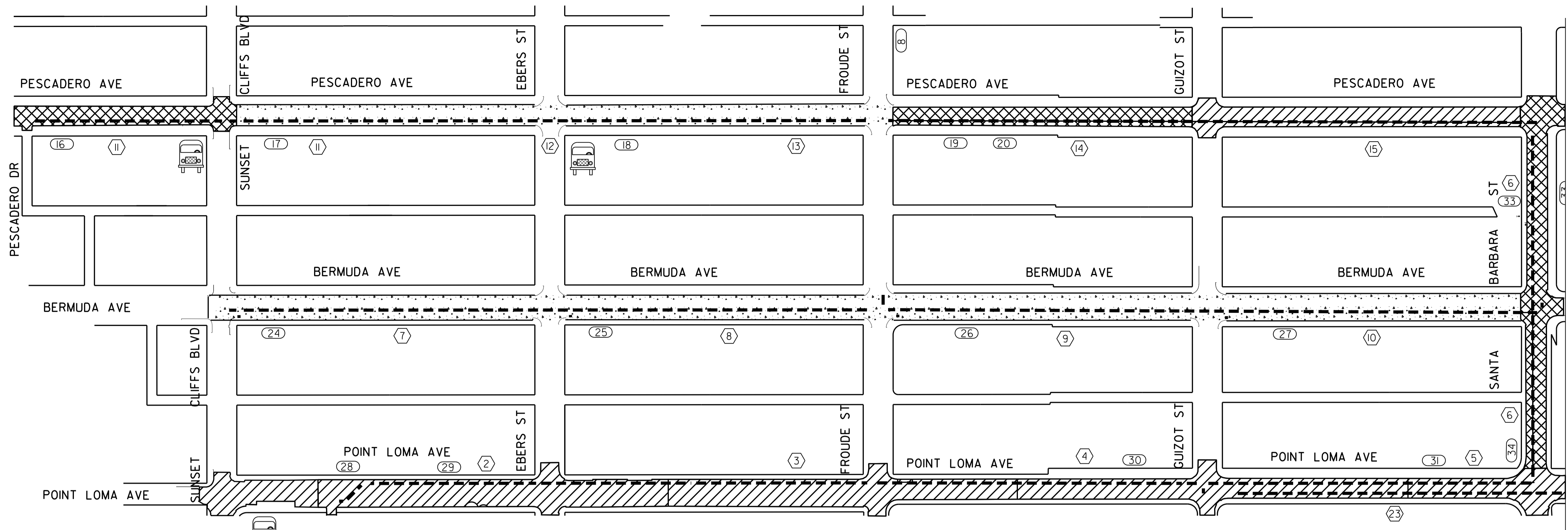


SCALE 1" = 40'

C-36

WATER GROUP 914 DEL MONTE AVE EBERS STREET TO FROUDE STREET				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 37 OF 53 SHEETS				WATER WBS B-00125
APPROVED: FOR CITY ENGINEER	<i>[Signature]</i>	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				210-1689 CCS27 COORDINATE
CONTRACTOR				6250407-1850444 CCS83 COORDINATE
INSPECTOR		DATE STARTED	DATE COMPLETED	
			36124-37-D	

DEL MONTE AVE



LEGEND:

SHEET NO.

CORE SAMPLE NO.

APPROX. LIMITS OF RESURFACE 1.5" AC OVERLAY PER SDG-139

APPROX. LIMITS OF REAS SLURRY SEAL

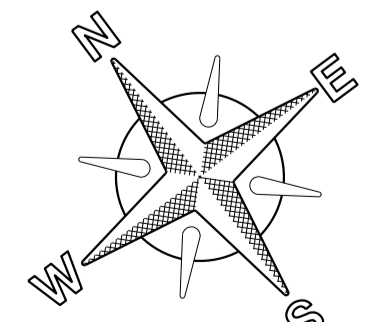
EX. CONCRETE PAVEMENT

EX. BUS STOP

PAVING SCHEDULE NOTES					
SHEET NO.	STREET NAME	RESTORATION REQUIRED	LENGTH	WIDTH	APPROX. AREA (SQ.FT)
2	POINT LOMA AVE	OVERLAY	700	55	38,500
3	POINT LOMA AVE	OVERLAY	700	50	35,000
4, 23	POINT LOMA AVE	OVERLAY	700	40	28,000
5, 23	POINT LOMA AVE	OVERLAY	319.05	40	12,762
6, 23	SANTA BARBARA ST	SLURRY	712.20	40	28,488
11	PESCADERO AVE	SLURRY	400	40	16,000
14	PESCADERO AVE	SLURRY	700	40	28,000
15	PESCADERO AVE	OVERLAY	621.12	40	24,845
24	POINT LOMA AVE (LEFT)	OVERLAY	330.56	45	14,875
24	POINT LOMA AVE (RIGHT)	OVERLAY	224.13	45	10,086
28	SAVOY CIRCLE DR	SLURRY	600	35	21,000
29	SAVOY CIRCLE DR	SLURRY	414.28	35	14,500
SUBTOTAL (1) - AREA OF SLURRY					107,988
SUBTOTAL (1) - AREA OF OVERLAY					164,068

CONTRACTOR'S NOTES:

- USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.
- OVERLAY SHALL BE CONSTRUCTED ACROSS THE ENTIRE STREET WIDTH UNLESS OTHERWISE SHOWN ON THESE PLANS OR DIRECTED BY THE RESIDENT ENGINEER.
- ON ALL SIDE STREETS, LIMITS OF OVERLAY SHALL BE 10 FEET BEYOND LIMITS OF PIPELINE CONSTRUCTION OR AS DETERMINED BY THE RESIDENT ENGINEER



NO SCALE



**WATER GROUP 914
STREET RESURFACING**

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 38 OF 53 SHEETS

APPROVED: *[Signature]* DATE: 2/27/12
FOR CITY ENGINEER

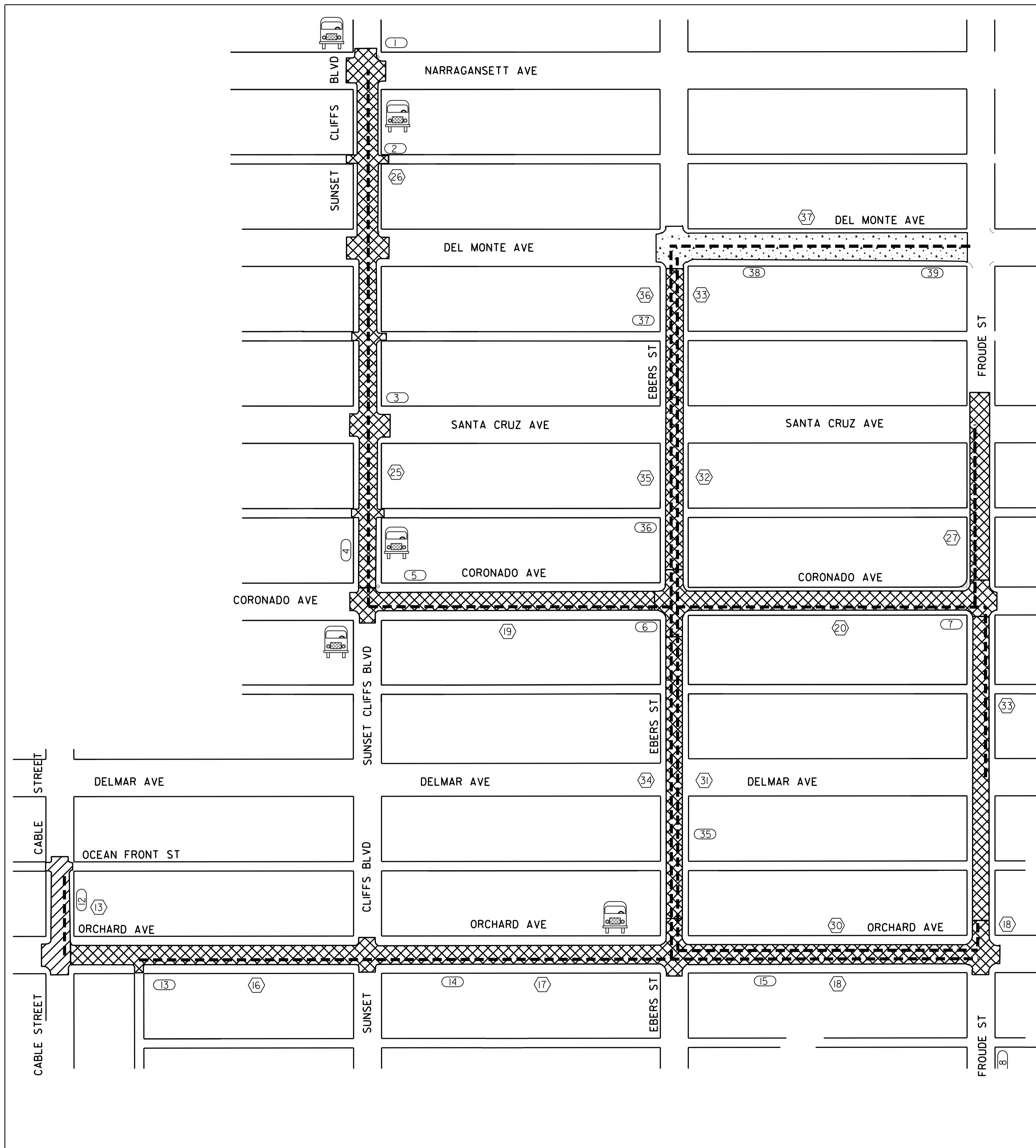
SUBMITTED BY: MICHAEL NINH, ASSOCIATE ENGINEER
CHECKED BY: ROBERTO VEJAR-PARRA, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			

CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

36124-38-D

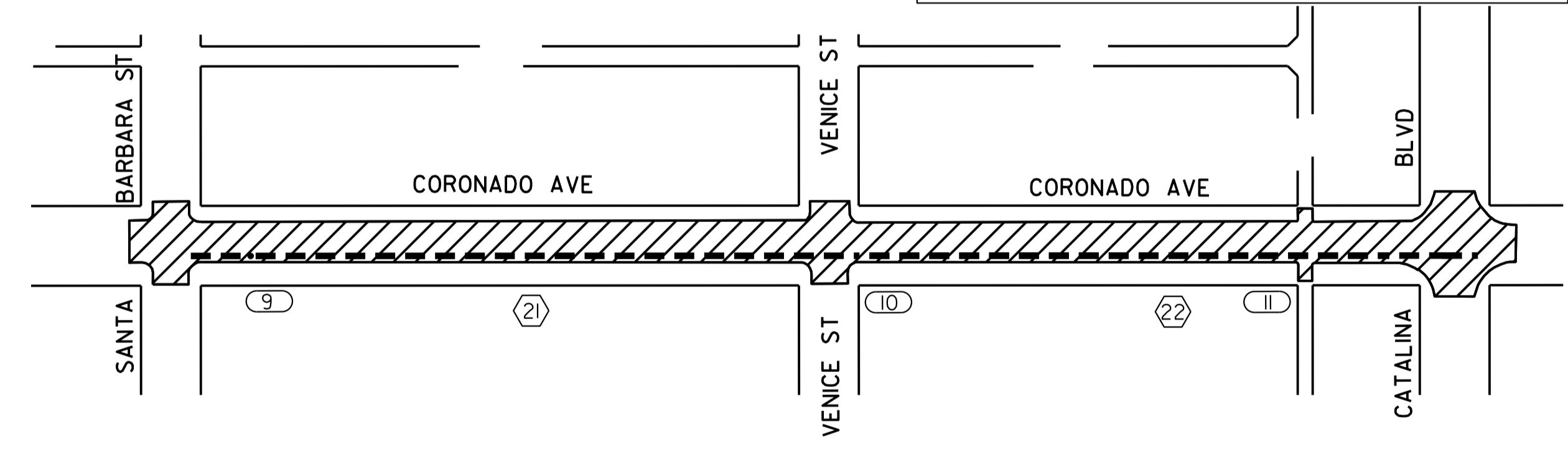
C-37



PAVING SCHEDULE NOTES					
SHEET NO.	STREET NAME	RESTORATION REQUIRED	LENGTH	WIDTH	APPROX. AREA (SQ.FT)
13	CABLE STREET	OVERLAY	195.26	35	6,834
16	ORCHARD AVE	SLURRY	600	40	24,000
17	ORCHARD AVE	SLURRY	700	40	28,000
18, 30	ORCHARD AVE	SLURRY	658.06	40	26,322
19	CORONADO AVE	SLURRY	700	40	28,000
20	CORONADO AVE	SLURRY	644.71	40	32,663
21	CORONADO AVE	OVERLAY	700	40	28,000
22	CORONADO AVE	OVERLAY	617.75	40	24,710
25	SUNSET CLIFFS BLVD	SLURRY	700	40	28,000
26	SUNSET CLIFFS BLVD	SLURRY	459.99	40	18,400
27	FROUDE STREET	SLURRY	379.14	35	13,270
31, 34	EBERS STREET	SLURRY	600	40	24,000
32, 35	EBERS STREET	SLURRY	600	40	24,000
18, 33	FROUDE STREET	SLURRY	438.89	35	16,936
33, 36	EBERS STREET	SLURRY	315.00	35	11,025
SUBTOTAL (2) - AREA OF SLURRY					274,616
SUBTOTAL (2) - AREA OF OVERLAY					59,544
TOTAL AREA OF SLURRY (SHEETS 38 & 39)					382,604
TOTAL AREA OF OVERLAY (SHEET 38 & 39)					223,612

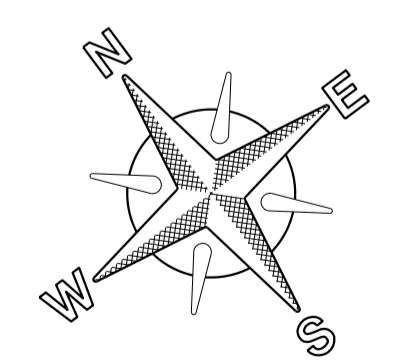
CONTRACTOR'S NOTES:

- USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.
- OVERLAY SHALL BE CONSTRUCTED ACROSS THE ENTIRE STREET WIDTH UNLESS OTHERWISE SHOWN ON THESE PLANS OR DIRECTED BY THE RESIDENT ENGINEER.
- ON ALL SIDE STREETS, LIMITS OF OVERLAY SHALL BE 10 FEET BEYOND LIMITS OF PIPELINE CONSTRUCTION OR AS DETERMINED BY THE RESIDENT ENGINEER



LEGEND:

- AREA NO. (Hexagon symbol)
- CORE SAMPLE NO. (Oval symbol)
- APPROX. LIMITS OF RESURFACE 1.5' AC OVERLAY PER SDG-139 (Hatched pattern)
- APPROX. LIMITS OF SLURRY SEAL (Cross-hatched pattern)
- EX. CONCRETE PAVEMENT (Dotted pattern)
- EX. BUS STOP (Bus icon)



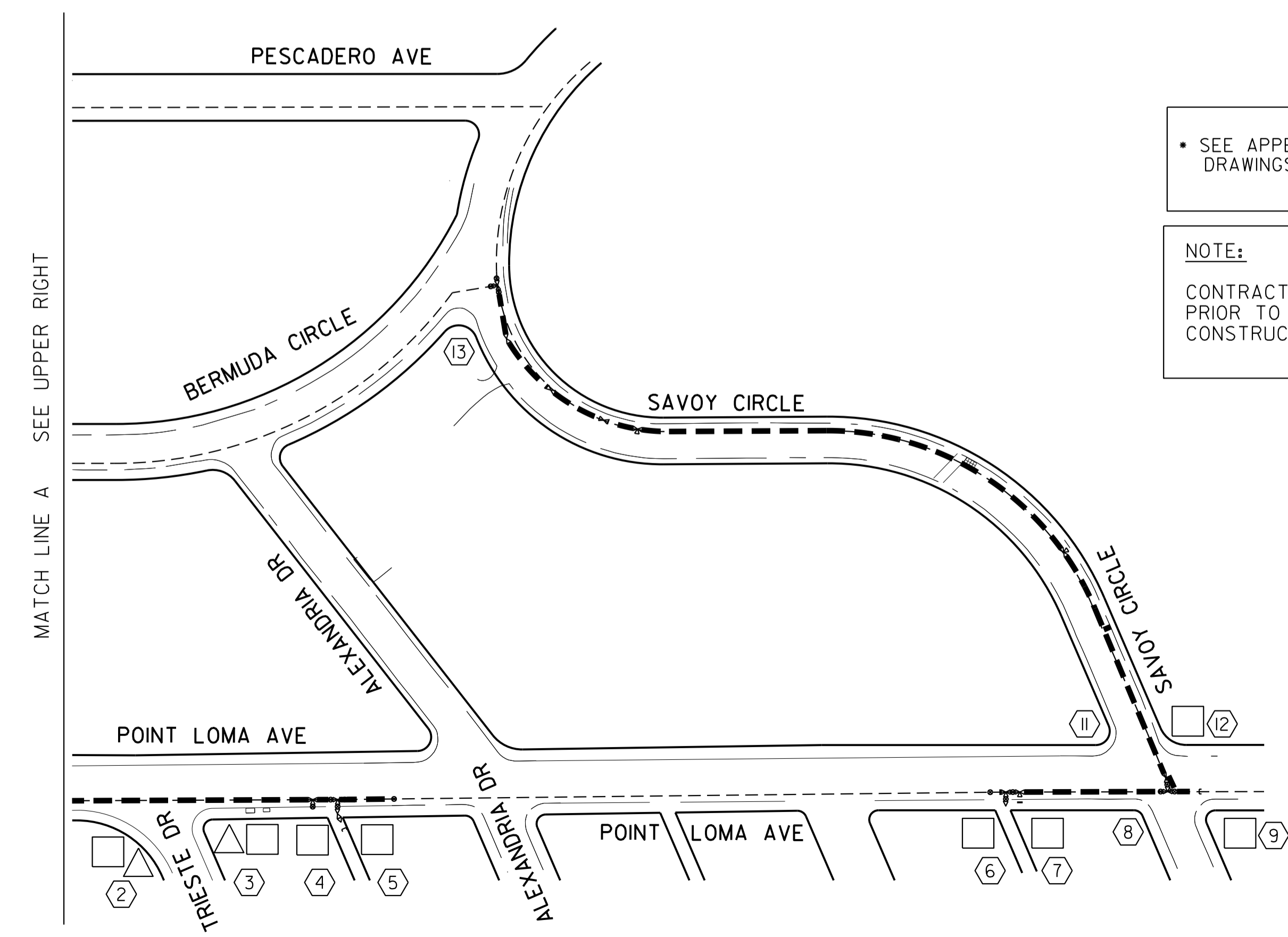
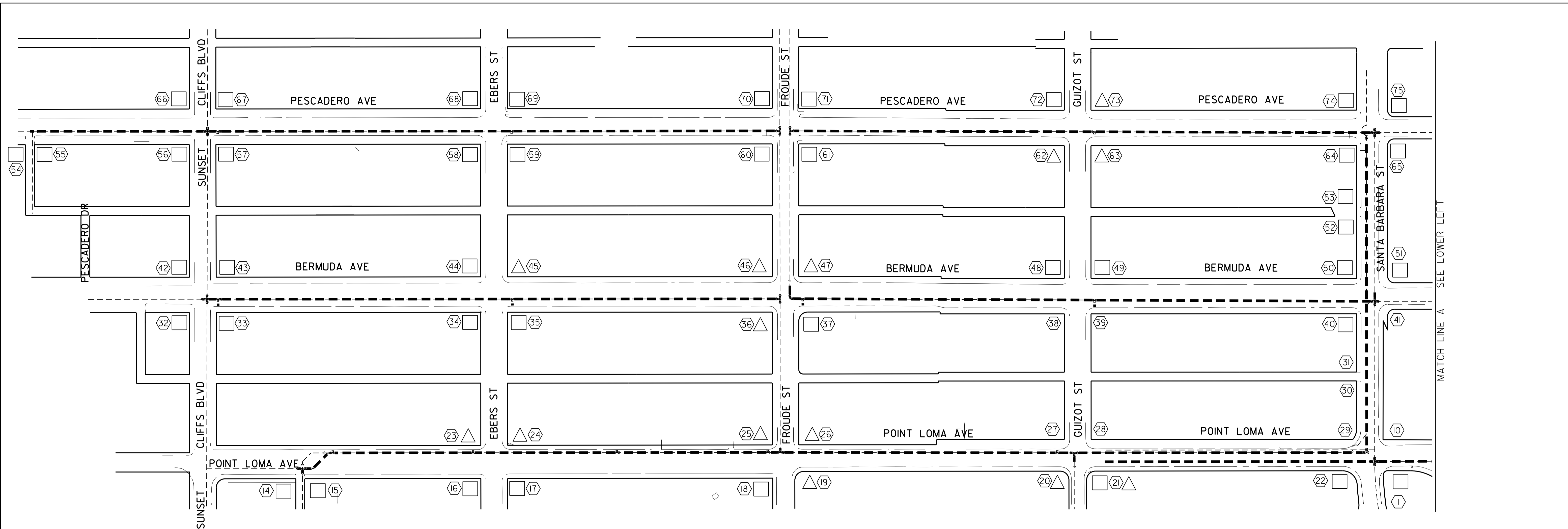
NO SCALE



C-38

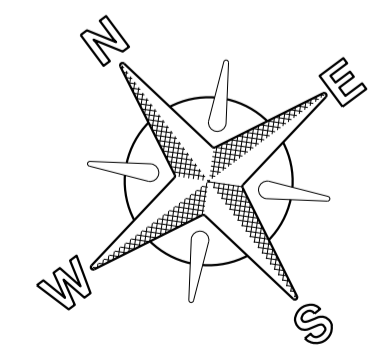
**WATER GROUP 914
STREET RESURFACING**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 39 OF 53 SHEETS		WATER WBS B-00125
APPROVED FOR CITY ENGINEER <i>[Signature]</i>	DATE 2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION ORIGINAL	BY FH	APPROVED DATE FILMED
CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER		VARIABLES CCS27 COORDINATE VARIABLES CCS83 COORDINATE
CONTRACTOR	DATE STARTED	36124-39-D
INSPECTOR	DATE COMPLETED	



• SEE APPENDIX IN SPECS FOR CITY STANDARD DRAWINGS-APPROVED UPDATES FOR USE

NOTE:
 CONTRACTOR TO NOTIFY SURVEYING 30 DAYS PRIOR TO REMOVAL OF SIDEWALK FOR CURB RAMP CONSTRUCTION TO RELOCATE ANY SURVEY MARKERS.

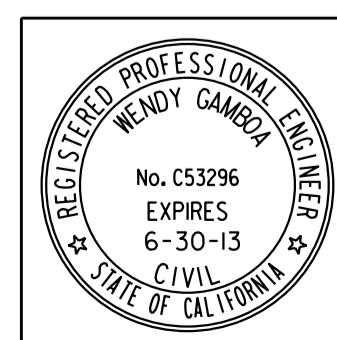


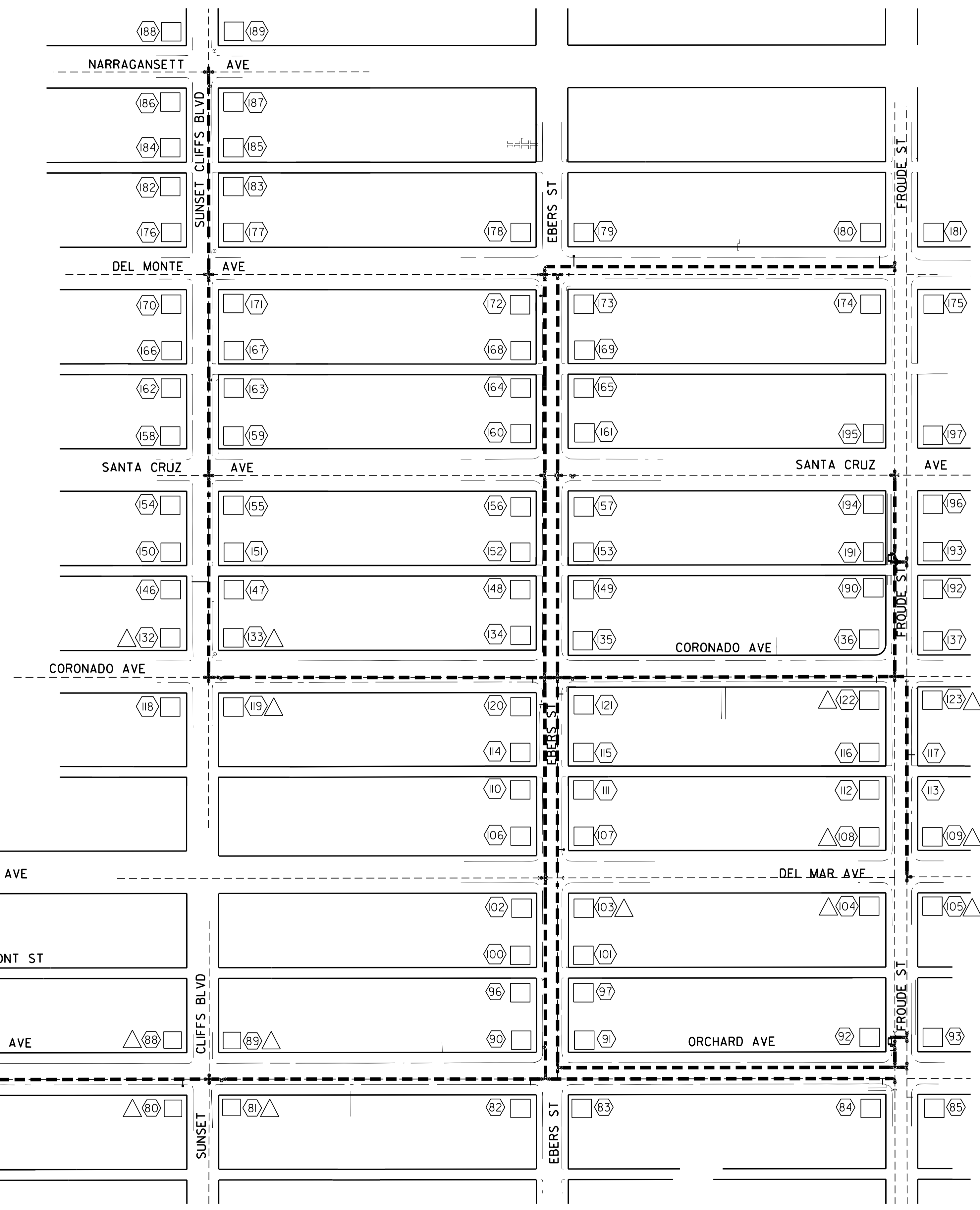
NO SCALE

C-39

LEGEND				
	PROPOSED WATER			
	EXIST. WATER			
	EX CURB RAMP			
	CURB RAMP NO's			
	EXIST. HISTORICAL STAMPS, RELOCATED PER SDG I15			
PROPOSED CURB RAMP PER STANDARD DRAWINGS:				
EXIST. STAMP/IMPRESSION PLACEMENT	SDG-I15			
GENERAL CURB RAMP NOTES & SUPPLEMENTAL DETAILS	SDG-130•			
A & B	SDG-132•			
C1	SDG-134•			
C2	SDG-135•			
D	SDG-136•			

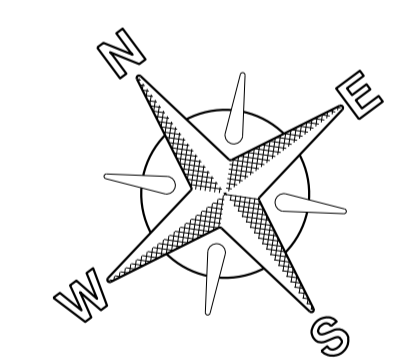
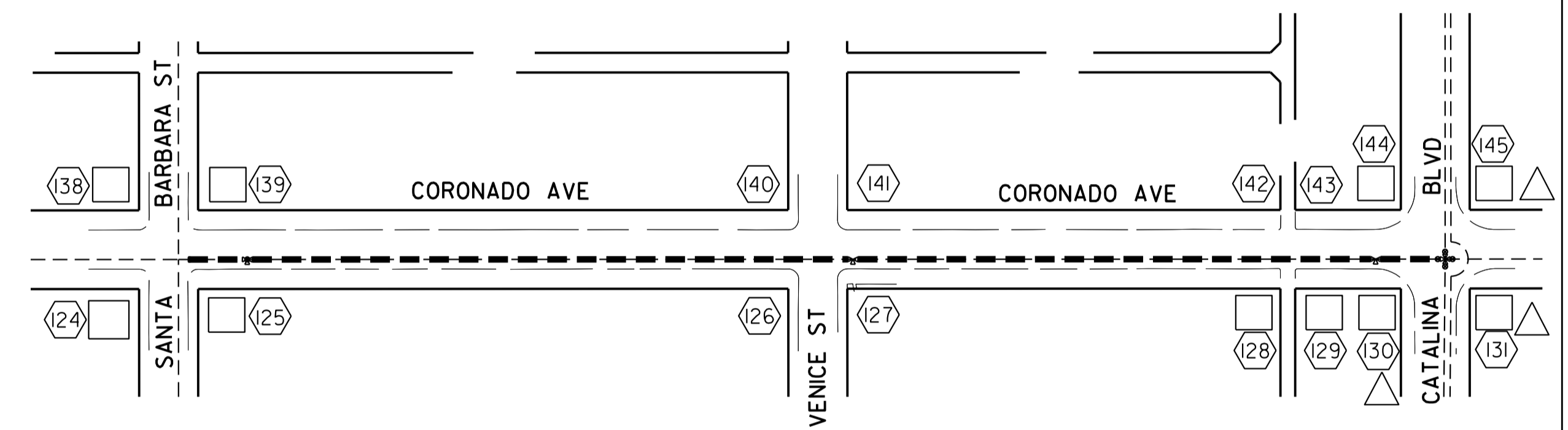
WATER GROUP 914				
CURB RAMP PLAN				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 40 OF 53 SHEETS				WATER WBS B-00125
APPROVED:		DATE	2/27/12	
FOR CITY ENGINEER			MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
CHECKED BY:				ROBERTO VEJAR-PARRA PROJECT ENGINEER
				VARIES CCS27 COORDINATE
				VARIES CCS83 COORDINATE
CONTRACTOR	INSPECTOR	DATE STARTED	DATE COMPLETED	36124-40-D





• SEE CONTRACT APPENDIX FOR CITY STANDARD DRAWINGS UPDATES APPROVED FOR USE

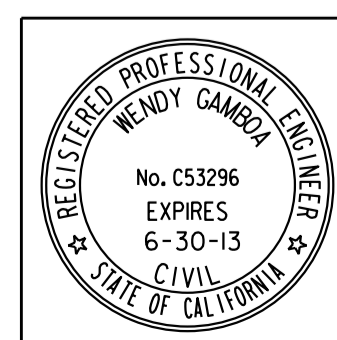
NOTE:
CONTRACTOR TO NOTIFY SURVEYING 30 DAYS PRIOR TO REMOVAL OF SIDEWALK FOR CURB RAMP CONSTRUCTION TO RELOCATE ANY SURVEY MARKERS.



NO SCALE

C-40

LEGEND	
	PROPOSED WATER
	EXIST. WATER
	EX CURB RAMP
	CURB RAMP NO'S
	EXIST. HISTORICAL STAMPS, RELOCATED PER SDG 115
PROPOSED CURB RAMP PER STANDARD DRAWINGS:	
EXIST. STAMP/IMPRESSION PLACEMENT	SDG-115
GENERAL CURB RAMP NOTES & SUPPLEMENTAL DETAILS	SDG-130*
A & B	SDG-132*
C1	SDG-134*
C2	SDG-135*
D	SDG-136*



WATER GROUP 914 CURB RAMP PLAN				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 41 OF 53 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER		DATE	2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER				VARIES CCS27 COORDINATE
CONTRACTOR				VARIES CCS83 COORDINATE
INSPECTOR		DATE STARTED	DATE COMPLETED	36124-41-D

CURB RAMP NOTES TABLE - SHEET 39

LOCATION (NO)	RAMP TYPE	NEW	REPLACEMENT	HISTORIC STAMPS	TRUNCATED DOME MATERIAL		CONSTRAINTS	COMMENTS / MODIFICATIONS
					• STAINLESS STEEL	• OTHER		
1	C2	-	X	-	-	X	NO	N/A
2	A	-	X	-	-	X	NO	N/A
3	C2	-	X	2	-	X	NO	N/A
4	D	-	X	-	-	X	NO	N/A
5	D	-	X	-	-	X	NO	N/A
6	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
7	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
8	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
9	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
10	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
11	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
12	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
13	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
14	D	-	X	-	-	X	NO	N/A
15	D	-	X	-	-	X	NO	N/A
16	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
17	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
18	A	-	X	-	-	X	NO	N/A
19	C2	X	-	I	-	X	NO	N/A
20	C2	X	-	I	-	X	NO	N/A
21	C2	-	X	2	-	X	NO	N/A
22	A	-	X	-	-	X	NO	N/A
23	C2	X	-	I	X	-	NO	N/A
24	A	X	-	I	X	-	NO	N/A
25	A	X	-	I	-	X	NO	N/A
26	A	X	-	I	-	X	NO	N/A
27	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
28	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
29	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
30	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
31	-	-	-	-	-	-	YES	CURB RAMP NOT REQUIRED DUE TO MISSING SIDEWALK
32	A	-	X	-	-	X	NO	N/A
33	A	-	X	-	-	X	NO	N/A
34	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
35	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
36	C2	X	-	I	-	X	NO	N/A
37	C2	-	X	-	-	X	NO	N/A
38	A	X	-	-	-	X	NO	N/A
39	A	X	-	-	-	X	NO	N/A
40	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
41	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
42	A	-	X	-	-	X	NO	N/A
43	C2	-	X	-	-	X	NO	N/A
44	C2	-	X	-	-	X	NO	N/A
45	C2	X	-	I	-	X	NO	N/A
46	C2	X	-	I	-	X	NO	N/A
47	C2	X	-	I	-	X	NO	N/A
48	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
49	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
50	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
51	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
52	D	-	X	-	-	X	NO	N/A
53	D	-	X	-	-	X	NO	N/A
54	D	-	X	-	-	X	NO	N/A
55	D	-	X	-	-	X	NO	N/A
56	C2	-	X	-	-	X	NO	N/A
57	A	-	X	-	-	X	NO	N/A
58	C2	-	X	-	-	X	NO	N/A
59	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
60	A	-	X	-	-	X	NO	N/A
61	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
62	C2	X	-	I	-	X	NO	N/A
63	A	X	-	I	-	X	NO	N/A
64	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
65	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
66	A	-	X	-	-	X	NO	N/A
67	A	-	X	-	-	X	NO	N/A
68	C2	-	X	-	-	X	NO	N/A
69	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
70	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
71	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
72	A	-	X	-	-	X	NO	N/A
73	C2	X	-	I	-	X	NO	N/A
74	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740
75	-	-	-	-	-	-	-	PREVIOUSLY INSTALLED IN SWR & WTR GJ 740

• THE DETECTABLE WARNING TILES SHALL BE PER THE CITY'S APPROVED MATERIALS LIST

CURB RAMP NOTES TABLE - SHEET 40

LOCATION (NO)	RAMP TYPE	NEW	REPLACEMENT	HISTORIC STAMPS	TRUNCATED DOME MATERIAL		CONSTRAINTS	COMMENTS / MODIFICATIONS
					• STAINLESS STEEL	• OTHER		
76	A	-	X	-	-	X	NO	N/A
77	C2	-	X	-	-	X	NO	N/A
78	D	-	X	-	-	X	NO	N/A
79	D	-	X	-	-	X	NO	N/A
80	A	-	X	I	-	X	NO	N/A
81	A	-	X	I	-	X	NO	N/A
82	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
83	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
84	A	-	X	-	-	X	NO	N/A
85	A	-	X	-	-	X	NO	N/A
86	A	-	X	-	-	X	NO	N/A
87	A	-	X	-	-	X	NO	N/A
88	A	-	X	I	-	X	NO	N/A
89	A	-	X	I	-	X	NO	N/A
90	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
91	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
92	C2	-	X	-	-	X	NO	N/A
93	C2	-	X	-	-	X	NO	N/A
94	D	-	X	-	-	X	NO	N/A
95	D	-	X	-	-	X	NO	N/A
96	D	-	X	-	-	X	NO	N/A
97	D	-	X	-	-	X	NO	N/A
98	D	-	X	-	-	X	NO	N/A
99	D	-	X	-	-	X	NO	N/A
100	D	-	X	-	-	X	NO	N/A
101	D	-	X	-	-	X	NO	N/A
102	A	-	X	-	-	X	NO	N/A
103	A	-	X	I	-	X	NO	N/A
104	C2	-	X	I	-	X	NO	N/A
105	C2	-	X	I	-	X	NO	N/A
106	A	-	X	-	-	X	NO	N/A
107	A	-	X	-	-	X	NO	N/A
108	C2	-	X	I	-	X	NO	N/A
109	C2	-	X	I	-	X	NO	N/A
110	D	-	X	-	-	X	NO	N/A
111	D	-	X	-	-	X	NO	N/A
112	D	-	X	-	-	X	NO	N/A
113	D	X	-	-	-	X	NO	N/A
114	D	-	X	-	-	X	NO	N/A
115	D	-	X	-	-	X	NO	N/A
116	D	-	X	-	-	X	NO	N/A
117	D	X	-	-	-	X	NO	N/A
118	A	-	X	-	-	X	NO	N/A
119	A	-	X	I	X	X	NO	N/A
120	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
121	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
122	A	-	X	I	-	X	NO	N/A
123	A	-	X	I	-	X	NO	N/A
124	A	-	X	-	-	X	NO	N/A
125	A	-	X	-	-	X	NO	N/A
126	A	X	-	-	-	X	NO	N/A
127	A	X	-	-	-	X	NO	N/A
128	D	-	X	-	-	X	NO	N/A
129	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
130	A	-	X	I	-	X	NO	N/A
131	A	-	X	I	-	X	NO	N/A
132	A	-	X	I	X	X	NO	N/A
133	A	-	X	2	X	X	NO	N/A
134	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
135	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
136	A	-	X	-	-	X	NO	N/A
137	A	-	X	-	-	X	NO	N/A
138	A	-	X	-	-	X	NO	N/A
139	A	-	X	-	-	X	NO	N/A
140	A	X	-	-	-	X	NO	N/A
141	A	X	-	-	-	X	NO	N/A
142	D	X	-	-	-	X	NO	N/A
143	D	X	-	-	-	X	NO	N/A
144	A	-	X	-	-	X	NO	N/A
145	A	-	X	I	-	X	NO	N/A
146	D	-	X	-	-	X	NO	N/A
147	D	-	X	-	-	X	NO	N/A
148	D	-	X	-	-	X	NO	N/A
149	D	-	X	-	-	X	NO	N/A
150	D	-	X	-	-	X	NO	N/A

CURB RAMP NOTES TABLE - SHEET 40

LOCATION (NO)	RAMP TYPE	NEW	REPLACEMENT	HISTORIC STAMPS	TRUNCATED DOME MATERIAL		CONSTRAINTS	COMMENTS / MODIFICATIONS
					• STAINLESS STEEL	• OTHER		
151	D	-	X	-	-	X	NO	N/A
152	D	-	X	-	-	X	NO	N/A
153	D	-	X	-	-	X	NO	N/A
154	A	-	X	-	-	X	NO	N/A
155	A	-	X	-	-	X	NO	N/A
156	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
157	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
158	A	-	X	-	-	X	NO	N/A
159	A	-	X	-	-	X	NO	N/A
160	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
161	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
162	D	-	X	-	-	X	NO	N/A
163	D	-	X	-	-	X	NO	N/A
164	D	-	X	-	-	X	NO	N/A
165	D	-	X	-	-	X	NO	N/A
166	D	-	X	-	-	X	NO	N/A
167	D	-	X	-	-	X	NO	N/A
168	D	-	X	-	-	X	NO	N/A
169	D	-	X	-	-	X	NO	N/A
170	D	-	X	-	-	X	NO	N/A
171	D	-	X	-	-	X	NO	N/A
172	A	-	X	-	-	X	NO	N/A
173	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
174	A	-	X	-	-	X	NO	N/A
175	A	-	X	-	-	X	NO	N/A
176	D	-	X	-	-	X	NO	N/A
177	D	-	X	-	-	X	NO	N/A
178	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
179	-	-	-	-	-	-	-	EX. CURB RAMP W/TRUNC. DOMES PREVIOUSLY INSTALLED
180	A	-	X	-	-	X	NO	N/A
181	A	-	X	-	-	X	NO	N/A
182	D	-	X	-	-	X	NO	N/A
183	D	-	X	-	-	X	NO	N/A
184	D	-	X	-	-	X	NO	N/A
185	D	-	X	-	-	X	NO	N/A
186	A	-	X	-	-	X	NO	N/A
187	A	-	X	-	-	X	NO	N/A
188	A	-	X	-	-	X	NO	N/A
189	A	-	X	-	-	X	NO	N/A
190	D	-	X	-	-	X	NO	N/A
191	D	-	X	-	-	X	NO	N/A
192	A	-	X	-	-	X	NO	N/A
193	A	-	X	-	-	X	NO	N/A
194	A	-	X	-	-	X	NO	N/A
195	A	-	X	-	-	X	NO	N/A
196	D	-	X	-	-	X	NO	N/A
197	D	-	X	-	-	X	NO	N/A

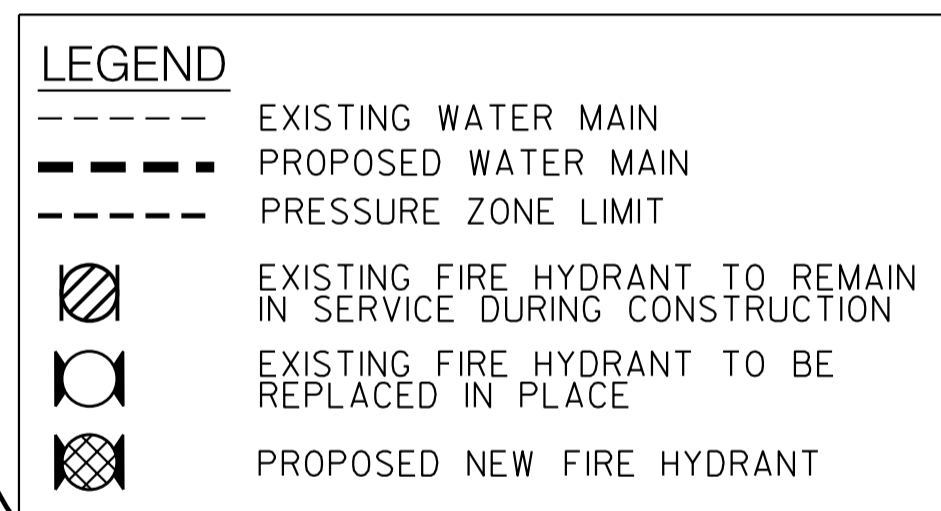
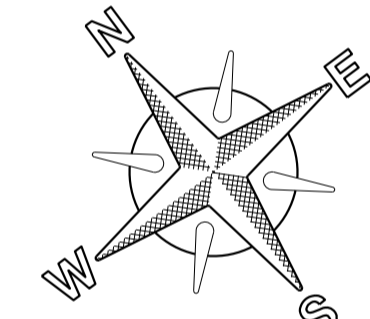
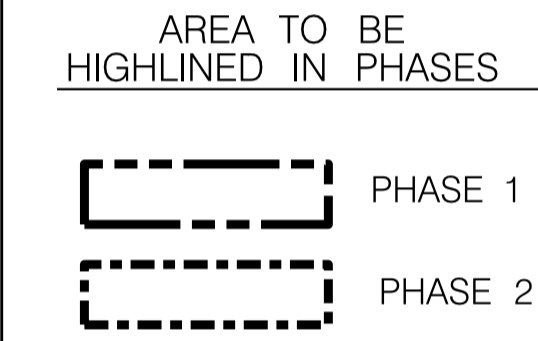
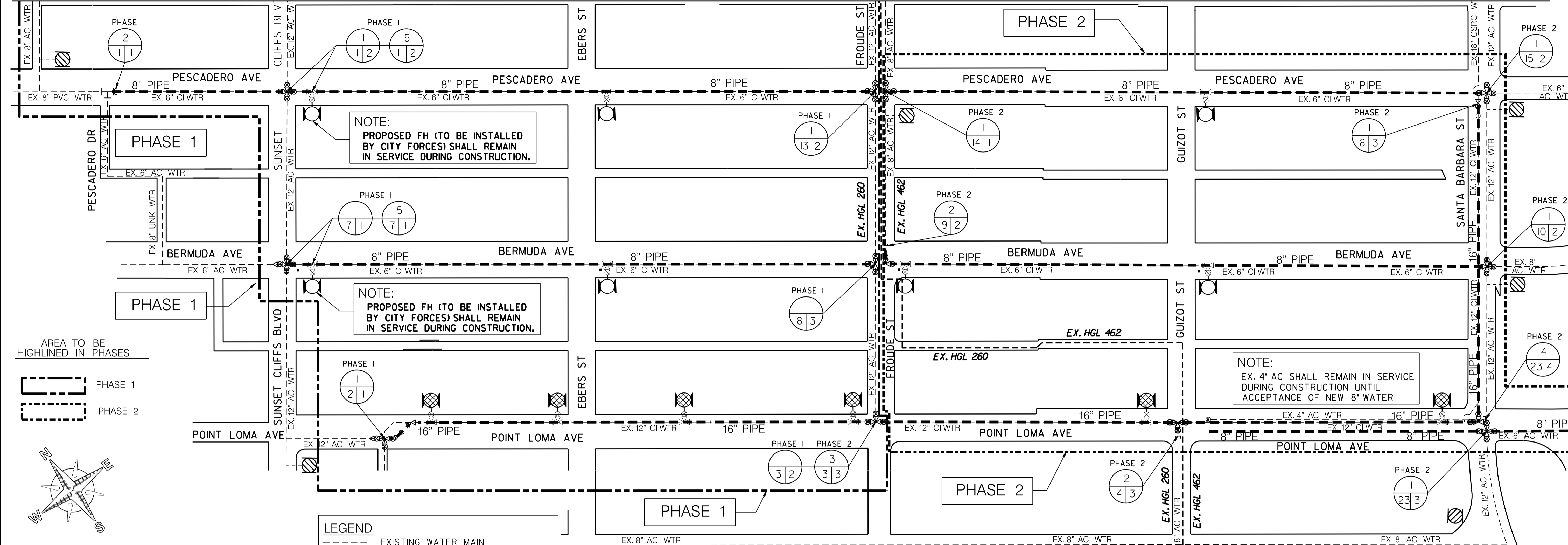
• THE DETECTABLE WARNING TILES SHALL BE PER THE CITY'S APPROVED MATERIALS LIST

C-41

||
||
||

MATCH LINE "B" - SEE SHEET 44

MATCH LINE "B" - SEE SHEET 44



- WORK BY CITY FORCES**
- 3/2/1 - CITY FORCES NOTE NUMBER (THIS SHEET)
 - 2/1/1 - CITY FORCES NOTE NUMBER (PLAN & PROFILE SHEET)
 - 1 - PLAN & PROFILE "D" SHEET NUMBER
 - 1 - BC - CROSS, TEE, REDUCER CUT-IN, OPEN/CLOSE VALVES
 - 2 - AC - OPEN VALVES
 - 2 - BC - TEMP. CUT & PLUG
 - 3 - AC - RECONNECT
 - 3 - BC - CLOSE VALVES
 - 4 - AC - OPEN VALVES
 - 4 - AC - PERM. CUT & PLUG
 - 5 - BC - REPLACE EX. FH, CLOSE VALVE
 - 5 - AC - RECONNECT AND OPEN VALVE
 - BC - BEFORE CONTRACTOR
 - AC - AFTER CONTRACTOR

TABLE A
CITY FORCES FURNISH MATERIALS FOR CITY FORCES WORK

SHEET NO.	12"x12" CROSS	12"x8" CROSS	8"x8" CROSS	12"x12" TEE	12"x8" TEE	8"x8" TEE	8"x6" TEE	8"x8" TEE	FH ASSY (EA)	12" PVC PIPE (FT)	8" PVC PIPE (FT)	12" GATE VALVE	8" GATE VALVE	12"x8" RED.	8"x6" RED.	8" BLIND FLANGE
3	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-
4	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-
7	-	1	-	-	-	1	-	1	-	23	2	2	-	1	1	-
8	-	-	-	-	1	-	-	-	-	-	-	2	1	-	-	-
9	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-
10	-	1	-	-	-	-	-	-	-	-	-	2	2	-	-	-
11	-	1	-	-	-	1	-	1	-	43	2	2	-	-	-	1
13	-	-	-	-	1	-	-	-	-	30	2	1	-	-	-	-
14	-	-	-	-	-	-	1	-	-	-	-	-	3	-	-	-
15	-	1	-	-	-	-	-	-	-	-	-	2	2	-	1	-
16	-	1	-	-	-	1	-	1	23	-	2	2	1	-	1	-
18	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-
19	1	-	-	-	-	-	-	-	-	-	-	4	-	1	-	-
20	-	1	-	-	-	-	-	-	-	-	-	2	2	-	-	-
21	-	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-
22	-	-	1	-	-	-	-	-	-	-	-	-	4	-	-	-
23	-	1	-	-	-	-	-	-	-	-	-	2	2	-	-	-
24	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-
25	-	1	-	-	-	-	-	-	-	-	-	4	-	2	-	-
26	-	2	-	-	-	-	-	-	-	-	-	8	-	4	-	-
27	-	-	-	-	1	-	-	-	-	-	-	2	1	-	-	-
29	-	-	-	-	-	-	-	1	-	-	-	-	3	-	-	-
32	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-
33	-	-	-	-	-	-	-	1	-	10	-	-	3	-	-	-
37	-	-	-	1	-	-	-	-	-	-	-	2	-	-	-	-

TABLE B
CONTRACTOR'S FURNISH MATERIALS FOR CITY FORCES WORK

SHEET NO.	16"x16" TEE	16"x12" TEE	16" BUTTERFLY VALVE	16"x12" RED.	18"x16" RED.	16" BLIND FLANGE
2	1	-	3	2	-	1
3	-	1	2	-	-	1
6	-	-	1	-	1	1

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REGISTERED PROFESSIONAL ENGINEER
WENDY GANER
No. C53296
EXPIRES 6-30-13
CIVIL
STATE OF CALIFORNIA

WATER GROUP 914
WORK BY CITY FORCES

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 43 OF 53 SHEETS

APPROVED: *[Signature]* DATE: 2/27/12
FOR CITY ENGINEER

SUBMITTED BY: MICHAEL NINH, ASSOCIATE ENGINEER
CHECKED BY: ROBERTO VEJAR-PARRA, PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			

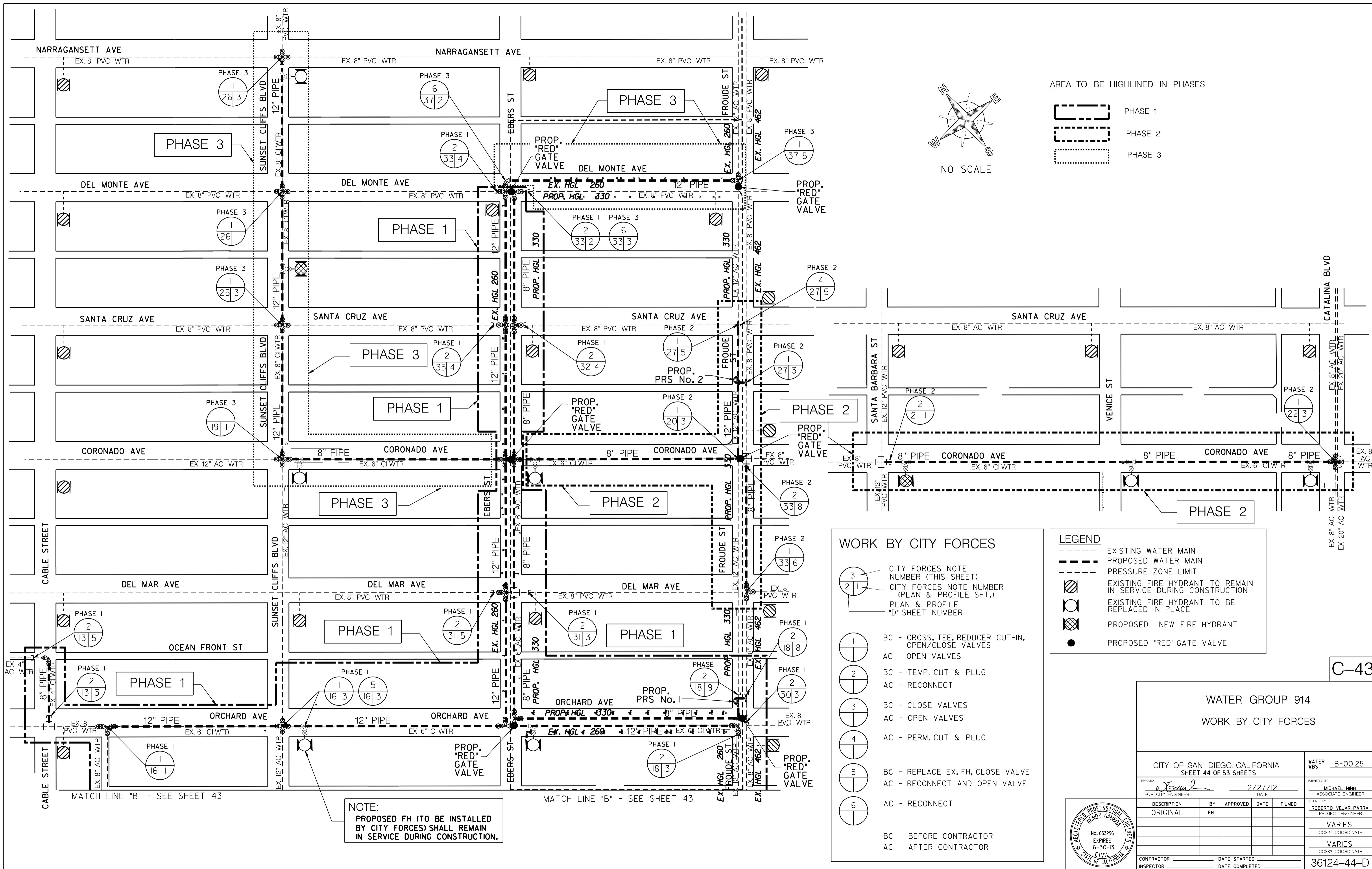
CONTRACTOR: VARIES, CCS27 COORDINATE
INSPECTOR: VARIES, CCS83 COORDINATE

DATE STARTED: _____ DATE COMPLETED: _____

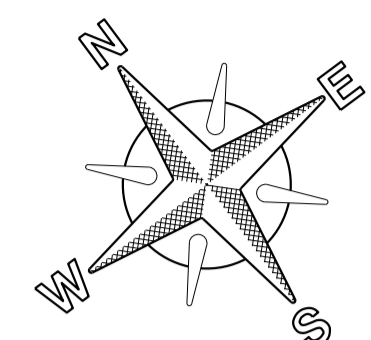
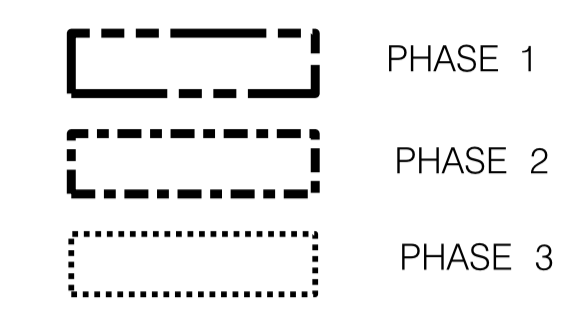
WATER WBS: B-00125

36124-43-D

WORK BY CITY FORCES



AREA TO BE HIGHLIGHTED IN PHASES



WORK BY CITY FORCES

3
2
1 CITY FORCES NOTE NUMBER (THIS SHEET)
1 CITY FORCES NOTE NUMBER (PLAN & PROFILE "D" SHEET NUMBER)

1 BC - CROSS, TEE, REDUCER CUT-IN, OPEN/CLOSE VALVES
2 AC - OPEN VALVES
3 BC - CLOSE VALVES
4 AC - OPEN VALVES
5 AC - PERM. CUT & PLUG
6 BC - REPLACE EX. FH, CLOSE VALVE
7 AC - RECONNECT AND OPEN VALVE
8 AC - RECONNECT
9 BC - BEFORE CONTRACTOR
10 AC - AFTER CONTRACTOR

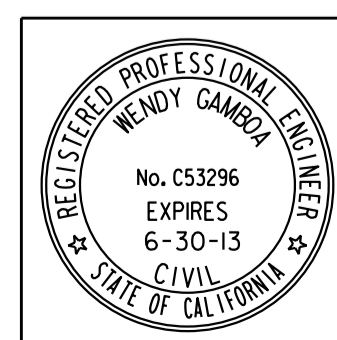
LEGEND

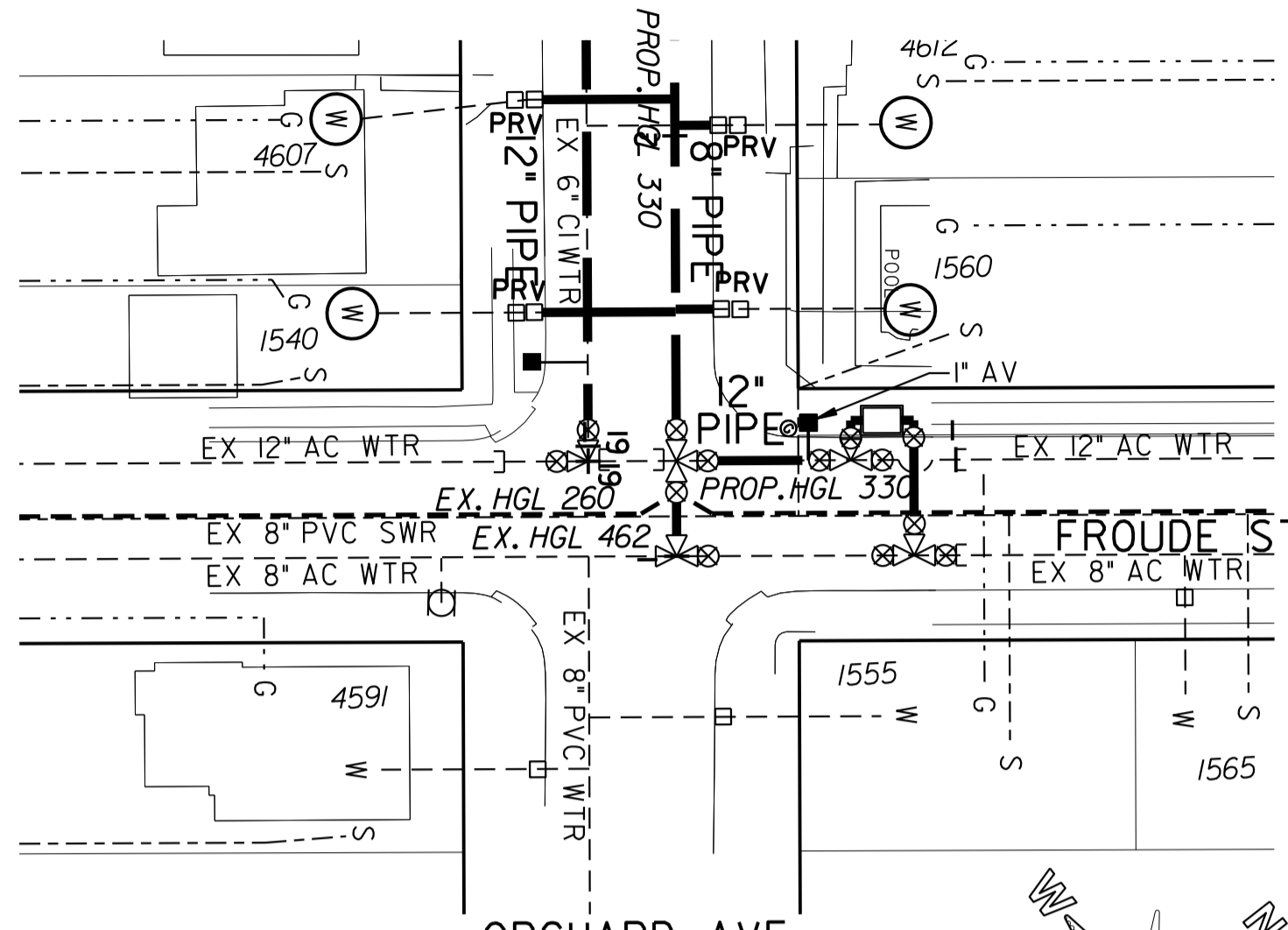
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PRESSURE ZONE LIMIT
- EXISTING FIRE HYDRANT TO REMAIN IN SERVICE DURING CONSTRUCTION
- EXISTING FIRE HYDRANT TO BE REPLACED IN PLACE
- PROPOSED NEW FIRE HYDRANT
- PROPOSED "RED" GATE VALVE

NOTE:
 PROPOSED FH (TO BE INSTALLED BY CITY FORCES) SHALL REMAIN IN SERVICE DURING CONSTRUCTION.

C-43

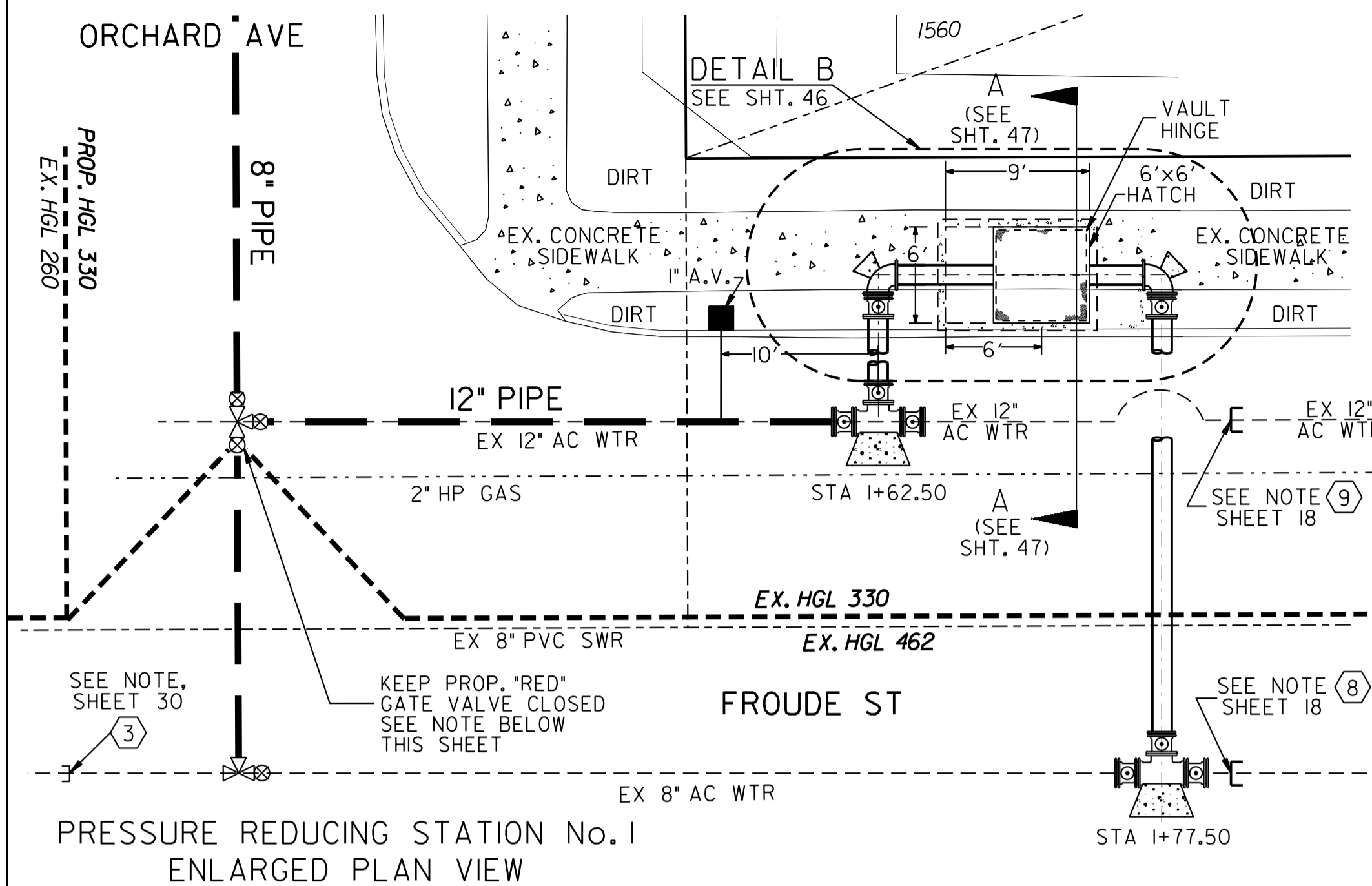
WATER GROUP 914				WORK BY CITY FORCES	
CITY OF SAN DIEGO, CALIFORNIA SHEET 44 OF 53 SHEETS				WATER WBS B-00125	
APPROVED: <i>[Signature]</i>		DATE: 2/27/12		SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
FOR CITY ENGINEER				CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED	VARIABLES
ORIGINAL	FH				VARIABLES
					VARIABLES
					VARIABLES
CONTRACTOR _____				DATE STARTED _____	
INSPECTOR _____				DATE COMPLETED _____	
					36124-44-D





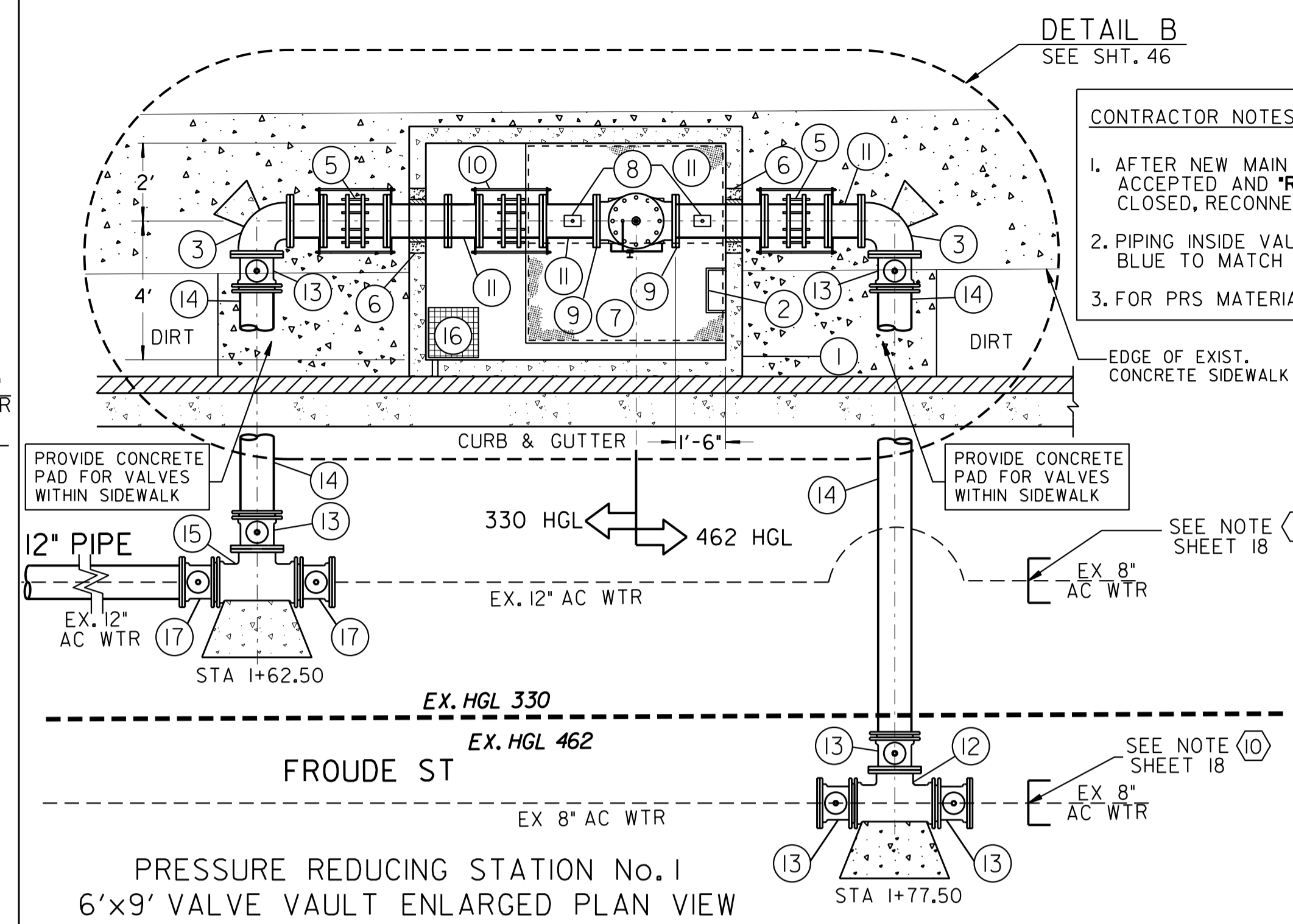
PRESSURE REDUCING STATION No. 1
6'x9' VALVE VAULT PLAN VIEW

SCALE: 1"=4'



PRESSURE REDUCING STATION No. 1
ENLARGED PLAN VIEW

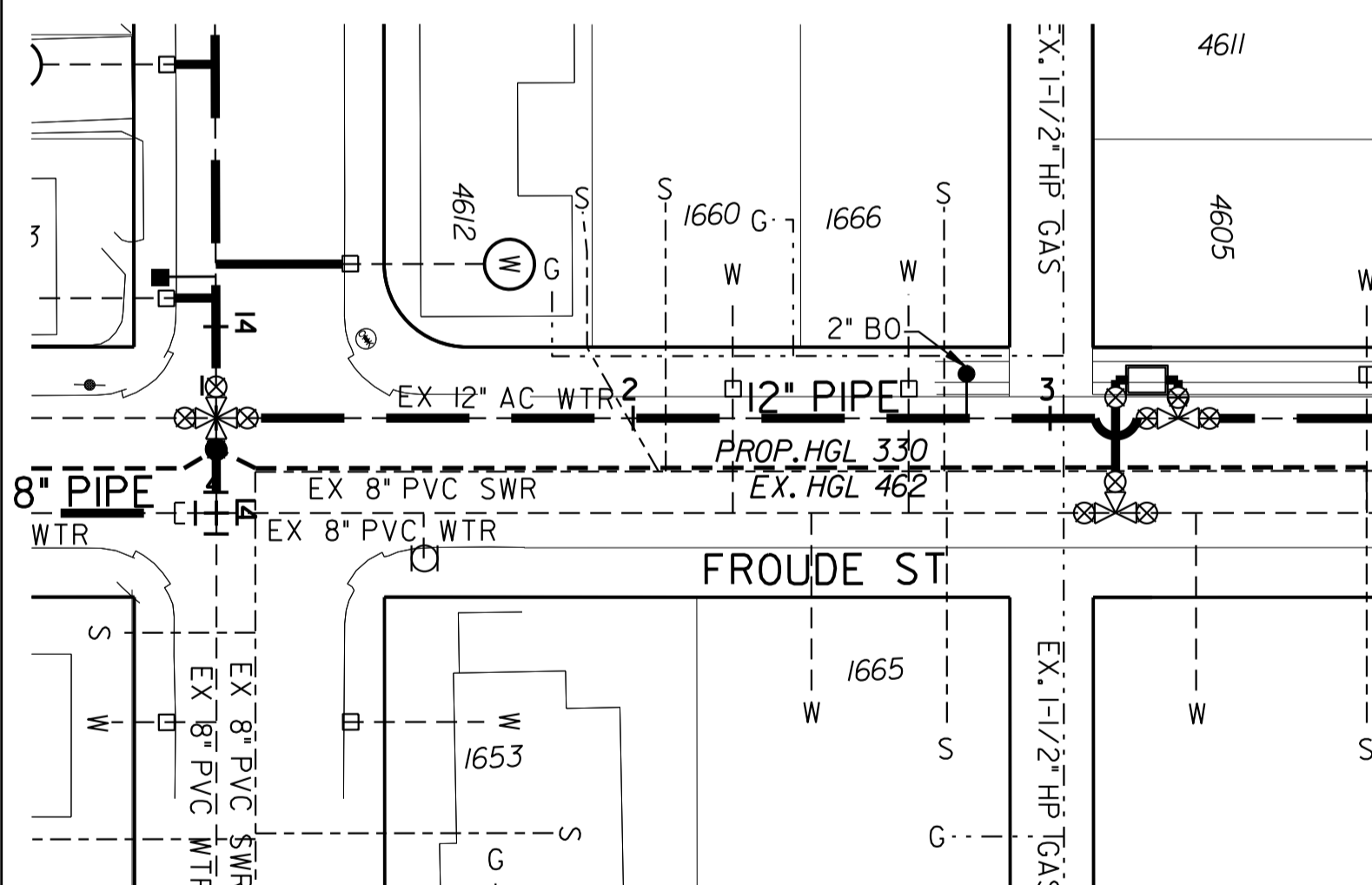
NO SCALE



PRESSURE REDUCING STATION No. 1
6'x9' VALVE VAULT ENLARGED PLAN VIEW

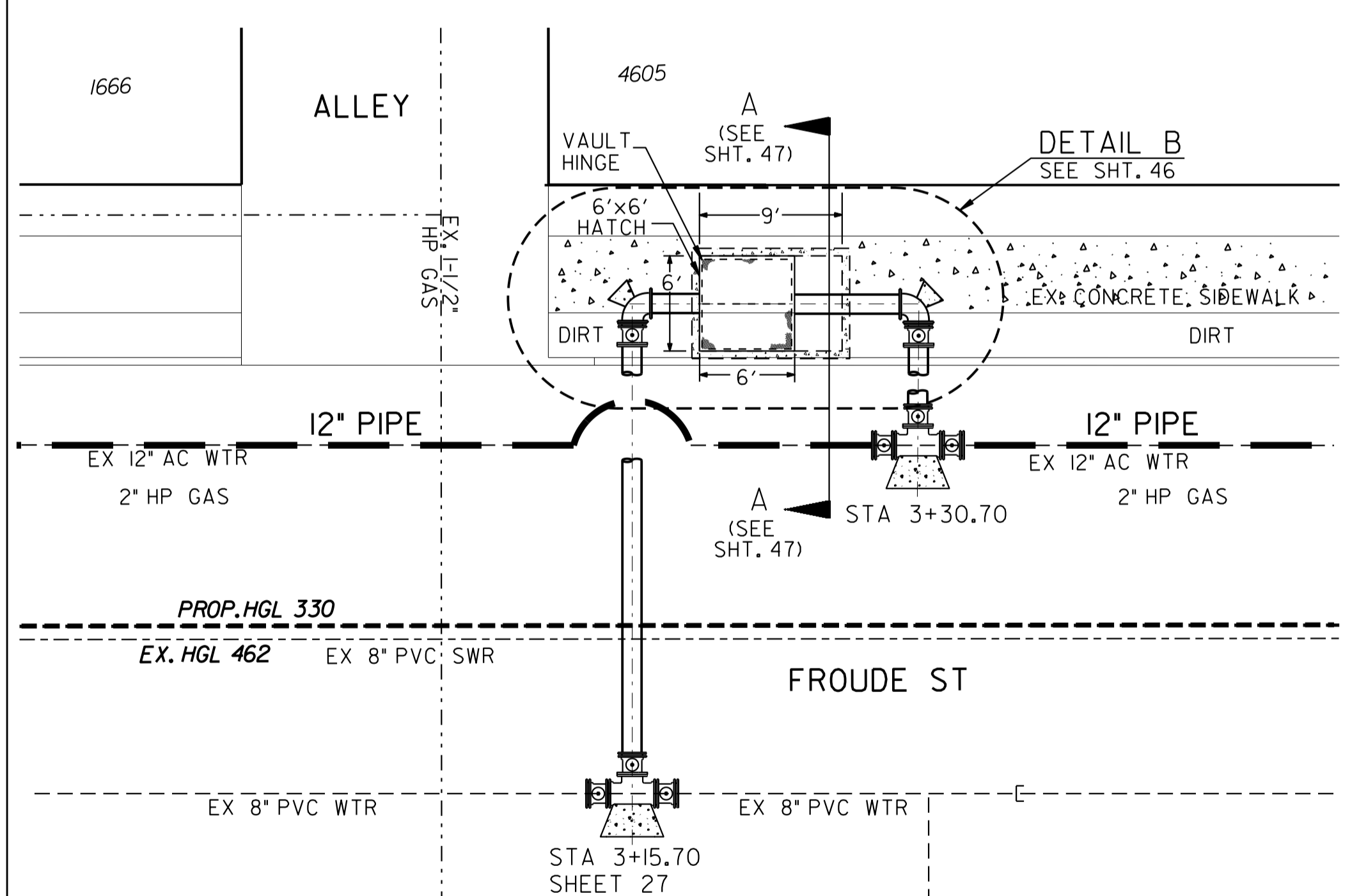
NO SCALE

- CONTRACTOR NOTES:**
1. AFTER NEW MAIN HAS BEEN ACCEPTED AND "RED" VALVES ARE CLOSED, RECONNECT 8" PVC PIPES.
 2. PIPING INSIDE VAULT TO BE PAINTED BLUE TO MATCH PRV.
 3. FOR PRS MATERIALS, SEE SHEET 46.



PRESSURE REDUCING STATION No. 2
6'x9' VALVE VAULT PLAN VIEW

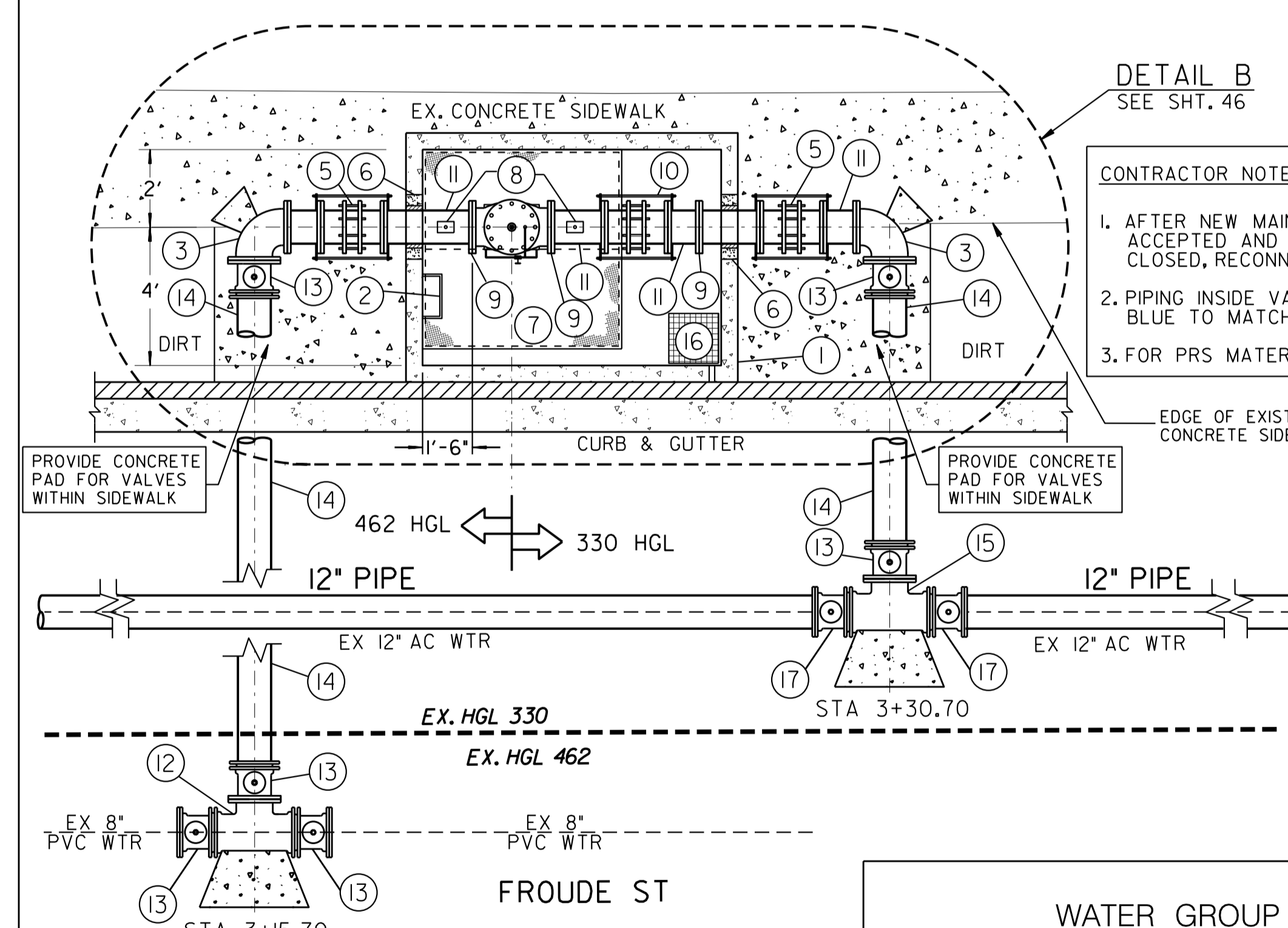
SCALE: 1"=4'



PRESSURE REDUCING STATION No. 2
ENLARGED PLAN VIEW

NO SCALE

NOTE:
CITY FORCES TO CLOSE PROP. "RED" GATE VALVE BEFORE RECONNECTIONS AND AFTER NEW 8" PRS AND NEW 12" WATER MAIN HAS BEEN ACCEPTED

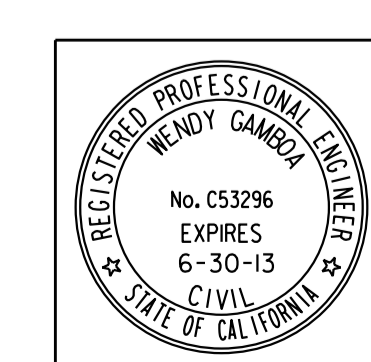


PRESSURE REDUCING STATION No. 2
6'x9' VALVE VAULT ENLARGED PLAN VIEW

NO SCALE

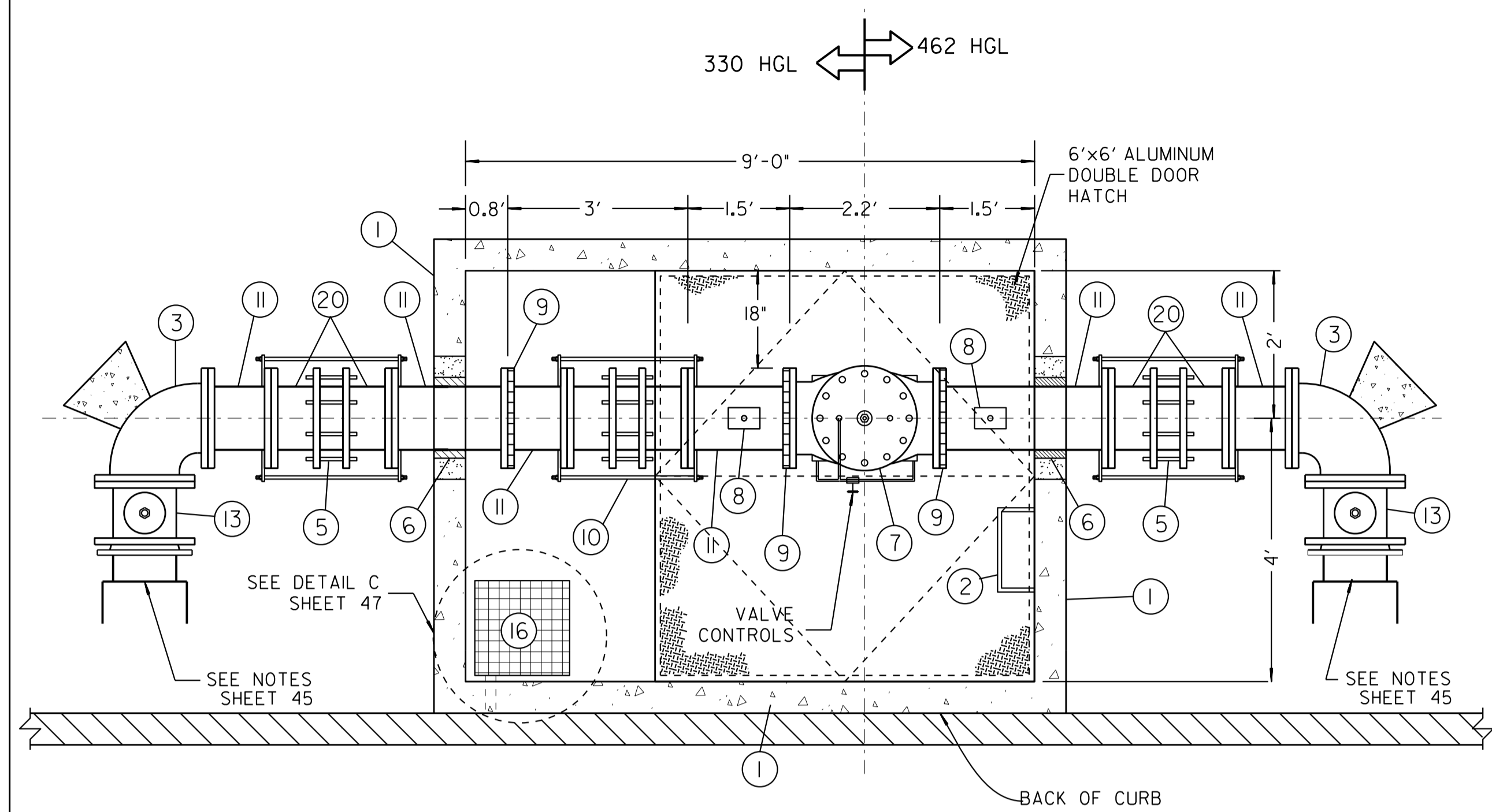
- CONTRACTOR NOTES:**
1. AFTER NEW MAIN HAS BEEN ACCEPTED AND "RED" VALVES ARE CLOSED, RECONNECT 8" PVC PIPES.
 2. PIPING INSIDE VAULT TO BE PAINTED BLUE TO MATCH PRV.
 3. FOR PRS MATERIALS, SEE SHEET 46.

WATER GROUP 914 PRS DETAILS SHEET				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 45 OF 53 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER				VARIABLES CCS27 COORDINATE
CONTRACTOR				VARIABLES CCS83 COORDINATE
INSPECTOR		DATE STARTED	DATE COMPLETED	36124-45-D

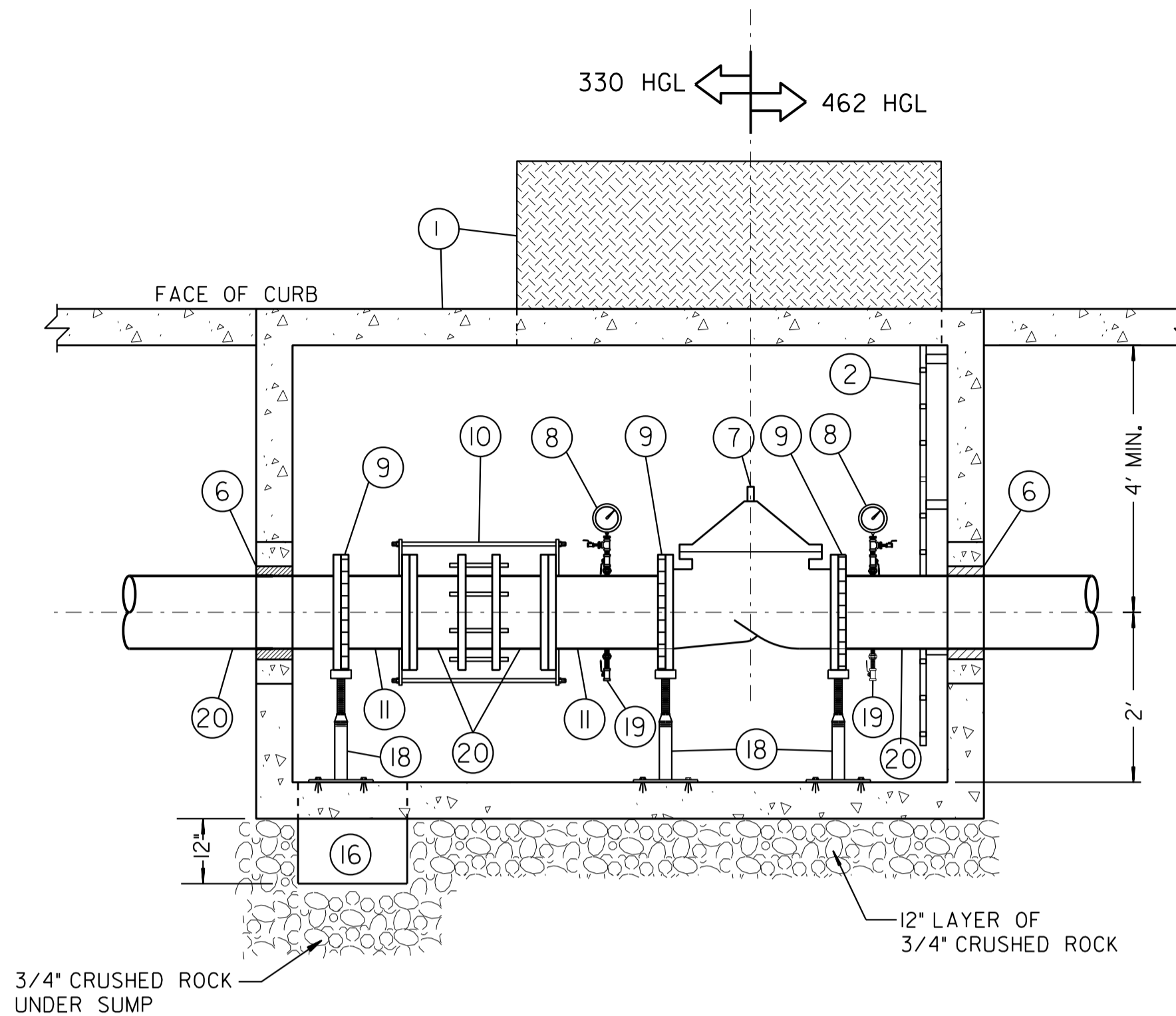


PRS DETAILS SHEET

C-44

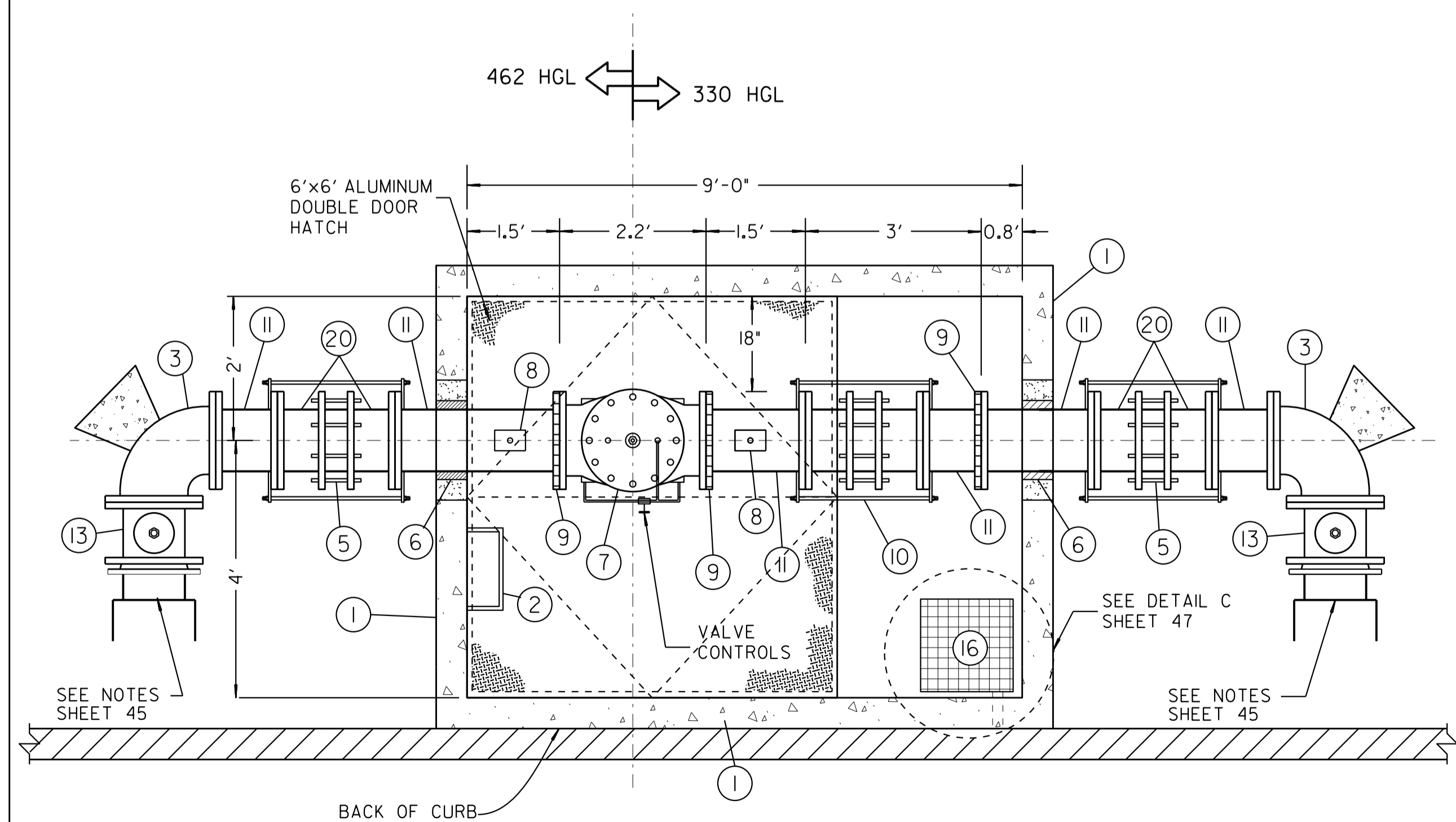


PRESSURE REGULATOR STATION No. 1
 FROUDE ST & ORCHARD AVE
 DETAIL B
 (NO SCALE)

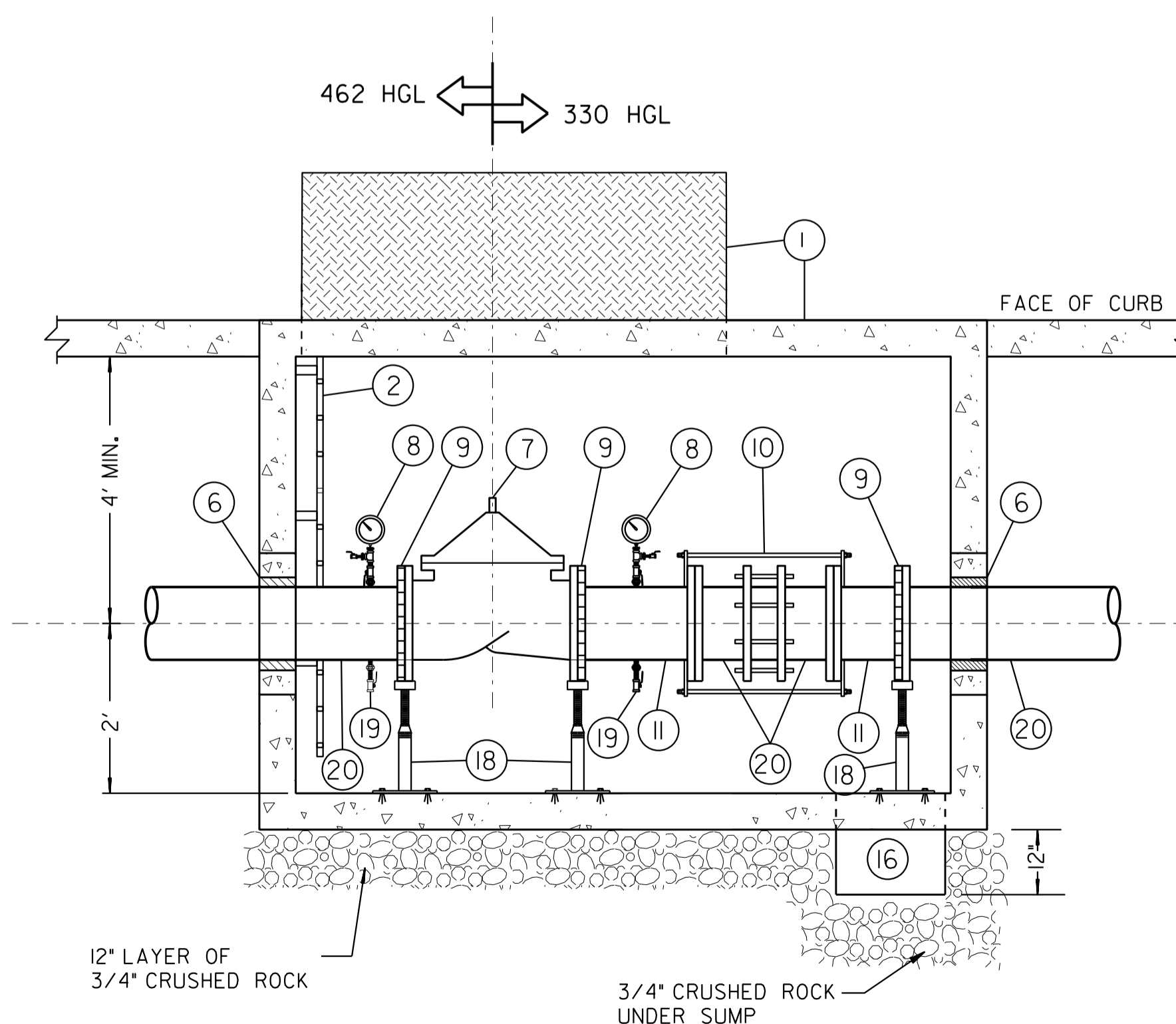


VALVE VAULT ELEVATION VIEW
 NO SCALE

ITEM	QUANTITY	DESCRIPTION
1	2 EACH	PRECAST CONCRETE VAULT 6'-0"x9'-0" I.D. WITH A 6'x6' DOUBLE LEAF HATCH, PROVIDE ALUMINUM ACCESS DOORS, H2O RATED & SPRING ASSISTED WITH PADLOCK HASP
2	2 EACH	LADDER W/LADDER UP SAFETY POST AND SS ANCHOR BOLTS, SEE DETAIL 2/47
3	4 EACH	8" 90° ELBOW, FL ENDS, W/THRUST BLOCK
4	DELETED	
5	4 EACH	8" FLEXIBLE COUPLING (WAX TAPE COATED FOR BURIED COUPLING), RESTRAINED
6	4 EACH	"LINK-SEAL" TYPE WALL PENETRATION DEVICE, SEE DETAIL 4/47
7	2 EACH	8" PRESSURE REGULATOR, FLG'D ENDS, SEE NOTES BELOW THIS SHEET
8	4 EACH	PRESSURE GAUGE & PRESSURE SENSING DEVICE, SEE DETAIL 3/47
9	10 EACH	8" FLANGE (INSIDE VAULT)
10	2 EACH	8" FLEXIBLE COUPLING, RESTRAINED (INSIDE VAULT)
11	4 EACH	8" D.I.P. SPOOL, LENGTH AS REQUIRED, FLG'D ENDS, EPOXY COATED
12	2 EACH	8" TEE (F) W/THRUST BLOCK
13	12 EACH	8" RESILIENT SEAT GATE VALVE, FL X MJ ENDS
14	4 EACH	8" PVC SPOOL, LENGTH AS REQUIRED
15	2 EACH	12"x8" TEE (F) W/THRUST BLOCK
16	2 EACH	18"x18"x18" SUMP W/CAST IRON GRATE
17	4 EACH	12" RESILIENT SEAT GATE VALVE, FL X MJ ENDS
18	6 EACH	FLANGED PIPE SUPPORT, SEE DETAIL 6/47
19	4 EACH	DRAIN CONNECTION, SEE DETAIL 5/47
20	8 EACH	8" D.I.P. SPOOL, FLXPE (LENGTH AS REQUIRED)



PRESSURE REGULATOR STATION No. 2
 FROUDE ST & ALLEY
 DETAIL B
 (NO SCALE)



VALVE VAULT ELEVATION VIEW
 NO SCALE

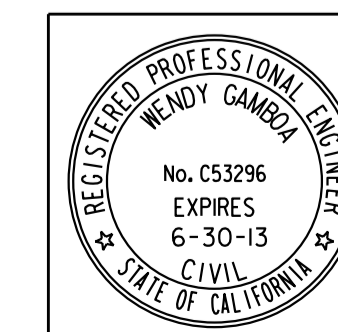
PRS VALVE NOTES:

1. PROVIDE NEW 8" CLA-VAL PRESSURE REDUCING CONTROL VALVE AS INDICATED.
2. PROVIDE NEW PRESSURE REDUCING VALVE WITH CRD PILOT CONTROL AND VALVE STEAM INDICATOR.
3. INSTALL CRD ON THE RIGHT SIDE (FACING SE)
4. PROVIDE SUBMITTAL FOR NEW VALVE AND ACCESSORIES FOR CITY APPROVAL.
5. PRESSURE SETTINGS TO BE PROVIDED BY WATER OP'S. CLA-VAL REPRESENTATIVE TO ADJUST SET POINTS AND WATER OPS TO CERTIFY SETTINGS.
6. BURIED VALVES SHALL BE PROVIDED WITH 2" SO. OPERATING NUT AND VALVE WELL PER SDRSD SDW-153, WV-04.
7. VALVES AND APPURTENANCES SHALL BE DESIGNED FOR A MINIMUM WORKING PRESSURE OF 150 PSI.
8. EXPOSED PIPING IN VAULT SHALL HAVE A MINIMUM STEEL THICKNESS OF 1/4".

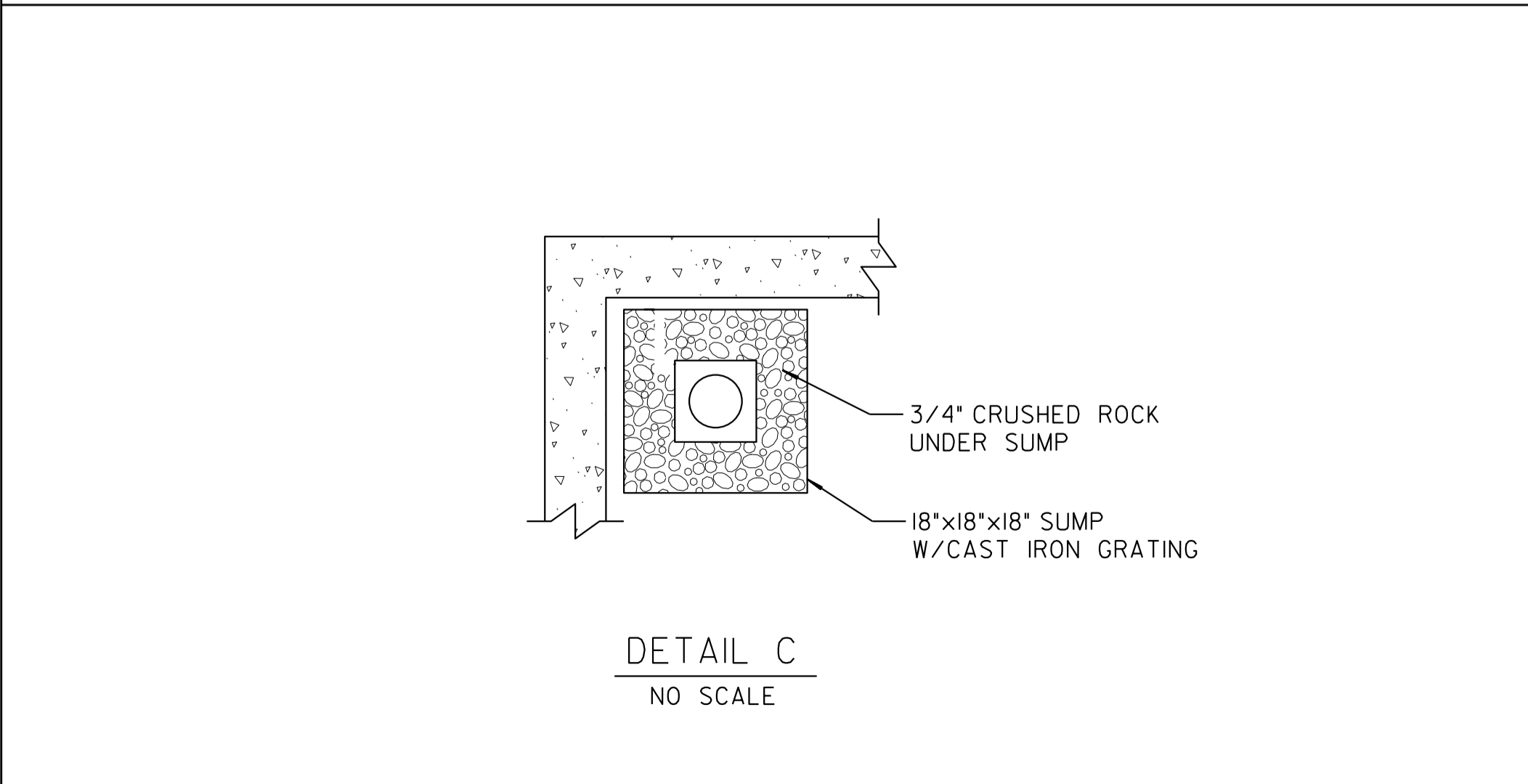
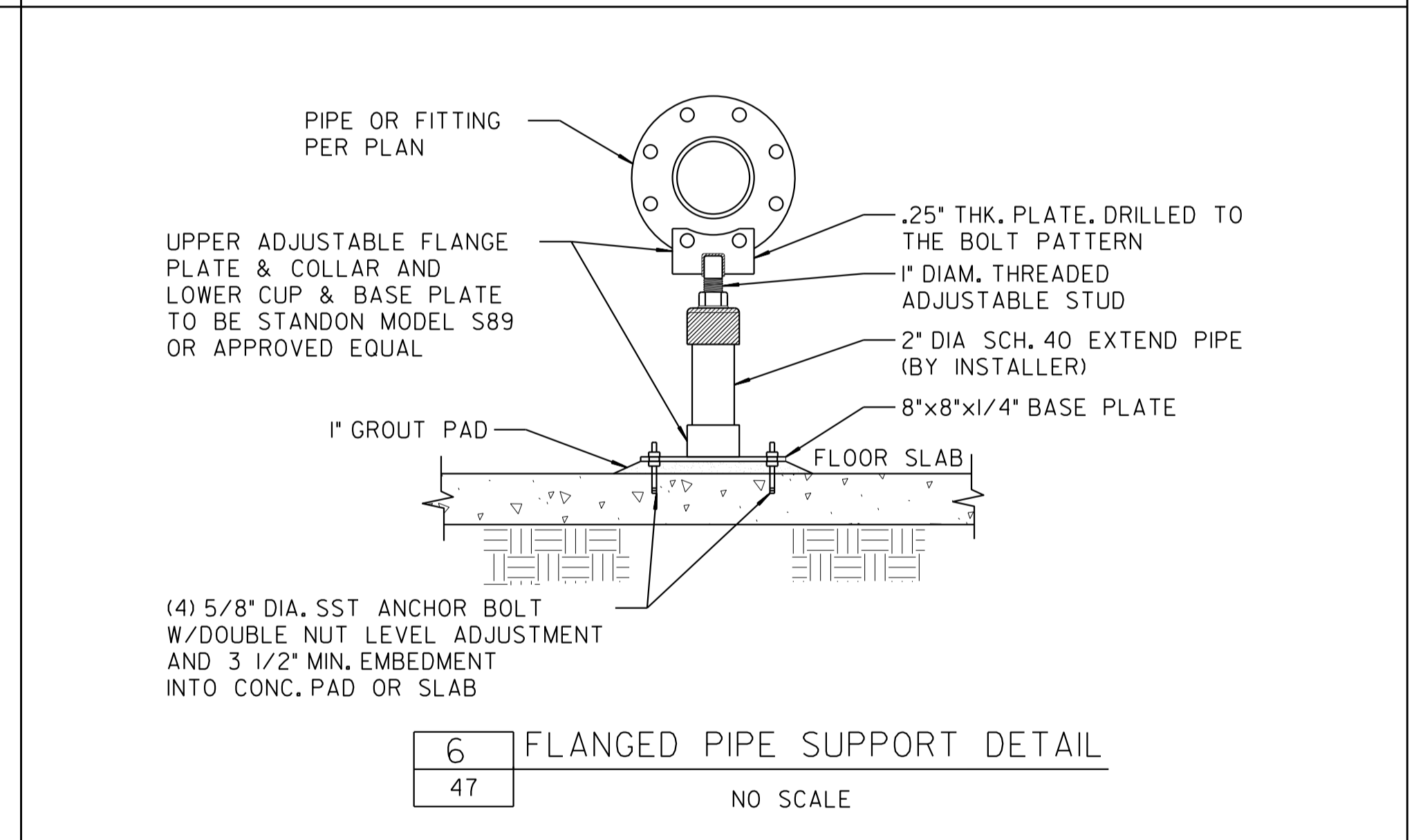
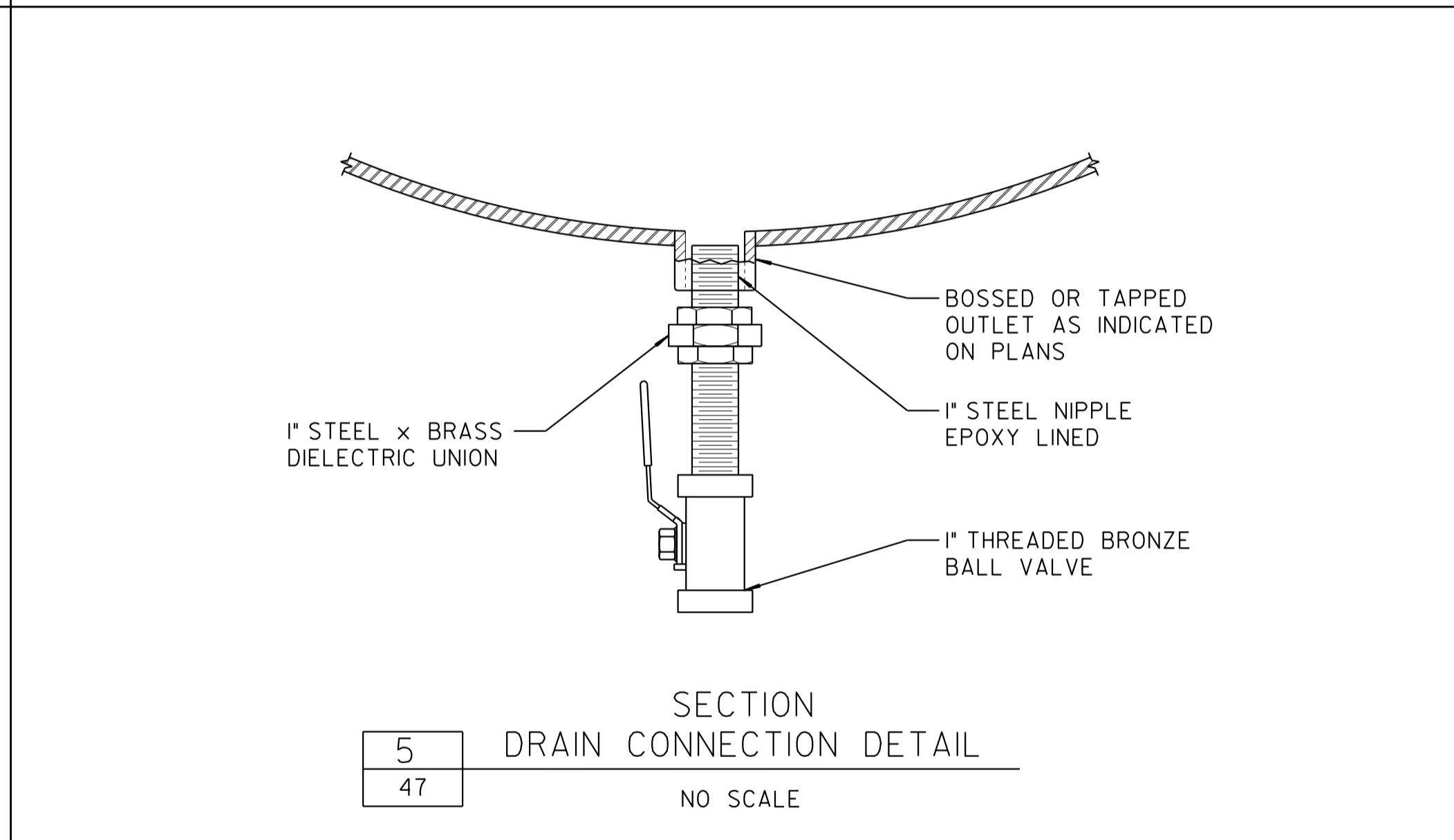
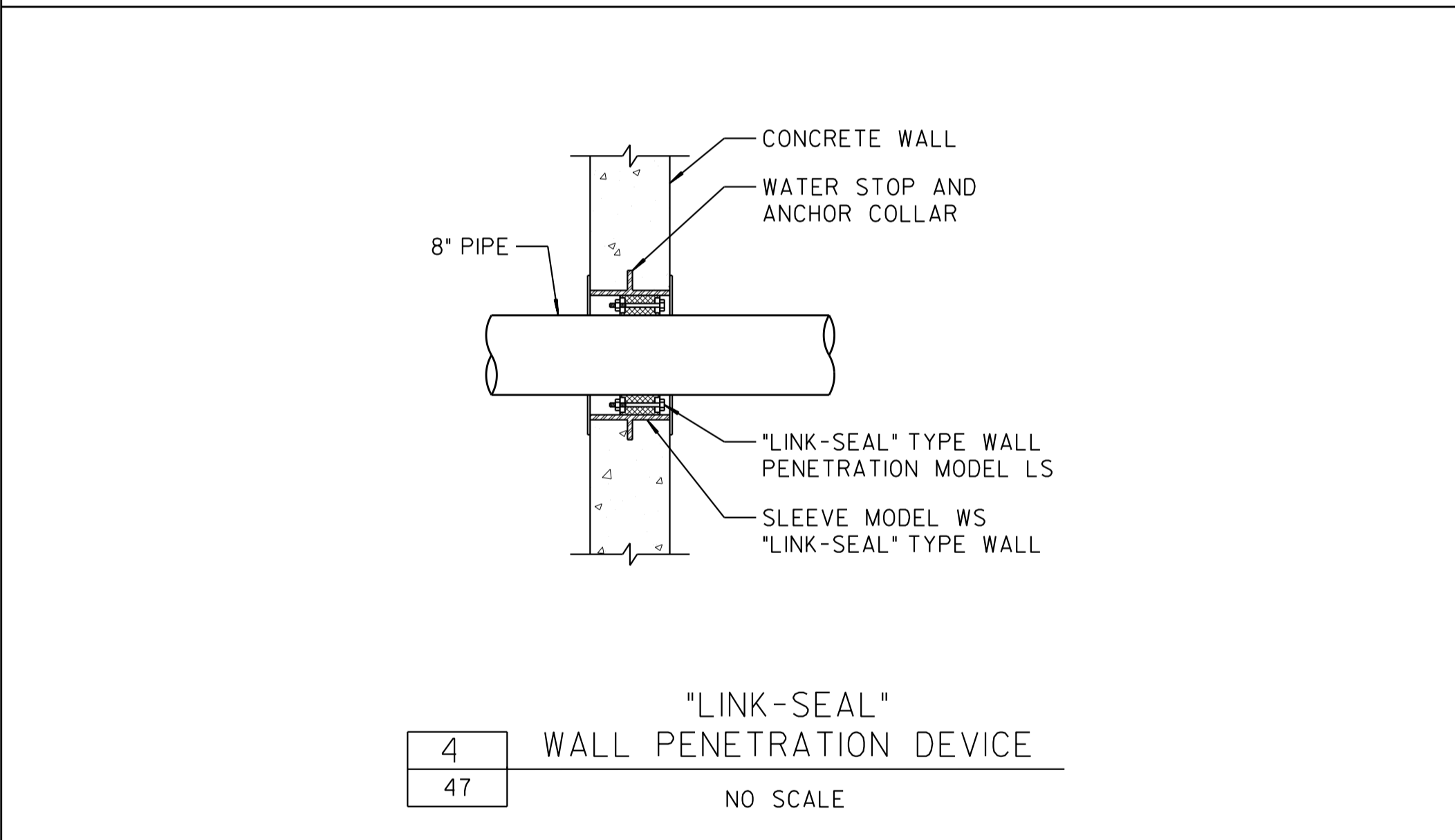
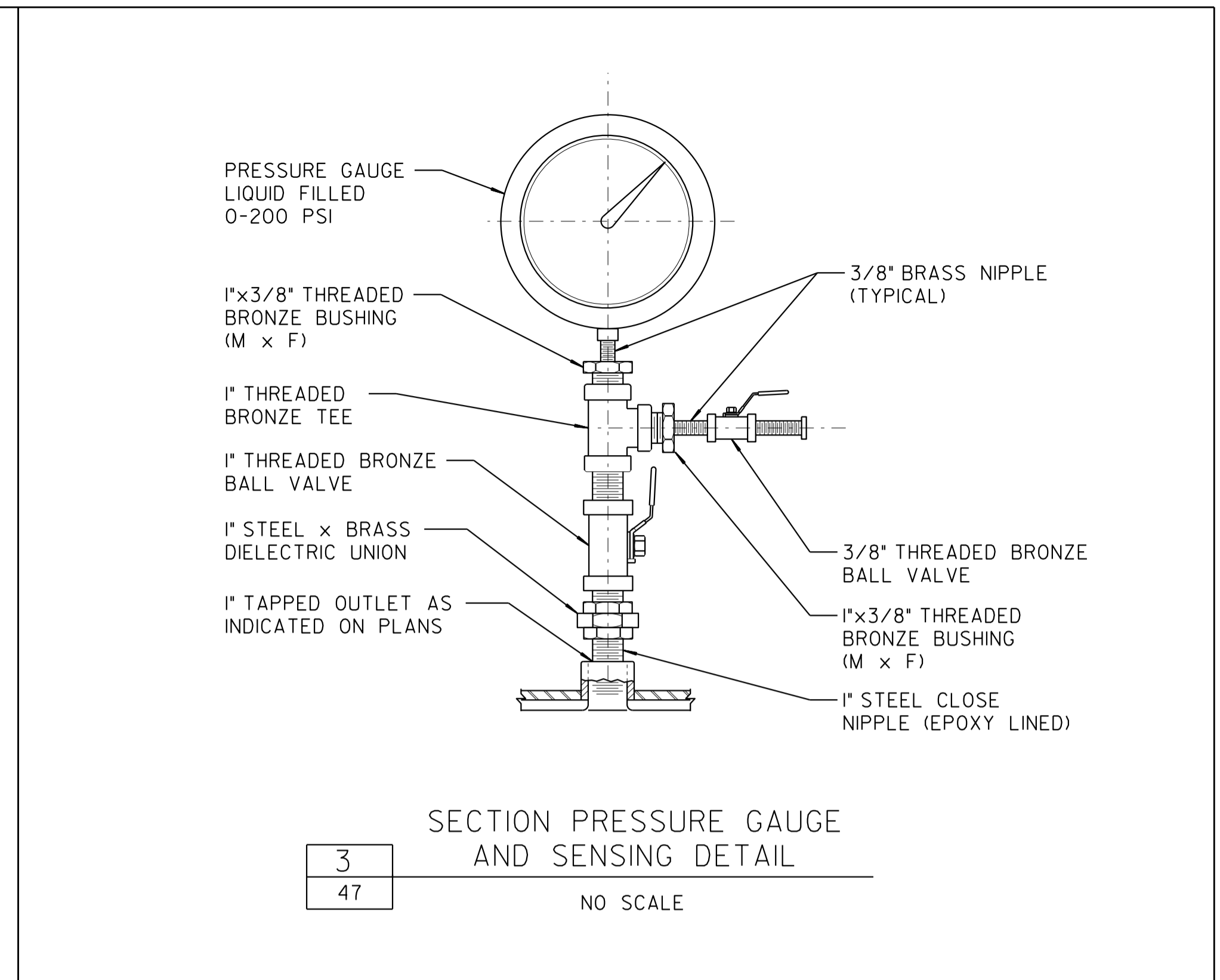
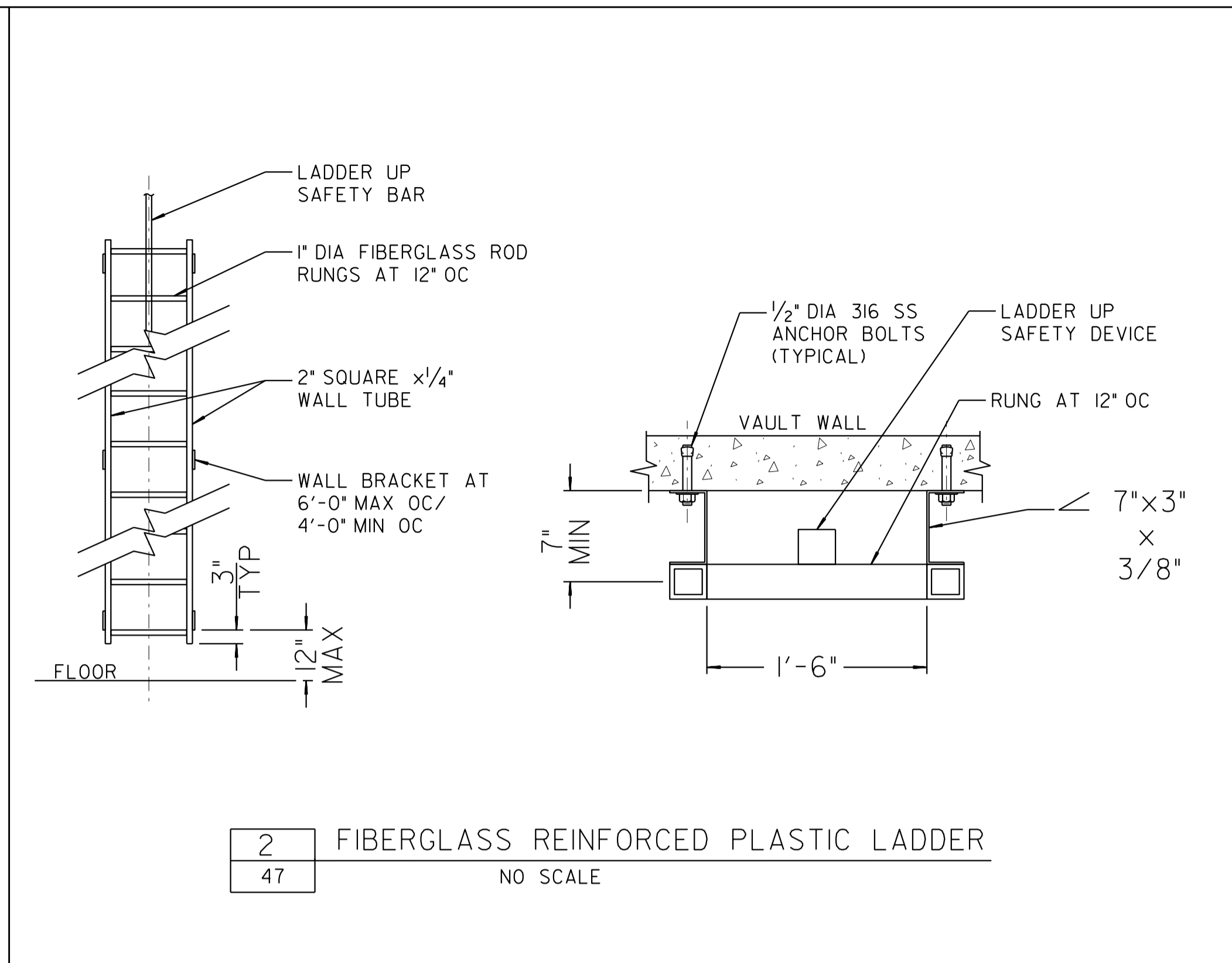
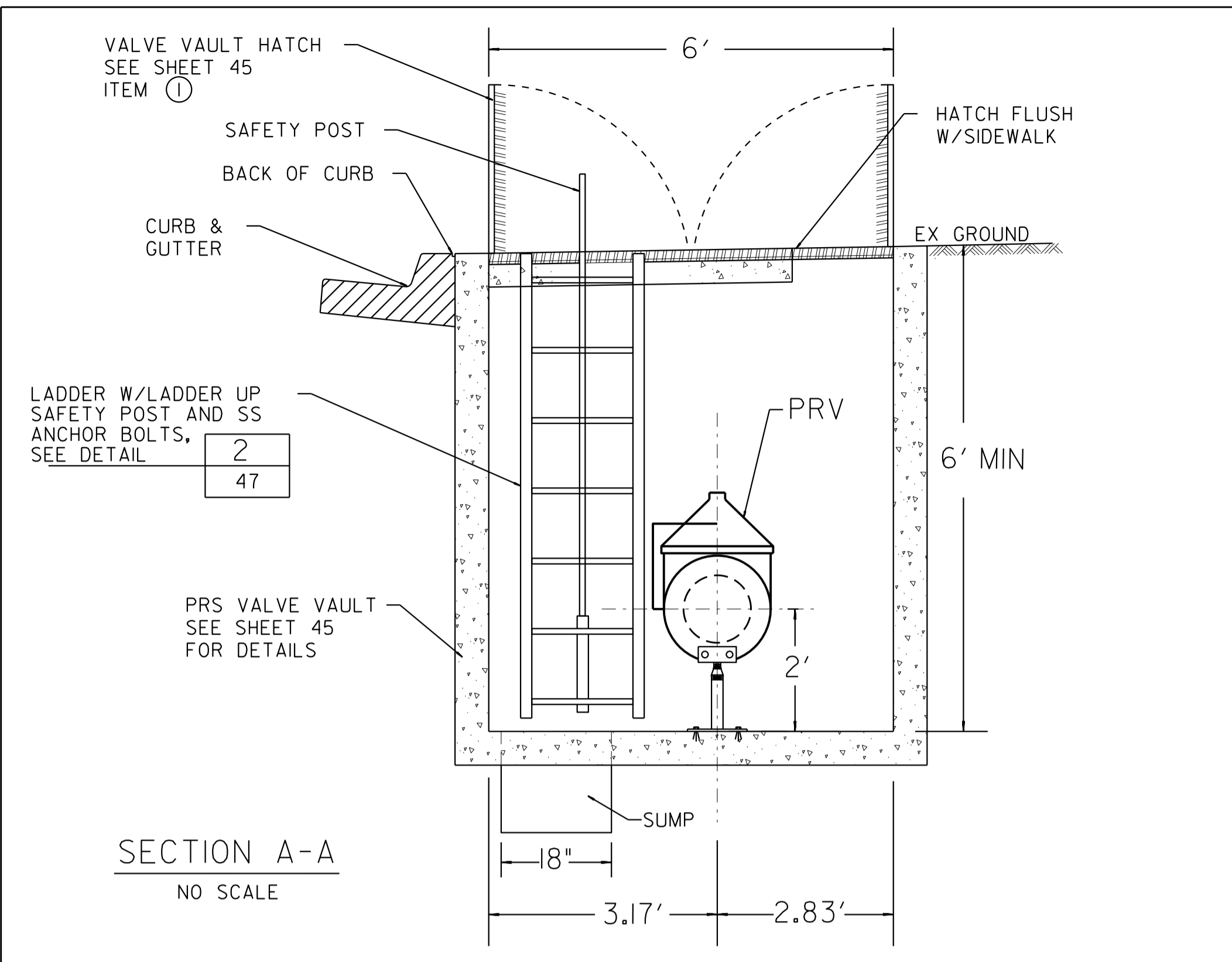
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WATER GROUP 914
 PRS DETAILS SHEET

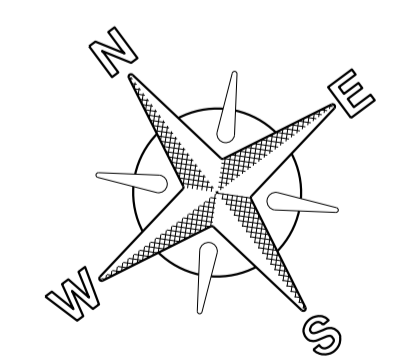
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 46 OF 53 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/27/12	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			
CHECKED BY ROBERTO VEJAR-PARRA PROJECT ENGINEER				VARIABLES CCS27 COORDINATE
CONTRACTOR				VARIABLES CCS83 COORDINATE
INSPECTOR		DATE STARTED	DATE COMPLETED	36124-46-D



PRS DETAILS SHEET



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NO SCALE

WATER GROUP 914 PRS DETAILS SHEET		CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 47 OF 53 SHEETS		WATER WBS B-00125
APPROVED: <i>[Signature]</i> FOR CITY ENGINEER	DATE 2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER	
DESCRIPTION ORIGINAL	BY FH	APPROVED	DATE	FILMED
CONTRACTOR		DATE STARTED		36124-47-D
INSPECTOR		DATE COMPLETED		VARIES CCS27 COORDINATE VARIES CCS83 COORDINATE



PRS DETAILS SHEET

PROPOSED 1" WATER SERVICE AND PRESSURE REDUCING VALVE (PRV) INSTALLATION TABLE

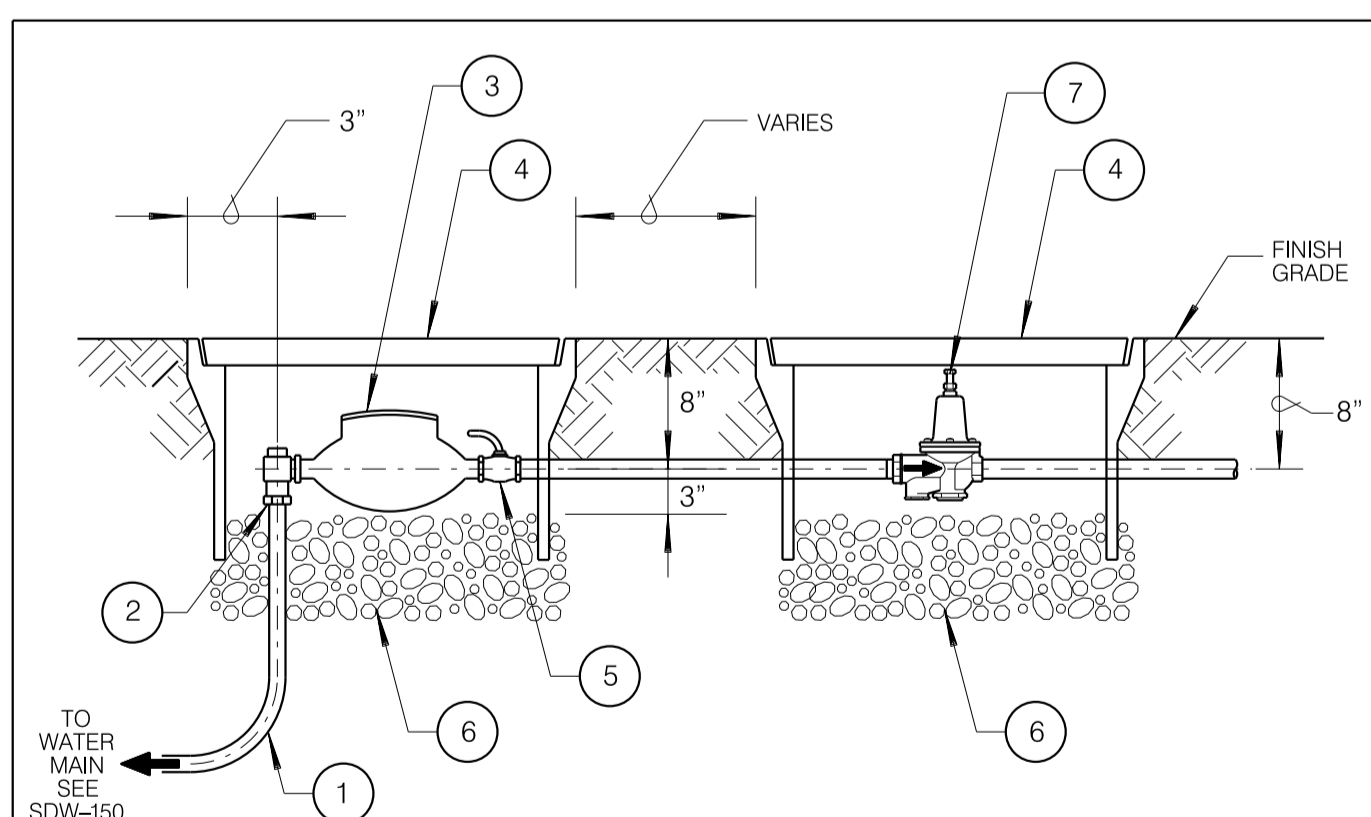
SHEET NO.	PROPERTY ADDRESS	NEW 1" WATER SERVICE	1" PRV	COMMENTS/CONFLICTS
1	1525 EBERS ST, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT ORCHARD AVE
2	1555 EBERS ST, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT ORCHARD AVE
3	4691 ORCHARD AVE, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT ORCHARD AVE
4	4681 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
5	4675 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
6	4674 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
7	4668 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
8	4667 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
9	4664 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
10	4661 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
11	4656 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
12	4651 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
13	4650 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
14	4643 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
15	4640 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
16	4637 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
17	4634 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
18	4633 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
19	4624 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
20	4618 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
21	4617 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
22	4612 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
23	4607 ORCHARD AVE, SAN DIEGO	YES	YES	NO COMMENTS
24	1560 FROUDE ST, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT ORCHARD AVE
25	1540 FROUDE ST, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT ORCHARD AVE
26	1565 EBERS ST, SAN DIEGO	YES	YES	NO COMMENTS
27	1575 EBERS ST, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT EBERS ST
28	1585 EBERS ST, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT EBERS ST
29	1621 EBERS ST, SAN DIEGO	YES	YES	EX. SERVICE CONNECTION AT EBERS ST
30	1626 EBERS ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT STA. CRUZ AVE
31	1628 EBERS ST, SAN DIEGO	NO	YES	NO COMMENTS
32	1755 EBERS ST, SAN DIEGO	YES	NO	EX. SERVICE CONNECTION AT CORONADO AVE
33	1750 FROUDE ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT DEL MONTE AVE
34	1731 EBERS ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT DEL MONTE AVE
35	4688 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
36	4687 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
37	4678 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS

PROPOSED 1" WATER SERVICE AND PRESSURE REDUCING VALVE (PRV) INSTALLATION TABLE (cont'd.)

SHEET NO.	PROPERTY ADDRESS	NEW 1" WATER SERVICE	1" PRV	COMMENTS/CONFLICTS
38	4673 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
39	4672 DEL MONTE AVE, SAN DIEGO	NO	YES	EX. WATER METER IN DRIVEWAY, SEE PRV NOTES BELOW THIS TABLE.
40	4669 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
41	4667 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
42	4665 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
43	4658 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
44	4652 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
45	4651 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
46	4650 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
47	4646 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
48	4645 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
49	4644 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
50	4636 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
51	4635 DEL MONTE AVE, SAN DIEGO	NO	YES	EX. WATER METER IN DRIVEWAY, SEE PRV NOTES BELOW THIS TABLE.
52	4628 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
53	4627 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
54	4621 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
55	4620 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
56	4617 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
57	4603 DEL MONTE AVE, SAN DIEGO	NO	YES	NO COMMENTS
58	4706 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
59	1719 EBERS ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT STA. CRUZ AVE
60	1711 EBERS ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT STA. CRUZ AVE
61	1703 EBERS ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT STA. CRUZ AVE
62	1679 EBERS ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT STA. CRUZ AVE
63	4605 STA CRUZ AVE, SAN DIEGO	NO	YES	NO COMMENTS
64	4691 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
65	4684 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
66	4679 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
67	4678 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
68	4673 DEL MAR AVE, SAN DIEGO	NO	YES	EX. WATER METER IN DRIVEWAY, SEE PRV NOTES BELOW THIS TABLE.
69	4670 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
70	4669 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
71	4665 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
72	4660 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
73	4655 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
74	4660 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
75	4652 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
76	4649 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
77	4646 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
78	4638 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
79	4637 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
80	4631 DEL MAR AVE, SAN DIEGO	NO	YES	EX. WTR. METER IN CONFLICT WITH PALM TREE, SEE PRV NOTES BELOW THIS TABLE.
81	4630 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
82	4625 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
83	4620 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
84	4619 DEL MAR AVE, SAN DIEGO	NO	YES	EX. WTR. METER IN CONFLICT WITH PALM TREE, SEE PRV NOTES BELOW THIS TABLE.
85	4615 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
86	4605 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
87	4604 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
88	4612 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
89	4694 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
90	4685 DEL MAR AVE, SAN DIEGO	NO	YES	SEE PRV NOTE NO. 2 BELOW THIS TABLE.
91	1582 FROUDE ST, SAN DIEGO	NO	YES	EX. SERVICE CONNECTION AT DEL MAR AVE, SEE PRV NOTE NO. 2 BELOW THIS TABLE.

PRV NOTES:

- THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO DETERMINE THE BEST LOCATION TO FURNISH AND INSTALL THE PRIVATE PRESSURE REDUCING VALVE PER DETAIL "A" LEFT THIS SHEET.
- THE PROPOSED WORK IN DEL MAR AVE IS ONLY LIMITED TO FURNISH AND INSTALL THE PRIVATE PRESSURE REDUCING VALVE PER DETAIL "A" LEFT THIS SHEET



ITEM NO.	SIZE AND DESCRIPTION	ITEM NO.	SIZE AND DESCRIPTION
1	USE COPPER TUBING TYPE (K) SOFT FOR 1 INCH SERVICES ONLY. NO INTERMEDIATE JOINTS PERMITTED WITHIN THE FIRST 60 FEET FROM THE MAIN FOR LENGTHS LONGER THAN 60 FEET. USE FLARE JOINT UNION OR LOCK-PAC FITTINGS WITH LOCKING CLAMP AND STAINLESS STEEL BOLT ONLY. NO SWEAT JOINTS ARE ALLOWED.	4	METER BOX WITH LID, #37, 28" x 18" EXACT LOCATION SHALL BE DETERMINED BY ENGINEER.
2	BRONZE ANGLE METER STOP WITH LOCKING DEVICE AND METER COUPLING ATTACHED. FURNISH AND INSTALL BRONZE PROPERTY VALVE. USE SPACER FOR METER.	5	CUSTOMER SHUT-OFF VALVE (LOCKABLE) FURNISHED AND INSTALLED BY THE WATER AGENCY OF JURISDICTION.
3	WATER METER FURNISHED & INSTALLED BY THE WATER AGENCY OF JURISDICTION.	6	3/8" ROCK, 4" TO 6" DEEP.
		7	PRESSURE REDUCING VALVE (PRV) FURNISHED & INSTALLED BY CONTRACTOR.

DETAIL A - 1" WATER SERVICE AND PRESSURE REDUCING VALVE INSTALLATION

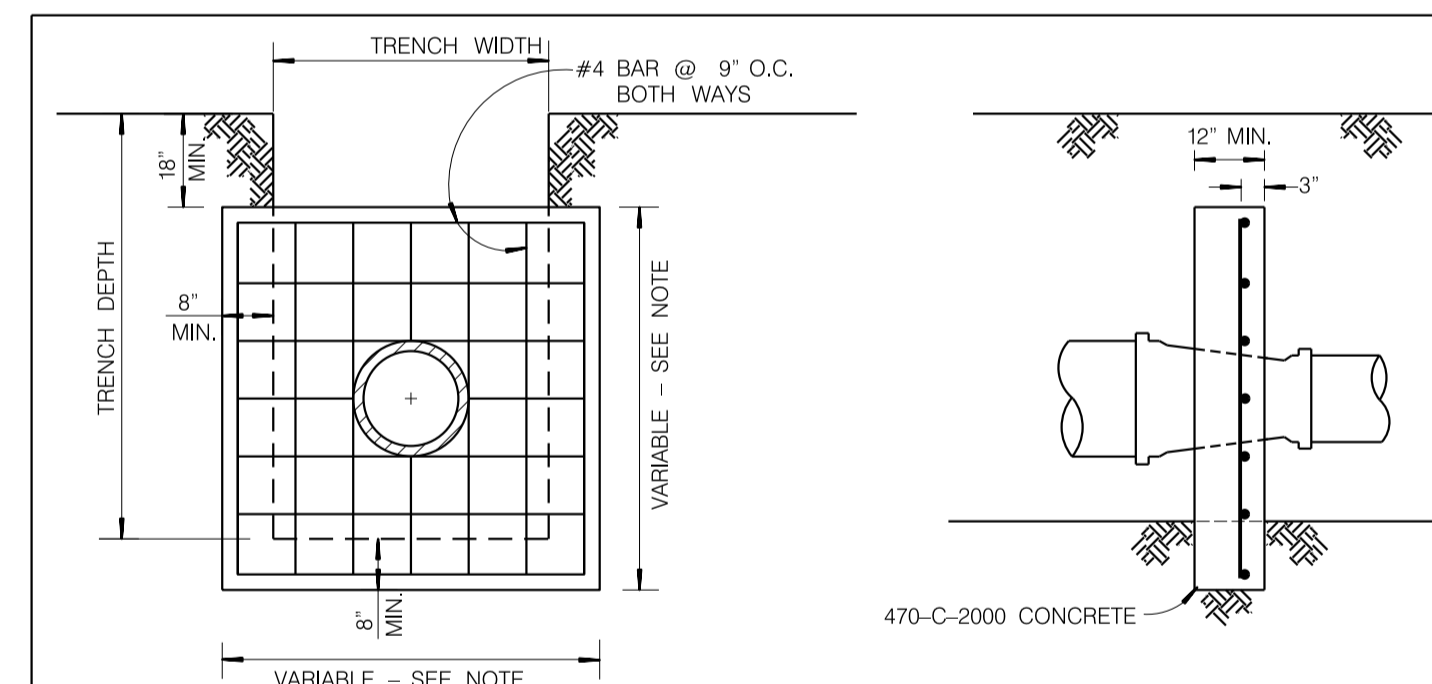
THRUST/ANCHOR TABLE FOR 16" AND LARGER WATER MAINS

SHEET NO.	PIPE STATIONING	TYPE/ DIAM. OF PIPE	TYPE OF BLOCK	TYPE OF APPURTENANCE	DESIGN PRESSURE	TOTAL THRUST (lb)	ASSUMED SOIL CAPACITY	MINIMUM BEARING AREA (sq.ft.), SEE NOTE 3 BELOW OR VOLUME OF BLOCK (cu.ft.)
2	I+00	PVC / 16"	THRUST	16"x16" TEE	104 lb/sq.in.	24,731 lb	1500 lb/sq.ft.	25 sq.ft.
	I+22.98	PVC / 16"	THRUST	45° HORIZONTAL BEND	104 lb/sq.in.	18,927 lb	1500 lb/sq.ft.	19 sq.ft.
	I+73.11	PVC / 16"	THRUST	45° HORIZONTAL BEND	104 lb/sq.in.	18,927 lb	1500 lb/sq.ft.	19 sq.ft.
	I+40.40	PVC / 16"	ANCHOR	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	*N/A	103 cu.ft.
	I+70.75	PVC / 16"	THRUST	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	1500 lb/sq.ft.	56 sq.ft.
	3+20.60	PVC / 16"	ANCHOR	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	*N/A	103 cu.ft.
	5+40.00	PVC / 16"	THRUST	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	1500 lb/sq.ft.	56 sq.ft.
3	11+94	PVC / 16"	THRUST	16"x12" TEE	104 lb/sq.in.	24,731 lb	1500 lb/sq.ft.	25 sq.ft.
	12+20	PVC / 16"	ANCHOR	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	*N/A	52 cu.ft.
	12+40	PVC / 16"	THRUST	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	1500 lb/sq.ft.	5 sq.ft.
4	18+58.21	PVC / 16"	THRUST	16"x8" TEE	104 lb/sq.in.	24,731 lb	1500 lb/sq.ft.	25 sq.ft.
	15+80	PVC / 16"	THRUST	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	1500 lb/sq.ft.	5 sq.ft.
	15+90	PVC / 16"	ANCHOR	22.5° VERTICAL BEND	104 lb/sq.in.	9,649 lb	*N/A	103 cu.ft.
5	19+27.22	PVC / 16"	THRUST	22.5° VERTICAL BEND	104 lb/sq.in.	9,649 lb	1500 lb/sq.ft.	56 sq.ft.
	25+19.05	PVC / 16"	THRUST	16"x16" TEE	104 lb/sq.in.	24,731 lb	1500 lb/sq.ft.	25 sq.ft.
6	32+31.26	PVC / 16"	THRUST	18"x16" TEE	104 lb/sq.in.	31,060 lb	1500 lb/sq.ft.	31 sq.ft.
	28+60	PVC / 16"	THRUST	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	1500 lb/sq.ft.	5 sq.ft.
	31+30	PVC / 16"	THRUST	11.25° VERTICAL BEND	104 lb/sq.in.	4,847 lb	1500 lb/sq.ft.	5 sq.ft.

* The specific weight of concrete is 140 lb/cu.ft. AND Safety Factor = 1.5

NOTES:

- FOR ADDITIONAL THRUST BLOCKS, ANCHOR BLOCKS, DETAILS AND NOTES SEE SDW-151.
- REFER TO SPECIFICATIONS SECTION 306-1.2.14 FOR ADDITIONAL REQUIREMENTS.
- FOR ESTIMATING THE QUANTITY FOR THRUST BLOCKS, THE DEPTH OF THE THRUST BLOCKS SHALL BE HALF OF THE TRENCH WIDTH PLUS 12" EMBEDMENT.



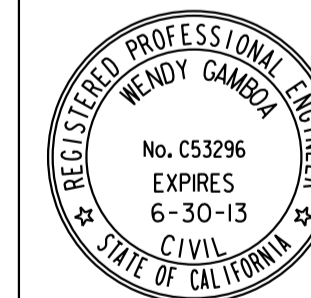
NOTE:
BEARING AREA SHALL BE THE DIFFERENCE BETWEEN THE MINIMUM BEARING AREAS REQUIRED FOR THRUST ANCHORAGE OF MAINS ON EACH SIDE OF REDUCER PLUS THE AREA OF THE TRENCH OPENING, EXCEPT THAT MINIMUM DIMENSIONS SHOWN SHALL BE ADHERED TO.

MAIN SIZE	MINIMUM BEARING AREA IN SQUARE METERS (SQUARE FOOT)
100 mm (4")	0.4 (4.25)
150 mm (6")	0.8 (8.79)
200mm (8")	1.4 (15.12)
250mm (10")	2.1 (22.74)
300mm (12")	3.0 (32.16)
400mm (16")	5.2 (55.88)
500mm (20")	8.0 (86.11)

ANCHOR BLOCK FOR REDUCERS

NOTES:

- REFER TO AGENCY SPECIFICATIONS WHERE APPLICABLE
- BEARING AREA BASED ON SOIL BEARING VALUE OF 71,821 kPa (1500 PSF) AND 1551 kPa (235 PSF) LINE PRESSURE AND A MINIMUM OF 900 mm (36") COVER
FOR BEARING = 47,880 kPa (1000 PSF), 1.5 x AREA SHOWN
FOR BEARING = 23,940 kPa (500 PSF), 3.0 x AREA SHOWN
- DESIGN ENGINEER SHALL DETERMINE SIZES, REFER TO AGENCY SPECIFICATIONS FOR THRUST AND ANCHOR BLOCK SIZING
- THRUST BLOCKS SHALL BE CENTERED ON THE FITTING SO THAT THE BEARING AREA IS EXACTLY OPPOSITE THE RESULTANT DIRECTION OF THRUST
- CONCRETE SHALL BE PLACED SO THAT FITTINGS AND VALVES WILL BE ACCESSIBLE FOR REPAIR OR REPLACEMENT
- ALL THRUST AND ANCHOR BLOCKS SHALL BE POURED AGAINST WETTED UNDISTURBED SOIL
- FOR MINIMUM CONCRETE CURING TIME REFER TO AGENCY SPECIFICATIONS
- FOR ADDITIONAL THRUST BLOCKS SEE WT-01 (1 OF 3)

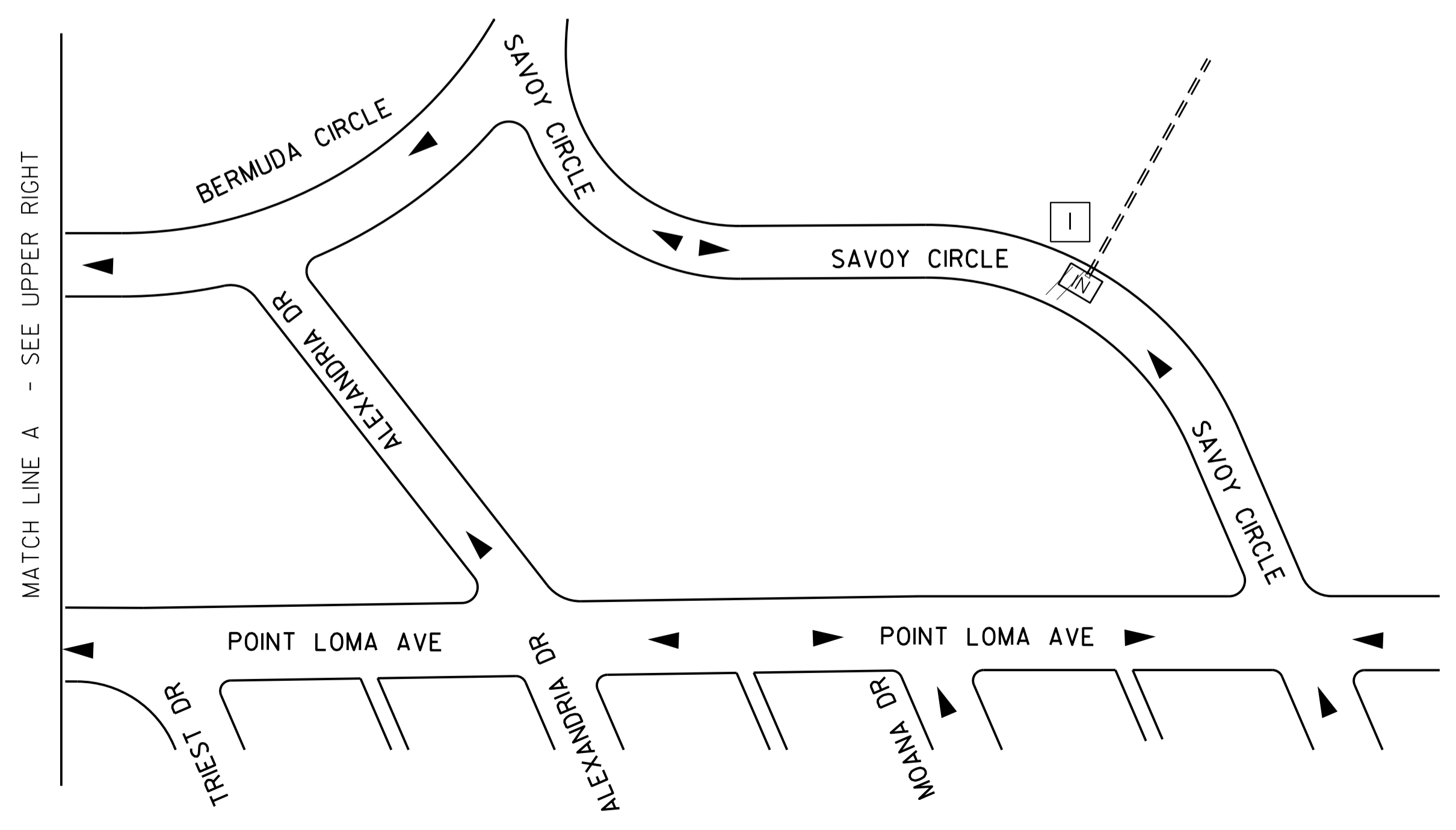
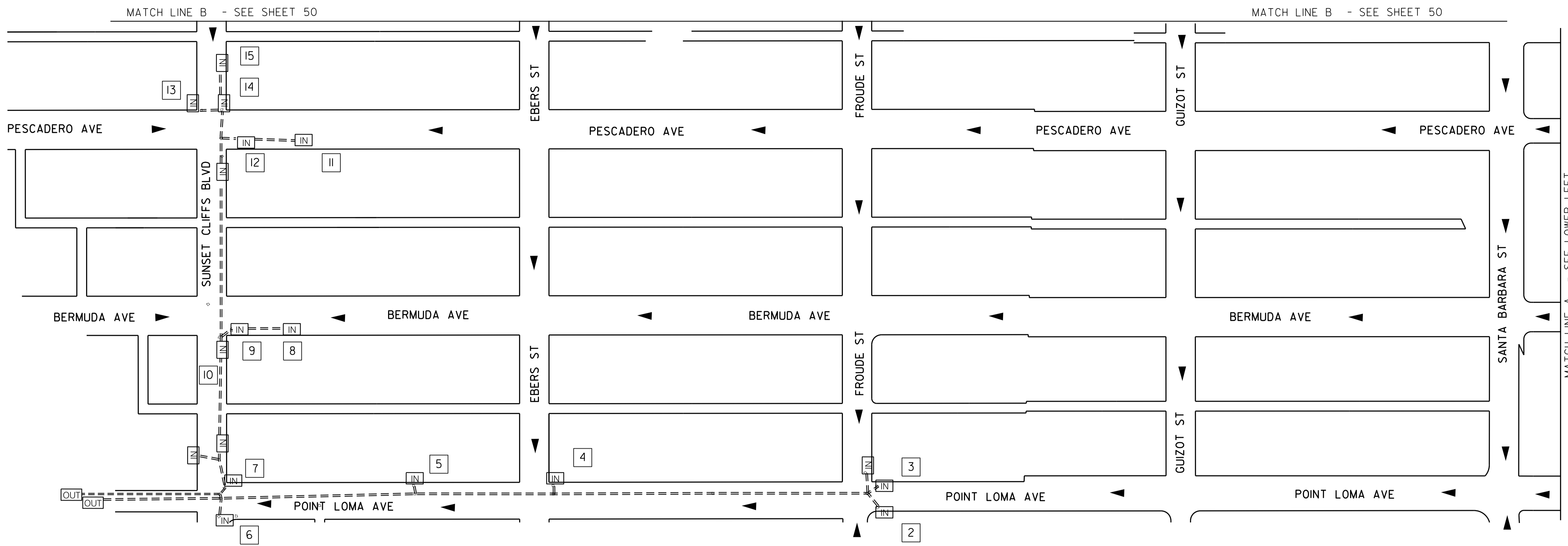


C-47

WATER GROUP 914
MISCELLANEOUS DETAILS SHEET

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 48 OF 53 SHEETS					WATER WBS B-00125
APPROVED:	<i>[Signature]</i>	DATE	2/27/12		SUBMITTED BY: MICHAEL NINH, ASSOCIATE ENGINEER
FOR CITY ENGINEER					CHECKED BY: ROBERTO VEJAR-PARRA, PROJECT ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	FH				VARIABLES CCS27 COORDINATE
					VARIABLES CCS83 COORDINATE
CONTRACTOR		DATE STARTED			36124-48-D
INSPECTOR		DATE COMPLETED			

MISCELLANEOUS DETAILS SHEET

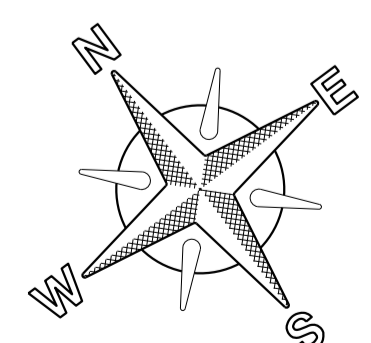


LEGEND:

- SURFACE FLOW TO STORM DRAIN
- STORM DRAIN INLET AFFECTED BY CONSTRUCTION

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

WATER GROUP 914		STORM DRAIN INLET PROTECTION PLAN	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 49 OF 53 SHEETS		WATER WBS	B-00125
APPROVED FOR CITY ENGINEER		DATE	2/27/12
CHECKED BY	ROBERTO VEJAR-PARRA PROJECT ENGINEER	SUBMITTED BY	MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	ORIGINAL	BY	FH
APPROVED		DATE	
FILMED			
CONTRACTOR		DATE STARTED	
INSPECTOR		DATE COMPLETED	
			36124-49-D

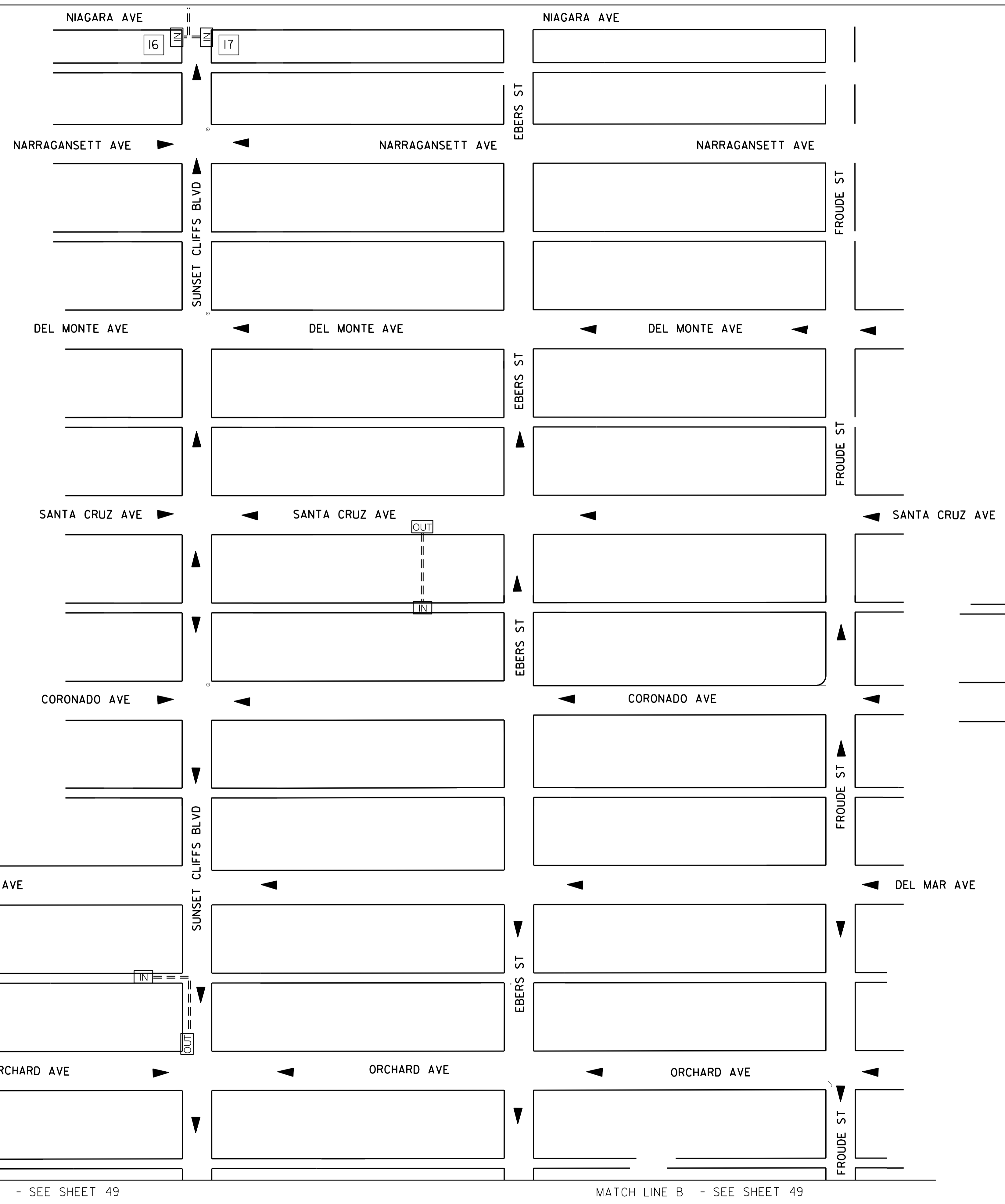


MATCH LINE B - SEE SHEET 50

MATCH LINE B - SEE SHEET 50

MATCH LINE A - SEE UPPER RIGHT

MATCH LINE A - SEE LOWER LEFT

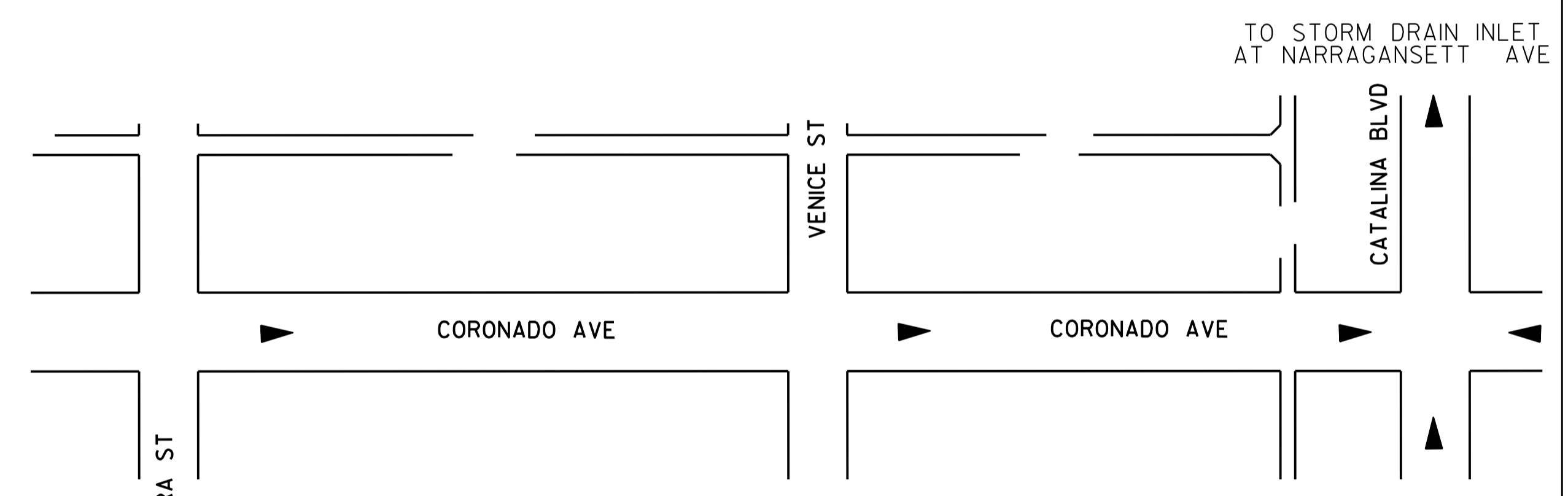


LEGEND:

- ▶ SURFACE FLOW TO STORM DRAIN
- STORM DRAIN INLET AFFECTED BY CONSTRUCTION

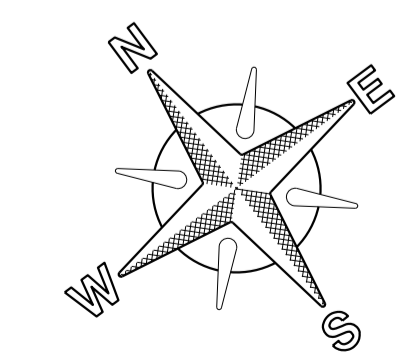
NOTES

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.

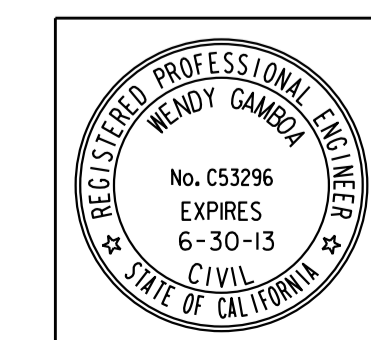


C-49

WATER GROUP 914		STORM DRAIN INLET PROTECTION PLAN	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 50 OF 53 SHEETS		WATER WBS	B-00125
APPROVED FOR CITY ENGINEER	<i>[Signature]</i>	DATE	2/27/12
CHECKED BY	ROBERTO VEJAR-PARRA PROJECT ENGINEER	DATE	
DESCRIPTION	ORIGINAL	BY	FH
APPROVED		DATE	
FILMED			
SUBMITTED BY		MICHAEL NINH ASSOCIATE ENGINEER	
CHECKED BY		ROBERTO VEJAR-PARRA PROJECT ENGINEER	
VARIABLES		VARIES CCS27 COORDINATE	
VARIABLES		VARIES CCS83 COORDINATE	
CONTRACTOR	DATE STARTED	36124-50-D	
INSPECTOR	DATE COMPLETED		



NO SCALE



MATCH LINE B - SEE SHEET 49

MATCH LINE B - SEE SHEET 49

✱ BENTLEY HORIZONTAL ALIGNMENT TO ASCII

✱ Alignment name: Default
 ✱ Alignment description:
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING
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✱ Alignment name: SHEET 02, 03, 04, 05 & 06
 ✱ Alignment description: POINT LOMA AVE / SANTA B
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING	
POB(11)	1+00.00	1849026.77	6252833.70
PI(12)	1+16.00	1849017.22	6252846.53
Tangential Direction: S 53°20'32" E			
Tangential Length: 16.00			

STATION	NORTHING	EASTING	
PI(12)	1+16.00	1849017.22	6252846.53
PI(13)	1+22.98	1849013.07	6252852.14
Tangential Direction: S 53°30'48" E			
Tangential Length: 6.98			

STATION	NORTHING	EASTING	
PI(13)	1+22.98	1849013.07	6252852.14
PI(14)	1+73.12	1849020.42	6252901.74
Tangential Direction: N 81°34'10" E			
Tangential Length: 50.14			

STATION	NORTHING	EASTING	
PI(14)	1+73.12	1849020.42	6252901.74
PI(15)	1+83.12	1849014.46	6252909.77
Tangential Direction: S 53°25'50" E			
Tangential Length: 10.00			

STATION	NORTHING	EASTING	
PI(15)	1+83.12	1849014.46	6252909.77
PI(16)	1+65.98	1848428.88	6253699.15
Tangential Direction: S 53°25'52" E			
Tangential Length: 982.87			

STATION	NORTHING	EASTING	
PI(16)	1+65.98	1848428.88	6253699.15
PI(17)	1+94.01	1848412.18	6253721.66
Tangential Direction: S 53°25'50" E			
Tangential Length: 28.02			

STATION	NORTHING	EASTING	
PI(17)	1+94.01	1848412.18	6253721.66
PI(18)	18+20.00	1848037.80	6254223.36
Tangential Direction: S 53°16'07" E			
Tangential Length: 625.99			

STATION	NORTHING	EASTING	
PI(18)	18+20.00	1848037.80	6254223.36
PI(19)	18+58.21	1848014.95	6254253.99
Tangential Direction: S 53°16'59" E			
Tangential Length: 38.21			

STATION	NORTHING	EASTING	
PI(19)	18+58.21	1848014.95	6254253.99
PI(20)	24+60.00	1847656.34	6254737.25
Tangential Direction: S 53°25'19" E			
Tangential Length: 601.79			

STATION	NORTHING	EASTING	
PI(20)	24+60.00	1847656.34	6254737.25
PI(21)	25+19.06	1847621.14	6254784.68
Tangential Direction: S 53°25'19" E			
Tangential Length: 59.06			

STATION	NORTHING	EASTING	
PI(21)	25+19.06	1847621.14	6254784.68
PI(22)	32+01.04	1848168.81	6255191.09
Tangential Direction: N 36°34'41" E			
Tangential Length: 681.98			

STATION	NORTHING	EASTING	
PI(22)	32+01.04	1848168.81	6255191.09
POE(23)	32+31.26	1848193.09	6255209.08
Tangential Direction: N 36°32'37" E			
Tangential Length: 30.22			

✱ Alignment name: SHEET 07 & 08
 ✱ Alignment description: BERMUDA AVENUE
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING	
POB(24)	1+00.00	1849462.60	6252889.13
PI(25)	1+24.57	1849447.94	6252908.85
Tangential Direction: S 53°23'24" E			
Tangential Length: 24.57			

STATION	NORTHING	EASTING	
PI(25)	1+24.57	1849447.94	6252908.85
PI(26)	7+89.41	1849051.46	6253442.53
Tangential Direction: S 53°23'24" E			
Tangential Length: 664.84			

STATION	NORTHING	EASTING	
PI(26)	7+89.41	1849051.46	6253442.53
PI(27)	13+63.00	1848709.39	6253902.96
Tangential Direction: S 53°23'24" E			
Tangential Length: 573.59			

STATION	NORTHING	EASTING	
PI(27)	13+63.00	1848709.39	6253902.96
POE(28)	13+94.50	1848690.60	6253928.25
Tangential Direction: S 53°23'24" E			
Tangential Length: 31.50			

✱ Alignment name: SHEET 09 & 10
 ✱ Alignment description: BERMUDA AVENUE
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING	
POB(29)	1+00.00	1848677.64	6253946.34
PI(30)	1+29.14	1848660.15	6253969.64
Tangential Direction: S 53°06'35" E			
Tangential Length: 29.14			

STATION	NORTHING	EASTING	
PI(30)	1+29.14	1848660.15	6253969.64
PI(31)	7+88.31	1848264.46	6254496.85
Tangential Direction: S 53°06'36" E			
Tangential Length: 659.18			

STATION	NORTHING	EASTING	
PI(31)	7+88.31	1848264.46	6254496.85
PI(32)	13+70.00	1847915.25	6254962.05
Tangential Direction: S 53°06'19" E			
Tangential Length: 581.69			

STATION	NORTHING	EASTING	
PI(32)	13+70.00	1847915.25	6254962.05
POE(33)	14+21.64	1847884.20	6255003.31
Tangential Direction: S 53°02'52" E			
Tangential Length: 51.64			

✱ Alignment name: SHEET 11, 12 & 13 A
 ✱ Alignment description: PESCADERO AVENUE
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING	
POB(34)	1+00.00	1850002.18	6252799.10
PI(35)	1+10.00	1849996.21	6252807.12
Tangential Direction: S 53°20'41" E			
Tangential Length: 10.00			

STATION	NORTHING	EASTING	
PI(35)	1+10.00	1849996.21	6252807.12
PI(36)	4+95.16	1849766.26	6253116.11
Tangential Direction: S 53°20'41" E			
Tangential Length: 385.16			

STATION	NORTHING	EASTING	
PI(36)	4+95.16	1849766.26	6253116.11
PI(37)	5+18.14	1849752.57	6253134.56
Tangential Direction: S 53°24'10" E			
Tangential Length: 22.98			

STATION	NORTHING	EASTING	
PI(37)	5+18.14	1849752.57	6253134.56
PI(38)	11+82.18	1849356.67	6253667.68
Tangential Direction: S 53°24'10" E			
Tangential Length: 664.04			

STATION	NORTHING	EASTING	
PI(38)	11+82.18	1849356.67	6253667.68
PI(39)	17+59.00	1849012.79	6254130.78
Tangential Direction: S 53°24'12" E			
Tangential Length: 576.82			

STATION	NORTHING	EASTING	
PI(39)	17+59.00	1849012.79	6254130.78
POE(40)	17+88.33	1848995.30	6254154.33
Tangential Direction: S 53°24'12" E			
Tangential Length: 29.33			

✱ Alignment name: SHEET 13 B
 ✱ Alignment description: CABLE STREET
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING	
POB(41)	1+00.00	1850465.05	6252811.46
PI(42)	1+10.00	1850473.09	6252817.40
Tangential Direction: N 36°30'23" E			
Tangential Length: 10.00			

STATION	NORTHING	EASTING	
PI(42)	1+10.00	1850473.09	6252817.40
POE(43)	2+95.26	1850622.00	6252927.62
Tangential Direction: N 36°30'23" E			
Tangential Length: 185.26			

✱ Alignment name: SHEET 14 & 15
 ✱ Alignment description: PESCADERO AVE
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING	
POB(44)	1+00.00	1848981.64	6254172.72
PI(45)	1+30.00	1848963.67	6254196.74
Tangential Direction: S 53°11'31" E			
Tangential Length: 30.00			

STATION	NORTHING	EASTING	
PI(45)	1+30.00	1848963.67	6254196.74
PI(46)	7+87.77	1848569.58	6254723.38
Tangential Direction: S 53°11'31" E			
Tangential Length: 657.77			

STATION	NORTHING	EASTING	
PI(46)	7+87.77	1848569.58	6254723.38
PI(47)	13+65.00	1848223.73	6255185.53
Tangential Direction: S 53°11'27" E			
Tangential Length: 577.23			

STATION	NORTHING	EASTING	
PI(47)	13+65.00	1848223.73	6255185.53
POE(48)	14+21.12	1848190.11	6255230.47
Tangential Direction: S 53°12'13" E			
Tangential Length: 56.12			

✱ Alignment name: SHEET 16, 17 & 18 A
 ✱ Alignment description: ORCHARD AVENUE
 ✱ Alignment style: Default
 ✱ Input Factor: 1.00000000

STATION	NORTHING	EASTING	
POB(49)	1+00.00	1850375.44	6252932.53
PI(50)	1+15.00	1850366.51	6252944.59
Tangential Direction: S 53°29'37" E			
Tangential Length: 15.00			

STATION	NORTHING	EASTING	
PI(50)	1+15.00	1850366.51	6252944.59
PI(51)	5+61.98	1850100.60	6253303.87
Tangential Direction: S 53°29'37" E			
Tangential Length: 446.98			

STATION	NORTHING	EASTING	
PI(51)	5+61.98	1850100.60	6253303.87
PI(52)	6+11.69	1850071.03	6253343.82
Tangential Direction: S 53°29'37" E			
Tangential Length: 49.71			

STATION	NORTHING	EASTING	
PI(52)	6+11.69	1850071.03	6253343.82
PI(53)	6+34.69	1850057.31	6253362.28
Tangential Direction: S 53°23'11" E			
Tangential Length: 23.00			

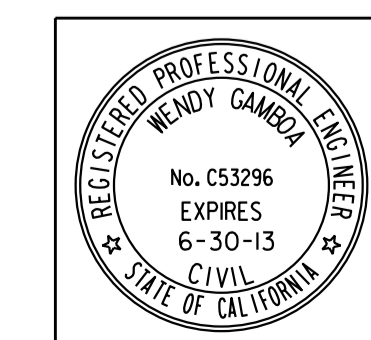
STATION	NORTHING	EASTING	
PI(53)	6+34.69	1850057.31	6253362.28
PI(54)	12+17.00	1849710.01	6253829.69
Tangential Direction: S 53°23'11" E			
Tangential Length: 582.31			

STATION	NORTHING	EASTING	
PI(54)	12+17.00	1849710.01	6253829.69
PI(55)	12+44.17	1849693.81	6253851.50
Tangential Direction: S 53°23'11" E			
Tangential Length: 27.17			

STATION	NORTHING	EASTING	
PI(55)	12+44.17	1849693.81	6253851.50
PI(56)	18+80.00	1849315.10	6254362.25
Tangential Direction: S 53°26'39" E			
Tangential Length: 635.83			

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WATER GROUP 914				
HORIZONTAL ALIGNMENT COORDINATE				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 51 OF 53 SHEETS			WATER WBS	B-00125
APPROVED:	FOR CITY ENGINEER	DATE	2/27/12	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FM			
CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER				
VARIES CCS27 COORDINATE				
VARIES CCS83 COORDINATE				
CONTRACTOR	DATE STARTED	DATE COMPLETED		36124-51-D



HORIZONTAL ALIGNMENT COORDINATE

Element: Linear
 STATION NORTHING EASTING
 Element: Linear
 POB(56) 18+80.00 1849315.10 6254362.25
 POE(57) 19+03.59 1849301.05 6254381.20
 Tangential Direction: S 53°26'47" E
 Tangential Length: 23.59

Alignment name: SHEET 18 B
 Alignment description: FROUDE STREET
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(57) 1+00.00 1849301.05 6254381.20
 PI(2) 1+20.97 1849317.89 6254393.70
 Tangential Direction: N 36°34'32" E
 Tangential Length: 20.97

Element: Linear
 PI(2) 1+20.97 1849317.89 6254393.70
 PI(58) 1+52.49 1849343.20 6254412.48
 Tangential Direction: N 36°34'32" E
 Tangential Length: 31.52

Element: Linear
 PI(58) 1+52.49 1849343.20 6254412.48
 PI(59) 1+62.49 1849351.24 6254418.44
 Tangential Direction: N 36°34'32" E
 Tangential Length: 10.00

Element: Linear
 POE(59) 1+62.49 1849351.24 6254418.44
 POE(60) 1+87.50 1849371.32 6254433.34
 Tangential Direction: N 36°34'32" E
 Tangential Length: 25.01

Alignment name: SHEET 19 & 20
 Alignment description: CORONADO AVENUE
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(61) 1+00.00 1850696.29 6253771.00
 PI(62) 1+29.35 1850678.78 6253794.56
 Tangential Direction: S 53°22'51" E
 Tangential Length: 29.35

Element: Linear
 PI(62) 1+29.35 1850678.78 6253794.56
 PI(63) 1+52.68 1850664.85 6253813.27
 Tangential Direction: S 53°19'24" E
 Tangential Length: 23.33

Element: Linear
 PI(63) 1+52.68 1850664.85 6253813.27
 PI(64) 7+40.02 1850314.03 6254284.33
 Tangential Direction: S 53°19'24" E
 Tangential Length: 587.34

Element: Linear
 PI(64) 7+40.02 1850314.03 6254284.33
 PI(65) 7+62.54 1850300.58 6254302.39
 Tangential Direction: S 53°19'24" E
 Tangential Length: 22.52

Element: Linear
 PI(65) 7+62.54 1850300.58 6254302.39
 PI(66) 7+86.64 1850286.19 6254321.72
 Tangential Direction: S 53°19'24" E
 Tangential Length: 24.10

Element: Linear
 PI(66) 7+86.64 1850286.19 6254321.72
 PI(67) 8+15.01 1850269.33 6254344.54
 Tangential Direction: S 53°32'34" E
 Tangential Length: 28.38

Element: Linear
 PI(67) 8+15.01 1850269.33 6254344.54
 PI(68) 14+00.00 1849921.72 6254815.05
 Tangential Direction: S 53°32'35" E
 Tangential Length: 584.99

Element: Linear
 PI(68) 14+00.00 1849921.72 6254815.05
 PI(275) 14+21.92 1849908.69 6254832.68
 Tangential Direction: S 53°32'35" E
 Tangential Length: 21.92

Element: Linear
 POE(69) 14+44.72 1849895.15 6254851.01
 Tangential Direction: S 53°32'34" E
 Tangential Length: 22.79

Alignment name: SHEET 21 & 22
 Alignment description: CORONADO AVENUE
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(70) 1+00.00 1849124.58 6255885.85
 PI(71) 1+30.00 1849106.68 6255909.92
 Tangential Direction: S 53°22'51" E
 Tangential Length: 30.00

Element: Linear
 PI(71) 1+30.00 1849106.68 6255909.92
 PI(72) 1+40.00 1849100.72 6255917.95
 Tangential Direction: S 53°22'51" E
 Tangential Length: 10.00

Element: Linear
 PI(72) 1+40.00 1849100.72 6255917.95
 PI(73) 8+15.72 1848697.65 6256460.30
 Tangential Direction: S 53°22'51" E
 Tangential Length: 675.72

Element: Linear
 PI(73) 8+15.72 1848697.65 6256460.30
 PI(74) 13+47.12 1848380.68 6256886.80
 Tangential Direction: S 53°22'51" E
 Tangential Length: 531.39

Element: Linear
 PI(74) 13+47.12 1848380.68 6256886.80
 POE(75) 14+17.75 1848338.55 6256943.50
 Tangential Direction: S 53°22'51" E
 Tangential Length: 70.64

Alignment name: SHEET 23 & 24 A
 Alignment description: POINT LOMA AVENUE
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(76) 1+00.00 1847957.67 6254297.28
 PI(77) 1+02.00 1847956.48 6254298.89
 Tangential Direction: S 53°25'19" E
 Tangential Length: 2.00

Element: Linear
 PI(77) 1+02.00 1847956.48 6254298.89
 PI(78) 7+10.00 1847594.16 6254787.14
 Tangential Direction: S 53°25'19" E
 Tangential Length: 608.00

Element: Linear
 PI(78) 7+10.00 1847594.16 6254787.14
 PI(79) 10+50.00 1847392.45 6255060.84
 Tangential Direction: S 53°36'38" E
 Tangential Length: 340.00

Element: Linear
 PI(79) 10+50.00 1847392.45 6255060.84
 PI(80) 10+70.07 1847380.54 6255077.00
 Tangential Direction: S 53°36'50" E
 Tangential Length: 20.07

Element: Linear
 PI(80) 10+70.07 1847380.54 6255077.00
 POE(81) 11+20.57 1847350.85 6255117.85
 Tangential Direction: S 53°59'26" E
 Tangential Length: 50.49

Alignment name: SHEET 24 B
 Alignment description: POINT LOMA AVENUE
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(82) 1+00.00 1846963.92 6255650.56
 PI(83) 1+06.96 1846959.83 6255656.19
 Tangential Direction: S 54°00'23" E
 Tangential Length: 6.96

Element: Linear
 PI(83) 1+06.96 1846959.83 6255656.19
 PI(84) 1+21.99 1846950.90 6255668.28
 Tangential Direction: S 53°32'41" E
 Tangential Length: 15.03

Element: Linear
 PI(84) 1+21.99 1846950.90 6255668.28
 PI(273) 2+80.26 1846856.86 6255795.58
 Tangential Direction: S 53°32'41" E
 Tangential Length: 158.27

Element: Linear
 PI(273) 2+80.26 1846856.86 6255795.58
 POE(85) 3+14.13 1846836.51 6255822.65
 Tangential Direction: S 53°04'02" E
 Tangential Length: 33.86

Alignment name: SHEET 25 & 26
 Alignment description: SUNSET CLIFF BLVD
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(86) 1+00.00 1850662.74 6253782.62
 PI(62) 1+20.00 1850678.78 6253794.56
 Tangential Direction: N 36°40'15" E
 Tangential Length: 20.00

Element: Linear
 PI(62) 1+20.00 1850678.78 6253794.56
 PI(87) 3+00.00 1850823.12 6253902.12
 Tangential Direction: N 36°41'34" E
 Tangential Length: 180.00

Element: Linear
 PI(87) 3+00.00 1850823.12 6253902.12
 PI(88) 5+00.06 1850983.53 6254021.66
 Tangential Direction: N 36°41'34" E
 Tangential Length: 200.06

Element: Linear
 PI(88) 5+00.06 1850983.53 6254021.66
 PI(89) 6+80.00 1851127.98 6254128.96
 Tangential Direction: N 36°36'30" E
 Tangential Length: 179.94

Element: Linear
 PI(89) 6+80.00 1851127.98 6254128.96
 PI(90) 8+78.89 1851287.63 6254247.57
 Tangential Direction: N 36°36'30" E
 Tangential Length: 198.89

Element: Linear
 PI(90) 8+78.89 1851287.63 6254247.57
 PI(91) 12+33.39 1851572.26 6254458.90
 Tangential Direction: N 36°35'35" E
 Tangential Length: 354.51

Element: Linear
 PI(91) 12+33.39 1851572.26 6254458.90
 POE(92) 12+59.99 1851593.62 6254474.76
 Tangential Direction: N 36°35'35" E
 Tangential Length: 26.60

Alignment name: SHEET 27 PRS
 Alignment description: FROUDE STREET
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(275) 1+00.00 1849908.69 6254832.68
 PI(278) 3+30.71 1850093.79 6254970.39
 Tangential Direction: N 36°38'58" E
 Tangential Length: 230.71

Element: Linear
 PI(278) 3+30.71 1850093.79 6254970.39
 POE(280) 4+79.14 1850212.88 6255058.99
 Tangential Direction: N 36°38'58" E
 Tangential Length: 148.43

Alignment name: SHEET 28 & 29
 Alignment description: SAVOY CIRCLE
 Alignment style: Default
 Input Factor: 1.00000000

STATION NORTHING EASTING
 Element: Linear
 POB(273) 1+00.00 1846856.86 6255795.58
 PI(274) 1+10.00 1846864.90 6255801.52
 Tangential Direction: N 36°26'53" E
 Tangential Length: 10.00

Element: Linear
 PI(274) 1+10.00 1846864.90 6255801.52
 PI(282) 3+11.86 1847060.81 6255801.18
 Tangential Direction: N 13°56'53" E
 Tangential Length: 201.86

Element: Circular
 PI(282) 3+11.86 1847060.81 6255801.18
 PI() 4+07.72 1847153.84 6255873.29
 CC(283) 1847135.54 6255549.32
 PCC(284) 3+80.82 1847243.68 6255839.85
 Radius: 310.00
 Delta: 34°21'52" Left
 Degree of Curvature(Chord): 18°33'49"
 Length: 185.93
 Tangent: 95.86
 Chord: 183.16
 Middle Ordinate: 13.84
 External: 14.48
 Tangent Direction: N 13°56'53" E
 Radial Direction: S 76°03'07" E
 Chord Direction: N 3°14'03" W
 Radial Direction: N 69°35'01" E
 Tangent Direction: N 20°24'59" W

Element: Circular
 PCC(284) 3+80.82 1847243.68 6255839.85
 PI() 5+90.37 1847330.44 6255807.55
 CC(283) 1847135.54 6255549.32
 PT(285) 6+77.72 1847385.28 6255732.97
 Radius: 310.00
 Delta: 33°15'20" Left
 Degree of Curvature(Chord): 18°33'49"
 Length: 179.93
 Tangent: 92.58
 Chord: 177.41
 Middle Ordinate: 12.96
 External: 13.53
 Tangent Direction: N 20°24'59" W
 Radial Direction: N 69°35'01" E
 Chord Direction: N 37°02'39" W
 Radial Direction: N 36°19'41" E
 Tangent Direction: N 53°40'19" W

Element: Linear
 PT(285) 6+77.72 1847385.28 6255732.97
 PC(286) 8+46.30 1847485.15 6255597.15
 Tangential Direction: N 53°40'19" W
 Tangential Length: 168.58

Element: Circular
 PC(286) 8+46.30 1847485.15 6255597.15
 PI() 8+79.82 1847505.01 6255570.15
 CC(287) 1847646.28 6255715.64
 PCC(288) 8+85.12 1847532.58 6255551.10
 Radius: 200.00
 Delta: 19°01'38" Right
 Degree of Curvature(Chord): 28°57'18"
 Length: 66.42
 Tangent: 33.52
 Chord: 66.11
 Middle Ordinate: 2.79
 External: 2.79
 Tangent Direction: N 53°40'19" W
 Radial Direction: N 36°19'41" E
 Chord Direction: N 44°09'30" W
 Radial Direction: N 55°21'19" E
 Tangent Direction: N 34°38'41" W

Element: Circular
 PCC(288) 8+85.12 1847532.58 6255551.10
 PI() 9+21.42 1847539.74 6255546.15
 CC(287) 1847646.28 6255715.64
 PCC(289) 9+30.10 1847547.29 6255541.85
 Radius: 200.00
 Delta: 4°58'48" Right
 Degree of Curvature(Chord): 28°57'18"
 Length: 17.38
 Tangent: 8.70
 Chord: 17.38
 Middle Ordinate: 0.19
 External: 0.19
 Tangent Direction: N 34°38'41" W
 Radial Direction: N 55°21'19" E
 Chord Direction: N 32°09'17" W
 Radial Direction: N 60°20'07" E
 Tangent Direction: N 29°39'53" W

Element: Circular
 PCC(289) 9+30.10 1847547.29 6255541.85
 PI() 9+56.81 1847570.50 6255528.63
 CC(287) 1847646.28 6255715.64
 PCC(290) 9+83.20 1847596.36 6255521.97
 Radius: 200.00
 Delta: 15°12'42" Right
 Degree of Curvature(Chord): 28°57'18"
 Length: 53.10
 Tangent: 26.71
 Chord: 52.94

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WATER GROUP 914
 HORIZONTAL ALIGNMENT COORDINATE

CITY OF SAN DIEGO, CALIFORNIA
 ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
 SHEET 52 OF 53 SHEETS

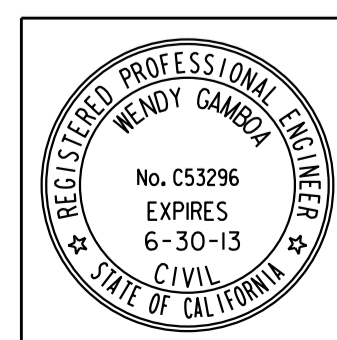
APPROVED: *[Signature]* DATE: 2/27/12
 FOR CITY ENGINEER DATE

SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
 CHECKED BY: ROBERTO VEJAR-PARRA PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	FH			

CONTRACTOR: VARIES
 INSPECTOR: VARIES
 DATE STARTED: 6-30-13
 DATE COMPLETED: 6-30-13

36124-52-D



Middle Ordinate: 1.76
External: 1.78
Tangent Direction: N 29°39'53" W
Radial Direction: N 60°20'07" E
Chord Direction: N 22°03'32" W
Radial Direction: N 75°32'49" E
Tangent Direction: N 14°27'11" W

Element: Circular
PCC(290) 9+83.20 1847596.36 6255521.97
PI() 10+17.05 1847629.13 6255513.52
CC(287) 1847646.28 6255715.64
PT(291) 10+50.25 1847662.86 6255516.32

Radius: 200.00
Delta: 19°12'31" Right
Degree of Curvature(Chord): 28°57'18"
Length: 67.05
Tangent: 33.84
Chord: 66.74
Middle Ordinate: 2.80
External: 2.84
Tangent Direction: N 14°27'11" W
Radial Direction: N 75°32'49" E
Chord Direction: N 4°50'55" W
Radial Direction: S 85°14'39" E
Tangent Direction: N 4°45'21" E

Element: Linear
PT(291) 10+50.25 1847662.86 6255516.32
PI(297) 10+56.22 1847668.81 6255516.82
Tangent Direction: N 4°45'22" E
Tangent Length: 5.97

Element: Linear
PI(297) 10+56.22 1847668.81 6255516.82
PI(304) 11+14.28 1847720.42 6255543.41
Tangent Direction: N 27°15'22" E
Tangent Length: 58.06

Element: Linear
PI(304) 11+14.28 1847720.42 6255543.41
POE(305) 11+24.22 1847728.93 6255548.54
Tangent Direction: N 31°05'11" E
Tangent Length: 9.94

Alignment name: SHEET 30
Alignment description: ORCHARD AVENUE
Alignment style: Default
Input Factor: 1.00000000

STATION NORTHING EASTING
Element: Linear
POB(1) 1+00.00 1849304.38 6254411.90
PI(2) 1+22.67 1849317.89 6254393.70
Tangent Direction: N 53°25'19" W
Tangent Length: 22.67

Element: Linear
PI(2) 1+22.67 1849317.89 6254393.70
PI(3) 1+50.00 1849334.18 6254371.75
Tangent Direction: N 53°25'19" W
Tangent Length: 27.33

Element: Linear
PI(3) 1+50.00 1849334.18 6254371.75
PI(4) 7+29.64 1849679.60 6253906.27
Tangent Direction: N 53°25'19" W
Tangent Length: 579.64

Element: Linear
PI(4) 7+29.64 1849679.60 6253906.27
POE(5) 7+58.06 1849696.53 6253883.45
Tangent Direction: N 53°25'19" W
Tangent Length: 28.42

Alignment name: SHEET 31, 32 & 33 A
Alignment description: EBERS STREET
Alignment style: Default
Input Factor: 1.00000000

STATION NORTHING EASTING
Element: Linear
POB(205) 1+00.00 1849679.48 6253870.78
PI(5) 1+21.24 1849696.53 6253883.45
Tangent Direction: N 36°35'43" E
Tangent Length: 21.24

Element: Linear
PI(5) 1+21.24 1849696.53 6253883.45
PI(206) 5+32.00 1850026.34 6254128.28
Tangent Direction: N 36°35'18" E
Tangent Length: 410.75

Element: Linear
PI(206) 5+32.00 1850026.34 6254128.28
PI(207) 8+25.00 1850261.37 6254303.24
Tangent Direction: N 36°39'53" E
Tangent Length: 293.00

Element: Linear
PI(207) 8+25.00 1850261.37 6254303.24
PI(66) 8+55.94 1850286.19 6254321.72
Tangent Direction: N 36°39'53" E
Tangent Length: 30.94

Element: Linear
PI(66) 8+55.94 1850286.19 6254321.72
PI(208) 12+36.77 1850591.67 6254549.12
Tangent Direction: N 36°39'53" E
Tangent Length: 380.83

Element: Linear
PI(208) 12+36.77 1850591.67 6254549.12
POE(209) 16+14.99 1850895.06 6254774.97
Tangent Direction: N 36°39'53" E
Tangent Length: 378.23

Alignment name: SHEET 33 B
Alignment description: FROUDE STREET
Alignment style: Default
Input Factor: 1.00000000

STATION NORTHING EASTING
Element: Linear
POB(99) 1+00.00 1849576.18 6254614.02
PI(100) 1+20.00 1849592.23 6254625.96
Tangent Direction: N 36°38'11" E
Tangent Length: 20.00

Element: Linear
PI(100) 1+20.00 1849592.23 6254625.96
PI(101) 3+50.00 1849776.85 6254763.12
Tangent Direction: N 36°36'39" E
Tangent Length: 230.00

Element: Linear
PI(101) 3+50.00 1849776.85 6254763.12
PI(102) 4+87.37 1849887.12 6254845.05
Tangent Direction: N 36°36'39" E
Tangent Length: 137.37

Element: Linear
PI(102) 4+87.37 1849887.12 6254845.05
POE(69) 4+97.37 1849895.15 6254851.01
Tangent Direction: N 36°36'39" E
Tangent Length: 10.00

Alignment name: SHEET 34, 35 & 36
Alignment description: EBERS STREET
Alignment style: Default
Input Factor: 1.00000000

STATION NORTHING EASTING
Element: Linear
POB(210) 1+00.00 1849693.21 6253852.30
PI(211) 1+60.00 1849741.37 6253888.09
Tangent Direction: N 36°36'49" E
Tangent Length: 60.00

Element: Linear
PI(211) 1+60.00 1849741.37 6253888.09
PC(212) 4+40.96 1849966.89 6254055.65
Tangent Direction: N 36°36'49" E
Tangent Length: 280.96

Element: Circular
PC(212) 4+40.96 1849966.89 6254055.65
PI() 4+53.37 1849976.85 6254063.05
CC(213) 1873823.53 6221948.64
PT(214) 4+65.77 1849986.81 6254070.45
Radius: 40000.00
Delta: 0°02'08" Left
Degree of Curvature(Chord): 0°08'36"

Length: 24.82
Tangent: 12.41
Chord: 24.82
Middle Ordinate: 0.00
External: 0.00
Tangent Direction: N 36°36'49" E
Radial Direction: S 53°23'11" E
Chord Direction: S 53°25'19" E
Radial Direction: N 36°34'41" E

Element: Linear
PT(214) 4+65.77 1849986.81 6254070.45
PI(215) 4+78.67 1849997.17 6254078.13
Tangent Direction: N 36°34'39" E
Tangent Length: 12.90

Element: Linear
PI(215) 4+78.67 1849997.17 6254078.13
PI(216) 8+05.00 1850259.63 6254272.05
Tangent Direction: N 36°27'30" E
Tangent Length: 326.33

Element: Linear
PI(216) 8+05.00 1850259.63 6254272.05
PC(217) 8+32.15 1850281.47 6254288.18
Tangent Direction: N 36°27'16" E
Tangent Length: 27.15

Element: Circular
PC(217) 8+32.15 1850281.47 6254288.18
PI() 8+37.98 1850286.16 6254291.65
CC(218) 1848498.92 6256701.17
PT(219) 8+43.81 1850290.84 6254295.13
Radius: 3000.00
Delta: 0°13'21" Right
Degree of Curvature(Chord): 1°54'36"

Length: 11.66
Tangent: 5.83
Chord: 11.66
Middle Ordinate: 0.01
External: 0.01
Tangent Direction: N 36°27'16" E
Radial Direction: S 53°32'44" E
Chord Direction: N 36°33'57" E
Radial Direction: S 53°19'23" E
Tangent Direction: N 36°40'37" E

Element: Linear
PT(219) 8+43.81 1850290.84 6254295.13
PI(220) 8+55.96 1850300.58 6254302.39
Tangent Direction: N 36°40'37" E
Tangent Length: 12.15

Element: Linear
PI(220) 8+55.96 1850300.58 6254302.39
PC(221) 11+88.38 1850567.19 6254500.94
Tangent Direction: N 36°40'36" E
Tangent Length: 332.42

Element: Circular
PC(221) 11+88.38 1850567.19 6254500.94
PI() 12+00.28 1850576.73 6254508.05
CC(222) 1862513.41 6238460.74
PT(223) 12+12.18 1850586.29 6254515.15
Radius: 20000.00
Delta: 0°04'05" Left
Degree of Curvature(Chord): 0°17'11"

Length: 23.80
Tangent: 11.90
Chord: 23.80
Middle Ordinate: 0.00
External: 0.00
Tangent Direction: N 36°40'39" E
Radial Direction: S 53°19'21" E
Chord Direction: N 36°38'36" E
Radial Direction: S 53°23'26" E
Tangent Direction: N 36°36'34" E

Element: Linear
PT(223) 12+12.18 1850586.29 6254515.15
PI(224) 12+36.77 1850606.02 6254529.81
Tangent Direction: N 36°36'34" E
Tangent Length: 24.58

Element: Linear
PI(224) 12+36.77 1850606.02 6254529.81
PC(225) 14+04.13 1850740.36 6254629.61
Tangent Direction: N 36°36'34" E
Tangent Length: 167.36

Element: Circular
PC(225) 14+04.13 1850740.36 6254629.61
PI() 14+13.32 1850747.74 6254635.10
CC(226) 1838813.24 6270684.01
PT(227) 14+22.52 1850755.12 6254640.59
Radius: 20000.00
Delta: 0°03'10" Right
Degree of Curvature(Chord): 0°17'11"

Length: 18.39
Tangent: 9.20
Chord: 18.39
Middle Ordinate: 0.00
External: 0.00
Tangent Direction: N 36°36'34" E
Radial Direction: S 53°23'26" E
Chord Direction: N 36°38'09" E
Radial Direction: S 53°20'17" E
Tangent Direction: N 36°39'43" E

Element: Linear
PT(227) 14+22.52 1850755.12 6254640.59
PI(228) 15+75.00 1850877.44 6254731.63
Tangent Direction: N 36°39'43" E
Tangent Length: 152.48

Element: Linear
PI(228) 15+75.00 1850877.44 6254731.63
PI(229) 16+15.01 1850909.54 6254755.53
Tangent Direction: N 36°39'43" E
Tangent Length: 40.01

Element: Linear
PI(229) 16+15.01 1850909.54 6254755.53
POE(201) 16+30.01 1850921.57 6254764.48
Tangent Direction: N 36°39'43" E
Tangent Length: 15.00

Alignment name: SHEET 37
Alignment description: DEL MONTE AVE
Alignment style: Default
Input Factor: 1.00000000

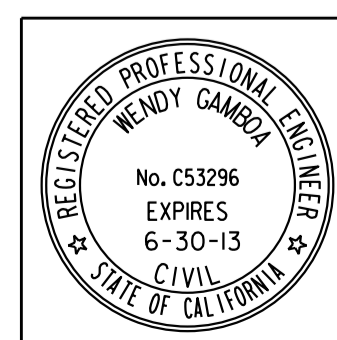
STATION NORTHING EASTING
Element: Linear
POB(201) 1+00.00 1850921.57 6254764.48
PI(202) 1+54.73 1850888.89 6254808.39
Tangent Direction: S 53°20'20" E
Tangent Length: 54.73

Element: Linear
PI(202) 1+54.73 1850888.89 6254808.39
PI(203) 7+30.48 1850545.12 6255270.23
Tangent Direction: S 53°20'17" E
Tangent Length: 575.75

Element: Linear
PI(203) 7+30.48 1850545.12 6255270.23
POE(204) 7+59.32 1850527.89 6255293.37
Tangent Direction: S 53°20'08" E
Tangent Length: 28.84

WATER GROUP 914
HORIZONTAL ALIGNMENT COORDINATE

Table with project details including City of San Diego, California, Engineering and Capital Projects Department, SHEET 53 OF 53 SHEETS, and various approval and submission dates.

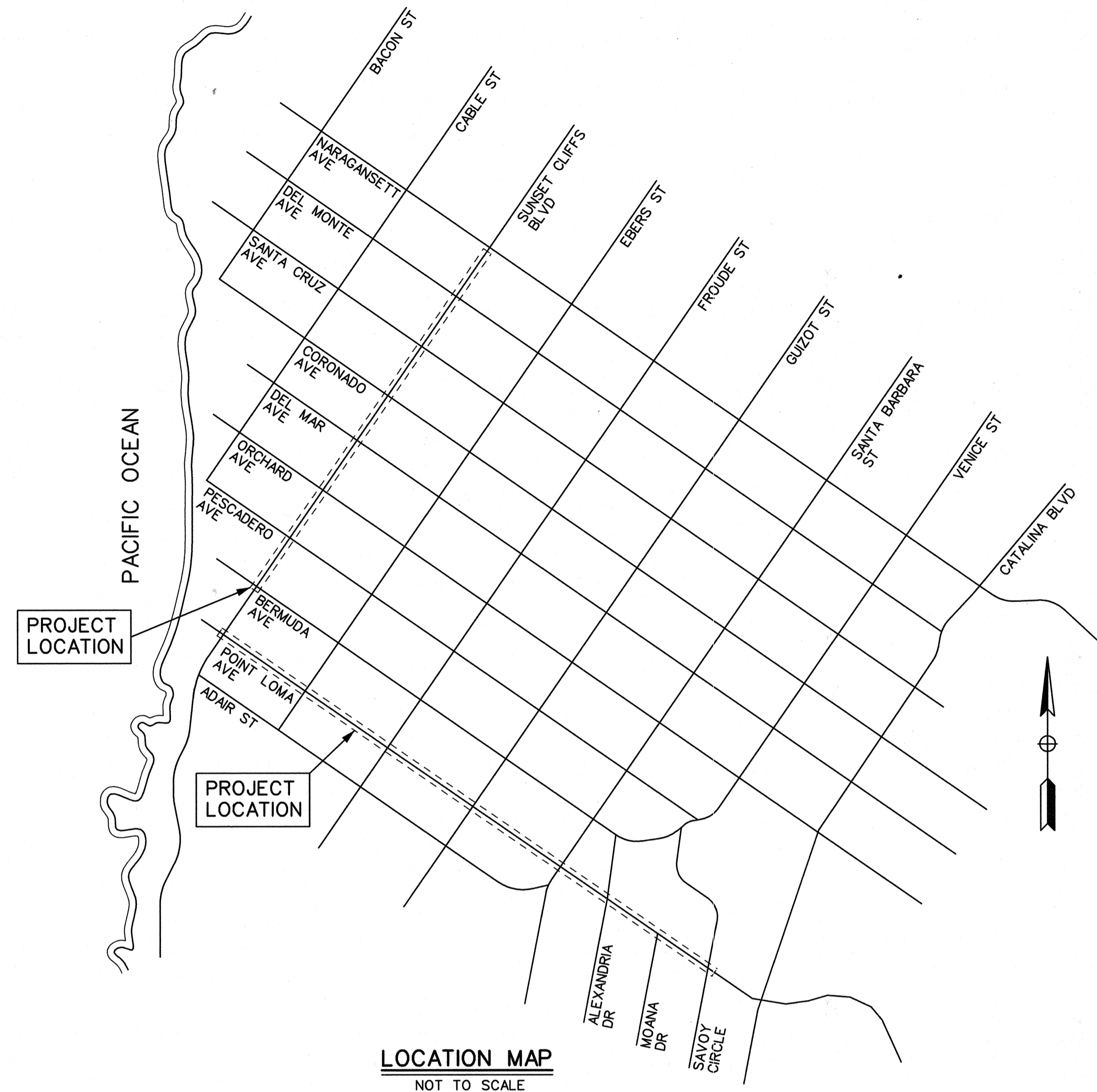


TRAFFIC CONTROL NOTES (STREETS WITH ADT OF 5,000 AND OVER) (SHEETS 2 TO 16)

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 CITY SUPPLEMENT TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CALL THE ENGINEERING 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: THE TRAFFIC CONTROL PLAN SHALL CONFORM TO THE MOST RECENTLY 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 DISPATCH	(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 NO PARKING SIGNS: 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 CONTRACTOR 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 ROADWAY: 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.



WORK TO BE DONE:

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

STANDARD SPECIFICATIONS:

DOCUMENT NO.	FILED	DESCRIPTION
PITS05040901	05-04-09	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK), 2009 EDITION
PITS090110-1	09-01-10	CITY OF SAN DIEGO SUPPLEMENT, 2010 UPDATE
769842	10-22-99	STANDARD SPECIAL PROVISIONS FOR SIGNALS, LIGHTING, AND ELECTRICAL SYSTEMS
AEC1231064	12-31-06	CALIFORNIA DEPARTMENT OF TRANSPORTATION, MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD 2006)
AEC0925062	09-25-06	CALTRANS 2006 (U.S. CUSTOMARY SPECIFICATIONS)

STANDARD DRAWINGS:

DOCUMENT NO.	FILED	DESCRIPTION
AEC1230163	12-31-06	CITY OF SAN DIEGO STANDARD DRAWINGS INCLUDING REGIONAL STANDARD DRAWINGS
AEC0925061	09-25-06	CALTRANS 2006 U.S. CUSTOMARY UNIT STANDARD PLANS

LEGEND (SHEETS 2 TO 16)

ITEM	STANDARD DRAWING	SYMBOL
PROPOSED TEMPORARY ROADSIDE SIGN		⬇
TYPE II BARRICADE		⊥
TYPE II BARRICADE WITH SIGN		⊥
PORTABLE DELINEATOR		•
DIRECTION OF TRAVEL		➔
FLASHING ARROW SIGN		⊠
WORK ZONE		⊠
TRAFFIC SIGNAL		Ⓣ

IMPORTANT NOTICE
 Section 4216 of the Government Code requires a Dig Alert Identification Number be issued before a "Permit to Excavate" will be valid for your Dig Alert ID Number Call Underground Service Alert Toll Free 1-800-422-4133 Two working days before you dig

CONSTRUCTION CHANGE TABLE

CHANGE	DATE	SHEET NUMBERS REVISED OR ADDED THIS CHANGE

DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

John P. Keating
 JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



LINSCOTT LAW & GREENSPAN ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1 T1-NOTES-6350-36.DGN 8/19/11
 Designed By: JSM Drawn By: DVS Checked By: JPK

T-1

TRAFFIC CONTROL PLANS FOR THE CONSTRUCTION OF:

WATER GROUP 914

CITY OF SAN DIEGO, CALIFORNIA
 ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
 SHEET 1 OF 16 SHEETS

FOR CITY ENGINEER: *Michael NINH* DATE: 09/08/2011
 SUBMITTED BY: MICHAEL NINH
 ASSOCIATE ENGINEER

CHIEF: ROBERTO VEJAR-PARRA
 PROJECT ENGINEER

DESCRIPTION	BY	APPROVED	DATE	FILED
ORIGINAL	LLG			

CONTRACTOR: _____ DATE STARTED: _____
 INSPECTOR: _____ DATE COMPLETED: _____

36124-T01-D

PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM

NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 2 CONTRACTOR SHALL MAINTAIN A 4' CLEAR PATH FOR PEDESTRIAN ACCESS.
- 3 SEE DETOUR PLAN THIS SHEET.

***TRANSITION CALCULATION**

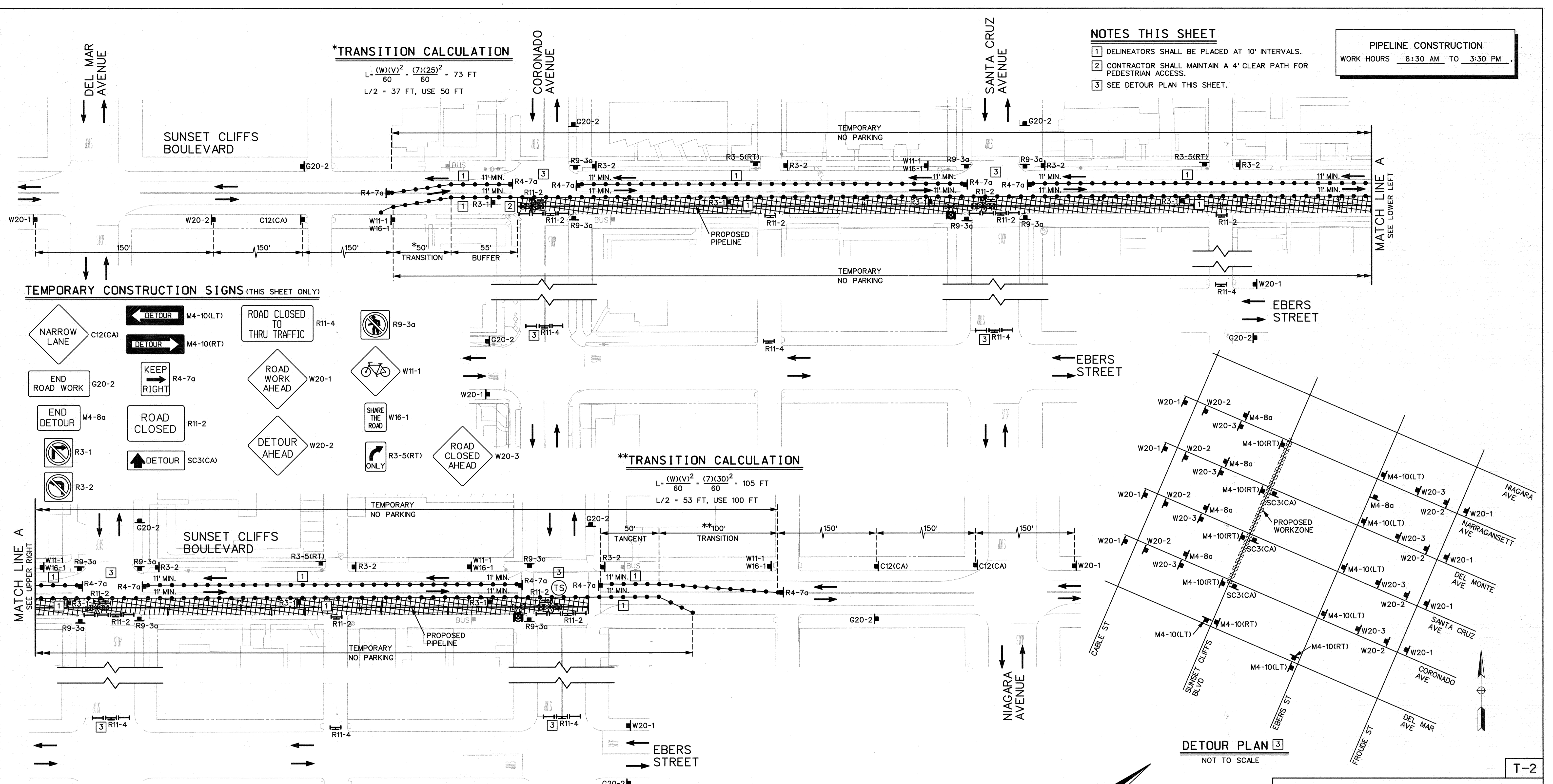
$$L = \frac{(W)(V)^2}{60} = \frac{(7)(25)^2}{60} = 73 \text{ FT}$$

$$L/2 = 37 \text{ FT, USE 50 FT}$$

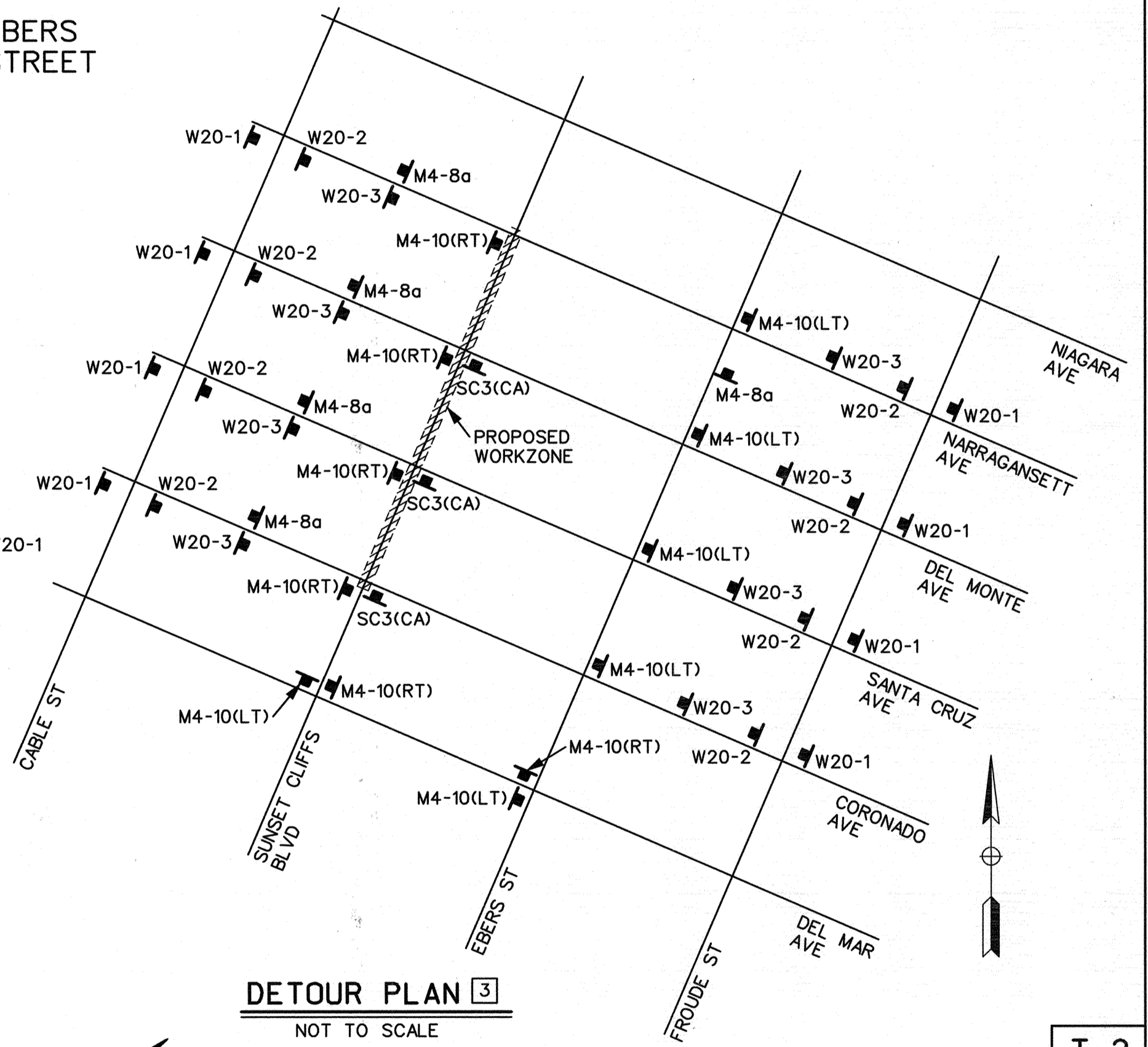
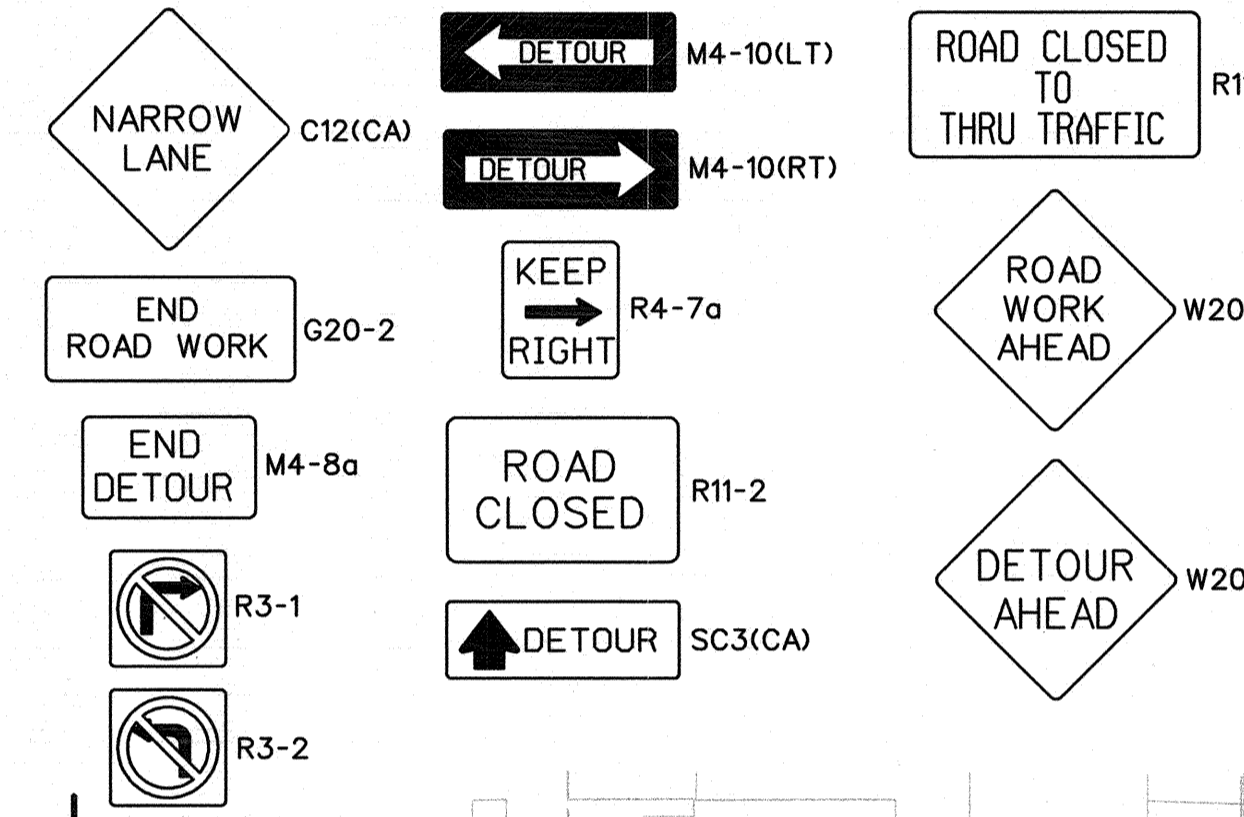
****TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(7)(30)^2}{60} = 105 \text{ FT}$$

$$L/2 = 53 \text{ FT, USE 100 FT}$$



TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



TRAFFIC SIGNAL NOTE: CONTRACTOR SHALL COORDINATE WITH TRAFFIC CONTROL AND SIGNAL SECTION (858)495-4741 A MINIMUM OF 5 (FIVE) WORKING DAYS PRIOR TO WORK AFFECTING A TRAFFIC SIGNAL.
 TRAFFIC SIGNAL TO BE SET TO RED FLASH

TRAFFIC CONTROL DESIGN SPEED
 SUNSET CLIFFS BOULEVARD = 25 MPH

NOTE
 FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

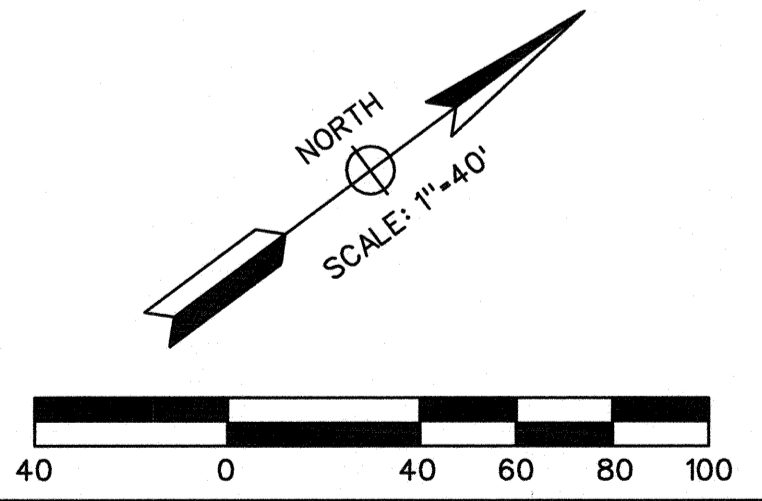
DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE 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.

ENGINEER OF WORK

JOHN P. KEATING R.C.E. 43595 DATE



LINSCOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1 TC2-6350-36STG1.DGN 8/19/11
 Designed By: JSM Drawn By: DVS Checked By: JPK

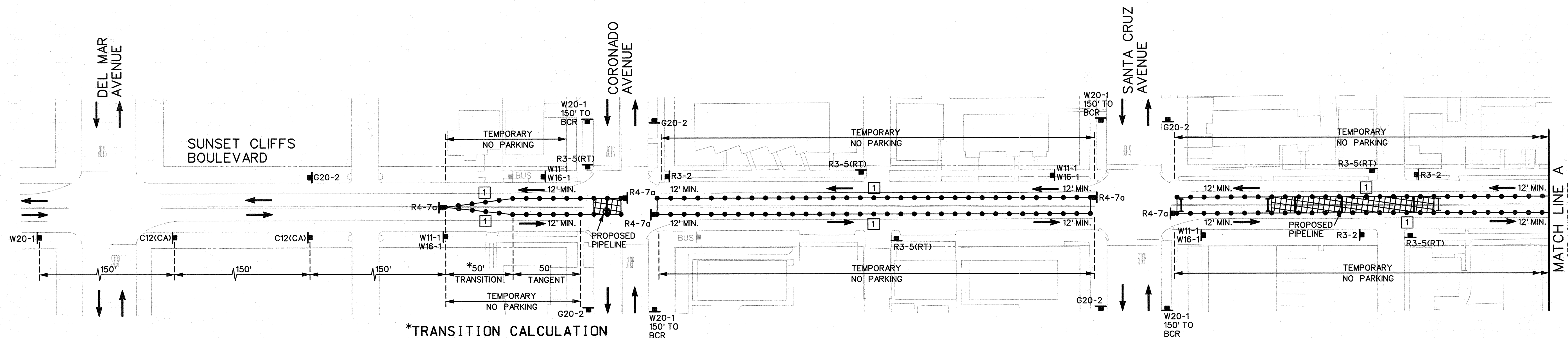
TRAFFIC CONTROL PLANS FOR:				
WATER GROUP 914 SUNSET CLIFFS BOULEVARD (STAGE 1)				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 2 OF 16 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	DATE	SUBMITTED BY:		ASSOCIATE ENGINEER
<i>Ahmed Abowab</i>	09/08/2011	MICHAEL NINH		
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	LLG			
PROJECT ENGINEER				210-1689
CONTRACTOR				CCS27 COORDINATE
INSPECTOR				6250407-1846444
DATE STARTED				CCS83 COORDINATE
DATE COMPLETED				36124-T02-D

T-2

NOTES THIS SHEET

1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.

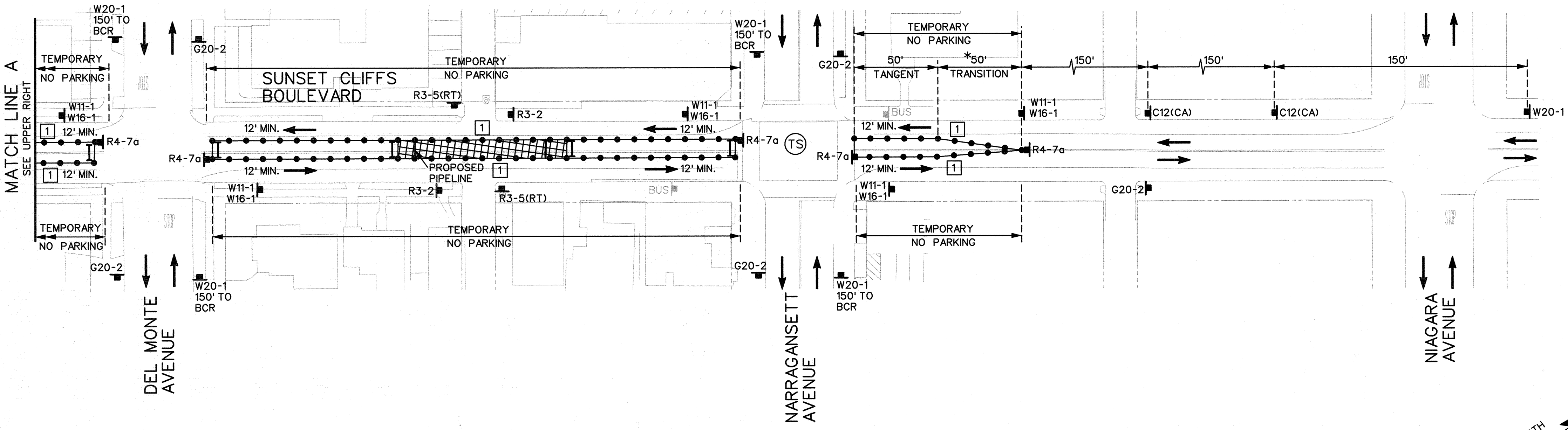
PIPELINE CONSTRUCTION
WORK HOURS 8:30 AM TO 3:30 PM



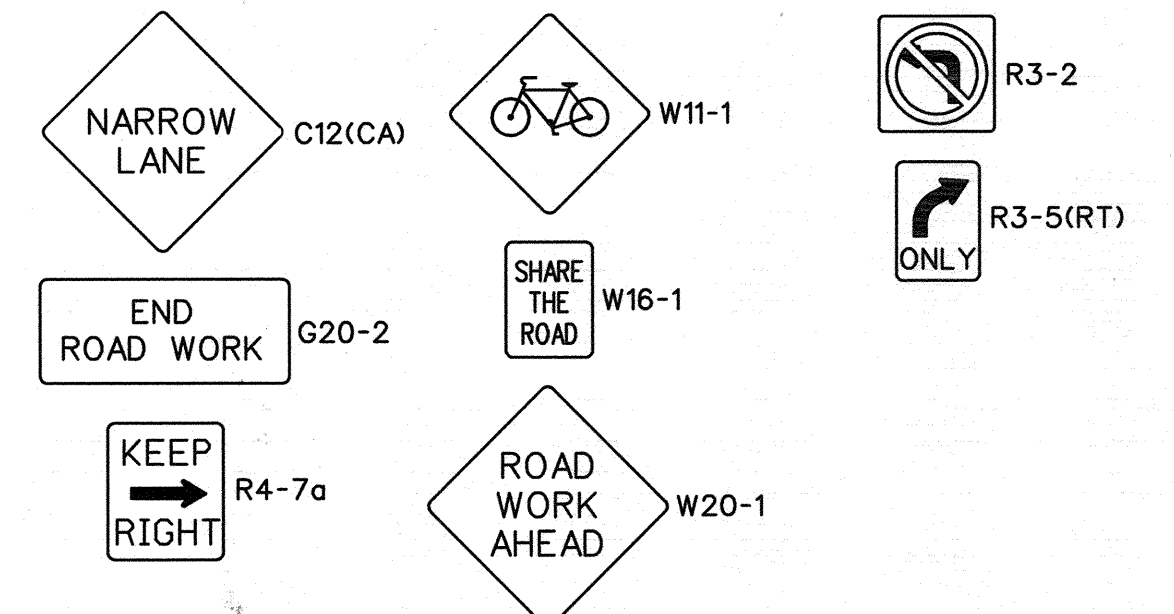
***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(6)(25)^2}{60} = 63 \text{ FT}$$

$$L/2 = 32 \text{ FT, USE } 50 \text{ FT}$$



TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



TRAFFIC SIGNAL NOTE: CONTRACTOR SHALL COORDINATE WITH TRAFFIC CONTROL AND SIGNAL SECTION (858)495-4741 A MINIMUM OF 5 (FIVE) WORKING DAYS PRIOR TO WORK AFFECTING A TRAFFIC SIGNAL.
TRAFFIC SIGNAL SHALL BE SET TO RECALL

TRAFFIC CONTROL DESIGN SPEED
SUNSET CLIFFS BOULEVARD = 25 MPH

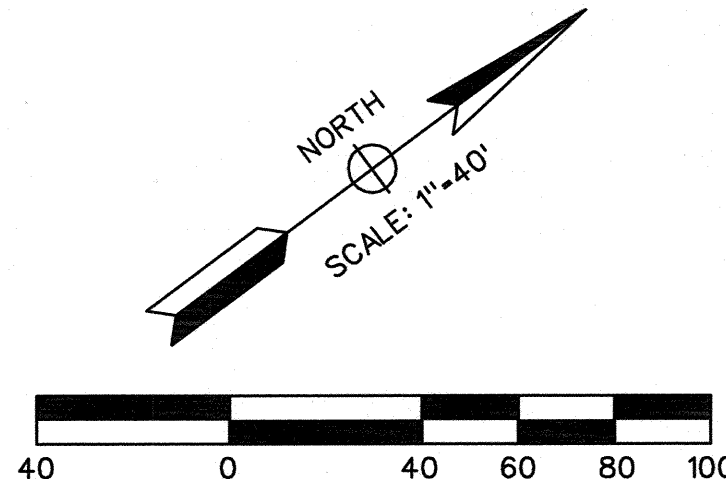
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

John P. Keating
JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



LINSCOTT, LAW & GREENSPAN, ENGINEERS 4542 Ruffner Street, Suite 100 San Diego, Ca 92111 (858)300-8800 (PH) (858)300-8810 (FX)	
LLG 3-076350-36.1 Designed By: JSM	TC3-6350-36STG2.DGN Drawn By: DVS Checked By: JPK
8/19/11	

NOTE
FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-3

TRAFFIC CONTROL PLANS FOR:		WATER GROUP 914 SUNSET CLIFFS BOULEVARD (STAGE 2)	
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 3 OF 16 SHEETS		WATER WBS - B-00125	
APPROVED BY: <i>Hamed Alwanah</i> 09/08/2011	FOR CITY ENGINEER	SUBMITTED BY: MICHAEL NINH	ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	LLG		
CHECKED BY: ROBERTO VELAZ-PARRA		PROJECT ENGINEER	
208-1688		CCS27 COORDINATE	
6250407-1846444		CCS88 COORDINATE	
CONTRACTOR	DATE STARTED	36124-T03-D	
INSPECTOR	DATE COMPLETED		

NOTES THIS SHEET

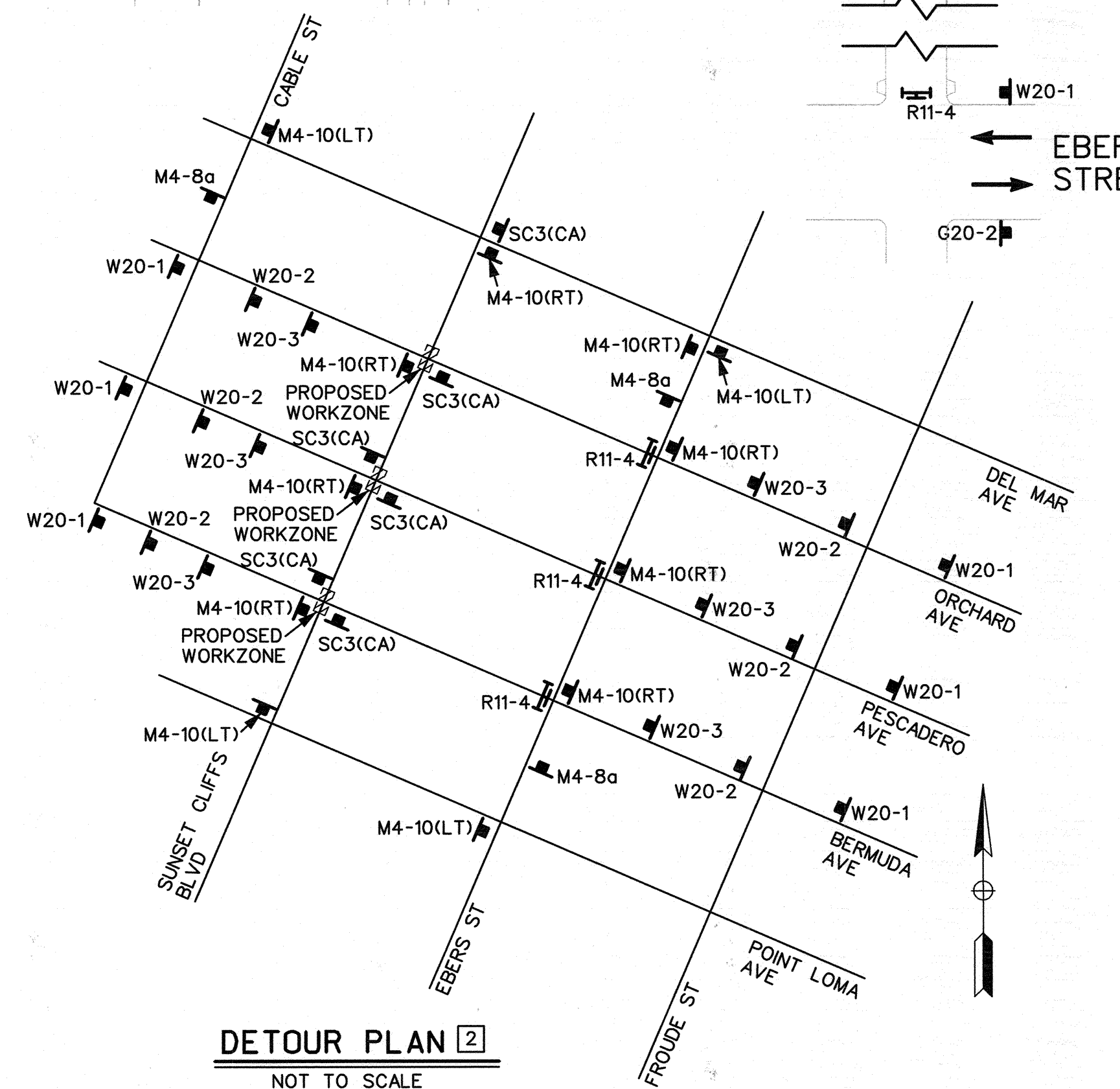
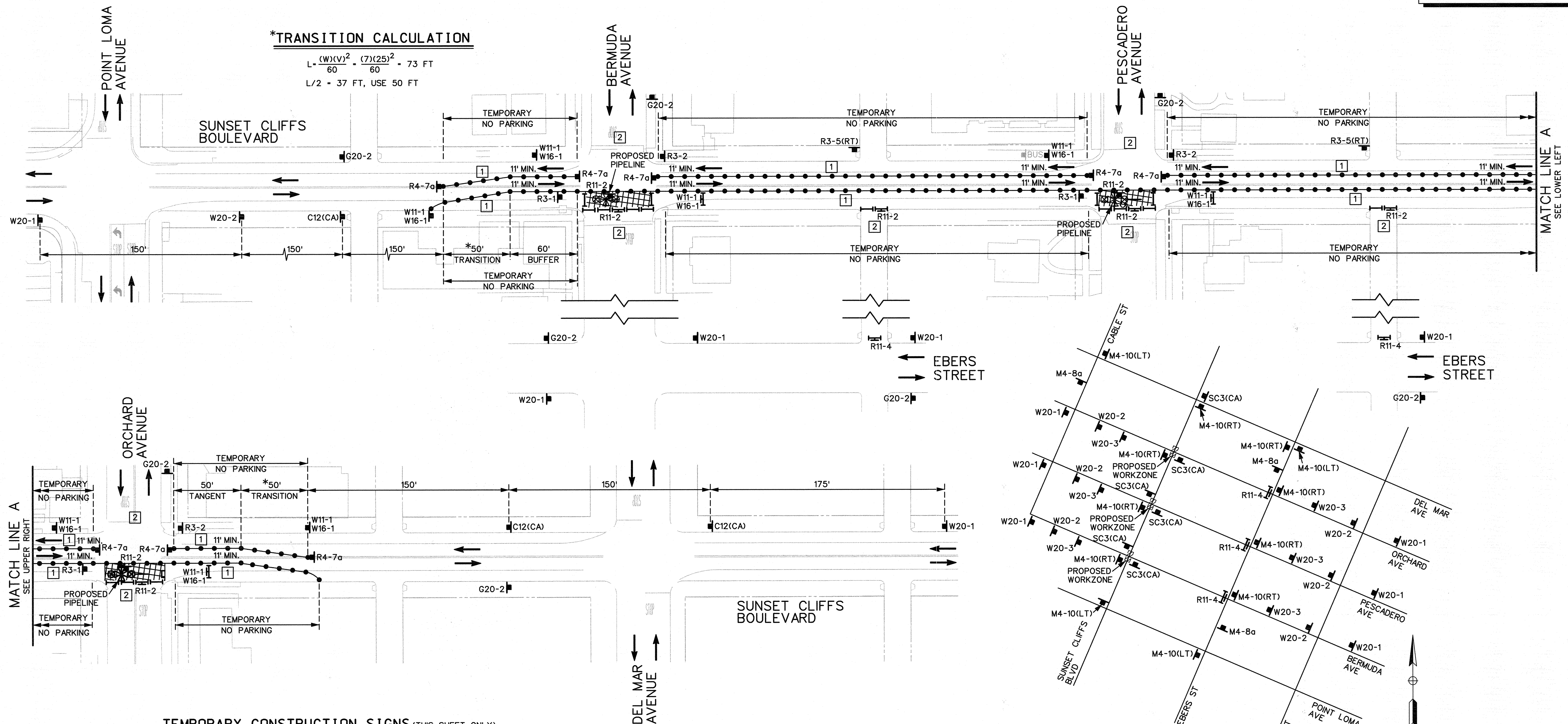
- 1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 2 SEE DETOUR PLAN THIS SHEET.

PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM

***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} + \frac{(7)(25)^2}{60} = 73 \text{ FT}$$

$$L/2 = 37 \text{ FT, USE 50 FT}$$



TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)

DECLARATION OF RESPONSIBLE CHARGE

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

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

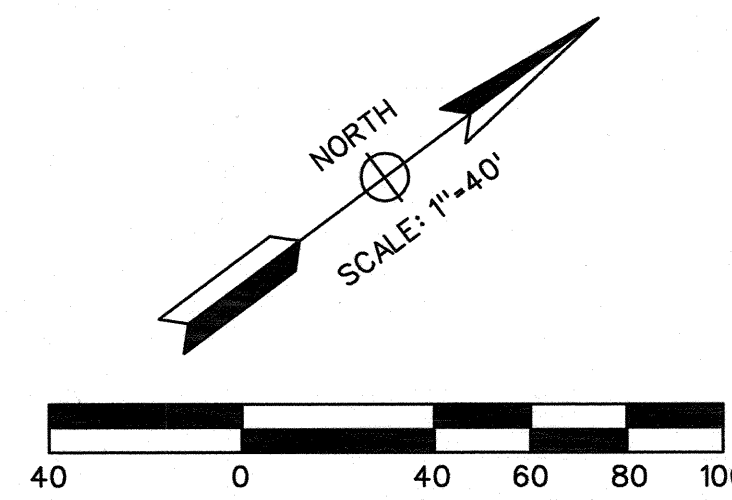
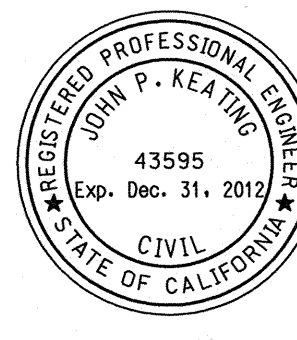
ENGINEER OF WORK

JOHN P. KEATING R.C.E. 43595 DATE 8/11/11

NOTE

FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

TRAFFIC CONTROL DESIGN SPEED
 SUNSET CLIFFS BOULEVARD = 25 MPH



LINSCOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1	TC5-6350-36STG4.DGN	8/19/11
Designed By: JSM	Drawn By: DVS	Checked By: JPK

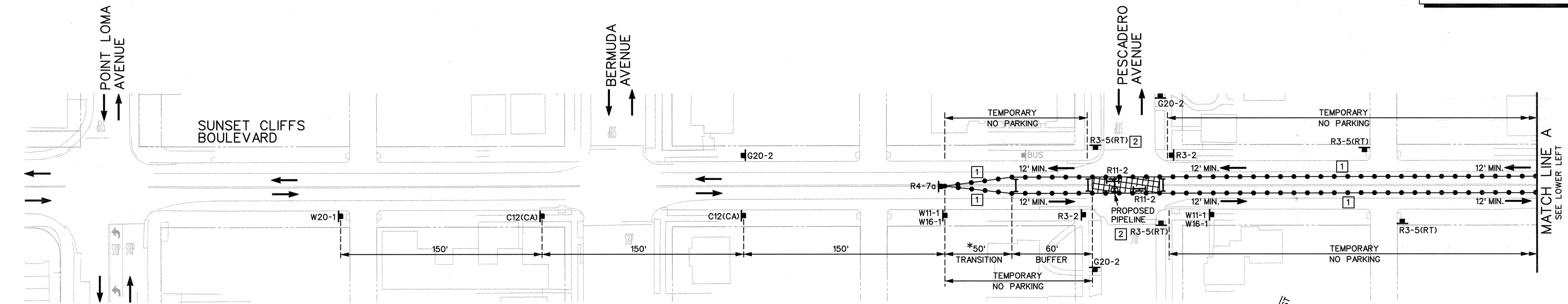
TRAFFIC CONTROL PLANS FOR:				
WATER GROUP 914				
SUNSET CLIFFS BOULEVARD				
(STAGE 4)				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 5 OF 16 SHEETS				WATER WBS: B-00125
APPROVED BY: <i>Muhammad Aburrahman</i> 09/08/2011	SUBMITTED BY: MICHAEL NINH			ASSOCIATE ENGINEER
FOR CITY ENGINEER	DATE	DATE	DATE	PROJECT ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	LLG			
208-1688 CCS27 COORDINATE				208-1688 CCS83 COORDINATE
6250407-1846444 CCS83 COORDINATE				36124-T05-D
CONTRACTOR	DATE STARTED	DATE COMPLETED		

T-5

NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 2 SEE DETOUR PLAN THIS SHEET.

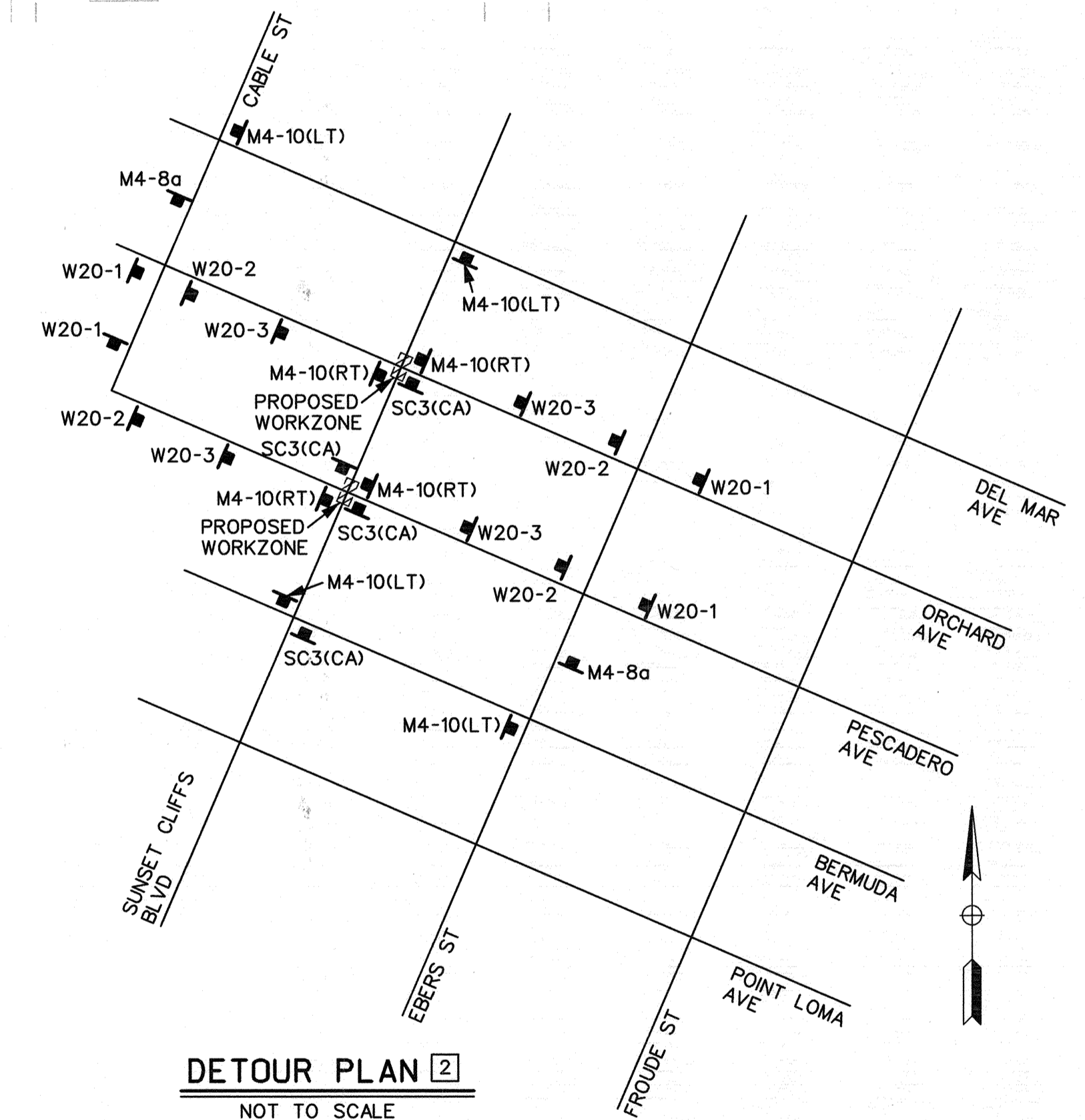
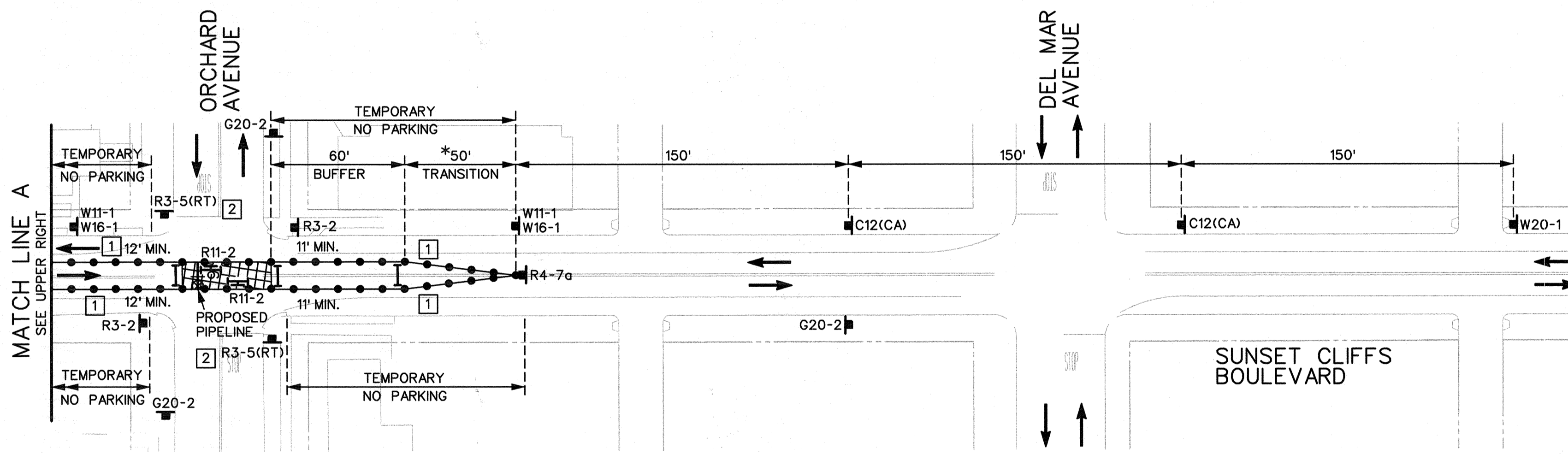
PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM



***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(7)(25)^2}{60} = 73 \text{ FT}$$

$$L/2 = 37 \text{ FT, USE } 50 \text{ FT}$$



TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)

C12(CA)	M4-10(LT)	R11-2	W20-3
G20-2	M4-10(RT)	W20-1	W11-1
M4-8a	R4-7a	R11-2	W16-1
R3-2	SC3(CA)	W20-2	R3-5(RT)

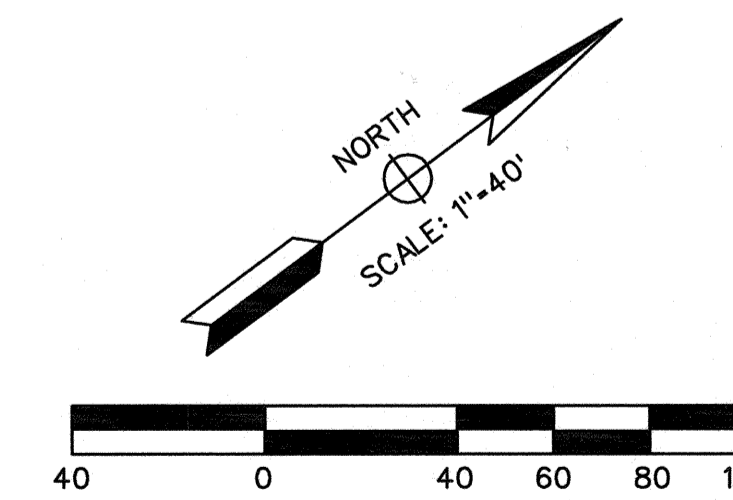
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



LINSCOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1	TC6-6350-36ST05.DGN	8/19/11
Designed By: JSM	Drawn By: DVS	Checked By: JPK

TRAFFIC CONTROL DESIGN SPEED
 SUNSET CLIFFS BOULEVARD = 25 MPH

NOTE
 FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

TRAFFIC CONTROL PLANS FOR:

WATER GROUP 914
SUNSET CLIFFS BOULEVARD
 (STAGE 5)

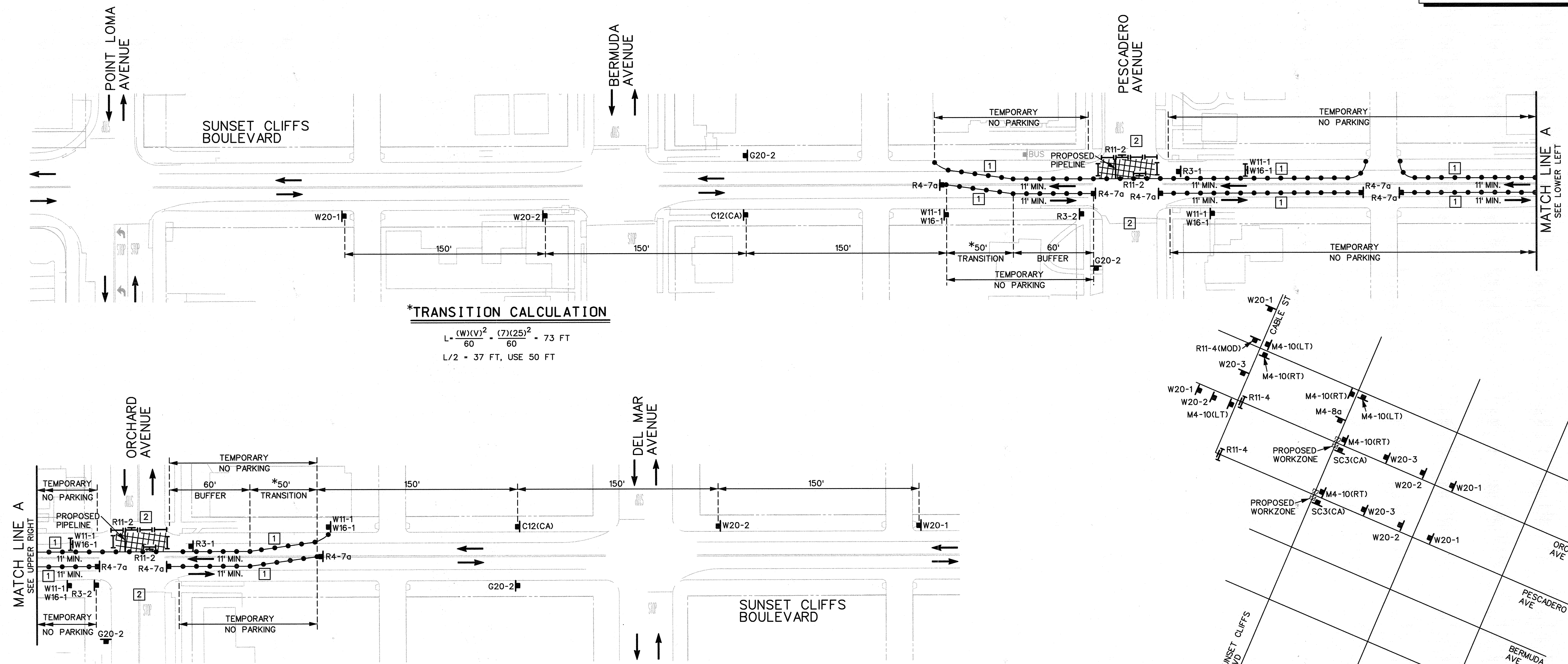
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		WATER WBS B-00125
SHEET 6 OF 16 SHEETS		
APPROVED BY: <i>Ahmed Aburrahman</i> 09/08/2011	FOR CITY ENGINEER	DATE
DESIGNER: MICHAEL NINH	ASSOCIATE ENGINEER	
CHECKED BY: ROBERTO VELAZQUEZ-PARRA	PROJECT ENGINEER	
206-1689	CCS27 COORDINATE	
6250407-1846444	CCS83 COORDINATE	
CONTRACTOR	DATE STARTED	36124-T06-D
INSPECTOR	DATE COMPLETED	

T-6

NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 2 SEE DETOUR PLAN THIS SHEET.

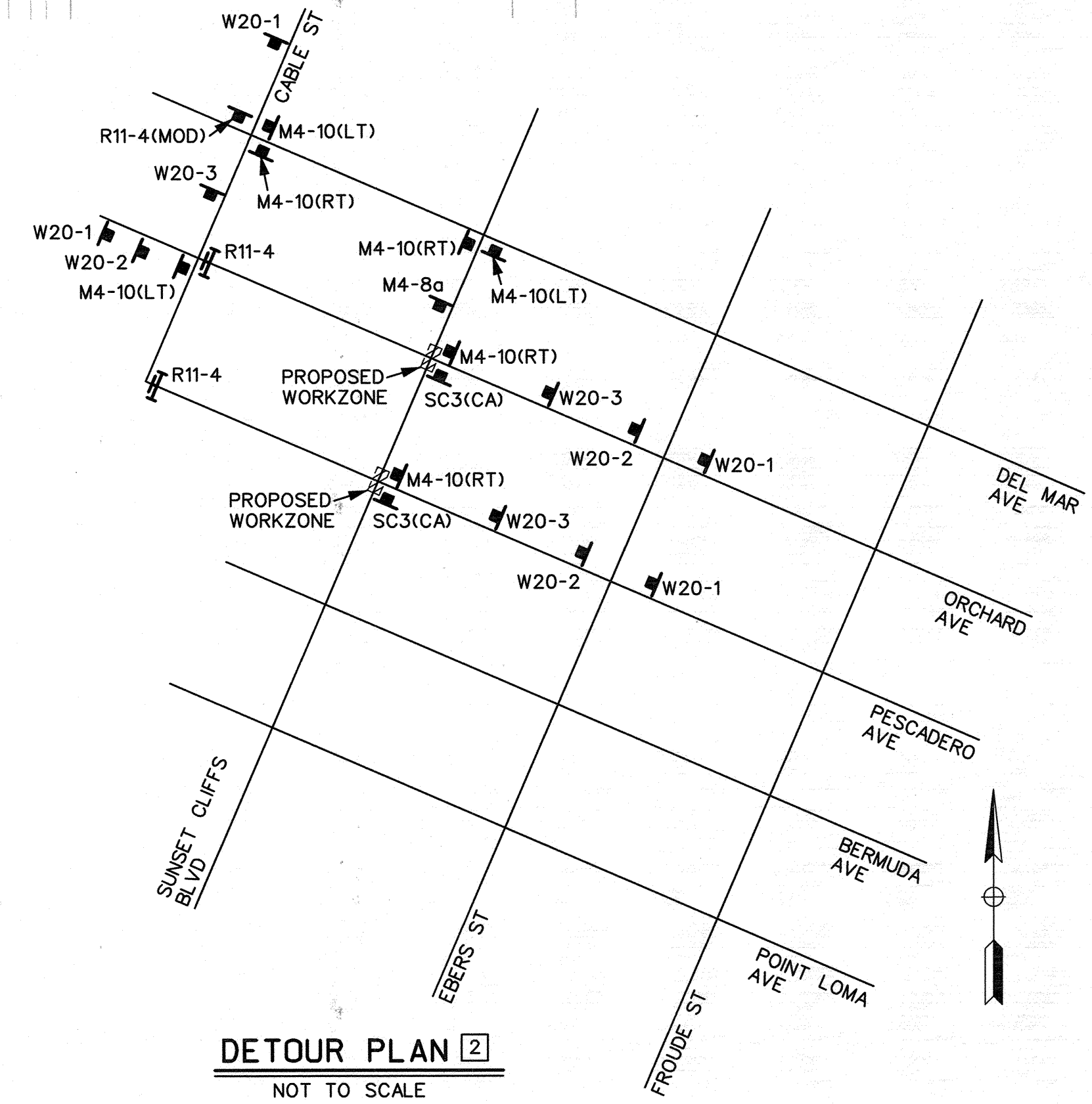
PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM



***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(7)(25)^2}{60} = 73 \text{ FT}$$

$$L/2 = 37 \text{ FT, USE 50 FT}$$



DETOUR PLAN
NOT TO SCALE

TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)

	C12(CA)		M4-10(LT)		R11-4(MOD)		W20-3
	G20-2		M4-10(RT)		W20-1		W11-1
	M4-8a		R4-7a		R11-2		W16-1
	R3-1		SC3(CA)		W20-2		
	R3-2		R11-4				

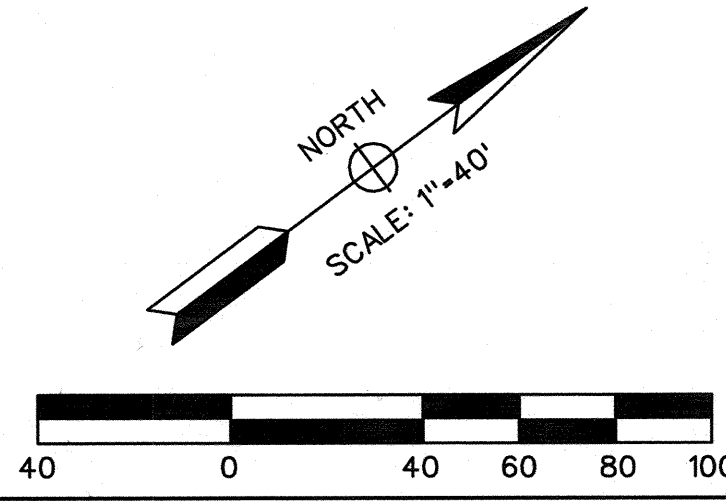
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

John P. Keating
 JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



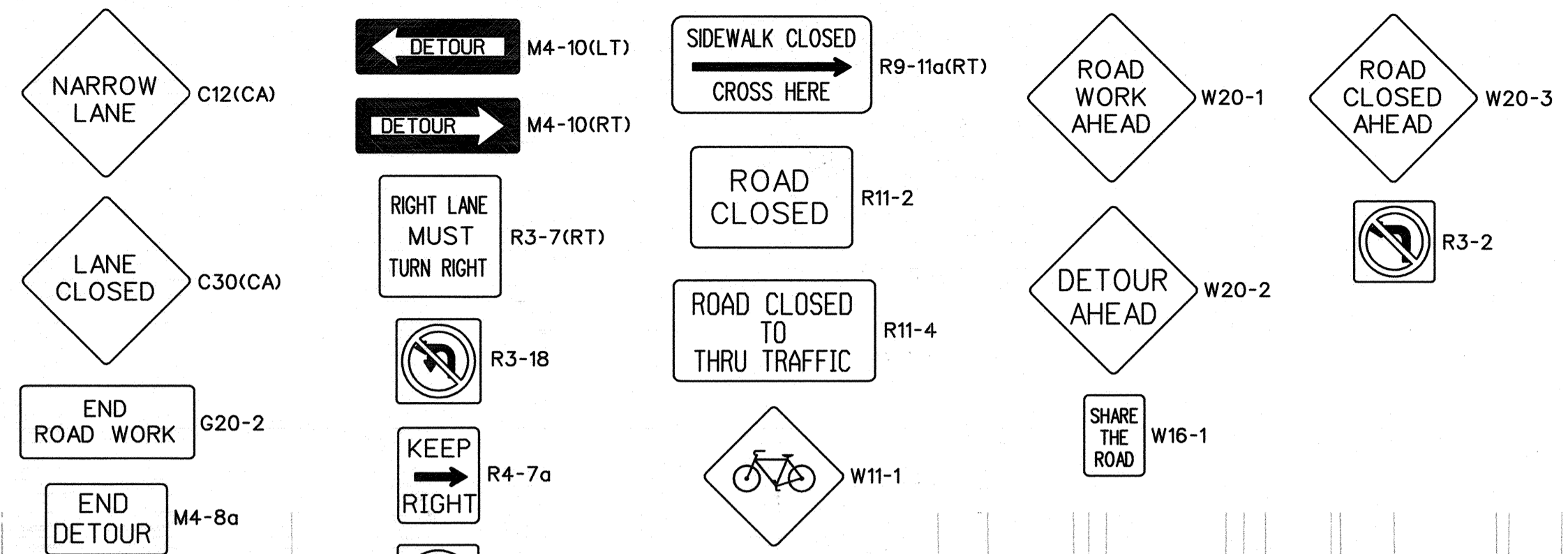
TRAFFIC CONTROL DESIGN SPEED
 SUNSET CLIFFS BOULEVARD - 25 MPH

NOTE
 FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

TRAFFIC CONTROL PLANS FOR:				
WATER GROUP 914				
SUNSET CLIFFS BOULEVARD				
(STAGE 6)				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 7 OF 16 SHEETS				WATER WBS - B-00125
APPROVED BY: <i>Alfred Hernandez</i> 09/08/2011	DATE	SUBMITTED BY: MICHAEL NINH		ASSOCIATE ENGINEER
FOR CITY ENGINEER		CHECKED BY: ROBERTO VELAR-PARRA		PROJECT ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	LLG			
				206-1688
				CCS27 COORDINATE
				6250407-1846444
				CCS83 COORDINATE
CONTRACTOR	DATE STARTED	DATE COMPLETED		36124-T07-D
INSPECTOR				

T-7

TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 25' INTERVALS.
- 2 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 3 SEE DETOUR PLAN THIS SHEET.

PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM

****TRANSITION CALCULATION**

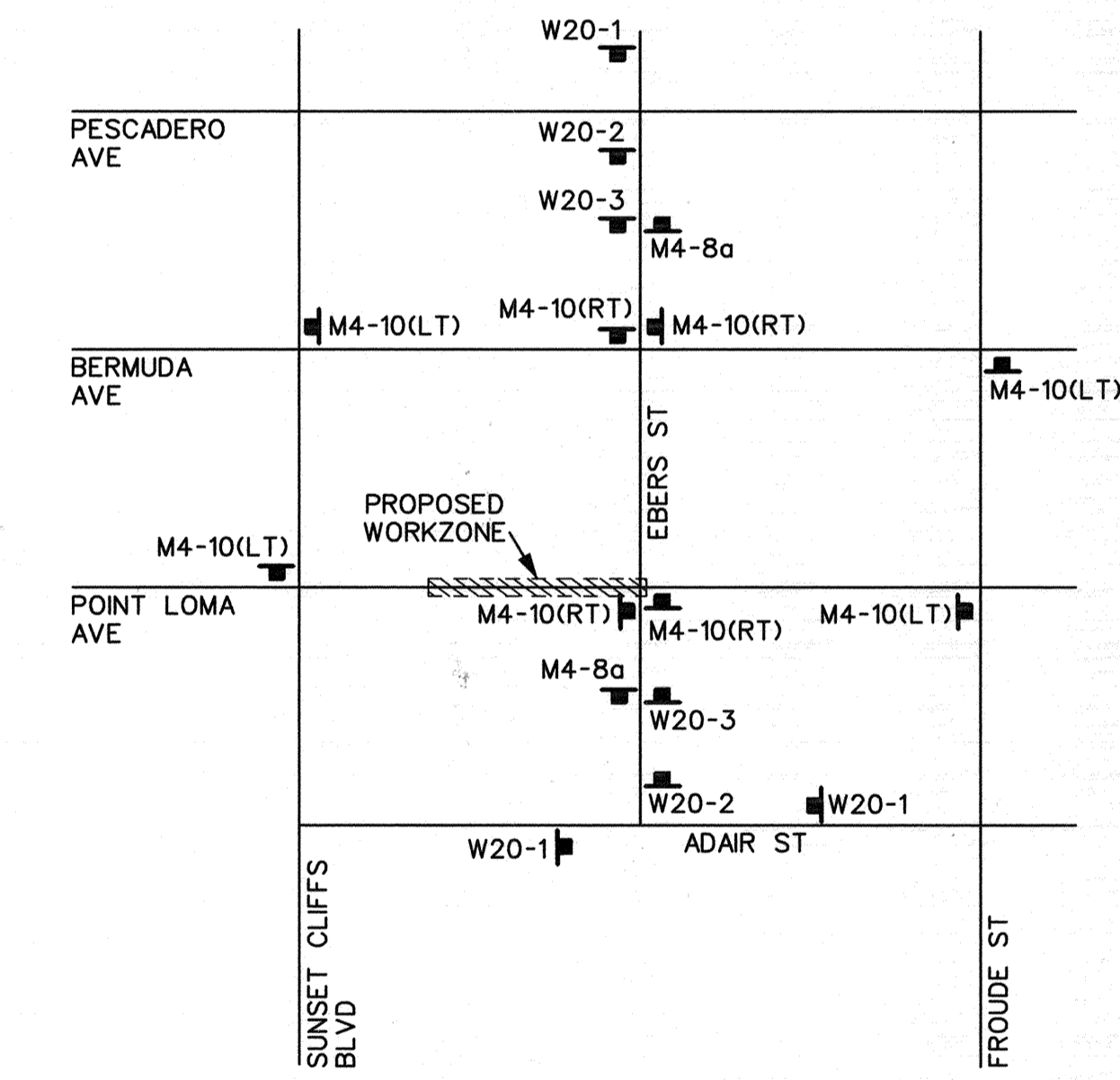
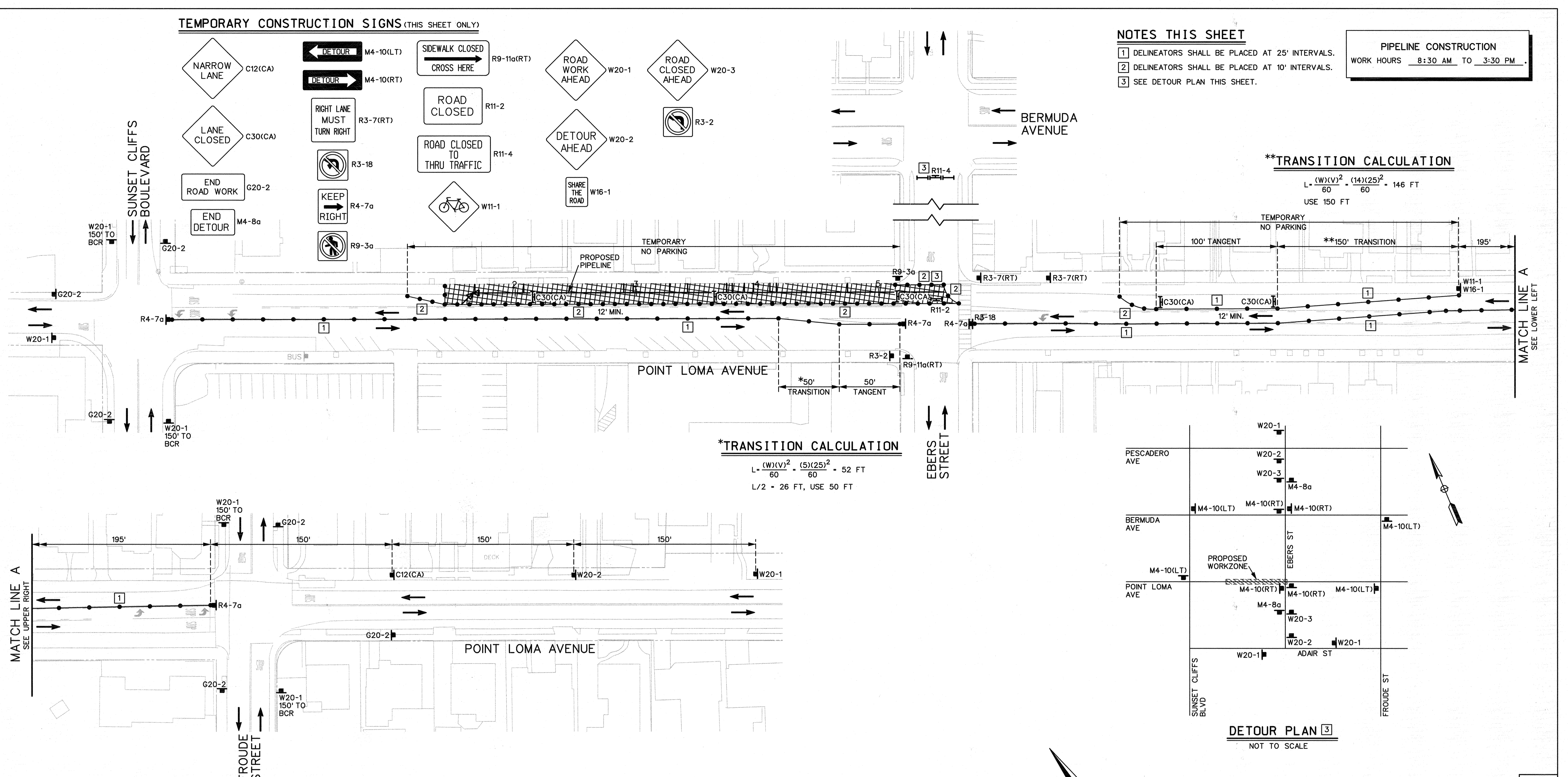
$$L = \frac{(W)(V)^2}{60} = \frac{(14)(25)^2}{60} = 146 \text{ FT}$$

USE 150 FT

***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(5)(25)^2}{60} = 52 \text{ FT}$$

L/2 = 26 FT, USE 50 FT



DETOUR PLAN 3
NOT TO SCALE

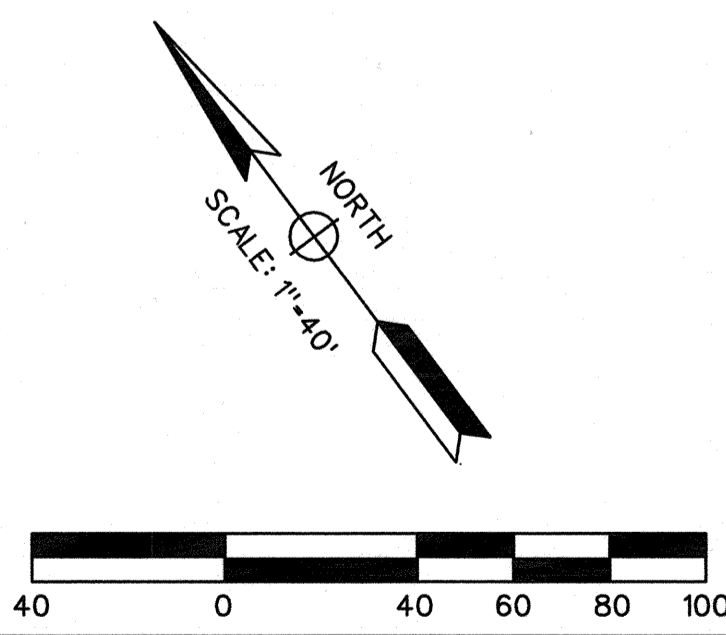
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

John P. Keating
 JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



TRAFFIC CONTROL DESIGN SPEED
 POINT LOMA AVENUE = 25 MPH

NOTE
 FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-8

TRAFFIC CONTROL PLANS FOR:			
WATER GROUP 914 POINT LOMA AVENUE (STAGE 7)			
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 8 OF 16 SHEETS		WATER WBS B-00125	
APPROVED FOR CITY ENGINEER <i>Armed Roubal</i> 09/08/2011	DATE	SUBMITTED BY MICHAEL NINH ASSOCIATE ENGINEER	
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	LLG		
CHECKED BY ROBERTO VELAR-PARRA PROJECT ENGINEER		206-1689 CCS27 COORDINATE	
CONTRACTOR INSPECTOR		DATE STARTED DATE COMPLETED	
		36124-T08-D	

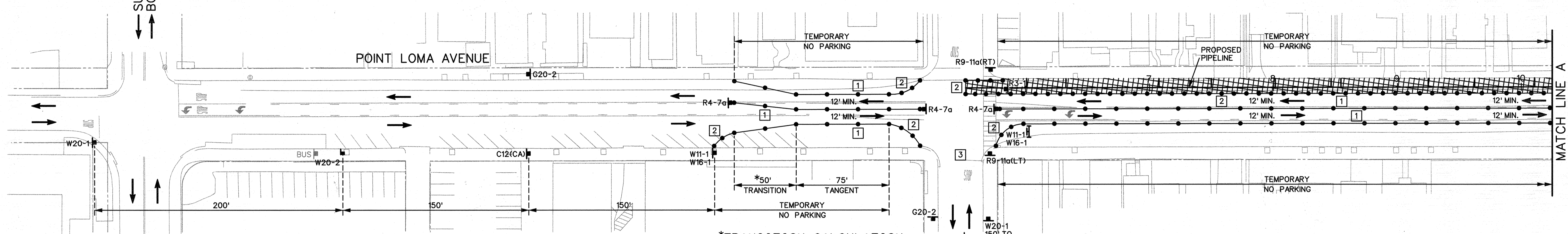
LINSOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1 Designed By: JSM	TC8-6350-36STG7.DGN Drawn By: DVS	8/19/11 Checked By: JPK
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NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 25' INTERVALS.
- 2 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 3 SEE DETOUR PLAN THIS SHEET.

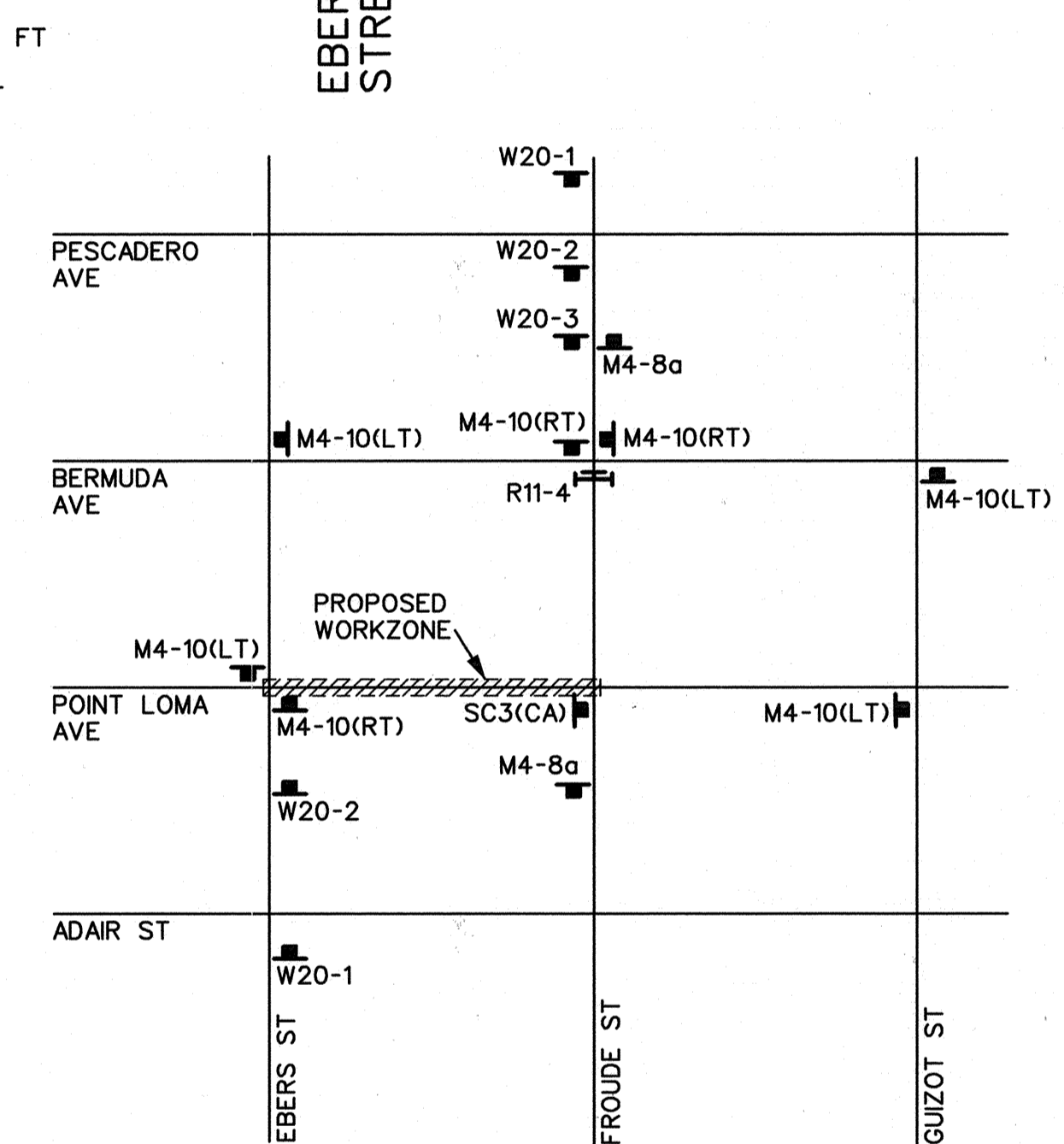
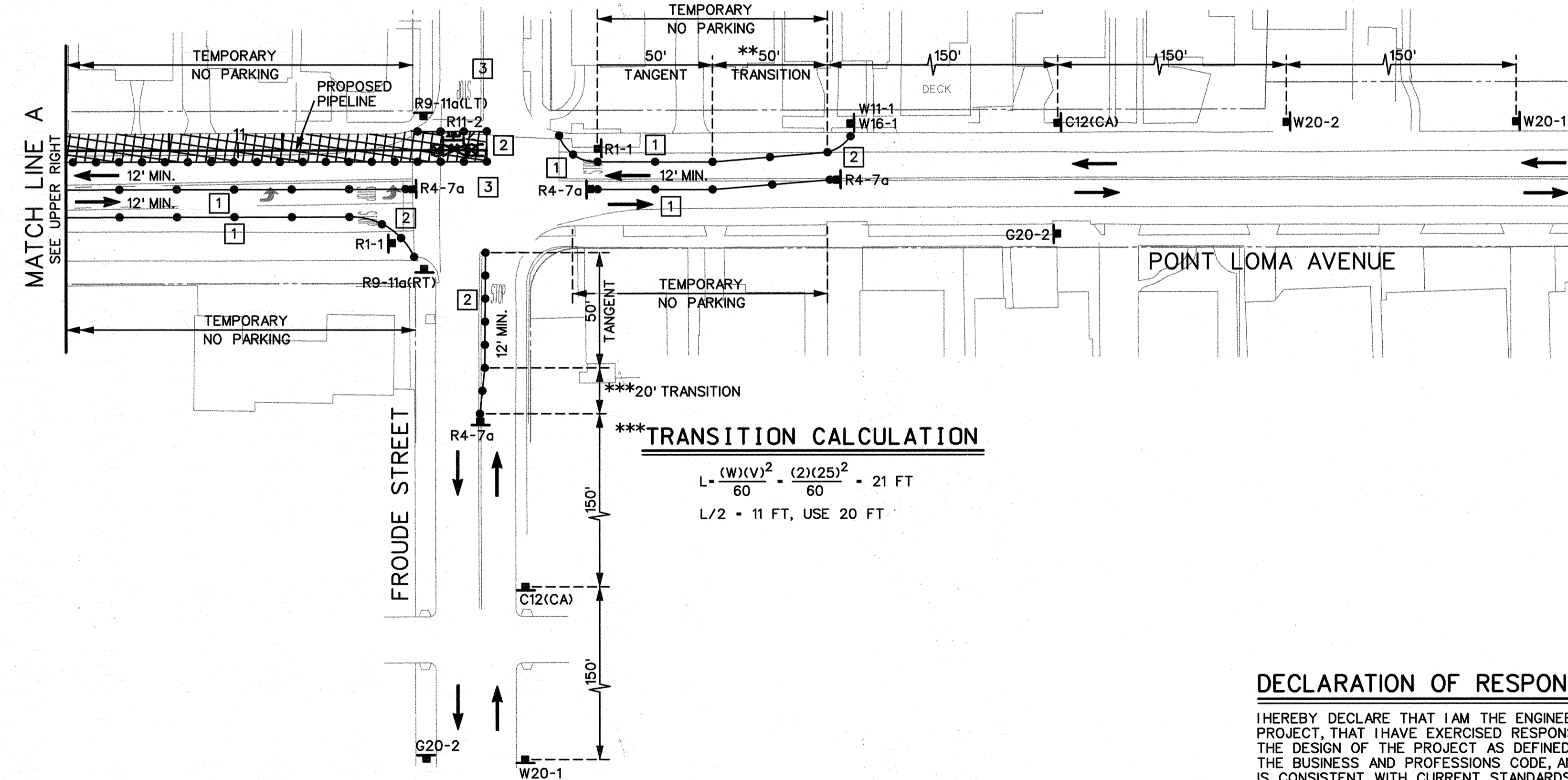
PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM



***TRANSITION CALCULATION**
 $L = \frac{(W)(V)^2}{60} = \frac{(7)(25)^2}{60} = 72 \text{ FT}$
 $L/2 = 36 \text{ FT, USE } 50 \text{ FT}$

****TRANSITION CALCULATION**
 $L = \frac{(W)(V)^2}{60} = \frac{(4)(25)^2}{60} = 42 \text{ FT}$
 USE 50 FT

*****TRANSITION CALCULATION**
 $L = \frac{(W)(V)^2}{60} = \frac{(2)(25)^2}{60} = 21 \text{ FT}$
 $L/2 = 11 \text{ FT, USE } 20 \text{ FT}$



DETOUR PLAN 3
 NOT TO SCALE

TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)

NARROW LANE C12(CA)	SIDEWALK CLOSED CROSS HERE R9-11a(LT)	BICYCLE W11-1
END ROAD WORK G20-2	SIDEWALK CLOSED CROSS HERE R9-11a(RT)	ROAD WORK AHEAD W20-1
END DETOUR M4-8a	ROAD CLOSED R11-2	ROAD WORK AHEAD W20-2
DETOUR M4-10(LT)	ROAD CLOSED TO THRU TRAFFIC R11-4	DETOUR AHEAD W20-2
DETOUR M4-10(RT)	DETOUR SC3(CA)	DETOUR AHEAD W20-3
STOP R1-1	DETOUR R3-1	ROAD CLOSED AHEAD W20-3
KEEP RIGHT R4-7a		SHARE THE ROAD W16-1

DECLARATION OF RESPONSIBLE CHARGE

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

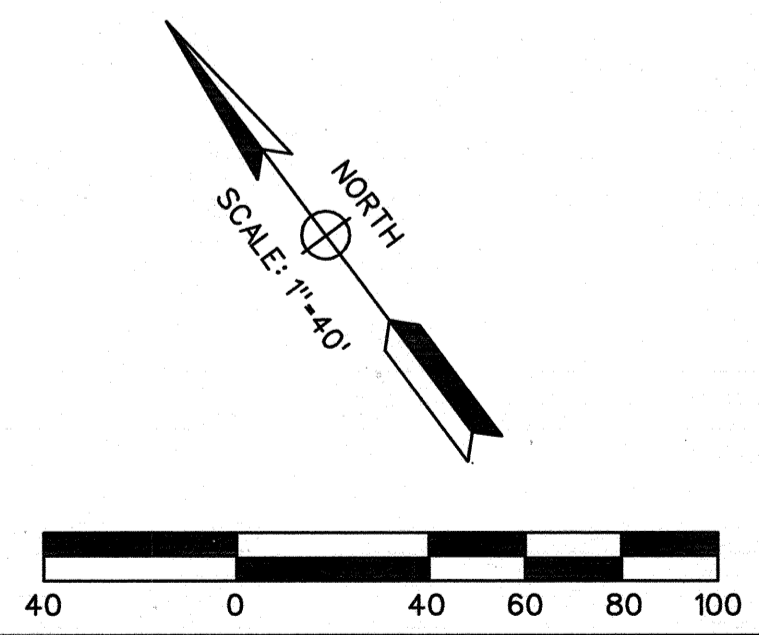
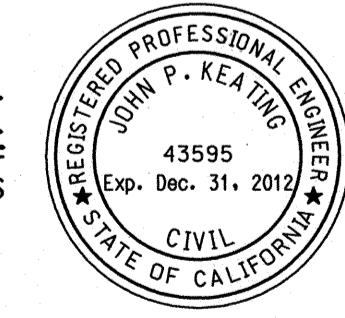
I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

ENGINEER OF WORK

John P. Keating
 JOHN P. KEATING R.C.E. 43595 DATE 8/19/11

NOTE
 FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

TRAFFIC CONTROL DESIGN SPEED
 POINT LOMA AVENUE = 25 MPH



LINSCOTT, LAW & GREENSPAN, ENGINEERS
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LLG 3-076350-36.1 TC9-6350-36ST08.DGN 8/19/11
 Designed By: JSM Drawn By: DVS Checked By: JPK

TRAFFIC CONTROL PLANS FOR:

**WATER GROUP 914
 POINT LOMA AVENUE
 (STAGE 8)**

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 9 OF 16 SHEETS		WATER WBS B-00125
FOR CITY ENGINEER <i>Michael H. Hirsch</i>	DATE 09/09/2011	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED
ORIGINAL	LLG	
DATE		
FILMED		
CHECKED BY: ROBERTO VELAZQUEZ-PARRA PROJECT ENGINEER		206-1689 CCS27 COORDINATE
CONTRACTOR		6250407-1946444 CCS83 COORDINATE
INSPECTOR	DATE STARTED	DATE COMPLETED
		36124-T09-D

NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 25' INTERVALS.
- 2 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.

PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM

***TRANSITION CALCULATION**

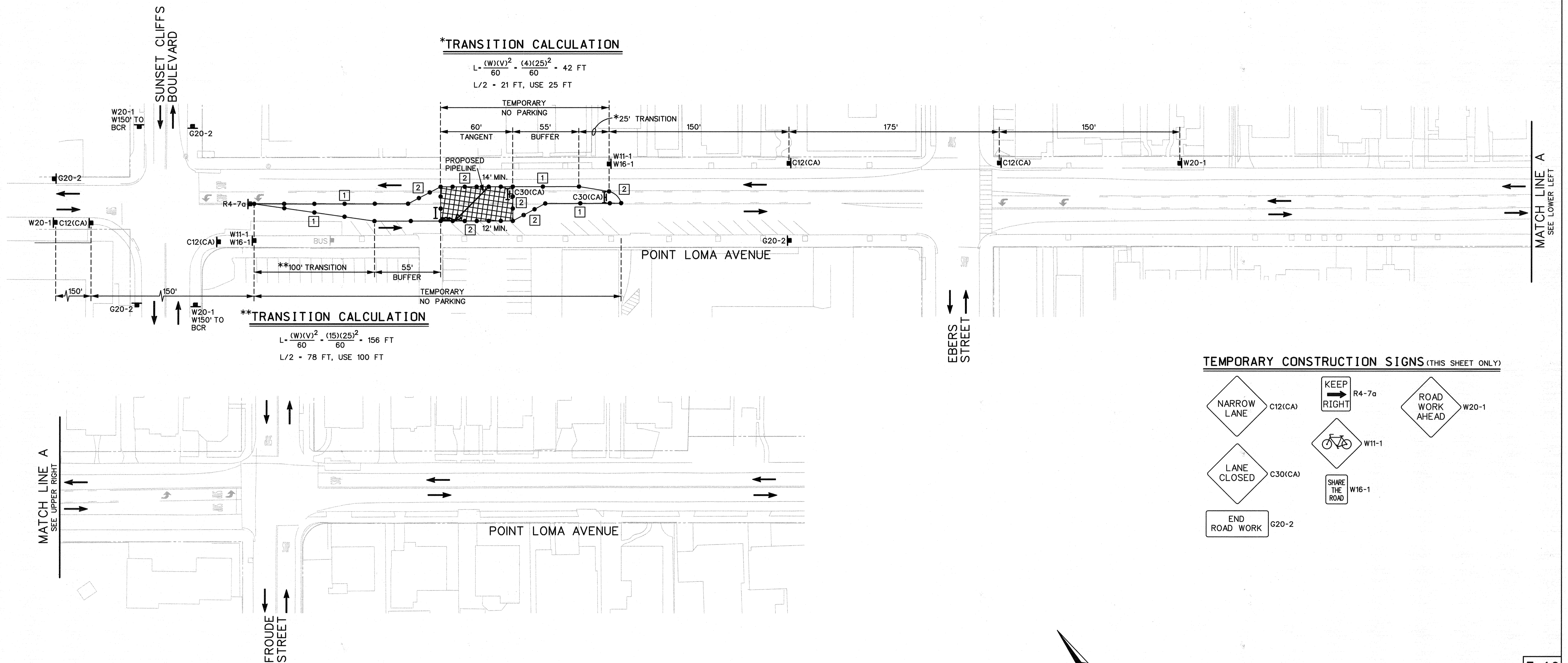
$$L = \frac{(W)(V)^2}{60} = \frac{(4)(25)^2}{60} = 42 \text{ FT}$$

$$L/2 = 21 \text{ FT, USE } 25 \text{ FT}$$

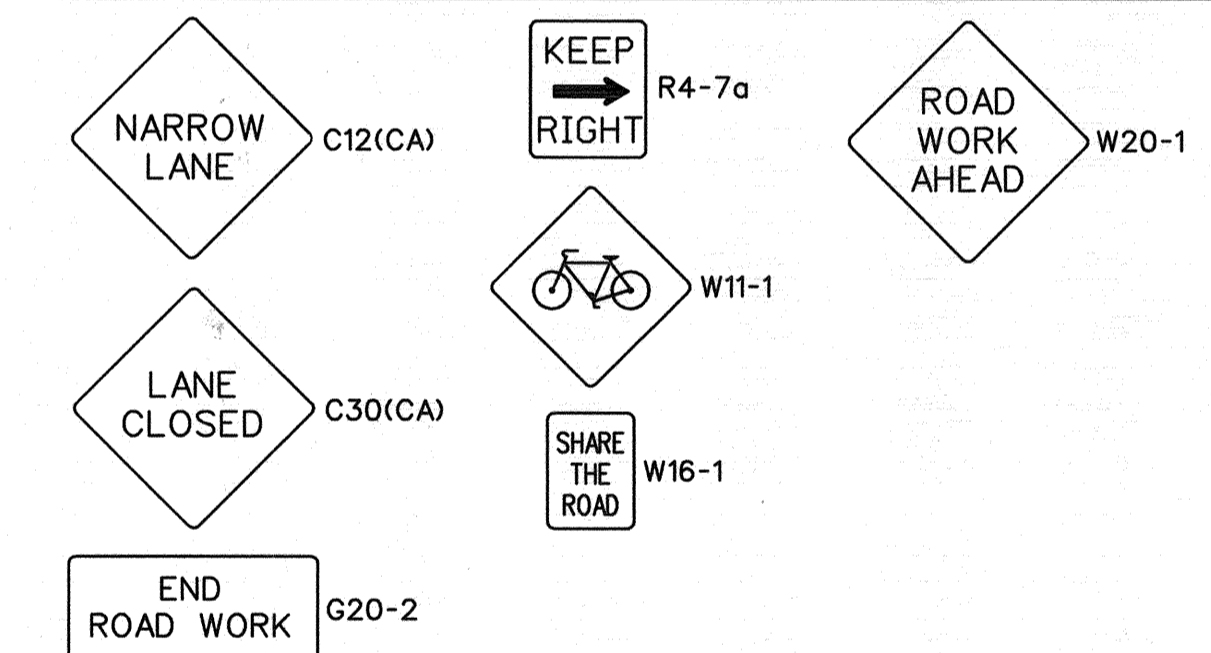
****TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(15)(25)^2}{60} = 156 \text{ FT}$$

$$L/2 = 78 \text{ FT, USE } 100 \text{ FT}$$



TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



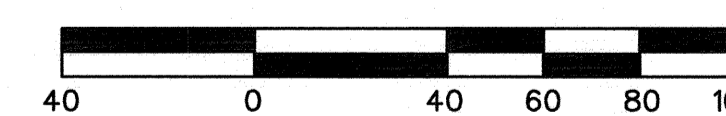
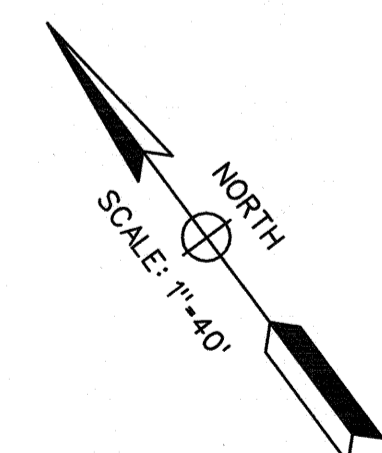
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

JOHN P. KEATING R.C.E. 43595 8/19/11 DATE



TRAFFIC CONTROL DESIGN SPEED
 POINT LOMA AVENUE = 25 MPH

NOTE

FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

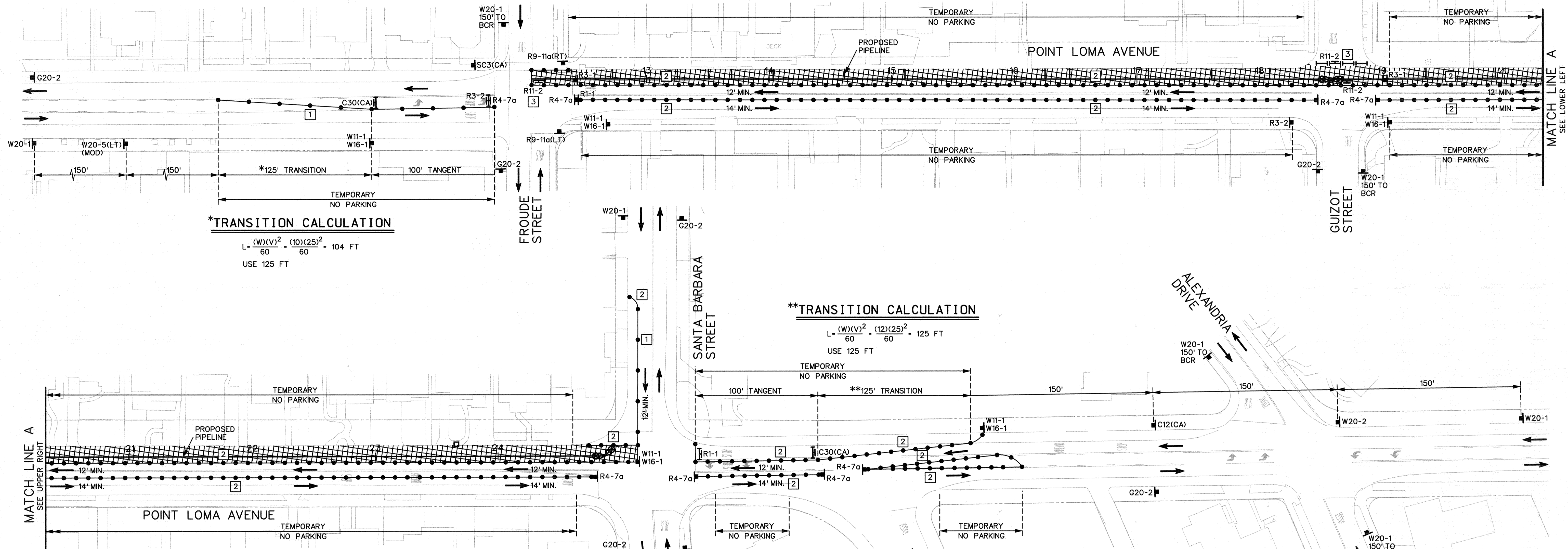
LINSCOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

TRAFFIC CONTROL PLANS FOR:				T-10	
WATER GROUP 914 POINT LOMA AVENUE (STAGE 9)					
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 10 OF 16 SHEETS				WATER WBS B-00125	
APPROVED: <i>Abdul Abmalwah</i> 09/08/2011				SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
FOR CITY ENGINEER				ORDERED BY: ROBERTO VELAZ-ARRA PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE	FILMED	
ORIGINAL	LLG				
				206-1689 CCS27 COORDINATE 6250407-1846444 CCS83 COORDINATE	
CONTRACTOR				DATE STARTED	
INSPECTOR				DATE COMPLETED	
				36124-T10-D	

NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 25' INTERVALS.
- 2 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 3 SEE DETOUR PLAN THIS SHEET.

PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM



***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(10)(25)^2}{60} = 104 \text{ FT}$$

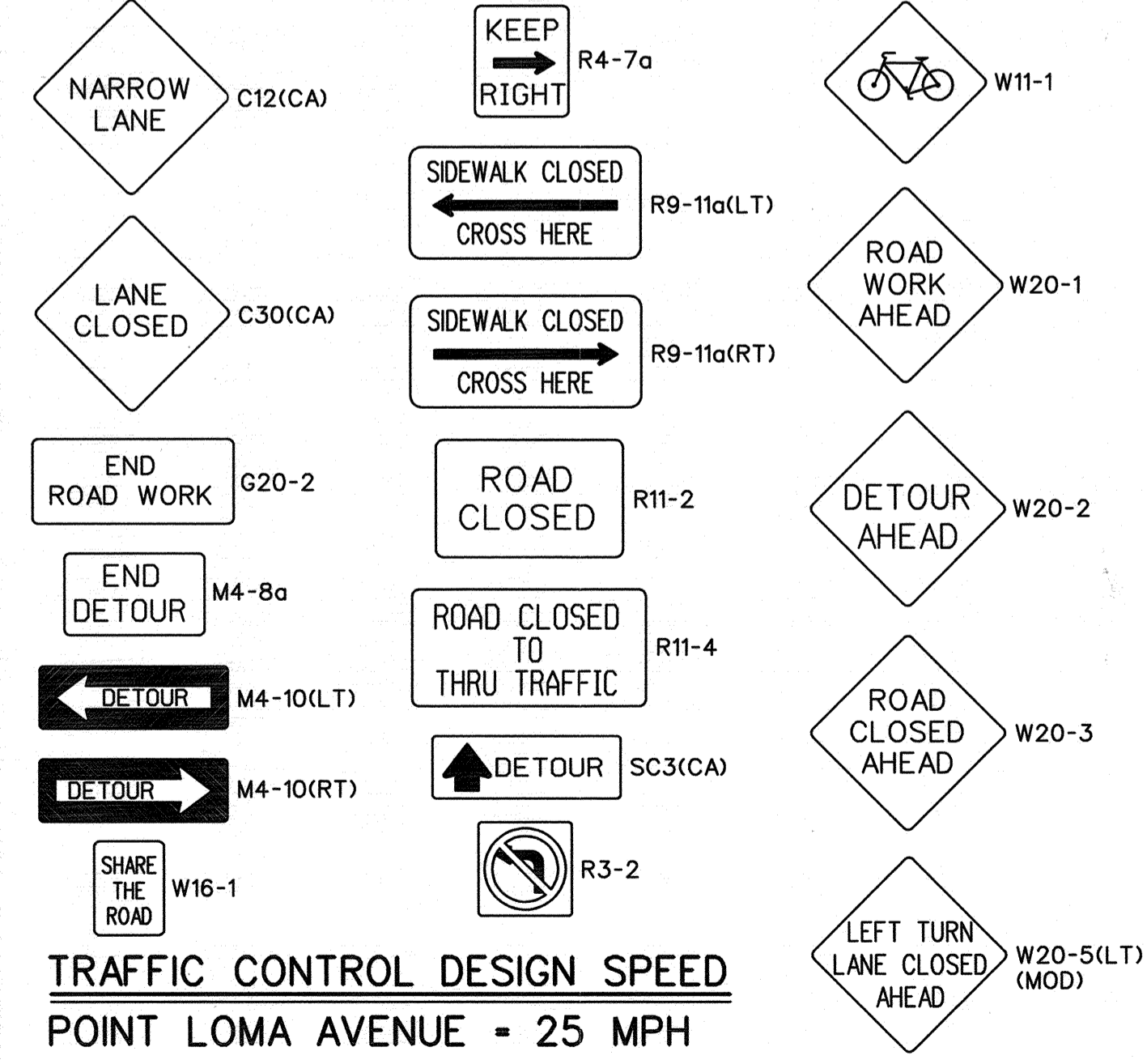
USE 125 FT

****TRANSITION CALCULATION**

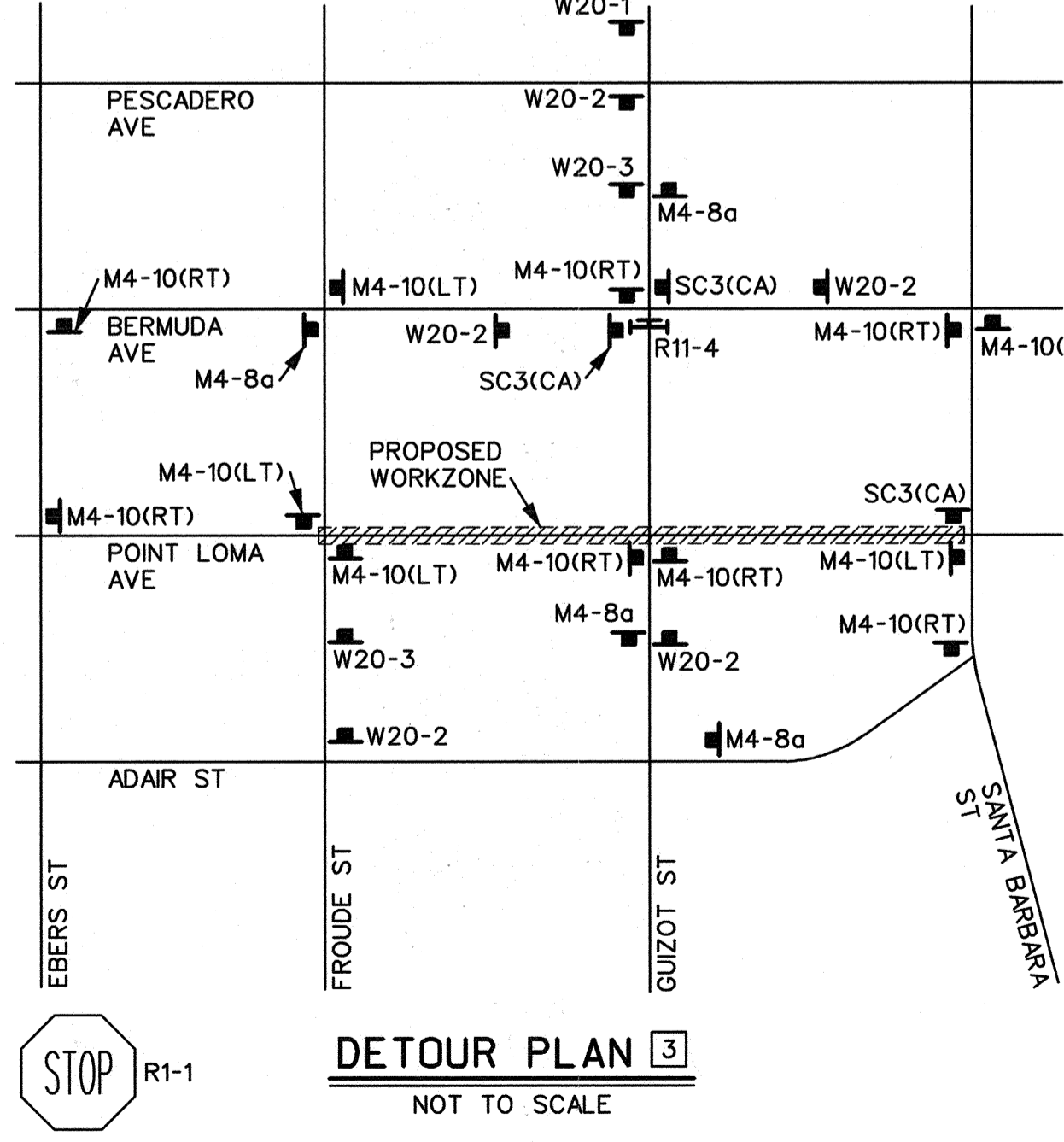
$$L = \frac{(W)(V)^2}{60} = \frac{(12)(25)^2}{60} = 125 \text{ FT}$$

USE 125 FT

TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



TRAFFIC CONTROL DESIGN SPEED
 POINT LOMA AVENUE = 25 MPH



DETOUR PLAN 3
 NOT TO SCALE

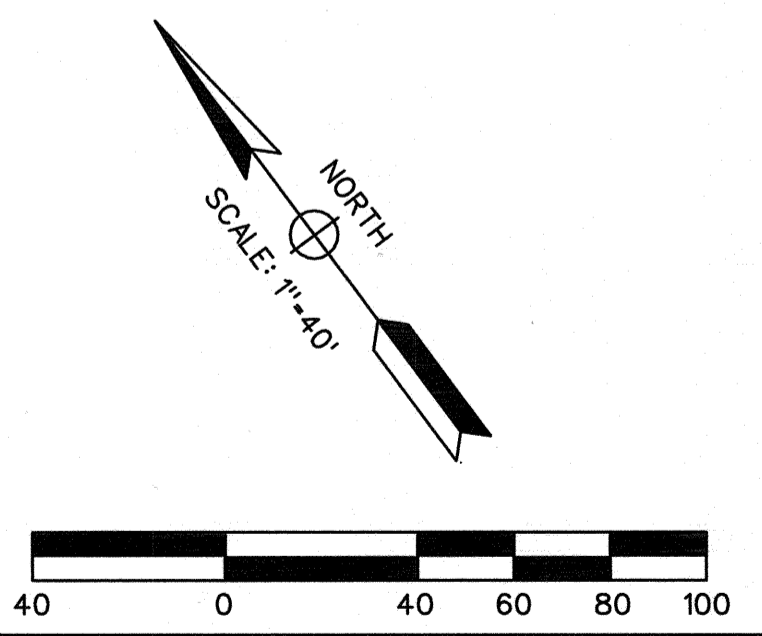
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



LINSCOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1 T-11-6350-36STG10.DGN 8/19/11
 Designed By: JSM Drawn By: DVS Checked By: JPK

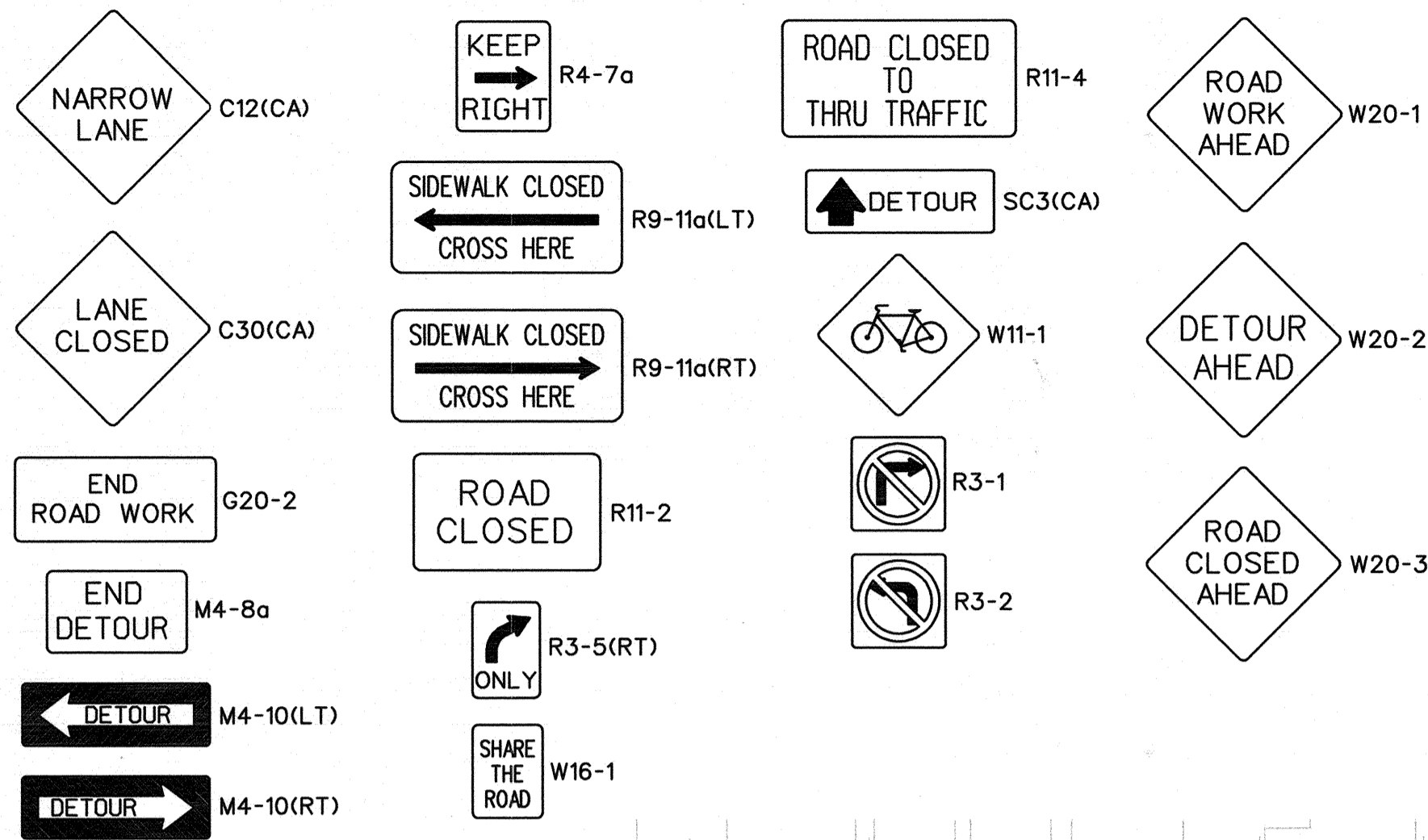
NOTE

FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-11

TRAFFIC CONTROL PLANS FOR:				
WATER GROUP 914				
POINT LOMA AVENUE (STAGE 10)				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 11 OF 16 SHEETS				WATER WBS B-00125
APPROVED BY: <i>Ahmed Alshakmak</i> 09/08/2011	FOR CITY ENGINEER			SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	LLG			
CONTRACTOR				DATE STARTED
INSPECTOR				DATE COMPLETED
				36124-T11-D

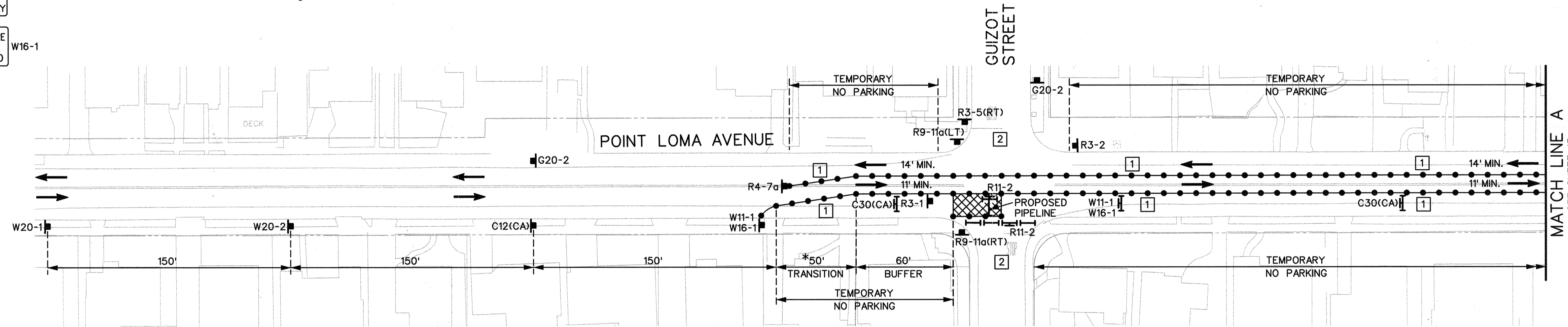
TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 2 SEE DETOUR PLAN THIS SHEET.

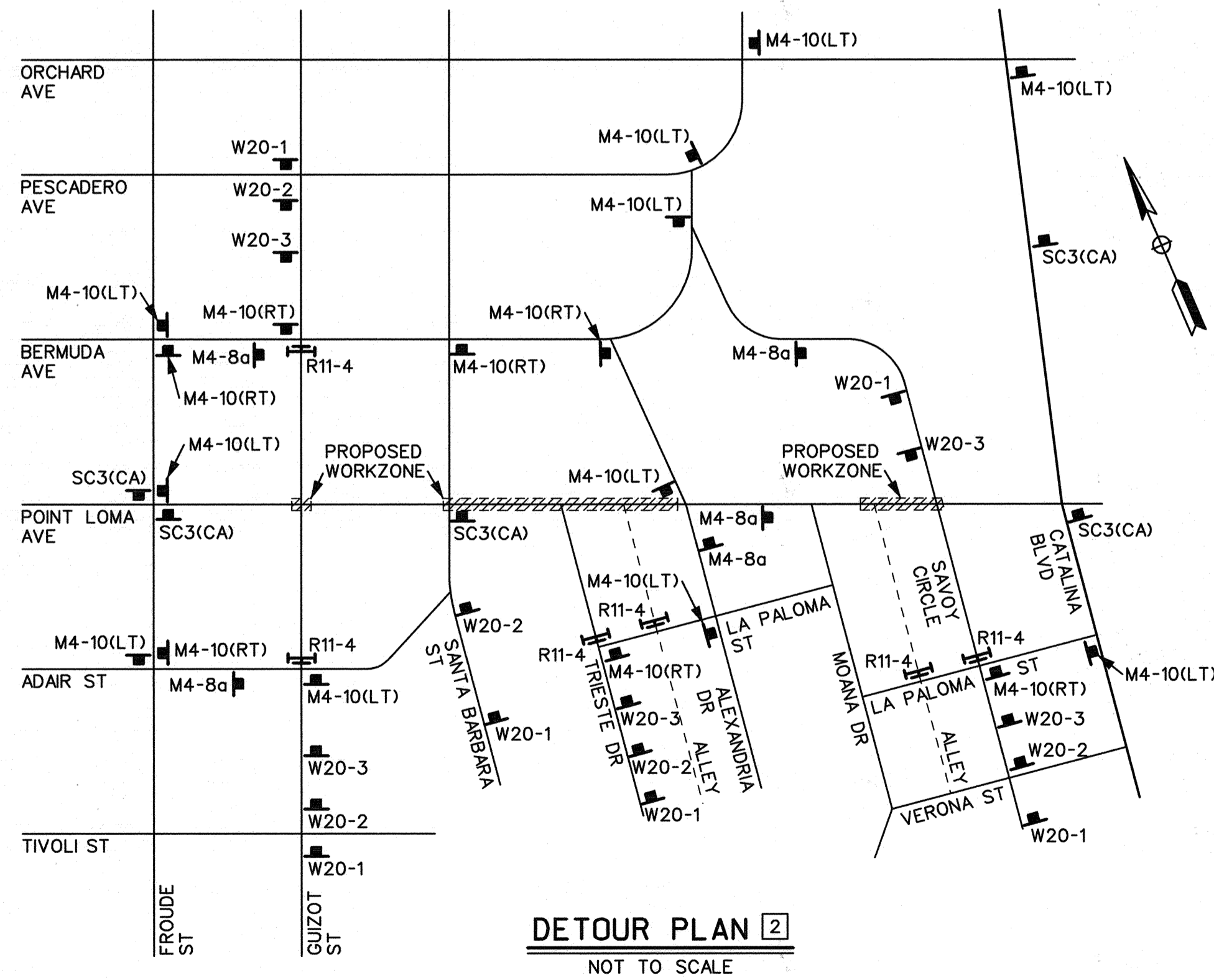
PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM



***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(8)(25)^2}{60} = 83 \text{ FT}$$

L/2 = 42 FT, USE 50 FT



DETOUR PLAN 2
 NOT TO SCALE

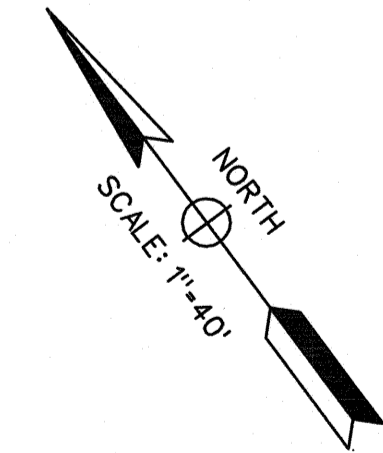
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



LINSCOTT LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1	TC12-6350-36STG11.DGN	8/19/11
Designed By: JSM	Drawn By: DVS	Checked By: JPK

NOTE

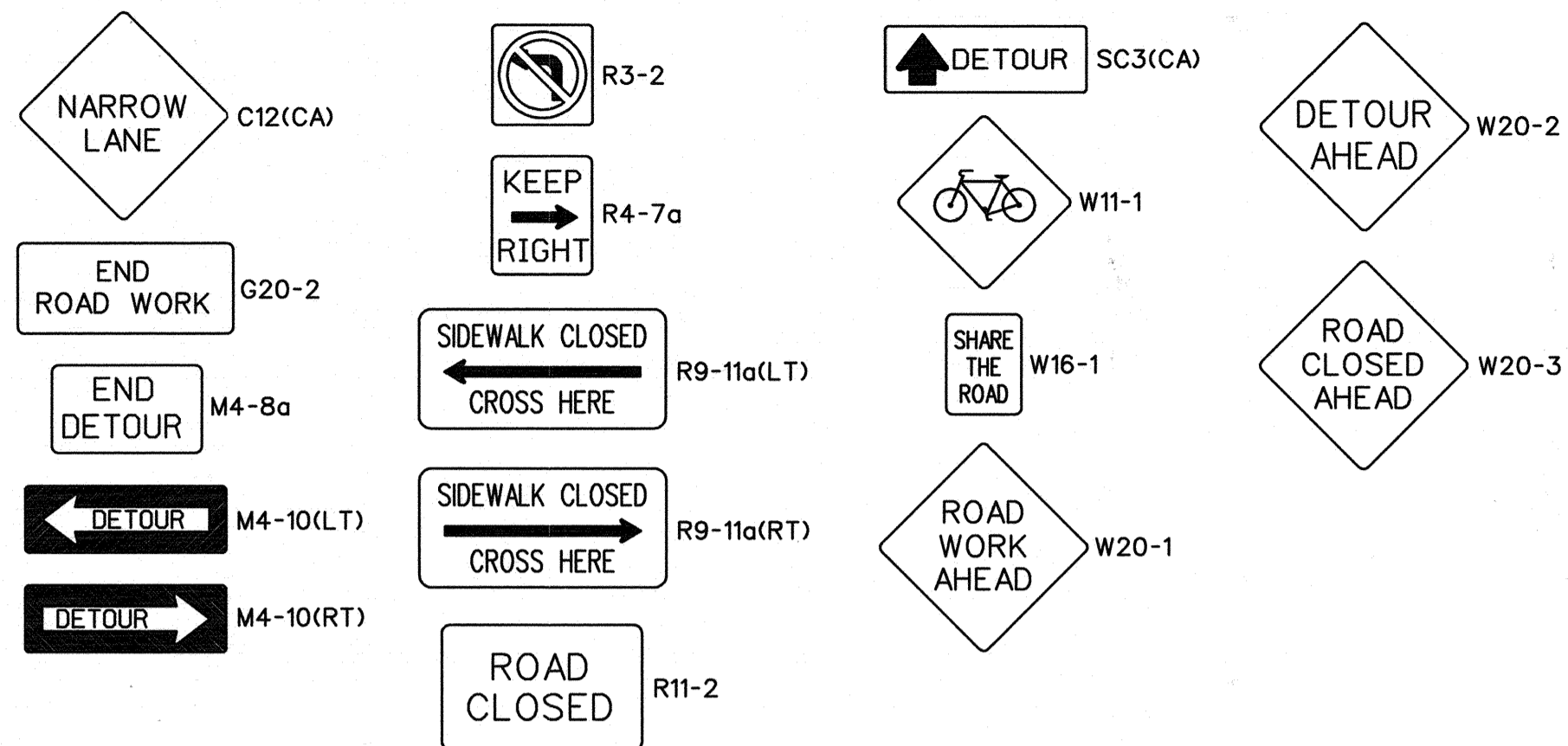
FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-12

TRAFFIC CONTROL PLANS FOR:				
WATER GROUP 914 POINT LOMA AVENUE (STAGE 11)				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 12 OF 16 SHEETS				WATER WBS B-00125
APPROVED FOR CITY ENGINEER	DATE	SUBMITTED BY		
<i>Ahmed Abdelhaleem</i>	09/08/2011	MICHAEL NINH		
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	LLG			
CHECKED BY				
ROBERTO VELAR-PARRA				
PROJECT ENGINEER				
				206-1688
				CCS27 COORDINATE
				6250407-1846444
				CCS83 COORDINATE
CONTRACTOR	DATE STARTED	INSPECTOR		DATE COMPLETED
				36124-T12-D

TRAFFIC CONTROL DESIGN SPEED
 POINT LOMA BOULEVARD = 25 MPH

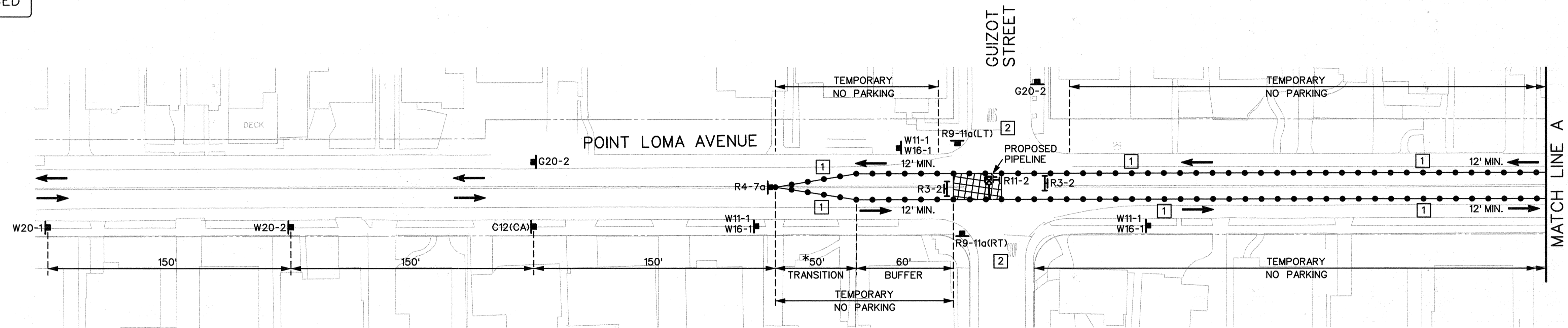
TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 2 SEE DETOUR PLAN THIS SHEET.

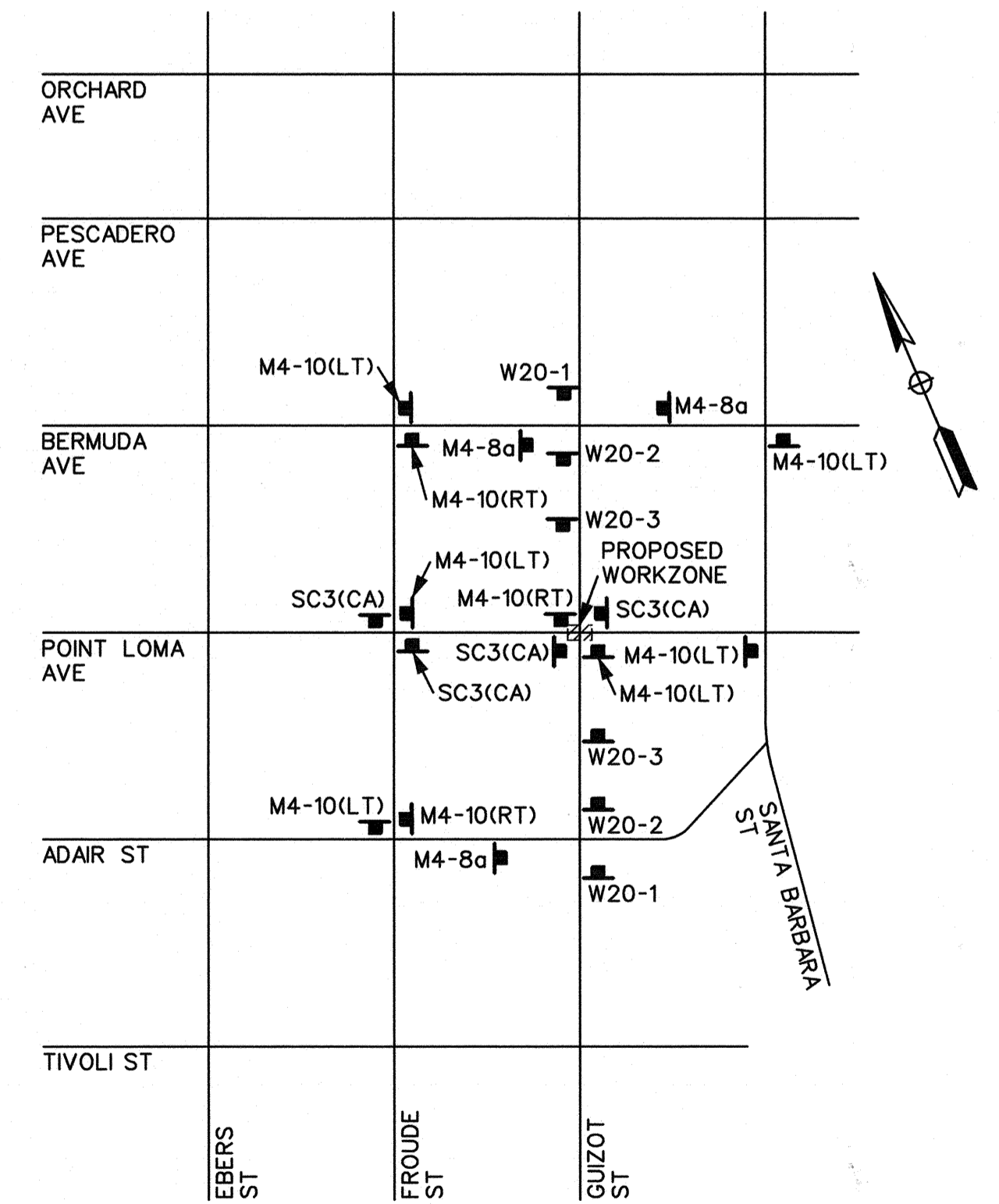
PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM



***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(8)(25)^2}{60} = 83 \text{ FT}$$

$$L/2 = 42 \text{ FT, USE 50 FT}$$



DETOUR PLAN
NOT TO SCALE

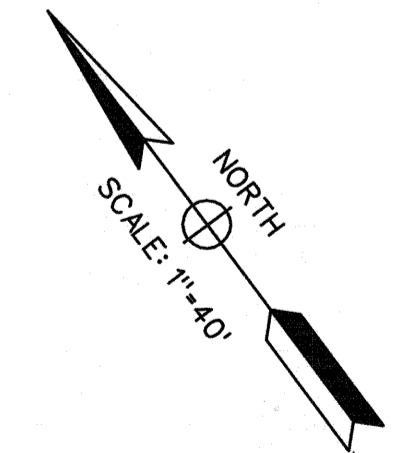
DECLARATION OF RESPONSIBLE CHARGE

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

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

ENGINEER OF WORK

John P. Keating
 JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



LINSCOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1 TC14-6350-36STG12.DGN 8/19/11
 Designed By: JSM Drawn By: DVS Checked By: JPK

NOTE

FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-14

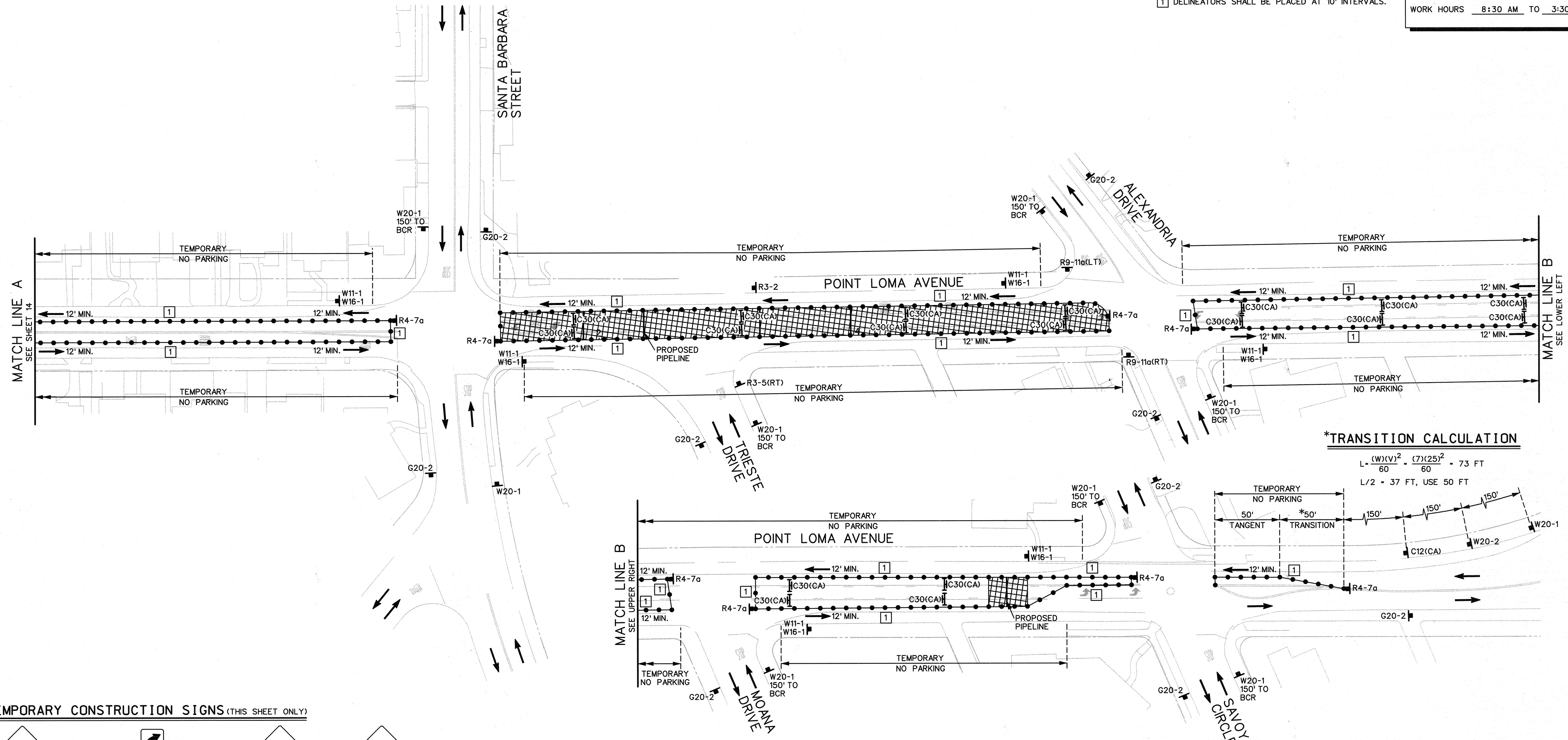
TRAFFIC CONTROL PLANS FOR:				
WATER GROUP 914 POINT LOMA AVENUE (STAGE 12)				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 14 OF 16 SHEETS				WATER WBS B-00125
FOR CITY ENGINEER	DATE	SUBMITTED BY		ASSOCIATE ENGINEER
<i>Ahmed Alsharrah</i>	09/08/2011	MICHAEL NINH		
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	LLG			
CHECKED BY				PROJECT ENGINEER
ROBERTO VELAR-PARRA				
206-1689				
CCS27 COORDINATE				
6250407-1846444				
CCS83 COORDINATE				
CONTRACTOR	DATE STARTED	DATE COMPLETED		36124-T14-D
INSPECTOR				

TRAFFIC CONTROL DESIGN SPEED
 POINT LOMA BOULEVARD = 25 MPH

NOTES THIS SHEET

1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.

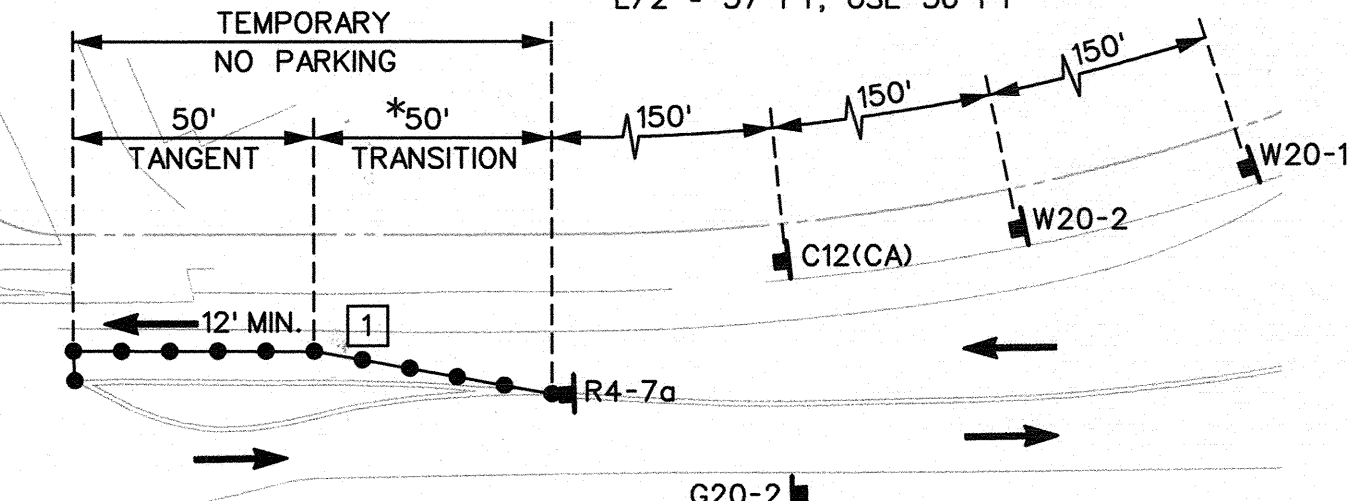
PIPELINE CONSTRUCTION
WORK HOURS 8:30 AM TO 3:30 PM



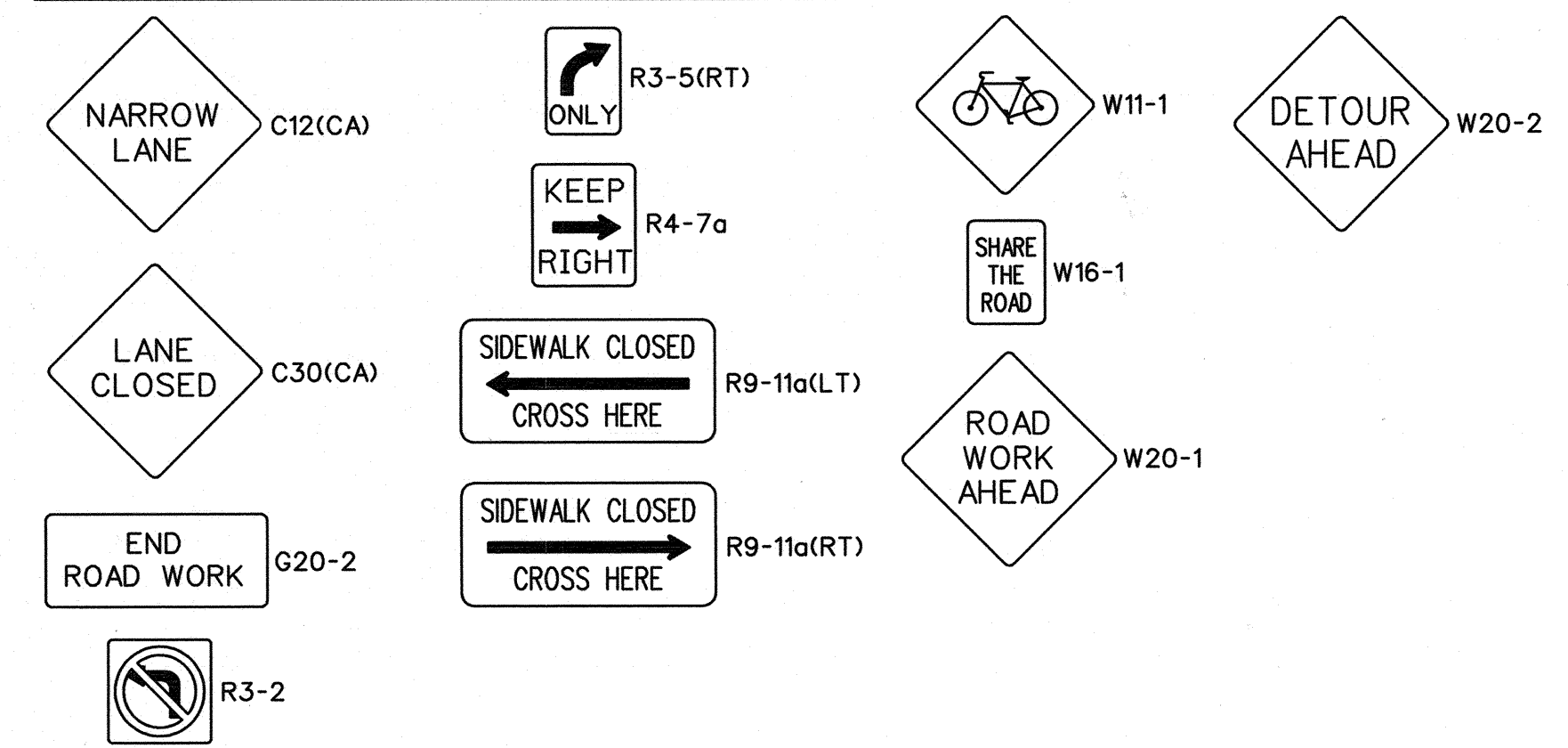
***TRANSITION CALCULATION**

$$L = \frac{(W)(V)^2}{60} = \frac{(7)(25)^2}{60} = 73 \text{ FT}$$

$$L/2 = 37 \text{ FT, USE 50 FT}$$



TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



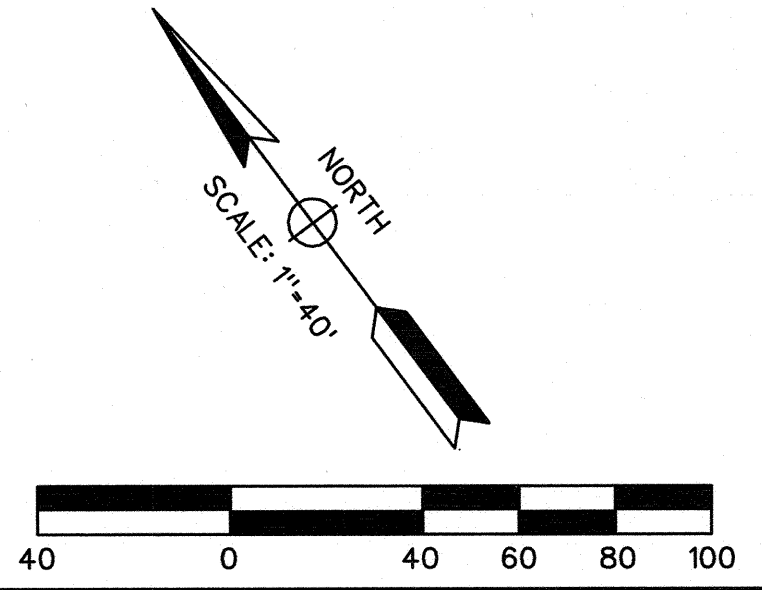
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ENGINEER OF WORK

John P. Keating
JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



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San Diego, Ca 92111
(858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1	TC15-6350-36STG12.DGN	8/19/11
Designed By: JSM	Drawn By: DVS	Checked By: JPK

NOTE

FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-15

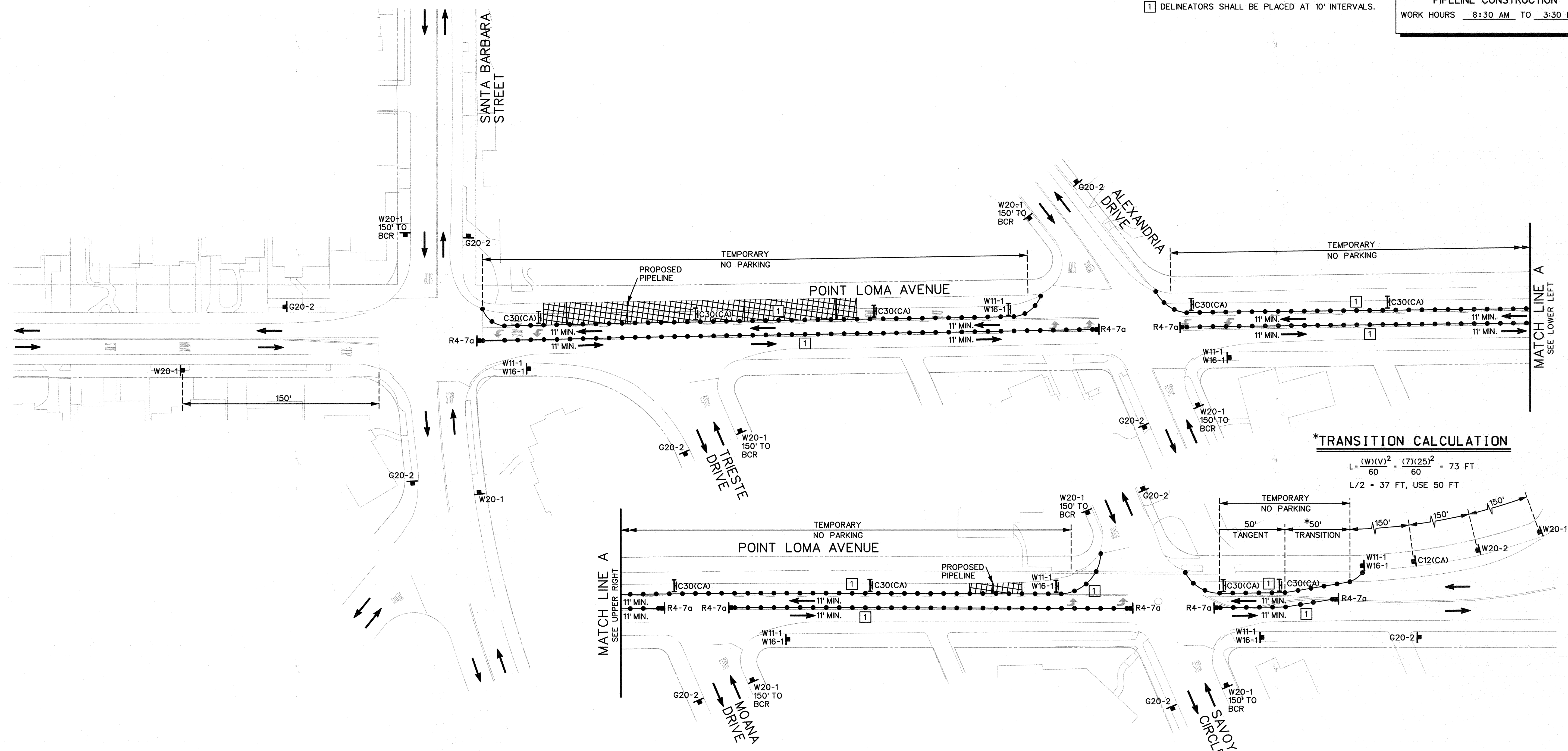
WATER GROUP 914 POINT LOMA AVENUE (STAGE 12)				
CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 15 OF 16 SHEETS			WATER WBS B-00125	
APPROVED FOR CITY ENGINEER	DATE	SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER		
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	LLG			
CHECKED BY: ROBERTO VELAZ-PARRA PROJECT ENGINEER				
206-1688 CCS27 COORDINATE				
6250407-1846444 CCS83 COORDINATE				
CONTRACTOR	DATE STARTED	36124-T15-D		
INSPECTOR	DATE COMPLETED			

TRAFFIC CONTROL DESIGN SPEED
POINT LOMA AVENUE = 25 MPH

NOTES THIS SHEET

1 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.

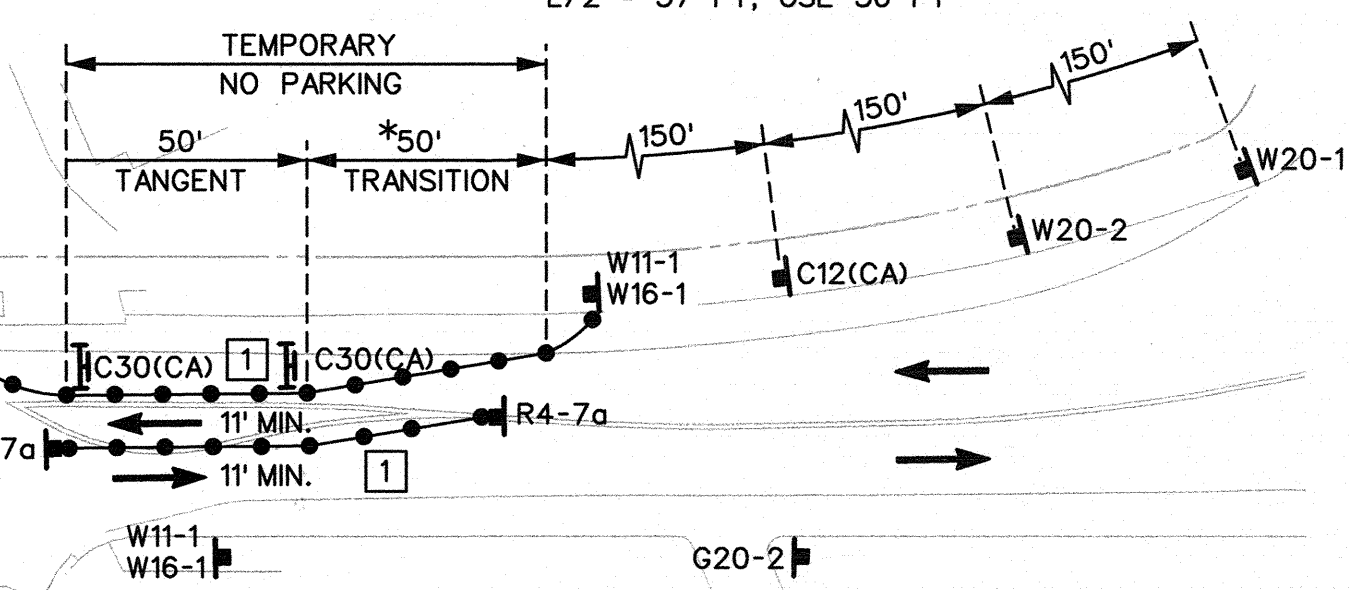
PIPELINE CONSTRUCTION
 WORK HOURS 8:30 AM TO 3:30 PM



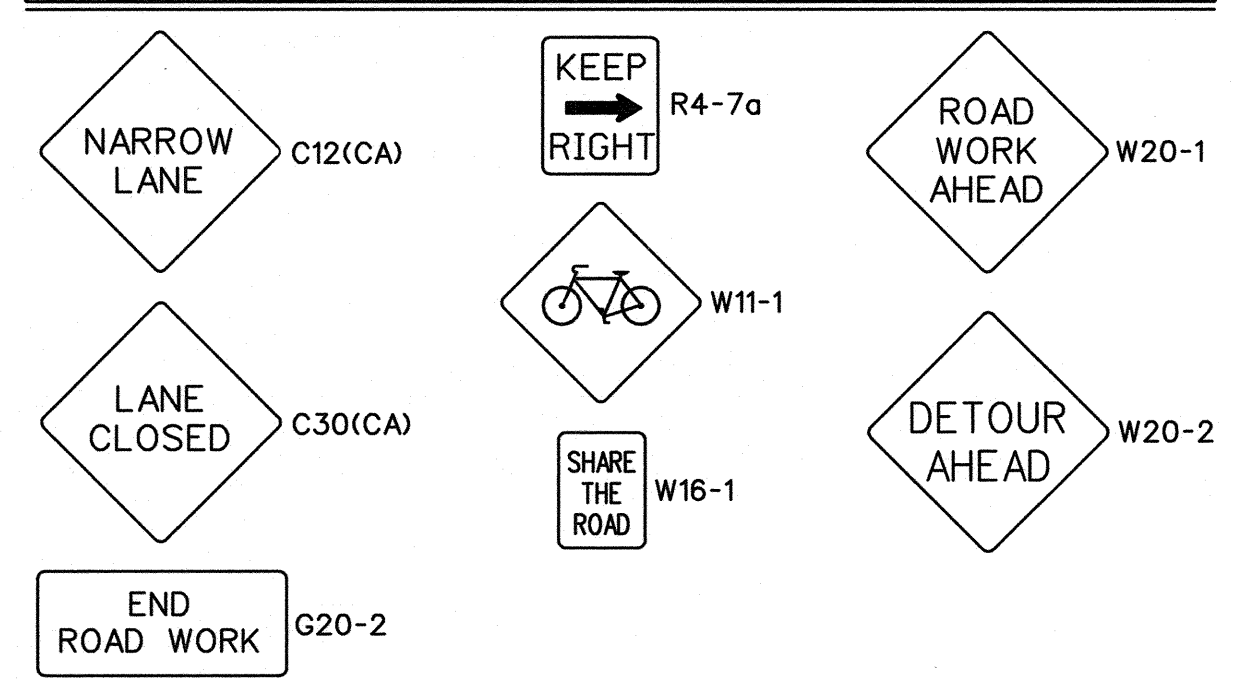
***TRANSITION CALCULATION**

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$$L/2 = 37 \text{ FT, USE 50 FT}$$



TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



TRAFFIC CONTROL DESIGN SPEED
 POINT LOMA AVENUE = 25 MPH

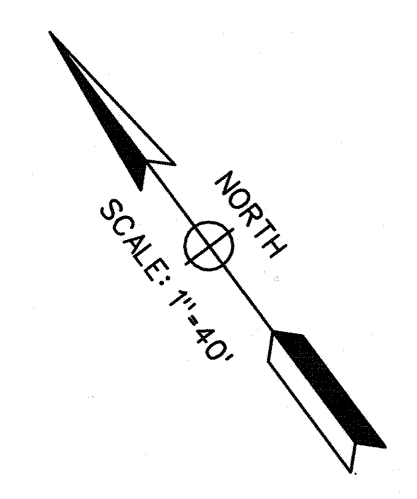
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ENGINEER OF WORK

John P. Keating
 JOHN P. KEATING R.C.E. 43595 DATE 8/19/11



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 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-36.1 TC16-6350-36STG13.DGN 8/19/11
 Designed By: JSM Drawn By: DVS Checked By: JPK

NOTE

FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-16

TRAFFIC CONTROL PLANS FOR:

WATER GROUP 914
POINT LOMA AVENUE
 (STAGE 13)

CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT		WATER WBS B-00125	
SHEET 16 OF 16 SHEETS		SUBMITTED BY: MICHAEL NINH ASSOCIATE ENGINEER	
FOR CITY ENGINEER: <i>Michael Ninh</i> 09/08/2011		CHECKED BY: ROBERTO VELAR-PARRA PROJECT ENGINEER	
DESCRIPTION	BY	APPROVED	DATE
ORIGINAL	LLG		
CONTRACTOR: _____		DATE STARTED: _____	
INSPECTOR: _____		DATE COMPLETED: _____	

36124-T16-D