

City of San Diego

CONTRACTOR'S NAME: _____
ADDRESS: _____
TELEPHONE NO.: _____ FAX NO.: _____
CITY CONTACT: Eleida Yackel Felix, Contract Specialist, Email: EFelixYackel@sandiego.gov
Phone No. (619) 533-3449, Fax No. (619) 533-3633
A.Bassyouni/BD/egz

CONTRACT DOCUMENTS (DRAFT)



FOR

AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT / SEWER AND WATER GROUP 809

VOLUME 1 OF 2

| | |
|----------------------|---------------------------|
| BID NO.: | K-13-5979-DBB-3 |
| SAP NO. (WBS/IO/CC): | S-13018, B-00416, B-00102 |
| CLIENT DEPARTMENT: | 2116, 2011, 2013 |
| COUNCIL DISTRICT: | 1 |
| PROJECT TYPE: | CA, JA, KB |

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:

- PHASED-FUNDING.
- FEDERAL EQUAL OPPORTUNITY CONTRACTING REQUIREMENTS.
- PREVAILING WAGE RATES: STATE FEDERAL
- THIS IS A UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX FUNDED CONTRACT.

BID DUE DATE:

**2:00 PM
JULY 31, 2013
CITY OF SAN DIEGO
PUBLIC WORKS DEPARTMENT
1010 SECOND AVENUE, SUITE 1400, MS 614C
SAN DIEGO, CA 92101**

ENGINEER OF WORK

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

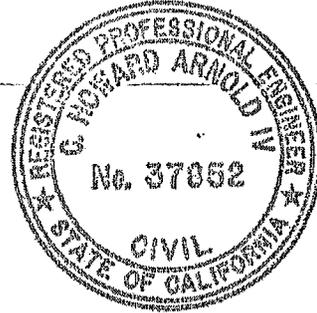
C. Arnold IV

1) Registered Engineer/Architect

3/31/15

Date

Seal:



Ram Amen

2) For City Engineer

6-17-2013

Date

Seal



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CITY OF SAN DIEGO, CALIFORNIA

NOTICE INVITING BIDS

1. **RECEIPT AND OPENING OF BIDS:** Bids will be received at the Public Works Contracting Group at the location, time, and date shown on the cover of these specifications for performing work on **Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809** (Project).

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

Construction consists of replacement and installation of approximately 640 LF of 70-in x 183-in RCB storm drain, 8,920 LF of 8-in, 10-in, 12-in and 15-in sewer main, 7,900 LF of 8-in water main, approximately 29-ft x 44-ft storm drain outfall structure. The project also include installation of a beach access ramp and seawall, low-flow diversion system, nutrient separating baffle box, sewer rehabilitation, sewer pipe bursting, sewer manholes, sewer laterals, sewer replumbs, water pipe bursting, water services, fire services, valves, fire hydrants, street resurfacing, curb ramps, traffic control and all other appurtenances included in the plans.

2.1. The Work shall be performed in accordance with:

2.1.1. This Notice Inviting Bids and Plans **36465-01-D** through **36465-33-D**, and **34419-01-D** through **34419-39-D**, inclusive.

3. **EQUAL OPPORTUNITY**

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

D. CITY'S EQUAL OPPORTUNITY COMMITMENT.

1. Nondiscrimination in Contracting Ordinance.

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

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

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

2. Disclosure of Discrimination Complaints. As part of its Bid or Proposal, the Bidder shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.
3. Upon the City's request, the Contractor agrees to provide to the City, within 60 days, a truthful and complete list of the names of all Subcontractors and Suppliers that the Contractor has used in the past 5 years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by the Contractor for each subcontract or supply contract.
4. The Contractor further agrees to fully cooperate in any investigation conducted by the City pursuant to the City's Nondiscrimination in Contracting Ordinance, Municipal Code §§22.3501 through 22.3517. The Contractor understands and agrees that violation of this clause shall be considered a material breach of the Contract and may result in remedies being ordered against the Contractor up to and including contract termination, debarment and other sanctions for violation of the provisions of the Nondiscrimination in Contracting Ordinance. The Contractor further understands and agrees that the procedures, remedies and sanctions provided for in the Nondiscrimination in Contracting Ordinance apply only to violations of the Ordinance.

E. EQUAL EMPLOYMENT OPPORTUNITY OUTREACH PROGRAM.

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

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

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

2. If the Contract is competitively solicited, the selected Bidder shall submit a Work Force Report (Form BB05), within 10 Working Days after receipt by the Bidder of Contract forms to the City for approval as specified in the Notice of Intent to Award letter from the City.
3. If a Work Force Report is submitted, and the City determines there are under-representations when compared to County Labor Force Availability data, the selected Bidder shall submit an Equal Employment Opportunity Plan.

4. If the selected Bidder submits an Equal Employment Opportunity Plan, it shall include the following assurances:
 1. The Contractor shall maintain a working environment free of discrimination, harassment, intimidation and coercion at all sites and in all facilities at which the Contractor's employees are assigned to work.
 2. The Contractor reviews its EEO Policy, at least annually, with all on-site supervisors involved in employment decisions.
 3. The Contractor disseminates and reviews its EEO Policy with all employees at least once a year, posts the policy statement and EEO posters on all company bulletin boards and job sites, and documents every dissemination, review and posting with a written record to identify the time, place, employees present, subject matter, and disposition of meetings.
 4. The Contractor reviews, at least annually, all supervisors' adherence to and performance under the EEO Policy and maintains written documentation of these reviews.
 5. The Contractor discusses its EEO Policy Statement with subcontractors with whom it anticipates doing business, includes the EEO Policy Statement in its subcontracts, and provides such documentation to the City upon request.
 6. The Contractor documents and maintains a record of all bid solicitations and outreach efforts to and from subcontractors, contractor associations and other business associations.
 7. The Contractor disseminates its EEO Policy externally through various media, including the media of people of color and women, in advertisements to recruit, maintains files documenting these efforts, and provides copies of these advertisements to the City upon request.
 8. The Contractor disseminates its EEO Policy to union and community organizations.
 9. The Contractor provides immediate written notification to the City when any union referral process has impeded the Contractor's efforts to maintain its EEO Policy.
 10. The Contractor maintains a current list of recruitment sources, including those outreaching to people of color and women, and provides written notification of employment opportunities to these recruitment sources with a record of the organizations' responses.
 11. The Contractor maintains a current file of names, addresses and phone numbers of each walk-in applicant, including people of color and women, and referrals from unions, recruitment sources, or community organizations with a description of the employment action taken.

12. The Contractor encourages all present employees, including people of color and women employees, to recruit others.
13. The Contractor maintains all employment selection process information with records of all tests and other selection criteria.
14. The Contractor develops and maintains documentation for on-the-job training opportunities, participates in training programs, or both for all of its employees, including people of color and women, and establishes apprenticeship, trainee, and upgrade programs relevant to the Contractor's employment needs.
15. The Contractor conducts, at least annually, an inventory and evaluation of all employees for promotional opportunities and encourages all employees to seek and prepare appropriately for such opportunities.
16. The Contractor ensures the company's working environment and activities are non-segregated except for providing separate or single-user toilets and necessary changing facilities to assure privacy between the sexes.

4. SUBCONTRACTING PARTICIPATION PERCENTAGES:

- 4.1. The City affirms that in any contract entered into pursuant to this advertisement, DBE will be afforded full opportunity to submit Bids in response to this invitation.
- 4.2. This Federally assisted project includes subcontracting participation percentages for DBE participation. See Notice Inviting Bids. DBE goal commitments and Good Faith Efforts (GFE) shall be made prior to bidding. DBE commitments and GFE made after the Bid opening will not be considered for the Award of Contract.
- 4.3. This project is subject to the federal equal opportunity regulations and the following requirements. The City reserves the right to audit the Contractor's compliance with the federal requirements set forth below.
- 4.4. Following are federally subcontracting participation percentages for this contract. For the purpose of achieving the subcontractor participation percentage, Additive or Deductive, and Type II Allowance Bid Items will not be included in the calculation.
- 4.5. **Environmental Protection Agency (EPA)** - In accordance with EPA's Program for Utilization of Small, Minority Disadvantaged and Women Business Enterprises in procurement under Federal assistance programs, the Contractor agrees to the applicable "fair share" objectives negotiated with EPA as follows:

| | MBE* | WBE* |
|----------------------------------|------|------|
| 1. Construction | 22% | 6% |
| 2. Supplies | 17% | 22% |
| 3. Services | 18% | 24% |
| 4. Equipment (combined in above) | 17% | 9% |

Note: MBEs and WBEs must be certified by EPA, SBA, DOT or by state, local, Tribal, or private entities whose certification criteria match EPAs in order to be counted toward MBE/WBE accomplishments. MBEs and WBEs are a part of the larger universe of DBEs.

- 4.6. Bid will be declared **non-responsive** if the Bidder fails any of the following conditions:
1. Submission of GFE documentation, as specified in the Special Provisions.
 2. Attending the Pre-Bid Meeting.
 3. Bidder's submission of GFE documentation demonstrating the Bidder made a good faith effort to outreach to and include DBE Subcontractors shall be submitted within 4 Working Days of the Bid opening.
5. **PRE-BID MEETING:**
- 5.1. There will be a Pre-Bid Meeting to discuss the scope of the Project, bidding requirements, pre-qualification process, and Equal Opportunity Contracting Program requirements and reporting procedures in the Public Works Contracting Group, Conference Room at 1010 Second Avenue, Suite 1400, San Diego, CA 92101 **at 10:00 AM, on JULY 10, 2013.**
- 5.2. **The Pre-Bid Meeting has been designated as MANDATORY. All potential bidders are required to attend.** Bid will be declared **non-responsive** if the Bidder fails to attend the Pre-Bid Meeting when specified to be mandatory. Attendance at the Pre-Bid Meeting will be evidenced by the representative's signature on the attendance roster. It shall be the responsibility of the Bidder's representative to complete and sign the attendance roster. **No Bidder will be admitted after the specified start time of the mandatory Pre-Bid Meeting.**
- 5.3. 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) 533-3450 at least 5 Working Days prior to the Pre-Bid Meeting to ensure availability.
6. **CONTRACTOR REGISTRATION AND ELECTRONIC REPORTING SYSTEM:**
- 6.1. **Prior** to the Award of the Contract or each Task Order, you and your Subcontractors and Suppliers **must** register with Prism®, the City's web-based contract compliance portal at:

<https://pro.prismcompliance.com/default.aspx>.
- 6.2. The City may not award the contract until registration of all subcontractors and suppliers is complete. In the event this requirement is not met within the time frame specified in the Notice of Intent to Award letter, the City reserves the right to rescind the Notice of Award / Intent to Award and to make the award to the next responsive and responsible bidder / proposer.

7. **CONSTRUCTION COST:** The City’s estimated construction cost for this contract is **\$7,870,000.**
8. **LOCATION OF WORK:** See the Location Maps in contract appendix.
9. **CONTRACT TIME:** The Contract Time for completion of the Work shall be **300 Working Days.**
10. **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.
 - 10.1. The City has determined the following licensing classification(s) for this contract:
 - CLASS A
11. **JOINT VENTURE CONTRACTORS.** Provide a copy of the Joint Venture agreement and the Joint Venture license to the City within 10 Working Days after receiving the Contract forms. See 2-1.1.2, “Joint Venture Contractors” in The WHITEBOOK for details.
12. **WAGE RATES:** Prevailing wages are applicable to this contract. See Funding Agency Provisions that follow for more information.
13. **INSURANCE REQUIREMENTS:**
 - 13.1. All certificates of insurance and endorsements required by the contract are to be provided upon issuance of the City’s Notice of Intent to Award letter.
 - 13.2. Refer to sections 7-3, “LIABILITY INSURANCE”, and 7-4, “WORKERS’ COMPENSATION INSURANCE” of the Supplementary Special Provisions (SSP) for the insurance requirements which must be met.
14. **PREQUALIFICATION OF CONTRACTORS:**
 - 14.1. Contractors submitting Bid must be pre-qualified for the total amount proposed, inclusive of all alternate items prior to the date of 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. Complete information and prequalification questionnaires are available at:

<http://www.sandiego.gov/cip/bidopps/prequalification.shtml>

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

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

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

16. 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.

17. CITY'S RIGHTS RESERVED: The City reserves the right to cancel the Notice Inviting 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 Notice Inviting Bids shall be the sole responsibility of each bidder. The Notice Inviting Bids creates or imposes no obligation upon the City to enter a contract.

18. 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.

19. SUBMITTAL OF “OR EQUAL” ITEMS: See Section 4-1.6, “Trade Names or Equals” in The WHITEBOOK and as amended in the SSP.

20. AWARD PROCESS:

- 20.1.** The Award of this contract is contingent upon the Contractor's compliance with all conditions precedent to Award.
- 20.2.** Upon acceptance of a Bid, the City will prepare contract documents for execution within approximately 21 days of the date of the Bid opening and award the Contract approximately within 7 days of receipt of properly executed Contract, bonds, and insurance documents.
- 20.3.** This contract will be deemed executed, and effective, only upon the signing of the Contract by the Mayor or designee of the City.

21. SUBCONTRACT LIMITATIONS: The Bidder's attention is directed to Standard Specifications for Public Works Construction, Section 2-3, "SUBCONTRACTS" in The WHITEBOOK and as amended in the SSP which requires the Contractor to self perform the amount therein stipulated. Failure to comply with these requirements may render the Bid **non-responsive** and ineligible for award.

22. AVAILABILITY OF PLANS AND SPECIFICATIONS: Contract Documents may be obtained by visiting the City's website: <http://www.sandiego.gov/cip/>. Plans and Specifications for this contract are also available for review in the office of the City Clerk or Public Works Contracting Group.

23. QUESTIONS:

- 23.1.** The Director (or designee), of the Public Works Department is the officer responsible for opening, examining, and evaluating the competitive Bids submitted to the City for the acquisition, construction and completion of any public improvement except when otherwise set forth in these documents. All questions related to this procurement action shall be addressed to the Public Works Contracting Group, Attention Contract Specialist, 1010 Second Avenue, Suite 1400, San Diego, California, 92101, and Telephone No. (619) 533-3450.
- 23.2.** Questions received less than 14 days prior to the date for opening of Bids may not be answered.
- 23.3.** Interpretations or clarifications considered necessary by the City in response to such questions will be issued by Addenda which will be uploaded to the City's online bidding service.
- 23.4.** 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.

24. ELIGIBLE BIDDERS: No person, firm, or corporation shall be allowed to make, file, or be interested in **more** than one (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. Any Bidder who submits more than one bid will result in the rejection of all bids submitted.

- 25. SAN DIEGO BUSINESS TAX CERTIFICATE:** The Contractor and 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 and submit to the Contract Specialist upon request or as specified in the Contract Documents. Tax Identification numbers for both the Bidder and the listed Subcontractors must be submitted on the City provided forms with the Notice Inviting Bids and Contract forms.
- 26. 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.
- 26.1.** Bidder shall complete and submit 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 entire specifications for the bid package do not need to be submitted with the bid.
- 26.2.** The City may require any Bidder to furnish a statement of experience, financial responsibility, technical ability, equipment, and references.
- 26.3.** Bids and certain other forms and documents as specified in the Volume 2 of 2 of the Contract 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.
- 26.4.** Bids may be withdrawn by the Bidder prior to, but not after, the time fixed for opening of Bids.
- 27. BIDDERS' GUARANTEE OF GOOD FAITH (BID SECURITY):**
- 27.1.** With the exception of the contracts valued \$5,000 or less, JOC 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.
- 27.2.** 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.
- 27.3.** A Bid received without the specified bid security will be rejected as being **non-responsive**.

28. AWARD OF CONTRACT OR REJECTION OF BIDS:

- 28.1.** This contract may be awarded to the lowest responsible and reliable Bidder.
- 28.2.** Bidders shall complete the entire Bid schedule (also referred to as “schedule of prices” or Proposal form). Incomplete price schedules will be rejected as being non-responsive.
- 28.3.** 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.
- 28.4.** 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.
- 28.5.** A non-selected Bidder may protest award of the Contract to the selected Bidder by submitting a written “Notice of Intent to Protest” including supporting documentation which shall be received by Public Works Contracting Group no later than 10 days after the City’s announcement of the selected Bidder or no later than 10 days from the date that the City issues notice of designation of a Bidder as non-responsive in accordance with San Diego Municipal Code Chapter 2, § 22.3029, “Protests of Contract Award.”

Per Code of Federal Regulations (CFR) 31.6(b)(11), the City shall be responsible for setting issues including , but not limited to, protests, disputes and claims. Per CFR 31.36(b)(12), a protestor must exhaust all administrative remedies with the “City” before pursuing a protest with the Federal agency. Reviews of protests by the Federal agency will be limited to:

(i) Violations of Federal law or regulations and the standards of this section (violations of State or local law will be under the jurisdiction of State or local authorities) and

(ii) Violations of the grantee's or subgrantee's protest procedures for failure to review a complaint or protest. Protests received by the Federal agency other than those specified above will be referred to the grantee or subgrantee.

- 28.6.** 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.
- 28.7.** 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 Proposal.
- 28.8.** The City reserves the right to evaluate all Bids and determine the lowest Bidder on the basis of any proposed alternates, additive items or options, at its discretion that will be disclosed in the Volume 2 of 2.

29. BID RESULTS:

- 29.1.** The Bid opening by the City shall constitute the public announcement of the Apparent Low Bidder. In the event that the Apparent Low Bidder is subsequently deemed non-responsive or non-responsible, a public announcement will be posted in the City's web page: <http://www.sandiego.gov/cip/index.shtml> with the name of the newly designated Apparent Low Bidder.
- 29.2.** 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. Bid results cannot be given over the telephone.

30. THE CONTRACT:

- 30.1.** 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 14 days after receipt by Bidder of a form of contract for execution unless an extension of time is granted to the Bidder in writing.
- 30.2.** If the Bidder takes longer than 14 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.
- 30.3.** 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.
- 30.4.** 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 14 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.
- 30.5.** 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.

- 31. EXAMINATION OF PLANS, SPECIFICATIONS, AND SITE OF WORK:** The Bidder shall examine carefully the Project Site, the Plans and Specifications, other materials as described in the Special Provisions, Section 2-7, and the proposal forms (e.g., Bidding Documents). The submission of a Bid 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.
- 32. CITY STANDARD PROVISIONS.** This contract is subject to the following standard provisions. See The WHITEBOOK for details.
- 32.1.** The City of San Diego Resolution No. R-277952 adopted on May 20, 1991 for a Drug-Free Workplace.
- 32.2.** The City of San Diego Resolution No. R-282153 adopted on June 14, 1993 related to the Americans with Disabilities Act.
- 32.3.** The City of San Diego Municipal Code §22.3004 for Pledge of Compliance.
- 32.4.** The City of San Diego’s Labor Compliance Program and the State of California Labor Code §§1771.5(b) and 1776.
- 32.5.** Sections 1777.5, 1777.6, and 1777.7 of the State of California Labor Code concerning the employment of apprentices by contractors and subcontractors performing public works contracts.
- 32.6.** The City’s Equal Benefits Ordinance (EBO), Chapter 2, Article 2, Division 43 of The San Diego Municipal Code (SDMC).
- 32.7.** The City’s Information Security Policy (ISP) as defined in the City’s Administrative Regulation 90.63.
- 33. PRE-AWARD ACTIVITIES:**
- 33.1.** The selected contractor by the City to execute a contract for this Work 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**.
- 33.2.** If the Bid is rejected as non-responsive, the selected contractor by the City to execute a contract for this Work shall forfeit the required Bid. The decision that the selected contractor by the City to execute a contract for this Work is non-responsive for failure to provide the information required within the time specified shall be at the sole discretion of the City.
- 34. PHASED FUNDING:**
- 34.1.** For phased funded contracts, the City typically secures enough funds for the first 90 days of the contract prior to award. Within 10 Working Days after Bid opening date the Apparent Low Bidder must contact the Project Manager to discuss fund availability and the duration of the first phase and submit the Pre-Award Schedule to the City for approval and preparation of the first Phased Funding Schedule Agreement.

- 34.2.** The Apparent Low Bidder will be required to provide a Pre-award Schedule in accordance with 6-1, “CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK” and 9-3, “PAYMENT” prior to award of Contract.
- 34.3.** If the Bid submitted by the Apparent Low Bidder is rejected by the City for any reason, then within 5 Working Days after receiving notice, the next Apparent Low Bidder must provide the Pre-Award Schedule. This process will continue until the City has selected the Apparent Low Bidder or have decided to reject all Bids.
- 34.4.** The first Phased Funding Schedule Agreement must show the fund availability for the first phase. Within 22 Working Days from the date of the Bid Opening or notice to the next Apparent Low Bidder (whichever occurs last) and once a Pre-Award Schedule is accepted by the City, the City will present the first Phased Funding Schedule Agreement to you when you are selected as the Apparent Low Bidder as defined in the City’s Municipal Code, §22.3003.
- 34.5.** At the City’s request, you must meet with the City’s project manager before execution of the first Phased Funding Schedule Agreement to discuss his or her comments and requests for revision to the Pre-Award Schedule.
- 34.6.** Your failure to perform the following may result in the Bid being rejected as **non-responsive**:
1. meet with the City’s project manager, if requested to do so, to discuss and respond to the City’s comments regarding the Pre-Award Schedule,
 2. revise the Pre-Award Schedule as requested by the City within the specified 22 Working Days timeframe, or
 3. execute the first Phased Funding Schedule Agreement within a day after receipt.

35. ADDITIVE/DEDUCTIVE ALTERNATES:

- 35.1.** The additive/deductive alternates have been established to allow the City to compare the cost of specific portions of the Work with the Project’s budget and enable the City to make decision prior to award. The award will be established as described in the Bid. The City reserves the right to award the Contract for the Base Bid only or the Base Bid plus any combination of Additive and Deductive Alternate(s).
- 35.2.** For water pipeline projects, the Plans typically show all cut and plug and connection work to be performed by City Forces. However, Bidders shall refer to Bidding Documents to see if all or part of this work will be performed by the Contractor.

36. REQUIRED DOCUMENT SCHEDULE:

- 36.1.** The Bidder’s attention is directed to the City’s Municipal Code §22.0807(e), (3)-(5) for important information regarding grounds for debarment for failure to submit required documentation.
- 36.2.** The specified Equal Opportunity Contracting Program (EOCP) forms are available for download from the City’s web site at:

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

| ITEM | WHEN DUE | FROM | DOCUMENT TO BE SUBMITTED |
|-------------|---|-------------|---|
| 1. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Bid |
| 2. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Bid Bond |
| 3. | BID SUBMITTAL 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 SUBMITTAL DATE/TIME | ALL BIDDERS | Contractors Certification of Pending Actions |
| 5. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Equal Benefits Ordinance Certification of Compliance |
| 6. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Lobby Prohibition, Certification and Disclosure |
| 7. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Instructions for Completion of SF-LLL, Disclosure of Lobbying Activities |
| 8. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Disclosure of Lobbying Activities |
| 9. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Form AA35 - List of Subcontractors |
| 10. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Form AA40 - Named Equipment/Material Supplier List |
| 11. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | Form AA45 - Subcontractors Additive/Deductive Alternate |
| 12. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | EPA FORM 6100-3 – DBE Subcontractor Performance Form |
| 13. | BID SUBMITTAL DATE/TIME | ALL BIDDERS | EPA FORM 6100-4 – DBE Subcontractor Utilization Form |
| 14. | WITHIN 4 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTATION | ALL BIDDERS | Federal Good Faith Documentations |
| 15. | WITHIN 4 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTATION | ALL BIDDERS | Proof of Valid DBE-MBE-WBE-DVBE Certification Status e.g., Certs. |
| 16. | WITHIN 4 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTATION | ALL BIDDERS | Form AA61 – List of Work Made Available |
| 17. | WITHIN 4 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTATION | ALL BIDDERS | Form AA62 – Summary of Bids Received |

| ITEM | WHEN DUE | FROM | DOCUMENT TO BE SUBMITTED |
|-------------|---|---------------------|--|
| 18. | WITHIN 4 WORKING DAYS OF BID OPENING WITH GOOD FAITH EFFORT DOCUMENTATION | ALL BIDDERS | Form AA63 –Good Faith Effort List of Subcontractors Solicited |
| 19. | PRIOR TO PRE-CONSTRUCTION MEETING | LOW BIDDER | Contractor’s Experience and Past Project Documentation. See Section 500 |
| 20. | PRIOR TO PRE-CONSTRUCTION MEETING | LOW BIDDER | Manufacturer Certification per Section 500-1.1.2.1 |
| 21. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Phased Funding Schedule Agreement (when required) |
| 22. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Pre-Award Schedule (Phased Funded Contracts Only) |
| 23. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Names of the principal individual owners of the Apparent Low Bidder |
| 24. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | If the Contractor is a Joint Venture: <ul style="list-style-type: none"> • Joint Venture Agreement • Joint Venture License |
| 25. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Form BB05 - Work Force Report |
| 26. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Contract Forms - Agreement |
| 27. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Contract Forms - Payment and Performance Bond |
| 28. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Certificates of Insurance and Endorsements |
| 29. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Contractor Certification - Drug-Free Workplace |
| 30. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Contractor Certification - American with Disabilities Act |
| 31. | WITHIN 10 WORKING DAYS AFTER RECEIPT BY BIDDER OF CONTRACT FORMS | APPARENT LOW BIDDER | Contractors Standards - Pledge of Compliance |

CONTRACT FORMS
AGREEMENT

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 HPS Mechanical, Inc., herein called "Contractor" for construction of Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809; Bid No. K-13-5979-DBB-3; in the amount of Eight Million Six Hundred Forty Thousand Nine Hundred Twenty-One Dollars and 00/100 (\$8,640,921.00), which is comprised of the Base Bid plus Additive Alternates A, B, C and D.

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

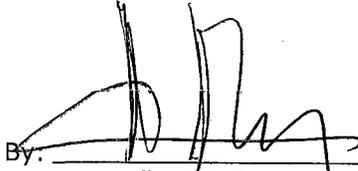
1. The following are incorporated into this contract as though fully set forth herein:
 - (a) The attached Faithful Performance and Payment Bonds.
 - (b) The attached Proposal included in the Bid documents by the Contractor.
 - (c) Reference Standards listed in the Notice Inviting Bids and the Supplementary Special Provisions (SSP).
 - (d) Phase Funding Schedule Agreement.
 - (e) That certain documents entitled Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809, on file in the office of the Public Works Department as Document No. S-13018 / B-00416 / B-00102, as well as all matters referenced therein.
2. The 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 Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809, Bid No. K-13-5979-DBB-3, 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 the 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**

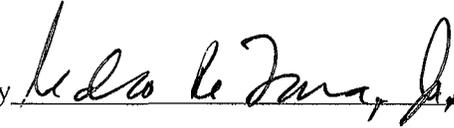
IN WITNESS WHEREOF, this Agreement is signed by the City of San Diego, acting by and through its Mayor or designee, pursuant to Municipal Code §22.3102(d) authorizing such execution.

THE CITY OF SAN DIEGO

APPROVED AS TO FORM AND LEGALITY

By: 
Albert P. Rechany
Program Manager
Public Works Contracting Group

Jan I. Goldsmith, City Attorney

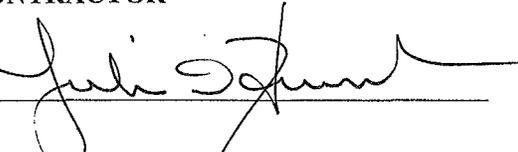
By: 

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

Date: 11/4/13

Date: 11/4/13

CONTRACTOR

By: 
Print Name: Leslie DenHerder

Title: President

Date: September 16, 2013

City of San Diego License No.: B2000008006

State Contractor's License No.: 793014

**CONTRACT/AGREEMENT
ATTACHMENTS**

CONTRACT ATTACHMENT
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

FAITHFUL PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND:

HPS Mechanical, Inc. _____, a corporation, as principal,
and THE HANOVER INSURANCE COMPANY _____, a corporation authorized to do
business in the State of California, as Surety, hereby obligate themselves, their successors and
assigns, jointly and severally, to The City of San Diego a municipal corporation in the sum of
Eight Million Six Hundred Forty Thousand Nine Hundred Twenty-One Dollars and 00/100
(\$8,640,921.00), for the faithful performance of the annexed contract, and in the sum of
Eight Million Six Hundred Forty Thousand Nine Hundred Twenty-One Dollars and 00/100
(\$8,640,921.00), for the benefit of laborers and materialmen designated below.

Conditions:

If the Principal shall faithfully perform the annexed contract Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809, Bid No. K-13-5979-DBB-3, San Diego, California then the obligation herein with respect to a faithful performance shall be void; otherwise it shall remain in full force.

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

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

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

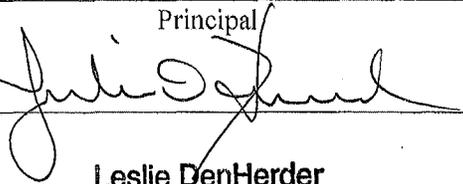
CONTRACT ATTACHMENT (continued)
PERFORMANCE BOND AND LABOR AND MATERIALMEN'S BOND

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

Dated SEPTEMBER 19, 2013

Approved as to Form and Legality

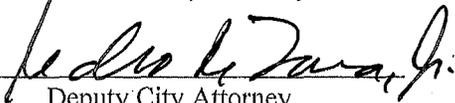
HPS MECHANICAL, INC.

Principal
By 

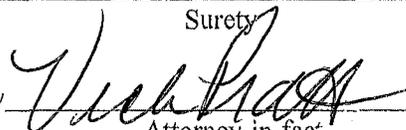
Leslie DenHerder

Printed Name of Person Signing for Principal

Jan I. Goldsmith, City Attorney

By 
Deputy City Attorney

THE HANOVER INSURANCE COMPANY

Surety
By 
Attorney-in-fact
VICKI PRATT, ATTORNEY-IN-FACT

2 MACARTHUR PL 2ND FLOOR

Local Address of Surety

SANTA ANA, CA 92707

Local Address (City, State) of Surety

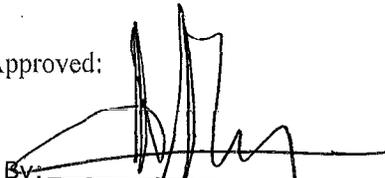
714-415-3808

Local Telephone No. of Surety

Premium \$ 52,449.00

Bond No. 1966986

Approved:


By _____
Albert P. Rechany
Program Manager
Public Works Contracting Group

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

POWERS OF ATTORNEY
CERTIFIED COPY

KNOW ALL MEN BY THESE PRESENTS: That THE HANOVER INSURANCE COMPANY and MASSACHUSETTS BAY INSURANCE COMPANY, both being corporations organized and existing under the laws of the State of New Hampshire, and CITIZENS INSURANCE COMPANY OF AMERICA, a corporation organized and existing under the laws of the State of Michigan, do hereby constitute and appoint

Wes Bradford, Johannah Griffith, Vicki Pratt and/or Lorinda Hoffmann

of **Bakersfield, CA** and each is a true and lawful Attorney(s)-in-fact to sign, execute, seal, acknowledge and deliver for, and on its behalf, and as its act and deed any place within the United States, or, if the following line be filled in, only within the area therein designated any and all bonds, recognizances, undertakings, contracts of indemnity or other writings obligatory in the nature thereof, as follows:

Any such obligations in the United States, not to exceed Ten Million and No/100 (\$10,000,000) in any single instance

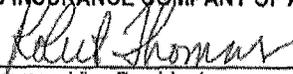
and said companies hereby ratify and confirm all and whatsoever said Attorney(s)-in-fact may lawfully do in the premises by virtue of these presents. These appointments are made under and by authority of the following Resolution passed by the Board of Directors of said Companies which resolutions are still in effect:

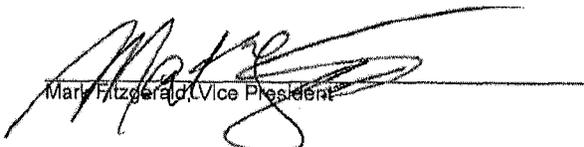
"RESOLVED, That the President or any Vice President, in conjunction with any Vice President, be and they are hereby authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as its acts, to execute and acknowledge for and on its behalf as Surety any and all bonds, recognizances, contracts of indemnity, waivers of citation and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company in their own proper persons." (Adopted October 7, 1981 - The Hanover Insurance Company; Adopted April 14, 1982 - Massachusetts Bay Insurance Company; Adopted September 7, 2001 - Citizens Insurance Company of America)

IN WITNESS WHEREOF, THE HANOVER INSURANCE COMPANY, MASSACHUSETTS BAY INSURANCE COMPANY and CITIZENS INSURANCE COMPANY OF AMERICA have caused these presents to be sealed with their respective corporate seals, duly attested by two Vice Presidents, this **29th** day of **May 2012**.



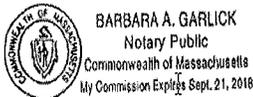
THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA


Robert Thomas, Vice President


Mary Fitzgerald, Vice President

THE COMMONWEALTH OF MASSACHUSETTS)
COUNTY OF WORCESTER) ss.

On this **29th** day of **May 2012** before me came the above named Vice Presidents of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, to me personally known to be the individuals and officers described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, respectively, and that the said corporate seals and their signatures as officers were duly affixed and subscribed to said instrument by the authority and direction of said Corporations.



BARBARA A. GARLICK
Notary Public
Commonwealth of Massachusetts
My Commission Expires Sept. 21, 2018


Barbara A. Garlick, Notary Public
My Commission Expires September 21, 2018

I, the undersigned Vice President of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, hereby certify that the above and foregoing is a full, true and correct copy of the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Powers of Attorney are still in force and effect.

This Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America.

"RESOLVED, That any and all Powers of Attorney and Certified Copies of such Powers of Attorney and certification in respect thereto, granted and executed by the President or any Vice President in conjunction with any Vice President of the Company, shall be binding on the Company to the same extent as if all signatures therein were manually affixed, even though one or more of any such signatures thereon may be facsimile." (Adopted October 7, 1981 - The Hanover Insurance Company; Adopted April 14, 1982 - Massachusetts Bay Insurance Company; Adopted September 7, 2001 - Citizens Insurance Company of America)

GIVEN under my hand and the seals of said Companies, at Worcester, Massachusetts, this 19TH day of SEPTEMBER 2013.

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA


Glenn Margosian, Vice President

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of KERN

On 09/19/2013 before me, Sami D. Thompson, Notary Public
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared Vicki Pratt
Name(s) of Signer(s)

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 the 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

Place Notary Seal Above

OPTIONAL

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

Description of Attached Document

Title or Type of Document: Performance/Payment Bond

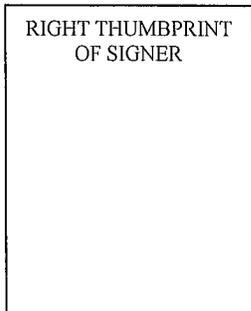
Document Date: 09/19/2013 Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

- Individual
- Corporate Officer – Titles(s) _____
- Partner(s) Limited
- Attorney in Fact
- Trustee(s)
- Guardian/Conservator
- Other: _____



Signer is Representing: The Hanover Insurance Company

Name of Person(s) or Entity(ies) _____

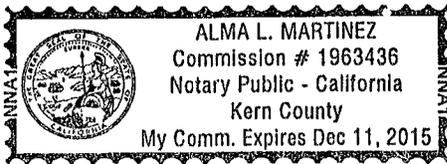
CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California }
County of Kern }

On 09/20/13 before me, Alma L. Martinez, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Leslie DenHerder
Name(s) of Signer(s)

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



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

WITNESS my hand and official seal.

Signature [Handwritten 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: Faithful Performance Bond and Labor and Materialmen's Bond

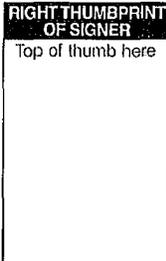
Document Date: 9/19/13 Number of Pages: 2

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: _____



Signer Is Representing: _____

Signer's Name: _____

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



Signer Is Representing: _____

CONTRACTOR CERTIFICATION

DRUG-FREE WORKPLACE

PROJECT TITLE: Avenida De La Playa Infrastructure Replacement and Sewer and Water Group 809

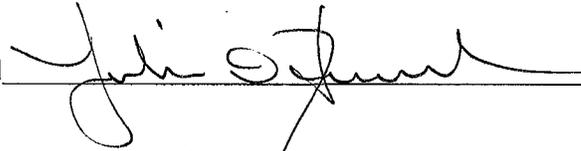
I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-17 regarding Drug-Free Workplace as outlined in the WHITEBOOK, Section 7-13.3, "Drug-Free Workplace", of the project specifications, and that;

HPS Mechanical, 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 Leslie DenHerder

Title President

CONTRACTOR CERTIFICATION

AMERICAN WITH DISABILITIES ACT (ADA) COMPLIANCE CERTIFICATION

PROJECT TITLE: Avenida De La Playa Infrastructure Replacement and Sewer and Water Group 809

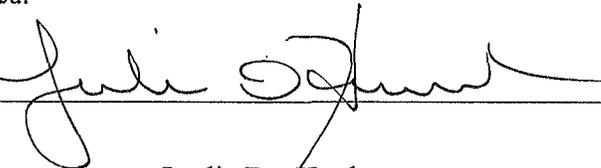
I hereby certify that I am familiar with the requirements of San Diego City Council Policy No. 100-4 regarding the American With Disabilities Act (ADA) outlined in the WHITEBOOK, Section 7-13.2, "American With Disabilities Act", of the project specifications, and that;

HPS Mechanical, 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

Leslie DenHerder

Title

President

CONTRACTOR CERTIFICATION

CONTRACTOR STANDARDS – PLEDGE OF COMPLIANCE

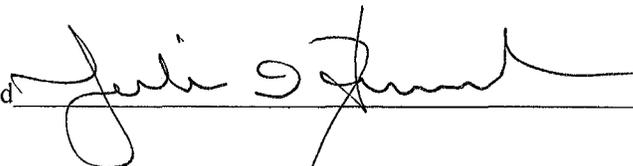
PROJECT TITLE: Avenida De La Playa Infrastructure Replacement and Sewer and Water Group 809

I declare under penalty of perjury that I am authorized to make this certification on behalf of HPS Mechanical, 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 the WHITEBOOK, Section 7-13.4, ("Contractor Standards"), of the project specifications, and that Contractor has complied with those requirements.

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

Dated this 16th Day of September, 2013.

Signed



Printed Name Leslie DenHerder

Title President

AFFIDAVIT OF DISPOSAL

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

Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809
(Name of Project)

as particularly described in said contract and identified as Bid No. **K-13-5979-DBB-3**; SAP No. (WBS/IO/CC) **S-13018, B-00416, B-00102**; and WHEREAS, the specification of said contract requires the Contractor to affirm that "all brush, trash, debris, and surplus materials resulting from this project have been disposed of in a legal manner"; and WHEREAS, said contract has been completed and all surplus materials disposed of:

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

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

Dated this _____ DAY OF _____, _____.

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.

Notary Public in and for said County and State

COMPANY LETTERHEAD

CERTIFICATE OF COMPLIANCE

Materials and Workmanship Compliance

For Contract or Task _____

I certify that the material listed below complies with the materials and workmanship requirements of the Caltrans Contract Plans, Special Provisions, Standard Specifications, and Standard Plans for the contract listed above.

I also certify that I am an official representative for _____, the manufacturer of the material listed above. Furthermore, I certify that where California test methods, physical or chemical test requirements are part of the specifications, that the manufacturer has performed the necessary quality control to substantiate this certification.

Material Description:

| |
|-------------------------------------|
| Manufacturer: _____ |
| Model: _____ |
| Serial Number (if applicable) _____ |
| Quantity to be supplied: _____ |
| Remarks: _____ |

Signed by: _____

Printed Name: _____

Title: _____

Company: _____

Date: _____

**City of San Diego
Engineering and Capital Projects, Field Division**

NOTICE OF MATERIALS TO BE USED

To: _____
Resident Engineer

Date: _____, 2_____

You are hereby notified that the materials required for use under Contract No. _____
for construction of _____,
in the City of San Diego, will be obtained from sources herein designated.

| CONTRACT ITEM NO. (Bid Item) | KIND OF MATERIAL (Category) | NAME AND ADDRESS WHERE MATERIAL CAN BE INSPECTED (At Source) |
|---------------------------------|--------------------------------|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

It is requested that you arrange for a sampling, testing, and inspection of the materials prior to delivery, in accordance with Section 4-1.1.1 of the WHITEBOOK, where it is practicable, and in accordance with your policy. It is understood that source inspection does not relieve the Contractor of full responsibility for incorporating in the work, materials that comply in all respects with the contract plans and specifications, nor does it preclude subsequent rejection of materials found to be undesirable or unsuitable.

Distribution:

Supplier

Yours truly,

Signature of Supplier

Address

Phone Number: _____

PHASED FUNDING SCHEDULE AGREEMENT

Check one:

- First Phased Funding Schedule Agreement
- Final Phased Funding Schedule Agreement

NOTE: THIS IS A SAMPLE PHASE 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-13-5979-DBB-3

CONTRACT TITLE: Avenida De La Playa Infrastructure Replacement/Sewer & Water Group 809

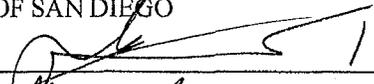
CONTRACTOR: HPS Mechanical, Inc.

| Funding Phase | Phase Description | Phase Start | Phase Finish | Not-to-Exceed Amount |
|---------------|--|-------------|--------------|----------------------|
| 1 | Avenida De La Playa Infrastructure Replacement/Sewer & Water Group 809 | | | \$ 8,640,921.00 |
| | <u>Additional phases to be added</u> | | | |
| | <u>to this form as necessary.</u> | | | |
| | | | | |
| | | | | |
| Total | | | | \$ 8,640,921.00 |

Notes:

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

CITY OF SAN DIEGO

By: 

Name: Akram Bassyouni
Project Manager

Department Name: Public Works

Date: _____

CONTRACTOR

By: 

Name: Leslie DenHerder

Title: President

Date: September 19, 2013

-END OF PHASE FUNDING SCHEDULE AGREEMENT-

FUNDING AGENCY PROVISIONS

FUNDING AGENCY PROVISIONS

IN THE EVENT THAT THESE REQUIREMENTS CONFLICT WITH THE CITY'S GENERAL EOC REQUIREMENTS, THE FUNDING AGENCY'S REQUIREMENTS WILL CONTROL.

1. NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246).

- 1.1.** The goal and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, as follows:

| | <u>Goal</u> |
|----------------------------|-------------|
| 1. Minority Participation: | 16.9% |
| 2. Female Participation: | 6.9% |

- 1.2.** These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs Work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the Work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both federally involved and non-federally involved Work.

- 1.3.** The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals.

- 1.4.** The hours of minority and female employment and training shall be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- 1.5.** The Contractor shall provide written notification to the Director the Office of Federal Contract Compliance Programs within 10 Working Days of award of any Subcontract in excess of \$10,000 at any tier for Work under the Contract resulting from this solicitation. The notification shall list the name, address and telephone number of the Subcontractor; employer identification number of the Subcontractor; estimated dollar amount of the Subcontract; estimated starting and completion dates of the Subcontract; and the geographical area in which the subcontract is to be performed. The "covered area" is the City of San Diego.

2. EQUAL OPPORTUNITY CLAUSES:

- 2.1.** The following equal opportunity clauses are incorporated by reference herein:

1. The equal opportunity clause located 41 CFR 60.1.4(a), which specifies the obligations imposed under Executive Order 11246.

2. The equal opportunity clause located at 41 CFR 60-741.5, which contains the obligations imposed by Section 503 of the Rehabilitation Act of 1973.
3. The “Equal Opportunity Clause” (Resolution No. 765092) filed on December 4, 1978, in the Office of the City Clerk, San Diego, California and incorporated in the “Standard Federal Employment Opportunity Construction Contract Specifications (Executive Order 11246 - Document No. 769023, filed September 11, 1984, in the Office of the City Clerk, San Diego, California) is applicable to all non-exempt City construction contracts and subcontracts of \$2,000 or more.
4. Age Discrimination Act of 1975, Pub. L. 94-135.
5. Title VI of the Civil Rights Act of 1964, Pub. L. 88-352.
6. Section 13 of the Federal Water Pollution Control Acts Amendments of 1972, Pub. L. 92-5200 (the Clean Water Act).
7. Section 504 of the Rehabilitation Act of 1973, Pub. L. 93-112 (Executive Orders 11914 and 11250).
8. Women’s Minority Business Enterprises, Executive Orders 11625, 12138 and 12432.
9. Section 129 of the Small Business Administration Reauthorization and Amendment Act of 1988, Pub. L. 100-590.

3. STANDARD FEDERAL EQUAL EMPLOYMENT SPECIFICATIONS:

- 3.1. The Contractor is required to comply with the 16 “Standard Federal Equal Employment Specifications” located at 41 CFR 60-4.3 for federal and federally-assisted construction contracts in excess of \$10,000, set forth below.
- 3.2. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of Contractor’s compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative actions steps at least as extensive as the following:
 1. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor’s employees are assigned to work. The Contractor, where possible, will assign 2 or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor’s obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 2. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations’ responses.
 3. Maintain a current file of the names, addresses and telephone numbers of each minority and female walk-in applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was

sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

4. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
5. Develop on-the-job training opportunities, participate in training programs for the area, or both which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under C.1. above.
6. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreements; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
7. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignments, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as superintendents, foreman, etc., prior to the initiation of Work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and dispositions of the subject matter.
8. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
9. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
10. Encourage present minority and female employees to recruit other minority persons and women and where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

11. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
12. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
13. Ensure that seniority practices, job classifications, work assignments and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
14. Ensure that all facilities and company activities are non-segregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
15. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
16. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

4. VIOLATION OR BREACH OF REQUIREMENTS:

- 4.1. If at any time during the course of the Contract there is a violation of the Affirmative Action or Equal Employment Opportunity requirements by the Contractor, or the Subcontractors, the City will notify the Contractor of the breach. The City may withhold any further progress payments to the Contractor until the City is satisfied that the Contractor and Subcontractors are in full compliance with these requirements.

5. MONTHLY EMPLOYMENT UTILIZATION REPORTS:

- 5.1. Refer to GENERAL EQUAL OPPORTUNITY CONTRACTING PROGRAM REQUIREMENTS, CONSTRUCTION CONTRACTOR REQUIREMENTS in The WHITEBOOK and the following:
 1. State of California Department of Transportation Payroll Report. Due to the City weekly.
 2. Federal and Non-Federal Work in San Diego County. Submit an updated list only if work is complete or new contracts have been awarded during the span of this project.

6. RECORDS OF PAYMENTS TO DBEs:

- 6.1. The Contractor shall maintain records and documents of payments to DBEs for 5 years following the NOC. These records shall be made available for inspection upon request by any authorized representative of the City, DOT, or both. The reporting requirement shall be extended to any certified DBE Subcontractor.

7. FEDERAL WAGE REQUIREMENTS FOR FEDERALLY FUNDED PROJECTS:

- 7.1.** The successful Bidder's work shall be required to comply with Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375, and as supplemented in Department of Labor regulations (41 CFR chapter 60).
- 7.2.** This Executive Order pertains to Equal Employment Opportunity regulations and contains significant changes to the regulations including new goals and timetables for women in construction and revised goals and time-tables for minorities in construction.
- 7.3.** Minimum wage rates for this project have been predetermined by the Secretary of Labor and are set forth in the Decision of the Secretary and bound into the specifications book. Should there be any difference between the state or federal wage rates, including health and welfare funds for any given craft, mechanic, or similar classifications needed to execute the Work, it shall be mandatory upon the Contractor or subcontractor to pay the higher of the two rates.
- 7.4.** The minimum wage rate to be paid by the Contractor and the Subcontractors shall be in accordance with the Federal Labor Standards Provisions (see pages 66 through 71 below) and Federal Wage Rates (see Wage Rates below) and General Prevailing Wage Determination made by the State of California, Director of Industrial Relations pursuant to California Labor Code Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1, whichever is higher.
- 7.5.** A Contractor having 50 or more employees and its Subcontractors having 50 or more employees and who may be awarded a contract of \$50,000 or more will be required to maintain an affirmative action program, the standards for which are contained in the specifications.
- 7.6.** To be eligible for award, each Bidder shall comply with the affirmative action requirements which are contained in the specifications.
- 7.7.** Women will be afforded equal opportunity in all areas of employment. However, the employment of women shall not diminish the standards of requirements for the employment of minorities.

8. STATE REQUIREMENTS FOR CONTRACTS SUBJECT TO STATE PREVAILING WAGE REQUIREMENTS:

- 8.1.** In accordance with the provisions of California Labor Code Sections 1770, et seq. as amended, the Director of the Department of Industrial Relations has determined the general prevailing rate of per diem wages in accordance with the standards set forth in such Sections for the locality in which the Work is to be performed. Copies of the prevailing rate of per diem wages may be found at http://www.dir.ca.gov/dlsr/statistics_research.html. The Contractor shall post a copy of the above determination of the prevailing rate of per diem wages at each job site and shall make them available to any interested party on request.
- 8.2.** Pursuant to Sections 1720 et seq., and 1770 et seq., of the California Labor Code the Contractor any Subcontractor shall pay not less than said specified rates determined by the Director of the California Department of Industrial Relations to all workmen employed by them in the execution of the Work.

- 8.3.** The wage rates determined by the Director of Industrial Relations and published in the Department of Transportation publication entitled, "General Prevailing Wage Rates", refer to expiration dates. If the published wage rate does not refer to a predetermined wage rate to be paid after the expiration date, said published rate of wage shall be in effect for the life of this contract. If the published wage rate refers to a predetermined wage rate to become effective upon expiration of the published wage rate and the predetermined wage rate is on file with the Department of Industrial Relations, such predetermined wage rate shall become effective on the date following the expiration date and shall apply to this contract in the same manner as if it had been published in said publication. If the predetermined wage rate refers to one or more additional expiration dates with additional predetermined wage rates, which expiration dates occur during the life of this contract, each successive predetermined wage rate shall apply to this contract on the date following the expiration date of the previous wage rate. If the last of such predetermined wage rates expires during the life of this contract, such wage rate shall apply to the balance of the contract.

The successful bidder intending to use a craft or classification not shown on the prevailing rate determinations may be required to pay the rate of the craft or classification most closely related to it.

9. WAGE RATES. This contract shall be subject to the following Davis-Bacon Wage Decisions:

General Decision Number: CA130001 05/31/2013 CA1

Superseded General Decision Number: CA20120001

State: California

Construction Types: Building, Heavy (Heavy and Dredging),
Highway and Residential

County: San Diego County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS; RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories)

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/04/2013 |
| 1 | 01/18/2013 |
| 2 | 03/01/2013 |
| 3 | 03/08/2013 |
| 4 | 03/22/2013 |
| 5 | 04/12/2013 |
| 6 | 05/10/2013 |
| 7 | 05/31/2013 |

ASBE0005-002 06/28/2010

| | Rates | Fringes |
|--|----------|---------|
| Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems)..... | \$ 32.79 | 16.31 |
| Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls)..... | \$ 24.21 | 13.76 |

ASBE0005-004 06/28/2010

| | Rates | Fringes |
|--|----------|---------|
| Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not).... | \$ 18.70 | 8.65 |

* BOIL0092-003 10/01/2012

| | Rates | Fringes |
|------------------|----------|---------|
| BOILERMAKER..... | \$ 41.17 | 28.27 |

BRCA0004-008 11/01/2012

| | Rates | Fringes |
|--------------------------------|----------|---------|
| BRICKLAYER; MARBLE SETTER..... | \$ 33.75 | 14.55 |

BRCA0018-004 06/01/2012

| | Rates | Fringes |
|----------------------|----------|---------|
| MARBLE FINISHER..... | \$ 27.04 | 10.66 |
| TILE FINISHER..... | \$ 22.37 | 9.19 |
| TILE LAYER..... | \$ 33.55 | 13.55 |

BRCA0018-010 09/01/2009

| | Rates | Fringes |
|-----------------------------|----------|---------|
| TERRAZZO FINISHER..... | \$ 26.59 | 9.62 |
| TERRAZZO WORKER/SETTER..... | \$ 33.63 | 10.46 |

CARP0409-002 07/01/2008

| | Rates | Fringes |
|---------------------------|-----------|---------|
| Diver | | |
| (1) Wet..... | \$ 663.68 | 9.82 |
| (2) Standby..... | \$ 331.84 | 9.82 |
| (3) Tender..... | \$ 323.84 | 9.82 |
| (4) Assistant Tender..... | \$ 299.84 | 9.82 |

Amounts in "Rates" column are per day

CARP0409-008 08/01/2010

| | Rates | Fringes |
|----------------------------------|----------|---------|
| Modular Furniture Installer..... | \$ 17.00 | 7.41 |

CARP0547-001 07/01/2009

| | Rates | Fringes |
|-----------------------------|----------|---------|
| CARPENTER | | |
| (1) Bridge..... | \$ 37.28 | 10.58 |
| (2) Commercial Building.... | \$ 32.30 | 10.58 |
| (3) Heavy & Highway..... | \$ 37.15 | 10.58 |
| (4) Residential Carpenter.. | \$ 25.84 | 10.58 |
| (5) Residential | | |
| Insulation Installer..... | \$ 18.00 | 8.16 |
| MILLWRIGHT..... | \$ 37.65 | 10.58 |
| PILEDRIVERMAN..... | \$ 37.28 | 10.58 |

CARP0547-002 07/01/2009

| | Rates | Fringes |
|---|-------|---------|
| Drywall | | |
| (1) Work on wood framed construction of single family residences, apartments or condominiums under four stories | | |
| Drywall Installer/Lather...\$ | 21.00 | 8.58 |
| Drywall Stocker/Scrapper...\$ | 11.00 | 6.67 |
| (2) All other work | | |
| Drywall Installer/Lather...\$ | 27.35 | 9.58 |
| Drywall Stocker/Scrapper...\$ | 11.00 | 6.67 |

ELEC0569-001 08/27/2012

| | Rates | Fringes |
|---|----------|----------|
| Electricians (Tunnel Work) | | |
| Cable Splicer..... | \$ 43.05 | 3%+11.87 |
| Electrician..... | \$ 42.30 | 3%+11.87 |
| Electricians: (All Other Work, Including 4 Stories | | |

Residential)

| | | |
|--------------------|----------|----------|
| Cable Splicer..... | \$ 38.35 | 3%+11.87 |
| Electrician..... | \$ 37.60 | 3%+11.87 |

ELEC0569-005 12/01/2012

| | Rates | Fringes |
|------------------------|----------|----------|
| Sound & Communications | | |
| Sound Technician..... | \$ 27.57 | 3%+10.81 |
| Soundman..... | \$ 22.06 | 3%+9.17 |

SOUND TECHNICIAN: Terminating, operating and performing final check-out

SOUNDMAN: Wire-pulling, splicing, assembling and installing devices

SCOPE OF WORK Assembly, installation, operation, service and maintenance of components or systems as used in closed circuit television, amplified master television distribution, CATV on private property, intercommunication, burglar alarm, fire alarm, life support and all security alarms, private and public telephone and related telephone interconnect, public address, paging, audio, language, electronic, background music system less than line voltage or any system acceptable for class two wiring for private, commercial, or industrial use furnished by leased wire, frequency modulation or other recording devices, electrical apparatus by means of which electricity is applied to the amplification, transmission, transference, recording or reproduction of voice, music, sound, impulses and video. Excluded from this Scope of Work - transmission, service and maintenance of background music. All of the above shall include the installation and transmission over fiber optics.

ELEC0569-006 02/25/2013

Work on street lighting; traffic signals; and underground systems and/or established easements outside of buildings

| | Rates | Fringes |
|---|----------|---------|
| Traffic signal, street light and underground work | | |
| Utility Technician #1..... | \$ 27.50 | 3%+7.42 |
| Utility Technician #2..... | \$ 22.65 | 3%+7.42 |

STREET LIGHT & TRAFFIC SIGNAL WORK:

UTILITY TECHNICIAN #1: Installation of street lights and traffic signals, including electrical circuitry, programmable controller, pedestal-mounted electrical meter enclosures and laying of pre-assembled cable in ducts. The layout of electrical systems and communication installation including proper position of trench depths, and radius at

duct banks, location for manholes, street lights and traffic signals.

UTILITY TECHNICIAN #2: Distribution of material at jobsite, installation of underground ducts for electrical, telephone, cable TV land communication systems. The setting, leveling, grounding and racking of precast manholes, handholes and transformer pads.

 ELEC0569-008 06/01/2011

| | Rates | Fringes |
|---|----------|---------|
| ELECTRICIAN (Residential, 1-3 Stories)..... | \$ 22.37 | 3%+2.90 |

 ELEC1245-001 06/01/2012

| | Rates | Fringes |
|---|----------|---------|
| LINE CONSTRUCTION | | |
| (1) Lineman; Cable splicer.. | \$ 48.95 | 14.05 |
| (2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment)..... | \$ 39.09 | 12.97 |
| (3) Groundman..... | \$ 29.91 | 12.70 |
| (4) Powderman..... | \$ 43.71 | 13.15 |

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

 ELEV0018-001 01/01/2013

| | Rates | Fringes |
|------------------------|----------|---------|
| ELEVATOR MECHANIC..... | \$ 48.23 | 25.185 |

FOOTNOTE:

PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
 PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

 ENGI0012-003 07/01/2012

| | Rates | Fringes |
|--|----------|---------|
| OPERATOR: Power Equipment (All Other Work) | | |
| GROUP 1..... | \$ 37.40 | 20.00 |

| | | |
|----------|---------------|-------|
| GROUP 2 |\$ 38.18 | 20.00 |
| GROUP 3 |\$ 38.47 | 20.00 |
| GROUP 4 |\$ 39.96 | 20.00 |
| GROUP 5 |\$ 41.06 | 20.00 |
| GROUP 6 |\$ 40.18 | 20.00 |
| GROUP 8 |\$ 41.39 | 20.00 |
| GROUP 9 |\$ 40.41 | 20.00 |
| GROUP 10 |\$ 40.41 | 20.00 |
| GROUP 11 |\$ 40.58 | 20.00 |
| GROUP 12 |\$ 40.58 | 20.00 |
| GROUP 13 |\$ 40.68 | 20.00 |
| GROUP 14 |\$ 40.71 | 20.00 |
| GROUP 15 |\$ 40.79 | 20.00 |
| GROUP 16 |\$ 40.91 | 20.00 |
| GROUP 17 |\$ 41.08 | 20.00 |
| GROUP 18 |\$ 41.18 | 20.00 |
| GROUP 19 |\$ 41.29 | 20.00 |
| GROUP 20 |\$ 41.41 | 20.00 |
| GROUP 21 |\$ 41.58 | 20.00 |
| GROUP 22 |\$ 41.68 | 20.00 |
| GROUP 23 |\$ 41.79 | 20.00 |
| GROUP 24 |\$ 41.91 | 20.00 |
| GROUP 25 |\$ 42.08 | 20.00 |

OPERATOR: Power Equipment
(Cranes, Piledriving & Hoisting)

| | | |
|----------|---------------|-------|
| GROUP 1 |\$ 38.75 | 20.00 |
| GROUP 2 |\$ 39.53 | 20.00 |
| GROUP 3 |\$ 39.82 | 20.00 |
| GROUP 4 |\$ 39.96 | 20.00 |
| GROUP 5 |\$ 40.18 | 20.00 |
| GROUP 6 |\$ 40.29 | 20.00 |
| GROUP 7 |\$ 40.41 | 20.00 |
| GROUP 8 |\$ 40.58 | 20.00 |
| GROUP 9 |\$ 40.75 | 20.00 |
| GROUP 10 |\$ 41.75 | 20.00 |
| GROUP 11 |\$ 42.75 | 20.00 |
| GROUP 12 |\$ 43.75 | 20.00 |
| GROUP 13 |\$ 44.75 | 20.00 |

OPERATOR: Power Equipment
(Tunnel Work)

| | | |
|---------|---------------|-------|
| GROUP 1 |\$ 39.25 | 20.00 |
| GROUP 2 |\$ 40.03 | 20.00 |
| GROUP 3 |\$ 40.32 | 20.00 |
| GROUP 4 |\$ 40.46 | 20.00 |
| GROUP 5 |\$ 40.68 | 20.00 |
| GROUP 6 |\$ 40.79 | 20.00 |
| GROUP 7 |\$ 40.91 | 20.00 |

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material

environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder

machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator;

Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator,

operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem

push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SBM to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1S, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM.

Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a think strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

 ENGI0012-004 08/01/2012

Rates Fringes

OPERATOR: Power Equipment
 (DREDGING)

| | | |
|---|----------|-------|
| (1) Leverman..... | \$ 45.40 | 20.00 |
| (2) Dredge dozer..... | \$ 40.93 | 20.00 |
| (3) Deckmate..... | \$ 40.82 | 20.00 |
| (4) Winch operator (stern winch on dredge)..... | \$ 40.27 | 20.00 |
| (5) Fireman-Oiler, Deckhand, Bargeman, Leveehand..... | \$ 39.73 | 20.00 |
| (6) Barge Mate..... | \$ 40.34 | 20.00 |

IRON0377-002 01/01/2013

| | Rates | Fringes |
|--|----------|---------|
| Ironworkers: | | |
| Fence Erector..... | \$ 26.58 | 16.74 |
| Ornamental, Reinforcing and Structural..... | \$ 33.00 | 25.30 |

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0089-001 07/01/2012

| | Rates | Fringes |
|---|----------|---------|
| LABORER (BUILDING and all other Residential Construction) | | |
| Group 1..... | \$ 27.10 | 15.17 |
| Group 2..... | \$ 27.56 | 15.17 |
| Group 3..... | \$ 27.97 | 15.17 |
| Group 4..... | \$ 28.81 | 15.17 |
| Group 5..... | \$ 32.93 | 15.17 |
| LABORER (RESIDENTIAL CONSTRUCTION - See definition below) | | |
| (1) Laborer..... | \$ 23.48 | 14.13 |
| (2) Cleanup, Landscaping, | | |

Fencing (chain link or wood).....\$ 22.19 14.13

RESIDENTIAL DEFINITION: Wood or metal frame construction of single family residences, apartments and condominiums - excluding (a) projects that exceed three stories over a garage level, (b) any utility work such as telephone, gas, water, sewer and other utilities and (c) any fine grading work, utility work or paving work in the future street and public right-of-way; but including all rough grading work at the job site behind the existing right of way

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete Screeding for Rought Strike-off; Concrete, water curing; Demolition laborer; Flagman; Gas, oil and/or water pipeline laborer; General Laborer; General clean-up laborer; Landscape laborer; Jetting laborer; Temporary water and air lines laborer; Material hoseman (walls, slabs, floors and decks); Plugging, filling of Shee-bolt holes; Dry packing of concrete; Railroad maintenance, Repair Trackman and road beds, Streetcar and railroad construction trac laborers; Slip form raisers; Slurry seal crews (mixer operator, applicator operator, squeegee man, Shuttle man, top man), filling of cracks by any method on any surface; Tarman and mortar man; Tool crib or tool house laborer; Window cleaner; Wire Mesh puling-all concrete pouring operations

GROUP 2: Asphalt Shoveler; Cement Dumper (on 1 yard or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute man, pouring concrete, the handling of the cute from ready mix trucks, such as walls, slabs, decks, floors, foundations, footings, curbs, gutters and sidewalks; Concrete curer-impervious membrane and form oiler; Cutting torch operator (demoliton); Guinea chaser; Headboard man-asphlt; Laborer, packing rod steel and pans; membrane vapor barrier installer; Power broom sweepers (small); Riiprap, stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Tank sealer and cleaner; Tree climber, faller, chain saw operator, Pittsburgh Chipper and similar type brush shredders; Underground laborers, including caisson bellower

GROUP 3: Buggymobile; Concrete cutting torch; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2 1/2 feet drill steel or longer; Dri Pak-it machine; High sealer (including drilling of same); Hydro seeder and similar type; Impact wrench, mult-plate; Kettlemen, potmen and mean applying asphalt, lay-kold, creosote, line caustic and similar type materials (applying means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operators of pneumatic, gas, electric tools, vibratring machines, pavement breakers, air blasting, come-along, and similar mechanical tools not separately classified herein; Pipelayers back up man coating, grouting, making of joints, sealing, caulking,

diapering and including rubber gasket joints, pointing and any and all other services; Rotary Scarifier or multiple head concrete chipping scarifier; Steel header board man and guideline setter; Tampers, Barko, Wacker and similar type; Trenching machine, handpropelled

GROUP 4: Asphalt raker, luterman, ironer, asphalt dumpman and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), Grinder or sander; Concrete saw man; cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Laser beam in connection with laborer's work; Oversize concrete vibrator operator 70 pounds and over; Pipelayer performing all services in the laying, installation and all forms of connection of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit, and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid, gas, air or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzleman), Porta shot-blast, water blasting

GROUP 5: Blasters Powderman-All work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller-all power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power.

LABO0089-002 07/01/2010

| | Rates | Fringes |
|-----------------------------|----------|---------|
| LABORER (MASON TENDER)..... | \$ 27.11 | 14.38 |

LABO0089-004 07/01/2012

HEAVY AND HIGHWAY CONSTRUCTION

| | Rates | Fringes |
|--------------|----------|---------|
| Laborers: | | |
| GROUP 1..... | \$ 27.10 | 15.17 |
| GROUP 2..... | \$ 27.56 | 15.17 |
| GROUP 3..... | \$ 27.97 | 15.17 |
| GROUP 4..... | \$ 28.81 | 15.17 |
| GROUP 5..... | \$ 32.93 | 15.17 |

LABORER CLASSIFICATIONS

GROUP 1: Laborer: General or Construction Laborer, Landscape Laborer. Asphalt Rubber Material Loader. Boring Machine

Tender (outside), Carpenter Laborer (cleaning, handling, oiling & blowing of panel forms and lumber), Concrete Laborer, Concrete Screeding for rough strike-off, Concrete water curing. Concrete Curb & Gutter laborer, Certified Confined Space Laborer, Demolition laborer & Cleaning of Brick and lumber, Expansion Joint Caulking; Environmental Remediation, Monitoring Well, Toxic waste and Geotechnical Drill tender, Fine Grader, Fire Watcher, Limbers, Brush Loader, Pilers and Debris Handlers. flagman. Gas Oil and Water Pipeline Laborer. Material Hoseman (slabs, walls, floors, decks); Plugging, filling of shee bolt holes; Dry packing of concrete and patching; Post Holer Digger (manual); Railroad maintenance, repair trackman, road beds; Rigging & signaling; Scaler, Slip-Form Raisers, Filling cracks on any surface, tool Crib or Tool House Laborer, Traffic control (signs, barriers, barricades, delineator, cones etc.), Window Cleaner

GROUP 2: Asphalt abatement; Buggymobile; Cement dumper (on 1 yd. or larger mixers and handling bulk cement); Concrete curer, impervious membrane and form oiler; Chute man, pouring concrete; Concrete cutting torch; Concrete pile cutter; driller/Jackhammer, with drill steel 2 1/2 feet or longer; Dry pak-it machine; Fence erector; Pipeline wrapper, gas, oil, water, pot tender & form man; Grout man; Installation of all asphalt overlay fabric and materials used for reinforcing asphalt; Irrigation laborer; Kettleman-Potman hot mop, includes applying asphalt, lay-klold, creosote, lime caustic and similar tyhpes of materials (dipping, brushing, handling) and waterproofing; Membrane vapor barrier installer; Pipelayer backup man (coating, grouting, making of joints, sealing caulkiing, diapering including rubber basket joints, pointing); Rotary scarifier, multiple head concrete chipper; Rock slinger; Roto scraper & tiller; Sandblaster pot tender; Septic tank digger/installer; Tamper/wacker operator; Tank scaler & cleaner; Tar man & mortar man; Tree climber/faller, chainb saw operator, Pittsburgh chipper & similar type brush shredders.

GROUP 3: Asphalt, installation of all frabrics; Buggy Mobile Man, Bushing hammer; Compactor (all types), Concrete Curer - Impervious membrane, Form Oiler, Concrete Cutting Torch, Concrete Pile Cutter, Driller/Jackhammer with drill steel 2 1/2 ft or longer, Dry Pak-it machine, Fence erector including manual post hole digging, Gas oil or water Pipeline Wrapper - 6 ft pipe and over, Guradrail erector, Hydro seeder, Impact Wrench man (multi plate), Kettleman-Potman Hot Mop includes applying Asphalt, Lay-Kold, Creosote, lime caustic and similar types of materials (dipping, brushing or handling) and waterproofing. Laser Beam in connection with Laborer work. High Scaler, Operators of Pneumatic Gas or Electric Tools, Vibrating Machines, Pavement Breakers, Air Blasting, Come-Alongs and similar mechanical tools, Remote-Controlled Robotic Tools in connection with Laborers work. Pipelayer Backup Man (Coating, grouting, m makeing of joints, sealing, caulking, diapering including rubber gasket joints,

pointing and other services). Power Post Hole Digger, Rotary Scarifier (multiple head concrete chipper scarifier), Rock Slinger, Shot Blast equipment (8 to 48 inches), Steel Headerboard Man and Guideline Setter, Tamper/Wacker operator and similar types, Trenching Machine hand propelled.

GROUP 4: Any worker exposed to raw sewage. Asphalt Raker, Luteman, Asphalt Dumpman, Asphalt Spreader Boxes, Concrete Core Cutter, Concrete Saw Man, Cribber, Shorer, Head Rock Slinger. Installation of subsurface instrumentation, monitoring wells or points, remediation system installer; Laborer, asphalt-rubber distributor bootman; Oversize concrete vibrator operators, 70 pounds or over. Pipelayer, Prefabricated Manhole Installer, Sandblast Nozzleman (Water Balasting-Porta Shot Blast), Traffic Lane Closure.

GROUP 5: Blasters Powderman-All work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Horizontal directional driller, Boring system, Electronic tracking, Driller: all power drills excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and all other types of mechanical drills without regard to form of motive power. Environmental remediation, Monitoring well, Toxic waste and Geotechnical driller, Toxic waste removal. Welding in connection with Laborer's work.

LABO0300-008 08/05/2009

| | Rates | Fringes |
|------------------------------|----------|---------|
| LABORER | | |
| PLASTER CLEAN-UP LABORER.... | \$ 26.65 | 15.95 |
| PLASTER TENDER..... | \$ 29.20 | 15.95 |

Work at Military Bases - \$3.00 additional per hour:
 Coronado Naval Amphibious Base, Fort Irwin, Marine Corps Air Station-29 Palms, Imperial Beach Naval Air Station, Marine Corps Logistics Supply Base, Marine Corps Pickle Meadows, Mountain Warfare Training Center, Naval Air Facility-Seeley, North Island Naval Air Station, Vandenberg AFB.

LABO0882-002 01/01/2010

| | Rates | Fringes |
|-------------------------------|----------|---------|
| Asbestos Removal Laborer..... | \$ 26.15 | 11.65 |

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO1184-001 08/01/2012

| | Rates | Fringes |
|--|----------|---------|
| Laborers: (HORIZONTAL DIRECTIONAL DRILLING) | | |
| (1) Drilling Crew Laborer... | \$ 29.01 | 11.68 |
| (2) Vehicle Operator/Hauler. | \$ 29.18 | 11.68 |
| (3) Horizontal Directional Drill Operator..... | \$ 31.03 | 11.68 |
| (4) Electronic Tracking Locator..... | \$ 33.03 | 11.68 |
| Laborers: (STRIPING/SLURRY SEAL) | | |
| GROUP 1..... | \$ 29.96 | 14.38 |
| GROUP 2..... | \$ 31.26 | 14.38 |
| GROUP 3..... | \$ 33.27 | 14.38 |
| GROUP 4..... | \$ 35.01 | 14.38 |

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

PAIN0036-001 03/01/2013

Rates Fringes

Painters: (Including Lead Abatement)

| | | |
|--|----------|-------|
| (1) Repaint (excludes San Diego County)..... | \$ 26.05 | 11.13 |
| (2) All Other Work..... | \$ 29.32 | 11.13 |

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

PAIN0036-010 01/01/2013

| | Rates | Fringes |
|--|----------|---------|
| DRYWALL FINISHER/TAPER | | |
| (1) Building & Heavy Construction..... | \$ 25.08 | 13.19 |
| (2) Residential Construction (Wood frame apartments, single family homes and multi-duplexes up to and including four stories)..... | \$ 21.00 | 12.81 |

PAIN0036-012 10/01/2012

| | Rates | Fringes |
|--------------|----------|---------|
| GLAZIER..... | \$ 38.80 | 16.25 |

PAIN0036-019 02/01/2009

| | Rates | Fringes |
|-----------------------|----------|---------|
| SOFT FLOOR LAYER..... | \$ 26.77 | 11.75 |

PLAS0200-005 08/01/2011

| | Rates | Fringes |
|----------------|----------|---------|
| PLASTERER..... | \$ 35.29 | 12.05 |

NORTH ISLAND NAVAL AIR STATION, COLORADO NAVAL AMPHIBIOUS BASE, IMPERIAL BEACH NAVAL AIR STATION: \$3.00 additional per hour.

PLAS0500-001 07/01/2012

| | Rates | Fringes |
|--------------------------------|----------|---------|
| CEMENT MASON/CONCRETE FINISHER | | |
| GROUP 1..... | \$ 26.47 | 12.10 |
| GROUP 2..... | \$ 28.12 | 12.10 |
| GROUP 3..... | \$ 30.75 | 12.60 |

CEMENT MASONS - work inside the building line, meeting the

following criteria:

GROUP 1: Residential wood frame project of any size; work classified as Type III, IV or Type V construction; interior tenant improvement work regardless the size of the project; any wood frame project of four stories or less.

GROUP 2: Work classified as type I and II construction

GROUP 3: All other work

 PLUM0016-006 07/01/2012

| | Rates | Fringes |
|--|----------|---------|
| PLUMBER, PIPEFITTER, STEAMFITTER | | |
| Camp Pendleton..... | \$ 46.10 | 19.68 |
| Plumber and Pipefitter All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work..... | \$ 41.60 | 19.68 |
| Work ONLY on new additions and remodeling of commercial buildings, bars, restaurants, and stores not to exceed 5,000 sq. ft. of floor space..... | \$ 40.33 | 18.70 |
| Work ONLY on strip malls, light commercial, tenant improvement and remodel work..... | \$ 32.49 | 17.03 |

 PLUM0016-011 07/01/2012

| | Rates | Fringes |
|--------------------|----------|---------|
| PLUMBER/PIPEFITTER | | |
| Residential..... | \$ 33.63 | 15.60 |

 PLUM0345-001 07/01/2012

| | Rates | Fringes |
|-------------------------------|----------|---------|
| PLUMBER | | |
| Landscape/Irrigation Fitter.. | \$ 27.35 | 17.09 |
| Sewer & Storm Drain Work.... | \$ 31.00 | 16.01 |

 ROOF0045-001 07/01/2012

| | Rates | Fringes |
|-------------|----------|---------|
| ROOFER..... | \$ 25.08 | 7.28 |

SFCA0669-001 01/01/2013

| | Rates | Fringes |
|-----------------------|----------|---------|
| SPRINKLER FITTER..... | \$ 34.18 | 18.66 |

SHEE0206-001 01/01/2012

| | Rates | Fringes |
|-----------------------------|----------|---------|
| SHEET METAL WORKER | | |
| Camp Pendleton..... | \$ 35.05 | 19.23 |
| Except Camp Pendleton..... | \$ 33.05 | 19.23 |
| Sheet Metal Technician..... | \$ 25.22 | 6.69 |

SHEET METAL TECHNICIAN - SCOPE:

a. Existing residential buildings, both single and multi-family, where each unit is heated and/or cooled by a separate system b. New single family residential buildings including tracts. c. New multi-family residential buildings, not exceeding five stories of living space in height, provided each unit is heated or cooled by a separate system. Hotels and motels are excluded. d. LIGHT COMMERCIAL WORK: Any sheet metal, heating and air conditioning work performed on a project where the total construction cost, excluding land, is under \$1,000,000 e. TENANT IMPROVEMENT WORK: Any work necessary to finish interior spaces to conform to the occupants of commercial buildings, after completion of the building shell

TEAM0036-001 07/01/2012

| | Rates | Fringes |
|----------------|----------|---------|
| Truck drivers: | | |
| GROUP 1..... | \$ 15.40 | 20.50 |
| GROUP 2..... | \$ 24.99 | 20.50 |
| GROUP 3..... | \$ 25.19 | 20.50 |
| GROUP 4..... | \$ 25.39 | 20.50 |
| GROUP 5..... | \$ 25.59 | 20.50 |
| GROUP 6..... | \$ 26.09 | 20.50 |
| GROUP 7..... | \$ 27.59 | 20.50 |

FOOTNOTE: HAZMAT PAY: Work on a hazmat job, where hazmat certification is required, shall be paid, in addition to the classification working in, as follows: Levels A, B and C - +\$1.00 per hour. Workers shall be paid hazmat pay in increments of four (4) and eight (8) hours.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Fuel Man, Swamper

GROUP 2: 2-axle Dump Truck, 2-axle Flat Bed, Concrete Pumping

Truck, Industrial Lift Truck, Motorized Traffic Control, Pickup Truck on Jobsite

GROUP 3: 2-axle Water Truck, 3-axle Dump Truck, 3-axle Flat Bed, Erosion Control Nozzelman, Dump Crete Truck under 6.5 yd, Forklift 15,000 lbs and over, Prell Truck, Pipeline Work Truck Driver, Road Oil Spreader, Cement Distributor or Slurry Driver, Bootman, Ross Carrier

GROUP 4: Off-road Dump Truck under 35 tons 4-axles but less than 7-axles, Low-Bed Truck & Trailer, Transit Mix Trucks under 8 yd, 3-axle Water Truck, Erosion Control Driver, Grout Mixer Truck, Dump Crete 6.5yd and over, Dumpster Trucks, DW 10, DW 20 and over, Fuel Truck and Dynamite, Truck Greaser, Truck Mounted Mobile Sweeper 2-axle Winch Truck

GROUP 5: Off-road Dump Truck 35 tons and over, 7-axles or more, Transit Mix Trucks 8 yd and over, A-Frame Truck, Swedish Cranes

GROUP 6: Off-Road Special Equipment (including but not limited to Water Pull Tankers, Athey Wagons, DJB, B70 Wuclids or like Equipment)

GROUP 7: Repairman

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination.

The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

10. FEDERAL LABOR STANDARDS PROVISIONS (Office of the Secretary of Labor 29 CFR 5):

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. Minimum Wages. (i) All laborers and mechanics employed or working upon the site of the work, (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project) will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (A) Any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Federal Agency or its designee shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of

receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii)(b) or (c) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding. The Federal Agency or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, the Federal Agency or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records. (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program

has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii) (A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Agency or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to the Federal Agency or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired.

Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at

<http://www.dol.gov/esa/whd/forms/wh347instr.htm>

or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Federal Agency or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to the Federal Agency, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or, owner).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph A.3.(ii)(b) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under subparagraph A.3.(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Agency or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, Federal agency or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees. (i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination.

Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour

Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in 29 CFR 5.59(a)(1) through (10 and such other clauses as the Federal Agency may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

b. Contract Work Hours and Safety Standards Act. The provisions of this paragraph b are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (b)(1) of this section, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (b)(1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in sub paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The Federal Agency or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (b)(1) through (4) of this section.

C. In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in Sec. 5.1, the Agency Head shall cause or require the contracting officer to insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Agency Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the (write the name of agency) and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

11. AGENCY SPECIFIC PROVISIONS:

Note: Failure to comply with these specifications e.g., taking the specified steps prior to Bid opening, and to submit the forms located in Volume 2 with the Bid will lead to the Bid being declared **non-responsive** and, therefore, shall be rejected.

11.1. All EPA Funded Contracts:

1. Federal Disadvantaged Business Enterprise (DBE) regulations apply to this project. (Reference 40 Code of Federal Regulations Part 33 - Participation by Disadvantaged Business Enterprises in U.S. Environmental Protection Agency Programs).
2. The responsive Bid shall conform to GFE to increase DBE awareness of procurement opportunities through race and gender neutral efforts. Race and gender neutral efforts are ones which increase awareness of contracting opportunities in general, including outreach, recruitment and technical assistance.
3. Bidder agrees that it will cooperate with and assist the City in fulfilling the DBE Good Faith Effort Requirement achieving "fair share objectives" and will exercise GFE to achieve such minimum participation of small, minority and women owned businesses. In particular, in submitting a bid, the Bidder shall, in the selection of Subcontractors, and Suppliers for the procurement of equipment, supplies, construction, and services related to the project, at a minimum, undertake the affirmative GFE steps.
4. In accordance with EPA's Program for Utilization of Small, Minority Disadvantaged and Women Business Enterprises in procurement under Federal assistance programs, the Contractor agrees to the applicable "fair share objectives" as specified in the "Special Notice" page.
5. The provisions in the Contract Documents have been incorporated to prevent unfair practices that adversely affect DBEs.
6. If a DBE Subcontractor fails to complete the Work under the subcontract for any reason, the Contractor shall employ the 6 GFE if soliciting a replacement Subcontractor. The Contractor shall employ the 6 GFE described below even if the Contractor has achieved its fair share objectives.
7. Good Faith Efforts:
 - a) The Contractor shall demonstrate that efforts were made to attract DBEs on this contract. The "Good Faith" effort requires the Contractor and any Subcontractors to take the steps listed in these specifications to assure that DBEs are used whenever possible as sources of supplies, construction, equipment, or services even if the Contractor has achieved its fair share objectives.
 - b) If the Contractor awards subcontracts, it shall require the Subcontractors to take the steps in these specifications.
 - c) For the EPA defined GFE, see the steps below:
 1. Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
 2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way

that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 days before the bid or proposal closing date.

3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process. Include with the GFE documentation a completed copy of the form AA61, "List of Work Made Available."
4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
5. Use the services and assistance of the U.S. Small Business Administration (SBA) and the Minority Business Development Agency (MBDA) of the Department of Commerce (DOC). See "DBE Potential Resources Centers" Section in a later part these specifications.
6. If the Contractor awards Subcontracts, the Contractor shall take the steps in paragraphs (1) through (5) above.

11.1.1. Semiannual DBE Utilization Reporting:

The Contractor shall report to the City on a semiannual basis, their utilization of Minority Business Enterprise and Women's Business Enterprise Subcontractors and Suppliers using EPA Form 5700-52A.

12. DBE POTENTIAL RESOURCES CENTERS:

- 12.1. Utilization of SBA and MBDA resources is required at no cost. These agencies offer several services, including Internet access to databases of DBEs.
- 12.2. For additional assistance, the recipient or contractor can telephone the local offices of both agencies in their area (SBA Minority Enterprise Development Offices and DOC MBDA Regional Centers). The Internet web sites also include names, addresses, and phone or fax numbers of local SBA and MBDA centers. Do not write to these sources
- 12.3. The Contractor shall provide documentation that the local SBA/MBDA offices or web sites were notified of the contracting bid opportunity at least 15 Working Days prior to Bid opening and solicitation to DBE subcontractors at least 10 Working Days prior to Bid opening. Documentation shall not only include the efforts to contact the information sources and list the Contract opportunity, but also the solicitation and response to the bid request.
- 12.4. Include qualified DBEs on solicitation lists and record the information on Form AA63. Solicitation shall be as broad as possible. The following web sites include a list of available sources for expanding the search for eligible DBEs:

1. <http://www.sba.gov>
2. <http://www.ccr.gov>
3. <http://www.mdba.gov>

12.5. If DBE sources are not located, explain why and describe the efforts made.

12.6. The Contractor shall send invitations to at least 3 (or all, if less than 3) DBE vendors for each item of work referred by sources contacted. The invitations shall adequately specify the items for which bids are requested. The record of “good faith” efforts shall indicate a real desire for a positive response, such as a certified mail receipt or a documented telephone conversation.

12.7. A regular letter or an unanswered telephone call is not an adequate “good faith” effort. A list of all sub-bidders, including the bidders not selected and non DBE Subcontractors, and bid amount for each item of the Work shall be submitted on Form AA62 If a low bid was not accepted, an explanation shall be provided.

12.8. Federal Agencies (must be contacted and solicitations posted on their websites):

| Name and Address | Telephone and Web Site |
|---|--|
| U.S. Small Business Administration | (415) 744-6820 Extension 0 |
| 455 Market Street, Suite 600 | PRO-Net Database: http://www.ccr.gov/ ¹ |
| San Francisco, CA 94105 | Bid Notification: http://web.sba.gov/subnet/ ² |
| RE: Minority Enterprise Development Offices | |
| U.S. Department of Commerce | (415) 744-3001 |
| Minority Business Development Agency | Phoenix/ Opportunity Database: |
| 211 Main Street, Room 1280 | http://www.mdba.gov/ ³ |
| San Francisco, CA 94105 | RE: Business Development Centers |

12.9. State Agencies (optional contacts):

| Name and Address | Telephone and Web Site |
|---|---|
| California Department of Transportation | Mailing Address: PO Box 942874 |
| (CALTRANS) Business Enterprise Program ⁴ | Sacramento, CA 94274-0015 |
| 1820 Alhambra Blvd. | (916) 227-9599 |
| Sacramento, CA 95816 | www.dot.ca.gov/hq/bep |
| CA Public Utilities Commission (CPUC) ⁵ | |
| 505 Van Ness Avenue | http://www.cpuc.ca.gov/static/supplierdiversity |
| San Francisco, CA 94102-3298 | |

Notes:

1. PRO-Net new database is the SBA’s electronic search engine that was put on line January 1, 2004, containing business profiles for nearly 200,000 businesses. The SBA requests Internet contact only for a list of potential DBE subcontractors that can be downloaded from PRO-Net: <http://www.ccr.gov>. Downloading will verify that the prime contractor made the required contact with the SBA.

2. The Contractor shall use SUB-Net to post subcontracting opportunities. The Contractor shall post Subcontractor opportunities at least 15 Working Days prior to bid opening. Small businesses can review this web site to identify opportunities in their areas of expertise. The web site is designed primarily as a place for large businesses to post solicitations and notices. Provide copy of the Display Solicitation Record with the GFE documentation.
3. The Contractors shall use MBDA web portal to post subcontracting opportunities. The Contractor shall post subcontractor opportunities at least 15 Working Days prior to Bid opening. Small businesses can review this web site to identify opportunities in their areas of expertise. The web site is designed primarily as a place for large businesses to post solicitations and notices. Provide copy of the Offer Overview with the GFE documentation.
4. Based on the federal DBE program, CALTRANS maintains a database and provides directories of minority and woman-owned firms.
5. CPUC maintains a database of DBE-owned business enterprises and serves to inform the public.

13. GOOD FAITH EFFORT DOCUMENTATION SUBMITTALS:

- 13.1. The affirmative GFE steps documentation shall be submitted **within 4 Working Days of the Bid Opening**. If this documentation is not submitted when due, the City will declare the Bid **non-responsive** and reject it.
- 13.2. For information on adequate GFE to meet the Contract specified percentages refer to the document titled “GUIDANCE FOR BIDDERS COMPLETING THE GOOD FAITH EFFORT SUBMITTAL” incorporated in this contract for information. This document is available from the EOCP’s web site.
- 13.3. The required documentation shall be submitted and logged in at the following address:

CITY OF SAN DIEGO
PUBLIC WORKS CONTRACTING GROUP
1010 SECOND AVENUE, SUITE 1400, MS 614C
SAN DIEGO, CA 92101
SUBJECT: AFFIRMATIVE GOOD FAITH EFFORT DOCUMENTATION
BID NO. K-13-5979-DBB-3

- 13.4. The Contractor shall maintain the records documenting compliance with requirements including documentation of its GFE and data relied upon in formulating its fair share objectives.

14. FORMS:

- 14.1. The Contractor shall demonstrate that efforts were made to attract DBEs on this contract. The Contractor and Subcontractors shall take the steps listed in these specifications to assure that DBEs are used whenever possible as sources of supplies, construction, equipment, or services. In addition to the specified GFE documentation, the Bidder shall submit the following forms.
- 14.2. See EPA forms 6100-2, 6100-3, and 6100-4 for additional required information to comply with EPA requirements. These forms are included in the Contract Documents or shall be obtained from: http://www.epa.gov/osbp/dbe_forms.htm. The following EPA forms in Volume 2 shall be completed and submitted with the Bid. Failure to include any of the forms shall cause the Bid to be deemed **non-responsive**.

1. EPA FORM 6100-3: DBE Subcontractor Performance Form
2. EPA FORM 6100-4: DBE Subcontractor Utilization Form

15. LIST OF ATTACHMENTS:

1. EPA FORM 6100-2: DBE Subcontractor Participation Form (Volume 1)
2. EPA FORM 6100-3: DBE Subcontractor Performance Form (Volume 2)
3. EPA FORM 6100-4: DBE Subcontractor Utilization Form (Volume 2)
4. EPA Form 5700-52A MBE/WBE Utilization Forms (Volume 1)
5. Form AA61: List of Work Made Available (Volume 1)
6. Form AA62: Summary of Bids Received
7. Form AA63 Good Faith Effort List of Subcontractors Solicited

FUNDING AGENCY PROVISIONS
ATTACHMENTS

OMB Control No.: 2090-0030
 Approved: 05/01/2008
 Approval Expires: 01/31/2011



Environmental
 Protection Agency

**Disadvantaged Business Enterprise Program
 DBE Subcontractor Participation Form**

| | |
|--|-------------------------|
| NAME OF SUBCONTRACTOR¹ | PROJECT NAME |
| ADDRESS | BID/PROPOSAL NO. |
| TELEPHONE NO. | EMAIL ADDRESS |
| PRIME CONTRACTOR NAME | |

Please use the space below to report any concerns regarding the above EPA-funded project (e.g., reason for termination by prime contractor, late payment, etc.).

| CONTRACT ITEM NO. | ITEM OF WORK OR DESCRIPTION OF SERVICES RECEIVED FROM THE PRIME CONTRACTOR | AMOUNT SUBCONTRACTOR WAS PAID BY PRIME CONTRACTOR |
|--------------------------|---|--|
| | | |

| | |
|-------------------------|------------|
| _____ | _____ |
| Subcontractor Signature | Title/Date |

¹Subcontractor is defined as companies, firm, joint venture, or individual who enters into an agreement with a contractor to provide services pursuant to an EPA award of financial assistance

EPA FORM 6100-2 (DBE Subcontractor Participation Form)

**U.S. ENVIRONMENTAL PROTECTION AGENCY
 MBE/WBE UTILIZATION UNDER FEDERAL GRANTS
 AND COOPERATIVE AGREEMENTS**

PART I. (Reports are required even if no procurements are made during the reporting period.)

| 1A. FEDERAL FISCAL YEAR (Oct. 1-Sep 30), _____ | 1B. REPORTING PERIOD (Check ALL appropriate boxes) <input type="checkbox"/> 1 st (Oct-Dec) <input type="checkbox"/> 2 nd (Jan-Mar) <input type="checkbox"/> 3 rd (Apr-Jun) <input type="checkbox"/> 4 th (Jul-Sep) <input type="checkbox"/> Semi-Annual (Oct-Mar) <input type="checkbox"/> Semi-Annual (Apr-Sep) <input type="checkbox"/> Annual <input type="checkbox"/> Check if this is the last report for the project (Project completed). | | | | | | | | | | | | | | | | | | | | |
|--|--|--|------------------------|-----------------|---------------------|------------------|-----------------|-----------------|--------------|---------------|-------|-------|-------|-------|-------|---------------|-------|-------|-------|-------|-------|
| 1C. REVISION OF A PRIOR REPORT? <input type="checkbox"/> Yes <input type="checkbox"/> No Year: _____ Quarter: _____ | BRIEFLY DESCRIBE THE REVISIONS YOU ARE MAKING: | | | | | | | | | | | | | | | | | | | | |
| 2A. EPA FINANCIAL ASSISTANCE OFFICE ADDRESS (ATTN: DBE Coordinator): | 3A. RECIPIENT NAME AND ADDRESS | | | | | | | | | | | | | | | | | | | | |
| 2B. EPA DBE COORDINATOR Name: E-mail: | 2C. PHONE: Fax: | 3B. RECIPIENT REPORTING CONTACT: Name: E-mail: | 3C. PHONE: Fax: | | | | | | | | | | | | | | | | | | |
| 4A. FINANCIAL ASSISTANCE AGREEMENT ID NUMBER (SRF State Recipients, refer to Instructions for Completion of blocks 4A, 5A and 5C.) | 4B. FEDERAL FINANCIAL ASSISTANCE PROGRAM TITLE or CFDA NUMBER: | | | | | | | | | | | | | | | | | | | | |
| 5A. TOTAL ASSISTANCE AGREEMENT AMOUNT (SRF State Recipients, refer to Instructions for Completion of blocks 4A, 5A and 5C.) EPA Share: \$ _____ Recipient Share: \$ _____ | 5B. If NO procurement and NO accomplishments were made this reporting period (by the recipients, sub-recipients, loan recipients, and prime contractors), CHECK and SKIP to Block No. 7. (Procurements are all expenditures through contract, order, purchase, lease or barter of supplies, equipment, construction, or services needed to complete Federal assistance programs. <u>Accomplishments</u> , in this context, are procurements made with MBEs and/or WBEs. <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | |
| 5C. Total Procurements This Reporting Period (Only include amount not reported in any prior reporting period) Total Procurement Amount \$ _____ (Include total dollar values awarded by recipient, sub-recipients and SRF loan recipients, including MBE/WBE expenditures .) | | | | | | | | | | | | | | | | | | | | | |
| 5D. Were sub-awards issued under this assistance agreement? Yes <input type="checkbox"/> No <input type="checkbox"/> Were contracts issued under this assistance agreement ? Yes <input type="checkbox"/> No <input type="checkbox"/> | | | | | | | | | | | | | | | | | | | | | |
| 5E. MBE/WBE Accomplishments This Reporting Period Actual MBE/WBE Procurement Accomplished: (Include total dollar values awarded by recipient, sub-recipients, SRF loan recipients and Prime Contractors.) <table style="width:100%; border-collapse: collapse; margin-top: 5px;"> <thead> <tr> <th style="width:10%;"></th> <th style="width:20%; text-align: center;"><u>Construction</u></th> <th style="width:20%; text-align: center;"><u>Equipment</u></th> <th style="width:20%; text-align: center;"><u>Services</u></th> <th style="width:20%; text-align: center;"><u>Supplies</u></th> <th style="width:10%; text-align: center;"><u>Total</u></th> </tr> </thead> <tbody> <tr> <td>\$MBE:</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>\$WBE:</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> | | | | | <u>Construction</u> | <u>Equipment</u> | <u>Services</u> | <u>Supplies</u> | <u>Total</u> | \$MBE: | _____ | _____ | _____ | _____ | _____ | \$WBE: | _____ | _____ | _____ | _____ | _____ |
| | <u>Construction</u> | <u>Equipment</u> | <u>Services</u> | <u>Supplies</u> | <u>Total</u> | | | | | | | | | | | | | | | | |
| \$MBE: | _____ | _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | |
| \$WBE: | _____ | _____ | _____ | _____ | _____ | | | | | | | | | | | | | | | | |
| 6. COMMENTS: (If no MBE/WBE procurements were accomplished during the reporting period, please explain what steps you are taking to achieve the MBE/WBE Program requirements specified in the terms and conditions of the Assistance Agreement.) | | | | | | | | | | | | | | | | | | | | | |
| 7. NAME OF RECIPIENT'S AUTHORIZED REPRESENTATIVE | | TITLE | | | | | | | | | | | | | | | | | | | |
| 8. SIGNATURE OF RECIPIENT'S AUTHORIZED REPRESENTATIVE | | DATE | | | | | | | | | | | | | | | | | | | |

EPA FORM 5700-52A available electronically at http://www.epa.gov/osbp/pdfs/5700_52a.pdf

PART II.

MBE/WBE PROCUREMENTS MADE DURING REPORTING PERIOD
EPA Financial Assistance Agreement Number: _____

| 1. Procurement Made By | | | 2. Business Enterprise | | 3. \$ Value of Procurement | 4. Date of Procurement MM/DD/YY | 5. Type of Product or ServicesA (Enter Code) | 6. Name/Address/Phone Number of MBE/WBE Contractor or Vendor |
|------------------------|---|-------|------------------------|-------|----------------------------|------------------------------------|---|--|
| Recipient | Sub-Recipient and/or SRF Loan Recipient | Prime | Minority | Women | | | | |
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Type of product or service codes:

1 = Construction

2 = Supplies

3 = Services

4 = Equipment

Note: Refer to Terms and conditions of your Assistance Agreement to determine the frequency of reporting. Recipients are required to submit MBE/WBE reports to EPA beginning with the Federal fiscal year quarter the recipients receive the award, continuing until the project is completed.

EPA FORM 5700-52A - (Approval Expires 12/22/13)

Instructions:

A. General Instructions:

MBE/WBE utilization is based on 40 CFR Part 33. EPA Form 5700-52A must be completed by recipients of Federal grants, cooperative agreements, or other Federal financial assistance which involve procurement of supplies, equipment, construction or services to accomplish Federal assistance programs.

Recipients are required to report 30 days after the end of each federal fiscal quarter, semiannually, or annually, per the terms and conditions of the financial assistance agreement.

| | Quarterly Reporting Due Date | Semiannual Reporting Due Date | Annual Reporting Due Date |
|---|---|--------------------------------------|----------------------------------|
| Agreements awarded prior to May 27, 2008 | January 30, April 30, July 30, October 30 | N/A | October 30 |
| Agreements awarded on or after May 27, 2008 | N/A | April 30, October 30 | October 30 |

MBE/WBE program requirements, including reporting, are material terms and conditions of the financial assistance agreement.

B. Definitions:

Procurement is the acquisition through contract, order, purchase, lease or barter of supplies, equipment, construction or services needed to accomplish Federal assistance programs.

A **contract** is a written agreement between an EPA recipient and another party (also considered “prime contracts”) and any lower tier agreement (also considered “subcontracts”) for equipment, services, supplies, or construction necessary to complete the project. This definition excludes written agreements with another public

agency. This definition includes personal and professional services, agreements with consultants, and purchase orders.

A **minority business enterprise (MBE)** is a business concern that is (1) at least 51 percent owned by one or more minority individuals, or, in the case of a publicly owned business, at least 51 percent of the stock is owned by one or more minority individuals; and (2) whose daily business operations are managed and directed by one or more of the minority owners. In order to qualify and participate as an MBE prime or subcontractor for EPA recipients under EPA’s DBE Program, an entity must be properly certified as required by 40 CFR Part 33, Subpart B.

U.S. citizenship is required. Recipients shall presume that minority individuals include Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, or other groups whose members are found to be disadvantaged by the Small Business Act or by the Secretary of Commerce under section 5 of Executive order 11625. The reporting contact at EPA can provide additional information.

A **woman business enterprise (WBE)** is a business concern that is, (1) at least 51 percent owned by one or more women, or, in the case of a publicly owned business, at least 51 percent of the stock is owned by one or more women and (2) whose daily business operations are managed and directed by one or more of the women owners. In order to qualify and participate as a WBE prime or subcontractor for EPA recipients under EPA’s DBE Program, an entity must be properly certified as required by 40 CFR Part 33, Subpart B.

Business firms which are 51 percent owned by minorities or women, but are in fact managed and operated by non-minority individuals do not qualify for meeting MBE/WBE procurement goals. U.S. Citizenship is required.

Good Faith Efforts

A recipient is required to make the following Good Faith Effort whenever procuring construction, equipment, services, and supplies under an EPA financial assistance agreement. These Good Faith Effort for utilizing MBEs and WBEs must be documented. Such documentation is subject to EPA review upon request:

1. Include of MBEs/WBEs on solicitation lists.
2. Assure that MBEs/WBEs are solicited once they are identified.
3. Divide total requirements into smaller tasks to permit maximum MBE/WBE participation, where feasible.
4. Establish delivery schedules which will encourage MBE/WBE participation, where feasible.
5. Encourage use of the services of the U.S. Department of Commerce's Minority Business Development Agency (MBDA) and the U.S. Small Business Administration to identify MBEs/WBEs.
6. Require that each party to a subgrant, subagreement, or contract award take the Good Faith Effort outlined here.

C. Instructions for Part I:

- 1a. Specify Federal fiscal year this report covers. The Federal fiscal year runs from October 1st through September 30th (**e.g. November 29, 2010 falls within Federal fiscal year 2011**)
- 1b. Check applicable reporting box, quarterly, semiannually, or annually. Also indicate if this is the last report for the project.
- 1c. Indicate if this is a revision to a previous year, half-year, or quarter, and provide a brief description of the revision you are making.

- 2a-c. Please refer to your financial assistance agreement for the mailing address of the EPA financial assistance office for your agreement.

The "EPA DBE Reporting Contact" is the DBE Coordinator for the EPA Region from which your financial assistance agreement was originated. For a list of DBE Coordinators please refer to the EPA OSBP website at www.epa.gov/osbp. Click on "Regional Contacts" for the name of your coordinator.

- 3a-c. Identify the agency, state authority, university or other organization which is the recipient of the Federal financial assistance and the person to contact concerning this report.
- 4a. Provide the Assistance Agreement number assigned by EPA. A separate report must be submitted for each Assistance Agreement.

***For SRF recipients:** In box 4a list numbers for ALL OPEN Assistance Agreements being reported on this form. Please note that although the New DBE Rule (which took effect May 27, 2008) revised the reporting frequency requirements from quarterly to semiannually, that change only applies to agreements awarded AFTER the New DBE Rule took effect. Therefore, SRF recipients may either continue to report activity for all Agreements on one form on a quarterly basis until the last award that was made prior to the New DBE Rule has been closed out; OR, the recipient may split the submission of SRF reports into quarterly reports for Agreements awarded prior the New DBE Rule, and semiannually for the awards made after the New DBE Rule.

- 4b. Refer back to Assistance Agreement document for this information.
- 5a. Provide the total amount of the Assistance Agreement which includes Federal funds

plus recipient matching funds and funds from other sources.

***For SRF recipients only:** SRF recipients will not enter an amount in 5a. Please leave 5a blank.

5b. Self-explanatory.

5c. Provide the total dollar amount of **ALL** procurements awarded this reporting period by the recipient, sub-recipients, and SRF loan recipients, **including** MBE/WBE expenditures. For example: Actual dollars for procurement from the procuring office; actual contracts let from the contracts office; actual goods, services, supplies, etc., from other sources including the central purchasing/procurement centers).

***NOTE:** To prevent double counting on line 5C, if any amount on 5E is for a subcontract and the prime contract has already been included on Line 5C in a prior reporting period, then report the amount going to MBE or WBE subcontractor on line 5E, but exclude the amount from Line 5C. To include the amount on 5C again would result in double counting because the prime contract, which includes the subcontract, would have already been reported.

5d. State whether or not sub-awards and/or subcontracts have been issued under the assistance agreement by indicating “yes” or “no”.

5e. Where requested, also provide the total dollar amount of all MBE/WBE procurement awarded during this reporting period by the recipient, sub-recipients, SRF loan recipients, and prime contractors in the categories of construction, equipment, services and supplies. These amounts include Federal funds plus recipient matching funds and funds from other sources.

***For SRF recipients only:** In 5c please enter the total procurement amount for the quarter, or semiannual period, under all of your SRF Assistance Agreements. The figure reported in this section is **not** directly tied to an individual Assistance Agreement identification number. **(SRF state recipients report state procurements in this section)**

6. If there were no MBE/WBE accomplishments this reporting period, please briefly explain what specific steps you are taking to achieve the MBE/WBE requirements specified in the terms and conditions of the Assistance Agreement.
7. Name and title of official administrator or designated reporting official.
8. Signature, month, day, and year report submitted.

D. Instructions for Part II:

For each MBE/WBE procurement made under this assistance agreement during the reporting period, provide the following information:

1. Check whether this procurement was made by the recipient, sub-recipient/SRF loan recipient, or the prime contractor.
2. Check either the MBE or WBE column. If a firm is both an MBE and WBE, the recipient may choose to count the entire procurement towards EITHER its MBE or WBE accomplishments. The recipient may also divide the total amount of the procurement (using any ratio it so chooses) and count those divided amounts toward its MBE and WBE accomplishments. If the recipient chooses to divide the procurement amount and count portions toward its MBE and WBE accomplishments, please state the appropriate amounts under the MBE and WBE columns on the form. **The combined MBE and WBE amounts for that MBE/WBE contractor must not**

exceed the “Value of the Procurement” reported in column #3

3. Dollar value of procurement.
4. Date of procurement, shown as month, day, year. Date of procurement is defined as the date the contract or procurement was awarded, **not** the date the contractor received payment under the awarded contract or procurement, unless payment occurred on the date of award. **(Where direct purchasing is the procurement method, the date of procurement is the date the purchase was made)**
5. Using codes at the bottom of the form, identify type of product or service acquired through this procurement (e.g., enter 1 if construction, 2 if supplies, etc).
6. Name, address, and telephone number of MBE/WBE firm.

**This data is requested to comply with provisions mandated by: statute or regulations (40 CFR Part 30, 31, and 33); OMB Circulars; or added by EPA to ensure sound and effective assistance management. Accurate, complete data are required to obtain funding, while no pledge of confidentiality is provided.

The public reporting and recording burden for this collection of information is estimated to average 1 hour per response annually. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclosure or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and

transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPE Regulatory Information Division, U.S. Environmental Protection Agency (2136), 1200 Pennsylvania Avenue, NW, Washington, D.C. 20460. Include the OMB Control number in any correspondence. Do not send the completed form to this address.

LIST OF WORK MADE AVAILABLE

List items of the Work the Bidder made available to DBE firms. Identify those items of the Work the Bidder might otherwise perform with its own forces and those items that have been broken down into economically feasible units to facilitate DBE participation. For each item listed, show the dollar amount and percentage of the Base Bid. The Bidder must demonstrate that enough work to meet the goal was made available to DBE firms.

| ITEM OF WORK MADE AVAILABLE | NAICS CODE | BIDDER NORMALLY PERFORMS ITEM (Y/N) | ITEM BROKEN DOWN TO FACILITATE PARTICIPATION (Y/N) | AMOUNT | PERCENTAGE OF BASE BID |
|-----------------------------|------------|-------------------------------------|--|--------|------------------------|
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SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

SUPPLEMENTARY SPECIAL PROVISIONS

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

- 1) Standard Specifications for Public Works Construction (The GREENBOOK) currently in effect.
- 2) The City of San Diego Standard Specifications for Public Works Construction (The WHITEBOOK).

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

1-2 TERMS AND DEFINITIONS.

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

The Normal Working Hours are 8:00 AM to 4:30 PM.

SECTION 2 - SCOPE AND CONTROL OF WORK

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

1. You must perform, with your own organization, Contract work amounting to at least 50% of the base bid alone or base bid and any additive or deductive alternate(s) that together when added or deducted form the basis of award.
2. The self performance percentage requirement will be waived for contracts when a “B” License is required or allowed.

2-5.3.2 Working Drawings. TABLE 2-5.3.2(A), ADD the following:

| Item | Section No. | Title | Subject |
|-------------|--------------------|---|----------------|
| 17 | 306-1.6 | Water Valve Bypass for Mainlines 16” and Larger | SDW-154* |

*Note: The distance dimensions shown between the bypass pipes and between bypass pipes and the mainlines are subject to change to field conditions.

2-7 SUBSURFACE DATA. ADD the following:

1. In preparation of the Contract Documents, the designer has relied upon the following reports of explorations and tests of subsurface conditions at the Work Site:
 1. Report of Geotechnical Evaluation, Avenida De La Playa and Water and Sewer Group 809 dated June 11, 2010 by Allied Geotechnical Engineers, Inc.

2. 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/>

SECTION 3 – CHANGES IN WORK

3-5 DISPUTED WORK. ADD the following:

Per Code of Federal Regulations (CFR) 31.6(b)(11), the City shall be responsible for setting issues including , but not limited to, protests, disputes and claims. Per CFR 31.36(b)(12), a protestor must exhaust all administrative remedies with the “City” before pursuing a protest with the Federal agency. Reviews of protests by the Federal agency will be limited to:

- (i) Violations of Federal law or regulations and the standards of this section (violations of State or local law will be under the jurisdiction of State or local authorities) and
- (ii) Violations of the grantee's or subgrantee's protest procedures for failure to review a complaint or protest. Protests received by the Federal agency other than those specified above will be referred to the grantee or subgrantee.

3-6.1 Mandatory Non-Binding Mediation. To the City Supplements, ADD the following:

Per Code of Federal Regulations (CFR) 31.6(b)(11), the City shall be responsible for setting issues including , but not limited to, protests, disputes and claims. Per CFR 31.36(b)(12), a protestor must exhaust all administrative remedies with the “City” before pursuing a protest with the Federal agency. Reviews of protests by the Federal agency will be limited to:

- (i) Violations of Federal law or regulations and the standards of this section (violations of State or local law will be under the jurisdiction of State or local authorities) and
- (ii) Violations of the grantee's or subgrantee's protest procedures for failure to review a complaint or protest. Protests received by the Federal agency other than those specified above will be referred to the grantee or subgrantee.

3-7 CLAIMS. To the City Supplements, ADD the following

8. Per Code of Federal Regulations (CFR) 31.6(b)(11), the City shall be responsible for setting issues including , but not limited to, protests, disputes and claims. Per CFR 31.36(b)(12), a protestor must exhaust all administrative remedies with the “City” before pursuing a protest with the Federal agency. Reviews of protests by the Federal agency will be limited to:
 - (i) Violations of Federal law or regulations and the standards of this section (violations of State or local law will be under the jurisdiction of State or local authorities) and

- (ii) Violations of the grantee's or subgrantee's protest procedures for failure to review a complaint or protest. Protests received by the Federal agency other than those specified above will be referred to the grantee or subgrantee.

SECTION 4 - CONTROL OF MATERIALS

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

You must submit your list of proposed substitutions for “an equal” (“or equal”) item(s) **no less than 15 Working Days prior to Bid due date** and on a City form when provided by the City.

Per Code of Federal Regulations (CFR) 31.6(b)(11), the City shall be responsible for setting issues including , but not limited to, source evaluation, protests, disputes and claims.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK

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

Do not work in the areas where there is currently a moratorium issued by the City. The areas subject to moratorium are listed here:

- a) All streets within the contract (west of and including La Jolla Shores Drive) from Memorial Day to Labor Day (inclusive).
- b) The Contractor shall avoid scheduling work during large, permitted community events in the La Jolla Shores area.
- c) No work shall be scheduled during San Diego Unified School District spring break on Avenida De La Playa (west of La Jolla Shores Dr.) and Camino Del Sol.

6-7 TIME OF COMPLETION: To the City Supplements, ADD the following:

- 4. Avenida De La Playa Infrastructure related work shall be completed prior to April 30th 2014 due to grant funding limitations. The contractor is to be aware of the tide calendar and to take all necessary precautions to protect work and complete within the allowed duration. No additional working days will be added due to tidal constraints.

6-7.1 General. To the City Supplements DELETE in its entirety and REPLACE with the following:

The following must be included in the stipulated Contract Time:

- 1. 30 Working Days for the first phase and 10 Working Days for each subsequent phase for City Force high-line work for water mains (if applicable).

2. 30 Working Days for the City Forces TV inspection of sewer mains (if applicable).
3. Number of Working Days specified for Walk-through and preparation and completion of Punchlist items.
4. If weather condition is suitable, complete each street segment within 15 Working Days from the day the slurry seal or asphalt overlay is placed. Each completed segment must include other incidental Work items e.g., weed abatement, striping, markings, raised pavement markers, and inlet markers.
5. 30 Calendar days for working with the community on finalizing the Construction Impact Mitigation Plan.

6-7.4 Project Phasing. To the City Supplements, DELETE in its entirety and SUBSTITUTE with the following:

1. **The Avenida De La Playa Infrastructure work shall be built in phases per the traffic control plans provided** do not proceed to the next phase unless the Engineer has accepted the preceding phase.
2. The Sewer and Water Group 809 work **shall** be built per the following phase;
 - a. On Paseo Del Ocaso, from the Paseo Grande intersection to Vallecitos; on Paseo Grande, from the Paseo Del Ocaso intersection to Vallecitos; and Camino Del Oro from El Paseo Grande to Paseo Del Ocaso.
 - b. Saint Louis Terrace to Torrey Pines Road, Hyapatia Way and La Jota Way.
 - c. The remaining alignment of Sewer and Water Group 809.
3. Do not use more than 2 mainline crews to work concurrently on sewer and water mains for the entire duration unless the Engineer approves the use of additional crew(s). An Additional 1 mainline crew may be used concurrently to work on the storm water pipeline.

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

MODIFY to increase the daily value to read \$2,600.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

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

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

7-3.1 Policies and Procedures.

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

7-3.2 Types of Insurance.

7-3.2.1 Commercial General Liability Insurance.

1. Commercial General Liability Insurance must be written on the current version of the ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad.
2. The policy must cover liability arising from premises and operations, XCU (explosions, underground, and collapse), independent contractors, products/completed operations, personal injury and advertising injury, bodily injury, property damage, and liability assumed under an insured's contract (including the tort liability of another assumed in a business contract).
3. There must be no endorsement or modification limiting the scope of coverage for either "insured vs. insured" claims or contractual liability. You must maintain the same or equivalent insurance for at least 10 years following completion of the Work.

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

| <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.

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

7-3.2.3 Contractors Pollution Liability Insurance.

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

6. Except as provided for under California law, the policy or policies must provide that the City is entitled to 30 days prior written notice (10 days for cancellation due to non-payment of premium) of cancellation or non-renewal of the policy or policies.

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

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

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

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

7-3.5 Policy Endorsements.

7-3.5.1 Commercial General Liability Insurance

7-3.5.1.1 Additional Insured.

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

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

7-3.5.1.3 Project General Aggregate Limit.

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

7-3.5.2 Commercial Automobile Liability Insurance.

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

7-3.5.3 Contractors Pollution Liability Insurance Endorsements.

7-3.5.3.1 Additional Insured.

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

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

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

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

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

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

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

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

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

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

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

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

| <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 |

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

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

7-5 PERMITS, FEES, AND NOTICES. To the City Supplements, ADD the following:

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

1. Site Development Permit

7-10.5.3 Steel Plate Covers. Table 7-10.5.3(A), REVISE the plate thickness for 5'-3" trench width to read 1 3/4".

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

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

7-16.2 Exclusive Community Liaison Services. To the City Supplements, ADD the following

10. Development of a Construction Impact Mitigation Plan in accordance with the attached Construction Impacts Mitigation Plan Guidelines (Appendix H).
11. Meeting with the City and community to finalize and obtain approval prior to implementation of the Construction Impact Mitigation Plan.

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

Akram Bassyouni, Project Manager, abassyouni@sandiego.gov

Edward Castaneda, Project Engineer, ecastaneda@sandiego.gov

Resident Engineer, To Be Determined

7-17 NEWSLETTER. To the City Supplement, ADD the following:

You must provide the following information:

One week before the end of each month, the Contractor, through the community liaison representative shall submit to the City and distribute to the Residents a community newsletter updating the progress of work during the entire construction period, a one month look ahead schedule, contact names and phone numbers, and any other information which may be of interest to the public.

SECTION 8 - FACILITIES FOR AGENCY PERSONNEL

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

SECTION 9 - MEASUREMENT AND PAYMENT

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

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

ADD:

9-3.7 Compensation Adjustments for Price Index Fluctuations. This Contract is not subject to the provisions of The WHITEBOOK for Compensation Adjustments for Price Index Fluctuations for the paving asphalt.

SECTION 203 – BITUMINOUS MATERIALS

203-15 RUBBER POLYMER MODIFIED SLURRY (RPMS). RPMS shall be used on this contract.

SECTION 209 – STREET LIGHTING AND TRAFFIC SIGNAL MATERIALS

209-6.4 Induction Cobra Head Luminaire. To the City Supplements, CORRECT certain section numbering as follows:

| OLD SECTION NUMBER | TITLE | NEW SECTION NUMBER |
|---------------------------|----------------------------------|---------------------------|
| 209-6.4.7 | Luminaire Identification | 209-6.4.8 |
| 209-6.4.8 | Photometric Documentation | 209-6.4.9 |
| 209-6.4.9 | Quality Assurance | 209-6.4.10 |

SECTION 300 – EARTHWORK

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

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

SECTION 302 – ROADWAY SURFACING

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

302-3 Preparatory Repair Work.

1. Prior to roadway resurfacing or the application of slurry, the Contractor shall complete all necessary preparation and repair work to the road segment e.g., tree trimming, weed spray, weed abatement, crack sealing, asphalt repair, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc. and as specified in the Special Provisions.
2. Preparatory work shall include, but not be limited to, tree trimming, weed spray, weed abatement, crack sealing, asphalt repair i.e., mill and pave, hump removal, miscellaneous asphalt patching, removal of raised pavement markers, removal of pavement markings, etc.
3. The Contractor shall repair areas of distressed asphalt concrete pavement by milling or removing damaged areas of pavement to a minimum depth of 2” for Residential streets, and a minimum depth of 3” for all others to expose firm and unyielding pavement. The Contractor shall prepare subgrade as needed and install a minimum of 2” for residential streets, and a minimum of 3” for all others, of compacted asphalt concrete pavement over compacted native material as directed by the Engineer.

4. If, in order to achieve the minimum specified depth, the base material is exposed, the material shall be compacted to 95% relative compaction to a depth 10" below the finished grade (dig out). Compaction tests shall be made to ensure compliance with the specifications. The Engineer will determine when and where the test will occur. The City will pay for the soils testing required by the Engineer, which meets the required compaction. The Contractor shall reimburse the City for the cost of retesting failing compaction tests. If additional base material is required, the Contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, "Crushed Aggregate Base."
5. Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, "Crushed Miscellaneous Aggregate Base."
6. Prior to replacing asphalt, the area shall be cleaned by removing all loose and damaged material, moisture, dirt, and other foreign matter and shall be tack coated in accordance with 302-5.4 "Tack Coat."
7. The Contractor shall install new asphalt within the repair area or for patches in accordance with 302-5, "ASPHALT CONCRETE PAVEMENT." Asphalt concrete shall be C2-PG 64-10 in compliance with 400-4, "ASPHALT CONCRETE."
8. No preparatory asphalt work shall be done when the atmospheric temperature is below 50 °F or during unsuitable weather.
9. Following the asphalt placement, the Contractor shall roll the entire area of new asphalt in both directions at least twice. The finished patch shall be level and smooth in compliance with 302-5.6.2 "Density and Smoothness." After placement and compaction of the asphalt patch, the Contractor shall seal all finished edges with a 4" wide continuous band of SS-1H.
10. The minimum dimension for each individual repair shall be 4' x 4' and shall be subject to the following conditions:
 - a) If the base material is exposed to achieve the required minimum removal thickness, the base material shall be prepared conforming to 301-1, "SUBGRADE PREPARATION."
 - b) When additional base material is required, then the contractor shall use Class 2 Aggregate Base in accordance with 200-2.2, "Crushed Aggregate Base." Recycled base material shall conform to Crushed Miscellaneous Base Material in accordance with 200-2.4, "Crushed Miscellaneous Base."
 - c) The Contractor may use grinding as a method for removal of deteriorated pavement when the areas indicated for removal are large enough (a minimum of the machine drum width) and when approved by the Engineer.

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

302-3.1 Asphalt Patching.

1. Asphalt patching shall consist of patching potholes, gutter-line erosion, and other low spots in the pavement that are deeper than ½" per 302-5.6.2, "Density and Smoothness." These areas are generally smaller and more isolated than those areas in need of mill and pave.
2. The areas requiring patching have been identified in the Contract Documents, marked on the streets, or as directed by the Engineer. The Contractor shall identify any new areas that may require patching prior to slurry work to ensure the smoothness and quality of the finished product.
3. The Contractor shall identify and repair any areas that may require patching, prior to the placement of slurry seal for smooth finished product.
4. Asphalt overlay shall not be applied over deteriorated pavement. Preparatory asphalt work shall be completed and approved by the Engineer before proceeding with asphalt overlay.
5. The Contractor shall remove distressed asphalt pavement either by saw cutting or milling, to expose firm and unyielding pavement; prepare subgrade (as needed); and install compacted asphalt concrete pavement over compacted native material as directed by the Engineer.
6. Prior to replacing asphalt, the area shall be cleaned and tack coated per 302-5.4, "Tack Coat".
7. Following the asphalt placement, the Contractor shall roll the entire patch in both directions covering the patch at least twice.
8. After placement and compaction of the asphalt patch, the Contractor shall seal all finished edges with a 4" wide continuous band of SS-1H.
9. Base repairs shall not exceed 20% RAP in content.

302-3.2 Payment.

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

2. The areas and quantities shown on the road segments and in appendices are given only for the Contractor's aid in planning the Work and preparing Bids. The Engineer will designate the limits to be removed and these designated areas shall be considered to take precedent over the area shown in an Appendix to the Contract Documents. The quantities shown in the appendices are based on a street assessment survey and may vary.
3. At the end of each day, the Contractor shall submit to the Engineer an itemized list of the asphalt pavement repair work completed. The list shall include the location of the work and the exact square footage of the repair.
4. Preparatory repair work and tack coating will be paid at the Contract unit price per ton for Asphalt Pavement Repair. No payment shall be made for areas of over excavation unless previously approved by the Engineer.
5. Milling shall be included in the Bid item for Asphalt Pavement Repair unless separate Bid item has been provided.
6. Payment for miscellaneous asphalt patching shall be included in the Contract unit price for slurry and no additional payment shall be made therefore.

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

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

SECTION 306 – UNDERGROUND CONDUIT CONSTRUCTION

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

| OLD SECTION NUMBER | TITLE | NEW SECTION NUMBER |
|---------------------------|--|---------------------------|
| 306-1.8 | House Connection Sewer (Laterals) and Cleanouts | 306-1.9 |
| 306-1.7.1 | Payment | 306-1.9.1 |
| 306-1.7.2 | Sewer Lateral with Private Replumbing | 306-1.9.2 |
| 306-1.7.2.1 | location | 306-1.9.2-1 |
| 306-1.7.2.2 | Permits | 306-1.9.2-2 |
| 306-1.7.2.3 | Submittals | 306-1.9.2-3 |
| 306-1.7.2.4 | Trenchless Construction | 306-1.9.2-4 |
| 306-1.7.2.5 | Payment | 306-1.9.2-5 |
| 306-1.7.3.6 | Private Pump Installation | 306-1.9.2-6 |
| 306-1.7.3.7 | Payment | 306-1.9.2-7 |

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

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

306-22 Pipe Fusion. DELETE in its entirety.

SECTION 705 – WATER DISCHARGES

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

705-2.6.3 Community Health and Safety Plan. See 703-2, “Community Health and Safety Plan.”

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

SECTION 707 – RESOURCE DISCOVERIES

ADD:

707-1.1 Environmental Document. The City of San Diego Environmental Analysis Section (EAS) of the Development Services Department has prepared a Mitigated Negative Declaration for Avenida De La Playa, Project No. 253538, and a Final Mitigated Negative Declaration for Sewer and Water Group 809, Project No. 230429, as referenced in the Contract Appendix. You must comply with all requirements of the Mitigated Negative Declaration as set forth in the Contract Appendix A.

Compliance with the City’s environmental document is included in the various Bid items, unless a bid item has been provided.

707-2 Archaeological and Native American Monitoring Program. To the City Supplement, ADD the following:

The City will retain a qualified archaeologist for this contract. The Contractor shall coordinate its activities and Schedule with the activities and schedules of the archaeologist monitor. Notify the Engineer before noon of the working day before monitoring is required. See 2-11, “INSPECTION” for details.

An environmental study has been conducted to implement the pre-construction ADRP for cultural resources. The findings included human remains and artifacts. The Contractor shall be responsible for assisting the Archaeologist with their work. The Contractor shall perform saw cutting, traffic control, street patching, trench plating and backfilling of testing and monitoring sites in coordination with the Archaeologist at the direction of the Engineer. The Payment for this work will be covered under the various bid items.

707-3 Paleontological Monitoring Program. To the City Supplements, ADD the following:

The City will retain a qualified paleontologist for this contract. The Contractor shall coordinate its activities and Schedule with the activities and schedules of the paleontologist monitor. Notify the Engineer before noon of the working day before monitoring is required. See 2-11, "INSPECTION" for details.

END OF SUPPLEMENTARY SPECIAL PROVISIONS (SSP)

SUPPLEMENTARY SPECIAL PROVISIONS

APPENDICES

APPENDIX A

Mitigated Negative Declarations and Site Development Permits

For Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809



ENTITLEMENTS DIVISION
(619) 446-5460

MITIGATED NEGATIVE DECLARATION

Project No. 253538
SCH# N/A

SUBJECT: Avenida De La Playa (Stormdrain, Sewer and Water): SITE DEVELOPMENT PERMIT (SDP) AND COASTAL DEVELOPMENT PERMIT (CDP) to allow for the replacement of 1,350 linear feet (LF) of dual storm drain pipe, a new storm drain outfall structure, 1,590 LF of sewer main pipe, and 770 LF of water main pipe. The project would install 9 new manholes, replace sewer laterals, valves, and appurtenances. Public access near and on the boardwalk and onto the sandy beach would be maintained as well as an added public access point provided in order to preserve and improve public beach access. Also included in the project would be the construction of curb ramps, new curb and gutters, accessible sidewalks, public seating, and street furnishings if needed.

For the storm drain portion of the project, approximately 1350 linear feet (LF) (0.26 miles) of [dual] 51-inch by 90-inch and [single] 72-inch by 72-inch Reinforced Concrete Box(es) [RCB] would be installed along Avenida De La Playa from Paseo Del Ocaso west toward the seawall within and adjacent to the beach area. The new storm drain would replace/upgrade the existing 51-inch and 72-inch diameter Reinforced Concrete Pipe [RCP]. The existing 15-foot by 15-foot undersized storm drain outfall structure located on the sandy beach west of the existing seawall would be upgraded to 29-feet by 27-feet, of which no further encroachment than the existing 15-feet would occur seaward of the seawall with the 27-foot width paralleling the seawall. The remainder of the structure would be located on the boardwalk side of the seawall, and the outfall and related project features would be no higher than the existing height of the seawall in order to preserve public views along Avenida De La Playa towards the ocean.

The sewer component of the project would install approximately 1,590 LF (0.30 miles) of 8-inch and 15-inch Polyvinyl Chloride [PVC] sewer main pipes in order to replace the existing 8, 10 and 12-inch Vitrified Clay [VC] pipes at approximately 8 to 20 feet in depth. The project would also install approximately 770 LF (0.15 miles) of 8-inch PVC water main pipes in order to replace the existing 4-inch and 6-inch Cast Iron (CI) pipes at approximately 3-5 feet in depth.

Traffic control measures and Best Management Practices (BMPs) would be implemented during construction. Any street tree removal, relocation, and/or trimming would be conducted under the supervision of the City Arborist to ensure the appropriate La Jolla Shores Plans District trees remain or would be installed, as necessary. An offsite staging area as well as on site/street staging within non-environmentally sensitive areas would be

identified for the project requiring a minimum of 10,000-20,000 square feet as the project proceeds. An ongoing operations and maintenance plan would be implemented for the storm water facility following construction.

The entire project would be constructed using conventional excavation (open trench) methods along the entire width of the public right of way, to depths ranging from 10 to 25 feet in depth. Construction would be completed in two (2) phases starting with the phase closest to the beach. Each phase would implement traffic control plans in order to minimize impacts to the community and for public access throughout the area. Phase I would replace and realign approximately 650 linear feet of existing storm drain, and would include the upgrade to the existing outfall structure and the installation of a “Low Flow Diversion” unit and a trash collector upstream of the outfall. Phase II would replace the remaining 700 linear feet of existing storm drain from Camino Del Sol to Paseo Del Ocaso. Appropriate segments of sewer and water pipe installation would be required for each segment.

The project affects portions of Avenida De La Playa, El Paseo Grande, Camino Del Oro and Camino Del Sol within the La Jolla Community Plan Area of the City and County of San Diego, California, Applicant: City of San Diego, Public Works-Engineering and Capital Projects Department, Right-of-Way Design Division.

- I. PROJECT DESCRIPTION: See attached Initial Study.
- II. ENVIRONMENTAL SETTING: See attached Initial Study.
- III. DETERMINATION:

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

- IV. DOCUMENTATION:

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

- V. MITIGATION, MONITORING AND REPORTING PROGRAM:

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

- 1. Prior to the issuance 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:

Archaeologist and Native American Monitor.

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

CONTACT INFORMATION:

- a) The PRIMARY POINT OF CONTACT is the **RE** at the **Field Engineering Division – 858-627-3200**
 - b) For Clarification of ENVIRONMENTAL REQUIREMENTS, it is also required to call **RE and MMC at 858-627-3360**
2. **MMRP COMPLIANCE:** This Project, Project Tracking System (PTS) 253538, 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.

Not Applicable for this project.

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

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

Document Submittal/Inspection Checklist

| <i>Issue Area</i> | <i>Document submittal</i> | <i>Associated Inspection/Approvals/Note</i> |
|-------------------|--|---|
| General | Consultant Qualification Letters meeting | Prior to Pre-construction |
| General | Consultant Const. Monitoring | Prior to or at the Pre-Construction meeting |
| Archaeology | Archaeological Reports | Archaeological observation |
| Final MMRP | | Final MMRP Inspection |

Historical Resources (Archaeological Monitoring Program)

- 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 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 ¼ mile radius.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.
 - a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.
2. 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
 - a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
 - b. The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).
 - c. 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 (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.
- B. Discovery Notification Process
 1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
 2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
 3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.
5. If secondary cultural deposits are encountered during the course of the pipeline installation a sample of the soil shall be taken every 10 meters (approximately 33 feet). The sample would not need to be manually excavated, nor in 10-centimeter levels. The sample soil could be removed with mechanical equipment and transported to an off-site wet-screening location in order to identify and repatriate any human remains and analyze any archaeological materials.

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 can not 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 burial with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are NOT Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

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.

VI. PUBLIC REVIEW DISTRIBUTION:

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

United States Government

US Environmental Protection Agency

Jenée Gavette (Region 9) 75 Hawthorne Street WTR-10, San Francisco, CA,
94105

City of San Diego

Councilmember Lightner, District 1

Historical Resources Board (87)

City Attorney

Shannon Thomas (MS 93C)

Public Works Department-Engineering and Capital Projects

Akram Bassyouni (MS 908A)

Roman Anissi (MS 908A)

Carrie Purcell (MS 908A)

Development Services Department

Helene Deisher (MS 501)

Myra Herrmann (MS 501)

Jeff Szymanski (MS 501)

Joseph Stanco Jr. (MS 501)

Jack Canning (MS 501)

Patrick Thomas (MS 501)

Howard Greenstein (MS 401)

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

La Jolla/Riford Branch Library (81L)

Other

San Diego Transit Corporation (112)

San Diego Gas and Electric (SDGE) (114)

Carmen Lucas (206)

Clint Linton (215B)

South Coastal Information Center @ San Diego State University (210)

San Diego Historical Society (211)

San Diego Archaeological Center (212)

Save Our Heritage Organization (214)

Ron Christman (215)

Louie Guassac (215A)

San Diego County Archaeological Society (218)

Frank Brown (216)

Kumeyaay Cultural Heritage Preservation (223)

Kumeyaay Cultural Repatriation Committee (225)

Native American Distribution (NOTICE ONLY 225A-S)

Frank Brown (216)

La Jolla Village News (271)

La Jolla Shores Association (272)

La Jolla Town Council (273)

La Jolla Historical Society (274)
La Jolla Community Planning Association (275)
Milton Phegley (277)
La Jolla Shores PDO Advisory Board (279)
La Jolla Light (280)
La Jollans for Responsible Planning (282)
Patricia K. Miller (283)

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.



Jeffrey Szymanski, Senior Planner
Development Services Department

May 30, 2012
Date of Draft Report

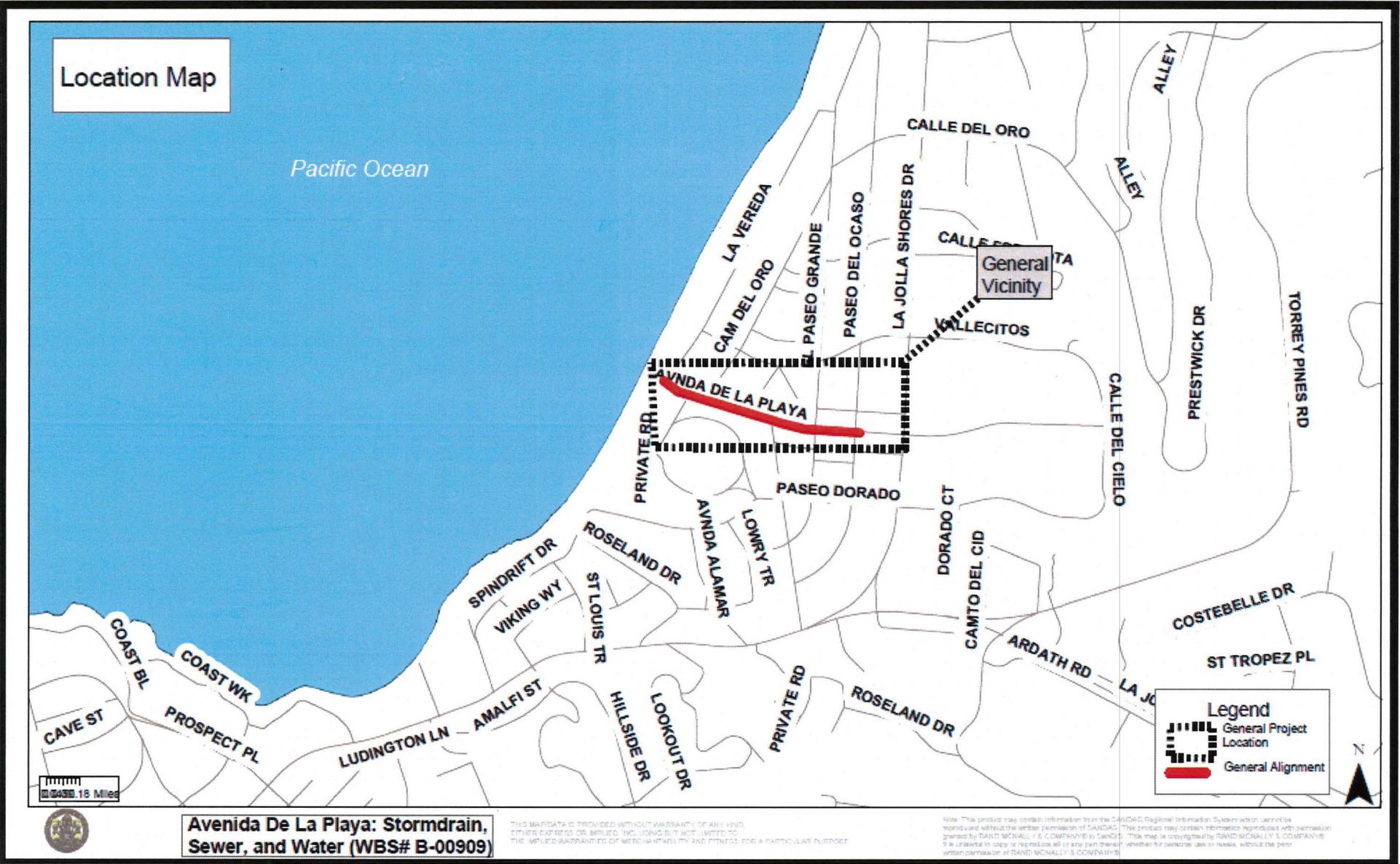
Analyst: J. Szymanski

July 9, 2012
Date of Final Report

Attachments:

Figure 1 Location Map
Figure 2 Site Plan (Storm Drain)
Figure 3 Site Plan (Storm Drain)
Figure 4 Plan View Outfall Structure (Storm Drain)
Figure 5 Elevation Outfall Structure (Storm Drain)
Figure 6 Site Plan Outfall Structure (Storm Drain)
Figure 7 Site Plan Sewer Line Replacement
Figure 8 Site Plan Sewer Line Replacement
Figure 9 Site Plan Water Line Replacement
Figure 10 Site Plan Water Line Replacement

Initial Study Checklist



Avenida De La Playa: Stormdrain, Sewer, and Water (WBS# B-00909)

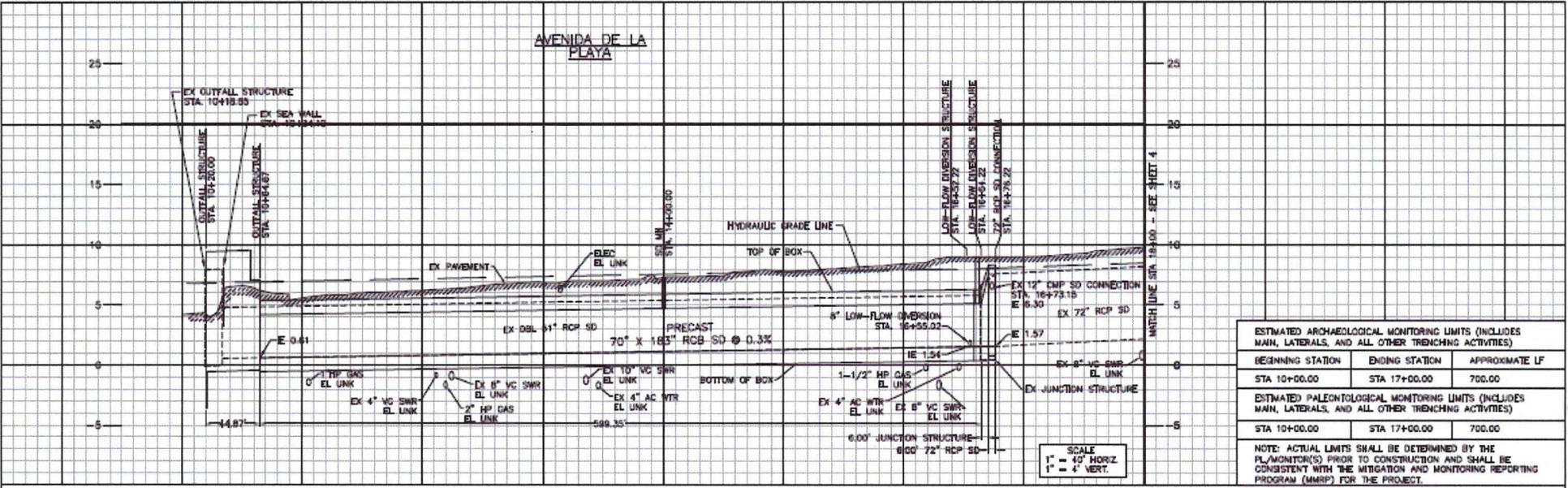
THIS MAP/DATA IS PROVIDED WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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FIGURE
1

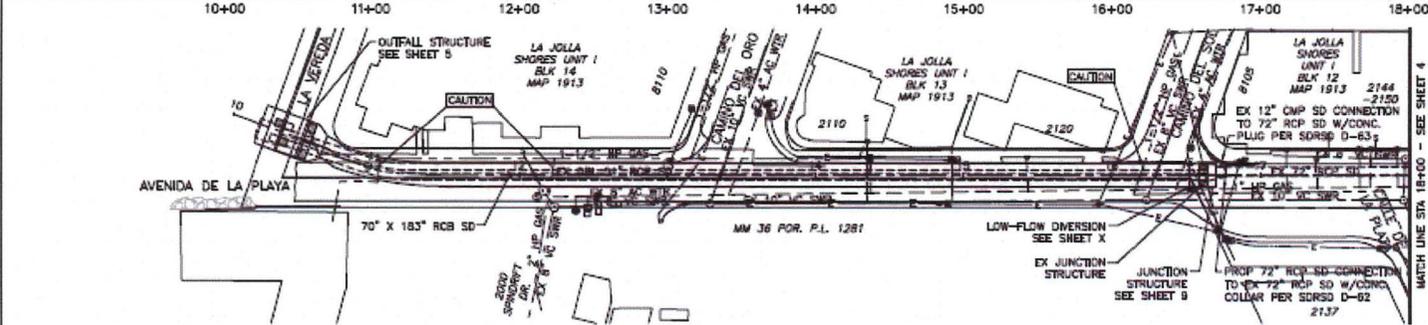
Location Map
 Avenida De La Playa (Stormdrain, Sewer and Water)/ PTS 253538
 City of San Diego – Development Services Department





| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 10+00.00 | STA 17+00.00 | 700.00 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
| STA 10+00.00 | STA 17+00.00 | 700.00 |

NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE PROJECT.



REFERENCE:

| | |
|-----------------------|---|
| WATER: | 12078-4-D, 1986-10-D, 26331-7-D |
| SEWER: | 13818-2-D, 3700-D |
| STORM DRAIN: | 25160-2-D, 28986-3-D, 4588-D, 4601-D, 5064-D, 5065-D, 7888-L, 46-307 - 46-316 |
| SIDING GAS: | 250-1689D |
| SIDING ELECTRIC: | C2501686 |
| TIME WARNER CABLE TV: | L3406DC&D, L0606CC&D |
| AT&T TELEPHONE: | B095 |
| WATER FIELD BOOK: | B095 |
| SEWER FIELD BOOK: | 1227-C5845 |
| THOMAS BROS.: | 241 |
| HGL: | |

CONSTRUCTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITIES



80% SUBMITTAL
NOT FOR
CONSTRUCTION

SETBACKS:
632' - DEL 51" RCP SD
1' OUTFALL STRUCTURE
1' JUNCTION STRUCTURE

C-1

**AVENIDA DE LA PLAYA - PHASE I
STORM DRAIN REPLACEMENT**

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 03 OF X SHEETS

| | | | |
|------|----|------|-------|
| DATE | BY | CHKD | APP'D |
| | | | |

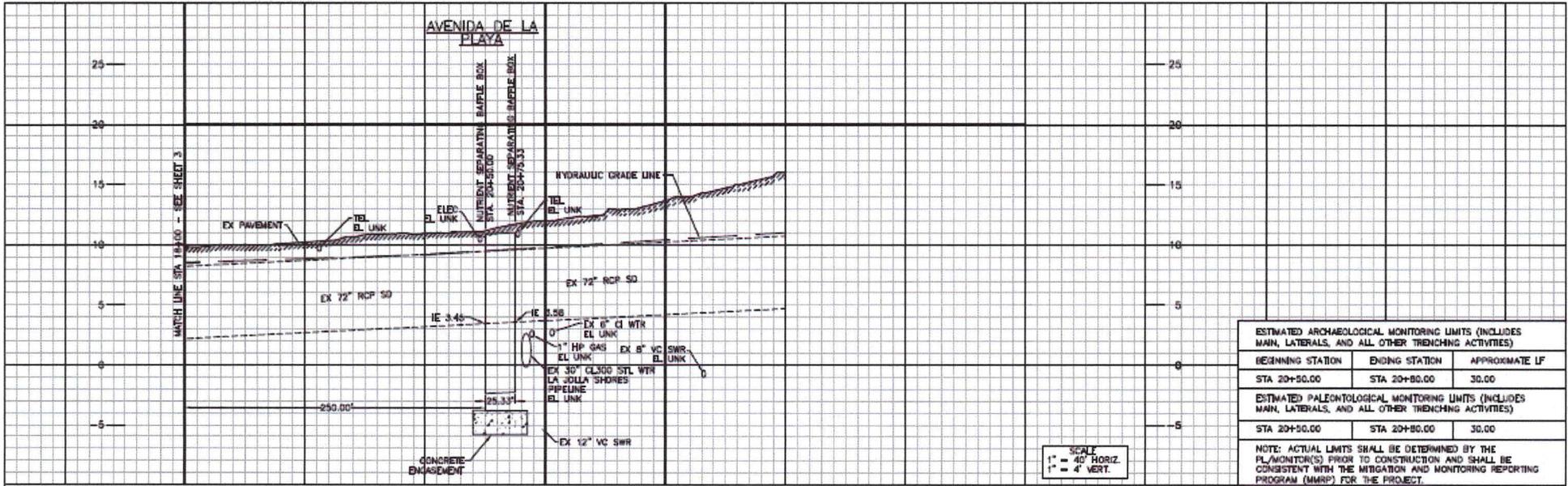
| REVISION | DATE | APPROVED | DATE | REASON |
|----------|------|----------|------|--------|
| | | | | |

CONTRACT NO. 000-0000
PROJECT NO. 36465-02-D



Site Plan (Storm Drain)
Avenida De La Playa (Stormdrain, Sewer and Water)/ PTS 253538
City of San Diego – Development Services Department

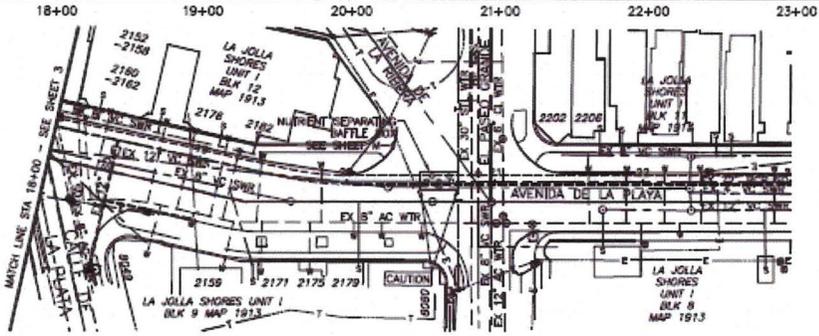
FIGURE
2



| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 20+50.00 | STA 20+80.00 | 30.00 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
| STA 20+50.00 | STA 20+80.00 | 30.00 |

NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE PROJECT.

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



CONSTRUCTION NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO
LOW OVERHEAD UTILITIES

REFERENCE:

| | |
|-----------------------|---|
| WATER: | 12078-4-0, 19580-10-D, 26331-7-0 |
| SEWER: | 138182-0, 3700-0 |
| STORM DRAIN: | 25180-2-0, 28888-3-0, 4588-0, 4601-0, 2084-0, 5085-0, 7888-L, 45-307 - 45-316 |
| SDG&E GAS: | 250-1698D |
| SDG&E ELECTRIC: | C2501665 |
| TIME WARNER CABLE TV: | LJ0406DC&DD, LJ0505CC&CD |
| AT&T TELEPHONE: | 8095 |
| WATER FIELD BOOK: | 8095 |
| SEWER FIELD BOOK: | 8095 |
| THOMAS BROS.: | 1227-058H5 |
| H&L: | 241 |

RETIREMENTS:
25.33' - 72" RCP SD



60% SUBMITTAL
NOT FOR
CONSTRUCTION

C-2

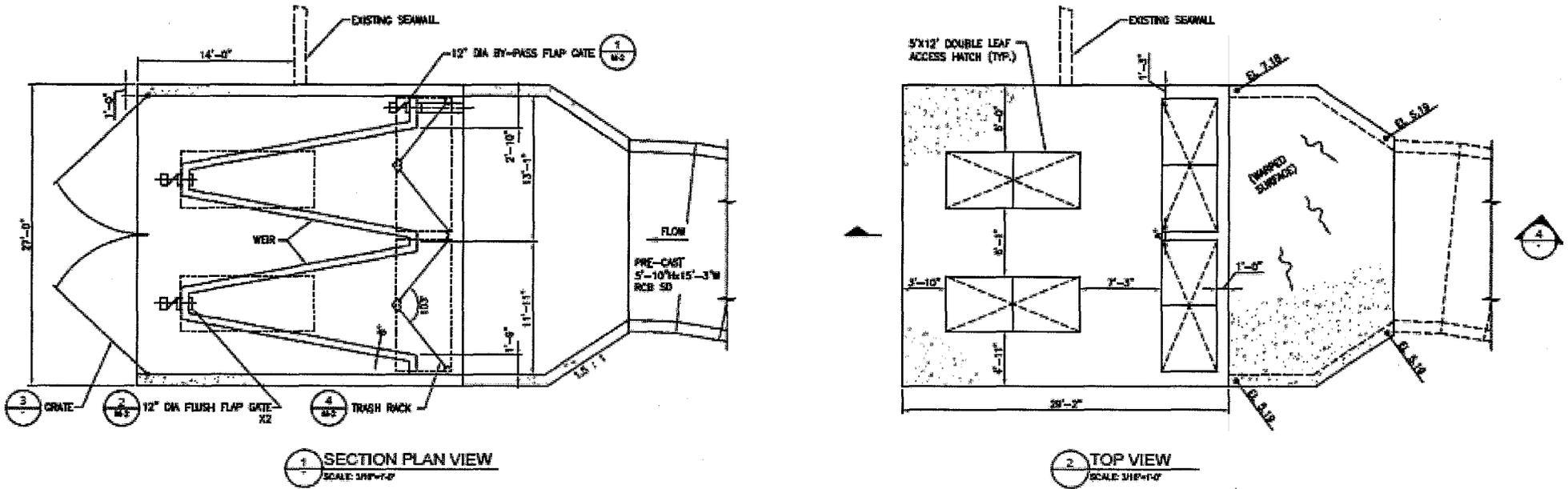
**AVENIDA DE LA PLAYA - PHASE I
STORM DRAIN REPLACEMENT**

| | | |
|--|--------------|------------------------------|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT | | STATION NO. 11-00919 |
| SHEET 04 OF 8 SHEETS | | DATE NOV 16 2016 |
| PROJECT ENGINEER | DATE | PROJECT ENGINEER |
| REVISION | DATE | PROJECT ENGINEER |
| CONTRACT NUMBER 000-0000 | | PROJECT NUMBER 36465-03-D |
| CONTRACTOR | DATE STARTED | DATE COMPLETED |
| INSPECTOR | DATE STARTED | DATE COMPLETED |

FIGURE
3

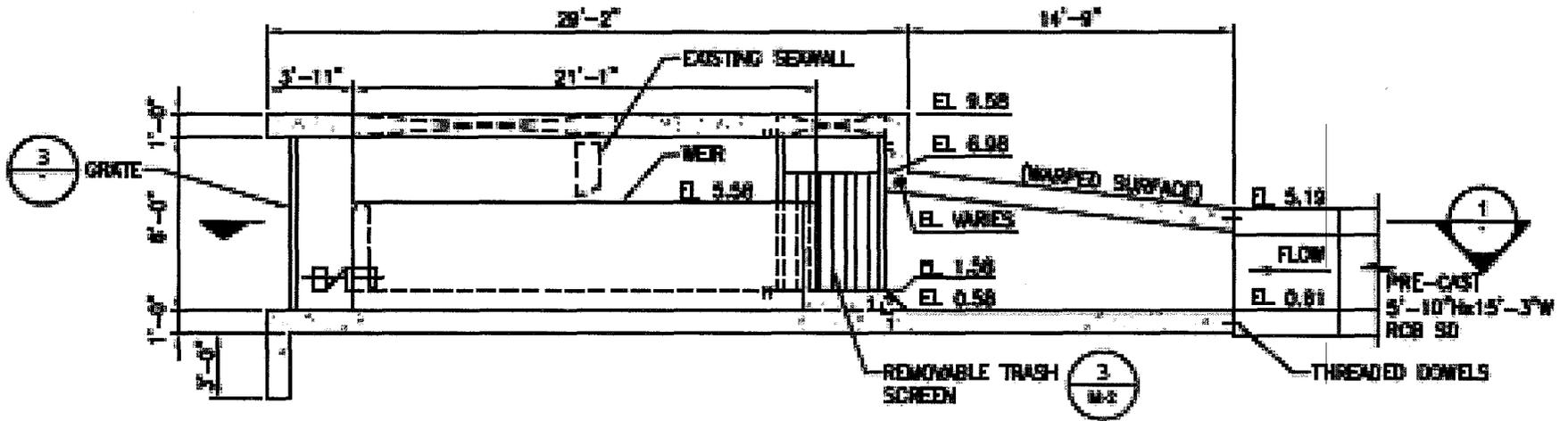
Site Plan (Storm Drain)
Avenida De La Playa (Stormdrain, Sewer and Water)/ PTS 253538
City of San Diego – Development Services Department





Plan View Outfall Structure (Storm Drain)
 Avenida De La Playa (Stormdrain, Sewer and Water)/ PTS 253538
 City of San Diego – Development Services Department

FIGURE
 4

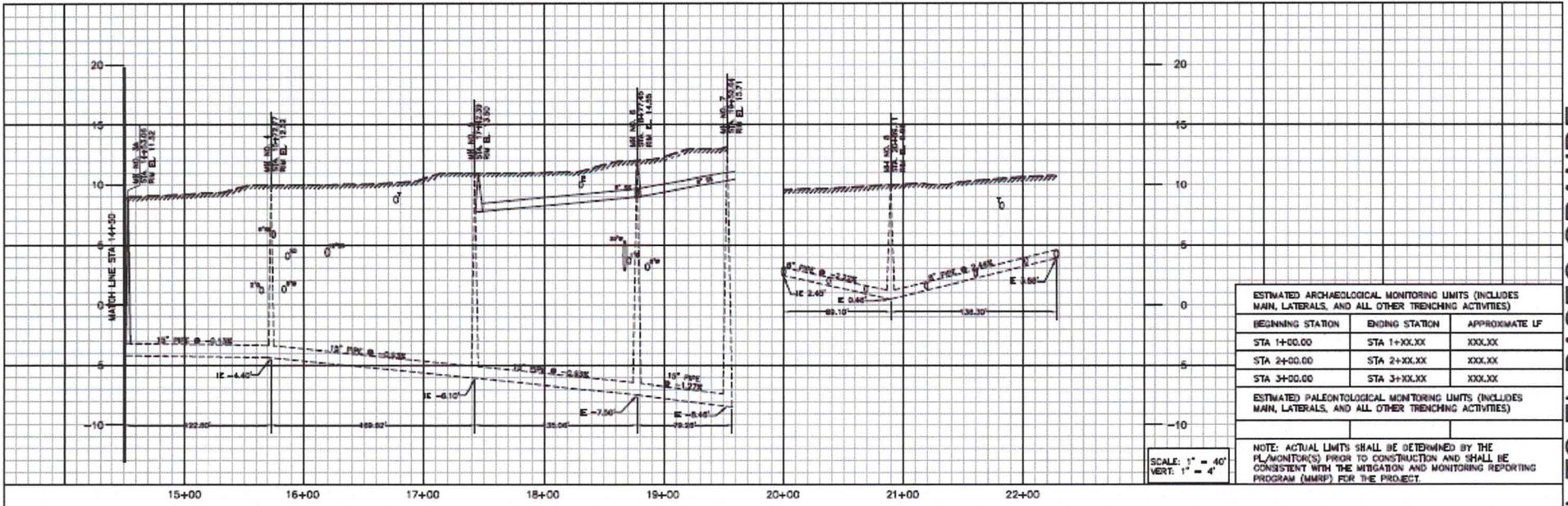


SECTION ELEVATION VIEW
 SCALE: 3/16"=1'-0"

Elevation Outfall Structure (Storm Drain)
 Avenida De La Playa (Stormdrain, Sewer and Water)/ PTS 253538
 City of San Diego – Development Services Department

FIGURE
 5



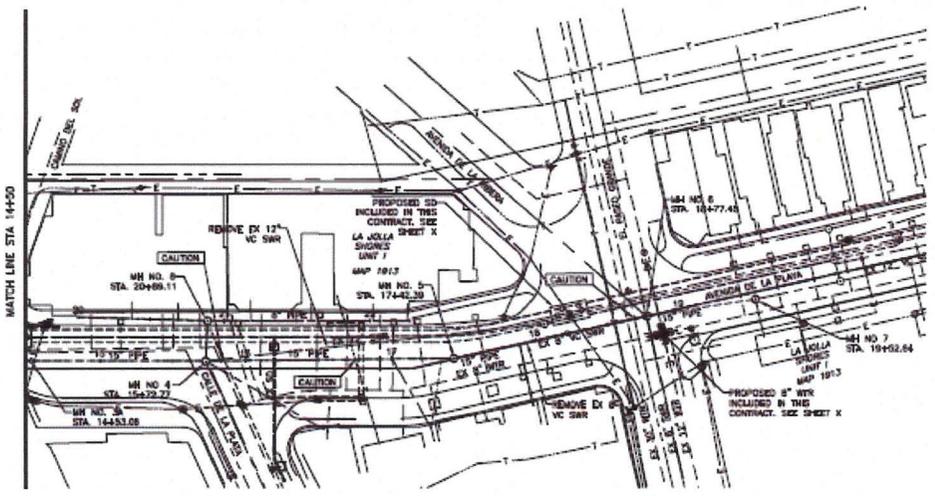


| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|--|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 14+00.00 | STA 1+XX.XX | XXX.XX |
| STA 24+00.00 | STA 2+XX.XX | XXX.XX |
| STA 34+00.00 | STA 3+XX.XX | XXX.XX |

| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 14+00.00 | STA 1+XX.XX | XXX.XX |
| STA 24+00.00 | STA 2+XX.XX | XXX.XX |
| STA 34+00.00 | STA 3+XX.XX | XXX.XX |

NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMPR) FOR THE PROJECT.

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



- REFERENCE:**
- WATER: 12079-4-D, 19580-10-D, 26331-7-D
 - SEWER: 138142-D, 3700-D
 - STORM DRAIN: 25160-2-D, 29886-3-D, 4808-0, 4801-0, 5004-0, 5065-0, 7886-L, 45-307 - 45-316
 - SDG&E GAS: 290-1889D
 - SDG&E ELECTRIC: C2501555
 - TIME WARNER CABLE TV: L1040DC&DD, L10605CC&CD
 - ATAI TELEPHONE: 8095
 - WATER FIELD BOOK: 8095
 - SEWER FIELD BOOK: 8095
 - THOMAS BROS.: 1227-05445

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

- RETIREMENTS:**
- 400' - 8" VC
 - 100' - 10" VC
 - 230' - 12" VC
 - 4 - MH
 - 100' - 4" LATERAL



C-5

SEWER LINE REPLACEMENT
AVENIDA DE LA PLAYA - PHASE I
(CAMINO DEL SOL TO EL PASO GRANDE)

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 11 OF 16 SHEETS

| | | | | |
|----------|----------|----------|------|----------|
| DATE | BY | APPROVED | DATE | REVISION |
| 11-09-03 | 11-04-16 | | | |

FOR CITY ENGINEER: [Signature] DATE: [Date]

FOR PROJECT ENGINEER: [Signature] DATE: [Date]

CONTROL CERTIFICATION: 000-0000

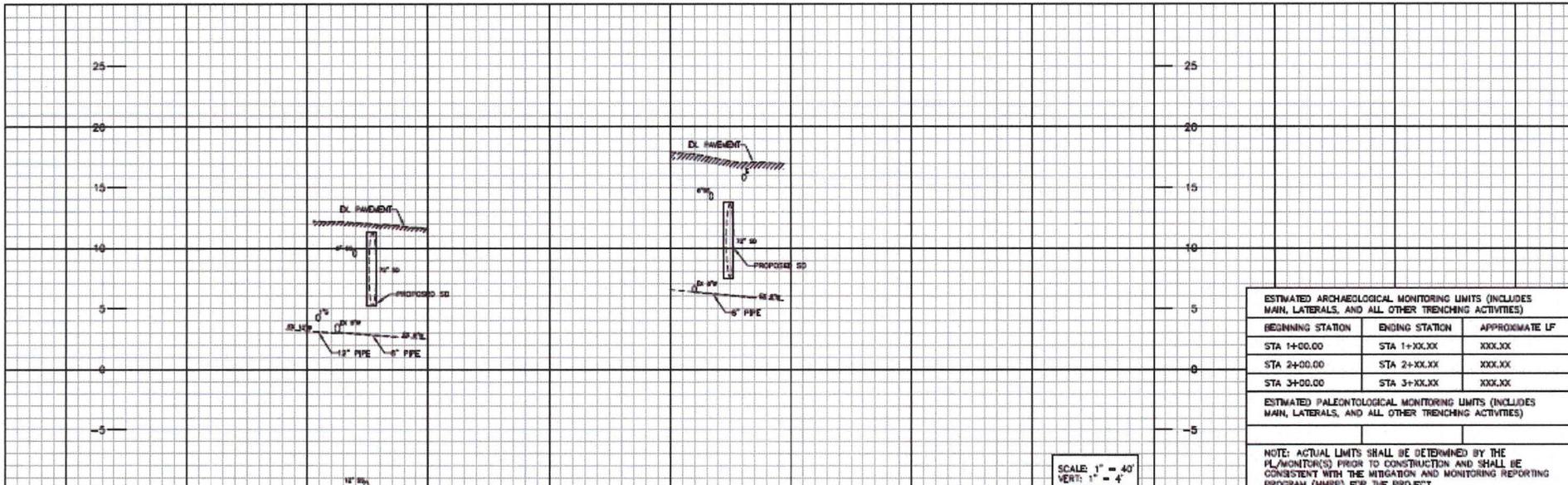
CONTRACT NO: 36485-11-D

80% SUBMITTAL
NOT FOR
CONSTRUCTION



Site Plan Sewer Line Replacement
Avenida De La Playa (Stormdrain, Sewer and Water)/ PTS 253538
City of San Diego – Development Services Department

FIGURE
8

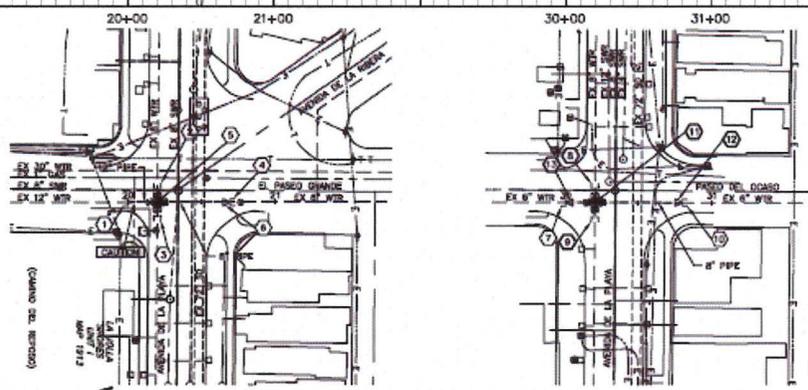


| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|--|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 1+00.00 | STA 1+XX.XX | XXX.XX |
| STA 2+00.00 | STA 2+XX.XX | XXX.XX |
| STA 3+00.00 | STA 3+XX.XX | XXX.XX |

| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| | | |

NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE PROJECT.

SCALE: 1" = 40'
VERT: 1" = 4'



CITY FORCES NOTE:
LIMITS OF INFLUENCE APPROXIMATELY FROM CANNON SOI. ON TO CANON DEL SOL SHALL BE REGULATED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH NECESSARY MATERIALS AND PERFORM TRANSFER OF SERVICES.

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

REFERENCE:

| | |
|-----------------------|---------------------------------------|
| WATER: | 12079-4-D, 19580-10-D, 26331-7-D |
| SEWER: | 1361&2-D, 3700-D |
| STORM DRAIN: | 25160-2-D, 29888-3-D, 4598-0, 4801-0, |
| | 5064-0, 5085-D, 7888-L |
| | 45-307 - 45-315 |
| SDG&E GAS: | 250-1889D |
| SDG&E ELECTRIC: | 23201688 |
| TIME WARNER CABLE TV: | L10406C&D, L10606C&D |
| AT&T TELEPHONE: | 8095 |
| WATER FIELD BOOK: | 8095 |
| SEWER FIELD BOOK: | 8095 |
| THOMAS BROS.: | 1227-05445 |

RETIREMENTS:

| |
|------------------|
| XX' - 4' - 19XX |
| XX' - 6' - 19XX |
| XX' - 12' - 19XX |



C-7

① BY CITY FORCES AND OF CONTRACTOR
STA. 20+00.00
CUT AND PLUG EX 12" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

⑤ BY CITY FORCES AND OF CONTRACTOR
STA. 20+20.00, 10& LT
CUT AND PLUG EX 8" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

④ BY CITY FORCES AND OF CONTRACTOR
STA. 20+20.00, 10& RT
CUT AND PLUG EX 8" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

③ BY CITY FORCES AND OF CONTRACTOR
STA. 20+70.00
CUT AND PLUG EX 8" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

② BY CONTRACTOR BURNISH & INSTALL
STA. 20+20.00
1 - 12"X8"X8"X8" CROSS (F.F.F.F)
3 - 8" VALVES (F.M.) AHD. LT, RT
1 - 12" VALVE (F.M.) BK

⑥ BY CONTRACTOR BURNISH & INSTALL
STA. 20+88.00
1 - 8" X 6" REDUCER (M.J.M.)

⑦ BY CITY FORCES AND OF CONTRACTOR
STA. 30+00.00
CUT AND PLUG EX 6" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

⑧ BY CITY FORCES AND OF CONTRACTOR
STA. 30+20.00, 10& LT
CUT AND PLUG EX 8" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

⑨ BY CITY FORCES AND OF CONTRACTOR
STA. 30+20.00, 10& RT
CUT AND PLUG EX 8" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

⑩ BY CITY FORCES AND OF CONTRACTOR
STA. 30+80.00
CUT AND PLUG EX 6" WTR
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.

80% SUBMITTAL
NOT FOR CONSTRUCTION

WATER LINE REPLACEMENT
AVENIDA DE LA PLAYA - PHASE I
(EL PASO GRANDE TO PASO DEL OCASO)

| | | | |
|---|--------------|-----------------|------------|
| CITY OF SAN DIEGO, CALIFORNIA | | DESIGN NO. | 0-00909 |
| ENGINEERING AND CAPITAL PROJECTS DEPARTMENT | | DRAWING NO. | 0-00416 |
| SHEET 13 OF 16 SHEETS | | PROJECT NO. | 0-00102 |
| DATE: | DATE: | DATE: | DATE: |
| DESIGNED BY: | APPROVED BY: | DATE: | DATE: |
| ORIGINAL: | EX-16: | APPROVED: | DATE: |
| CONTRACT NO.: | | DATE STARTED: | 35485-13-D |
| CONTRACTOR: | | DATE COMPLETED: | |



Site Plan Water Line Replacement
Avenida De La Playa (Stormdrain, Sewer and Water)/ PTS 253538
City of San Diego – Development Services Department

FIGURE
10



San Diego County Archaeological Society, Inc.

Environmental Review Committee

12 June 2012

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

Subject: Draft Mitigated Negative Declaration
Avenida de la Playa
Project No. 253538

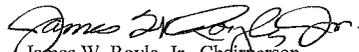
Dear Mr. Szymanski:

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

- ① Based on the information contained in the initial study, DMND and the March 12, 2012 RECON report, we concur in the impact analysis and mitigation measures.
- ② The RECON is thorough and presents a good overview of all the work done on the Spindrift site and other sites in the area, as well as the results of the numerous investigations over the past 90 years. Our only comment is that it would have also benefited from inclusion of topographic maps that predated the 1920s, as well as the 1928-1929 aerial photos.

Thank you for providing the DMND and RECON report to us for our review and comment.

Sincerely,


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

cc: RECON
SDCAS President
File

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

Response to Comments

SAN DIEGO COUNTY ARCHAEOLOGICAL SOCIETY, INC (6/12/12)

1. Comment acknowledged no response is necessary.
2. Comment acknowledged. The City appreciates the input regarding additional maps and will consider employing them in future studies.

RINCON BAND OF LUISEÑO INDIANS

Culture Committee

Post Office Box 68 · Valley Center, California 92082 ·
(760) 297-2622 or (760) 297-2635 & Fax: (760) 297-2639



June 20, 2012

Jeffrey Szymanski, Environmental Planner
City of San Diego Development Services Center
1222 First Avenue, MS 501
San Diego, CA 92101

Subject: Project No. 253538, Community Plans La Jolla

Dear Ms. Jeffrey Szymanski,

This letter is written on behalf of the Rincon Band of Luiseño Indians. Thank you for inviting us to submit comments on Project No. 253538, Community Plans La Jolla. Rincon is submitting these comments concerning your Project's potential impact on Luiseño cultural resources.

③ The Rincon Band has concerns for impacts to historic and cultural resources and findings of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is not within the Luiseño Aboriginal Territory. We recommend that you locate a Tribe within the project area to receive direction on how to handle any inadvertent findings according to their traditions and customs. Also, we recommend a Native American Monitor be present during any and all ground disturbances.

④ If you would like information on Tribes within your project area, please contact the Native American Heritage Commission and they will assist with a referral. If for some reason you are unable to locate an interested tribe please notify us and we will be happy to assist you in the matter. We also request you update your contact information for Rincon and send any future letters and correspondence to the Rincon Tribal Chairman and the Tribal Historic Preservation Officer in the Cultural Resource Center, Post Office Box 68, Valley Center, CA 92082 (760) 297-2635.

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

Sincerely,

Rose Duro
Rincon Culture Committee Chairman

Bo Mazzetti
Tribal Chairman

Stephanie Spencer
Vice Chairwoman

Charlie Kolb
Council Member

Steve Stallings
Council Member

Laurie E. Gonzalez
Council Member

RINCON BAND OF LUISEÑO INDIANS (6/20/2012)

3. The City has had various meetings with local Native American Tribes regarding the treatment of sensitive resources. The requirement for Native American monitoring is included in Section V. of the Mitigated Negative Declaration.

4. The City of San Diego includes Native Tribes from San Diego County on our distribution list for draft environmental documents. In addition, as noted in response number 3 the City participated with Native American organizations and interested Native Americans in the planning process for the Avenida De La Playa project. The City's contact information for the Rincon Band of Luiseño Indians is consistent with the information provided in the comment letter.

Szymanski, Jeffrey

From: Lp13boots [lp13boots@aol.com]
Sent: Monday, June 25, 2012 4:13 PM
To: DSD EAS
Subject: Re: projct #253538 La Jolla council district1 and 2

THE LA POSTA BAND OF MISSION INDIANS (6/25/2012)

5. Please see response number 3. The requirement for Native American monitoring is included in Section V. of the Mitigated Negative Declaration.

-----Original Message-----

From: Lp13boots <lp13boots@aol.com>
To: ""\JeffreySzymanski DSDEAS"" <"JeffreySzymanski DSDEAS""@sandiego.gov>
Sent: Mon, Jun 25, 2012 4:07 pm
Subject: projct #253538 La Jolla council district1 and 2

Mr. Szymanski, The La Posta Band of Mission Indians request that a Native Monitor be site during all surveys, construction and all ground disturbance. This due to the sensitive culture resources in this area....Thank You Gwen Parada Tribal Chair

RECORDING REQUESTED BY
CITY OF SAN DIEGO
DEVELOPMENT SERVICES
PERMIT INTAKE, MAIL STATION 501

WHEN RECORDED MAIL TO:

PROJECT MANAGEMENT
PERMIT CLERK
MAIL STATION 501

THE ORIGINAL OF THIS DOCUMENT
WAS RECORDED ON OCT 24, 2012
DOCUMENT NUMBER 2012-0652978
Ernest J. Dronenburg, Jr. COUNTY RECORDER
SAN DIEGO COUNTY RECORDER'S OFFICE
TIME: 9:49 AM

SPACE ABOVE THIS LINE FOR RECORDER'S USE

WBS NUMBER: B-00909.02.01.01

AVENIDA DE LA PLAYA PROJECT NO. 253538 (MMRP)
COASTAL DEVELOPMENT PERMIT NO. 898084
SITE DEVELOPMENT PERMIT NO. 898085

Hearing Officer

This Coastal Development Permit No. 898084 and Site Development Permit No. 898085 is granted by the Hearing Officer of the City of San Diego to the City of San Diego to City of San Diego Engineering and Capital Projects Department, Owner Permittee, pursuant to San Diego Municipal Code [SDMC] sections 126.0708 and 126.0504. The site is located primarily within the Avenida De La Playa public right-of-way, as well as a storm drain outfall structure located on the sandy beach west of the existing seawall at the terminus of the right-of-way west of the La Vereda boardwalk in the LJSPD-MF-2, LJSPD-CC, LJSPD-V, LJSPD-PRF, and LJSPD-OP-1-1 zone(s) of the La Jolla Shores Community of the La Jolla Community Plan.

Subject to the terms and conditions set forth in this Permit, permission is granted to the City of San Diego, Engineering and Capital Projects Department, Owner/Permittee to replace and install a new storm drain, sewer main, and water main in the public rights-of-way within Avenida De La Playa from Paseo Del Ocaso west, to the seawall and portions of Cam Del Sol, El Paseo Grande, and Paseo Del Ocaso; within the La Jolla Shores Community of the La Jolla Community Plan described and identified by size, dimension, quantity, type, and location on the approved exhibits [Exhibit "A"] dated August 29, 2012, on file in the Development Services Department.

The project shall include:

- a. Replace and realign approximately 1,350 linear feet (0.24 miles) of existing Storm Drain main;
- b. Replace approximately 1,275 linear feet of sewer main and 150 linear feet of water main within the same alignment;

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

County of San Diego

On October 17, 2012 before me, Georgette Ocariza Manela, Notary Public

personally appeared Helene Deisher



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

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

WITNESS my hand and official seal.

Signature: [Handwritten 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: Avenida De La Playa - 253538

Document Date: Number of Pages:

Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name: Signer's Name:

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

Individual Individual

Partner Limited General Partner Limited General

Attorney in Fact Attorney in Fact

Trustee Trustee

Guardian or Conservator Guardian or Conservator

Other: Other:

Signer Is Representing: Signer Is Representing:

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

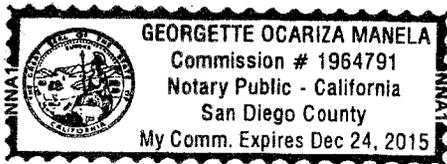
CIVIL CODE § 1189

State of California

County of San Diego

On October 17, 2012 before me, Georgette Ocariza Manela, Notary Public

personally appeared Akram Bassyouni



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

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

WITNESS my hand and official seal.

Signature: [Handwritten 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: Avenida De La Playa - 253538

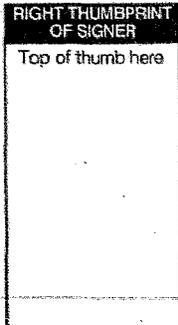
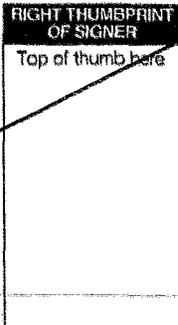
Document Date: Number of Pages:

Signer(s) Other Than Named Above:

Capacity(ies) Claimed by Signer(s)

Signer's Name: Signer's Name:

- Corporate Officer, Individual, Partner, Attorney in Fact, Trustee, Guardian or Conservator, Other



Signer is Representing: Signer is Representing:

- c. water lines within the public right of way within portions of Cam Del Sol, El Paseo Grande, and Paseo Del Ocaso;
- d. An accessible sidewalk, public seating, and public access near and on the boardwalk leading onto the sandy beach, would be maintained or constructed as part of the project in order to preserve and improve public beach access;
- e. Landscaping (planting, irrigation and landscape related improvements); and
- f. Public and private accessory improvements determined by the Development Services Department to be consistent with the land use and development standards for this site in accordance with the adopted community plan, the California Environmental Quality Act [CEQA] and the CEQA Guidelines, the City Engineer's requirements, zoning regulations, conditions of this Permit, and any other applicable regulations of the SDMC.

STANDARD REQUIREMENTS:

1. This permit must be utilized within thirty-six (36) months after the date on which all rights of appeal have expired. If this permit is not utilized in accordance with Chapter 12, Article 6, Division 1 of the SDMC within the 36 month period, this permit shall be void unless an Extension of Time has been granted. Any such Extension of Time must meet all SDMC requirements and applicable guidelines in effect at the time the extension is considered by the appropriate decision maker.
2. This Coastal Development Permit shall become effective on the eleventh working day following receipt by the California Coastal Commission of the Notice of Final Action, or following all appeals.
3. No permit for the construction, occupancy, or operation of any facility or improvement described herein shall be granted, nor shall any activity authorized by this Permit be conducted on the premises until:
 - a. The Owner/Permittee signs and returns the Permit to the Development Services Department; and
 - b. The Permit is recorded in the Office of the San Diego County Recorder.
4. While this Permit is in effect, the subject property shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the appropriate City decision maker.
5. This Permit is a covenant running with the subject property and all of the requirements and conditions of this Permit and related documents shall be binding upon the Owner/Permittee and any successor(s) in interest.

6. The continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.
7. Issuance of this Permit by the City of San Diego does not authorize the Owner/Permittee for this Permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).
8. The Owner/Permittee shall secure all necessary building permits. The Owner/Permittee is informed that to secure these permits, substantial building modifications and site improvements may be required to comply with applicable building, fire, mechanical, and plumbing codes, and State and Federal disability access laws.
9. Construction plans shall be in substantial conformity to Exhibit "A." Changes, modifications, or alterations to the construction plans are prohibited unless appropriate application(s) or amendment(s) to this Permit have been granted.
10. All of the conditions contained in this Permit have been considered and were determined-necessary to make the findings required for approval of this Permit. The Permit holder is required to comply with each and every condition in order to maintain the entitlements that are granted by this Permit.

If any condition of this Permit, on a legal challenge by the Owner/Permittee of this Permit, is found or held by a court of competent jurisdiction to be invalid, unenforceable, or unreasonable, this Permit shall be void. However, in such an event, the Owner/Permittee shall have the right, by paying applicable processing fees, to bring a request for a new permit without the "invalid" condition(s) back to the discretionary body which approved the Permit for a determination by that body as to whether all of the findings necessary for the issuance of the proposed permit can still be made in the absence of the "invalid" condition(s). Such hearing shall be a hearing de novo, and the discretionary body shall have the absolute right to approve, disapprove, or modify the proposed permit and the condition(s) contained therein.

ENGINEERING

11. Prior to construction, the Permittee shall prepare Final Improvement Plans and a Final Drainage Design Summary satisfactory to the City Engineer.

ENVIRONMENTAL/MITIGATION REQUIREMENTS:

12. Mitigation requirements in the Mitigation, Monitoring, and Reporting Program [MMRP] shall apply to this Permit. These MMRP conditions are hereby incorporated into this Permit by reference.
13. The mitigation measures specified in the MMRP and outlined in MND NO. 253538, shall be noted on the construction plans and specifications under the heading ENVIRONMENTAL MITIGATION REQUIREMENTS.

14. The Owner/Permittee shall comply with the MMRP as specified in MITIGATED NEGATIVE DECLARATION, NO. 253538, to the satisfaction of the Development Services Department and the City Engineer. Prior to the issuance of the "Notice to Proceed" with construction, all conditions of the MMRP shall be adhered to, to the satisfaction of the City Engineer. All mitigation measures described in the MMRP shall be implemented for the following issue area: **Archaeological Resources**

LANDSCAPE REQUIREMENTS:

15. In the event any street trees are damaged or removed during construction they must be replaced in kind.

PARKS AND RECREATION/DESIGN REQUIREMENTS:

16. Permittee/project manager shall insure that, during construction, access for beach maintenance vehicles, including front-end loaders, dump trucks, and large raking trucks, will be provided from 6:00 a.m. - 12:00 noon on Thursdays, or during times and days to be coordinated with the Park and Recreation Department.

17. The Storm Water Division of the Transportation and Storm Water Department shall be responsible for the maintenance of the outfall structure and any other project improvements located on the beach related to storm water facilities.

18. The Permittee/Project Manager shall invite representatives from the Park and Recreation Department's Shoreline Beaches & Parks and Asset Management Sections to the pre-construction meeting. Permittee/Project Manager shall provide a copy of the project schedule to the Park and Recreation Department representatives at the pre-construction meeting.

TRANSPORTATION REQUIREMENTS

19. Unless under declaration of an "emergency", the project construction timeline shall observe the summer construction moratorium for the beach area, which runs from Memorial Day to Labor Day.

INFORMATION ONLY:

- The issuance of this discretionary use permit alone does not allow the immediate commencement or continued operation of the proposed use on site. The operation allowed by this discretionary use permit may only begin or recommence after all conditions listed on this permit are fully completed and all required ministerial permits have been issued and received final inspection.

ORIGINAL

- Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this Permit, may protest the imposition within ninety days of the approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code-section 66020.
- This development may be subject to impact fees at the time of construction permit issuance.

APPROVED by the Hearing Officer of the City of San Diego on August 29, 2012 by Resolution No. HO-6552.

ORIGINAL

Coastal Development Permit No. 898084
Site Development Permit No. 898085
Date of Approval: August 9, 2012

AUTHENTICATED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES
DEPARTMENT



Helene Deisher
Development Project Manager

**NOTE: Notary acknowledgment
must be attached per Civil Code
section 1189 et seq.**

The undersigned Owner/Permittee, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Owner/Permittee hereunder.

City Of San Diego Engineering Capital Projects
Owner/Permittee

By



NAME *Akram Bassyouni*
TITLE *Associate Engineer - Civil*

**NOTE: Notary acknowledgments
must be attached per Civil Code
section 1189 et seq.**

ORIGINAL

RESOLUTION NUMBER R- HO-6552

ADOPTED ON August 29, 2012

WHEREAS, on September 15, 2011, City of San Diego, Public Works-Engineering and Capital Projects Department, Right-of-Way Design Division submitted an application to Development Services Department for a Site Development Permit for the Avenida De La Playa; and

WHEREAS, the matter was set for a public hearing to be conducted by the Hearing Officer of the City of San Diego; and

WHEREAS, the issue was heard by the Hearing Officer on August 29, 2012; and

WHEREAS, under Charter section 280(a)(2) this resolution is not subject to veto by the Mayor because this matter requires the City Council to act as a quasi-judicial body, a public hearing is required by law implicating due process rights of individuals affected by the decision, and the Council is required by law to consider evidence at the hearing and to make legal findings based on the evidence presented; and

WHEREAS, the Hearing Officer considered the issues discussed in Mitigation Negative Declaration No. 253538 prepared for this Project; NOW THEREFORE,

BE IT RESOLVED, by the Hearing Officer that it is certified that the Declaration has been completed in compliance with the California Environmental Quality Act of 1970 (CEQA) (Public Resources Code Section 21000 et seq.), as amended, and the State CEQA Guidelines thereto (California Code of Regulations, Title 14, Chapter 3, Section 15000 et seq.), that the Declaration reflects the independent judgment of the City of San Diego as Lead Agency and that the information contained in said Declaration, together with any comments received during the public review process, has been reviewed and considered by the Hearing Officer in connection with the approval of the Project.

BE IT FURTHER RESOLVED, that the Hearing Officer finds on the basis of the entire record that project revisions now mitigate potentially significant effects on the environment previously identified in the Initial Study, that there is no substantial evidence that the Project will have a significant effect on the environment, and therefore, that said Declaration is hereby adopted.

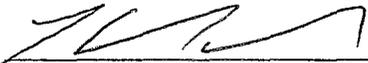
BE IT FURTHER RESOLVED, that pursuant to CEQA Section 21081.6, the Hearing Officer hereby adopts the Mitigation Monitoring and Reporting Program, or alterations to implement the changes to the Project as required by this Hearing Officer in order to mitigate or avoid significant effects on the environment, which is attached hereto as Exhibit A.

BE IT FURTHER RESOLVED, that the Declaration and other documents constituting the record of proceedings upon which the approval is based are available to the public at the office of the DEVELOPMENT SERVICES DEPARTMENT, 1222 FIRST AVENUE, SAN DIEGO, CA 92101

ORIGINAL

BE IT FURTHER RESOLVED, that DEVELOPMENT SERVICES STAFF is directed to file a Notice of Determination with the Clerk of the Board of Supervisors for the County of San Diego regarding the Project.

APPROVED: Helene Deisher

By: 

Helene Deisher, Project Manager

ATTACHMENT(S): Exhibit A, Mitigation Monitoring and Reporting Program

ORIGINAL

EXHIBIT A
Avenida De La Playa
MITIGATION MONITORING AND REPORTING PROGRAM
Site Development Permit and Coastal Development Permit

PROJECT NO. 253538

This Mitigation Monitoring and Reporting Program is designed to ensure compliance with Public Resources Code Section 21081.6 during implementation of mitigation measures. This program identifies at a minimum: the department responsible for the monitoring, what is to be monitored, how the monitoring shall be accomplished, the monitoring and reporting schedule, and completion requirements. A record of the Mitigation Monitoring and Reporting Program will be maintained at the offices of the Entitlements Division, 1222 First Avenue, Fifth Floor, San Diego, CA, 92101. All mitigation measures contained in the Mitigated Negative Declaration No. 230429 shall be made conditions of Site Development Permit as may be further described below.

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

1. Prior to the issuance 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:

Archaeologist and Native American Monitor.

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

CONTACT INFORMATION:

- a) The PRIMARY POINT OF CONTACT is the RE at the **Field Engineering Division – 858-627-3200**
- b) For Clarification of ENVIRONMENTAL REQUIREMENTS, it is also required to call **RE and MMC at 858-627-3360**

2. **MMRP COMPLIANCE:** This Project, Project Tracking System (PTS) 253538, 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.

Not Applicable for this project.

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

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

Document Submittal/Inspection Checklist

| <i>Issue Area</i> | <i>Document submittal</i> | <i>Associated Inspection/Approvals/Note</i> |
|-------------------|--|---|
| General | Consultant Qualification Letters meeting | Prior to Pre-construction |
| General | Consultant Const. Monitoring | Prior to or at the Pre-Construction meeting |
| Archaeology | Archaeological Reports | Archaeological observation |
| | Final MMRP | Final MMRP Inspection |

Historical Resources (Archaeological Monitoring Program)

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 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
 - I. 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.
 - II. 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).
 - III. 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 (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.
5. If secondary cultural deposits are encountered during the course of the pipeline installation a sample of the soil shall be taken every 10 meters (approximately 33 feet). The sample would not need to be manually excavated, nor in 10-centimeter levels. The sample soil could be removed with mechanical equipment and transported to an off-site wet-screening location in order to identify and repatriate any human remains and analyze any archaeological materials.

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.

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- 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 can not 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

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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.

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- 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 burial with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are **NOT** Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

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.

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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.

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

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ENTITLEMENTS DIVISION

(619) 446-5460

**FINAL
MITIGATED NEGATIVE DECLARATION**

Project No. 230429

SCH# 2012071079

SUBJECT: Sewer & Water Group 809: SITE DEVELOPMENT PERMIT (SDP) to allow for the replacement and installation of approximately 7,323 linear feet (LF) of existing 8-inch to 15-inch Polyvinyl Chloride (PVC) sewer and approximately 8,086 LF of PVC 8-inch water mains. The project is divided into northern and southern sections with the northern section consisting of replacement of 7,323 LF of sewer main and 6,700 LF of water main, while the southern section would replace 1,386 LF of water mains. Approximately 7,120 LF of the sewer main and all water mains in both the northern and southern sections of the project would be replaced in the same trench. Approximately 203 LF are proposed for a new sewer line along Paseo del Ocaso between Avenida de la Playa and Vallecitos.

The project would utilize open excavation for trench work, as well as trenchless technology. Trenches would be approximately three feet wide and the depth would range from 5 to 20 feet deep. Some sewer mains would be at the same depth as existing, some would be deeper than existing, and some would be replaced using trenchless technology (directional drilling or similar), or would be rehabilitated in place. The water main in the southern portion and some sewer main in the northern portion would be replaced using trenchless technology (pipe bursting). Pipe bursting in the southern portion of the project would require excavation of approximately eight 10-foot by 10-foot main line pits and approximately twenty-four 5-foot by 5-foot service pits. The northern portion would require approximately seventeen 10-foot by 10-foot main line pits and approximately forty-two 5-foot by 5-foot service pits.

Related work for sewer and water mains would also include construction of diversion manhole structures, replacement and re-installation of manholes, cleanouts, valves, water services, sewer laterals, various meters, potholing, curb ramps, fire hydrants, and other appurtenances, including street repair and/or resurfacing, traffic control measures, and Best Management Practices (BMPs) during construction. Street trees removal and/or relocation would be done under the supervision of the City Arborist. Offsite staging areas as well as on site/street staging would occur in non-environmentally sensitive areas, which would require a minimum of 10,000 square feet to be identified by the contractor and accepted by the City prior to use.

The project alignment is located within various streets as noted: the northern section including Paseo del Ocaso, El Paseo Grande, Camino del Oro, Avenida de la Playa,

Vallecitos, Calle Frescota, Camino del Sol, Avenida de la Ribera, La Jolla Shores Drive, and Paseo Dorado. The streets in the southern section include La Jota Way, St. Louis Terrace, and Hypatia Way. The entire project is located within the La Jolla Community Plan Area of the City and County of San Diego, California, Applicant: City of San Diego, Public Works-Engineering and Capital Projects Department, Right-of-Way Design Division.

- I. PROJECT DESCRIPTION: See attached Initial Study.
- II. ENVIRONMENTAL SETTING: See attached Initial Study.
- III. DETERMINATION:

The City of San Diego conducted an Initial Study which determined that the proposed project could have a significant environmental effect in the following areas(s): HISTORICAL RESOURCES (ARCHAEOLOGY) and PALEONTOLOGICAL RESOURCES. The project proposal requires the implementation of specific mitigation identified in Section V of this Mitigated Negative Declaration (MND). The project as presented avoids or mitigates the potentially significant environmental effects identified, and the preparation of an Environmental Impact Report (EIR) would not be required.

- IV. DOCUMENTATION:

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

- V. MITIGATION, MONITORING AND REPORTING PROGRAM:

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

1. Prior to the issuance 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:

Archaeologist, Native American Monitor, 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) 230429, 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.

Not Applicable for this project.

4. **MONITORING EXHIBITS:** All consultants are required to submit, to RE and MMC, a monitoring exhibit on a 11x17 reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline's work, and notes indicating when in the construction schedule that work will be performed. When necessary for clarification, a detailed methodology of how the work will be performed shall be included.
5. **OTHER SUBMITTALS AND INSPECTIONS:** The Permit Holder/Owner's representative shall submit all required documentation, verification letters, and requests for all associated inspections to the RE and MMC for approval per the following schedule:

Document Submittal/Inspection Checklist

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

C. SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS:

Historical Resources (Archaeological Data Recovery Program)

This project requires implementation of an Archaeological Data Recovery Program (ADRP) to mitigate impacts to archaeological site (CA-SDI-39, CA-SDI-20, 129, and CA-SDI-20, 130) prior to the issuance of ANY construction permits or the start of ANY construction if no permits are required. The ADRP with Native American participation shall provide the maximum opportunity to recover human remains and repatriate these remains with the Native American community. All human remains shall be repatriated to the Kumeyaay representatives or MLD. The ADRP with Native American participation consists of a statistical sample and shall be implemented as described below after consultation with DSD ED in accordance with the Cultural Resources Report prepared by (RECON Environmental, November 4, 2011)

Specific Mitigation Requirements

Southern Portion (CA-SDI-39)

- A. 8 1x1-meter units within the intact, portion of each main line pit shall be hand-excavated to the bottom of the pit (assumed to be 5 feet or 150 cm) and 24 50x100-cm units within each service pit based on the methods outlined in the ADRP; for a proposed project sample size of 15% with a total impact of the site of less than 1%.

- B. Laboratory Analysis in the form of specialized studies shall be conducted in accordance with the ADRP for the units identified;
- C. Curation of all materials recovered during the ADRP with the exception of human remains and any associated burial goods, shall be prepared in compliance with local, state and federal standards and be permanently curated at an approved facility that meets City standards;
- D. ADRP provision for the discovery of human remains shall be invoked in accordance with the California Public Resources Code, the Health and Safety Code. In the event human remains are encountered during the ADRP, soil shall only be exported from the project site after it has been cleared by the Most Likely Descendant (MLD) and the Project Archaeologist;
- E. Archaeological and Native American Monitoring shall be conducted during the remaining grading activities after completion of the ADRP and acceptance of a draft progress report for the program. The detailed Mitigation Monitoring and Reporting Program is identified in below; and
- F. Upon completion of the ADRP the qualified archaeologist and Native American Monitor shall attend a second preconstruction meeting to make comments and/or suggestions concerning the proposed grading process.

Northern Portion (CA-SDI-20, 129 and CA-SDI-20,130)

- A. 10 50x100-cm units within the ten 5-by-5-foot designated lateral pits shall be hand-excavated based on the methods outlined in the ADRP; for a proposed sample size of 21.5%, with a total impact of the site of less than 1%. In addition, 3 50-by-100-cm units will be hand-excavated in 20-cm levels in each of the three 10-by-10-foot main pits located along the reconstructed boundary of SDI-20,130. If human remains are found, additional work would be needed based on the ADRP. If no human remains are found, the artifact collection shall be curated. All 3 10x10-foot main line pits (in their entirety) shall be hand-excavated and the excavation does not need to be controlled. All excavations shall be treated based on the methods outlined in the ADRP.
- B. Laboratory Analysis in the form of specialized studies shall be conducted in accordance with the ADRP for the units identified;
- C. Curation of all materials recovered during the ADRP with the exception of human remains and any associated burial goods, shall be prepared in compliance with local, state and federal standards and be permanently curated at an approved facility that meets City standards;
- D. ADRP provision for the discovery of human remains shall be invoked in accordance with the California Public Resources Code, the Health and Safety Code. In the event human remains are encountered during the ADRP, soil shall only be exported from the project

site after it has been cleared by the Most Likely Descendant (MLD) and the Project Archaeologist;

- E. Archaeological and Native American Monitoring shall be conducted during the remaining grading activities after completion of the ADRP and acceptance of a draft progress report for the program. The detailed Mitigation Monitoring and Reporting Program is identified in below; and
- F. Upon completion of the ADRP the qualified archaeologist and Native American Monitor shall attend a second preconstruction meeting to make comments and/or suggestions concerning the proposed grading process.

HISTORICAL RESOURCES (ARCHAEOLOGICAL MONITORING PROGRAM)

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 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 ¼ mile radius.
- B. PI Shall Attend Precon Meetings
 - 1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate,

and MMC. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.

- a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.
2. 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
 - a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.
 - b. The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).
 - c. 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 (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.
- B. Discovery Notification Process
1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.
 2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
 3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.
 4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.
- C. Determination of Significance
1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
 - a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
 - b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) 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 can not 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 burial with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.
- D. If Human Remains are **NOT** Native American
1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
 2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
 3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with MMC, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

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.

Paleontological Resources

- I. Prior to Permit Issuance or Bid Opening/Bid Award**
- A. Entitlements Plan Check
1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Paleontological Monitoring have been noted on the appropriate construction documents.
- B. Letters of Qualification have been submitted to ADD
1. Prior to Bid Award, the applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal

Investigator (PI) for the project and the names of all persons involved in the paleontological monitoring program, as defined in the City of San Diego Paleontology Guidelines.

2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the paleontological monitoring of the project.
3. Prior to the start of work, the applicant shall obtain approval from MMC for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site specific records search has been completed. Verification includes, but is not limited to a copy of a confirmation letter from San Diego Natural History Museum, other institution or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring, the Applicant shall arrange a Precon Meeting that shall include the PI, Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified paleontologist shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Paleontological Monitoring program with the Construction Manager and/or Grading Contractor.
 - a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.
2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)

The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the paleontological monitoring program.
3. Identify Areas to be Monitored
 - a. Prior to the start of any work that requires monitoring, the PI shall submit a Paleontological Monitoring Exhibit (PME) based on the appropriate construction documents (reduced to 11x17) to MMC for approval identifying the areas to be monitored including the delineation of grading/excavation limits. Monitoring shall begin at depths below 10 feet from existing grade or as determined by the PI in consultation with MMC. The determination shall be based on site specific records search data which supports monitoring at depths less than ten feet.
 - b. The PME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).
 - c. MMC shall notify the PI that the PME has been approved.
4. When Monitoring Will Occur

- a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
 - b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present.
5. Approval of PME and Construction Schedule
After approval of the PME by MMC, the PI shall submit to MMC written authorization of the PME and Construction Schedule from the CM.

III. During Construction

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

1. The monitor shall be present full-time during grading/excavation/trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the PME that could result in impacts to formations with high and/or moderate resource sensitivity. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**
2. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.
3. The monitor shall document field activity via the Consultant Site Visit Record (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 resume.
 - (1). Note: For pipeline trenching projects only, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
- c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the PI shall notify the RE, or BI as appropriate, that a non-significant discovery has been made. The Paleontologist shall continue to monitor the area without notification to MMC unless a significant resource is encountered.
- d. The PI shall submit a letter to MMC indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.
 - (1). Note: For Pipeline Trenching Projects Only. If the fossil discovery is limited in size, both in length and depth; the information value is limited and there are no unique fossil features associated with the discovery area, then the discovery should be considered not significant.
 - (2). Note, for Pipeline Trenching Projects Only: If significance cannot be determined, the Final Monitoring Report and Site Record shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching Projects

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

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

IV. Night and/or Weekend Work

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

V. Post Construction

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

5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.
- B. Handling of Fossil Remains
 1. The PI shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued.
- C. Curation of artifacts: Deed of Gift and Acceptance Verification
 1. The PI shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution.
 2. The PI shall submit the Deed of Gift and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
 3. The RE or BI, as appropriate shall obtain signature on the Deed of Gift and shall return to PI with copy submitted to MMC.
 4. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.
- D. Final Monitoring Report(s)
 1. The PI shall submit two copies of the Final Monitoring Report to MMC (even if negative), within 90 days after notification from MMC of the approved report.
 2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

VI. PUBLIC REVIEW DISTRIBUTION:

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

State of California

Native American Heritage Commission (56)

State Clearinghouse (6)

City of San Diego

Councilmember Lightner, District 1

Historical Resource Board (87)

City Attorney

Shannon Thomas (MS 93C)

Public Works Department

Akram Bassyouni (MS 908A)

Carrie Purcel (MS 908A)

James Arnhart (MS 908A)

Development Services Department

John Fisher (MS 301)

Myra Herrmann (MS 501)

Joseph Stanco Jr. (MS 501)

Julius Ocen (MS 501)

Ismail Elhamad (MS 501)

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

La Jolla/Riford Branch Library (81L)

Other

San Diego Transit Corporation (112)
San Diego Gas and Electric (SDGE) (114)
Carmen Lucas (206)
Clint Linton (215B)
South Coastal Information Center @ San Diego State University (210)
San Diego Historical Society (211)
San Diego Archaeological Center (212)
Save Our Heritage Organization (214)
Ron Christman (215)
Louie Guassac (215A)
Frank Brown (216)
Campo Band of Mission Indians (217)
San Diego County Archaeological Society (218)
Kumeyaay Cultural Heritage Preservation (223)
Kumeyaay Cultural Repatriation Committee (225)
Native American Distribution (NOTICE ONLY 225A-S)
La Jolla Village News (271)
La Jolla Shores Association (272)
La Jolla Town Council (273)
La Jolla Historical Society (274)
La Jolla Community Planning Association (275)
Milton Phegley (277)
La Jolla Shores PDO Advisory Board (279)
La Jolla Light (280)
La Jollans for Responsible Planning (282)
Patricia K. Miller (283)

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.



Jeff Szymanski, Senior Planner
Development Services Department

July 18, 2012
Date of Draft Report

August 29, 2012
Date of Final Report

Analyst: J. Szymanski

Attachments:

- Figure 1 Location Map
- Figure 2 Location Map (Sewer Lines)
- Figure 3 Location Map (Water Lines)
- Figure 4 Location Map (Sewer and Water Lines)

Initial Study Checklist

NATIVE AMERICAN HERITAGE COMMISSION

915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
ds_nahc@pacbell.net



August 3, 2012

Mr. Jeffrey Szymanski, Environmental Planner

City of San Diego Development Services Department

1222 First Avenue, MS 501
San Diego, CA 92101

Re: SCH#2012071079 CEQA Notice of Completion; proposed Mitigated Negative Declaration for the "Sewer and Water Project;" located along Paseo del Ocaso between Avenida del la Playa and Vallecitos; City of San Diego; San Diego County, California.

Dear Mr. Szymanski:

The Native American Heritage Commission (NAHC), the State of California 'Trustee Agency' for the protection and preservation of Native American cultural resources pursuant to California Public Resources Code §21070 and affirmed by the Third Appellate Court in the case of EPIC v. Johnson (1985: 170 Cal App. 3rd 604).

This letter includes state and federal statutes relating to Native American historic properties or resources of religious and cultural significance to American Indian tribes and interested Native American individuals as 'consulting parties' under both state and federal law. State law also addresses the freedom of Native American Religious Expression in Public Resources Code §5097.9. This project is also subject to California Government Code Section 65352.3 *et seq.*

The California Environmental Quality Act (CEQA – CA Public Resources Code 21000-21177, amendments effective 3/18/2010) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per the CEQA Guidelines defines a significant impact on the environment as 'a substantial, or potentially substantial, adverse change in any of physical conditions within an area affected by the proposed project, including ... objects of historic or aesthetic significance.' In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE), and if so, to mitigate that effect. The NAHC recommends that the lead agency request that the NAHC do a Sacred Lands File search as part of the careful planning for the proposed project. This area is known to the NAHC to be very culturally sensitive.

The NAHC "Sacred Sites," as defined by the Native American Heritage Commission and the California Legislature in California Public Resources Code §§5097.94(a) and 5097.96. Items in the NAHC Sacred Lands Inventory are confidential and exempt from the Public Records Act pursuant to California Government Code §6254 (r).

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries of cultural resources or burial sites once a project is underway. Culturally affiliated tribes and individuals may have knowledge of the religious and cultural

Response to Comments

NATIVE AMERICAN HERITAGE COMMISSION (August 3, 2012)

1. The Initial Study checklist in the Mitigated Negative Declaration (MND) did not identify impacts that would result in a substantial adverse change to the significance of historical resources and therefore the preparation of an EIR was not required. The City acknowledges the recommendation from the NAHC to conduct a Sacred Lands File search and that the APE of the project is very culturally sensitive. Careful planning and coordination has occurred between representatives of the San Diego Native American community and the City of San Diego for the project. Several members of this community participated in background research, testing, and the reporting of results. The Native American observers provided recommendations for the treatment of any historical resources (including human remains) encountered through the implementation of the project. These recommendations have been incorporated into the Mitigation Monitoring and Reporting Program (MMRP). The City also acknowledges that NAHC Sacred Sites are confidential exempt from the Public Records Act.

2. Please response number 2. The list of Native American contacts included in the NAHC letter was incorporated into the distribution list for the draft MND. Native American representatives were included in the planning of the project. Native American representatives were included in the planning of the project and every effort was made to minimize and avoid impacts to the extent possible.

2. significance of the historic properties in the project area (e.g. APE). We strongly urge that you make contact with the list of Native American Contacts on the attached list of Native American contacts, to see if your proposed project might impact Native American cultural resources and to obtain their recommendations concerning the proposed project. Pursuant to CA Public Resources Code § 5097.95, the NAHC requests cooperation from other public agencies in order that the Native American consulting parties be provided pertinent project information. Consultation with Native American communities is also a matter of environmental justice as defined by California Government Code §65040.12(e). Pursuant to CA Public Resources Code §5097.95, the NAHC requests that pertinent project information be provided consulting tribal parties, including archaeological studies. The NAHC recommends *avoidance* as defined by CEQA Guidelines §15370(a) to pursuing a project that would damage or destroy Native American cultural resources and Section 2183.2 that requires documentation, data recovery of cultural resources.

3. Furthermore, the NAHC if the proposed project is under the jurisdiction of the statutes and regulations of the National Environmental Policy Act (e.g. NEPA; 42 U.S.C. 4321-43351). Consultation with tribes and interested Native American consulting parties, on the NAHC list, should be conducted in compliance with the requirements of federal NEPA and Section 106 and 4(f) of federal NHPA (16 U.S.C. 470 *et seq.*), 36 CFR Part 800.3 (f) (2) & .5, the President's Council on Environmental Quality (CSQ, 42 U.S.C 4371 *et seq.* and NAGPRA (25 U.S.C. 3001-3013) as appropriate. The 1992 *Secretary of the Interiors Standards for the Treatment of Historic Properties* were revised so that they could be applied to all historic resource types included in the National Register of Historic Places and including cultural landscapes. Also, federal Executive Orders Nos. 11593 (preservation of cultural environment), 13175 (coordination & consultation) and 13007 (Sacred Sites) are helpful, supportive guides for Section 106 consultation. The aforementioned Secretary of the Interior's *Standards* include recommendations for all 'lead agencies' to consider the historic context of proposed projects and to "research" the cultural landscape that might include the 'area of potential effect.'

4. Confidentiality of "historic properties of religious and cultural significance" should also be considered as protected by California Government Code §6254 (r) and may also be protected under Section 304 of the NHPA or at the Secretary of the Interior discretion if not eligible for listing on the National Register of Historic Places. The Secretary may also be advised by the federal Indian Religious Freedom Act (cf. 42 U.S.C., 1996) in issuing a decision on whether or not to disclose items of religious and/or cultural significance identified in or near the APEs and possibility threatened by proposed project activity.

5. Furthermore, Public Resources Code Section 5097.98, California Government Code §27491 and Health & Safety Code Section 7050.5 provide for provisions for inadvertent discovery of human remains mandate the processes to be followed in the event of a discovery of human remains in a project location other than a 'dedicated cemetery'.

6. To be effective, consultation on specific projects must be the result of an ongoing relationship between Native American tribes and lead agencies, project proponents and their contractors, in the opinion of the NAHC. Regarding tribal consultation, a relationship built around regular meetings and informal involvement with local tribes will lead to more qualitative consultation tribal input on specific projects.

7. Finally, when Native American cultural sites and/or Native American burial sites are prevalent within the project site, the NAHC recommends 'avoidance' of the site as referenced by CEQA Guidelines Section 15370(a).

NATIVE AMERICAN HERITAGE COMMISSION (August 3, 2012) continued

3. Extensive background research was conducted that analyzed prior archaeological investigations in the area. The information from the research was used to inform both the testing program and data recovery plan.

4. The City acknowledges that the confidentiality of historic properties is protected under State law.

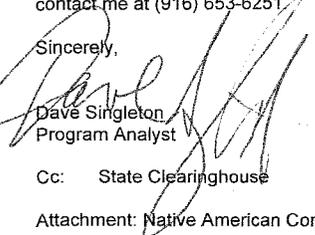
5. In addition to the Public Resources Code Section regarding the inadvertent discovery human remains the MMRP also contains mitigation requirements for the inadvertent discoveries and for the treatment of human remains.

6. The City appreciates and understands the importance of regular meetings and consultation with the Native American community and looks forward to additional dialogue in the future.

7. Please see response number 2. Native American representatives were included in the planning of the project and every effort was made to minimize and avoid impacts to the extent possible.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,


Dave Singleton
Program Analyst

Cc: State Clearinghouse

Attachment: Native American Contact List

NATIVE AMERICAN HERITAGE COMMISSION (August 3, 2012) continued

No response required

Native American Contact
San Diego County
August 3, 2012

Barona Group of the Capitan Grande
Edwin Romero, Chairperson
1095 Barona Road Diegueno
Lakeside , CA 92040
sue@barona-nsn.gov
(619) 443-6612
619-443-0681

Viejas Band of Kumeyaay Indians
Anthony R. Pico, Chairperson
PO Box 908 Diegueno/Kumeyaay
Alpine , CA 91903
jrothau@viejas-nsn.gov
(619) 445-3810
(619) 445-5337 Fax

NATIVE AMERICAN HERITAGE COMMISSION (August 3, 2012) continued
No response required

La Posta Band of Mission Indians
Gwendolyn Parada, Chairperson
PO Box 1120 Diegueno/Kumeyaay
Boulevard , CA 91905
gparada@lapostacasino.
(619) 478-2113
619-478-2125

Kumeyaay Cultural Historic Committee
Ron Christman
56 Viejas Grade Road Diegueno/Kumeyaay
Alpine , CA 92001
(619) 445-0385

San Pasqual Band of Mission Indians
Allen E. Lawson, Chairperson
PO Box 365 Diegueno
Valley Center, CA 92082
allenf@sanpasqualband.com
(760) 749-3200
(760) 749-3876 Fax

Campo Band of Mission Indians
Ralph Goff, Chairperson
36190 Church Road, Suite 1 Diegueno/Kumeyaay
Campo , CA 91906
chairgoff@aol.com
(619) 478-9046
(619) 478-5818 Fax

Sycuan Band of the Kumeyaay Nation
Danny Tucker, Chairperson
5459 Sycuan Road Diegueno/Kumeyaay
El Cajon , CA 92019
ssilva@sycuan-nsn.gov
619 445-2613
619 445-1927 Fax

Jamul Indian Village
Chairperson
P.O. Box 612 Diegueno/Kumeyaay
Jamul , CA 91935
jamulrez@sctdv.net
(619) 669-4785
(619) 669-48178 - Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012071079; CEQA Notice of Completion; proposed Mitigated Negative Declaration for the Sewer and Water Group 809 Project; located in the City of San Diego; San Diego County, California.

Native American Contact
San Diego County
August 3, 2012

Mesa Grande Band of Mission Indians
Mark Romero, Chairperson
P.O. Box 270 Diegueno
Santa Ysabel, CA 92070
mesagrandeband@msn.com
(760) 782-3818
(760) 782-9092 Fax

Ewiaapaayp Tribal Office
Will Micklin, Executive Director
4054 Willows Road Diegueno/Kumeyaay
Alpine, CA 91901
wmicklin@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Kwaaymii Laguna Band of Mission Indians
Carmen Lucas
P.O. Box 775 Diegueno -
Pine Valley, CA 91962
(619) 709-4207

Ewiaapaayp Tribal Office
Michael Garcia, Vice Chairperson
4054 Willows Road Diegueno/Kumeyaay
Alpine, CA 91901
michaalg@leaningrock.net
(619) 445-6315 - voice
(619) 445-9126 - fax

Inaja Band of Mission Indians
Rebecca Osuna, Spokesperson
2005 S. Escondido Blvd. Diegueno
Escondido, CA 92025
(760) 737-7628
(760) 747-8568 Fax

Ipai Nation of Santa Ysabel
Clint Linton, Director of Cultural Resources
P.O. Box 507 Diegueno/Kumeyaay
Santa Ysabel, CA 92070
cjlinton73@aol.com
(760) 803-5694
cjlinton73@aol.com

Kumeyaay Cultural Repatriation Committee
Steve Banegas, Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside, CA 92040
sbenegas50@gmail.com
(619) 742-5587
(619) 443-0681 FAX

Manzanita Band of the Kumeyaay Nation
Leroy J. Elliott, Chairperson
P.O. Box 1302 Diegueno/Kumeyaay
Boulevard, CA 91905
ljbirdsinger@aol.com
(619) 766-4930
(619) 766-4957 - FAX

NATIVE AMERICAN HERITAGE COMMISSION (August 3, 2012) continued

No response required

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012071079; CEQA Notice of Completion; proposed Mitigated Negative Declaration for the Sewer and Water Group 809 Project; located in the City of San Diego; San Diego County, California.

Native American Contact
San Diego County
August 3, 2012

Kumeyaay Diegueno Land Conservancy
Mr. Kim Bactad, Executive Director
2 Kwaaypaay Court Diegueno/Kumeyaay
El Cajon , CA 91919
guassacl@onebox.com
(619) 445-0238 - FAX
(619) 659-1008 - Office
kimbactad@gmail.com

Inter-Tribal Cultural Resource Protection Council
Frank Brown, Coordinator
240 Brown Road Diegueno/Kumeyaay
Alpine , CA 91901
frankbrown6928@gmail.com
(619) 884-6437

Kumeyaay Cultural Repatriation Committee
Bernice Paipa, Vice Spokesperson
1095 Barona Road Diegueno/Kumeyaay
Lakeside , CA 92040
(619) 478-2113
(KCRC is a Colation of 12
Kumeyaay Governments

NATIVE AMERICAN HERITAGE COMMISSION (August 3, 2012) continued

No response required

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is applicable for contacting local Native Americans with regard to cultural resources for the proposed SCH#2012071079; CEQA Notice of Completion; proposed Mitigated Negative Declaration for the Sewer and Water Group 809 Project; located in the City of San Diego; San Diego County, California.

7

RINCON BAND OF LUISEÑO INDIANS

Culture Committee

Post Office Box 68 · Valley Center, California 92082 ·
(760) 297-2622 or (760) 297-2635 & Fax: (760) 297-2639



RINCON BAND OF LUISEÑO INDIANS (July 31, 2012)

- 8. Please see response 1 and 2. Also, as indicated in the MMRP Native American monitoring will be required.
- 9. Thank you. The City is in communication with NAHC and the appropriate Native American groups have been contacted.

July 31, 2012

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

Subject: Community Plan La Jolla, Project No. 230429

Dear Jeffrey Szymanski,

This letter is written on behalf of the Rincon Band of Luiseño Indians. Thank you for inviting us to submit comments on the Community Plan La Jolla, Project No. 230429. Rincon is submitting these comments concerning your Project's potential impact on Luiseño cultural resources.

- 8 The Rincon Band has concerns for impacts to historic and cultural resources and findings of significant cultural value that could be disturbed or destroyed and are considered culturally significant to the Luiseño people. This is to inform you, your identified location is not within the Luiseño Aboriginal Territory. We recommend that you locate a Tribe within the project area to receive direction on how to handle any inadvertent findings according to their traditions and customs. Also, we recommend a Native American Monitor be present during any and all ground disturbances.
- 9 If you would like information on Tribes within your project area, please contact the Native American Heritage Commission and they will assist with a referral. If for some reason you are unable to locate an interested tribe please notify us and we will be happy to assist you in the matter. We also request you update your contact information for Rincon and send any future letters and correspondence to the Rincon Tribal Chairman and the Tribal Historic Preservation Officer in the Cultural Resource Center, Post Office Box 68, Valley Center, CA 92082 (760) 297-2635.

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

Sincerely,

Rose Duro
Rincon Culture Committee Chairman

Bo Mazzetti
Tribal Chairman

Stephanie Spencer
Vice Chairwoman

Charlie Kolb
Council Member

Steve Stallings
Council Member

Laurie E. Gonzalez
Council Member



San Diego County Archaeological Society, Inc.

Environmental Review Committee

1 August 2012

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

Subject: Draft Mitigated Negative Declaration
Sewer and Water Group 809
Project No. 230429

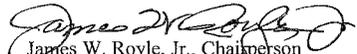
Dear Mr. Szymanski:

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

¹⁰ Based on the information contained in the DMND and the RECON report for the project, we concur with the impact analysis in the report and the mitigation measures as defined therein and in the DMND.

Thank you for the opportunity to participate in the public review period for this project's environmental documents.

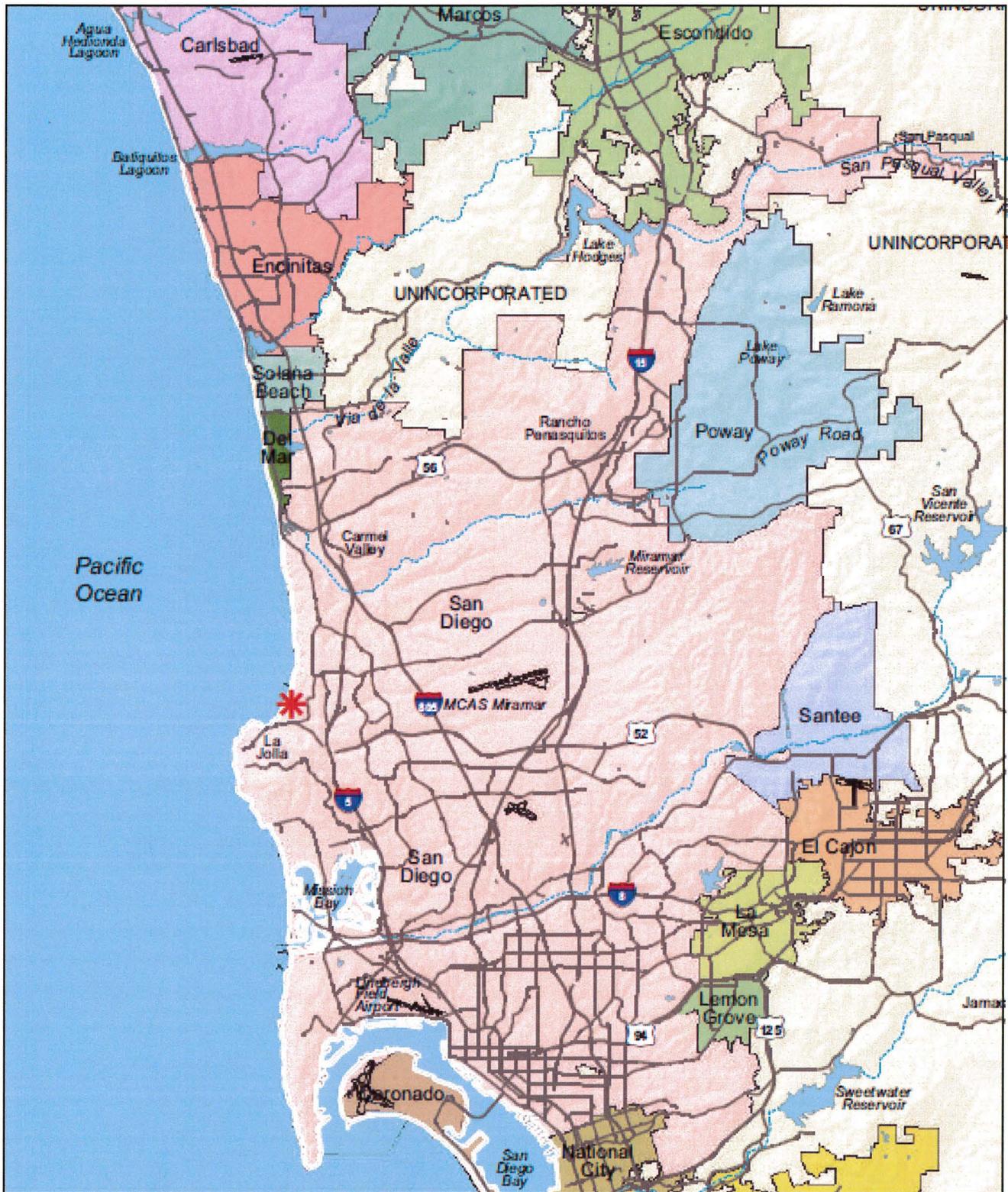
Sincerely,


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

cc: RECON
SDCAS President
File

SAN DIEGO COUNTY ARCHAEOLOGICAL SOCIETY, INC (8/1/2012)

10. Comment acknowledged.

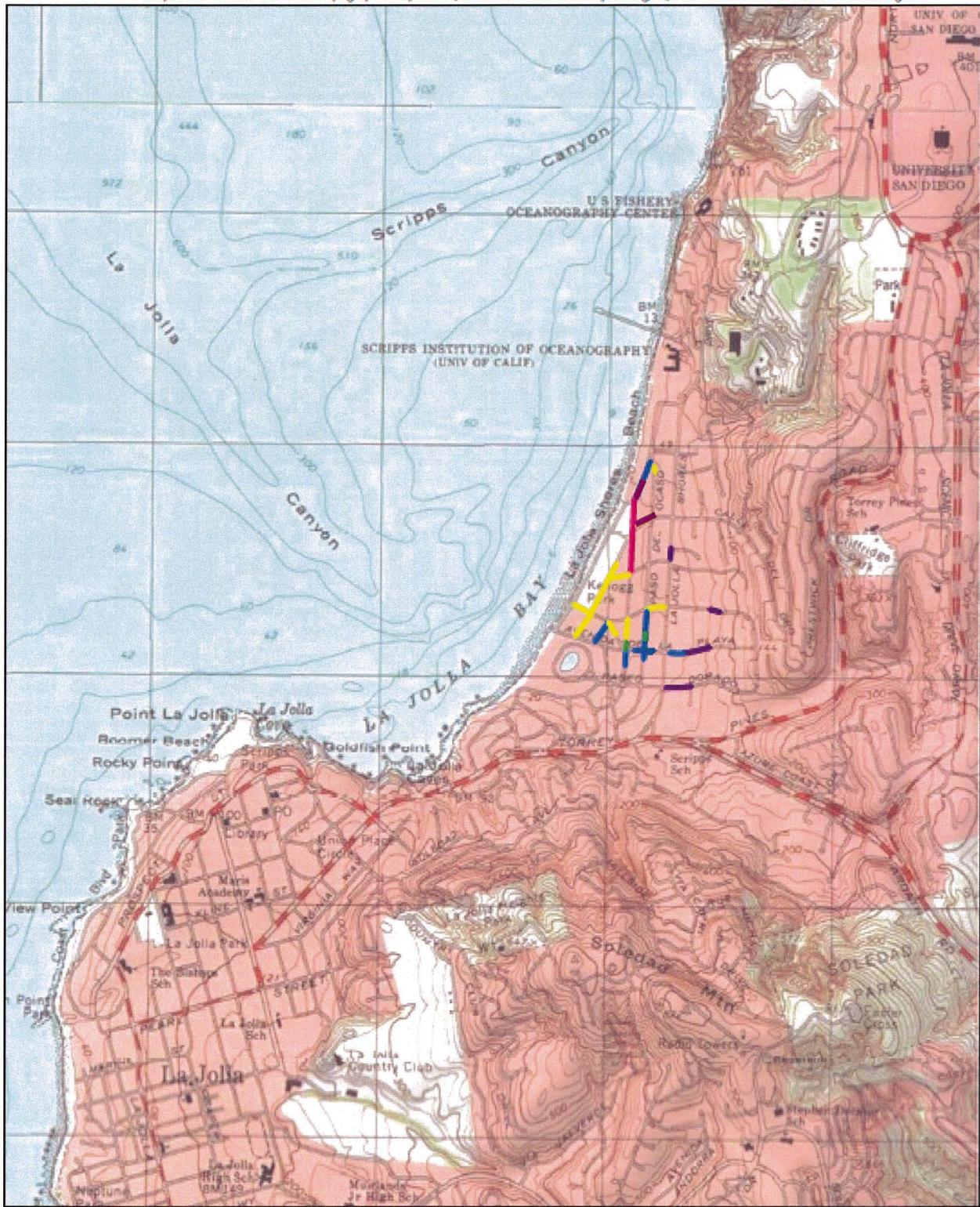


 Project Location

Location Map

Sewer & Water Group 809/ PTS 230429

FIGURE
No. 1

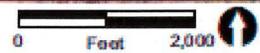
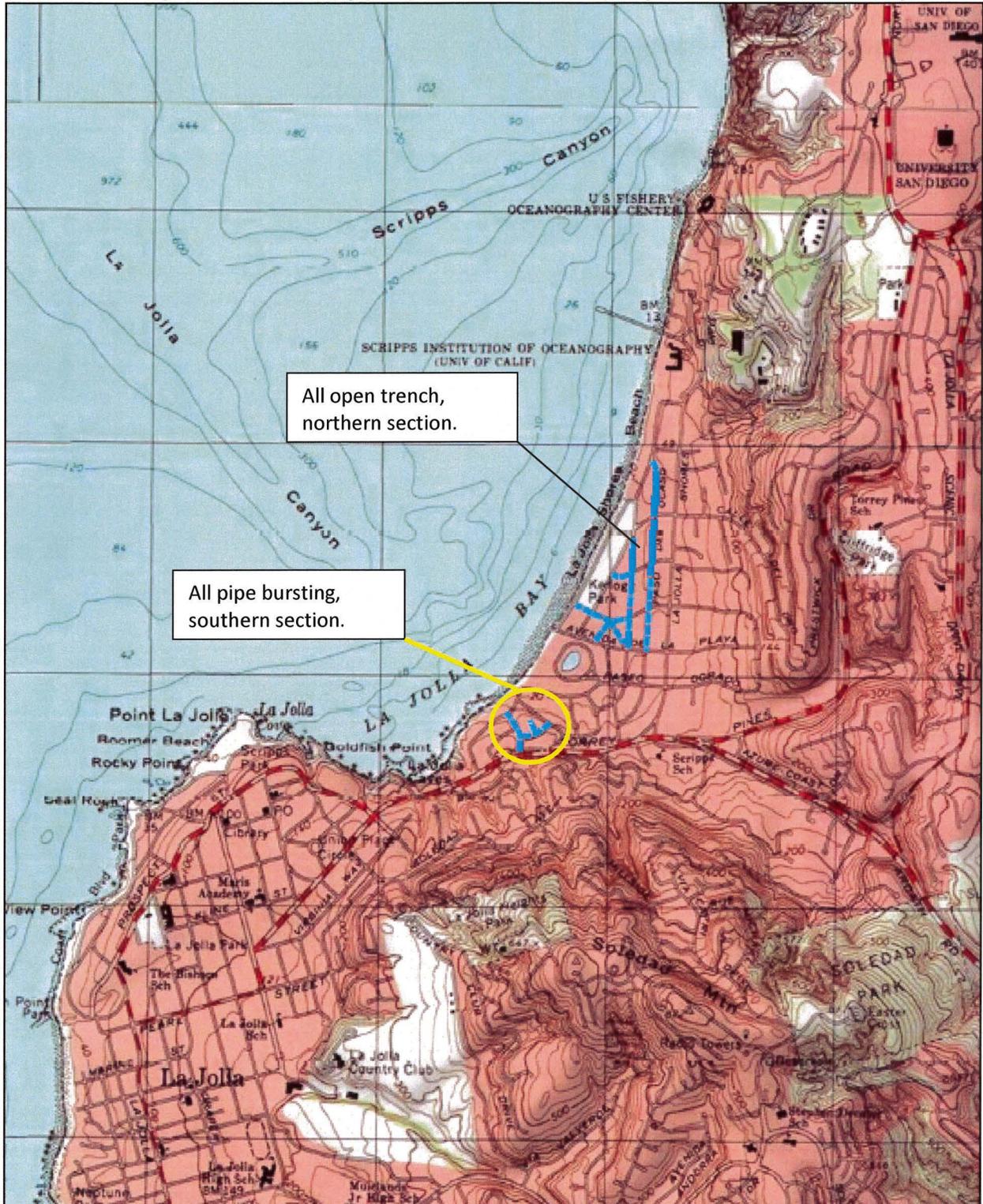


- | | |
|--|---|
| Sewer Lines |  New Line |
|  Deeper than existing |  Pipe Burst |
|  Same Depth Same Trench |  Rehab Pipe |

0 Feet 2,000 

Location Map (Sewer Lines)
Sewer & Water Group 809/ PTS 230429

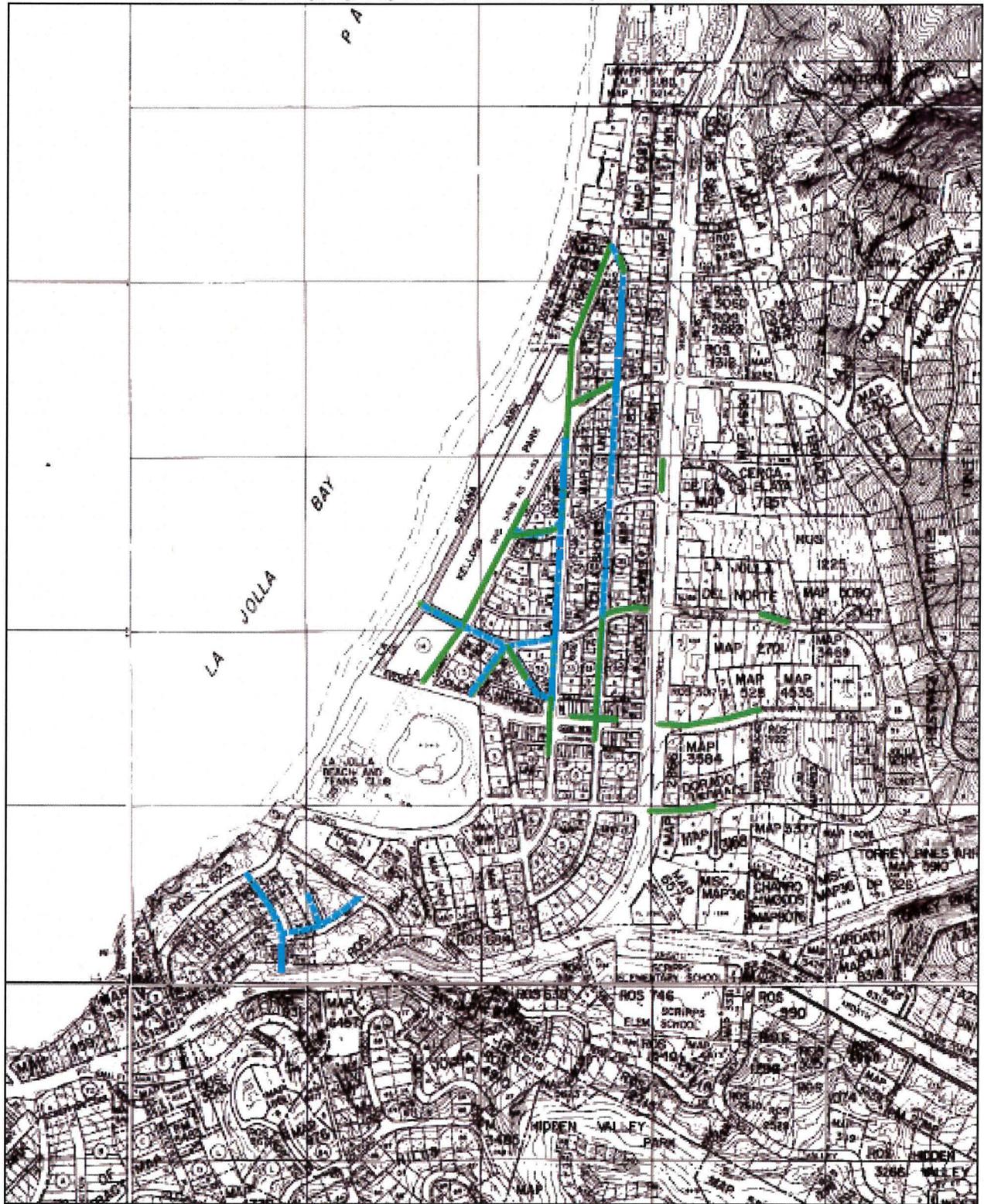
FIGURE
 No. 2



Water Lines

Location Map (Water Lines)
Sewer & Water Group 809/ PTS 230429

FIGURE
No. 3



— Sewer Lines
— Water Lines

Location Map (Sewer and Water Lines)

Sewer & Water Group 809/ PTS 230429

FIGURE
No. 4

THE ORIGINAL OF THIS DOCUMENT
WAS RECORDED ON OCT 12, 2012
DOCUMENT NUMBER 2012-0626087
Ernest J. Dronenburg, Jr., COUNTY RECORDER
SAN DIEGO COUNTY RECORDER'S OFFICE
TIME: 9:00 AM

RECORDING REQUESTED BY
CITY OF SAN DIEGO
DEVELOPMENT SERVICES
PERMIT INTAKE, MAIL STATION 501

WHEN RECORDED MAIL TO
PROJECT MANAGEMENT
PERMIT CLERK
MAIL STATION 501

SPACE ABOVE THIS LINE FOR RECORDER'S USE

INTERNAL ORDER NUMBER: WBS# B-00102.02.06

SITE DEVELOPMENT PERMIT NO. 824244
SEWER AND WATER GROUP 809 PROJECT NO. 230429 - [MMRP]
PLANNING COMMISSION

This Site Development Permit No. 824244 is granted by the Planning Commission of the City of San Diego to CITY OF SAN DIEGO, a Municipal Corporation, Owner/Permittee, pursuant to San Diego Municipal Code [SDMC] section 126.0504 and 143.0360. The approximately 1.47 acre site is located within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way in the LJSPD-SF, LJSPD-MF-1, LJSPD-MF-2, LJSPD-CC, LJSPD-V, LJSPD-PRF and LJSPD-OP-1-1 Zones of the La Jolla Community Plan. The project site is legally described as: portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the City of San Diego.

Subject to the terms and conditions set forth in this Permit, permission is granted to Owner/Permittee to remove aged sewer and water mains and install new sewer and water mains within portions of the aforementioned public right-of-ways described and identified by size, dimension, quantity, type, and location on the approved exhibits [Exhibit "A"] dated September 20, 2012, on file in the Development Services Department.

The project shall include:

- a. Remove sewer and water mains and install new sewer and water mains within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way;

- b. Public and private accessory improvements determined by the Development Services Department to be consistent with the land use and development standards for this site in accordance with the adopted community plan, the California Environmental Quality Act [CEQA] and the CEQA Guidelines, the City Engineer's requirements, zoning regulations, conditions of this Permit, and any other applicable regulations of the SDMC.

STANDARD REQUIREMENTS:

1. This permit must be utilized within thirty-six (36) months after the date on which all rights of appeal have expired. If this permit is not utilized in accordance with Chapter 12, Article 6, Division 1 of the SDMC within the 36 month period, this permit shall be void unless an Extension of Time has been granted. Any such Extension of Time must meet all SDMC requirements and applicable guidelines in effect at the time the extension is considered by the appropriate decision maker. This permit must be utilized by October 4, 2015.
2. No permit for the construction, occupancy, or operation of any facility or improvement described herein shall be granted, nor shall any activity authorized by this Permit be conducted on the premises until:
 - a. The Owner/Permittee signs and returns the Permit to the Development Services Department; and
 - b. The Permit is recorded in the Office of the San Diego County Recorder.
3. While this Permit is in effect, the subject property shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the appropriate City decision maker.
4. This Permit is a covenant running with the subject property and all of the requirements and conditions of this Permit and related documents shall be binding upon the Owner/Permittee and any successor(s) in interest.
5. The continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.
6. Issuance of this Permit by the City of San Diego does not authorize the Owner/Permittee for this Permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).
7. The Owner/Permittee shall secure all necessary building permits. The Owner/Permittee is informed that to secure these permits, substantial building modifications and site improvements may be required to comply with applicable building, fire, mechanical, and plumbing codes, and State and Federal disability access laws.

8. Construction plans shall be in substantial conformity to Exhibit "A." Changes, modifications, or alterations to the construction plans are prohibited unless appropriate application(s) or amendment(s) to this Permit have been granted.

9. All of the conditions contained in this Permit have been considered and were determined-necessary to make the findings required for approval of this Permit. The Permit holder is required to comply with each and every condition in order to maintain the entitlements that are granted by this Permit.

10. This Permit may be developed in phases.

ENVIRONMENTAL/MITIGATION REQUIREMENTS:

11. Mitigation requirements in the Mitigation, Monitoring, and Reporting Program [MMRP] shall apply to this Permit. These MMRP conditions are hereby incorporated into this Permit by reference.

12. The mitigation measures specified in the MMRP and outlined in Mitigated Negative Declaration No. 230429 shall be noted on the construction plans and specifications under the heading ENVIRONMENTAL MITIGATION REQUIREMENTS.

13. The Owner/Permittee shall comply with the MMRP as specified in Mitigated Negative Declaration No. 230429 to the satisfaction of the Development Services Department and the City Engineer. Prior to the issuance of the "Notice to Proceed" with construction, all conditions of the MMRP shall be adhered to, to the satisfaction of the City Engineer. All mitigation measures described in the MMRP shall be implemented for the following issue areas:

**Historical Resources, and
Paleontological Resources**

ENGINEERING REQUIREMENTS:

14. The City Engineer shall ensure preparation of a Water Pollution Control Plan (WPCP) for the grading activity in accordance with the guidelines in Appendix G of the City's Storm Water Standards.

INFORMATION ONLY:

- The issuance of this discretionary use permit alone does not allow the immediate commencement or continued operation of the proposed use on site. The operation allowed by this discretionary use permit may only begin or recommence after all conditions listed on this permit are fully completed and all required ministerial permits have been issued and received final inspection.
- Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this Permit, may protest the imposition within ninety days of

the approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code-section 66020.

- This development may be subject to impact fees at the time of construction permit issuance.

APPROVED by the Planning Commission of the City of San Diego on September 20, 2012 and Planning Commission Resolution 4835-PC.

Permit Type/PTS Approval No.: SDP NO. 824244
Date of Approval: September 20, 2012

AUTHENTICATED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES
DEPARTMENT

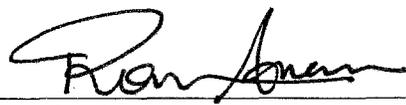


John S. Fisher
Development Project Manager

**NOTE: Notary acknowledgment
must be attached per Civil Code
section 1189 et seq.**

The undersigned Owner/Permittee, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Owner/Permittee hereunder.

CITY OF SAN DIEGO,
a Municipal Corporation
Owner/Permittee

By 
Rania Amen,
Senior Civil Engineer
Public Works Department
City of San Diego

**NOTE: Notary acknowledgments
must be attached per Civil Code
section 1189 et seq.**

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

County of San Diego

On October 11, 2012 before me, Georgette Ocariza Manela, Notary Public

Date

Here Insert Name and Title of the Officer

personally appeared

John S. Fisher and Rania Amen

Name(s) of Signer(s)

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



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

WITNESS my hand and official seal.

Signature:

Georgette Manela

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: Sewer and Water Group 809 - PTS#: 230429 [MMRP]

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____ Signer's Name: _____

Corporate Officer — Title(s): _____ Corporate Officer — Title(s): _____

Individual Individual

Partner — Limited General Partner — Limited General

Attorney in Fact Attorney in Fact

Trustee Trustee

Guardian or Conservator Guardian or Conservator

Other: _____ Other: _____

Signer Is Representing: _____ Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER

Top of thumb here

RIGHT THUMBPRINT OF SIGNER

Top of thumb here

ORIGINAL

PLANNING COMMISSION RESOLUTION NO. 4835-PC-1
SITE DEVELOPMENT PERMIT NO. 824244
SEWER AND WATER GROUP 809 PROJECT NO. 230429 - [MMRP]

WHEREAS, CITY OF SAN DIEGO, Owner/Permittee, filed an application with the City of San Diego for a permit to remove sewer and water mains and install new sewer and water mains within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the City of San Diego (as described in and by reference to the approved Exhibits "A" and corresponding conditions of approval for the associated Permit No. 824244);

WHEREAS, the project site is located within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way in the LJSPD-SF, LJSPD-MF-1, LJSPD-MF-2, LJSPD-CC, LJSPD-V, LJSPD-PRF and LJSPD-OP-1-1 Zones of the La Jolla Community Plan;

WHEREAS, the project site is legally described as portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the City of San Diego;

WHEREAS, on September 20, 2012, the Planning Commission of the City of San Diego considered Site Development Permit No. 824244 pursuant to the Land Development Code of the City of San Diego;

NOW, THEREFORE, BE IT RESOLVED by the Planning Commission of the City of San Diego as follows:

That the Planning Commission adopts the following written Findings, dated September 20, 2012.

FINDINGS:

Site Development Permit - Section 126.0504

A. Findings for all Site Development Permits

1. The proposed development will not adversely affect the applicable land use plan. The Sewer and Water Group 809 will remove sewer and water mains and install new sewer and water mains within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the La Jolla Shores Planned District area of the La Jolla Community Plan area of the City of San Diego. The La Jolla Community Plan Community Facilities, Parks and Services Element identifies sewer and water infrastructure in the community at the trunk line level of service and supports the provision of all necessary main lines to serve the community, including to the

neighborhood of La Jolla Shores. As such the proposed development will not adversely affect the applicable land use plan.

2. The proposed development will not be detrimental to the public health, safety, and welfare. The Sewer and Water Group 809 will remove sewer and water mains and install new sewer and water mains within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the La Jolla Shores Planned District area of the La Jolla Community Plan area of the City of San Diego.

The proposed project will support the provision of public services; including and not limited to police, fire, medical, schools, public parks and libraries, and private services of local industry and commerce all of which would be severely limited without the provision of healthful sanitation and clean water to the neighborhood. The proposed project will directly support the public health, safety and welfare and will not be detrimental to the public health, safety, and welfare.

The conditions of approval for the project will require compliance with several operational constraints and development controls intended to assure the continued public health, safety, and welfare. The City Engineer will be responsible and use all care in the discharge of the duties of the office to assure the demolition, construction and installation for the project will be executed in a manner consistent with all professional standards for public works. In consideration of the foregoing, the proposed project will not be detrimental to the public health, safety, and welfare.

3. The proposed development will comply with the applicable regulations of the Land Development Code, including any allowable deviations pursuant to the Land Development Code. The Sewer and Water Group 809 will remove sewer and water mains and install new sewer and water mains within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the La Jolla Shores Planned District area of the La Jolla Community Plan area of the City of San Diego. Prior to making a decision the Planning Commission considered the recommendation provided by the La Jolla Shores Advisory Board. Further, the Planning Commission has determined the proposed public works utility project to remove sewer and water mains located below ground in the public right-of-way in the La Jolla Shores neighborhood will conform to the regulations of the La Jolla Shores Planned District. No deviations are necessary to approve the proposed project.

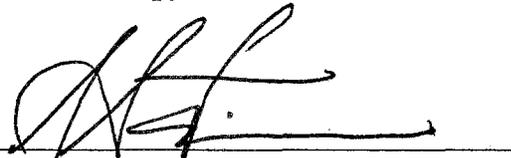
F. Supplemental Finding--Important Archaeological Sites and Traditional Cultural Properties

1. The site is physically suitable for the design and siting of the proposed development, the development will result in minimum disturbance to historical resources, and measures to fully mitigate for any disturbance have been provided by the applicant. The Sewer and Water Group 809 will remove sewer and water mains and install new sewer and water mains within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La

Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the La Jolla Shores Planned District area of the La Jolla Community Plan area of the City of San Diego. The site is improved public right-of-way which contain underground sewer and water mains of such an age and condition the mains require removal, installation of new mains. The design of the new mains and techniques for installation will result in the minimum disturbance to historical resources, and measures to fully mitigate for any disturbance have been provided by the applicant. These measures are conditions of approval and requirements of the Mitigation Monitoring and Reporting Program to which the applicant has agreed to uphold and implement.

2. All feasible measures to protect and preserve the special character or the special historical, architectural, archaeological, or cultural value of the resource has been provided by the applicant. The Sewer and Water Group 809 will remove sewer and water mains and install new sewer and water mains within portions of the public right-of-ways of Avenida de la Playa, Paseo del Ocaso, El Paseo Grande, Vallecitos, Calle Frescota, Camino del Sol, Camino del Oro, Paseo Dorado, La Jolla Shores Drive, Avenida de la Ribera, La Jota Way, St. Louis Terrace and Hypatia Way within the La Jolla Shores Planned District area of the La Jolla Community Plan area of the City of San Diego. The design of the new mains and techniques for installation will result in the minimum disturbance to historical and paleontological resources, and measures to fully mitigate for any disturbance have been provided by the applicant. These measures are conditions of approval and requirements of the Mitigation Monitoring and Reporting Program to which the applicant has agreed to uphold and implement. These measures will, to the extent feasible, protect and preserve the special character or the special historical, architectural, archaeological, or cultural value of the resource.

BE IT FURTHER RESOLVED that, based on the findings hereinbefore adopted by the Planning Commission, Site Development Permit No. 824244 is hereby GRANTED by the Planning Commission to the referenced Owner/Permittee, in the form, exhibits, terms and conditions as set forth in Permit No. 824244, a copy of which is attached hereto and made a part hereof.



John/S. Fisher
Development Project Manager
Development Services

Adopted on: September 20, 2012

Job Order No. WBS# B-00102.02.06

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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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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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

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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

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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).

**Larry Gardner
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

"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)

| | |
|----------------------------|------------|
| For Office Use Only | |
| NS Req: | FHM Fac #: |
| Date: | By: |

Date:

Instruction: Complete pertinent information then FAX both form and map to (xxx) xxx-xxxx, mail, or hand-deliver to the City of San Diego, Water Department/Meter Shop at: 2707 Caminito Chollas San Diego, CA 92105

Meter Information

| | |
|--|----------------------|
| Billing Account #: | Requested Move Date: |
| Current Fire Hydrant Meter Location: | |
| New Meter Location: (Attach a detailed map, Thomas Bros map location or construction drawing.) | |

Company Information

| | | | |
|--|--------|-----------|------------|
| Company Name: | | | |
| Mailing Address: | | | |
| City: | State: | Zip Code: | Phone: () |
| Name and Title of Requestor: | | | Phone: () |
| Site Contact Name and Title: | | | Phone: () |
| Pager #: | | | Cell: () |
| Responsible Party Name authorizing relocation fee: | | | |
| Signature: | Title: | Date: | |

Fire Hydrant Meter Removal Request

| | | |
|--|-------------------------|-------|
| <input type="checkbox"/> Check Box to Request Removal of Above Meter | Requested Removal Date: | |
| Provide current Meter location if different from above: | | |
| Signature: | Title: | Date: |
| Phone: () | Pager: () | |

For Office Use Only

| | | | |
|-----------------|-----------------|------------|--|
| CIS Account #: | Fees Amount: \$ | | |
| Meter Serial #: | Size: | Make/Style | |
| Backflow #: | Size: | Make/Style | |
| Name: | Signature: | Date: | |

FHM Relocate_Removal Form

FHM App Created: 11/2/00-htp

APPENDIX C

Materials Typically Accepted by Certificate of Compliance

Materials Typically Accepted by Certificate of Compliance

1. Soil amendment
2. Fiber mulch
3. PVC or PE pipe up to 16 inch diameter
4. Stabilizing emulsion
5. Lime
6. Preformed elastomeric joint seal
7. Plain and fabric reinforced elastomeric bearing pads
8. Steel reinforced elastomeric bearing pads
9. Waterstops (Special Condition)
10. Epoxy coated bar reinforcement
11. Plain and reinforcing steel
12. Structural steel
13. Structural timber and lumber
14. Treated timber and lumber
15. Lumber and timber
16. Aluminum pipe and aluminum pipe arch
17. Corrugated steel pipe and corrugated steel pipe arch
18. Structural metal plate pipe arches and pipe arches
19. Perforated steel pipe
20. Aluminum underdrain pipe
21. Aluminum or steel entrance tapers, pipe downdrains, reducers, coupling bands and slip joints
22. Metal target plates
23. Paint (traffic striping)
24. Conductors
25. Painting of electrical equipment
26. Electrical components
27. Engineering fabric
28. Portland Cement
29. PCC admixtures
30. Minor concrete, asphalt
31. Asphalt (oil)
32. Liquid asphalt emulsion
33. Epoxy

APPENDIX D

Sample City Invoice

| City of San Diego, Field Engineering Div., 9485 Aero Drive, SD CA 92123 | | | | | | Contractor's Name: | | | | | |
|---|----------------------------------|------------------------|----------|--------------|---------------|---|--------|---------------|-----------------|----------------|--------|
| Project Name: | | | | | | Contractor's Address: | | | | | |
| Work Order No or Job Order No. | | | | | | | | | | | |
| City Purchase Order No. | | | | | | Contractor's Phone #: | | | Invoice No. | | |
| Resident Engineer (RE): | | | | | | Contractor's Fax #: | | | Invoice Date: | | |
| RE Phone#: | | | RE Fax#: | | | Contact Name: | | | Billing Period: | | |
| Item # | Item Description | Contract Authorization | | | | Previous Estimate | | This Estimate | | Totals to Date | |
| | | Unit | Qty | Price | Extension | %/QTY | Amount | % / QTY | Amount | % / QTY | Amount |
| 1 | 2 Parallel 4" PVC C900 | LF | 1,380 | \$34.00 | \$46,920.00 | | | | | | |
| 2 | 48" Primary Steel Casing | LF | 500 | \$1,000.00 | \$500,000.00 | | | | | | |
| 3 | 2 Parallel 12" Secondary Steel | LF | 1,120 | \$53.00 | \$59,360.00 | | | | | | |
| 4 | Construction and Rehab of PS 49 | LS | 1 | \$150,000.00 | \$150,000.00 | | | | | | |
| 5 | Demo | LS | 1 | \$14,000.00 | \$14,000.00 | | | | | | |
| 6 | Install 6' High Chain Link Fence | LS | 1 | \$5,600.00 | \$5,600.00 | | | | | | |
| 7 | General Site Restoration | LS | 1 | \$3,700.00 | \$3,700.00 | | | | | | |
| 8 | 10" Gravity Sewer | LF | 10 | \$292.00 | \$2,920.00 | | | | | | |
| 9 | 4" Blow Off Valves | EA | 2 | \$9,800.00 | \$19,600.00 | | | | | | |
| 10 | Bonds | LS | 1 | \$16,000.00 | \$16,000.00 | | | | | | |
| 11 | Field Orders | AL | 1 | 80,000 | \$80,000.00 | | | | | | |
| 11.1 | Field Order 1 | LS | 5,500 | \$1.00 | \$5,500.00 | | | | | | |
| 11.2 | Field Order 2 | LS | 7,500 | \$1.00 | \$7,500.00 | | | | | | |
| 11.3 | Field Order 3 | LS | 10,000 | \$1.00 | \$10,000.00 | | | | | | |
| 11.4 | Field Order 4 | LS | 6,500 | \$1.00 | \$6,500.00 | | | | | | |
| 12 | Certified Payroll | LS | 1 | \$1,400.00 | \$1,400.00 | | | | | | |
| CHANGE ORDERS | | | | | | | | | | | |
| Change Order 1 | | | 4,890 | | | | | | | | |
| Items 1-4 | | | | | \$11,250.00 | | | | | | |
| Item 5-Deduct Bid Item 3 | | LF | 120 | -\$53.00 | (\$6,360.00) | | | | | | |
| Change Order 2 | | | 160,480 | | | | | | | | |
| Items 1-3 | | | | | \$95,000.00 | | | | | | |
| Item 4 Deduct Bid Item 1 | | LF | 380 | -\$340.00 | (\$12,920.00) | | | | | | |
| Item 5-Encrease bid Item 9 | | LF | 8 | \$9,800.00 | \$78,400.00 | | | | | | |
| Change Order 3 (Close Out) | | | -121,500 | | | | | | | | |
| Item 1 Deduct Bid Item 3 | | | 53 | -500.00 | (\$26,500.00) | | | | | | |
| Item 2 Deduct Bid Item 4 | | LS | -1 | 45,000.00 | (\$45,000.00) | | | | | | |
| Items 3-9 | | | 1 | -50,500.00 | (\$50,500.00) | | | | | | |
| 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 (5% 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 E

Location Maps

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AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT

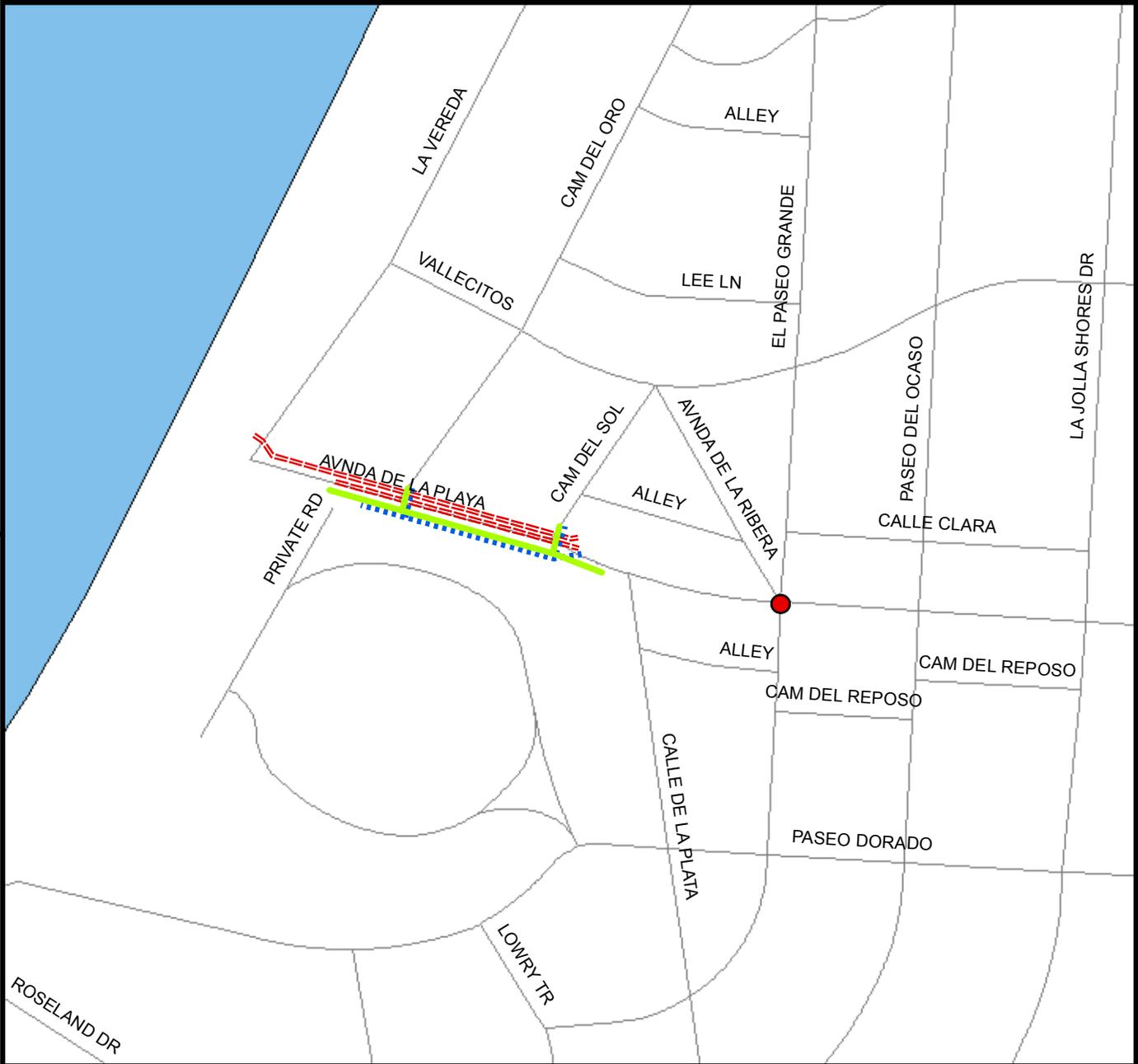


SENIOR ENGINEER
RANIA AMEN
 619-533-5492

PROJECT MANAGER
AKRAM BASSYOUNI
 619-533-6902

PROJECT ENGINEER
ED CASTANEDA
 619-533-6656

CONSTRUCTION PROJECT INFORMATION
 LINE 619-533-4207



Legend

-  SEWER
-  NUTRIENT SEPARATING BAFFLE BOX
-  WATER
-  STORM DRAIN



SEWER AND WATER GROUP 809

SENIOR ENGINEER
 RANIA AMEN
 619-533-5492

PROJECT ENGINEER
 ED CASTANEDA
 619-533-6656

PROJECT MANAGER
 AKRAM BASSYOUNI
 619-533-6902

CONSTRUCTION PROJECT
 INFORMATION LINE
 619-533-4207



Legend

- GJ809 SEWER REPLUMB
- GJ809 SEWER
- - - - - GJ809 WATER



COMMUNITY NAME: LA JOLLA

COUNCIL DISTRICT: 1

SAP ID: B-00416 (S) B-00102 (W)



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APPENDIX F

Sewer Mains and Manhole Rehabilitation Sample Data Templates

APPENDIX G

Hydrostatic Discharge Form

APPENDIX

Hydrostatic Discharge Requirements Certification (Discharge Events < 500,000 gpd)

All discharge activities related to this project comply with the Regional Water Quality Control Board (RWQCB) Order No. 2002-0020, General Permit for Discharges of Hydrostatic Test Water and Potable Water to Surface Water and Storm Drains as referenced by (http://www.swrcb.ca.gov/rwqcb9/board_decisions/adopted_orders/2002/2002_0020.shtml), 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> | | <i>Comment</i> |
|--|-------------------------------|----------------|----------------------------|------------------------------|--|-------------------------|---|----|----------------|
| Event # | Discharge Date & Amount (GAL) | Discharge Time | Meter Readings (at source) | Test Results (Chlorine / PH) | Name of Personnel Conducting Tests (print) | *signature of personnel | yes | no | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |
| | Date | Start: | Start: | | | | | | |
| | Amt: | End: | End: | | | | | | |

**By signing, I certify that all of the statements and conditions for hydrostatic discharge events are correct.*

Project Name: _____

Work Order No.(s): _____

Have any thresholds have been exceeded? Per Order No. 2002-0020, would this be a reportable discharge and must be reported **within 24 hours** of the event? [Reportable discharge would include violation of maximum gallons per day, any upset which exceeds any effluent limit]

APPENDIX H

Construction Impacts Mitigation Plan Guidelines

For Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809

City of San Diego
Engineering and Capital Projects
Avenida De La Playa Infrastructure Replacement Project and
Sewer and Water Group 809

Construction Impacts Mitigation Plan Guidelines
May 9, 2013

The purpose of this plan is to provide an outline of the anticipated construction impacts and mitigation measures related to the construction of the Avenida De La Playa Infrastructure Replacement Project and Sewer and Water Group 809. Mitigation measures described in this plan will be developed and implemented by the contractor; however, the contractor must adhere to applicable City of San Diego standards, codes and regulations. Furthermore, the City has and may continue to solicit community input on various mitigation measures to ensure minimal impact to the community during construction. Areas where community input will be considered are summarized in Table 1 of this document and identified in the appropriate sections of this plan.

According to City requirements, the construction mitigation measures shall address a range of impacts, including traffic, parking, truck routes, noise, dust control, business operation and access, landscape protection, emergency access, storm water pollution protection and safety concerns.

The City of San Diego is working with the Avenida De La Playa Construction Mitigation Task Force, La Jolla Shores Association Advisory Group, La Jolla Shores Association, La Jolla Merchants Association, La Jolla Community Planning Association, and Council District 1 to address community impacts from construction. The City of San Diego will also work with the businesses along Avenida De La Playa to plan for access issues.

I. PROJECT OVERVIEW

A. Project Description

The Avenida De La Playa Infrastructure Replacement Project will improve storm water, sewer and water services to the community, prevent ocean pollution, create more reliable systems and reduce flooding and future maintenance costs. It includes the replacement and realignment of approximately 1,300 linear feet of existing storm drain main along Avenida De La Playa in La Jolla, from Paseo del Ocaso to La Vereda, and upgrade of the existing outfall structure.

As part of a State designated Area of Special Biological Significance (ASBS) by the California Ocean Plan, pollution and other waste discharges are prohibited in the waters off La Jolla Shores. The City of San Diego has adopted a strategic plan to comply with these regulations. This project is one of a series of projects to address storm water and urban runoff throughout the City. The City has received grant funding through the United States Environmental Protection Agency and plans to utilize as much as possible before the deadline in December 2013.

The existing outfall structure, located on the beach at the west end of Avenida De La Playa, will be upgraded as part of the project. The community has already been involved in decision-making for the outfall structure configuration. A community meeting was held in May 2011, comments were received and the City of San Diego worked with the ad hoc Community Advisory Group to discuss alternative configurations. The most efficient configuration of the outfall structure that meets the operational design criteria and minimizes impacts to the beach area is a 27-foot-wide by 40-foot-long outfall structure to be placed at the location of the existing outfall structure.

In order to increase the capacity of the storm drain system at this location, a 70-inch-high by 183-inch-wide reinforced concrete pre-cast box will be installed from the outfall structure to the existing storm drain system at the intersection of Avenida De La Playa and Camino Del Sol.

Currently, sewer and water mains in the area no longer meet current design standards for size, capacity and/or material. The existing sewer and water mains on Avenida De La Playa are to be replaced with larger capacity mains and with a stronger material. Also, replacement of the sewer and water mains on Avenida De La Playa, with the storm drain replacement project, would decrease disturbance to the area in the future.

To collect trash that has already entered the storm drain system requires the installation of trash separation devices. Hydrodynamic separators, such as a Nutrient Separating Baffle Box, are typically used to remove trash, sediment and oil from storm water flows. Trash collected by the filtration screen is stored in a dry state, which can be removed by a vacuum truck. The Nutrient Separating Baffle Box will be installed, below grade, at the north side of the Avenida De La Playa/Avenida De La Ribera/El Paseo Grande intersection.

Due to the impacts from trenching, the street will be restored from curb to curb along Avenida De La Playa from the storm drain outfall structure to the impacted area at Camino Del Sol. This section of street will be restored with concrete pavement. At the location where the Nutrient Separating Baffle Box is to be installed, the area impacted by trenching will be restored with asphalt pavement to match the surrounding, existing pavement.

The Avenida De La Playa Infrastructure Replacement Project is being partially funded by a grant from the U.S. Environmental Protection Agency. Grant funds must be used by the end of 2013.

Due to similar scheduling and geographic area, Sewer and Water Group 809 will be bundled with the Avenida De La Playa Infrastructure Replacement Project, and both will take place concurrently. This was preferred and accepted by the La Jolla Shores Association. Sewer and Water Group 809 will replace 1 ½ miles of water pipes and 1 ½ miles of sewer pipes over a timeframe of 12 to 16 months in the La Jolla Shores community.

B. Project Phasing and Construction Schedule

Avenida De La Playa Infrastructure Replacement Project Phasing

The project construction shall be phased in an effort to minimize impacts to the community. Five phases are proposed for the Avenida De La Playa Infrastructure Replacement Project, with work beginning west with the upgrades to the outfall structure and continuing east to Paseo Del Ocaso. It is possible for some phases to overlap if there would not be additional impacts to the community.

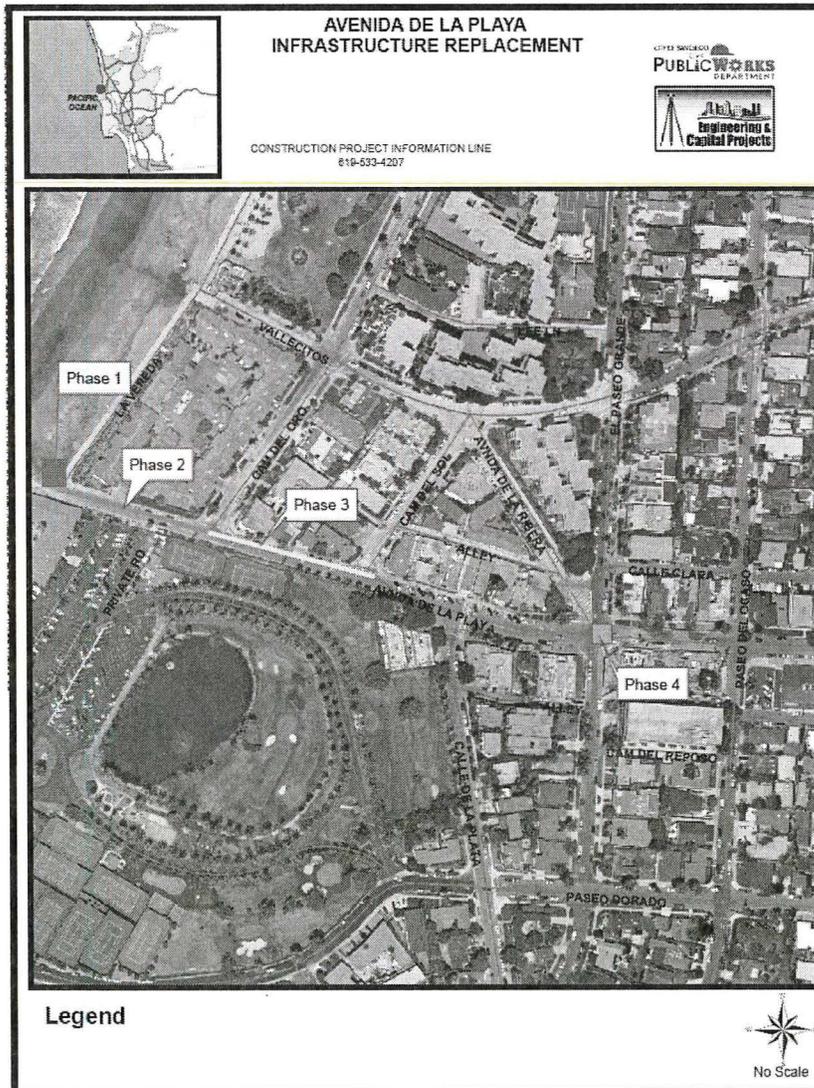
Phase 1 – Outfall Structure Upgrade at La Vereda

Phase 2 – Pipe Replacement from La Vereda to Camino Del Oro

Phase 3 – Pipe Replacement from Camino Del Oro to Camino Del Sol

Phase 4 – Debris Catch Basin Construction at El Paseo Grande

Phase 5 – Pavement, Sidewalk and Landscape Restoration



Traditionally, pipe replacement projects begin at the lowest point, which is recommended for this project. Phases 1, 2 and 3 must be done in the order listed above, but Phase 4, the debris catch basin, could have flexibility in the timing because it is a separate piece of the project. It would not be feasible to carry out Phase 5, the pavement, sidewalk and landscape restoration work, concurrently with Phases 1, 2 and 3. Phase 5 would only be efficient and cost effective if it is conducted once the storm water, sewer and water system work is complete. The Avenida De La Playa Infrastructure Replacement Project is anticipated to take six months.

Sewer and Water Group 809 Project Phasing

Sewer and Water Group 809 work will also be phased, but timing of the phases is yet to be determined by the City in cooperation with the community and the contractor. Work is anticipated to take 12 to 16 months.

INSERT SEWER AND WATER GROUP 809 MAP AND PHASE DESCRIPTIONS

Schedule

Construction is anticipated to begin Tuesday, Sept. 3, 2013, as the City of San Diego will observe the summer moratorium, when work would not occur between Memorial Day and Labor Day. The City of San Diego is considering community input on dates when construction should be avoided or minimized. The project team will check with the Parks and Recreation department to avoid scheduling work during large, permitted community events in the La Jolla Shores area. The La Jolla Shores Association Advisory Group asked that work at Camino del Sol and Avenida De La Playa be conducted from October to Thanksgiving or in January and February. The members asked that the City avoid holidays, spring break and three-day weekends. The La Jolla Shores Association explained that they rely on the summer months and holidays for business, but the quieter winter months are also appreciated by residents.

The contractor will determine the day-to-day construction schedule and will be required to work within standard minimum hours. Additional information about work hours is included below in Section II. The detailed construction schedule will be developed by the contractor after the contract has been awarded.

II. POTENTIAL COMMUNITY IMPACTS AND MITIGATION MEASURES

Several potential community impacts have been identified for the Avenida De La Playa Infrastructure Replacement Project and Sewer and Water Group 809. Some mitigation measures have already been identified, and some measures will be identified in cooperation with the community and contractor. Access to businesses along Avenida De La Playa, including parking and pedestrian accessibility, as well as noise, dust and beach access, were the predominant concerns expressed by business owners and community members.

A. Business and Resident Access

Vehicular Traffic and Street Parking

For the Avenida De La Playa Infrastructure Replacement Project, the City evaluated whether one traffic lane (i.e., one side of the street) could remain open; however, due to the size and scope of the project, it is not possible. The entire street area for the active construction phase will be closed to vehicular traffic, and street parking in the active construction phase area will not be available. However, due to the phasing of construction work, each phase will limit active construction to about one city block per phase, which will reduce the impact to businesses along Avenida De La Playa. The City will work with businesses with truck deliveries on Avenida De La Playa to ensure truck delivery access, including the possible identification of alternate access points and parking. Traffic control is described in additional detail below in Section G. Motorists may park on surrounding streets, and detour signs will be posted. Contractor crews would be required to park personal vehicles away from the project site to reduce the impact on available parking.

Trenchless technology will be used as much as possible for Sewer and Water Group 809 to avoid opening a trench in the street, which thereby reduces community impacts to street access. However, where trenchless technology cannot be used, vehicular traffic and street parking will be limited in the active construction area. Trenching will be done at connection points only.

Sidewalk Access

Sidewalks will be accessible to pedestrians. When lateral construction for utility connections is occurring, isolated sections of sidewalks may be temporarily closed, although this is expected to be minimal and for short duration. Pedestrian access to businesses on Avenida De La Playa will be maintained. The community requested that the sidewalk be fenced off from construction for public safety.

Beach Access

During Phase 1 of the Avenida De La Playa project, beach access from Vallecitos to the outfall structure will be limited, which will impact residents and tourists. Signage placed in advance would provide detour information, and beach-related businesses will be notified of the closure.

Boat Access

The boat launch will be closed during Phase 1 of the Avenida De La Playa project, which will impact boaters. Signage placed in advance will notify boaters about the closure.

Utility Interruptions

Utility interruptions, such as interruptions in water service, would be addressed by the contractor and are not expected to be extensive or occur for long periods of time. Sewer service is generally not affected when sewer mains are replaced. The contractor will be required to notify all businesses and residences in advance of any non-emergency service outages. Typically, door hangers are used to notify businesses and residences of utility interruptions. The contractor will coordinate with the City of San Diego to ensure trash pickup remains on schedule.

B. Construction Hours

Typical work hours for City of San Diego construction projects are Monday through Friday, from 8:30 a.m. to 3:30 p.m. Current grant funding must be billed by the end of 2013, and as such, the City of San Diego needs to complete as much of the project as possible between September and December 2013. The City of San Diego is interested in extending work hours to 7:30 a.m. to 4:30 p.m., particularly from September to December 2013. Extending work hours may allow the project to qualify for the maximum grant dollars available. The La Jolla Shores Association agreed that the Avenida De La Playa work hours could be extended to 7:30 a.m. to sunset. The La Jolla Shores Association Advisory Committee agreed that the Sewer and Water Group 809 project work hours could be shifted to 8 a.m. to 4:30 p.m.

The City will consider public input on work hours, particularly an extension to work hours. The City of San Diego will work with the businesses on Avenida De La Playa and residents in the area to ensure they are aware in advance of scheduled construction.

C. Construction Noise

Construction noise is anticipated for this project but would be in compliance with the City of San Diego Construction Noise Ordinance, which states construction noise is permitted from 7 a.m. to 7 p.m., Monday through Saturday, but not Sundays or legal holidays. The contractor will be responsible for maintaining compliance with the ordinance.

D. Dust Control

Per City of San Diego Municipal Code Section 2.2.2 Dust Controls, the contractor will provide water to prevent dust nuisance at the project site. All debris shall be thoroughly wetted without creating a runoff problem. Dust may result from construction activities, and the contractor will be responsible for implementing mitigation measures.

E. Temporary Bypass of Storm Flows

The contractor will develop a plan for temporary bypass of storm flows to minimize and mitigate flooding. The City will review and approve the plan.

F. Trench Dewatering

The City of San Diego will work with the contractor to develop a suitable method for trench dewatering. According to Section 02140 in City of San Diego Clean Water Program Guidelines, the contractor shall bear the sole responsibility for the design, installation and operation of the dewatering system to comply with requirements.

G. Traffic Control

A traffic control plan is being developed by the City of San Diego and would be implemented by the contractor. The traffic control plan must meet City standards for traffic control, and the plan is reviewed and approved by the City Traffic Control Engineer. As such, input from the community will not be considered on traffic control. Emergency vehicle access will be addressed in the traffic control plan. In the event of an emergency, the contractor will assist emergency vehicles as needed to provide access to all buildings and residences. Below is a summary of the draft plan for the Avenida De La Playa Infrastructure Replacement Project:

Phase 1: Avenida De La Playa, from La Vereda (boardwalk) to Camino Del Oro, will be inaccessible. All traffic will be redirected to Camino Del Oro, and the beach can be accessed at Vallecitos. There will be no boat launch ramp access.

Phase 2: Avenida De La Playa, from Camino Del Oro to Camino Del Sol will be inaccessible. All traffic will be directed northbound on Camino Del Sol to Vallecitos, at which point Avenida De La Playa can be reached by heading back southbound on Camino Del Oro. Community members requested that access be maintained to La Jolla Surf Systems and House of Pizza, both located at the corner of Camino del Sol and Avenida De La Playa. This phase will include a detailed traffic control plan and signage for the intersection. The Avenida De La Playa Construction Mitigation Task Force suggested that the intersection of Camino del Oro and Camino del Sol be a separate phase. They also suggested that the best time to complete this work is January or February 2014.

Phase 3: Avenida De La Playa at Camino Del Sol will be closed to traffic. Traffic will be directed onto Camino Del Sol. Avenida De La Playa can be reached by heading in either direction and then southbound.

Phase 4: All intersections are open in this phase; however, lanes will be coned off and narrowed due to construction activity.

Traffic control measures will also be included for Sewer and Water Group 809 based on the project's construction phasing, which is yet to be determined.

H. Material Storage and Laydown Areas

A staging area has not yet been identified for the project. The City of San Diego will evaluate possible locations before making a decision and will ask for community input. Potential locations identified to date include the Sewer Pump Station 27 site on Avenida De La Playa between Paseo Del Ocaso and El Paseo Grande, Kellogg Park, Kellogg Park parking lot, La Jolla Beach and Tennis Club, and the traffic triangle at Camino Del Oro and El Paseo Grande. Contractor crews would be required to park personal vehicles outside the area to reduce the amount of space needed for the staging area, and reduce the impact to surrounding parking. Community members suggested potential overflow parking locations to include the City of San Diego Water Department-owned lot on Hidden Valley Road and Torrey Pines Road; the Scripps Institute of Oceanography parking lot; the Hotel at Torrey Pines; University of California, San Diego; and the vacant lot owned by Palazzo on Torrey Pines Road.

The City researched the feasibility of many of these options. Kellogg Park cannot be used for parking or staging; Scripps Institute of Oceanography and University of California, San Diego do not have available lots. Laureate Park, located at Paseo Del Ocaso and El Paseo Grande, is a possible location but would be a long burden on nearby residents who have experienced the pump station construction. The City-owned lot on Hidden Valley Road and Torrey Pines Road can be used for parking or staging. The City will contact the City Development Project Manager for the lot regarding possible access to the vacant lot owned by Palazzo.

I. Landscape Protection

Any impacts to sidewalks, driveways or surrounding landscaping will be replaced to original or equivalent condition. The contractor will be responsible for implementing landscape protection measures.

J. Outfall Structure Aesthetics

The La Jolla Shores Association and La Jolla Shores Association Advisory Committee provided input to the design of the outfall structure, as presented by the City of San Diego. Members would like to see a sand color stone rather than a stone with red and black flecks in it. Members of the Avenida De La Playa Construction Mitigation Task Force requested the cost per square foot for the decorative shell sidewalk. Additionally, they suggested modifying the interior angle of the ramp to avoid debris collection. The community also requested that anti-graffiti coating be used and recommended FSC Coatings, a company located on Miramar Road.

The outfall structure will be included in the contract as an independent option, and currently, the City will cover the cost of the structure and ramp cobble. Based on contractor bids, the City and community will work together to determine how to proceed. The possible outcomes include:

- The City covering the full cost of the aesthetic features
- The community covering the cost of the aesthetic features
- The aesthetic features are eliminated

K. Summary of Potential Community Impacts and Mitigation Measures

The table below summarizes potential community impacts and indicates where community input will be considered to ensure minimal impacts to the community and Avenida De La Playa businesses from construction. For mitigation measures where community input is solicited, the final decision will be made by the City project team and/or contractor.

| SUMMARY OF POTENTIAL COMMUNITY IMPACTS AND MITIGATION MEASURES | | |
|--|------------------------------------|--|
| Community Impact | Will Community Input Be Solicited? | Reasoning |
| Construction Phasing and Schedule | Yes | Community input will be considered, but the day-to-day construction schedule is determined by the contractor. |
| Traffic Control | No | The City is responsible for developing, reviewing and approving the traffic control plan. |
| Parking | Yes | Due to the scope of the project, the entire street block/active phase area needs to be closed, so there will be no access to parking in the active construction area. Suggestions are welcome for alternative parking locations during construction. |
| Sidewalk Access | No | Sidewalk closures are not anticipated, with the exception of utility lateral connections, which would be minimal. Pedestrian access to businesses would be maintained. |
| Utility Interruptions | No | The contractor would be responsible for developing and implementing mitigation measures. |
| Work Hours | Yes | Community input will be considered, but the contractor must adhere to standard City minimum work hours and project schedule. |
| Construction Noise | No | The contractor must adhere to City standards for construction noise. |
| Dust Control | No | The contractor must adhere to City standards for dust control. |
| Bypass of Storm Flows | No | The contractor will develop a mitigation plan for bypass of storm flows. The City will review and approve the plan before it is implemented. |
| Trench Dewatering | No | The contractor will develop a mitigation plan for trench dewatering. The City will review and approve the plan before it is implemented. |
| Material Storage and Laydown Areas | Yes | Community input will be considered, but the City and contractor will work together to determine which location is most feasible. |

| | | |
|------------------------------|-----|--|
| Landscape Protection | No | The contractor will implement landscape protection measures to ensure surrounding landscaping is replaced to original or equivalent condition. |
| Outfall Structure Aesthetics | Yes | The City will continue to work with the community to finalize the outfall structure design. |
| Signage | Yes | Standard City signage will be used, but consideration will be given to additional signage if necessary. |

III. COMMUNICATIONS WITH THE COMMUNITY DURING CONSTRUCTION

The City of San Diego will provide information to residents and business owners directly impacted by the project early, often and via a variety of means.

A. Stakeholder Identification

The City of San Diego will identify stakeholders anticipated to be impacted by the project and will develop a master stakeholder distribution list to be used for postal mail, email or phone correspondence. Stakeholders include local elected officials, local community groups, local businesses and residents.

Suggestions from the community would be welcomed on organizations or individuals to include in the stakeholder database. One member of the Avenida De La Playa La Jolla Shores Advisory Committee mentioned that there may be Americans with Disabilities Act impacts to the property located across the street from the tennis courts on Avenida De La Playa.

B. Community Meetings and Construction Progress Updates

The City of San Diego plans to share information with the Avenida De La Playa Construction Mitigation Task Force, La Jolla Shores Association Advisory Group, La Jolla Merchants Association, La Jolla Shores Association and La Jolla Community Planning Association by providing project update presentations at regularly scheduled meetings. Updates will also be posted on the project Web pages and provided via email updates. In addition, regular briefings will be conducted with Council District 1.

C. Project Web Page

Information about the project is posted on the City of San Diego Engineering and Capital Projects website (<http://www.sandiego.gov/engineering-cip/projectsprograms/avenidadelaplaya.shtml>) and will be posted on the Think Blue Web page (<http://www.sandiego.gov/thinkblue/special-projects/index.shtml>). In an effort to streamline the City's Web pages, the Engineering and Capital Projects Web page may be deactivated. The City of San Diego will update the content on the Think Blue website to ensure it is timely and accurate.

Information related to Sewer and Water Group 809 is currently posted on the following website: <http://cipapp.sandiego.gov/CIPDetail.aspx?ID=B00416>. This information will be updated as the project progresses.

D. Community Liaison Representative

The contractor will retain a community liaison representative to provide project-related information to the community and respond to community concerns. The community liaison representative will work closely with businesses and residents impacted by the project.

E. Additional Information Distribution

A suite of informational materials will be developed and various distribution methods will be used to communicate project information to stakeholders.

Email Updates

Email addresses on the stakeholder database will be used to send email updates, such as construction progress and schedule information or traffic detours. Email update notifications could be sent as often as a weekly basis.

Postcard Mailing

A member of the Avenida De La Playa La Jolla Shores Advisory Committee suggested a mailing to residents in the immediate vicinity of the project to alert them about the project schedule and consult them about extending the work hours.

Public Information Line

The City of San Diego's public information line (619-533-4207) and public information email account (engineering@sandiego.gov) will be used for this project. Stakeholders may call the 24-hour telephone line or email engineering@sandiego.gov with questions and concerns, and a City of San Diego public information officer will return the call or email.

Fact Sheet

One fact sheet was already developed for the project, and it may be updated to reflect new available project information. The fact sheet would be distributed during briefings and project update presentations at community group meetings.

Media Relations

The City of San Diego and its outreach consultants may submit project update articles to local community organization newsletters in order to better reach community members. These articles would include an overview of the project and construction schedule information.

The City of San Diego public information officers will distribute news releases to local media outlets on an as-needed basis. Outlets include La Jolla Light, La Jolla Village News, and if deemed appropriate, U-T San Diego and local television stations.

Door Hangers

The contractor will be responsible for distributing door hangers to notify residents and business owners of any utility shut-offs or upcoming street closures. If a shut-off is planned, the door hangers will be distributed at least 48 hours before the shut-off.

Signage

Signage will be posted along Avenida De La Playa indicating that work will be conducted from Paseo del Ocaso to La Vereda. The anticipated construction end date, information line number and email address will be prominently displayed on the signage. Separate signage for traffic and parking will be posted, as needed, according to City of San Diego traffic control standards. The La Jolla Shores Association Advisory Group suggested signage be placed several days in advance indicating the beach access limitations and boat launch closure. In addition, it was suggested that signage be placed in the business district and at the outfall structure well in advance of any work. Furthermore, it was suggested that signage should include a statement that the project is for water quality and protection.

APPENDIX I
Technical Specifications

AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT
TECHNICAL SPECIFICATIONS
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SECTION 02610

FLAP GATES

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The CONTRACTOR shall furnish and install copolymer composite flexible flap gates including all necessary parts and appurtenances as required by the Plans and Specification to allow proper installation and operation.

PART 2: PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Flap:
 - 1. The flap shall be constructed from 1-inch thick reinforced synthetic rubber compound to withstand the design seating head. The flap will be horizontally reinforced with stainless steel structural members across the clear opening when additional frame support members are not desired. These members shall be bolted through the flexible flap and sealed against leakage. The hinge shall be an integral part of the flap.
 - 2. Elastomeric flaps shall be made of molded or extruded neoprene having a hardness range of 45 -65 shore A durometer and conforming to ASTM Specification D-2000, having a maximum compression set of 25%, and low temperature brittleness to meet suffix F-17 (- 40° F.). The flexible flap shall be flush mounted on the copolymer gate body by means of T-304 (T-316) stainless steel mounting bolts, and shall require no further adjustment to maintain a watertight seal.
- B. Frame:
 - 1. The frame shall be reinforced composite copolymer (T-304, T-316 stainless steel) and designed to handle all loads encountered in shipping, handling, installation and operation.
 - 2. Each frame shall be molded individually to the exact dimensions specified. Flap gate frames shall be manufactured of gray fiberglass reinforced polyester (FRP) containing ultraviolet absorbers. The surfaces shall be resin rich to a depth of 0.010-0.020 inches and reinforced with C-glass or polymeric fiber surfacing material. The surface shall be free of exposed reinforcing fibers. The composition of these layers shall be approximately 95% (by weight) resin. The remaining laminate shall be made up of resin and reinforcing fibers in a form, orientation, and position in the laminate to meet the mechanical requirements.
 - 3. Composition of the laminate shall be in accordance with the recommendations shown in the Quality Assurance Report for Reinforced Thermostat Plastic (RTP) Corrosion Resistance Equipment prepared under the sponsorship of the Society of the Plastics Industry, Inc. (SPI), and the Material Technology Institute (MTI) of the Chemical Process Industry for "Hand Lay-up Laminates", and shall meet the specifications for Type I, Grade 10 Laminates shown in Appendix. M-1 of said report.

- C. The flap gates shall be a Type I flap gates as manufactured by Plasti-Fab, Inc., or approved equal. The flexible flap gates shall be a copolymer (stainless steel) frame with flange back for bolting to a flat wall or flange mounted to a pipe. The flap will be of flexible synthetic rubber construction to allow for smooth quiet operation. The flap is to be fastened to the top of the frame with stainless steel fasteners.

PART 3: EXECUTION

3.01 INSTALLATION

- A. The frame shall be anchored to a flat wall with T-304 (T-316) stainless steel anchor bolts and set on a 1-inch thick grout base or flange mounted to a pipe. The Contractor shall install the flap gates in accordance with the manufacturer's recommendations.

END OF SECTION 02610

SECTION 02720

PRECAST CONCRETE CULVERTS

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish and install a cantilever wall design precast concrete box culverts in accordance with the Plans and Specifications. The Contractor shall furnish all labor, equipment, and materials necessary to install the precast concrete box culverts and appurtenances.

1.02 SUBMITTALS

- A. The Contractor shall prepare and submit shop drawings in accordance with Subsection 2-5.3 of the Standard Specifications and these Specifications. The submittal shall include the following:
 - 1. Design Mixtures: For each precast concrete mixture.
 - 2. Shop Drawings: Show fabrication details for each culvert unit. Indicate overall and individual section layout drawings and structural calculations and designs. Include specific structural designs for standard sections, shortened sections, skewed sections, and sections with access opening or pipe entry. Show method of reinforcing extension for headwalls and wing walls.
 - a) Detail lifting and handling inserts.
 - b) Include and locate all openings
 - c) Indicate location of each precast concrete culvert unit by same identification mark placed on culvert wall.
 - 3. Design Submittal: For precast concrete culverts, signed and sealed by the qualified professional engineer(s) responsible for their preparation.
- B. Additional information submittal information shall include:
 - 1. Qualification Data: For manufacturer, for installer.
 - 2. Material Certificates: Upon request, the precast concrete manufacturer shall supply copies of material certifications and/or laboratory test reports, including mill tests and all other test data, for:
 - a) Cementitious Materials: Portland cement, blended cement, pozzolans, ground granulated blast-furnace slag, silica fume
 - b) Admixtures, and curing compound proposed for use on this project
 - c) Reinforcing materials.
 - d) Aggregates.
 - 3. Source Quality Control Reports. Upon request, the precast concrete manufacturer shall submit copies of test reports showing that the mix has been successfully tested to produce concrete with the properties specified and will be suitable for the project conditions. Such tests may include:
 - a) ASTM C143 Slump Test
 - b) ASTM C31 Compressive strength
 - c) ASTM C173 or ASTM C231 Air content

- d) Copies of in-plant QA/QC inspection reports
- 4. Closeout submittals shall include:
 - a) Warranty: Signed copy of manufacturer's warranty
 - b) Manufacturer's Certificate: Original certificate indicating compliance with requirements.

1.03 DELIVERY

- A. Delivery, lifting, and handling of unit shall be performed in compliance with manufacturer's recommendations. The precast concrete box culverts shall be delivered to the site via a flatbed transport. Handle and transport units in a position consistent with shape and design to avoid stresses resulting in cracking or damage.
- B. The Contractor shall provide equipment at the site that has adequate capacity to unload the precast units. Lift and support units at designated points shown on shop drawings.
- C. The Contractor shall exercise care in the storage and handling of the precast concrete box culverts prior to and during installation.
- D. Any repair or replacement costs associated with events occurring after delivery is accepted and unloading has commenced shall be borne by the Contractor.

1.04 SOURCE QUALITY CONTROL

- A. Test and inspect precast structural concrete according to referenced design standards.
- B. Discard and replace precast structural concrete units that do not comply with requirements

1.05 QUALITY ASSURANCE

- A. The manufacturer shall have a minimum of 5 years experience in comparable work to that specified, that assumes responsibility for design and engineering of precast concrete culverts, including preparation of shop drawings and engineering analysis by a qualified professional engineer. The design standards shall comply with ACI 318 (ACI 318M).
- B. The precast concrete manufacturer shall be certified by the NPCA Plant Certification Program for a minimum of 3 years prior to and during production of the products for this project. The installer shall have a minimum of 3 years experience in successful completion of similar work. A pre-installation conference shall be conducted at project site.

PART 2: PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. The precast concrete box culvert shall have provision for sealant at joints, meeting the following requirements:
 - 1. Traffic Live Loading: AASHTO HS20
 - 2. Depth of Bury: As indicated on Plans.
 - 3. Lateral Soil Pressure: 60 lbs/cft
 - 4. Earth Dead Load: 120 lbs/cft plus 1.15 Soil Interaction Factor

- B. The precast unit shall be a Box Culvert Type I Cantilever Wall Design as manufactured by Jensen Precast, or approved equal. The following is the manufacturer representative for this unit:

1. Jensen Precast
14221 San Bernardino Ave, Fontana, CA 92335
Tel: (800) 257-6100 or (909) 350-0654
Email; info@jensenprecast.com
www.jensenprecast.com.

2.02 MATERIALS

A. General

1. Precast concrete according to NPCA Quality Control Manual.

B. Reinforcing Materials.

1. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
2. Low-Alloy-Steel Reinforcing Bars: ASTM A 706/A 706M, deformed.
3. Steel Mats: ASTM A 184/A 184M, fabricated from ASTM A 615/A 615M, Grade 60 (Grade 420), deformed bars, assembled with clips.
4. Plain-Steel Welded Wire Reinforcement: ASTM A 185, fabricated from as-drawn steel wire into flat sheets.
5. Deformed-Steel Welded Wire Reinforcement: ASTM A 497/A 497M, flat sheet.

C. Concrete Materials.

1. Portland Cement: ASTM C 150, Type I, II or V.
2. Blended Cements: ASTM C 595.

D. Supplementary Cementitious Materials:

1. Fly Ash: ASTM C 618, Class C or F.
2. Aggregates: ASTM C 33 free from deleterious or reactive substances.
3. Water: ASTM C 1602, free from deleterious material. Use of reclaimed/recycled process water is acceptable.
4. Air-Entraining Admixture: ASTM C 260.
5. Chemical Admixtures: ASTM C 494/C 494M, water reducing; high-range water reducing; water reducing and accelerating; and water reducing and retarding. Do not use admixtures containing chlorides.

- E. Joint Sealant: All joints of the precast boxes shall be sealed with a flexible, watertight, preformed joint material installed according to the manufacturer's recommendations. Joint sealing material shall conform to AASHTO M 198 and ASTM C 990.

2.03 CONCRETE DESIGN MIXTURES

A. Concrete Design Mixtures.

1. Prepare design mixtures for each type of precast concrete required, by qualified independent laboratory or by manufacturer's qualified personnel at plant serving project. Proportion normal-weight concrete mixes to provide the following properties:
 - a) Minimum Compressive Strength: 5000 psi (34.5 MPa) at 28 days.
 - b) Maximum Water-Cementitious Materials Ratio: 0.40 maximum.
 - c) Air Content: 5.5 to 7.5 percent for concrete exposed to freezing and thawing, 2.5 to 4.5 percent elsewhere.
 - d) Concrete Mixing: Comply with NPCA Quality Control Manual
 - e) Finishes: Standard for formed surfaces. Trowel unformed surfaces.
 - f) Replace precast concrete units deficient in strength, manufacturing tolerances, and finishes.

2.04 FABRICATION

A. The manufacturer shall fabricate precast concrete culverts according to NPCA Manual.

1. Comply with NPCA Quality Control Manual for fabricating, placing, and supporting reinforcement.
2. Fabricated cages of reinforcement either by tying bars, wires or welded wire reinforcement into rigid assemblies.
3. Comply with NPCA Quality Control Manual for measuring, mixing, transporting, and placing concrete.
4. Print Manufactures Name, Job, Box Culvert Size and Casting Date on each precast structural concrete unit on a surface that will not show in finished structure.
5. Discard and replace precast concrete box culvert units that do not comply with requirements unless repairs meet requirements and Engineer's approval.

PART 3: EXECUTION

3.01 GENERAL

- #### A.
- The precast concrete culverts shall be installed with the manufacturer's recommendation and related sections of the Standard Specifications.

3.02 INSPECTION

- #### A.
- All components shall be subject to inspection by the Engineer at the place of manufacture and/or installation. Tests and Inspections shall include verification of unit placement and joints meet requirements of referenced design and quality control standards. The Contractor shall remove and replace components of the precast concrete culverts that do not pass tests and inspections and retest as specified above. The following shall be done for repairing the following minor defects:
1. Boxes which are cracked, checked or damaged shall not be placed and will be removed from the work unless appropriate repair procedures are submitted and approved.

2. Fine cracks and checks on the surface of the member which do not extend to the plane of the nearest reinforcement will not be cause for rejection unless they are numerous and extensive. Cracks which extend into the plane of the reinforcing shell shall be repaired in an approved manner.
3. Small damaged or honeycombed areas, which are purely surface in nature, shall be repaired in an approved manner. Excessive damage, honeycomb, or cracking will be subject to structural review. All repairs shall be made sound, properly finished, and cured according to the pertinent repair procedure. When fine cracks or hair checks on the surface indicate poor curing practices, the production of precast boxes shall be discontinued until corrections are made and proper curing is provided.

3.03 STRUCTURAL INSTALLATION

- A. The manufacturer shall provide the Contractor installation instructions and offer on-site guidance during the important stages of the installation as identified by the manufacturer at no additional expense. The Contractor shall comply with the following:
 1. Install precast concrete structure sections with sealants per ASTM C 990.
 2. Install precast concrete units to lines and grades indicated. Lift units by suitable lifting devices at points provided. Install units in accordance with manufacturer's recommendations.
 3. The box segments shall be joined in such a manner that the ends are fully entered and the inner surfaces are flush and even. The maximum allowable gap between joints is 0.75 inch. This gap shall be checked immediately after laying each section.
 4. For multiple box installations, a three (3) inch space between the box lines shall be filled with grout. The grout shall be a workable mix suitable for pumping without segregation. The grout shall be placed by pumping or an approved alternate method and consolidated by mechanical vibration during placement. The grouting shall be performed by a continuous placement in lifts not exceeding two (2) feet. Vertical grout barriers may be used to control the flow of grout horizontally. The grout shall attain a minimum compressive strength equivalent to the requirement for the precast reinforced concrete box culvert.
 5. Commence setting units at downstream end of line, with grooved ends of box bottom segments facing upstream. Place bottom of each segment in full contact with prepared bedding. After joining units, check for alignment and grade.
 6. Keep interior of units free of dirt and other foreign material as setting of units progresses. Leave installation clean at completion of work.
 7. Reset units not in true alignment, which show settlement, or are damaged.
 8. Joint units in such a manner that ends are fully entered and inner surfaces are flush and even, with maximum allowable gap between joints of 0.75 inch (18 mm). Check joint and gap immediately after laying each unit.

3.04 PERFORMANACE

- A. Delegated Design: Design precast concrete box culverts, including engineering analysis by a qualified professional engineer, using specified performance requirements and design criteria.

- B. Structural Performance: Design precast concrete box culverts to withstand design loads indicated within project conditions.
- C. Structural Performance: Provide precast structural concrete units and connections capable of withstanding the following design loads within limits and under conditions indicated, in accordance with the following:
- D.
 - 1. Ultimate strength load factors, strength reduction factors, shear equations, and crack control criteria per AASHTO Standard Specification for Highway Bridges.
 - 2. AASHTO HS20-44

3.05 WARRANTY

- A. The manufacturer shall guarantee the precast concrete culverts free from defects in materials and workmanship for a period of one year from date of substantial completion. The manufacturer shall upon its determination repair, correct or replace any manufacturer originated defects advised in writing to the manufacturer within the referenced warranty period.

END OF SECTION 02720

SECTION 03100

CONCRETE FORMWORK

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. Formwork for cast-in-place concrete including all associated shoring, bracing, and anchorage required to provide a complete job.
- B. Coordination and providing openings in concrete for other work.
- C. Provide all form accessories required to perform a complete job.
- D. Stripping of forms

1.02 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings
- B. ACI 318 - Building Code Requirements for Structural Concrete
- C. ACI 347 - Guide to Formwork for Concrete
- D. PS 1 - Construction and Industrial Plywood

1.03 DESIGN REQUIREMENTS

- A. CONTRACTOR is solely responsible for design, engineering and construction of formwork, shoring and bracing to conform to design and code requirements; resultant concrete to conform to required shape, line and dimension.
- B. Forming, shoring and bracing designs for footings, walls and roofs shall be provided by the CONTRACTOR to meet all requirements specified here-in.
- C. If requested by the ENGINEER, drawings and calculations shall be submitted verifying the selection of form ties, horizontal and vertical stiff-backs or braces for wall panels, forming and form openings, shoring of roof forms, or any other part of forming, shoring or bracing which may be considered critical by the ENGINEER.
- D. A civil or structural engineer hired by the Contractor, and registered in the same state in which the project is located must design all falsework and forming requirements for roof support systems. The drawings, with supporting calculations, must each be signed, sealed and dated by the engineer. No work shall be started until the roof support and form design has been submitted to the CITY for records. The falsework design engineer must visit the site and approve the erection of all shoring prior to the placement of any concrete.
- E. The CONTRACTOR shall be solely responsible for the adequacy of the forming, shoring and bracing design.
- F. Any formwork installed by CONTRACTOR shall be solely at CONTRACTOR's risk. The submittal of the design will not lessen or diminish the CONTRACTOR's liability.

1.04 SUBMITTAL FOR REVIEW

- A. Section 2-5.3 Section 01300 - **Submittals:** Procedures for submittals.
- B. **Product Data:** Provide data on components to be used to demonstrate form materials and accessories meet these specifications. Submit product data for waterstops.

1.05 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 347, 301, and 318.
- B. Formwork shall be designed under the direct supervision of a licensed Structural or Civil Engineer experienced in the design of this work and licensed in California.

1.06 DELIVERY, STORAGE AND PROTECTION

- A. Section 01600 - Material and Equipment: Transport, handle, store and protect products.
- B. Deliver void forms and installation instructions in manufacturer's packaging.
- C. Store off ground in ventilated and protected manner to prevent deterioration from moisture.

PART 2: PRODUCTS

2.01 FORM MATERIALS

- A. **Form Materials:** CONTRACTOR shall select form materials which will produce a smooth, even finish in all exposed surfaces. Form materials which may remain or leave residues on or in the concrete shall be certified as compliant with NSF Standard 61 – Drinking Water system Components.
- B. **Wall Form:** The wall form design shall be such that wall sections can be poured full height without creating horizontal cold joints and without causing snapping of form ties which shall be of sufficient strength and number to prevent spreading of the forms during the placement of concrete and which shall permit ready removal of the forms without spalling or damaging the concrete..

2.02 FORMWORK ACCESSORIES

- A. **Form Ties:** Form ties which remain in the wall of water-retaining structures shall have waterstops and a breakback or cone one-inch minimum in depth.

Snap ties, if used, shall not be broken until the concrete has reached the design concrete strength. Snap ties, designed so that the ends must be broken off before the forms can be removed, shall not be used. The use of tie wires as form ties will not be permitted. Fully threaded stub bolts may be used in lieu of smooth ties with waterstops.

Taper ties with plastic or rubber plugs of an approved and proven design may also be used. The plugs must be driven into the hole with a steel rod, placed in a cylindrical recess made therefore in the plug. The taper ties shall be oriented such that when the tapered plugs are inserted, the pressure of the water will push the plug toward the taper. At no time shall plugs be driven on the flat area outside the cylindrical recess. A-58 SURE PLUG as manufactured by DAYTON SUPERIOR, Santa Fe Springs, CA (phone: (562) 522-3442) meet these specifications, however an approved equivalent may be used.

Ties shall positively secure the wall to the required dimension and hold the wall to that dimension prior to and during concrete placement.
- B. **Form Release Agent:** Colorless mineral oil which will not stain concrete, or absorb moisture, or impair natural bonding. For steel forms, release agent shall prevent discoloration of the concrete due to rust.
- C. **Corners:** Chamfer all corners of concrete unless specifically noted otherwise. Provide chamfer strip secured in forms as required.

D. **Nails, Spikes, Lag Bolts, Through Bolts, Anchors:** Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.

E. **Form Size:** BURKE, ECONOMY, SYMONS, ALUMA, and regular plywood forms may be used for forming of walls.

F. **Form Stiffeners:** Horizontal walers shall consist of structural steel channels, angles or tubing of adequate size to retain the concrete without deflecting.

The walers shall be rolled or welded to the proper radii or offset brackets shall be used for shaping the wall to the dimensions shown on the Drawings and shall be used both for inside and outside wall forms in direct contact with the wall panels and at vertical spacing of no more than 96 inches on center where curved walls are required.

There shall be at least one waler within 24 inches of the top and bottom of the wall.

The largest dimension of the steel waler shall be normal to the face of the wall.

Vertical structural steel or wood members shall be used at a minimum horizontal spacing of 72 inches and shall have sufficient rigidity and strength to ensure the proper vertical alignments with the aid of braces under all predictable stress conditions.

In lieu of the above, a different system and spacing may be used if it is satisfactorily demonstrated to the ENGINEER that it will be equally effective.

G. **Roof Form Supports:** Forms and falsework supports for the roof shall be sufficiently rigid and strong enough to support the wet concrete, workers and equipment necessary for its placement without appreciable deflections. A minimum of 40 PSF for live-load shall be considered in the design.

Unless the deflection of roof-forms is limited to 1/300 of the roof slab span, an upward camber shall be provided.

The CONTRACTOR shall provide additional camber for beams and slabs to permit the concrete and reinforcing steel to act efficiently without development of deflection cracks.

PART 3: EXECUTION

3.01 EXAMINATION

A. Verify lines, elevation levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

B. Clean surfaces of all forms to be in contact with concrete of all previous concrete or contaminants prior to erection.

3.02 EARTH FORM

A. Hand trim sides and bottom of earth forms. Remove loose soil prior to placing concrete. See typical details for additional requirements.

B. No forming stakes will be permitted in earth forms.

3.03 ERECTION - FORMWORK

A. Plumb and string lines shall be installed before concrete placement and shall be maintained during placement. Such lines shall be used by CONTRACTOR's personnel and by the ENGINEER and shall be in sufficient number and properly installed. During concrete placement, the CONTRACTOR shall continually monitor plumb and string line form positions and immediately correct deficiencies.

- B. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
- C. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
- D. Arrange and assemble formwork to permit dismantling and stripping. Do not damage concrete during stripping. The arrangement of the formwork shall permit the removal of remaining principal shores.
- E. Provide worker protection from protruding reinforcement bars in accordance with applicable safety codes.
- F. Joints not shown on the Plans shall not be permitted.
- G. Obtain approval before framing openings in structural members, which are not indicated on Drawings.
- H. Provide fillet and chamfer strips on external corners of beams, walls and slabs unless noted or shown otherwise.
- I. Coordinate this section with other sections of work which require attachment of components to formwork.
- J. If formwork is placed after reinforcement resulting in insufficient concrete cover over reinforcement, reinforcing shall be relocated to provide proper coverage.
- K. Formwork shall be placed and secured to produce the concrete sections shown on the drawings.
- L. Wall formwork shall be of sufficient strength and stiffness to permit the placement of the full wall height between vertical construction joints shown on the drawings without the need of additional horizontal construction joint.

3.04 WALL FORMS

- A. All vertical wall and column footing sides shall be formed by methods acceptable to the CITY, and to the correct elevations and location shown on the Plans.
- B. Pouring of wall concrete may be done from the top through the use of "elephant trunks" or tremies. Concrete shall be placed in 2 foot high maximum lifts. Each lift shall be consolidated prior to placing additional lifts.
- D. Under no circumstances shall forming be such that the drop of concrete in the forms will exceed 8 feet in any one place.
- E. There shall be no blockouts or other types of wall-openings other than those shown on the Plans.
- F. CONTRACTOR shall remove all wood splinters on concrete surfaces after stripping of wood forms.
- G. Bulkheads to form vertical wall joints shall be strong enough to withstand concrete pressures during pouring and vibrating, and shall be properly placed between the forms and against the waterstop to avoid mortar seepage.
- H. Holes shall be provided in the bulkheads to permit passage of horizontal mild steel reinforcing where required by the Plans.
- I. Unless specifically called for on the Plans, no chamfer strips shall be placed in the corners of vertical construction joints of walls.

- J. Every precaution shall be taken to ensure that all forms are in the proper alignment, plumb, placed to correct radius (where curved) and that all form supports are secure and tight.
- K. Form sills shall be used to contain or hold down neoprene pads (where they occur) and facilitate proper alignment of forms. The maximum permissible variation in the horizontal and vertical location of the waterstops and neoprene pads is plus or minus 1/4 of an inch.
- L. Construction Tolerances
 - 1. The maximum permissible variation in the vertical alignment, from the bottom to the top of the wall is plus or minus 3/8 of an inch.
 - 2. The allowable tolerance in the average wall thickness for poured walls shall not vary more than 1/8 inch either way. All transitions from plus to minus shall be gradual, even and smooth, and without abrupt changes in the surfaces.
 - 3. Adequate time and cooperation shall be provided to the Inspector to verify the compliance of these requirements prior to closing up the forms or pouring concrete.
- M. The use of slip form construction for liquid-retaining walls will not be permitted on any part of the project.

3.05 ROOF FORMS

- A. The finished form surface shall be smooth, true to elevation and alignment and all joints between boards, plywood sheets or form panels shall be mortar-tight, or be made mortar-tight by taping or other means as the situation calls for, before any concrete pour may be started.
- B. Removal of the forms will be permitted only when the concrete has attained the strength specified in these Specifications or shown on the Plans.

As soon as the forms have been removed, the CITY will carefully examine the top and bottom surface of the concrete for any defects in the concrete or irregularities in the surface which shall be repaired as required.
- C. The CONTRACTOR shall provide either wedges under timber posts, screw jacks under shoring, or provide other means to adjust the forms and relieve the load.
- D. Unless stated otherwise on the Plans, the permissible tolerance at any point for flat roof form-surfaces shall not exceed plus or minus 1/4 inch from the specified elevation or thickness. The finished roof surface shall be capable of completely draining. CONTRACTOR shall camber or provide necessary forming supports to prevent low spots and to ensure drainage. If low spots should occur, CONTRACTOR shall submit a corrective procedure to the OWNER for approval.

Any transition between high and low points shall be gradual, smooth and even, and shall be to the satisfaction of the OWNER.

3.06 APPLICATION - FORM RELEASE AGENT

- A. Apply form release agent on formwork in accordance with manufacturer's recommendations.
- B. Care shall be taken not to apply any form release agent to the reinforcing steel, anchoring devices or embedded items in the forms.

3.07 INSERTS, EMBEDDED PARTS AND OPENINGS

- A. Provide formed openings where required for items to pass through concrete work.
- B. Locate and secure in place items, which will be cast directly into concrete prior to the placing of the concrete.
- C. Coordinate with work of other sections in forming and placing openings, slots, recesses, sleeves, bolts, anchors, other inserts and components of the Work.
- D. Install accessories in accordance with manufacturer's instructions, straight level, and plumb. Ensure items are not disturbed during concrete placement.
- E. Install waterstops in accordance with manufacturer's instructions. Secure edges of waterstop to ensure they will not be bent over during the placing of concrete.
- F. Provide temporary ports or openings in formwork where required to facilitate cleaning, inspection, placing and consolidating concrete.
- G. Close temporary openings with tight fitting panels, flush with inside face of forms, and neatly fitted so joints will not be apparent in exposed concrete surfaces.

3.08 FORM CLEANING AND MAINTENANCE

- A. Clean forms as erection proceeds, to remove foreign matter within forms to provide a smooth even surface.
- B. Clean formed cavities of debris prior to placing concrete.
- C. Use compressed air to remove remaining foreign matter.
- D. Maintain forms at all times in good condition, particularly as to size, shape, strength, rigidity, tightness and smoothness of surface. Form surfaces shall be treated with a nonstaining mineral oil or other lubricant acceptable to the ENGINEER. Any excess lubricant shall be satisfactorily removed before placing concrete. Where field oiling of forms is required, the CONTRACTOR shall perform the oiling at least two weeks in advance of their use. Care shall be exercised to keep oil off the surfaces of steel reinforcement and other metal items to be embedded in concrete.

3.09 FORMWORK TOLERANCES

- A. Construct formwork to maintain tolerances as stated in this section. If not noted provide as required by ACI 301.
- B. Camber slabs and beams in accordance with ACI 301.

3.10 FIELD QUALITY CONTROL

- A. Inspect erected formwork, shoring and bracing to ensure that work is in accordance with formwork design, and that supports, fastenings, wedges, ties, and items are secure and properly located.
- B. Do not patch wood formwork.

3.11 FORM REMOVAL

- A. Do not remove forms or bracing until concrete has gained sufficient strength to carry its own weight and imposed loads. The removal criteria given below, serve only as minimums. It is the sole responsibility of the CONTRACTOR to insure the concrete has sufficient strength for forms to be removed.
- B. Forms on sides of footings and encasements may be removed after 24 hours.

- C. Wall forms shall not be removed until a minimum of 12 hours of accumulative time with ambient temperature over 50°F has passed since the concrete was placed and consolidated.
- D. Structural slab forms and shoring shall not be removed for a minimum of 10 days and only when concrete test breaks indicate the concrete placed for the slab has reached a minimum of 85% of its required 28-day compressive strength. The CONTRACTOR may mold and cure additional concrete cylinders per Section 03300.3.08 to verify the 85% strength has been achieved.
- E. Loosen forms carefully. Do not wedge pry bars, hammers or tools against finish concrete surfaces scheduled for exposure to view.
- F. Store removed forms such that surfaces to be in contact with fresh concrete will not be damaged. Discard damaged forms.
- G. CONTRACTOR shall begin to apply curing compounds within one hour after stripping wall forms as outlined in Section 03300.03.09.
- H. All formwork shall be removed before backfill is placed against the formed surface.

3.12.1 FALSEWORK

- A. The CONTRACTOR shall be responsible for the design, engineering, construction, maintenance, and safety of all falsework, including staging, walkways, forms, ladders, and similar appurtenances, which shall equal or exceed the applicable requirements of the provisions of the OSHA Safety and Health Standards for Construction, the requirements of the Construction Safety Orders of the California Division of Industrial Safety, and the requirements herein.

END OF SECTION 03100

SECTION 03120
FORMLINERS FOR ARCHITECTURAL CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes cast-in-place architectural concrete treatment including form facings, materials, placement procedures, and finishes.
- B. Related Requirements:
 - 1. Section 03300 “Cast-in-place Concrete” for concrete materials and mixtures, reinforcement and accessories.
 - 2. Section 03351 “Reactive Coloration for Concrete Finish.”
 - 3. Section 09860 “Anti-graffiti Coatings.”

1.3 DEFINITIONS

- A. Cast-in-Place Architectural Concrete: Formed concrete that is exposed to view on surfaces of completed structure or building and that requires special concrete materials, formwork, placement, or finishes to obtain specified architectural appearance.
- B. Design Reference Sample: Sample designated by Architect in the Contract Documents that reflects acceptable surface quality and appearance of cast-in-place architectural concrete.
- C. Reveal: Projection of coarse aggregate from matrix or mortar after completion of exposure operations.

1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Before submitting design mixtures, review concrete design mixture and examine procedures for ensuring quality of concrete materials. Require representatives of each entity directly concerned with cast-in-place architectural concrete to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixtures.
 - c. Ready-mix concrete manufacturer.
 - d. Cast-in-place architectural concrete subcontractor.
 - 2. Review concrete finishes and finishing, hot-weather concreting procedures, curing procedures, construction joints, forms and form-removal limitations, reinforcement accessory installation, concrete repair procedures, and protection of cast-in-place architectural concrete.

1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Formwork Shop Drawings: Show formwork construction including form-facing joints, rustications, construction and contraction joints, form joint-sealant details, form tie locations and patterns, inserts and embedments, cutouts, cleanout panels, and other items that visually affect cast-in-place architectural concrete. Review of the formwork shop drawings will be limited to verification of the suitability of the formwork to produce the desired appearance of the finished concrete. Contractor shall be solely responsible for the design of the formwork
- C. Placement Schedule: Submit concrete placement schedule before start of placement operations. Include locations of all joints including construction joints.
- D. Samples: For each of the following materials:
 - 1. Form-facing panel.
 - 2. Form ties.
 - 3. Form liners.
 - 4. Chamfers and rustications.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer and cast-in-place architectural concrete installer.
- B. Material Certificates: For each of the following:
 - 1. Cementitious materials.
 - 2. Admixtures.
 - 3. Form materials and form-release agents.
 - 4. Repair materials.

1.7 QUALITY ASSURANCE

- A. Single Source Requirements: Primary and secondary components required for installation of formliner systems shall be components of system recommended by single source.
- B. Manufacturer Qualifications: Minimum five years experience manufacturing similar products.
- C. Installer Qualifications:
 - 1. Minimum of three years documented experience with projects of similar scope and scale.
 - 2. Regularly engaged in installation of architectural concrete.
- D. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
 - 1. ACI 301, "Specification for Structural Concrete," Sections 1 through 5 and Section 6, "Architectural Concrete."
- E. Field Sample Panels: After approval of verification sample and before casting architectural concrete, produce field sample panels to demonstrate the approved range of selections made under Sample submittals. Produce a minimum of one of full-scale panel, cast vertically, approximately 48 by 48 by 6 inches minimum, to demonstrate the expected range of finish, color, and texture variations.

1. Locate panel as indicated or, if not indicated, as directed by Architect.
 2. Demonstrate methods of curing, aggregate exposure, sealers, and coatings, as applicable.
 3. In presence of Architect, damage part of an exposed-face surface for each finish, color, and texture, and demonstrate materials and techniques proposed for repair of tie holes and surface blemishes to match adjacent undamaged surfaces.
 4. Maintain field sample panels during construction in an undisturbed condition as a standard for judging the completed Work.
 5. Demolish and remove field sample panels when directed.
- F. Mockups: Before casting architectural concrete, build mockups to verify selections made under Sample submittals and to demonstrate typical joints, surface finish, texture, tolerances, and standard of workmanship. Build mockups to comply with the following requirements, using materials indicated for the completed Work:
1. Build mockups in the location and of the size indicated or, if not indicated, as directed by Architect.
 2. Build mockups of typical exterior wall of cast-in-place architectural concrete as shown on Drawings.
 3. Demonstrate curing, cleaning, and protecting of cast-in-place architectural concrete, finishes, and contraction joints, as applicable.
 4. In presence of Architect, damage part of the exposed-face surface for each finish, color, and texture, and demonstrate materials and techniques proposed for repair of tie holes and surface blemishes to match adjacent undamaged surfaces.
 5. Obtain Architect's approval of mockups before casting architectural concrete.
 6. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- 1.8 DELIVERY, STORAGE, AND HANDLING
- A. Materials shall be delivered to the location in unopened factory containers. Upon arrival, materials shall be inspected for damage and manufacturer informed of any discrepancies. Deficient materials shall not be used.
 - B. Materials shall be stored in a protected location and safeguarded from damage.
 - C. Store formliners covered and elevated off the exposed ground. Prolonged high or low temperatures will cause a permanent distortion and deterioration of physical properties.
 - D. Protect liquid materials from freezing temperatures and temperatures in excess of 90 degrees F. Store covered, out of direct sunlight.

PART 2 - PRODUCTS

2.1 FORMLINERS, GENERAL

- A. Comply with Section 03300 "Cast-in-Place Concrete" for formwork and other form-facing material requirements.
- B. Description: 100% pure urethane, mold bonded to 0.75 inch ACX plywood, up to 100 concrete pours.
- C. Compliance:
 1. Shore A Hardness ASTM D 2240: 60-70

2. Cast Density: PCF 62-67
 3. Tear Strength: ASTM D 624: PLI 140-160
 4. Tensile Strength: ASTM D 638 (ASTM D 412): 1300-1600 psi
 5. Ultimate Elongation: ASTM D 638 (ASTM D 412): 280-330 percent
- D. Hardware: T-nuts for attaching to steel forms, if used.
- E. Manufacturing Tolerances:
1. Mold Bonded to 0.75 inch plywood: plus minimum 0.125 inches, length and width
 2. Unbonded shrinkage rate of ± 1 inch length and width

2.2 FORMLINERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Pattern 17916, Colorado River Rock, elastomeric urethane molded formliner bonded to plywood, as manufactured by Fitzgerald Formliners, Santa Ana, CA, or approved equal.

PART 3 - EXECUTION

3.1 FORMWORK

- A. General: Comply with Section 03300 "Cast-in-Place Concrete" for formwork, embedded items, and shoring and reshoring.
- B. Fabricate forms to result in cast-in-place architectural concrete that complies with ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- C. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast-in-place surfaces.
1. Seal form joints and penetrations per formliner manufacturer's recommendations.
 2. Do not use rust-stained steel form-facing material.
- D. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- E. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- F. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- G. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.
- H. Place form liners accurately to provide finished surface texture indicated. Provide solid backing and attach securely to prevent deflection and maintain stability of liners during concreting. Prevent form liners from sagging and stretching in hot weather. Seal joints of form liners and form liner accessories to prevent mortar leaks. Coat form liner with form-release agent.

3.2 REINFORCEMENT AND INSERTS

- A. General: Comply with Sections 03300 "Cast-in-Place Concrete" and 03200 "Reinforcement Steel" for fabricating and installing steel reinforcement. Securely fasten steel reinforcement and wire ties against shifting during concrete placement.

- B. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

3.3 REMOVING AND REUSING FORMS

- A. Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete if concrete is hard enough to not be damaged by form-removal operations and curing and protection operations are maintained. Refer to Section 03100 “Concrete Formwork”.
 - 1. Schedule form removal to maintain surface appearance that matches approved mockups.
- B. Leave formwork for beam soffits, joists, slabs, and other structural elements that support weight of concrete in place until concrete has achieved 28-day design compressive strength. Remove forms only if shores have been arranged to permit removal of forms without loosening or disturbing shores. Refer to Section 03100 “Concrete Formwork”.
- C. Clean and repair surfaces of forms to be reused in the Work. Do not use split, frayed, delaminated, or otherwise damaged form-facing material.
- D. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for cast-in-place architectural concrete surfaces.

3.4 JOINTS

- A. Construction Joints: Install construction joints true to line with faces perpendicular to surface plane of cast-in-place architectural concrete so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
 - 1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints unless otherwise indicated.
 - 2. Space vertical joints in walls as indicated. Locate joints beside piers integral with walls, near corners, and in concealed locations where possible.
 - 3. Use bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

3.5 FINISHES, GENERAL

- A. Architectural Concrete Finish: Match Architect's design reference sample, identified and described as indicated, to satisfaction of Architect.
- B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces.
 - 1. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.
- C. Maintain uniformity of special finishes over construction joints unless otherwise indicated.

3.6 AS-CAST FORMED FINISHES

- A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Remove fins and other projections exceeding specified limits on formed-surface irregularities. Repair and patch holes and defects.

- B. Form-Liner Finish: Produce a textured surface free of pockets, streaks, and honeycombs, and of uniform appearance, color, and texture.

3.7 FIELD QUALITY CONTROL

- A. General: Comply with field quality-control requirements in Section 03300 "Cast-in-Place Concrete."

3.8 REPAIRS, PROTECTION, AND CLEANING

- A. Repair and cure damaged finished surfaces of cast-in-place architectural concrete when approved by Architect. Match repairs to color, texture, and uniformity of surrounding surfaces and to repairs on approved mockups.
 - 1. Remove and replace cast-in-place architectural concrete that cannot be repaired and cured to Architect's approval.
- B. Protect corners, edges, and surfaces of cast-in-place architectural concrete from damage; use guards and barricades.
- C. Protect cast-in-place architectural concrete from unwanted staining, laitance, and contamination during remainder of construction period.
- D. Clean cast-in-place architectural concrete surfaces after finish treatment to remove unwanted stains, markings, dust, and debris.
- E. Wash and rinse surfaces according to concrete finish applicator's written instructions. Protect other Work from unwanted staining or damage due to cleaning operations.
 - 1. Do not use cleaning materials or processes that could change the appearance of cast-in-place architectural concrete finishes.

END OF SECTION 03120

SECTION 03200

REINFORCEMENT STEEL

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The CONTRACTOR shall furnish, fabricate, and place all concrete reinforcement steel, welded wire fabric, couplers, and concrete inserts for use in reinforced concrete construction and shall perform all appurtenant work, including all the wires, clips, supports, chairs, spacers, and other accessories, all in accordance with the Contract Documents.

1.02 REFERENCES

A. Commercial Standards

1. ACI 315 Details and Detailing of Concrete Reinforcement
2. ACI 318 Building Code Requirements for Reinforced Concrete
3. ACI 350 Code Requirements for Environmental Engineering Concrete Structures
4. CRSI MSP-1 Concrete Reinforcing Steel Institute Manual of Standard Practice
5. WRI Manual of Standard Practice for Welded Wire Fabric
6. AWS D1.4 Structural Welding Code - Reinforcing Steel
7. ASTM A 185 Specification for Welded Steel Wire Fabric, Plain, for Concrete Reinforcement
8. ASTM A 615 Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
9. ASTM A 706 Low Alloy Steel Deformed Bars for Reinforcement
10. ASTM A 775 Specification for Epoxy-Coated Reinforcing Steel Bars

1.03 SUBMITTALS

- A. The CONTRACTOR shall furnish shop bending diagrams, placing lists, and drawings of all reinforcement steel prior to fabrication in accordance with the requirements of Section 2-5.3, "Submittals."
- B. Details of the concrete reinforcement steel and concrete inserts shall be submitted by the CONTRACTOR at the earliest possible date after receipt of the Notice to Proceed. Said details of reinforcement steel for fabrication and erection shall conform to ACI 315 and the requirements specified and shown. The shop bending diagrams shall show the actual lengths of bars, to the nearest inch measured to the intersection of the extensions (tangents for bars of circular cross section) of the outside surface. The shop drawings shall include bar placement diagrams which clearly indicate the locations and dimensions of each bar splice.
- C. Where mechanical couplers are required or permitted to be used to splice reinforcement steel, the CONTRACTOR shall submit manufacturer's literature containing instructions and recommendations for installation for each type of coupler

used. A current ICC evaluation report for the specific product proposed to be used or certified test reports which verify the load capacity of each type and size of couplers to be used. Shop drawings shall be prepared which show the location of each coupler with details of how they are to be installed and secured in the formwork.

1.4 QUALITY ASSURANCE

- A. If requested by the ENGINEER, the CONTRACTOR shall provide samples from each heat of reinforcement steel delivered in a quantity adequate for testing. The OWNER will pay the costs of initial required tests. The CONTRACTOR shall bear the costs of additional tests due to material failing the initial tests.

PART 2: PRODUCTS

2.01 REINFORCEMENT STEEL

- A. Reinforcement Steel shall conform to the following requirements:
 - 1. Bar reinforcement shall conform to the requirements of ASTM A 615 for Grade 60 Billet Steel Reinforcement, unless noted otherwise
 - 2. Bar reinforcement to be welded shall meet the requirements of ASTM A 706 for Grade 60.
- B. Bar Support Accessories
 - 1. Concrete blocks (dobies), used to support and position reinforcement steel, shall have the same or higher compressive strength specified for the concrete in which it is located. Wire ties shall be embedded in concrete block bar supports.
- C. Epoxy coating for reinforcing and accessories, where specified or shown, shall conform to ASTM A 775 – Epoxy-Coated Reinforcing Steel Bars.

2.02 ACCESSORIES

- A. Mechanical couplers shall be provided where shown or may be used where approved by the ENGINEER. The couplers shall have the tensile capacity equal to a minimum of 125 percent of the reinforcement bars yield strength being spliced.
- B. Where the type of coupler used is composed of more than one component, all components required for a complete splice shall be supplied. This shall apply to all mechanical splices, including those splices intended for future connections.
- C. The reinforcement steel and coupler used shall be compatible for obtaining the required strength of the connection. Straight threaded type couplers shall require the use of the next larger size reinforcing bar or shall be used with reinforcing bars with specially forged ends which provide upset threads which do not decrease the basic cross **section of the bar**.
- D. **Couplers shall be** Lenton Form Saver as manufactured by Erico Products; Dowel Bar Splicer System as manufactured by Richmond Screw Anchor Company; **or equal**.

2.03 FABRICATION

- A. General
 - 1. Fabrication details shall be prepared in accordance with ACI 315 and ACI 318, except as modified by the Drawings. Stirrups and tie bars shall be bent around a pin having a diameter not less than 1-1/2-inch for No. 3 bars, 2-inch for No. 4 bars, and 2-1/2-inch for No. 5 bars or as specified on the Drawings.

Bends for other bars shall be made around a pin having a diameter not less than 6 times the bar diameter, except for bars larger than 1 inch, in which case the bends shall be made around a pin of 8 bar diameters or as specified on the Drawings. Bars shall be bent cold.

2. The CONTRACTOR shall fabricate reinforcement bars for structures in accordance with bending diagrams, placing lists, and placing drawings. Said drawings, diagrams, and lists shall be prepared by the CONTRACTOR as specified under Section 2-5.3, "Submittals."
 3. Reinforcement shall not be straightened or rebent in a manner which will reduce the strength of the material. Bars with kinks or bends not shown shall not be used. All bars shall be bent cold, unless otherwise permitted by the ENGINEER. No bars partially embedded in concrete shall be field-bent except as shown or specifically permitted by the ENGINEER.
- B. Fabricating Tolerances: Bars used for concrete reinforcement shall meet the following requirements for fabricating tolerances:
1. Sheared length: ± 1 inch
 2. Depth of truss bars: + 0, - 1/2 inch
 3. Stirrups, ties, and spirals: $\pm 1/2$ inch
 4. All other bends: ± 1 inch

2.04 EPOXY GROUT

- A. Epoxy for grouting reinforcing bars shall be specifically formulated for such application, for the moisture condition, application temperature, and orientation of the hole to be filled. Epoxy grout shall meet the requirements found in Section 03600, "Grout." Epoxy grout for bonding reinforcing dowels may only be used where shown on the Contract Drawings or when allowed in writing by the ENGINEER.

PART 3: EXECUTION

3.01 PLACEMENT

- A. All reinforcement steel shall be fabricated, and placed in accordance with the requirements of the Building Code and the supplementary requirements specified herein.
- B. Reinforcement steel shall be accurately positioned as shown, and shall be supported and wired together to prevent displacement, using annealed iron wire ties or suitable clips at intersections. All reinforcement steel shall be supported by concrete, plastic or metal supports, spacers or metal hangers which are strong and rigid enough to prevent any displacement of the reinforcement steel. Where concrete is to be placed on the ground, supporting concrete blocks (or dobies) shall be used, in sufficient numbers to support the bars without settlement, but in no case shall such support be continuous. All concrete blocks used to support reinforcement steel shall be tied to the steel with wire ties embedded in the blocks. For concrete over or in formwork, the CONTRACTOR shall furnish concrete, metal, plastic, or other acceptable bar chairs and spacers to maintain the required clearances.
- C. Limitations on the use of bar support materials shall be as follows.
1. Concrete Dobbies: permitted at all locations except where architectural finish is required.

2. Wire Bar Supports: permitted only at slabs over dry areas, interior dry wall surfaces, and exterior wall surfaces.
 3. Plastic Bar Supports: permitted at all locations except on grade.
- D. Tie wires shall be bent away from the forms in order to provide the specified concrete coverage.
 - E. Bars additional to those shown which may be found necessary or desirable by the CONTRACTOR for the purpose of securing reinforcement in position shall be provided by the CONTRACTOR at its own expense.
 - F. Unless otherwise specified, reinforcement placing tolerances shall be within the limits specified in Section 7.5 of ACI 318 except where in conflict with the requirements of the Building Code.
 - G. Bars may be moved as necessary to avoid interference with other reinforcement steel, conduits, or embedded items. If bars are moved more than one bar diameter, or enough to exceed the above tolerances, the resulting arrangement of bars shall be as acceptable to the ENGINEER.

3.02 SPACING OF BARS

- A. The clear distance between parallel bars shall be not less than the nominal diameter of the bars nor less than 1-1/3 times the maximum size of the coarse aggregate, nor less than one inch.
- B. The clear distance between bars shall also apply to the distance between a contact splice and adjacent splices or bars.

3.03 SPLICING

A. General

1. Reinforcement bar splices shall only be used at locations shown. When it is necessary to splice reinforcement at points other than where shown, the character of the splice shall be as acceptable to the ENGINEER and shall be specified on the submitted shop drawings.
2. Unless otherwise indicated, dowels shall match the size and spacing of the spliced bar.

B. Splices of Reinforcement

1. The length of lap for reinforcement bars, unless otherwise shown shall be in accordance with ACI 318, Section 12.15.1 for a Class B splice.

3.4 EMBEDMENT OF DRILLED REINFORCING STEEL DOWELS

A. Hole Preparation and Dowel Installation

1. The hole diameter shall be located as shown on the Contract Drawings or as specified in writing by the ENGINEER. The reinforcing in the area of the drilled hole shall be located using a pachometer or other non-destructive method prior to drilling hole(s) for anchor(s). Locate drilled holes to maintain a minimum of 1 inch clear to all reinforcing
2. The depth of the hole shall be as specified on the Contract Drawings or as specified in writing by the ENGINEER.

3. The hole in the concrete shall be drilled, cleaned and prepared in accordance with the ICC Evaluation Report for the approved adhesive anchors.
4. Installation of the adhesive and threaded rod shall be in accordance with the ICC Evaluation Report for the approved adhesive anchors.
5. Special inspection by a Registered Deputy Inspector shall be provided for adhesive anchors.

END OF SECTION 03200

SECTION 03300
CAST-IN-PLACE CONCRETE

PART 1 — GENERAL

1.01 SCOPE OF SECTION

- A. The CONTRACTOR shall furnish all materials for concrete in accordance with the provisions of this Section and shall form, mix, place, cure, repair, finish, and do all other work as required to produce finished concrete, in accordance with the requirements of the Contract Documents.
- B. The requirements specified herein are minimum requirements only and shall not be interpreted as all inclusive. It is the responsibility of the CONTRACTOR to employ the necessary practices based on the referenced ACI Standards to ensure the completion of quality concrete construction, of the strengths specified within the Construction Documents, and relatively free of cracks.
- C. The following types of concrete shall be covered in this Section:
 - 1. Structural Concrete: Concrete to be used in all structures except where noted otherwise in the Contract Documents.
- D. The term "hydraulic structure" used in these specifications shall refer to environmental engineering concrete structures for the containment, treatment, or transmission of water, wastewater, or other fluids.

1.02 REFERENCES

- A. Federal Specifications:
 - UU-B-790A (1) (2) Building Paper, Vegetable Fiber (Kraft, Waterproofed, Water Repellant and Fire Resistant)
- B. Commercial Standards:
 - ACI 117 Standard Tolerances for Concrete Construction and Materials
 - ACI 214 Recommended Practice for Evaluation of Strength Test Results of Concrete
 - ACI 301 Specifications for Structural Concrete for Buildings
 - ACI 305R Hot Weather Concreting
 - ACI 306R Cold Weather Concreting
 - ACI 308 Standard Specifications for Curing Concrete
 - ACI 309 Consolidation of Concrete
 - ACI 315 Details and Detailing of Concrete Reinforcement
 - ACI 318 Building Code Requirements for Reinforced Concrete
 - ACI 350 Code Requirements for Environmental Engineering Concrete Structures
 - ASTM C 31 Practices for Making and Curing Concrete Test Specimens in the Field
 - ASTM C 33 Specification for Concrete Aggregates

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| ASTM C 39 | Test Method for Compressive Strength of Cylindrical Concrete Specimens |
| ASTM C 94 | Specification for Ready-Mixed Concrete |
| ASTM C 136 | Method for Sieve Analysis of Fine and Coarse Aggregates |
| ASTM C 143 | Test Method for Slump of Hydraulic Cement Concrete |
| ASTM C 150 | Specification for Portland Cement |
| ASTM C 156 | Test Methods for Water Retention by Concrete Curing Materials |
| ASTM C 157 | Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete |
| ASTM C 192 | Method of Making and Curing Concrete Test Specimens in the Laboratory |
| ASTM C 260 | Specification for Air-Entraining Admixtures for Concrete |
| ASTM C 309 | Specifications for Liquid Membrane-Forming Compounds for Curing Concrete |
| ASTM C 494 | Specification for Chemical Admixtures for Concrete |
| ASTM C 1077 | Practice for Laboratories Testing Concrete and Concrete Aggregates for use in Construction & Criteria for Laboratory Evaluation |
| ASTM D 1751 | Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types) |
| ASTM D 2419 | Test Method for Sand Equivalent Value of Soils and Fine Aggregate |
| ASTM E 119 | Method for Fire Tests of Building Construction and Materials |

1.03 SUBMITTALS

- A. Mix Designs: Prior to beginning the WORK and within 14 days of the notice to proceed, the CONTRACTOR shall submit to the ENGINEER, for review, preliminary concrete mix designs which shall show the proportions and gradations of all materials proposed for each class and type of concrete specified herein in accordance with Section 2-5.3 - Submittals. The mix designs shall be checked by an independent testing laboratory acceptable to the ENGINEER. All costs related to such checking shall be borne by the CONTRACTOR. Since laboratory trial batches require 35 calendar days to complete, the CONTRACTOR may consider testing more than one mix design for each class of concrete.
- B. Delivery Tickets: Where ready-mix concrete is used, the CONTRACTOR shall furnish delivery tickets at the time of delivery of each load of concrete. Each ticket shall show the state certified equipment used for measuring and the total quantities, by weight, of cement, sand, each class of aggregate, admixtures, and the amounts of water in the aggregate added at the batching plant, and the amount allowed to be

added at the site for the specific design mix. In addition, each ticket shall state the mix number, total yield in cubic yards, and the time of day, to the nearest minute, corresponding to the times when the batch was dispatched, when it left the plant, when it arrived at the site, when unloading began, and when unloading was finished.

- C. Provide the following submittals in accordance with ACI 301:
 - 1. Mill tests for cement.
 - 2. Admixture certification. Chloride ion content must be included.
 - 3. Aggregate gradation and certification.
 - 4. Materials and methods for curing.
 - 5. 7 and 28 day compressive strength test results on trial batches of the proposed mix designs. Alternatively, the Contractor may submit 7 and 28 day compressive strength test results from past projects where the exact same mix design (including admixtures and aggregate sources) was used.
- 1.04 QUALITY ASSURANCE
- A. General
 - 1. Tests on component materials and for compressive strength and shrinkage of concrete will be performed as specified herein. Test for determining slump will be in accordance with the requirements of ASTM C 143.
 - 2. The cost of all laboratory tests on cement, aggregates, and concrete, will be borne by the CITY. However, the CONTRACTOR shall be charged for the cost of any additional tests and investigation on work performed which does not meet the specifications. The laboratory must meet or exceed the requirements of ASTM C 1077.
 - 3. Concrete for testing shall be supplied by the CONTRACTOR at no cost to the CITY, and the CONTRACTOR shall provide assistance to the ENGINEER in obtaining samples, storing, and disposal and cleanup of excess material.
 - B. Field Compression Tests:
 - 1. Compression test specimens will be taken during construction from the first placement of each class of concrete and every 50 cubic yards thereafter as selected by the ENGINEER to insure continued compliance with these specifications. Each set of test specimens will be a minimum of 5 cylinders.
 - 2. Compression test specimens for concrete shall be made in accordance with section 9.2 of ASTM C 31. Specimens shall be 6-inch diameter by 12-inch high cylinders.
 - 3. Compression tests shall be performed in accordance with ASTM C 39. One test cylinder will be tested at 7 days and 2 at 28 days. The remaining cylinders will be held to verify test results, if needed.
 - C. Evaluation and Acceptance of Concrete:
 - 1. Evaluation and acceptance of the compressive strength of concrete shall be according to the requirements of ACI 318, Chapter 5 "Concrete Quality," and as specified herein.

2. A statistical analysis of compression test results will be performed according to the requirements of ACI 214. The standard deviation of the test results shall not exceed 640 psi, when ordered at equivalent water content as estimated by slump.
3. If any concrete fails to meet these requirements, immediate corrective action shall be taken to increase the compressive strength for all subsequent batches of the type of concrete affected.
4. When the standard deviation of the test results exceeds 640 psi, the average strength for which the mix is designed shall be increased by an amount necessary to satisfy the statistical requirement that the probability of any test being more than 500 psi below or the average of any 3 consecutive tests being below the specified compressive strength is 1 in 100. The required average strength shall be calculated by Criterion No. 3 of ACI 214 using the actual standard of deviation.
5. All concrete which fails to meet the ACI requirements and these specifications, is subject to removal and replacement at the cost of the CONTRACTOR.

D. Shrinkage Tests:

1. Drying shrinkage tests will be made for the trial batch specified in the Paragraph in Part 2 entitled "Trial Batch and Laboratory Tests," the first placement of each class of concrete, and during construction to insure continued compliance with these Specifications.
2. Drying shrinkage specimens shall be 4-inch by 4-inch by 11-inch prisms with an effective gage length of 10 inches, fabricated, cured, dried and measured in accordance with ASTM C 157 – Test Method for Length Change of Hardened Hydraulic Cement Mortar and Concrete, modified as follows: specimens shall be removed from molds at an age of 23 ± 1 hours after trial batching, shall be placed immediately in water at $70 \text{ degrees F} \pm 3 \text{ degrees F}$ for at least 30 minutes, and shall be measured within 30 minutes thereafter to determine original length and then submerged in saturated lime water at $73 \text{ degrees F} \pm 3 \text{ degrees F}$. Measurement to determine expansion expressed as a percentage of original length shall be made at age 7 days. This length at age 7 days shall be the base length for drying shrinkage calculations ("0" days drying age). Specimens then shall be stored immediately in a humidity control room maintained at $73 \text{ degrees F} \pm 3 \text{ degrees F}$ and 50 percent ± 4 percent relative humidity for the remainder of the test. Measurements to determine shrinkage expressed as percentage of base length shall be made and reported separately for 7, 14, 21, and 28 days of drying after 7 days of moist curing.
3. The drying shrinkage deformation of each specimen shall be computed as the difference between the base length (at "0" days drying age) and the length after drying at each test age. The average drying shrinkage deformation of the specimens shall be computed to the nearest 0.0001 inch at each test age. If the drying shrinkage of any specimen departs from the average of that test age by more than 0.0004-inch, the results obtained from that specimen shall be disregarded. Results of the shrinkage test shall be reported to the nearest 0.001 percent of shrinkage. Compression test specimens shall be taken in each case from the same concrete used for preparing drying shrinkage specimens. These tests shall be considered a part of the normal compression tests for the project. Allowable shrinkage limitations shall be as specified in Part 2, herein.

E. Construction Tolerances: The CONTRACTOR shall set and maintain concrete forms and perform finishing operations so as to ensure that the completed work is within the tolerances specified herein. Surface defects and irregularities are defined as finishes and are to be distinguished from tolerances. Tolerance is the specified permissible variation from lines, grades, or dimensions shown. Where tolerances are not stated in the specifications, permissible deviations will be in accordance with ACI 117 – Standard Tolerance for Concrete Construction and Materials.

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

| <u>Item</u> | <u>Tolerance</u> |
|--|---|
| Variation of the constructed linear outline from the established position in plan. | In 10 feet: 1/4-inch; In 20 feet or more: 1/2-inch |
| Variation from the level or from the grades shown. | In 10 feet: 1/4-inch; In 20 feet or more: 1/2-inch |
| Variation from the plumb | In 10 feet: 1/4-inch; In 20 feet or more: 1/2-inch |
| Variation in the thickness of slabs and walls. | Minus 1/4-inch; Plus 1/2-inch |
| Variation in the locations and sizes of slabs and wall openings | Plus or minus 1/4-inch |

PART 2 — PRODUCTS

2.01 CONCRETE MATERIALS

A. General:

1. Materials shall be delivered, stored, and handled so as to prevent damage by water or breakage. Only one brand of cement shall be used. Cement reclaimed from cleaning bags or leaking containers shall not be used. All cement shall be used in the sequence of receipt of shipments.

B. All materials furnished for the work shall comply with the requirements of Sections 201, 203, and 204 of ACI 301, as applicable.

C. Storage of materials shall conform to the requirements of Section 205 of ACI 301.

D. Materials for concrete shall conform to the following requirements:

1. Cement shall be standard brand portland cement conforming to ASTM C 150 for Type II or Type V, including Table 2 optional requirements. A minimum of 85 percent of cement by weight shall pass a 325 screen. A single brand of cement shall be used throughout the work, and prior to its use, the brand shall be acceptable to the ENGINEER. The cement shall be suitably protected from exposure to moisture until used. Cement that has become lumpy shall not be used. Sacked cement shall be stored in such a manner so as to permit access for inspection and sampling. Certified mill test reports, including fineness, for each shipment of cement to be used shall be submitted to the ENGINEER if requested regarding compliance with these Specifications.

2. Water for mixing and curing shall be potable, clean, and free from objectionable quantities of silty organic matter, alkali, salts and other impurities. The water shall be considered potable, for the purposes of this Section only, if it meets the requirements of the local governmental agencies. Agricultural water with high

total dissolved solids (over 1000 mg/l TDS) shall not be used.

3. Aggregates shall be obtained from pits acceptable to the ENGINEER, shall be non-reactive, and shall conform to ASTM C 33. Maximum size of coarse aggregate shall be as specified herein. Lightweight sand for fine aggregate will not be permitted.
 - a. Coarse aggregates shall consist of clean, hard, durable gravel, crushed gravel, crushed rock or a combination thereof. The coarse aggregates shall be prepared and handled in two or more size groups for combined aggregates with a maximum size greater than 3/4-inch. When the aggregates are proportioned for each batch of concrete the two size groups shall be combined. See the Paragraph in Part 2 entitled "Trial Batch and Laboratory Tests" for the use of the size groups.
 - b. Fine aggregates shall be natural sand or a combination of natural and manufactured sand that are hard and durable. When tested in accordance with ASTM D 2419, the sand equivalency shall not be less than 75 percent for an average of three samples, nor less than 70 percent for an individual test. Gradation of fine aggregate shall conform to ASTM C 33. The fineness modulus of sand used shall not be over 3.00.
 - c. Combined aggregates shall be well graded from coarse to fine sizes, and shall be uniformly graded between screen sizes to produce a concrete that has optimum workability and consolidation characteristics. Where a trial batch is required for a mix design, the final combined aggregate gradations will be established during the trial batch process.
 - d. When tested in accordance with ASTM C 33, the ratio of silica released to reduction in alkalinity shall not exceed 1.0.
 - e. When tested in accordance with ASTM C 33, the fine aggregate shall produce a color in the supernatant liquid no darker than the reference standard color solution.
 - f. When tested in accordance with ASTM C 33, the coarse aggregate shall show a loss not exceeding 42 percent after 500 revolutions, or 10.5 percent after 100 revolutions.
 - g. When tested in accordance with ASTM C 33, the loss resulting after five cycles shall not exceed 10 percent for fine or coarse aggregate when using sodium sulfate.
4. Ready-mix concrete shall conform to the requirements of ASTM C 94.
5. Admixtures: All admixtures shall be compatible and by a single manufacturer capable of providing qualified field service representation. Admixtures shall be used in accordance with manufacturer's recommendations. If the use of an admixture is producing an inferior end result, the CONTRACTOR shall discontinue use of the admixture. Admixtures shall not contain thiocyanates or more than 0.05 percent chloride ion, and shall be non-toxic after 30 days.
 - a. Air-entraining agent shall only be used when specifically allowed in writing by the ENGINEER. If used, air entraining agent shall meet the requirements of ASTM C 260, shall be used. The CITY reserves the right, at any time, to sample and test the air-entraining agent received on the job by the CONTRACTOR. The air-entraining agent shall be added to the batch in a portion of the mixing water. The solution shall be

batched by means of a mechanical batcher capable of accurate measurement. Air content shall be tested at the point of placement. Air entraining agent shall be Micro-Air by Master Builders; Daravair by W.R. Grace; Sika AEA-15 by Sika Corporation; or equal.

- b. Set controlling and water reducing admixtures: Admixtures may be added at the CONTRACTOR's option to control the set, effect water reduction, and increase workability. The addition of an admixture shall be at the CONTRACTOR's expense. The use of an admixture shall be subject to acceptance by the ENGINEER. Concrete containing an admixture shall be first placed at a location determined by the ENGINEER. Admixtures specified herein shall conform to the requirements of ASTM C 494. The required quantity of cement shall be used in the mix regardless of whether or not an admixture is used.
- (1) Concrete shall not contain more than one water reducing admixture. Concrete containing an admixture shall be first placed at a location determined by the ENGINEER.
 - (2) Set controlling admixture shall be either with or without water-reducing properties. Where the air temperature at the time of placement is expected to be consistently over 80 degrees F, a set retarding admixture such as Plastocrete by Sika Corporation; Pozzolith 300R by Master Builders; Daratard by W.R. Grace; or equal shall be used. Where the air temperature at the time of placement is expected to be consistently under 40 degrees F, a non-corrosive set accelerating admixture such as Plastocrete 161FL by Sika Corporation; Pozzutec 20 by Master Builders; Daraset by W.R. Grace; or equal shall be used.
 - (3) Normal range water reducer shall conform to ASTM C 494, Type A. WRDA 79 by W.R. Grace; Pozzolith 322-N by Master Builders; Plastocrete 161 by Sika Corporation; or equal. The quantity of admixture used and the method of mixing shall be in accordance with the Manufacturer's instructions and recommendations.
 - (4) High range water reducer shall conform to ASTM C 494, Type F or G. Daracem 100 or WDRA 19 by W.R. Grace; Sikament FF or Sikament 86 by Sika Corporation; Rheobuild 1000 or Rheobuild 716 by Master Builders; or approved equal. High range water reducer shall be added to the concrete after all other ingredients have been mixed and initial slump has been verified. No more than 14 ounces of water reducer per sack of cement shall be used. Water reducer shall be considered as part of the mixing water when calculating water cement ratio.
 - (5) If the high range water reducer is added to the concrete at the job site, it may be used in conjunction with the same water reducer added at the batch plant. Concrete shall have a slump of 3 inches \pm 1/2-inch prior to adding the high range water reducing admixture at the job site. The high range water reducing admixture shall be accurately measured and pressure injected into the mixer as a single dose by an experienced technician. A standby system shall be provided and tested prior to each day's operation of the job site system.

- (6) Concrete shall be mixed at mixing speed for a minimum of 30 mixer revolutions after the addition of the high range water reducer.
- (7) Flyash: Flyash shall conform to ASTM C618, Class F. Flyash shall comprise, 20% of the total cementitious material weight used in the concrete mix design.
- c. Color Pigment: ASTM C 979, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable, free of carbon black, nonfading, and resistant to lime and other alkalis.
 - (1) Manufacturers: Subject to compliance with requirements, provide products by one of the following, or approved equal:
 - a. ChemMasters.
 - b. Davis Colors.
 - c. Dayton Superior Corporation.
 - d. Lambert Corporation.
 - e. Rockwood Pigments NA, Inc.
 - f. Scofield, L. M. Company.
 - g. Solomon Colors, Inc.
 - (2) Color: As indicated by manufacturer's designation or, if not indicated, as selected by Architect from manufacturer's full range.

2.02 CURING MATERIALS

- A. Materials for curing concrete as specified herein shall conform to the following requirements and ASTM C 309:
 - 1. All curing compounds shall be white pigmented and resin based. Sodium silicate compounds shall not be allowed. Concrete curing compound shall be Kurez by Euclid Chemical Company; MB-429 as manufactured by Master Builders; L&M Cure R; or approved equal. Water based resin curing compounds shall be used only where local air quality regulations prohibit the use of a solvent based compound. Water based curing compounds shall be Aqua-Cure by Euclid Chemical Company; Masterkure-W by Master Builders; L&M Cure R-2; or approved equal.
 - 2. Polyethylene sheet for use as concrete curing blanket shall be white, and shall have a nominal thickness of 6 mils. The loss of moisture when determined in accordance with the requirements of ASTM C 156 shall not exceed 0.055 grams per square centimeter of surface.
 - 3. Polyethylene-coated waterproof paper sheeting for use as concrete curing blanket shall consist of white polyethylene sheeting free of visible defects, uniform in appearance, having a nominal thickness of 2 mils and permanently bonded to waterproof paper conforming to the requirements of Federal Specification UU-B-790A (1) (2). The loss of moisture, when determined in accordance with the requirements of ASTM C 156, shall not exceed 0.055 gram per square centimeter of surface.

4. Polyethylene-coated burlap for use as concrete curing blanket shall be 4-mil thick, white opaque polyethylene film impregnated or extruded into one side of the burlap. Burlap shall weigh not less than 9 ounces per square yard. The loss of moisture, when determined in accordance with the requirements of ASTM C 156, shall not exceed 0.055 grams per square centimeter of surface.
5. Curing mats for use in Curing Method 6 as specified herein, shall be heavy shag rugs or carpets or cotton mats quilted at 4 inches on center. Curing mats shall weigh a minimum of 12 ounces per square yard when dry.
6. Evaporation retardant shall be a material such as Confilm as manufactured by Master Builders; Eucobar as manufactured by Euclid Chemical Company; E-CON as manufactured by L & M Construction Chemicals, Inc.; or approved equal.

2.03 NON-WATERSTOP JOINT MATERIALS

- A. Materials for non-waterstop joints in concrete shall conform to the following requirements:
 1. Preformed joint filler shall be a non-extruding, resilient, bituminous type conforming to the requirements of ASTM D 1751.
 2. Elastomeric joint sealer shall conform to the requirements of Section 07920 - Sealants and Calking.
 3. Mastic joint sealer shall be a material that does not contain evaporating solvents; that will tenaciously adhere to concrete surfaces; that will remain permanently resilient and pliable; that will not be affected by continuous presence of water and will not in any way contaminate potable water; and that will effectively seal the joints against moisture infiltration even when the joints are subject to movement due to expansion and contraction. The sealer shall be composed of special asphalts or similar materials blended with lubricating and plasticizing agents to form a tough, durable mastic substance containing no volatile oils or lubricants and shall be capable of meeting the test requirements set forth hereinafter, if testing is required by the ENGINEER.

2.04 MISCELLANEOUS MATERIALS

- A. Dampproofing agent shall be an asphalt emulsion, such as Hydrocide 600 by ChemRex Sonneborn; Damp-proofing Asphalt Coating by Euclid Chemical Company; Sealmastic by W. R. Meadows Inc.; or approved equal.
- B. Bonding agents shall be epoxy adhesives conforming to the following products for the applications specified:
 1. For bonding freshly-mixed, plastic concrete to hardened concrete, Sikadur 32 Hi-Mod Epoxy Adhesive, as manufactured by Sika Corporation; Concessive Liquid (LPL), as manufactured by ChemRex MBT; BurkEpoxy MV as manufactured by Edoco Burke; or approved equal.
 2. For bonding hardened concrete or masonry to steel, Sikadur 31 Hi-Mod Gel as manufactured by Sika Corporation; BurkEpoxy NS as manufactured by Edoco Burke; Concessive Paste (LPL) as manufactured by ChemRex MBT; or approved equal.

2.05 CONCRETE DESIGN REQUIREMENTS

- A. General: Concrete shall be composed of cement, admixtures, aggregates and water. These materials shall be of the qualities specified. The exact proportions in which these materials are to be used for different parts of the work will be determined during the trial batch. In general, the mix shall be designed to produce a concrete capable of being deposited so as to obtain maximum density and minimum shrinkage and, where deposited in forms, to have good consolidation properties and maximum smoothness of surface. The aggregate gradations shall be formulated to provide fresh concrete that will not promote rock pockets around reinforcing steel or embedded items. The proportions shall be changed whenever necessary or desirable to meet the required results at no additional cost to the CITY. All changes shall be subject to review by the ENGINEER.
- B. Fine Aggregate Composition: In mix designs for structural concrete, the percentage of fine aggregate in total aggregate by weight shall be as indicated in the following table.

| Fine Aggregate | |
|------------------|-----------------|
| Fineness Modulus | Maximum Percent |
| 2.7 or less | 41 |
| 2.7 to 2.8 | 42 |
| 2.8 to 2.9 | 43 |
| 2.9 to 3.0 | 44 |

For other concrete, the maximum percentage of fine aggregate of total aggregate, by weight, shall not exceed 50.

- C. Water-Cement Ratio and Compressive Strength: The minimum compressive strength and cement content of concrete shall be not less than that specified in the following tabulation.

| Type of Work | Min 28-Day Compressive Strength (psi) | Max Size Aggregate (in) | Minimum Cement per cu yd (lbs) | Max W/C Ratio (by weight) |
|---|--|----------------------------------|---|---------------------------------|
| Structural Concrete: Roof, floor slabs, walls and all other concrete items not specified elsewhere. | 4,000 | 1 | 564 | 0.45 |
| 12" and thicker walls, slabs on grade and footings. (optional) | 4,000 | 1-1/2 | 564 | 0.45 |
| Other Concretes: | | | | |
| Sitework concrete | 3,000 | 1 | 470 | 0.50 |
| Lean concrete | 2,000 | 1 | 376 | 0.60 |

NOTE: The CONTRACTOR is cautioned that the limiting parameters specified above are not a mix design. Additional cement or water reducing agent may be required to achieve workability demanded by the CONTRACTOR'S construction methods and aggregates. The CONTRACTOR is responsible for any costs associated with furnishing concrete with the required workability.

- D. Adjustments to Mix Design: The mixes used shall be changed whenever such change is necessary or desirable to secure the required strength, density, workability, and surface finish and the CONTRACTOR shall be entitled to no additional compensation because of such changes.
- E. Color Pigment: Add color pigment to concrete mixture according to manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.
- F. Air Content: The maximum air content for concrete with a minimum 28 day compressive strength of 4000 psi shall be 2 percent.

2.06 CONSISTENCY

- A. The quantity of water entering into a batch of concrete shall be just sufficient, with a normal mixing period, to produce a concrete which can be worked properly into place without segregation, and which can be compacted by the vibratory methods herein specified to give the desired density, impermeability and smoothness of surface. The quantity of water shall be changed as necessary, with variations in the nature or moisture content of the aggregates, to maintain uniform production of a desired consistency. The consistency of the concrete in successive batches shall be determined by slump tests in accordance with ASTM C 143. The slumps shall be as follows:

| <u>Part of Work</u> | <u>Slump (in)</u> |
|-------------------------------------|---------------------|
| All concrete, unless note otherwise | 3 inches ± 1 inch |
| With high range water reducer added | 7 inches ± 2 inches |
| Pea gravel mix | 7 inches ± 2 inches |
| Ductbanks | 5 inches ± 1 inch |

2.07 TRIAL BATCH AND LABORATORY TESTS

- A. Before placing any concrete, a testing laboratory designated by the ENGINEER shall prepare a trial batch of each class of structural concrete, based on the preliminary concrete mixes submitted by the CONTRACTOR. During the trial batch the aggregate proportions may be adjusted by the testing laboratory using the two coarse aggregate size ranges to obtain the required properties. If one size range produces an acceptable mix, a second size range need not be used. Such adjustments shall be considered refinements to the mix design and shall not be the basis for extra compensation to the CONTRACTOR. All concrete shall conform to the requirements of this Section, whether the aggregate proportions are from the CONTRACTOR's preliminary mix design, or whether the proportions have been adjusted during the trial batch process. The trial batch shall be prepared using the aggregates, cement and admixture proposed for the project. The trial batch materials shall be of a quantity such that the testing laboratory can obtain 3 drying shrinkage, and 6 compression test specimens from each batch. Trial batch testing required shall be performed at the expense of the CONTRACTOR.

- B. The determination of compressive strength will be made by testing 6-inch diameter by 12-inch high cylinders; made, cured and tested in accordance with ASTM C 192 and ASTM C 39. Three compression test cylinders will be tested at 7 days and 3 at 28 days. The average compressive strength for the 3 cylinders tested at 28 days for any given trial batch shall not be less than 125 percent of the specified compressive strength.
- C. A sieve analysis of the combined aggregate for each trial batch shall be performed according to the requirements of ASTM C 136. Values shall be given for percent passing each sieve.

2.08 SHRINKAGE LIMITATION

- A. The maximum concrete shrinkage for specimens cast in the laboratory from the trial batch, as measured at 21-day drying age or at 28-day drying age shall be 0.036 percent or 0.042 percent, respectively. The CONTRACTOR shall only use a mix design for construction that has first met the trial batch shrinkage requirements. Shrinkage limitations apply only to structural concrete to be used in water-containing structures.
- B. The maximum concrete shrinkage for specimens cast in the field shall not exceed the trial batch maximum shrinkage requirement by more than 25 percent.
- C. If the required shrinkage limitation is not met during construction, the CONTRACTOR shall take any or all of the following actions, at no additional cost to the CITY, for securing the specified shrinkage requirements. These actions may include changing the source of aggregates, cement and/or admixtures; reducing water content; washing of aggregate to reduce fines; increasing the number of construction joints; modifying the curing requirements; or other actions designed to minimize shrinkage or the effects of shrinkage.

2.09 MEASUREMENT OF CEMENT AND AGGREGATE

- A. The amount of cement and of each separate size of aggregate entering into each batch of concrete shall be determined by direct weighing equipment furnished by the CONTRACTOR and acceptable to the ENGINEER.
- B. Weighing tolerances:

| Material | Percent of Total Weight |
|------------|-------------------------|
| Cement | 1 |
| Aggregates | 3 |
| Admixtures | 3 |

2.10 MEASUREMENT OF WATER

- A. The quantity of water entering the mixer shall be measured by a suitable water meter or other measuring device of a type acceptable to the ENGINEER and capable of measuring the water in variable amounts within a tolerance of one percent. The water feed control mechanism shall be capable of being locked in position so as to deliver constantly any specified amount of water to each batch of concrete. A positive quick-acting valve shall be used for a cut-off in the water line to the mixer. The operating mechanism must be such that leakage will not occur when the valves are closed.

2.11 READY-MIXED CONCRETE

- A. At the CONTRACTOR'S option, ready-mixed concrete may be used meeting the requirements as to materials, batching, mixing, transporting, and placing as specified herein and in accordance with ASTM C 94, including the following supplementary requirements.
- B. Ready-mixed concrete shall be delivered to the site of the work, and discharge shall be completed within one hour after the addition of the cement to the aggregates or before the drum has been revolved 250 revolutions, whichever is first.
- C. Truck mixers shall be equipped with electrically-actuated counters by which the number of revolutions of the drum or blades may be readily verified. The counter shall be of the resettable, recording type, and shall be mounted in the driver's cab. The counters shall be actuated at the time of starting mixers at mixing speeds.
- D. Each batch of concrete shall be mixed in a truck mixer for not less than 70 revolutions of the drum or blades at the rate of rotation designated by the manufacturer of equipment. Additional mixing, if any, shall be at the speed designated by the manufacturer of the equipment as agitating speed. All materials including mixing water shall be in the mixer drum before actuating the revolution counter for determining the number of revolution of mixing.
- E. Truck mixers and their operation shall be such that the concrete throughout the mixed batch as discharged is within acceptable limits of uniformity with respect to consistency, mix, and grading. If slump tests taken at approximately the 1/4 and 3/4 points of the load during discharge give slumps differing by more than one inch when the specified slump is 3 inches or less, or if they differ by more than 2 inches when the specified slump is more than 3 inches, the mixer shall not be used on the work unless the causing condition is corrected and satisfactory performance is verified by additional slump tests. All mechanical details of the mixer, such as water measuring and discharge apparatus, condition of the blades, speed of rotation, general mechanical condition of the unit, and clearance of the drum, shall be checked before a further attempt to use the unit will be permitted.
- F. Each batch of ready-mixed concrete delivered at the job site shall be accompanied by a delivery ticket furnished to the ENGINEER in accordance with the Paragraph in Part 1 entitled "Delivery Tickets."
- G. The use of non-agitating equipment for transporting ready-mixed concrete will not be permitted. Combination truck and trailer equipment for transporting ready-mixed concrete will not be permitted. The quality and quantity of materials used in ready-mixed concrete and in batch aggregates shall be subject to continuous inspection at the batching plant by the ENGINEER.

PART 3 — EXECUTION

3.01 PROPORTIONING AND MIXING

- A. Proportioning: Proportioning of the concrete mix shall conform to the requirements of Chapter 3 "Proportioning" of ACI 301.
- B. Mixing: Mixing of concrete shall conform to the requirements of Chapter 7 of said ACI 301 Specifications.
- C. Slump: Maximum slumps shall be as specified herein.
- D. Retempering: Retempering of concrete or mortar which has partially hardened shall not be permitted.

3.02 PREPARATION OF SURFACES FOR CONCRETING

- A. General: Earth surfaces shall be thoroughly wetted by sprinkling, prior to the placing of any concrete, and these surfaces shall be kept moist by frequent sprinkling up to the time of placing concrete thereon. The surface shall be free from standing water, mud, and debris at the time of placing concrete.
- B. Joints in Concrete: Concrete surfaces upon or against which concrete is to be placed, where the placement of the concrete has been stopped or interrupted so that, as determined by the ENGINEER, the new concrete cannot be incorporated integrally with that previously placed, are defined as construction joints. The surfaces of horizontal joints shall be given a compacted, roughened surface for good bond. Except where the Drawings call for joint surfaces to be coated, the joint surfaces shall be cleaned of all laitance, loose or defective concrete, foreign material, and roughened to a minimum 1/4-inch amplitude. Such cleaning and roughening shall be accomplished by hydroblasting or sandblasting (exposing aggregate) followed by thorough washing. All pools of water shall be removed from the surface of construction joints before the new concrete is placed.
- C. After the surfaces have been prepared all approximately horizontal construction joints shall be covered with a 6-inch lift of a rich pea gravel mix, as specified hereinbefore. The mix shall be placed and spread uniformly. Wall concrete shall follow immediately and shall be placed upon the fresh pea gravel mix.
- D. Placing Interruptions: When placing of concrete is to be interrupted long enough for the concrete to take a set, the working face shall be given a shape by the use of forms or other means, that will secure proper union with subsequent work; provided that construction joints shall be made only where acceptable to the ENGINEER.
- E. Embedded Items: No concrete shall be placed until all formwork, installation of parts to be embedded, reinforcement steel, and preparation of surfaces involved in the placing have been completed and accepted by the ENGINEER at least 4 hours before placement of concrete. All surfaces of forms and embedded items that have become encrusted with dried grout from concrete previously placed shall be cleaned of all such grout before the surrounding or adjacent concrete is placed.
- F. All inserts or other embedded items shall conform to the requirements herein.
- G. All reinforcement, anchor bolts, sleeves, inserts, and similar items shall be set and secured in the forms where shown or by shop drawings and shall be acceptable to the ENGINEER before any concrete is placed. Accuracy of placement is the responsibility of the CONTRACTOR.
- H. Casting New Concrete Against Old: Where concrete is to be cast against old concrete (any concrete which is greater than 60 days of age), the surface of the old concrete shall be thoroughly cleaned and roughened by hydro-blasting or sandblasting (exposing aggregate). The joint surface shall be coated with an epoxy bonding agent unless indicated otherwise by the ENGINEER.
- I. No concrete shall be placed in any structure until all water entering the space to be filled with concrete has been properly cut off or has been diverted by pipes, or other means, and carried out of the forms, clear of the work. No concrete shall be deposited underwater nor shall the CONTRACTOR allow still water to rise on any concrete until the concrete has attained its initial set. Water shall not be permitted to flow over the surface of any concrete in such manner and at such velocity as will injure the surface finish of the concrete. Pumping or other necessary dewatering operations for removing ground water, if required, will be subject to the review of the ENGINEER.

- J. Corrosion Protection: Pipe, conduit, dowels, and other ferrous items required to be embedded in concrete construction shall be so positioned and supported prior to placement of concrete that there will be a minimum of 2 inches clearance between said items and any part of the concrete reinforcement. Securing such items in position by wiring or welding them to the reinforcement will not be permitted.
- K. Openings for pipes, inserts for pipe hangers and brackets, and the setting of anchors shall, where practicable, be provided for during the placing of concrete.
- L. Anchor bolts shall be accurately set, and shall be maintained in position by templates while being embedded in concrete.
- M. Cleaning: The surfaces of all metalwork to be in contact with concrete shall be thoroughly cleaned of all dirt, grease, loose scale and rust, grout, mortar, and other foreign substances immediately before the concrete is placed.

3.03 HANDLING, TRANSPORTING, AND PLACING

- A. General: Placing of concrete shall conform to the applicable requirements of Chapter 8 of ACI 301 and the requirements of this Section. No aluminum materials shall be used in conveying any concrete.
- B. Non-Conforming Work or Materials: Concrete which upon or before placing is found not to conform to the requirements specified herein shall be rejected and immediately removed from the work. Concrete which is not placed in accordance with these Specifications, or which is of inferior quality, shall be removed and replaced by and at the expense of the CONTRACTOR.
- C. Unauthorized Placement: No concrete shall be placed except in the presence of duly authorized representative of the ENGINEER. The CONTRACTOR shall notify the ENGINEER in writing at least 24 hours in advance of placement of any concrete.
- D. Placement in Wall Forms: Concrete shall not be dropped through reinforcement steel or into any deep form, nor shall concrete be placed in any form in such a manner as to leave accumulation of mortar on the form surfaces above the placed concrete. In such cases, some means such as the use of hoppers and, if necessary, vertical ducts of canvas, rubber, or metal shall be used for placing concrete in the forms in a manner that it may reach the place of final deposit without separation. In no case shall the free fall of concrete exceed 4 feet below the ends of ducts, chutes, or buggies. Concrete shall be uniformly distributed during the process of depositing and in no case after depositing shall any portion be displaced in the forms more than 6 feet in horizontal direction. Concrete in forms shall be deposited in uniform horizontal layers not deeper than 2 feet; and care shall be taken to avoid inclined layers or inclined construction joints except where such are required for sloping members. Each layer shall be placed while the previous layer is still soft. The rate of placing concrete in forms shall not exceed 5 feet of vertical rise per hour. Sufficient illumination shall be provided in the interior of all forms so that the concrete at the places of deposit is visible from the deck or runway.
- E. Casting New Concrete Against Old: An epoxy adhesive bonding agent shall be applied to the old surfaces according to the manufacturer's written recommendations.
- F. Conveyor Belts and Chutes: All ends of chutes, hopper gates, and all other points of concrete discharge throughout the CONTRACTOR'S conveying, hoisting and placing system shall be so designed and arranged that concrete passing from them will not fall separated into whatever receptacle immediately receives it. Conveyor belts, if used, shall be of a type acceptable to the ENGINEER. Chutes longer than 50 feet will not be permitted. Minimum slopes of chutes shall be such that concrete of

the specified consistency will readily flow in them. If a conveyor belt is used, it shall be wiped clean by a device operated in such a manner that none of the mortar adhering to the belt will be wasted. All conveyor belts and chutes shall be covered.

- G. Placement in Slabs: Concrete placed in sloping slabs shall proceed uniformly from the bottom of the slab to the top, for the full width of the placement. As the work progresses, the concrete shall be vibrated and carefully worked around the slab reinforcement, and the surface of the slab shall be screeded in an up-slope direction.
- H. Temperature of Concrete: The temperature of concrete when it is being placed shall be not more than 90 degrees F nor less than 55 degrees F for sections less than 12 inches thick nor less than 50 degrees for all other sections. Concrete ingredients shall not be heated to a temperature higher than that necessary to keep the temperature of the mixed concrete, as placed, from falling below the specified minimum temperature. When the temperature of the concrete is 85 degrees F or above, the time between the introduction of the cement to the aggregates and discharge shall not exceed 45 minutes. If concrete is placed when the weather is such that the temperature of the concrete would exceed 90 degrees F, the CONTRACTOR shall employ effective means, such as precooling of aggregates and mixing water using ice or placing at night, as necessary to maintain the temperature of the concrete, as it is placed, below 90 degrees F. The CONTRACTOR shall be entitled to no additional compensation on account of the foregoing requirements.
- I. Cold Weather Placement:
 - 1. Placement of concrete shall conform to ACI 306.1 - Standard Specification for Cold Weather Concreting, and the following.
 - 2. Remove all snow, ice and frost from the surfaces, including reinforcement, against which concrete is to be placed. Before beginning concrete placement, thaw the subgrade to a minimum depth of 6 inches. All reinforcement and embedded items shall be warmed to above 32 degrees F prior to concrete placement.
 - 3. Maintain the concrete temperature above 50 degrees F for at least 3 days after placement.
- J. Hot Weather Placement:
 - 1. Hot weather is defined as any one of or combination of air temperature 88 degrees F or more, relative humidity 60% or less and/or wind velocity of 10 miles per hour or more. During hot weather, any or all of the methods specified herein for temperature control of concrete shall be used as required to maintain the concrete temperature below the limits specified.
 - 2. Not less than 30 days prior to expected placement of concrete under hot weather conditions, a complete procedure shall be submitted for review covering the aspects of protection of concrete and its ingredients from the detrimental effects of hot weather. Concrete placement during hot weather shall not commence prior to the return of the procedure marked "Reviewed".
 - 3. Placement of concrete shall conform to ACI 305 - Standard Specification for Hot Weather Concreting, and the following.
 - 4. Concrete deposited in hot weather shall have a placing temperature which will not cause difficulty from loss of slump, flash set, or cold joints (usually somewhat less than 90° F).

5. On hot days when the humidity is low, insure that the forms and trench are well-moistened just prior to placement.
6. Fog spray shall be used continuously during finishing operations to avoid excessive moisture loss in the freshly placed concrete that may result in the formation of surface plastic-shrinkage cracking. Fog spray shall also be used after finishing and before the specified curing is commenced to avoid surface plastic-shrinkage cracking. Exposed surfaces and forms shall be kept covered and continuously moist. Once forms are loosened and during form removal, concrete surfaces shall be kept continuously wet by fog spraying or other approved means.
7. There will be no additional reimbursement to the CONTRACTOR for costs incurred for placing concrete in hot weather.

3.04 PUMPING OF CONCRETE

- A. General: If the pumped concrete does not produce satisfactory end results, the CONTRACTOR shall discontinue the pumping operation and proceed with the placing of concrete using conventional methods.
- B. Pumping Equipment: The pumping equipment must have 2 cylinders and be designed to operate with one cylinder only in case the other one is not functioning. In lieu of this requirement, the CONTRACTOR may have a standby pump on the site during pumping.
- C. The minimum diameter of the hose (conduits) shall be in accordance with ACI 304.2R.
- D. Pumping equipment and hoses (conduits) that are not functioning properly, shall be replaced.
- E. Aluminum conduits for conveying the concrete shall not be permitted.
- F. Field Control: Concrete samples for slump, air content, and test cylinders will be taken at the placement (discharge) end of the line.

3.05 ORDER OF PLACING CONCRETE

- A. The order of placing concrete in all parts of the work shall be acceptable to the ENGINEER. In order to minimize the effects of shrinkage, the concrete shall be placed in units as bounded by construction joints shown. The placing of units shall be done by placing alternate units in a manner such that each unit placed shall have cured at least 5 days for hydraulic structures and 2 days for all other structures before the contiguous unit or units are placed, except that the corner sections of vertical walls shall not be placed until the 2 adjacent wall panels have cured at least 10 days for hydraulic structures and 4 days for all other structures.
- B. The surface of the concrete shall be level whenever a run of concrete is stopped. To insure a level, straight joint on the exposed surface of walls, a wood strip at least 3/4-inch thick shall be tacked to the forms on these surfaces. The concrete shall be carried about 1/2-inch above the underside of the strip. About one hour after the concrete is placed, the strip shall be removed and any irregularities in the edge formed by the strip shall be leveled with a trowel and all laitance shall be removed.

3.06 TAMPING AND VIBRATING

- A. As concrete is placed in the forms or in excavations, it shall be thoroughly settled and compacted, throughout the entire depth of the layer which is being consolidated, into a dense, homogeneous mass, filling all corners and angles, thoroughly embedding the reinforcement, eliminating rock pockets, and bringing only a slight excess of water to

the exposed surface of concrete during placement. Vibrators shall be Group 3 (per ACI 309) high speed power vibrators (8000 to 12,000 rpm) of an immersion type in sufficient number and with (at least one) standby units as required. Group 2 vibrators may be used only at specific locations when accepted by the ENGINEER.

- C. Concrete in walls shall be internally vibrated and at the same time rammed, stirred, or worked with suitable appliances, tamping bars, shovels, or forked tools until it completely fills the forms or excavations and closes snugly against all surfaces. Subsequent layers of concrete shall not be placed until the layers previously placed have been worked thoroughly as specified. Vibrators shall be provided in sufficient numbers, with standby units as required, to accomplish the results herein specified within 15 minutes after concrete of the prescribed consistency is placed in the forms. The vibrating head shall be kept from contact with the surfaces of the forms. Care shall be taken not to vibrate concrete excessively or to work it in any manner that causes segregation of its constituents.

3.07 FINISHING CONCRETE SURFACES

- A. General: Surfaces shall be free from fins, bulges, ridges, offsets, honeycombing, or roughness of any kind, and shall present a finished, smooth, continuous hard surface. Allowable deviations from plumb or level and from the alignment, profiles, and dimensions shown are defined as tolerances and are specified in Part 1, herein. These tolerances are to be distinguished from irregularities in finish as described herein. Aluminum finishing tools shall not be used.
- B. Formed Surfaces: No treatment is required after form removal except for curing, repair of defective concrete, and treatment of surface defects. Where architectural finish is required, it shall be as specified or as shown. Basins and exposed walls shall be given a smooth finish as specified hereinafter.
- C. Unformed Surfaces: After proper and adequate vibration and tamping, all unformed top surfaces of slabs, floors, walls, and curbs shall be brought to a uniform surface with suitable tools. Immediately after the concrete has been screeded, it shall be treated with a liquid evaporation retardant. The retardant shall be used again after each work operation as necessary to prevent drying shrinkage cracks. The classes of finish specified for unformed concrete surfaces are designated and defined as follows:
 - 1. Finish U1 - Sufficient leveling and screeding to produce an even, uniform surface with surface irregularities not to exceed 3/8-inch. No further special finish is required.
 - 2. Finish U2 - After sufficient stiffening of the screeded concrete, surfaces shall be float finished with wood or metal floats or with a finishing machine using float blades. Excessive floating of surfaces while the concrete is plastic and dusting of dry cement and sand on the concrete surface to absorb excess moisture will not be permitted. Floating shall be the minimum necessary to produce a surface that is free from screed marks and is uniform in texture. Surface irregularities shall not exceed 1/4-inch. Joints and edges shall be tooled where shown or as determined by the ENGINEER.
 - 3. Finish U3 - After the floated surface (as specified for Finish U2) has hardened sufficiently to prevent excess of fine material from being drawn to the surface, steel troweling shall be performed with firm pressure such as will flatten the sandy texture of the floated surface and produce a dense, uniform surface free from blemishes, ripples, and trowel marks. The finish shall be smooth and free of all irregularities.

4. Finish U4 - Steel trowel finish (as specified for Finish U3) without local depressions or high points. In addition, the surface shall be given a light hairbroom finish with brooming perpendicular to drainage unless otherwise shown. The resulting surface shall be rough enough to provide a nonskid finish.
 5. Finish U5 - Steel trowel finish (as specified for Finish U3) without local depressions or high points. In addition, the surface shall be given a medium hairbroom finish with brooming perpendicular to drainage unless otherwise shown. The resulting surface shall be rough enough to provide a nonskid finish.
- D. Unformed surfaces shall be finished according to the following schedule:

UNFORMED SURFACE FINISH SCHEDULE

| <u>Area</u> | <u>Finish</u> |
|---|---------------|
| Grade slabs and foundations to be covered with concrete or fill material | U1 |
| Floors to be covered with grouted tile or topping grout | U2 |
| Slabs which are water bearing with slopes 10 percent and less | U4 |
| Sloping slabs which are water bearing with slopes greater than 10 percent | U5 |
| Slabs not water bearing | U5 |
| Slabs to be covered with built-up roofing | U2 |
| Interior slabs and floors to receive architectural finish | U3 |
| Top surface of walls | U3 |

- E. Floor Sealer/Hardener (Surface Applied):
1. Floors to receive hardener shall be cured, cleaned, and dry with all work above them completed. Not less than 60 days shall have elapsed between casting floors and application of sealer/hardener. Apply zinc and/or magnesium fluosilicate evenly, using 3 coats, allowing 24 hours between coats.
 2. The first coat shall be 1/3 strength, second coat 1/2 strength, and third coat 2/3 strength. Each coat shall be applied so as to remain wet on the concrete surface for 15 minutes. If sodium silicate is used, it shall be applied evenly, using 3 coats, allowing 24 hours between coats, and the material shall be applied full strength at the rate of one gallon per 300 square feet. Approved proprietary hardeners shall be applied in conformance with the manufacturer's instruction. After the final coat is completed and dry, surplus hardener shall be removed from the surface by scrubbing and mopping with water.
 3. Floor hardener shall be applied where shown.

3.08 ARCHITECTURAL FINISH

- A. General: Architectural finishes shall be required only where specifically called out on the drawings. In all other cases, paragraph 3.07, Finishing Concrete Surfaces, shall apply.
1. Immediately after the forms have been stripped, the concrete surface shall be inspected and any poor joints, voids, rock pockets, or other defective areas shall be repaired and all form-tie holes filled as specified herein.

2. Architectural finishes shall not be applied until the concrete surface has been repaired as required and the concrete has cured at least 14 days.
3. All architecturally treated concrete surfaces shall conform to the accepted sample required herein in texture, color, and quality. It shall be the CONTRACTOR's responsibility to maintain and protect the concrete finish.

B. Smooth Concrete Finish

1. The concrete surface shall be wetted, and a grout shall be applied with a brush. The grout shall be made by mixing one part portland cement and one part of fine sand that will pass a No. 16 sieve with sufficient water to give it the consistency of thick paint. The cement used in said grout shall be 1/2 gray and 1/2 white portland cement, as determined by the ENGINEER. White portland cement shall be Atlas white, or equal, furnished by the CONTRACTOR. Calcium chloride in the amount of 5 percent by volume of the cement shall be used in the brush coat. The freshly applied grout shall be vigorously rubbed into the concrete surface with a wood float filling all small air holes. After all the surface grout had been removed with a steel trowel, the surface shall be allowed to dry and, when dry, shall be vigorously rubbed with burlap to remove completely all surface grout so that there is no visible paint-like film of grout on the concrete. The entire cleaning operation for any area shall be completed the day it is started, and no grout shall be left on the surface overnight.
2. Cleaning operations for any given day shall be terminated at panel joints. It is essential that the various operations be carefully timed to secure the desired effect which is a light-colored concrete surface of uniform color and texture without any appearance of a paint or grout film.
3. In the event that improper manipulation results in an inferior finish, the CONTRACTOR shall rub such inferior areas with carborundum bricks.
4. Before beginning any of the final treatment on exposed surfaces, the CONTRACTOR shall treat in a satisfactory manner a trial area of at least 200 square feet in some inconspicuous place selected by the ENGINEER and shall preserve said trial area undisturbed until the completion of the job.

C. Sandblasted Concrete Finish.

1. Sandblasting shall be done in a safe manner acceptable to local authorities and per OSHA requirements. The sandblasting shall be a light sandblast to remove laitance and to produce a uniform fine aggregate surface texture with approximately 1/32- to 1/16-inch of surface sandblasted off. Corners, patches, form panel joints, and soft spots shall be sandblasted with care.
2. A 3-sq ft sample panel of the sandblasted finish shall be provided by the CONTRACTOR for acceptance by the ENGINEER prior to starting the sandblasting work. The sample panel shall include a corner, plugs, and joints and shall be marked after approval. All other sandblasting shall be equal in finish to the sample panel.
3. Protection against sandblasting shall be provided on all surfaces and materials not requiring sandblasting but within or adjacent to areas being sandblasted. After sandblasting, the concrete surfaces shall be washed with clean water and excess sand removed.

3.09 CURING AND DAMPPROOFING

- A. General: All concrete shall be cured for not less than 7 days after placing, in accordance with the methods specified herein for the different parts of the work, and described in detail in the following paragraphs:

| Surface to be Cured or Dampproofed | Method |
|--|--------|
| Unstripped forms | 1 |
| Wall sections with forms removed | 6 |
| Construction joints between footings and walls, and between floor slab and columns | 2 |
| Encasement concrete and thrust blocks | 3 |
| All concrete surfaces not specifically provided for elsewhere in this Paragraph | 4 |
| Floor slabs on grade in hydraulic structures | 5 |
| Slabs not on grade | 6 |

- B. Method 1: Wooden forms shall be wetted immediately after concrete has been placed and shall be kept wet with water until removed. If steel forms are used the exposed concrete surfaces shall be kept continuously wet until the forms are removed. If forms are removed within 7 days of placing the concrete, curing shall be continued in accordance with Method 6, herein.
- C. Method 2: The surface shall be covered with burlap mats which shall be kept wet with water for the duration of the curing period, until the concrete in the walls has been placed. No curing compound shall be applied to surfaces cured under Method 2.
- D. Method 3: The surface shall be covered with moist earth not less than 4 hours, nor more than 24 hours, after the concrete is placed. Earthwork operations that may damage the concrete shall not begin until at least 7 days after placement of concrete.
- E. Method 4: The surface shall be sprayed with a liquid curing compound.
1. It shall be applied in accordance with the manufacturer's printed instructions at a maximum coverage rate of 200 square feet per gallon and in such a manner as to cover the surface with a uniform film which will seal thoroughly.
 2. Where the curing compound method is used, care shall be exercised to avoid damage to the seal during the 7-day curing period. Should the seal be damaged or broken before the expiration of the curing period, the break shall be repaired immediately by the application of additional curing compound over the damaged portion.
 3. Wherever curing compound may have been applied by mistake to surfaces against which concrete subsequently is to be placed and to which it is to adhere, said compound shall be entirely removed by wet sandblasting just prior to the placing of new concrete.
 4. Where curing compound is specified, it shall be applied as soon as the concrete has hardened enough to prevent marring on unformed surfaces, and within 2 hours after removal of forms from contact with formed surfaces. Repairs required to be made to formed surfaces shall be made within the said

2-hour period; provided, however, that any such repairs which cannot be made within the said 2-hour period shall be delayed until after the curing compound has been applied. When repairs are to be made to an area on which curing compound has been applied, the area involved shall first be wet-sandblasted to remove the curing compound, following which repairs shall be made as specified herein.

5. At all locations where concrete is placed adjacent to a panel which has been coated with curing compound, the previously coated panel shall have curing compound reapplied to an area within 6 feet of the joint and to any other location where the curing membrane has been disturbed.
6. Prior to final acceptance of the WORK, all visible traces of curing compound shall be removed from all surfaces in such a manner that does not damage surface finish.

F. Method 5:

1. Until the concrete surface is covered with curing compound, the entire surface shall be kept damp by applying water using nozzles that atomize the flow so that the surface is not marred or washed. The concrete shall be given a coat of curing compound in accordance with Method 4, herein. Not less than one hour nor more than 4 hours after the coat of curing compound has been applied, the surface shall be wetted with water delivered through a fog nozzle, and concrete-curing blankets shall be placed on the slabs. The curing blankets shall be polyethylene sheet, polyethylene-coated waterproof paper sheeting or polyethylene-coated burlap. The blankets shall be laid with the edges butted together and with the joints between strips sealed with 2-inch wide strips of sealing tape or with edges lapped not less than 3 inches and fastened together with a waterproof cement to form a continuous watertight joint.
2. The curing blankets shall be left in place during the 7-day curing period and shall not be removed until after concrete for adjacent work has been placed. Should the curing blankets become torn or otherwise ineffective, the CONTRACTOR shall replace damaged sections. During the first 3 days of the curing period, no traffic of any nature and no depositing, temporary or otherwise, of any materials shall be permitted on the curing blankets. During the remainder of the curing period, foot traffic and temporary depositing of materials that impose light pressure will be permitted only on top of plywood sheets 5/8-inch minimum thickness, laid over the curing blanket. The CONTRACTOR shall add water under the curing blanket as often as necessary to maintain damp concrete surfaces at all times.

G. Method 6: This method applies to both walls and slabs.

1. The concrete shall be kept continuously wet by the application of water for a minimum period of at least 7 consecutive days beginning immediately after the concrete has reached final set or forms have been removed.
2. Until the concrete surface is covered with the curing medium, the entire surface shall be kept damp by applying water using nozzles that atomize the flow so that the surface is not marred or washed.
3. Heavy curing mats shall be used as a curing medium to retain the moisture during the curing period. The curing medium shall be weighted or otherwise held in place to prevent being dislodged by wind or any other causes and to

be substantially in contact with the concrete surface. All edges shall be continuously held in place.

4. The curing blankets and concrete shall be kept continuously wet by the use of sprinklers or other means both during and after normal working hours.
5. Immediately after the application of water has terminated at the end of the curing period, the curing medium shall be removed, any dry spots shall be rewetted, and curing compound shall be immediately applied in accordance with Method 4, herein.
6. The CONTRACTOR shall dispose of excess water from the curing operation to avoid damage to the work.

H. Dampproofing

1. The exterior surface of all buried roof slabs shall be dampproofed as follows.
2. Immediately after completion of curing the surface shall be sprayed with a dampproofing agent consisting of an asphalt emulsion. Application shall be in 2 coats. The first coat shall be diluted to 1/2 strength by the addition of water and shall be sprayed on so as to provide a maximum coverage rate of 100 square feet per gallon of dilute solution. The second coat shall consist of an application of the specified material, undiluted, and shall be sprayed on so as to provide a maximum coverage rate of 100 square feet per gallon. Dampproofing material shall be as specified herein.
3. As soon as the asphalt emulsion, applied as specified herein, has taken an initial set, the entire area thus coated shall be coated with whitewash. Any formula for mixing the whitewash may be used which produces a uniformly coated white surface and which so remains until placing of the backfill. Should the whitewash fail to remain on the surface until the backfill is placed, the CONTRACTOR shall apply additional whitewash.

3.10 PROTECTION

- A. The CONTRACTOR shall protect all concrete against injury until final acceptance by the CITY.
- B. Fresh concrete shall be protected from damage due to rain, hail, sleet, or snow. The CONTRACTOR shall provide such protection while the concrete is still plastic and whenever such precipitation is imminent or occurring.

3.11 CURING IN COLD WEATHER

- A. Water curing of concrete may be reduced to 6 days during periods when the mean daily temperature in the vicinity of the worksite is less than 40 degrees F; provided that, during the prescribed period of water curing, when temperatures are such that concrete surfaces may freeze, water curing shall be temporarily discontinued.
- B. Concrete cured by an application of curing compound will require no additional protection from freezing if the protection at 50 degrees F for 72 hours is obtained by means of approved insulation in contact with the forms or concrete surfaces; otherwise the concrete shall be protected against freezing temperatures for 72 hours immediately following 72 hours protection at 50 degrees F. Concrete cured by water curing shall be protected against freezing temperatures for 3 days immediately following the 72 hours of protection at 50 degrees F.

- C. Discontinuance of protection against freezing temperatures shall be such that the drop in temperature of any portion of the concrete will be gradual and will not exceed 40 degrees F in 24 hours. In the spring, when the mean daily temperature rises above 40 degrees F for more than 3 successive days, the specified 72-hour protection at a temperature not lower than 50 degrees F may be discontinued for as long as the mean daily temperature remains above 40 degrees F; provided, that the concrete shall be protected against freezing temperatures for not less than 48 hours after placement.
- D. Where artificial heat is employed, special care shall be taken to prevent the concrete from drying. Use of unvented heaters will be permitted only when unformed surfaces of concrete adjacent to the heaters are protected for the first 24 hours from an excessive carbon dioxide atmosphere by application of curing compound; provided, that the use of curing compound for such surfaces is otherwise permitted by these Specifications.

3.12 TREATMENT OF SURFACE DEFECTS

- A. As soon as forms are removed, all exposed surfaces shall be carefully examined and any irregularities shall be immediately rubbed or ground in a satisfactory manner in order to secure a smooth, uniform, and continuous surface. Plastering or coating of surfaces to be smoothed will not be permitted. No repairs shall be made until after inspection by the ENGINEER. In no case will extensive patching of honeycombed concrete be permitted. Concrete containing minor voids, holes, honeycombing, or similar depression defects shall have them repaired as specified herein. Concrete containing extensive voids, holes, honeycombing, or similar depression defects, shall be completely removed and replaced. All repairs and replacements herein specified shall be promptly executed by the CONTRACTOR at its own expense.
- B. Defective surfaces to be repaired shall be cut back from true line a minimum depth of 1/2-inch over the entire area. Feathered edges will not be permitted. Where chipping or cutting tools are not required in order to deepen the area properly, the surface shall be prepared for bonding by the removal of all laitance or soft material, and not less than 1/32-inch depth of the surface film from all hard portions, by means of an efficient sandblast. After cutting and sandblasting, the surface shall be wetted sufficiently in advance of shooting with shotcrete or with cement mortar so that while the repair material is being applied, the surfaces under repair will remain moist, but not so wet as to overcome the suction upon which a good bond depends. The material used for repair proposed shall consist of a mixture of one sack of cement to 3 cubic feet of sand. For exposed walls, the cement shall contain such a proportion of Atlas white portland cement as is required to make the color of the patch match the color of the surrounding concrete.
- C. Holes left by tie-rod cones shall be reamed with suitable toothed reamers so as to leave the surfaces of the holes clean and rough. These holes then shall be repaired in an approved manner with dry-packed cement grout. Holes left by form-tying devices having a rectangular cross-section, and other imperfections having a depth greater than their least surface dimension, shall not be reamed but shall be repaired in an approved manner with dry-packed cement grout.
- D. All repairs shall be built up and shaped in such a manner that the completed work will conform to the requirements of this Section, as applicable, using approved methods which will not disturb the bond, cause sagging, or cause horizontal fractures. Surfaces of said repairs shall receive the same kind and amount of curing treatment as required for the concrete in the repaired section.

- E. Prior to filling any structure with water, all cracks that may have developed shall be "vee'd" as shown and filled with sealant conforming to the requirements of Section 03290 - Joints in Concrete. This repair method shall be done on the water bearing face of members. Prior to backfilling, faces of members in contact with fill, which are not covered with a waterproofing membrane, shall also have cracks repaired as specified herein.

3.13 PATCHING HOLES IN CONCRETE

A. Patching Small Holes:

1. Holes which are less than 12 inches in their least dimension and extend completely through concrete members, shall be filled as specified herein.
2. Small holes in members which are water-bearing or in contact with soil or other fill material, shall be filled with non-shrink grout. Where a face of the member is exposed to view, the non-shrink grout shall be held back 2 inches from the finished surface. The remaining 2 inches shall then be patched according to the Paragraph in Part 3 entitled "Treatment of Surface Defects."
3. Small holes through all other concrete members shall be filled with non-shrink grout, with exposed faces treated as above.

B. Patching Large Holes:

1. Holes which are larger than 12 inches in their least dimension, shall have a keyway chipped into the edge of the opening all around, unless a formed keyway exists. The holes shall then be filled with concrete as specified herein.
2. Holes which are larger than 24 inches in their least dimension and which do not have reinforcing steel extending from the existing concrete, shall have reinforcing steel set in grout in drilled holes. The reinforcing added shall match the reinforcing in the existing wall unless shown.

3.14 CARE AND REPAIR OF CONCRETE

- A. The CONTRACTOR shall protect all concrete against injury or damage from excessive heat, lack of moisture, overstress, or any other cause until final acceptance by the CITY. Particular care shall be taken to prevent the drying of concrete and to avoid roughening or otherwise damaging the surface. Any concrete found to be damaged, or which may have been originally defective, or which becomes defective at any time prior to the final acceptance of the completed WORK, or which departs from the established line or grade, or which, for any other reason, does not conform to the requirements of the Contract Documents, shall be satisfactorily repaired or removed and replaced with acceptable concrete at the CONTRACTOR'S expense.

END OF SECTION 03300

SECTION 03350

SEEDED AGGREGATE CONCRETE FINISH

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes seeding of non-typical aggregates into concrete surfaces and retarding of concrete surfaces.
- B. Related Requirements:
 - 1. Section 03120 "Formliners for Architectural Concrete" for coordination of mockups.
 - 2. Section 03300 "Cast-in-place Concrete."
 - 3. Section 03351 "Reactive Coloration for Concrete Finish" for concrete staining systems.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Before submitting design samples, review concrete design mixture and examine procedures for ensuring quality of concrete materials and aggregates. Require representatives of each entity directly concerned with cast-in-place architectural concrete to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixtures.
 - c. Architectural seeded aggregate finish subcontractor.
 - 2. Review concrete finishes and finishing, curing procedures, construction joints, seeded aggregate finishing procedures, concrete repair procedures, and protection of cast-in-place architectural concrete.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Place and finish techniques.
 - 2. Technical data for surface retardant.
- B. Samples: For each of the following materials:
 - 1. Coarse- and fine-aggregate gradations.
- C. Samples for Verification: Architectural concrete Samples, approximately 18 by 18 by 2 inches of finishes, colors, and textures to match design reference sample. If no design reference is cited, coordinate sample characteristics directly with Architect prior to submittal. Include Sample sets showing the full range of variations expected in these characteristics.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For installer.

1. Include list of successfully completed concrete seeding projects with names and locations, names of architects, and types and quality of concrete seeded.

1.6 QUALITY ASSURANCE

A. Installer's Qualifications:

1. Minimum of three years documented experience with projects of a similar scope and scale.
2. Regularly engaged in the application of seeded concrete of similar type to that specified.
3. Employees trained for installation of seeded concrete of similar type to that specified.

B. Source Limitations for seeded aggregate: Obtain each color, size, type, and variety of material from single source with resources to provide concrete finish of consistent quality in appearance and physical properties.

C. Field Sample Panels: After approval of verification sample and before casting and seeding architectural concrete, produce field sample panels to demonstrate the approved range of selections made under Sample submittals. Produce at least one full-scale panel, approximately 48 by 48 by 6 inches minimum, to demonstrate the expected range of finish, color, and texture variations.

1. Locate panel(s) as indicated or, if not indicated, as directed by Architect.
2. Demonstrate methods of curing and aggregate exposure.
3. In presence of Architect, damage part of an exposed-face surface for each finish, color, and texture, and demonstrate materials and techniques proposed for repair of surface blemishes to match adjacent undamaged surfaces.
4. Maintain field sample panels during construction in an undisturbed condition as a standard for judging the completed Work.
5. Demolish and remove field sample panels when directed.

D. Mockups: Before casting architectural concrete, build mockups to verify selections made under Sample submittals and to demonstrate typical joints, surface finish, texture, tolerances, and standard of workmanship. Build mockups to comply with the following requirements, using materials indicated for the completed Work:

1. Build mockups in the location and of the size indicated or, if not indicated, as directed by Architect.
2. Demonstrate curing, cleaning, and protecting of cast-in-place seeded aggregate architectural concrete, finishes, and contraction joints, as applicable.
3. Obtain Architect's approval of mockups before casting architectural concrete.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 DELIVERY, PREPARATION, AND HANDLING OF MATERIALS

A. Coordinate concrete paving requirements

B. Wash aggregates and particulates thoroughly and treat with a citrus based degreaser.

- C. Protect aggregates and particulates from contamination of foreign items not scheduled to be seeded in paving.

1.8 SEQUENCING

- A. Ensure that locating templates and other information required for installation of products in this Section are furnished to affected trades in time to prevent interruption of construction progress.
- B. Ensure that products of this Section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 - PRODUCTS

2.1 SUPPLIERS

- A. Basis-of-Design: Subject to compliance with requirements, provide seeded aggregate finish as supplied by Concrete Contractors Interstate, Poway, CA, or approved equal.

2.2 MATERIALS

- A. Basis-of-Design: Subject to compliance with requirements, provide materials indicated, or approved equal.
- B. Aggregates and Particulates: Crushed seashells.
- C. Surface Retardant: Grace Top Cast.

PART 3 - EXECUTION

3.1 FINISHES, GENERAL

- A. Seeded Aggregate Architectural Concrete Finish: Match Architect's design reference sample, identified and described as indicated, to satisfaction of Architect. If not indicated, coordinate concrete finishes directly with Architect prior to production of Samples.
- B. Related Surfaces: At surfaces adjacent to seeded aggregate surfaces, strike off smooth and finish with a texture indicated for these surfaces.
- C. Maintain uniformity of seeded aggregate finishes over construction joints unless otherwise indicated.

3.2 FINISHES

- A. Seed and place aggregate to obtain finish matching approved Samples and Mock-up.
- B. Apply surface retarder according to manufacturer's recommendations.

3.3 REPAIRS, PROTECTION, AND CLEANING

- A. Repair damaged finished surfaces of seeded aggregate architectural concrete when approved by Architect. Match repairs to color, texture, and uniformity of surrounding surfaces and to repairs on approved field sample(s).
 - 1. Remove and replace seeded aggregate architectural concrete that cannot be repaired and cured to Architect's approval.
- B. Protect corners, edges, and surfaces of seeded aggregate architectural concrete from damage; use guards and barricades.
- C. Protect seeded aggregate architectural concrete from staining, laitance, and contamination during remainder of construction period.

- D. Clean seeded aggregate architectural concrete surfaces after finish treatment to remove stains, markings, dust, and debris.
- E. Wash and rinse surfaces according to seeded aggregate concrete finish applicator's written instructions. Protect other Work from staining or damage due to cleaning operations.
 - 1. Do not use cleaning materials or processes that could change the appearance of seeded aggregate architectural concrete finishes.

END OF SECTION 03350

SECTION 03351

REACTIVE COLORATION FOR CONCRETE FINISH

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes acid based concrete stain coloration and sealers.
- B. Related Requirements:
 - 1. Section 03120 "Formliners for Architectural Concrete" for formliners and coordination of mockups.
 - 2. Section 03300 "Cast-in-place Concrete."
 - 3. Section 03350 "Seeded Aggregate Concrete Finish."
 - 4. Section 09860 "Anti-graffiti Coatings."

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
 - 1. Before submitting design samples, review concrete design mixture and examine procedures for ensuring quality of concrete materials. Require representatives of each entity directly concerned with cast-in-place architectural concrete to attend, including the following:
 - a. Contractor's superintendent.
 - b. Independent testing agency responsible for concrete design mixtures.
 - c. Architectural coloration finish subcontractor.
 - 2. Review concrete finishes and finishing, curing procedures, construction joints, coloration finishing procedures, concrete repair procedures, and protection of cast-in-place architectural concrete.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Surface preparation recommendations and instructions.
 - 2. Storage and handling requirements.
 - 3. Application methods.
 - 4. Maintenance instructions.
 - 5. Technical data.
- B. Samples for Verification: Architectural concrete Samples, approximately **18 by 18 by 2 inches** of finishes, colors, and textures to match design reference sample. If no design reference is cited, coordinate sample characteristics directly with Architect prior to submittal. Include Sample sets showing the full range of variations expected in these characteristics. Include minimum of eight colors for application.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For installer.
 - 1. Include list of successfully completed concrete coloration projects with names and locations, names of architects, and types and quality of concrete colored, stains applied.
- B. Manufacturer's Certificates: Certifying that products meet or exceed specified requirements.

1.6 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer shall have a minimum of five years experience in design, formulation, and service of decorative concrete surface systems.
- B. Installer's Qualifications:
 - 1. Minimum of three years documented experience with projects of a similar scope and scale.
 - 2. Regularly engaged in the application of seeded concrete of similar type to that specified.
 - 3. Employees trained for installation of seeded concrete of similar type to that specified.
- C. Source Limitations for coloration system: Obtain each color, type, and variety of material from single source with resources to provide concrete finish of consistent quality in appearance and physical properties.
- D. Field Sample Panels: After approval of verification sample and before casting and coloring architectural concrete, produce field sample panels to demonstrate the approved range of selections made under Sample submittals. Produce at least one full-scale panel, approximately 48 by 48 by 6 inches minimum, to demonstrate the expected range of finish, color, and texture variations.
 - 1. Locate panel(s) as indicated or, if not indicated, as directed by Architect.
 - 2. Demonstrate methods of curing and coloring.
 - 3. In presence of Architect, damage part of an exposed-face surface for each finish, color, and texture, and demonstrate materials and techniques proposed for repair of surface blemishes to match adjacent undamaged surfaces.
 - 4. Maintain field sample panels during construction in an undisturbed condition as a standard for judging the completed Work.
 - 5. Demolish and remove field sample panels when directed.
- E. Mockups: Before casting architectural concrete, build mockups to verify selections made under Sample submittals and to demonstrate typical joints, surface finish, texture, tolerances, and standard of workmanship. Build mockups to comply with the following requirements, using materials indicated for the completed Work:
 - 1. Build mockups in the location and of the size indicated or, if not indicated, as directed by Architect.
 - 2. Demonstrate curing, cleaning, and protecting of cast-in-place colored architectural concrete, finishes, and contraction joints, as applicable.
 - 3. Obtain Architect's approval of mockups before casting architectural concrete.

4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- F. Precautions: Protect exposed concrete from the following prior to application of coloration:
1. Food and drink.
 2. Chalk lines (blue chalk only with no lacquer sealant).
 3. Stored materials.
 4. Power tools, machinery.
 5. Paint.
 6. Oil based products.
 7. Permanent or keel markings.
 8. Tape or adhesive.
 9. Curing compounds (acceptable wet cure or fabric only).
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Coordinate concrete requirements.
 - B. Store products in manufacturer's unopened packaging with labels clearly identifying product name and manufacturer until ready for installation.
 - C. Storage:
 1. Store materials in clean, dry area indoors in accordance with manufacturer's instructions
 2. Store out of direct sunlight.
 3. Keep from freezing.
 - D. Handling: Protect materials during handling and application to prevent contamination or damage to surfaces not scheduled to be colorized.
 - E. Store and dispose of solvent-based materials in accordance with requirements of authorities having jurisdiction.
- 1.8 SEQUENCING
- A. Ensure that locating templates and other information required for installation of products in this Section are furnished to affected trades in time to prevent interruption of construction progress.
 - B. Ensure that products of this Section are supplied to affected trades in time to prevent interruption of construction progress.
- 1.9 PROJECT CONDITIONS
- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
 - B. Concrete Stain:
 1. Do not apply when air or surface temperatures are below 40 degrees F or above 90 degrees F.
 2. Do not apply when rain or excessive moisture is expected during application or within 24 hours after application.

- C. Concrete Sealer:
 - 1. Ensure compatibility of sealer with anti-graffiti coating before application.
 - 2. Do not apply when air or surface temperatures are below 45 degrees F or above 90 degrees F, during application or within 24 hours after application.
 - 3. Do not apply when rain or excessive moisture is expected during application or within 24 hours after application.

PART 2 - PRODUCTS

2.1 SUPPLIERS/MANUFACTURERS

- A. **Basis-of-Design:** Subject to compliance with requirements, provide Enhanced Concrete Systems Reactive Coloration finishes as supplied by Concrete Contractors Interstate, Poway, CA, or approved equal.

2.2 MATERIALS

- A. **Basis-of-Design:** Subject to compliance with requirements, provide materials indicated, or an approved equal.
 - 1. LM Scofield: Chemstain.
 - 2. Brickform: Blush-tone Acid Stain.
 - 3. Kemiko: Stone Tone Acid Stain.
- B. **Concrete Stain:**
 - 1. Penetrating, reactive stain that produces unique color effects in finished cementitious surfaces to simulate natural shadings and aged appearance of stone.
 - 2. Creates chemical reaction within concrete substrate, slightly etching concrete surface.
- C. **Colors:** Minimum of eight colors selected by Architect from the following:
 - 1. Ginseng.
 - 2. Sepia.
 - 3. Burnt Copper.
 - 4. Cognac.
 - 5. Dakota Red.
 - 6. Icon Brown.
 - 7. Lava Stone.
 - 8. Olive Leaf.
 - 9. Laurel.
 - 10. Aloe Verde.
 - 11. Viridian.
 - 12. Aqua Ice.
- D. **Concrete Base Sealer:**
 - 1. Verify compatibility with anti-graffiti coating.
 - 2. Penetrating silicate natural look: Sika HLQ 125.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Proceed with coating application only after unsatisfactory conditions have been corrected.
 - 1. Application of coating indicates acceptance of surfaces and conditions.

3.2 FINISHES, GENERAL

- A. Colored Architectural Concrete Finish: Match Architect's design reference sample, identified and described as indicated, to satisfaction of Architect. If not indicated, coordinate concrete finishes directly with Architect prior to production of Samples.
- B. Related Surfaces: At surfaces adjacent to surfaces scheduled to be colored, strike off smooth and finish with a texture indicated for these surfaces.

3.3 PREPARATION

- A. Clean surfaces thoroughly prior to application.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Do not acid wash or use heavy alkali cleaners.
- D. Place and finish concrete
 - 1. Ensure concrete is cured a minimum of 28 days before application of coloration.
 - 2. Verify that concrete has cured and non-compatible liquid curing materials were not used.
 - 3. Ensure concrete surface is uniformly clean and dry before application of concrete stain.
 - 4. Protect adjacent areas, adjoining walls, and landscaping from contact with concrete stain.

3.4 INSTALLATION

- A. Stain concrete to obtain finish matching approved Samples and Mock-up.
- B. Install in accordance with manufacturer's instructions.
- C. Thoroughly mix concrete stain before use in accordance with manufacturer's instructions.
- D. Reduce color value of concrete stain by blending with color reducer where required to achieve approved colors.

3.5 APPLICATION

- A. Apply concrete stain in accordance with manufacturer's instructions in locations indicated.
- B. Control depth of color by adjusting volume of stain applied.
- C. Apply multiple coats of stain if required to achieve approved colors. Allow coat to completely dry after each application. Do not scrub clean between coats.
- D. Immediately brush out splashes, drips, and puddles of stain on surface.
- E. Match approved Samples and Mock up for colors, textures, special effects, and workmanship.

F. Concrete Sealer

1. Apply concrete sealer in accordance with manufacturer's instructions after substrate has thoroughly dried.
2. Uniformly apply concrete sealer over entire surface.

3.6 REPAIRS, PROTECTION, AND CLEANING

- A. Repair damaged finished surfaces of colored architectural concrete when approved by Architect. Match repairs to color, texture, and uniformity of surrounding surfaces and to repairs on approved field sample(s).
 1. Remove and replace seeded aggregate architectural concrete that cannot be repaired and cured to Architect's approval.
- B. Protect corners, edges, and surfaces of colored architectural concrete from damage; use guards and barricades.
- C. Protect colored architectural concrete from unwanted staining, laitance, and contamination during remainder of construction period.
- D. Protect other Work from staining or damage due to cleaning operations.
 1. Do not use cleaning materials or processes that could change the appearance of colored architectural concrete finishes.
- E. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

END OF SECTION 03351

SECTION 03600 GROUT

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The CONTRACTOR shall furnish all materials for grout in accordance with the provisions of this Section and shall form, mix, place, cure, repair, finish, and do all other work as required to produce finished grout, in accordance with the requirements of the Contract Documents.
- B. The following types of grout shall be covered in this Section:
 - 1. Non-Shrink Grout: This type of grout is to be used wherever grout is shown in the Contract Documents, unless another type is specifically referenced.
 - 2. Cement Grout
 - 3. Epoxy Grout

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Specifications, codes, and standards shall be as specified in Section 03300, "Cast-in-Place Concrete," and as referred to herein.
- B. Commercial Standards:
 - 1. CRD-C 621 Corps of Engineers Specification for Non-shrink Grout
 - 2. ASTM C 109 Test Method for Compressive Strength of Hydraulic Mortars (Using 2-in or 50-mm Cube Specimens)
 - 3. ASTM C 531 Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical- Resistant Mortars, Grouts, and Monolithic Surfacing
 - 4. ASTM C 579 Test Methods for Compressive Strength of Chemical-Resistant Mortars and Monolithic Surfacing
 - 5. ASTM C 827 Test Method for Early Volume Change of Cementitious Mixtures
 - 6. ASTM D 696 Test Method for Coefficient of Linear Thermal Expansion of Plastics

1.03 CONTRACTOR SUBMITTALS

- A. The CONTRACTOR shall submit certified test results verifying the compressive strength, shrinkage, and expansion requirements are within the limits specified herein.
- B. Manufacturer's literature containing instructions and recommendations on the mixing, handling, placement and appropriate uses for each type of non-shrink and epoxy grout used in the work.

1.04 QUALITY ASSURANCE

- A. Field Tests:
 - 1. Compression test specimens will be taken during construction from the first placement of each type of grout, and at intervals thereafter as selected by the ENGINEER to insure continued compliance with these specifications. The specimens will be made by the ENGINEER or its representative.

2. Compression tests and fabrication of specimens for cement grout and non-shrink grout will be performed as specified in ASTM C 109 at intervals during construction as selected by the ENGINEER. A set of three specimens will be made for testing at 7 days, 28 days, and each additional time period as appropriate.
 3. Compression tests and fabrication of specimens for epoxy grout will be performed as specified in ASTM C 579, Method B, at intervals during construction as selected by the ENGINEER. A set of three specimens will be made for testing at 7 days, and each earlier time period as appropriate.
 4. All grout, already placed, which fails to meet the requirements of these specifications, is subject to removal and replacement at the cost of the CONTRACTOR.
 5. The cost of all laboratory tests on grout will be borne by the OWNER, but the CONTRACTOR shall assist the ENGINEER in obtaining specimens for testing. However, the CONTRACTOR shall be charged for the cost of any additional tests and investigation on work performed which does not meet the specifications. The CONTRACTOR shall supply all materials necessary for fabricating the test specimens.
- B. Construction Tolerances: Construction tolerances shall be as specified in the Section 03300 - Cast-in-Place Concrete, except as modified herein and elsewhere in the Contract Documents.

PART 2: PRODUCTS

2.01 CEMENT GROUT

- A. Cement grout shall be composed of one part cement, three parts sand, and the minimum amount of water necessary to obtain the desired consistency. Where needed to match the color of adjacent concrete, white portland cement shall be blended with regular cement as needed. The minimum compressive strength at 28 days shall be 4000 psi.
- B. Cement grout materials shall be as specified in Section 03300, "Cast-in-Place Concrete."
- C. Application: Cement grout shall be used at all location where "dry pack" material is specified on the Contract Documents.

2.02 PREPACKAGED GROUTS

- A. Non-Shrink Grout:
 1. Non-shrink grout shall be a prepackaged, inorganic, non-gas-liberating, non-metallic, cement-based grout requiring only the addition of water. Manufacturer's instructions shall be printed on each bag or other container in which the materials are packaged. The specific formulation for each class of non-shrink grout specified herein shall be as recommended by the manufacturer for the particular application required for this project.
 2. Class A non-shrink grouts shall have a minimum 28 day compressive strength of 7000 psi; shall have no shrinkage (0.0 percent) and a maximum 4.0 percent expansion in the plastic state when tested in accordance with ASTM C-827; and shall have no shrinkage (0.0 percent) and a maximum of 0.2 percent expansion in the hardened state when tested in accordance with CRD C 621.

3. Class B non-shrink grouts shall have a minimum 28 day compressive strength of 5000 psi and shall meet the requirements of CRD C 621.
 4. Application:
 - a. Class A non-shrink grout shall be used for the repair of all holes and defects in concrete members which are water bearing or in contact with soil or other fill material, grouting under all equipment base plates, and at all locations where “grout” is specified in the contract documents; except, for those applications for Class B non-shrink grout and epoxy grout specified herein. Class A non-shrink grout may be used in place of Class B non-shrink grout for all applications.
 - b. Class B non-shrink grout shall be used for the repair of all holes and defects in concrete members which are not water-bearing and not in contact with soil or other fill material, grouting under all base plates for structural steel members, and grouting railing posts in place.
 5. Manufacturers and Product:
 - a. Class A Grout
 - i. Five Star “Five Star Fluid Grout 100”
 - ii. Masterbuilders “Masterflow 928”
 - iii. Approved equal
 - b. Class B Grout
 - i. Five Star “Five Star Grout”
 - ii. Masterbuilders “Set Grout”
 - iii. Approved equal
- B. Epoxy Grout:
1. Epoxy grout shall have the ability to be poured, be non-shrinking and a 100 percent solids system. The epoxy grout system shall have three components: resin, hardener, and specially blended aggregate, all premeasured and prepackaged. The resin component shall not contain any non-reactive diluents. Resins containing butyl glycidyl ether (BGE) or other highly volatile and hazardous reactive diluents are not acceptable. Variation of component ratios is not permitted unless specifically recommended by the manufacturer. Manufacturer's instructions shall be printed on each container in which the materials are packaged. Epoxy grout shall be Masterflow 648 CP by Master Builders Technologies; Conbextra EPR by Fosroc Ltd.; Sikadur 42 Grout-Pak by Sika Products; or approved equal.
 2. The chemical formulation of the epoxy grout shall be that recommended by the manufacturer for the particular application.
 3. The mixed epoxy grout system shall have a minimum working life of 45 minutes at 75 degrees F.
 4. The epoxy grout shall develop a compressive strength of 5000 psi in 24 hours and 10,000 psi in seven days when tested in accordance with ASTM C 579, Method B. There shall be no shrinkage (0.0 percent) and a maximum 4.0 percent expansion when tested in accordance with ASTM C 827.

5. The epoxy grout shall exhibit a minimum effective bearing area of 95 percent. This shall be determined by a test consisting of filling a 2-inch diameter by 4-inch high metal cylinder mold covered with a glass plate coated with a release agent. A weight shall be placed on the glass plate. At 24 hours after casting, the weight and plate shall be removed and the area in plan of all voids measured. The surface of the grout shall be probed with a sharp instrument to locate all voids.
6. The peak exotherm of a 2-inch diameter by 4-inch high cylinder shall not exceed 95 degrees F when tested with 75 degree F material at laboratory temperature. The epoxy grout shall exhibit a maximum thermal coefficient of 30×10^{-6} inches/inch/degree F when tested according to ASTM C 531 or ASTM D 696.
7. Application: Epoxy grout shall be used to embed all anchor rods and reinforcing steel required to be set in grout, and for all other applications required in the Contract Documents.

2.03 CURING MATERIALS

- A. Curing materials shall be as specified in Section 03300, "Cast-in-Place Concrete" for cement grout and as recommended by the manufacturer of prepackaged grouts.

2.04 CONSISTENCY

- A. The consistency of grouts shall be that necessary to completely fill the space to be grouted for the particular application. Dry pack consistency is such that the grout is plastic and moldable but will not flow. Where "dry pack" is called for in the Contract Documents, it shall mean a grout of that consistency; the type of grout to be used shall be as specified herein for the particular application.

2.05 MEASUREMENT OF INGREDIENTS

- A. Measurements for cement grout shall be made accurately by volume using containers. Shovel measurement shall not be allowed.
- B. Prepackaged grout shall be mixed with the recommended volume of water in order to achieve the desired grout consistency.

PART 3 — EXECUTION

3.01 GENERAL

- A. All surface preparation, curing, and protection of cement grout shall be as specified in Section 03300, "Cast-in-Place Concrete." The finish of the grout surface shall match that of the adjacent concrete.
- B. The manufacturer of Class A non-shrink grout and epoxy grout shall provide on-site technical assistance upon request.
- C. Base concrete or masonry must have attained its design strength before grout is placed, unless authorized by the ENGINEER.
- D. Grout samples shall be taken as specified in subsection 1.04A of this Section.

3.02 CONCRETE PATCH AND REPAIR

- A. See Section 03300 for concrete repair and patching requirements.

3.03 GROUTING PROCEDURES

- A. Prepackage Grouts: All mixing, surface preparation, handling, placing, consolidation, curing, and other means of execution for prepackaged grouts shall be done according to the instructions and recommendations of the manufacturer.
- B. Base Plate Grouting:
 - 1. For base plates, the original concrete shall be blocked out or finished off a sufficient distance below the plate to provide for a one-inch minimum thickness of grout or a thickness as shown on the Drawings.
 - 2. After the base plate has been set in position at the proper elevation by steel wedges or double nuts on the anchor bolts, the space between the bottom of the plate and the original concrete surface shall be filled with non-shrink grout. The mixture shall be a trowelable consistency and tamped or rodded solidly into the space between the plate and the base concrete. A backing board or stop shall be provided at the back side of the space to be filled with grout. Where this method of placement is not practical or where required by the ENGINEER, alternate grouting methods shall be submitted for acceptance by the ENGINEER.

3.03 CONSOLIDATION

- A. Grout shall be placed in such a manner so as to assure that the space to be grouted is completely filled. The consistency of the grout when applied shall meet the requirements stated.

3.04 ANCHOR ROD OR REINFORCING STEEL EMBEDMENT

- A. See Section 03200 – REINFORCEMENT STEEL for dowel embedment requirements, use epoxy grout unless specifically directed otherwise.
- B. Embedment of anchor rods shall be the same as required for the reinforcing steel bars.

END OF SECTION 03600

SECTION 05500

METAL FABRICATIONS AND CASTINGS

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The CONTRACTOR shall furnish, fabricate, and install miscellaneous metalwork, such as trash racks, gates, connection plates, and appurtenances, complete, in accordance with the requirements of the Contract Documents.

1.02 REFERENCES

- A. The Aluminum Association, Inc. (AA): The Aluminum Design Manual.
- B. American Association of Highway Transportation Officials (AASHTO): HS-20 Truck Loading
- C. American Galvanizers Association (AGA): Inspection of Products Hot-Dip Galvanized After Fabrication.
- D. American Institute of Steel Construction (AISC):
 - 1. S329, Allowable Stress Design
 - 2. Specification for Structural Joints using ASTM A325 or A490 Bolts.
- E. American Iron and Steel Institute (AISI): Stainless Steel Types.
- F. American National Standards Institute (ANSI):
 - 1. A10.11, Safety Requirements for Personnel and Debris Nets.
 - 2. A14.3, Ladders - Fixed - Safety Requirements.
 - 3. B1.1, Unified-inch Screw Threads (UN and UNR Thread Form).
- G. American Welding Society (AWS):
 - 1. D1.1, Structural Welding Code - Steel.
 - 2. D1.2, Structural Welding Code - Aluminum.
 - 3. D1.6, Structural Welding Code - Stainless Steel.
- H. ASTM International (ASTM):
 - 1. A36/A36M, Specification for Carbon Structural Steel.
 - 2. A48, Specification for Gray Iron Castings.
 - 3. A53/A53M, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
 - 4. A108, Specification for Steel Bars, Carbon, Cold-Finished, Standard Quality.
 - 5. A123/A123M, Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
 - 6. A143, Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.
 - 7. A153/A153M, Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

8. A193/A193M, Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service.
9. A194/A194M, Specification for Carbon and Alloy Steel Nuts for Bolts for High-Pressure or High-Temperature Service, or Both.
10. A240/A240M, Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels.
11. A276, Specification for Stainless Steel Bars and Shapes.
12. A278, Specification for Gray Iron Castings for Pressure-Containing Parts for Temperatures Up to 650 Degree.
13. A283/A283M, Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.
14. A307, Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile.
15. A325, Specification for Structural Bolts, Steel, Heat Treated 120/105 ksi Minimum Tensile Strength.
16. A380, Practice for Cleaning, Descaling, and Passivation of Stainless Steel Parts, Equipment, and Systems.
17. A384, Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanizing of Steel Assemblies.
18. A385, Practice for Providing High-Quality Zinc Coatings (Hot-Dip).
19. A489, Specification for Carbon Steel Lifting Eyes.
20. A500, Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
21. A501, Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.
22. A563, Specification for Carbon and Alloy Steel Nuts.
23. A653, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
24. A780, Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
25. A786/A786M, Specification for Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates.
26. A793, Specification for Rolled Floor Plate, Stainless Steel.
27. A967, Specification for Chemical Passivation Treatments for Stainless Steel Parts.
28. A992/A992M, Specification for Steel for Structural Shapes for Use in Building Framing
29. B209, Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
30. B308/B308M, Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles.
31. B429, Specification for Aluminum-Alloy Extruded Structural Pipe and Tube.

- 32. B632/B632M, Specification for Aluminum-Alloy Rolled Tread Plate.
- 33. D1056, Specification for Flexible Cellular Materials - Sponge or Expanded Rubber.
- 34. F436, Specification for Hardened Steel Washers.
- 35. F468, Specification for Nonferrous Bolts, Hex Cap Screws, and Studs for General Use.
- 36. F593, Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
- 37. F594, Specification for Stainless Steel Nuts.
- 38. F844, Specification for Washers, Steel, Plain (Flat), Unhardened for General Use.
- 39. F1554, Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.
- I. International Code Council (ICC): Evaluation Reports for Concrete and Masonry Anchors.
- J. NSF International (NSF).
- K. Occupational Safety and Health Administration (OSHA):
 - 1. 29 CFR 1910.27, Fixed Ladders.
 - 2. 29 CFR 1926.105, Safety Nets.
 - 3. 29 CFR 1926.502, Fall Protection Systems Criteria and Practices.
- L. Specialty Steel Industry of North America (SSINA):
 - 1. Specifications for Stainless Steel.
 - 2. Design Guidelines for the Selection and Use of Stainless Steel.
 - 3. Stainless Steel Fabrication.
 - 4. Stainless Steel Fasteners.

1.03 DEFINITIONS

- A. Submerged: Location at or below top of wall of open water-holding structure, such as a basin or channel, or surface inside a covered water-holding structure, or exterior face of below grade wall.
- B. Interior Wet Area: Location inside building or structure where floor is sloped to floor drains or gutters and is subject to liquid spills or washdown, or where wall, floor, or roof slab is common to a water-holding or earth-retaining structure.
- C. Interior Dry Area: Location inside building or structure where floor is not subject to liquid spills or washdown, nor where wall or roof slab is common to a water-holding or earth-retaining structure.
- D. Corrosive Area: Containment area or area exposed to delivery, storage, transfer, or use of chemicals.

1.04 SUBMITTALS

- A. Action Submittals:
 - 1. Shop Drawings:

- a. Metal fabrications such as pipe supports, ladders, fabricated supports or connection plates and floor plates. Show dimensions, indicate profile, size count and reference materials of construction by ASTM designation and grade, including welding and fastener information.
 - b. Specific instructions for concrete anchor installation, including drilled hole size, preparation, placement procedures, and instructions for safe handling of anchoring systems.
 - 2. Design Calculations: Design calculations shall be prepared by a California licensed professional civil or structural engineer hired by the CONTRACTOR. The calculations shall be submitted for review and approved by the ENGINEER prior to fabrication.
 - a. Calculations shall include, but not be limited to, ladders, pipe brackets, floor plates or support flanges, and fasteners.
 - b. Calculations shall be stamped and signed by a California civil or structural professional engineer.
- B. Informational Submittals:
 - 1. Concrete Drilled Anchors:
 - a. Manufacturer's product description and installation procedures.
 - b. Current ICC evaluation report.
 - c. Adhesive Anchor Installer Certification.

1.05 QUALITY ASSURANCE

- A. Qualifications:
 - 1. All fabrication shall be performed in a City of San Diego approved fabrication shop subject to special inspection in accordance with the CBC.
 - 2. Adhesive Anchor Installers: Trained and certified by manufacturer.
 - 3. Galvanized Coating Applicator: Company specializing in hot-dip galvanizing after fabrication and following procedures of Quality Assurance Manual of the American Galvanizers Association.
- B. Special Inspection: The following portions of the work require continuous special inspection by a deputy inspector.
 - 1. Shop fabrication and field welding
 - 2. Installation of epoxy adhesive anchors in drilled holes

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Insofar as practical, factory assemble items specified herein. Assemblies that due to necessity have to be shipped unassembled shall be packaged and tagged in manner that will protect materials from damage and will facilitate identification and field assembly.
- B. Package stainless steel items in a manner to provide protection from carbon impregnation.
- C. Protect painted coatings and hot-dip galvanized finishes from damage due to metal banding and rough handling. Use padded slings and straps.

PART 2: PRODUCTS

2.01 GENERAL REQUIREMENTS

A. Unless otherwise indicated, meet the following requirements:

| Item | ASTM Reference |
|--|------------------------------------|
| Stainless Steel: | |
| Bars and Angles | A276, AISI Type 316 |
| Shapes | A276, AISI Type 304 |
| Steel Plate, Sheet, and Strip | A240/A240M, AISI Type 316 |
| Bolts, Threaded Rods, Anchor Bolts, and Anchor Studs | F593, AISI Type 316, Condition CW |
| Nuts | F594, AISI Type 316, Condition CW |
| Aluminum Plates and Structural Shapes | B209 and B308/B308M, Alloy 6061-T6 |

B. Bolts, Washers, and Nuts: Use stainless steel, hot-dip galvanized steel, zinc-plated steel, and aluminum material types as indicated in FASTENER SCHEDULE at end of this section.

C. Corrosion Protection: Unless otherwise indicated, miscellaneous metalwork of fabricated steel, which will be used in a corrosive environment and/or will be submerged shall be stainless steel unless noted otherwise.

2.02 ANCHOR BOLTS AND ANCHOR BOLT SLEEVES

A. Cast-In-Place Anchor Bolts:

1. Headed type, unless otherwise shown on Drawings.
2. Material type and protective coating as shown in FASTENER SCHEDULE at end of this section.

B. Anchor Bolt Sleeves:

1. Plastic:
 - a. Single unit construction with corrugated sleeve.
 - b. Top of sleeve shall be self-threading to provide adjustment of threaded anchor bolt projection.
 - c. Material: High density polyethylene.
 - d. Manufacturer: Sinco Products, Inc., Middletown, CT. (800-243-6753); or approved equal.
2. Fabricated Steel: ASTM A36/A36M.

2.03 CONCRETE DRILLED ANCHORS

A. General:

1. Use AISI Type 316 stainless, hot-dip galvanized, or zinc-plated steel, as shown in FASTENER SCHEDULE at end of this section.

2. Product shall have a current evaluation reports by ICC.
- B. Expansion Anchors:
1. Manufacturers and Products:
 - a. ITW Ramset/Red Head, Wood Dale, IL; Trubolt Wedge Anchor.
 - b. Hilti, Inc., Tulsa, OK; Kwik-Bolt II Stud Anchor.
 - c. Powers Rawl, New Rochelle, NY; Power-Stud Anchor.
 - d. Simpson Strong-Tie Co., Inc., Pleasanton, CA; Wedge-All Anchor.
 - e. or Approved equal
- C. Epoxy Adhesive Anchors:
1. Threaded Rod:
 - a. ASTM F593 stainless steel threaded rod, diameter as shown on Drawings.
 - b. Length as required, to provide minimum depth of embedment.
 - c. Clean and free of grease, oil, or other deleterious material.
 - d. For hollow-unit masonry, provide stainless steel wire cloth screen tube to fit threaded rod.
 2. Adhesive:
 - a. Two-component, designed to be used in adverse freeze/thaw environments.
 - b. Cure Temperature, Pot Life, and Workability: Compatible for intended use and environmental conditions.
 - c. Nonsag, with selected viscosity base on installation temperature and overhead application where applicable.
 3. Packaging and Storage:
 - a. Disposable, self-contained cartridge system capable of dispensing both components in the proper mixing ratio and fitting into a manually or pneumatically operated caulking gun.
 - b. Store adhesive cartridges on pallets or shelving in covered storage area, in accordance with manufacturer's written instructions.
 - c. Cartridge Markings: Include manufacturer's name, product name, material type, batch or serial number, and adhesive expiration date.
 - d. Dispose of cartridges if shelf life has expired.
 4. Manufacturers and Products:
 - a. Hilti, Inc., Tulsa, OK; HIT RE-500 Epoxy Anchoring System
 - b. Simpson Strong-Tie Co., Inc., Pleasanton, CA; Structural Epoxy-Tie Adhesive SET-XP
 - c. or Approved equal.

2.11 FABRICATION

A. General:

1. Finish exposed surfaces smooth, sharp, and to well-defined lines.
2. Furnish necessary rabbets, lugs, and brackets so work can be assembled in neat, substantial manner.
3. Conceal fastenings where practical; where exposed, flush countersink.
4. Drill metalwork and countersink holes as required for attaching hardware or other materials.
5. Grind cut edges smooth and straight. Round sharp edges to small uniform radius. Grind burrs, jagged edges, and surface defects smooth.
6. Fit and assemble in largest practical sections for delivery to site.

B. Materials:

1. Use steel shapes, unless otherwise noted.
3. Fabricate aluminum in accordance with AA Specifications for Aluminum Structures – Allowable Stress Design.

C. Welding:

1. Weld connections and grind exposed welds smooth. When required to be watertight, make welds continuous.
2. Welded fabrications shall be free from twisting or distortion caused by improper welding techniques.
3. Steel: Meet fabrication requirements of AWS D1.1, Section 5.
4. Aluminum: By Gas Metal Arc (MIG) or Gas Tungsten Arc (TIG) process in accordance with AWS D1.2. Discoloration of exposed aluminum surfaces, whether or not due to welding, shall constitute a basis for rejection of the entire assembly.
5. Stainless Steel: Meet requirements of AWS D1.6.
6. Welded Anchor Studs: Prepare surface to be welded and weld with stud welding gun in accordance with AWS D1.1, Section 7, and manufacturer's instructions.
7. Complete welding before applying finish.

D. Painting:

1. Shop prime with rust-inhibitive primer as specified in Section 09900, PAINTING, unless otherwise indicated.
2. Coat surfaces of galvanized steel and aluminum fabricated items to be in direct contact with concrete, grout, masonry, or dissimilar metals, with electrolysis protective coating.
3. Do not apply protective coating to galvanized steel anchor bolts, unless indicated otherwise.

E. Electrolysis Protection:

1. Electrolysis protective material shall be alkali-resistant asphaltum base paint.

2. Manufacturers and product:
 - a. Koppers “Bitumastic 50”
 - b. Texaco “Cement 1401”
 - c. Approved equal
- G. Accessories: Furnish as required for a complete installation. Fasten by welding or with stainless steel bolts or screws.

2.12 SOURCE QUALITY CONTROL

- A. Visually inspect all fabrication welds and correct any deficiencies.
 1. Steel: AWS D1.1, Section 6 and Table 6.1, Visual Inspection Acceptance Criteria.
 2. Aluminum: AWS D1.2.
 3. Stainless Steel: AWS D1.6.

PART 3: EXECUTION

3.01 INSTALLATION OF METAL FABRICATIONS

- A. General:
 1. Install metal fabrications plumb or level, accurately fitted, free from distortion or defects.
 2. Install rigid, substantial, and neat in appearance.
 3. Install manufactured products in accordance with manufacturer’s recommendations.
 4. Obtain ENGINEER approval prior to field cutting steel members or making adjustments not scheduled.
- B. Aluminum:
 1. Do not remove mill markings from concealed surfaces.
 2. Remove inked or painted identification marks on exposed surfaces not otherwise coated after installed material has been inspected and approved.
 3. Fabrication, mechanical connections, and welded construction shall be in accordance with the AA Aluminum Design Manual.
- C. Pipe Sleeves:
 1. Provide sleeve where pipes pass through concrete or masonry.
 2. Holes drilled with a rotary drill may be provided in lieu of sleeves in existing walls.
 3. Provide a center seep ring flange for water stoppage on sleeves in exterior or water-bearing walls.
 4. Provide a rubber caulking sealant or a modular mechanical unit to form a watertight seal in the annular space between pipes and sleeves.

3.02 CAST-IN-PLACE ANCHOR BOLTS

- A. Accurately locate and hold anchor bolts in place with templates at the time concrete is placed.

- B. Use anchor bolt sleeves for location adjustment and provide two nuts and one washer per bolt of same material as bolt.
- C. Minimum Bolt Size: 1/2-inch diameter by 12 inches long, unless otherwise shown.

3.03 CONCRETE DRILLED ANCHORS

- A. Begin installation only after concrete to receive anchors has attained design compressive strength.
- B. Install in accordance with the ICC Evaluation Report for the specific anchor product being used.
- C. Provide minimum embedment, edge distance, and spacing as shown on Drawings.
- D. Use only type of drill, type of drill bit and diameter specified in the ICC Evaluation Report for the specific anchor product being used. Clean hole of debris and dust with brush and compressed air as specified in the ICC Evaluation Report for the specific anchor product being used.
- E. Using a non-destructive method, to locate reinforcing in substrate prior to drilling. If drilled hole is required to be abandoned, the hole shall be filled with cement grout, see Section 03600.
- F. Epoxy Adhesive Anchors:
 - 1. Do not install adhesive anchors when temperature of concrete is below 40 degrees F or above 100 degrees F.
 - 2. Remove any standing water from hole with oil-free compressed air. Inside surface of hole shall be dry where required by manufacturer's instructions.
 - 3. Do not disturb anchor during recommended curing time.
 - 4. Do not exceed maximum torque as specified in manufacturer's instructions.

3.04 COMMON MACHINE BOLTS AND NUTS

- A. General: Bolts shall be inserted accurately into the bolt holes without damaging the thread. Bolt heads shall be protected from damage during installation. Bolt heads and nuts shall rest squarely against the base metal. Where bolts are to be used on beveled surfaces having slopes greater than 1 in 20 with a plane normal to the bolt axis, beveled washers shall be provided to give full bearing to the head or nut. Where self-locking nuts are not furnished, bolt threads shall be upset to prevent the nuts from backing off.
- B. Bolt Insertion: Bolts shall be of the length that will extend entirely through but not more than 1/4-inch beyond the nuts. Bolt heads and nuts shall be drawn tight against the work. Bolt heads shall be tapped with a hammer while the nut is being tightened. After having been finally tightened, the nuts shall be locked.

3.07 ELECTROLYTIC PROTECTION

- A. Aluminum and Galvanized Steel:
 - 1. Coat surfaces of galvanized steel and aluminum fabricated items to be in direct contact with concrete, grout, masonry, or dissimilar metals with electrolytic protection coating specified in this Section.
 - 2. Do not apply protective coating to galvanized steel anchor bolts or galvanized steel welded anchor studs, unless indicated otherwise.
 - 3. Allow coating to dry before installation of the material.

4. Protect coated surfaces during installation.
5. Should coating become marred, prepare and touch up in accordance with paint manufacturer's written instructions.

B. Stainless Steel:

1. During handling and installation, take necessary precautions to prevent carbon impregnation of stainless steel members.
2. After installation, visually inspect stainless steel surfaces for evidence of iron rust, oil, paint, and other forms of contamination.
3. Remove contamination in accordance with requirements of ASTM A380 and A967.
4. Brushes used to remove foreign substances shall utilize only stainless steel or nonmetallic bristles.
5. After treatment, visually inspect surfaces for compliance.

3.08 REPAIR OF GALVANIZED STEEL

A. Repair of Damaged Hot-Dip Galvanized Coating:

1. To prepare surface, remove all oil, grease, soil, and soluble material by cleaning with water and detergent (SSPC, SP1) followed by brush off blast cleaning (SSPC, SP 7), over an area extending at least 4 inches into the undamaged area.
2. For minor repairs at abraded areas, apply Galvinox, Galvo-Weld, Drygalv or equal zinc conforming to ASTM A780.
3. For flame cut or welded areas, use zinc-based solder, or zinc sticks, conforming to ASTM A780.
4. Use magnetic gauge to determine that thickness is equal to or greater than the base galvanized coating.

3.09 FASTENER SCHEDULE

A. Connections for Steel Fabrications

1. Exterior and Interior Wet and Dry Areas: Stainless steel bolted connections

B. Connections for Aluminum Components

1. All locations: Stainless steel bolted connections, unless otherwise specified with equipment.

C. All Others

1. All locations: Stainless steel fasteners

D. Antiseizing Lubricant: Use on all stainless steel threads.

E. Do not use adhesive anchors to support fire-resistive construction or where ambient temperature will exceed 120 degrees F.

END OF SECTION 05500

SECTION 07182

VAULT DAMPPROOFING

PART 1: GENERAL

1.01 SCOPE OF WORK

This section covers furnishing and applying coatings to the buried portion of the exterior wall areas of and all buried concrete vaults.

1.02. REFERENCE

- A. ASTM D412 – Test Methods for Rubber Properties in Tension
- B. ASTM D822- Recommended Practice for Operating Light- and Water-Exposure Apparatus (Carbon-Arc Type) for Testing Paint, Varnish, Lacquer, and Related Products
- C. ASTM D903- Test Method for Peel and Stripping Strength of Adhesive Bonds
- D. ASTM E96- Test Methods for Water Vapor Transmission of Materials

1.03 SUBMITTALS FOR REVIEW

- A. Section 2-5.3 - Submittals: Procedures for submittals.
- B. Manufacturer's data sheets showing the following information:
 - 1. Percent solids by volume.
 - 2. Minimum recommended dry-film thickness per coat for prime, intermediate and finish coats.
 - 3. Recommended surface preparation.
 - 4. Physical properties.
 - 5. Moisture vapor transmission.
 - 6. Application instructions including recommended equipment and temperature limitations.

1.04 MATERIAL DELIVERY AND HANDLING

- A. All materials shall be delivered to the jobsite in its original unopened containers bearing the manufacturer's name, product name and batch number.
- B. All coatings shall be stored in enclosed structures to protect them from weather and excessive heat and cold. Flammable coatings must be stored to conform with city, county and state safety codes for flammable coating or paint materials.

PART 2: MATERIALS

2.01 BURIED RESERVOIR WALL AREAS AND VALVE VAULT

- A. Buried reservoir wall areas and exterior walls of vault structures shall be coated with SELECT SHIELD 300A (phone no. 714/429-0808), CARBOLINE BITUMASTIC, or an approved equal in conformance with these specifications.
- B. The material shall be an approved waterproofing/dampproofing composition for use on exterior concrete and shotcrete surfaces.

- C. Approved materials shall conform to the following physical properties:
 - 1. Percent solids: 50 minimum.
 - 2. Tack force time: 30 minutes approximate (initial set).
 - 3. Tensile stress: 150 psi minimum at 21 day (ASTM D412).
 - 4. Ultimate elongation: 150% minimum at 21 day (ASTM D412).
 - 5. Moisture vapor transmission: 0.03 perms at 21 day (ASTM E96).
 - 6. Ultra-violet resistance: No degradation (ASTM D822).
 - 7. Adhesion in peel (ASTM D903): 20 lbs. peel strength with 0% adhesion loss.

PART 3: EXECUTION

3.01 EQUIPMENT

The Contractor's coating equipment shall be designed for application of materials specified and shall be maintained in first class working condition. Compressors shall have suitable traps and filters to remove water and oils from the air. Contractor's equipment shall be subject to approval of the Engineer.

3.02 SURFACE PREPARATION

- A. All concrete surfaces shall be prepared in accordance with the recommendations of the coating manufacturer.
- B. The surfaces shall be thoroughly cleaned, if they are not free of grease, curing compounds or other deleterious matter, as recommended by the coating manufacturer.

3.03 APPLICATION

- A. Two coats of SEALMASTIC EMULSION by W.R. Meadows, SELECT SHIELD 300A, CARBOLINE BITUMASTIC, or an approved equal, shall be applied by brush, spray or roller to completely cover the buried wall at a maximum coverage of 80 square feet per gallon per coat, or, if smaller, at the manufacturers recommended usage rate.
- B. Each coat shall be free of runs, skips, or "holidays".
- C. All work shall be done in accordance with the manufacturer's recommendations, except as modified herein.

END OF SECTION 07182

SECTION 08305

HORIZONTAL ACCESS DOORS

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The CONTRACTOR shall furnish and install vault access doors in accordance with the Plans and these Specifications. The Contractor shall furnish all labor, equipment, and materials necessary to install the vault access doors.

1.02 SUBMITTALS

- A. Shop Drawings:
The Contractor shall, in accordance with 2-5.3, submit shop drawings which show profiles, accessories, location, and dimensions.

PART 2: PRODUCTS

2.01 MANUFACTURERS

- A. The vault access doors shall be a Type JD-AL double leaf as manufactured by The BILCO Company, or approved equal.
- B. The vault access door shall be pre-assembled from the manufacturer.

2.02 MATERIAL COMPOSITION

- A. Covers shall be reinforced to support a minimum live load of 300 psf with a maximum deflection of 1/150th of the span.
- B. Covers shall be reinforced to support a minimum live load of 300 psf with a maximum deflection of 1/150th of the span.
- C. Operation of the cover shall be smooth and easy with controlled operation throughout the entire arc of opening and closing.
- D. Operation of the cover shall not be affected by temperature.
- E. Entire door, including all hardware components, shall be highly corrosion resistant.
- F. Covers shall be 1/4-inch aluminum diamond pattern.
 - 1. Channel frame shall be 1/4-inch extruded aluminum with bend down anchor tabs around the perimeter.
 - 2. Hinges shall be specifically designed for horizontal installation and shall be through bolted to the cover with tamperproof Type 316 stainless steel lock bolts and shall be through bolted to the frame with Type 316 stainless steel bolts and locknuts.
 - 3. Provide a 1-1/2" drain coupling located in the right front corner of the channel frame [note: can be placed at a different location if specified].
 - 4. For the lifting mechanisms, the manufacturer shall provide the required number and size of compression spring operators enclosed in telescopic tubes to provide, smooth, easy, and controlled cover operation throughout the entire arc of opening and to act as a check in retarding downward motion of the cover when closing. The upper tube shall be the outer tube to prevent accumulation of moisture, grit, and debris inside the lower tube assembly. The lower tube shall interlock with a flanged support shoe fastened to a formed 1/4-inch gusset support plate.

5. A removable exterior turn/lift handle with a spring loaded ball detent shall be provided to open the cover and the latch release shall be protected by a flush, gasketed, recessed padlock hasp covered by a flush hinged lid.
6. Hardware:
 - a) Hinges: Heavy forged Type 316 stainless steel hinges, each having a minimum 1/4" diameter Type 316 stainless steel pin, shall be provided and shall pivot so the cover does not protrude into the channel frame.
 - b) Covers shall be equipped with a hold open arm which automatically locks the cover in the open position.
 - c) Covers shall be fitted with the required number and size of compression spring operators. Springs and spring tubes shall be Type 316 stainless steel.
 - d) A Type 316 stainless steel snap lock with fixed handle shall be mounted on the underside of the cover.
 - e) Hardware: Shall be Type 316 stainless steel throughout.
7. Finishes: Factory finish shall be anodized finish aluminum with bituminous coating applied to the exterior of the frame.

PART 3: EXECUTION

3.01 INSTALLATION

- A. The Contractor shall have the shop drawings approved by the Engineer before fabrication.
- B. The Contractor shall check conditions and verify the manufacturer's vault access door details for accuracy to fit the application prior to fabrication. The Contractor shall comply with the vault access door manufacturer's installation instructions.
- C. The Contractor shall furnish mechanical fasteners consistent with the vault access door manufacturer's instructions.

3.02 INSPECTION

- A. The Contractor shall verify that the vault access door installation will not disrupt other trades. The Contractor shall verify that the substrate is dry, clean, and free of foreign matter. The Contractor shall report and correct defects prior to any installation.

3.03 PRODUCT HANDLING

- A. All materials shall be delivered in manufacturer's original packaging.
- B. Store materials in a dry, protected, well-vented area. The contractor shall thoroughly inspect product upon delivery, report and correct defects prior to any installation.
- C. Remove protective wrapping immediately after installation.

3.04 SITE CONDITIONS

- A. The Contractor shall verify that other trades with related work are complete before installing vault access doors.
- B. The mounting surfaces shall be straight and secure; substrates shall be of proper width.

- C. The Contractor shall refer to the Plans and Specifications, shop drawings, and manufacturer's installation instructions.
- D. The Contractor shall observe all appropriate OSHA safety guidelines for this work.

3.05 WARRANTY/GUARANTEE

- A. Manufacturer's standard warranty: Materials shall be free of defects in material and workmanship for a period of (25) twenty-five years from the date of purchase. Should a part fail to function in normal use within this period, manufacturer shall furnish a new part at no charge.

END OF SECTION 08305

SECTION 09860

ANTI-GRAFFITI COATINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section

1.2 SUMMARY

- A. Section includes surface preparation and application of anti-graffiti coating systems on exterior concrete substrates.

1.3 SUBMITTALS

- A. Product Data: For each coating system indicated. Coating shall be compatible with any specified water repellent and concrete staining system.
 - 1. Material List: An inclusive list of required coating materials. Indicate each material and cross reference the specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
 - 2. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each material specified.
- B. Certification by manufacturer that products supplied comply with requirements indicated that limit the amount of VOCs in coating products.
- C. Samples for Verification: For each material to be applied, with texture to simulate actual conditions, on representative samples of the actual substrate.
- D. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project name and addresses, names and addresses of architects and owners, and other information specified.
- E. Warranty.

1.4 QUALITY ASSURANCE

- A. Applicator Qualifications: Engage an experienced applicator who has completed anti-graffiti coating system applications similar in material and extent to those indicated for Project, is certified by the manufacturer, and whose work has a record of successful in-service performance.
- B. Source Limitations: Obtain coatings and removal agent from the same manufacturer.

1.5 PERFORMANCE REQUIREMENTS

- A. Provide anti-graffiti coating system complying with the following:
 - 1. Permanent coating system.
 - 2. Show no signs of deterioration or change of appearance after graffiti removal during the warranty period.
 - 3. Capability of removing 100% of all types of paint and graffiti materials from treated surfaces without damaging the coating or the substrate.
 - 4. Upon graffiti removal, no evidence of graffiti shall remain.

5. Capable of withstanding a minimum of 120 cleaning cycles without measurable coating deterioration.
6. Shall not increase dirt pick-up of substrate.
7. Meet the following test results for the following chemicals:
 - a. MEK No effect after 5 days
 - b. Carboxylic Acid No effect after 5 days
 - c. 75% Phosphoric Acid No effect after 5 days
 - d. 37% HCL 3 hours blister
 - e. 50% Sulfuric Acid No effect after 5 days
 - f. 20% NIT 68 hours blister

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label with the following information:
 1. Name or title of material.
 2. Product description (generic classification or binder type).
 3. Manufacturer's stock number and date of manufacture.
 4. Contents by volume, for pigment and vehicle constituents.
 5. Thinning instructions.
 6. Color name and number.
 7. Handling instructions and precautions.
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F. Maintain containers used in storage in a clean condition, free of foreign materials and residue.
 1. Keep storage area neat and orderly. Remove oily rags and waste daily. Take necessary measures to ensure that workers and work areas are protected from fire and health hazards resulting from handling, mixing, and applying coatings.

1.7 PROJECT CONDITIONS

- A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 45 and 95 deg F.
- B. Do not apply coatings in rain, fog, or mist; when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
 1. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before proceeding with or continuing coating operation.

1.8 EXTRA MATERIALS

- A. Furnish extra graffiti removal materials in quantities described below. Package coating materials in unopened, factory-sealed containers for storage and identify with labels describing contents.
 1. Quantity: One full case.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Evonik Degussa Corporation: Protectosil Antigraffiti, or approved equal.

2.2 ANTI-GRAFFITI COATING MATERIALS

- A. VOC Classification: Provide materials that comply with South Coast Air Quality Management District's VOC classification.
- B. Coatings shall meet requirements of the following:
 - 1. ASTM B 117 and ASTM D 714 (salt spray minimum acceptable of 8000 hours).
 - 2. ASTM D 530 (hardness).
 - 3. ASTM D 412 (tensile strength and elongation).
 - 4. ASTM D 522 (pass 3/8 inch mandrel).
 - 5. ASTM D 968 (abrasion test).
 - 6. ASTM E 96 (vapor transmission).
 - 7. Water clear, non-yellowing, and free of waxes and urethanes.
 - 8. Non-toxic, non-flammable, biodegradable, with a PH 7 – 8.5.
 - 9. Shall allow moisture vapor transmission.
- C. Coating:
 - 1. Finish: Matte.
 - 2. Color: Clear.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. With Applicator present, examine substrates and conditions under which anti-graffiti coatings will be applied, for compliance with coating application requirements.
 - 1. Apply coatings only after unsatisfactory conditions have been corrected and surfaces to receive coatings are thoroughly dry.
 - 2. Start of application is construed as Applicator's acceptance of surfaces within that particular area.
- B. Coordination of Work: Review other Sections in which primers, stains, or other coatings are provided to ensure compatibility of total systems for various substrates. On request, furnish information on characteristics of specified finish materials to ensure compatible primers.
 - 1. If a potential incompatibility of coatings applied by others exists, obtain the following from the coating applicator before proceeding:
 - a. Confirmation of coating's suitability for expected service conditions.
 - b. Confirmation of coating's ability to be top coated with materials specified.
 - 2. Notify Architect about anticipated problems before using the coatings specified over substrates previously coated by others.

3.2 PREPARATION

- A. General: Remove plates, machined surfaces, and similar items already in place that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.
 - 1. After completing coating operations, reinstall items that were removed; use workers skilled in the trades involved.
- B. Cleaning: Before applying coatings, clean substrates of substances that could impair bond of coatings. Remove oil and grease before cleaning.
 - 1. Schedule cleaning and coating applications so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.
 - 2. Control adjacent sandy or dusty soil conditions so they will not fall on wet, newly coated surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be coated according to manufacturer's written instructions for each substrate condition and as specified.
 - 1. Cementitious Substrates: Prepare concrete and cement plaster surfaces to be coated. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. If roughening is necessary to remove glaze, coordinate process with stain applicator. If hardeners or sealers have been used to improve curing, use mechanical methods to prepare surfaces.
 - a. Do not coat surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
- D. Material Preparation: Carefully mix and prepare coating materials according to manufacturer's written instructions.
 - 1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.
 - 2. Stir materials before applying to produce a mixture of uniform density. Stir as required during application.

3.3 APPLICATION

- A. General: Apply coatings according to manufacturer's written instructions.
 - 1. Use applicators and techniques best suited for the material being applied.
 - a. Do not apply coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
 - b. Allow sufficient time between successive coats to permit proper drying. Do not recoat surfaces until coating has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and application of another coat does not cause undercoat to lift or lose adhesion.
- B. Application Over Cementitious Surfaces:
 - 1. Base: Diluted to 1 percent concentration (1 part Protectosil Antigraffiti to 14 parts potable water).
 - 2. Finish: 2 coats of full strength coating (non-diluted).
- C. Completed Work: Match approved samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements.

3.4 FIELD QUALITY CONTROL

- A. Demonstration: Apply alkyd-based graffiti to a 2 foot square treated area selected by Architect. Five days minimum after application, demonstrate complete removal of the graffiti in the presence of the Architect.

3.5 CLEANING

- A. Cleanup: At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
 - 1. After completing coating application, clean spattered surfaces. Remove spattered coatings by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

3.6 PROTECTION

- A. Protect work of other trades, whether being coated or not, against damage from coating operation. Correct damage by cleaning, repairing, replacing, and recoating, as approved by Architect, and leave in an undamaged condition.
 - 1. Provide “Wet Paint” signs to protect newly coated finishes. After completing coating operations, remove temporary protective wrappings provided by others to protect their work.
 - 2. At completion of construction activities of other trades, touch up and restore damaged or defaced coated surfaces. Comply with procedures specified in PDCA P1.

END OF SECTION 09860

SECTION 13400

OPTICAL RAIN SENSOR

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish and install optical rain sensor including all necessary parts and appurtenances as required by the Plans and Specification to allow proper installation and operation.

PART 2: PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. The rain sensor shall be an optical rain sensor, Model RG-11 as manufactured by Hydreon Corporation, or approved equal.
- B. The following is the manufacturer that supplies this rain sensor:

Hydreon Corporation
6440 Flying Cloud Drive, Suite 207
Eden Prairie, MN 55344
Phone: (952) 943-2378
Toll-Free (866) 808-7225
Fax: (952) 943-1020
Email: info@hydreon.com

2.02 OPERATING VALUES

- A. Input Voltage:
 - 1. 9 – 30VDC or 9 – 26 VAC
 - 2. 50V surge
 - 3. Reverse polarity protected to 50V
- B. Current Drain:
 - 1. 15 mA nominal. (No outputs on, not raining, no heater) about 1.5 mA in micro-power sleep mode.
 - 2. 50 mA with output on.
 - 3. 55 mA - With heater on, 24V dc input.
- C. Output:
 - 1. Relay closure, Normally Open and Normally
 - 2. Closed contacts.
 - 3. Max load 1A, 24 VDC.
- D. Operating Temperature range:
 - 1. -40 C to +60C

2.03 PERFORMANCE

- A. The rain sensor turns on the relay to indicate that it is raining when the rainfall has reached a given intensity.

- B. The following functions shall be provided:
 - 1. Very sensitive – first detected raindrop
 - 2. Sensitive – turn on with very light rainfall (0.1” per hour)
 - 3. Medium Sensitivity – turn on with medium rain (0.25” per hour)
 - 4. Low Sensitivity – turn on in heavy rainfall (1” per hour)
 - 5. Output off when rain stops
 - 6. Output Monostable Extended by 15 minutes
 - 7. No Dark Detect – Normal Operation
 - 8. Dark Detect
- C. This mode is to control the motor actuated valve that should be controlled, enabled, open, closed, and so forth depending on whether or not it is raining. The output shall turn on when a given rate of rainfall is detected, and turns off after it has dropped below a threshold.
- D. Each of the sensitivity levels shall provide different trip and release points. The output shall remain on for between about 30 seconds and 5 minutes after the last detected rain drop, depending on sensitivity setting and actual conditions. To prevent the motor operated valve from turning constantly on and off (or opening / closing) an option to enable the monostable extend that will hold the output on for 15 minutes after the rain has ceased shall be provided.
- E. A dark detect function shall be provided if enabled, the output will also turn on when the ambient light drops below about 2000 lux.

PART 3: EXECUTION

3.01 INSTALLATION

- A. The Contractor shall install the rain sensor in accordance with the manufacturer’s recommendations. The rain sensor shall be mounted where it gets a clear measurement of precipitation (away from overhangs, etc.).

3.02 WARRANTY

- A. The manufacturer shall warrants only the actual cost of the sensor, and only that it is free from defects in workmanship. The Rain Gauge shall be warranted to be free from defects for a period of one year from date of purchase.

END OF SECTION 13400

SECTION 15100

ELASTOMERIC INLINE CHECK VALVES

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish and install elastomeric inline check valve including all necessary parts and appurtenances as required by the Plans and Specification to allow proper installation and operation.

PART 2: PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Material Composition:
 - 1. The check valves are to be all rubber and the flow operated check type with slip-in cuff or flange connection.
 - 2. The entire check valve shall be ply reinforced throughout the body, disc and bill, which is cured and vulcanized into a one-piece uni-body construction. A separate valve body or pipe used as the housing is not acceptable.
 - 3. The valve shall be manufactured with no metal, mechanical hinges or fasteners, which would be used to secure the disc or bill to the valve housing.
 - 4. The port area of the disc shall contour down, which shall allow passage of flow in one direction while preventing reverse flow. The entire valve shall fit within the pipe inside diameter.
 - 5. Once installed, the check valve shall not protrude beyond the face of the structure or end of the pipe. The downstream end of the valve must be circumferentially in contact with the pipe while in the closed positions.
 - 6. Slip-in style check valve shall be furnished with a set of stainless steel expansion clamps. The clamps, which will secure the valve in place, shall be installed inside the cuff portion of the valve, based on installation orientation, and shall expand outwards by means of a turnbuckle. Each clamp shall be predrilled allowing for the valve to be pinned and secured into position in accordance with the manufacturer's installation instructions. Flange style check valves will be furnished with a stainless steel, ANSI 125/150 drilled, retaining ring unless specified otherwise.
 - 7. Manufacturer must have flow test data from an accredited hydraulics laboratory to confirm pressure drop and hydraulic data. Company name, plant location, valve size patent number, and serial number shall be bonded to the check valve.
- B. The check valve shall be a CheckMate as manufactured by Tideflex Technologies, a Division of Red Valve Company, or approved equal. The inline check valve shall operate when line pressure exceeds the backpressure, the line pressure forces the bill and disc of the valve open, allowing flow to pass. When the backpressure exceeds the line pressure, the bill and disc of the valve is forced closed, preventing backflow.

- C. The following is the manufacturer that supplies this inline check valve:

Tideflex Technologies
600 N. Bell Ave.
Carnegie, PA 15106
Tel: (412) 279-0044
Fax: (412) 279-7878

PART 3: EXECUTION

3.01 INSTALLATION

- A. The Contractor shall install the check valve in accordance with manufacturer's written Installation and Operation Manual and approved submittals. The manufacturer's authorized representative shall be available for customer service during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.

END OF SECTION 15100

SECTION 15480

STORM WATER TREATMENT SYSTEM

PART 1: GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish and install a precast storm water treatment system unit in accordance with the Plans and Specifications. The Contractor shall furnish all labor, equipment, and materials necessary to install the storm water treatment system and appurtenances.

1.02 DELIVERY

- A. The precast components of the storm water treatment system unit shall be delivered to the site via a flatbed transport. The Contractor shall provide equipment at the site that has adequate capacity to unload the precast components. Delivery, lifting, and handling of unit shall be performed in compliance with manufacturer's recommendations.
- B. The Contractor shall exercise care in the storage and handling of the storm water treatment system components prior to and during installation. Any repair or replacement costs associated with events occurring after delivery is accepted and unloading has commenced shall be borne by the Contractor.

1.03 SUBMITTALS

- A. The Contractor shall prepare and submit shop drawings in accordance with Subsection 2-5.3 of the Standard Specifications and these Specifications. The show drawings shall detail horizontal and vertical dimensioning, reinforcement and joint type.

PART 2: PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. The precast unit shall be a Nutrient Separating Baffle Box (NSBB) unit, Model No. NSBB-11-24-125 as manufactured by Bio Clean Environmental Services, Inc., or approved equal. The following is the manufacturer representative for this unit:

Bio Clean Environmental Services, Inc.
P O Box 869
Oceanside, CA 92049
Tel: (760) 433-7640
Fax: (760) 433-3176

2.02 MATERIALS

- A. Precast components shall conform to applicable sections of ASTM C 478, ASTM C 74 and ASTM C 858 and the following:
 - 1. Concrete shall be 28 day compressive strength FC=5,000 psi
 - 2. Steel reinforcing shall be ASTM A-615 Grade 60
 - 3. Structure shall supports an H20 Loading as indicated by AASHTO
 - 4. Joint between the concrete sections shall ship lap and joint sealed with Butyl Rubber SS-S-00210

- B. Other components and appurtenances shall conform to the following:
1. Nutrient separating screen shall be a welded aluminum framework spanned by stainless steel screen. The screen shall be manufactured of Type 316 and 316L stainless steel conforming to ASTM F 1267-01.
 2. Turbulence deflector shall be made from laminated fiberglass conforming to the National Bureau of Standards PS-15 and coated with an isophalic polyester gelcoat.
 3. All hardware shall be manufactured of Type 316 stainless steel conforming to ASTM A 320.
 4. Access manholes shall conform to the following: Manhole castings shall be designed to withstand AASHTO H-20 loadings and manufactured of cast-iron conforming to ASTM A 48 Class 30.

PART 3: EXECUTION

3.01 INSTALLATION

- A. The precast storm water treatment system unit shall be installed according to the manufacturer's specifications in the following sequence: Step 1 – Excavation, Step 2 – Set bottom half of structure, Step 3 – Set top half of structure, and Step 4 – Connect pipe.

3.02 INSPECTION

- A. All components shall be subject to inspection by the Engineer at the place of manufacture and/or installation.
- B. All components are subject to be rejected or identified for repair if the quality of materials and manufacturing do not comply with the requirements of this specification.
- C. Components which have been identified as defective may be subject for repair where final acceptance of the component is contingent of the discretion of the Engineer.

3.03 STRUCTURAL INSTALLATION

- A. The storm water treatment system shall be installed with the manufacturer's recommendation and related sections of the Standard Specifications. The manufacturer shall provide the Contractor installation instructions and offer on-site guidance during the important stages of the installation as identified by the manufacturer at no additional expense.
- B. The Contractor shall fill all voids associated with lifting provisions provided by the manufacturer. These voids shall be filled with non-shrinking grouts providing a finished surface consistent with the adjacent surfaces. The Contractor shall trim all protruding lifting provisions flush with the adjacent concrete surface in a manner, which leaves no sharp points or edges.
- C. Subgrade shall be established as shown on the Plans. The subgrade shall be composed to withstand a design loading of 2,000 pounds per square foot (psf), or shall be over excavated as directed by the Geotechnical Engineer and backfilled with aggregate base, compacted to 90% relative compaction when tested with ASTM Designation A1557.
- D. The bottom half of the structure shall be set on the compacted base, elevation confirmed, plumbed and aligned to ensure the top half of the structure will be properly aligned and situated. The backfill material around the structure shall be

placed and compacted in accordance with backfill provisions of the Standard Specifications achieving a minimum compaction of 90% when tested by ASTM Designation A1557. Backfill may be native material if capable of providing a design bearing pressure of 2,000 psf and approved by the Engineer.

3.04 PERFORMANCE

- A. The storm water treatment system unit shall be capable of inline installation with minimal head loss. Treatment of gross solids must occur at flow rates higher than the specified treatment flow.
- B. The unit must provide treatment at all flow rates. The unit shall be capable to store captured solid debris such as leaves and litter in a dry state between rain events. The volume of dry storage will be equal or greater than that specified on the Plans.
- C. The unit shall have the capacity to store equal to or greater than that specified on the Plans for captured sediment.

3.05 HYDRAULICS

- A. The storm water treatment system unit online shall have little associated head loss. The unit shall only need 3 inches of fall between invert in and invert out.
- B. The height of the basket shall be established to ensure the capture and retention of gross pollutants (large sediment, organics, and debris and trash) at all flow rates.
- C. The storm water treatment system shall maintain the peak conveyance capacity of the drainage network as defined by the Engineer.

3.05 WARRANTY

- A. The manufacturer shall guarantee the storm water treatment unit free from defects in materials and workmanship for a period of five years following installation.
- B. Equipment supplied by the manufacturer shall be installed and used only in the particular application for which it was specifically designed.
- C. The manufacturer shall upon its determination repair, correct or replace any manufacturer originated defects advised in writing to the manufacturer within the referenced warranty period.

END OF SECTION 15480

SECTION 16000

GENERAL ELECTRICAL PROVISIONS

PART 1 – GENERAL

1.01 DESCRIPTION

A. SCOPE

This division includes the provisions for all material, labor, tools, equipment, testing and services necessary to provide a complete and operable electrical system.

1.02 QUALITY ASSURANCE

A. PERFORMANCE AND DESIGN REQUIREMENTS

1. **MANUFACTURER'S QUALIFICATIONS:** The Contractor shall cause the equipment to be furnished under this division to be the product of firms regularly engaged in the design and manufacture of the type of item specified, possessing the required technical competence, skill, resources and ability to complete the work specified herein with the requisite degree of quality in a timely and efficient manner. The Contractor shall be prepared to adequately document the qualifications of the manufacturers nominated to provide the equipment specified under this division. All documentation shall be submitted to the owner prior to design fabrication and shipment of any component specified herein. Nothing contained within these provisions shall be construed as relieving the Contractor of his responsibility for any portion of the work covered by this division.
2. **ARRANGEMENT:** The plan drawings are generally diagrammatic and the location of outlets and equipment terminals are approximate unless detailed or dimensioned. The exact locations and muting of cables and conduits shall be governed by structural conditions, physical interferences and the location of electrical terminations on equipment.

The Contractor shall examine the architectural, structural and mechanical plans and shop drawings for the various equipment in order to determine exact routing and final terminations for alt raceways and cables. Conduits shall be stubbed up as near as possible to equipment terminals and shall be within the concrete base for the equipment or a separate concrete curb.

Allowance has been made in the design for the number of raceways, cables and conductors considered adequate for feeding the various drives and equipment. These circuits and diagrams are based on available data pertaining to the particular design of equipment and portray the systems which the owner has chosen to effect the required operation and level of control. Equipment provided by the Contractor (even though of the make and model specified) may differ in detail, arrangement, or connections from that shown. If the Contractor uses equipment which differs from the equipment shown in major aspects and requires modifications to power, control or other electrical service, the Owner's acceptance of the equipment will be based upon the Contractor providing the modifications required, and they shall be of the same quality as shown and shall be provided at no additional cost to the Owner.

3. SEISMIC CONSIDERATION:

All structures shall be designed in accordance with the requirements for seismic Zone 4 of UBC and/or SEAC.

Each piece of equipment installed shall be anchored to resist a minimum lateral seismic force of 40 percent of the operating weight of the equipment. This force shall be considered acting at the center of gravity of the piece under consideration. No equipment shall be anchored to vertical structural elements without written approval of the Owner.

All raceways, ductwork, accessories, appurtenances, etc., furnished with equipment shall be anchored to resist a lateral seismic force of 40 percent of its operating weight without excessive deflection. This force shall be considered acting at the center of gravity of the piece under consideration.

B. OPERATING REQUIREMENTS

1. PERMITS: The Contractor shall obtain permits, schedule inspections and other work incidental to providing electrical installations. City will reimburse the Contractor for permit fees.
2. CONTRACTOR'S RECORD DRAWINGS: The Contractor shall maintain a neatly marked set of record as-built drawings showing the installed location and routing of conduits, trays, cables, junction boxes, pull boxes, outlets, and interconnection circuits, etc., and the current status of control circuits as reflected on the control diagrams.
3. INSPECTION: The Contractor shall cooperate with the Owner and shall provide assistance at all times for the inspection of the electrical work performed under this contract. He shall remove covers, operate machinery, or perform any reasonable work which, in the opinion of the owner, will be necessary to determine the quality and adequacy of the work.

C. STANDARDS

Electrical work, including connection to electrical equipment integral with mechanical equipment described elsewhere in these special provisions, shall be performed in accordance with the latest published regulations of the following codes and standards:

1. Federal standard
2. State and local codes and ordinances and inspecting authorities
3. The National Board of Fire Underwriters
4. National Fire Protection Association
5. Underwriters Laboratories Inc. (UL)
6. National Electrical Manufacturers' Association (NEMA)
7. American National Standards Institute, Inc. (ANSI)
8. Institute of Electrical and Electronics Engineers (IEEE)
9. Insulated Power Cable Engineers Association (IPCEA)
10. State Department of Industrial Safety (OSHA)
11. State Public Utilities Commission

12. National Electrical Code (NEC) for all items not specifically covered by state or local ordinances
13. JIC standards

Nothing in these special provisions or on the drawings shall be interpreted as permission or direction to violate any governing code or ordinance.

Materials and equipment used in the performance of the electrical construction shall be fully UL approved for the class of service for which they are intended prior to submittal of shop drawings.

1.03 ENVIRONMENTAL CONDITIONS

A. ELECTRICAL EQUIPMENT ENCLOSURES

Ambient temperatures may vary from 20 to 140 degrees Fahrenheit with strong direct radiation from the sun. Relative humidity in all exterior field areas will vary from 10 to 100 percent with condensation occurring. All areas may have wind blown dust, salt air condensation and rain occurring.

1.04 SUBMITTALS

A. GENERAL

Submittals for all electrical equipment provided under this project manual shall be prepared and submitted to the Owner within 20 days after notice to proceed. The submittal package for each individual equipment or groups of related equipment shall be complete and in accordance with this Section. As a condition precedent to the review of submittals required under these specifications, the Contractor shall furnish the manufacturer's statements accepting unit responsibility. The purpose of this provision is to both ensure compatibility of all components specified under the specific technical specification, but also to provide sole source responsibility for system performance and maintenance. Notwithstanding these provisions, however, the Contractor is not relieved of his responsibility for the indicated portions of the work.

The following, as a minimum, shall be submitted:

1. Manufacturer and manufacturer's type and designation.
2. Manufacturer's catalog data indicating rated capacity, efficiency, rated output and other characteristics.
3. Any exception to these specifications along with justification for each exception.
4. Shop Drawings.
5. Parts list with material of construction.
6. Installation requirements, showing various clearances required.
7. Details of all appurtenances to be furnished with the specified item.

1.05 CONTRACT DRAWINGS AND SCHEMATIC DIAGRAMS

The Contract Drawings schematic diagrams are provided for the Contractor's guidance in furnishing, installing and successfully putting into safe operation the control system, conforming to the extent of the process requirements as set forth in the Contract Drawings. The Contractor shall be solely responsible for developing complete numbered and annotated schematic diagrams and control Systems in full conformance with all safety electrical codes, and for the furnishing of all equipment, appurtenances and specialty items to provide

complete and operable systems.

Review of the control schemes submitted by the Contractor shall not relieve the Contractor of his contractual responsibility to provide complete and operable systems. The Engineer shall be the sole judge of acceptability.

All schematic and wiring diagrams shall pertain solely to the equipment being furnished. Schematic and wiring diagrams shall show all external equipment such as limit switches, solenoids, controllers, and similar devices and shall also show the connections to these devices. Schematic diagrams shall use line numbers and contact location numbers.

The Contractor shall be solely responsible for developing complete schematic diagrams and control systems for review by the Engineer. Direct copying of Contract Drawing schematic diagrams shall be unacceptable and may be the basis for rejection of submission.

Submissions which do not conform to all of the above will be rejected. Lost time due to such rejections shall be the sole responsibility of the Contractor.

1.06 INFORMATION TO BE PROVIDED

A. Before payment of the 75 percent progress payment, the Contractor shall provide the following additional information for each item of the equipment.

1. The Contractor shall provide wiring and interconnection diagrams which shall show terminal blocks of all distribution and control assemblies, all power, control and signal raceways, junction and pull boxes, all devices, and all interconnecting wiring. Diagrams shall show conductor tag numbers, control wire color code as applicable, and power wire and cable sizes.
2. Operation and maintenance data.
3. Maintenance manuals.
4. Installation certificates.

1.07 SHIPMENT

The major equipment items as listed in this provision and furnished under this contract shall be shipped in sealed, weather-tight enclosed conveyances in a manner designed to protect the equipment against damaging stresses during transport.

PART 2- PRODUCTS

2.01 MATERIALS

All material and equipment shall be new, free from defects, of current manufacture¹ and of the quality specified or shown, and shall be listed by the Underwriters Laboratories Inc. (UL) for the purpose for which it is to be used where such listing has been applied by UL to similar products. Each type of material shall be of the same manufacture and quality throughout the work.

2.02 CORROSION PROTECTION

Unless otherwise noted, all equipment and appurtenances provided under this section shall be treated with zinc phosphate, bonderized or otherwise given a rust-preventive treatment, then primed and painted with a durable enamel finish. Minimum dry film thickness shall be 3 mils. The Contractor shall ensure that all panels or enclosures specified to be painted in this section shall match in color to ANSI 61, gray for all exterior surfaces and flat white on all interior surfaces. Non-conforming panels shall be repainted.

Field painting of all equipment shall conform to the procedure or outline in applicable sections of this project manual that specify painting and finishing.

Galvanizing, where specified, shall conform to the applicable division of the specifications. Galvanized equipment and appurtenances shall not be shop primed or painted but will be field painted as specified.

2.03 CONTROL PANEL

A. 480V CIRCUIT BREAKERS

480V volt breakers shall be rated 22,000 amperes interrupting capacity. Circuit breakers shall be of the indicating type, providing ON, OFF and TRIPPED positions of the operating handle. Circuit breakers shall be motor circuit protector (MCP) breakers with ground fault protection. Circuit breaker shall be the bolted on type. The use of tandem or dual circuit breakers in a normal single-pole space to provide the number of poles or spaces specified is not acceptable. All multiple-pole circuit breakers shall be designed so that an overload on one pole automatically causes all poles to open. Circuit breakers shall meet the requirements of UL and NEMA AB I.

B. VALVE ACTUATOR:

Motor operated valve actuator shall be EIM Electric Multi-turn actuator with integral M2CP control package for open/close service on 8" wedge gate valve. Model number is 2FMG-3C, no equal.

C. GROUNDING SYSTEM:

The panel shall be connected to a "rod" type "ground". The ground rod shall be 3/4" x 10' copper clad with connection made by exothermic weld and driven in earth at base of pedestal. The ground rod shall extend up into pedestal for visible connection with an approved "exothermic weld". Grounding and bonding wires shall be installed in all PVC conduit runs and connected to ground bus and all equipment.

1. Thermite welding materials shall be of size and type recommended by the manufacturer for the intended use. Materials shall be Burndy, Cadweld, manufactured by Erico Products, Inc., or equal.
2. Grounding conductor - All grounding conductor shall be sized as shown on plans or in accordance with NEC Table 250-95, whichever is larger.

PART 3 - EXECUTION

3.01 INSTALLATION

The Contractor shall cause each item of equipment provided as a part of this project to be installed, aligned and tested by skilled workmen to the tolerances recommended by the equipment manufacturer.

All equipment shall be located and installed so that it will be readily accessible for operation and maintenance. The Owner reserves the right to require minor changes in location of outlets or equipment, prior to roughing in, without incurring any additional costs or charges.

3.02 TESTING AND START-UP

A. GENERAL

The Contractor shall furnish all labor, materials, instruments and tools to make all connections for testing. All electric power, fuel, water, supplies, and utilities required for all tests shall be provided by the Contractor.

All equipment shall be demonstrated as operating properly prior to the acceptance of the work.

These tests shall be made in the presence of the Owner and the results recorded by him. All deficiencies or unsatisfactory conditions as determined by the Owner or inspecting authorities shall be corrected by the Contractor in a satisfactory manner at his Owner's Representative expense.

B. PROTECTIVE DEVICES

All protective devices shall be properly set and operative during the testing period. Before testing and energizing a system. All necessary precautions shall be taken to ensure the safety of personnel and equipment. All conductors and all electrical equipment shall be properly insulated and enclosed. All enclosures for conductors and equipment shall be properly grounded. Insulation resistance measurements must have been made and approved on all conductors and energized parts of electrical equipment.

C. PRELIMINARY TESTING

After the visual inspection of joints and connections and the application of tape and other insulating materials, all sections of the complete system of wiring shall be thoroughly tested for shorts and grounds. The Contractor shall correct all defects.

D. INSULATION RESISTANCE TESTS

1. **WIRE AND GABLE:** All wires and cables to be used as feeders, branch circuit wiring, control circuits and other wiring shall be tested with an insulation resistance tester rated 500 volts D.C. and capable of measuring 100 megohms (Biddle Company Megger). Single-conductor wires and cable shall have a resistance to ground not less than 10 megohms, and conductors of multiple-conductor cables not less than 1 megohms to ground. Do not directly megger solid state device circuits. Disconnect solid state devices prior to resistance tests.

All equipment shall be demonstrated as operating properly prior to the acceptance of the work.

These tests shall be made in the presence of the Owners and the results recorded by him. All deficiencies or unsatisfactory conditions as determined by the Owner or inspecting authorities shall be corrected by the Contractor in a satisfactory manner at the Contractor's expense.

2. **TESTS:** The insulation resistance of each circuit phase-to-phase and phase-to-ground shall be measured for the following:

- a. Control circuits shall be measured with pushbuttons, interlocking relays. Instruments, overcurrent devices, and the like connected.
- b. Power feeders shall be measured with switches and circuit breakers in place.

F. EQUIPMENT TESTS:

1. **CONTROL PANELS:** The following tests shall be performed.

- a. Megger the main bus, and all power and control circuits.
- b. Check the wire terminals, clean connections.
- c. Check all Control switches, alarm devices, indicating instruments for proper operation under normal and simulated abnormal conditions.
- d. Check the thermal-overload heaters for each motor and the reset mechanism.

- e. Check the motor nameplate full-load current as the basis for checking the heater selection.
- f. The thermal overload heaters shall be in accordance with the starter manufacturer's heater tables for motor enclosure and starter enclosure.

G. THERMAL OVERLOAD PROTECTIVE DEVICES:

For each motor the Contractor shall compile the following data in neatly tabulated form. Data shall be obtained from the equipment as provided on the job.

- 1. Equipment driven.
- 2. Nameplate amperes.
- 3. Service factor.
- 4. Overload device catalog number.
- 5. Overload device current range and setting.

PART 4 – MEASUREMENT AND PAYMENT

4.01 Full compensation for conforming to the requirements of this Section, and the Electrical Plans, including furnishing all labor, materials, equipment, tools, and incidentals shall be included in the price paid for other various items of work, and no additional compensation will be allowed therefore.

END OF SECTION 16000

SECTION 16110

RACEWAYS, FITTINGS, AND SUPPORTS

PART 1 - GENERAL

1.01 WORK OF THIS SECTION

- A. This section provides specifications for all raceways, wire ways, raceway supports, and concrete encased ducts.
- B. All raceways shall be PVC Coated rigid galvanized steel, Robroy PlastiBond II or equal, conduit unless otherwise noted.

1.02 RELATED SECTIONS

- A. The WORK of the following Sections applies to the WORK of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.

- 1. Section 2-5.3 Submittals
- 2. Section 16000 - General Electrical Provisions

1.03 CODES

- A. The WORK of this Section shall comply with the current editions of the following codes as adopted by the City of San Diego Municipal Code:

- 1. National Electric Code

1.04 SPECIFICATIONS AND STANDARDS

- A. Except as otherwise indicated, the specifications and standards for this WORK shall include the current editions of the following, and specifications and standards of Section 16000, and other applicable specifications and standards.

- 1. Federal Specifications WWC581 and WC1094A
- 2. ANSI Standard C80.1
- 3. UL Standard 6
- 4. NEMA Standard RNI1974 and TC2

1.05 SHOP DRAWINGS AND SAMPLES

- A. Shop Drawings and Samples shall be submitted in compliance with Section 16000 and Section 2-5.3.

- B. Submittal of all materials shall be in one complete submittal package. Submittals shall include the following data, drawings, and description of materials.

- 1. Manufacturer and manufacturer's type and designations for each equipment item.
- 2. List of construction material for all conduits, fittings, supports and accessories.
- 3. Any exception to these specifications along with justification for each accessories.

1.06 QUALITY ASSURANCE

A. Performance and Design Requirements:

1. The conduits and fittings shall be premium quality and suitable for installation in a Wastewater Pumping Facility.
2. The PVC used for Schedule 40 conduits and PVC coating on rigid galvanized steel conduit shall be made from virgin material.

B. Inspection:

1. All ducts shall be inspected by the City prior to pouring concrete. The inspection shall include backfill compaction, drainage slope, spacers, flotation ties, conduit condition, and joints. The concrete shall not be poured until this inspection is complete.
2. The CONTRACTOR shall coordinate with the utility companies for power and telephone service, duct bank location, routing, and inspection and shall comply with their requirements.

1.07 ENVIRONMENTAL CONDITIONS

- A. The raceways, fittings, and supports shall be installed either exposed, concealed, or in duct banks in a wastewater pumping facility. Ambient temperatures are expected to range between 30 degrees F to 125 degrees F. Relative humidity should range from 40 percent to 100 percent. In some installations, the raceways, fittings, and supports may contain hydrogen sulfide gas, dust, moisture, and/or methane gas.
- B. The raceways, fittings, and supports located in and around hazardous areas shall be suitable for Class I, Division 2, Group D locations.

PART 2 – PRODUCTS

2.01 MATERIAL

A. RACEWAYS

1. General:

All raceways shall be rigid galvanized steel conduit unless otherwise indicated on the drawings or in these specifications. Underground raceways shall be polyvinyl chloride (PVC) Schedule 40, unless otherwise noted, encased in concrete duct banks. Raceways installed in stud walls or above suspended ceilings shall be electrical metallic tubing (EMT). All raceways installed in exposed location shall be rigid galvanized steel conduit with PVC bonded coating and lining. Flexible metal conduit shall be employed for connections to the lighting fixtures. Explosion-proof conduits and fittings shall be employed in hazardous location. Final raceway runs to electrical equipment on machinery requiring flexibility or that is subject to vibration shall be liquid-tight flexible metal conduit. All fittings and supports installed in exposed locations shall be PVC coated. Minimum size of all conduits shall be 3/4 inch except PVC conduits, which shall be 1 inch.

2. PVC Conduit:

Nonmetallic conduit shall be high impact PVC, Schedule 40. The nonmetallic conduit shall be corrosion resistant. Tensile strength shall be 6000-psi minimum, and compressive strength 9000-psi minimum. The material shall have a smoke emission rate of not more than 5.1 grams/100 grams by the Arapahoe smoke chamber test.

B. FITTINGS

1. PVC Conduit Fittings:

Fittings used with PVC conduits shall be of the solvent-weld type PVC and shall be of the same material as the conduit. Expansion fittings shall be provided as recommended by the manufacturer.

2. Submersible Fittings:

Submersible conduit fittings shall be per manufacturer and model noted on plans.

C. WIREWAYS

1. All wireways and auxiliary gutters shall be JIC sectional flange oil-tight type with hinged covers. Minimum size shall be 8 inches by 8 inches unless otherwise noted. All wireways shall be painted.

D. RACEWAY SUPPORTS

1. General:

Raceway support systems shall be designed to provide a factor of safety of no less than five.

2. Conduit Supports:

Conduit supports shall be one hole galvanized malleable iron pipe straps used with galvanized clamp backs and nesting backs where required. When used with PVC coated rigid steel conduit, the conduit supports shall be 40 mils thick PVC coated.

3. Ceiling Hangers:

Ceiling hangers shall be adjustable galvanized carbon steel pipe hangers. Straps or hangers of plumber's perforated type shall not be acceptable. Hanger rods shall be 2 inch minimum galvanized all thread rod and shall meet or exceed ASTM A193B7 and ASME Boiler and Pressure Vessel Code specifications. Trapeze, rod type hangers shall not be loaded in excess of 700 pounds per rod. Where loading exceeds this value, rigid frames shall be provided.

4. Racks:

Racks shall be constructed from framing channel. Channels and all associated hardware shall be steel, hot dip galvanized after fabrication of the channel. Field cuts shall be painted with zinc rich paint. Channels attached directly to building surfaces shall be 14 gage minimum material 15/8 inches wide by 13/16 inch deep. All other channels shall be 12 gage minimum material 15/8 inch wide by 15/8 inch minimum depth. Racks shall be designed to limit deflection to 1/360 of span. All exposed ends of framing channel shall be covered with manufacturer's standard plastic inserts. When used with PVC coated rigid steel conduits, the racks shall be PVC coated to 40-mil thickness.

PART 3 – EXECUTION

3.01 INSTALLATION

A. CONDUIT

1. All exposed conduits shall be PVC coated rigid galvanized steel conduits. Exposed conduit shall be run on supports spaced not more than 8 feet apart and shall be constructed with runs parallel or perpendicular to walls, structural members or intersection or vertical planes and ceiling. No conduit shall approach closer than 6 inches to any object operating above the rated temperature of its cable temperature.
2. Conduit supported directly from the concrete structure shall be spaced out at least 1/4 inch using one hole hot dip galvanized malleable iron straps with nesting backs or, if three or more conduits are located in a parallel run, they shall be spaced out from the wall approximately 5/8 inch to 1 inch by means of framing channel. Runs of individual conduit suspended from the ceiling shall be supported with galvanized wrought steel pipe hangers. Where three or more conduits are suspended from the ceiling, suitable steel racks shall be constructed subject to submittal to the City for review.
3. Conduit rack and tray supports shall be secured to concrete walls and ceilings by means of cast-in-place anchors in accordance with the structural section of these specifications. Individual conduit supports may be similar to cast-inplace anchors, die-cast, rustproof alloy expansion shields or cast flush anchors. Wooden plugs, plastic inserts or gunpowder-driven inserts shall not be used as a base to secure conduit supports.
4. Welding, brazing or otherwise heating of the conduit is not allowed. Plumber's perforated tape shall not be used for any purpose.
5. Where required for ease of pulling and as necessary to meet code, the CONTRACTOR shall provide cast junction or pull boxes even though not shown on the drawings. The CONTRACTOR shall limit the number of equivalent 90degree bends to three in any run between pull boxes. Runs shall be limited to 400 feet, less 100 feet for each equivalent 90degree bend in the run. Bends and offsets shall be avoided where possible, but where necessary, shall be made with an approved hickey or conduit bending machine, or shall be factory preformed bends.
6. All conduit entering sheet steel boxes or cabinets shall be secured by locknuts on both the interior and exterior of the device and shall have an insulating bushing constructed over the conduit end. All conduit entering NEMA 12 boxes shall be terminated with a rain-tight hub having an insulated liner. All surface mounted cast boxes and plastic enclosures shall have threaded hubs. All joints shall be made with standard threaded couplings or specified unions. Metal parts of plastic control stations and coated boxes shall be bonded to the conduit system. Running threads shall not be used in lieu of conduit nipples, nor shall excessive thread be used on any conduit. The ends of all conduit shall be cut square, reamed and threaded with straight threads. Rigid steel conduit shall be made up tight and without thread compound. Male threads on rigid steel conduit shall be coated with electrically conductive zinc rich paint. Threading shall be done with dies, with the guide sleeve bored out to allow for increased diameter of the PVC coated conduit. Conduit shall be made with the next larger bend or next larger shoe bushed for proper fit.

7. PVC coated conduit shall be tightened, with strap wrenches and the plastic overlap shall be coated and sealed per manufacturer's recommendations. Pipe wrenches and channel locks shall not be used for tightening plastic coated conduits. All damaged areas shall be patched, using manufacturer's recommended material. The area to be patched shall be built up to the full thickness of the coating. Joints in multiple conduit runs shall be staggered.
8. Wherever conduits penetrate concrete wall panels to outdoors or as shown, the CONTRACTOR shall detail the required mountings. He shall locate and use a galvanized pipe sleeve for passage of the conduit. A compression type seal shall be used to form a complete watertight installation. The installation design shall be submitted to the City.
9. All underground conduits shall be PVC Schedule 40 encased in a red concrete envelope with reinforcement as shown on the drawings. Transition shall be made from PVC Schedule 40 conduit to rigid galvanized steel conduit at all stub-ups and when entering equipment. The transition shall consist of a rigid galvanized conduit. Conduits shall be laid with a minimum grade of 2 inches per 100 feet from structure to manhole or from high point to manholes. Conduits for variable frequency drive motor leads shall be PVC coated rigid steel.
10. Conduit constructed in concrete slabs or walls shall be placed in the middle third of the slab or wall. Conduit rising through a slab shall be protected by a formed concrete pad approximately 6 inches in diameter and 4 inches above the finished floor, or the conduit shall come up through the equipment pad. Clearances equal to the conduit trade diameter, but not less than 12 inches, shall be maintained between conduit-encased slabs. Clearances of less than 12 inches at conduit crossing and terminating locations may be allowed by the City at its discretion. Flexible conduit shall not be used as a general purpose raceway but shall be provided in locations requiring flexibility with the approval of the City.
11. The CONTRACTOR shall exercise the necessary precautions to prevent the lodging of dirt, concrete or trash in the conduit, fittings and boxes during the course of construction.
12. Each conduit shall be identified at each end with a permanent non-corrosive metal marker. Designation shall be pressure stamped into the tag. The conduit identification shall be the designated conduit number as **shown**.

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 Full compensation for conforming to the requirements of this Section, RACEWAYS, FITTINGS AND SUPPORT, including all labor, materials, equipment, tools, and incidentals shall be included in the price paid for Raceways, Fittings and Supports Lump Sum bid item and no additional compensation will be allowed therefore.

END OF SECTION 16110

SECTION 16120

WIRE AND CABLE

PART 1- GENERAL

1.01 WORK OF THIS SECTION

- A. This section provides specifications for all wire and cable used for electrical current conductors.
- B. All conductors shall be copper, type B stranded. The minimum size of conductors shall be No. 12 AWG for power circuits and No. 14 AWG for control circuits.

1.02 RELATED SECTIONS

- A. The WORK of the following Sections applies to the WORK of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.
 - 1. Section 2-5.3 Submittals
 - 2. Section 16000 - General Electrical Provisions

1.03 CODES

- A. The WORK of this Section shall comply with the current editions of the following codes as adopted by the City of San Diego Municipal Code:
 - 1. National Electric Code

1.04 SPECIFICATIONS AND STANDARDS

- A. Except as otherwise indicated, the specifications and standards for this WORK shall include the current editions of the specifications and standards of Section 16000, and other applicable specifications and standards.

1.05 SHOP DRAWINGS AND SAMPLES

- A. A sample of each type of wire and cable shall be submitted to the Owner in compliance with the requirements of Section 16000 and Section 2-5.3. The cable samples shall be of sufficient length to determine their rating and quality.

1.06 QUALITY CONTROL

- A. The wire and cable shall be of premium quality suitable for installation in a Wastewater Pumping Facility.

1.07 ENVIRONMENTAL CONDITIONS

- A. The wire and cable will be installed in raceways in a Stormwater Pumping Facility and valve actuator vault. Ambient temperatures are expected to range between 40 degrees F to 125 degrees F. Relative humidity is expected to range from 40 percent to 100 percent. In some installations, the wire and cable will be subjected to dust and moisture. In the valve actuator vault, wire and cable will be subjected to submersion.

PART 2- PRODUCTS

2.01 CONDUCTORS

A. SINGLE CONDUCTORS

Conductor insulation shall be 600 volt, NEC type THWN or XHHW.

B. MUTLI-CONDUCTOR CABLE

Conductor insulation shall be 600 volt, NEC type THWN or XHHW. Power cable shall be Service Wire Co. submersible pump cable PTJ8/3GG, or equal.

C. CONDUCTOR COLOR

Insulated conductors shall be color coded as follows:

System Service Color

| | |
|-----------------------|--------|
| 480V, 3 Phase Phase A | Brown |
| Phase B | Orange |
| Phase C | Yellow |
| 208V, 3 Phase Phase A | Black |
| Phase B | Red |
| Phase C | Blue |
| 240V, 1 Phase L1 | Black |
| L2 | Red |
| 120V, 1 Phase L | Black |
| All Control | Violet |
| All Ground | Green |

All neutrals shall be white.

The same color conductor shall be connected to the same phase throughout the plant for a particular voltage level. On cable No. 4 AWG and larger, black may be used with colored 3/4inch vinyl plastic tape for 6 inches for each end at all terminations and in pull boxes.

C. CONTROL CABLE

Control cable shall be Paige submersible pump control and instrumentation cable, or equal.

D. PANEL CABLE

Cable for panel wiring shall be 600 volt, NEC Type MTW rated 90 degrees C, and shall be flame, moisture and oil-resistant polyvinyl chloride insulated machine tool wire. Panel cable shall not be used in conduits and shall not be smaller than No. 14 AWG.

2.02 GROUNDING

- A. A grounding system shall be installed in accordance with the National Electrical Code. All grounding surfaces shall be thoroughly cleaned before connecting the grounding electrodes. All conduit shall be grounded directly or through equipment frames and ground buses to the grounding system.
- B. In addition to the conduit system, all equipment having 480 volt, 120/208 volt or 120/240 volt supply shall be grounded to the supply source ground bus by a green insulated code sized ground conductor installed in the conduit with the phase cables. Ground conductors for small panels and equipment shall be of same size as associated conductors.

2.03 WIRE AND CABLE CONNECTORS

- A. Connector used at valve actuator shall be Dorn Equipment Corp. NYST-1, as specified on drawings, or equal. All other connectors shall be of the one piece tool applied compression type of the correct size and UL listed for the specific application. Connectors for copper shall be tinplated electrolytic copper. Connectors for wires No. 10 AWG and smaller shall be self-insulating ring tongue or locking spade terminals. Connectors for No. 8 AWG and larger shall be one hole lugs up to size No. 3/0 AWG and two hole or four hole lugs for size No. 4/0 and larger. Mechanical clamp or screw type terminals shall not be acceptable.

2.04 WIRE AND CABLE TERMINATION AND SPLICING

- A. Power and control conductors shall be terminated in terminal blocks with solder-less box lugs. Signal leads shall be terminated in terminal blocks with saddle-type pressure connectors capable of receiving two No. 16 AWG or smaller conductors on each point.
- B. Splices in power wiring shall be made with two compression lugs bolted together. Splices in stranded control wiring or lighting circuits may be made with compression connectors. Splices in signal wiring shall be soldered. Splices located in vault shall be rated for submersible use. 3M UF submersible splice kit shall be used, or equal.
- C. Solid wire shall not be lugged nor shall electrical spring connectors be used on any wiring. Lugs and connectors shall be installed with a compression tool recommended by the lug manufacturer for the particular lug used.
- D. All conductors shall be tagged at each end in motor control centers, control panels, and control stations with a legible permanent coded wire marking sleeve. All conductors shall be identified in each manhole, hand hole or pull box. Field conductors shall be similarly tagged at each end except that each conductor termination shall have its marking sleeve imprinted with terminal identification for both ends of the conductor. A schedule shall be provided with the asbuilt drawings correlating these wire markings.
- E. Splicing of cables/wires in the manholes and handholes shall be kept at a minimum. Where it is possible to pull cables or wires directly through the manholes or handholes, splicing shall be moisture proof and encapsulated using insulating sealing compound. Splicing kits similar to 3M Company 82A or 8500 Series shall be utilized.

2.05 PORTABLE CABLE FITTINGS

- A. Portable cable fittings for terminating the cable shall provide a watertight seal between the cord and the terminator and between the terminator and mounting hub. The cable terminator shall be provided with a neoprene liner, which grips the cord jacket when the back nut on the fitting is tightened. In addition, on all pendant cord applications and other applications where called for, a stainless steel wire mesh cord grip shall be provided as an integral part of the cord terminator.

2.06 PULLING LUBRICANT

- A. All cables shall be properly coated with pulling compound recommended by the cable manufacturer before being pulled into conduits so as to prevent mechanical damage to the cables during installation.
- B. Other lubricants to be substituted must be accompanied by a statement from the cable manufacturer as to its acceptability for the cable being installed.

2.07 WIRE MARKERS

- A. Each power and control circuit conductor shall be identified as shown at each terminal to which it is connected with a legible permanent coded marking sleeve. Sleeves shall be yellow or white tubing, sized to fit the conductor insulation, with machine printed black marking. Adhesive strips are not acceptable.
- B. In each manhole, handhole and pull box, each conductor shall be similarly marked with a split sleeve, machine marked so the identification can be made using groups of letters and numbers.

PART 3 – EXECUTION

3.01 GENERAL

- A. Care shall be exercised in pulling wire and cable into conduit or trays to avoid kinking, putting undue stress on the cables, or otherwise abrading them. No grease will be permitted in pulling wire or cable. Soapstone, talc or UL listed pulling compound only will be permitted. The raceway construction shall be complete and protected from the weather before cable is pulled into it.
- B. Incoming wire in panels and motor control centers, No. 6 AWG and smaller, shall be bundled and laced at intervals not greater than 6 inches, and neatly spread into tees and connected to their respective terminals. Sufficient slack shall be allowed in cables for alterations in terminal connections. Lacing shall be done with plastic cable ties or linen lacing twine. Where plastic panel wiring duct is provided for wire runs, lacing is not necessary when the wire is properly installed in the ducts. Slack shall be provided in junction and pull boxes and in hand holes and manholes. Amount of slack shall be equal to the largest perimeter dimension of the box.
- C. Wires crossing hinges shall be made up into groups not exceeding 12 and shall be so arranged that they will be protected from chafing when the hinged member is moved.

3.02 PERFORMANCE TESTS

A. GENERAL

- 1. All splices and terminations are subject to inspection by the City prior to and after insulating.
- 2. After the visual inspection of joints and connections and the application of tape and other insulating materials, all sections of the complete system of wiring shall be thoroughly tested for shorts and grounds. The CONTRACTOR shall correct all defects.
- 3. Each 230/460-volt motor shall have its insulation resistance to ground measured with 1000 volt "Megger" prior to connection, in the presence of the City, and shall make record of these values. Values of resistance of less than 10 meg-ohms will not be acceptable.

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 Full compensation for conforming to the requirements of this section, Wire and Cable, including all labor, material, equipment, tools and incidentals shall be included in the lump sum price paid for Wire and Cable and no additional compensation shall be allowed therefore.

END OF SECTION 16120

SECTION 16130

FITTINGS

PART 1 - GENERAL

1.01 WORK OF THIS SECTION

- A. This section provides specifications for all electrical fittings.
- B. Unless otherwise listed, all fittings shall be hot-dip galvanized cast ferrous alloy type. All exposed boxes and fittings shall be PVC coated.

1.02 RELATED SECTIONS

- A. The WORK of the following Sections applies to the WORK of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.
 - 1. Section 2-5.3 Submittals
 - 2. Section 16000 - General Electrical Provisions

1.03 CODES

- A. The WORK of this Section shall comply with the current editions of the following codes as adopted by the City of San Diego Municipal Code:
 - 1. National Electric Code

1.04 SPECIFICATIONS AND STANDARDS

- A. Except as otherwise indicated, the specifications and standards for this WORK shall include the current editions of the specifications and standards of Section 16000, and other applicable specifications and standards.

1.05 SHOP DRAWINGS AND SAMPLES

- A. Submittals shall comply with the provisions set forth in Section 16000 and Section 2-5.3.

1.06 QUALITY CONTROL

- A. The fittings shall be premium quality suitable for installation in a water pumping facility.

PART 2 – PRODUCTS

2.01 MATERIALS

- A. Round and rectangular conduit fittings shall be hot-dip galvanized cast ferrous alloy. Integrally cast threaded hubs or bosses shall be provided for all conduit entrances and shall provide for full 5thread contact on tightening. Drilling and threading shall be done before galvanizing. The cover plate shall be of similar hot-dip galvanized cast ferrous alloy material. A full body neoprene gasket and type 316 stainless steel screws shall be provided for all covers. Hubs for connection of conduit to sheet steel junction, device or terminal boxes shall be made of cast ferrous alloy, electroplated with zinc, and shall have insulating bushings. The hubs shall utilize a neoprene "O"ring and shall provide a watertight connection.

2.02 EQUIPMENT

A. FITTINGS

The fittings used with various types of boxes shall be of a compatible material. All fittings in exposed locations shall be 40 mils thick PVC coated. PVC coated seal fittings shall be employed at hazardous locations and sealed with suitable sealing compound. Seals for entry into the chlorine area shall be "C" fittings filled with nonsetting compound.

PART 3 – EXECUTION

3.01 GENERAL

- A. Outlet and switch boxes shall be located to provide ample clearance between fixtures and pipes, beams and ducts. The location shall be verified on the job to avoid conflict with other work. Boxes shall be accurately placed and shall be independently and securely supported. Wooden plugs inserted in masonry or concrete shall not be used as a base to secure boxes nor shall welding or brazing be used for attachment. Boxes shall be secured by galvanized brackets, expansion bolts, toggle bolts, or machine or wooden screws depending on the type of construction. Unless otherwise indicated, receptacle boxes shall be mounted 12 inches above the floor in offices and similar areas and 48 inches above the floor in all other areas. Switch boxes shall be mounted 48 inches above the floor.

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 The lump sum price shall be full compensation for conforming to the requirements of this Section, FITTINGS, and the Electrical Plans, including furnishing all labor, materials, equipment, tools, and incidentals, and no additional compensation will be allowed therefore. Payment shall be made per the unit bid price per each as shown in the Bid Schedule, and shall be full compensation for conforming to the requirements of this Section, and the Electrical Plans, including furnishing all labor, materials, tools, equipment, and incidentals, and no additional compensation will be allowed therefore.

END OF SECTION16130

SECTION 16150

WASTEWATER COLLECTION DIVISION SCADA

PART 1 – GENERAL

- 1.01 Furnish the following materials as described in Part 2 - Products for the construction of the control panels:
 - A. Panel Devices
- 1.02 QUALITY ASSURANCE
 - A. ACCEPTABLE MANUFACTURERS
 - 1. Furnish devices by the named manufacturers or equal equipment by other manufacturers.
 - 2. The named manufacturers have been specified to establish the standard of quality and performance of the equipment to be supplied.
 - 3. Obtain all devices of a given type from the same manufacturer.
 - 4. Submit shop drawings as described in Section 16000.

PART 2 - PRODUCTS

2.01 PANEL DEVICES

- A. Furnish the following materials for the construction of new control panels:
 - 1. Section 2.02-1 Selector Switches and Indicating Lights.
 - 2. Section 2.02-2 Process Indicators.
 - 3. Section 2.02-3 Terminal Strips.
 - 4. Section 2.02-4 Circuit Breakers.
 - 5. Section 2.02-5 Fuse Blocks.
 - 6. Section 2.02-6 Control Relays.
 - 7. Section 2.02-7 Signal Wiring.
- 2.01-1 SELECTOR SWITCHES, PUSHBUTTONS AND INDICATING LIGHTS
- A. GENERAL
 - 1. Selector switches, pushbuttons and indicating lights shall be supplied by one manufacturer and be of the same series or model type.
 - 2. Type: Heavy duty, oil tight.
 - 3. Mounting: Flush mounted on control panel front, unless otherwise noted.
 - 4. NEMA 12.
 - 5. Contacts:
 - a. Provide one normally open and one normally closed contact.
 - b. Type: Double break, silver contacts with movable contact blade providing scrubbing action.

- c. Rating: Compatible with AC or DC current with devices simultaneously operated by the switch contacts but not less than 10 Amps resistive at 120 VAC/VDC continuous.

B. SELECTOR SWITCHES

1. Type: Provide 2 position and 3 position selector switches.
2. Switch Operator: Standard black knob.

C. PUSHBUTTONS

1. Type: Momentary Contact Pushbuttons.
2. Button Color: Black.

D. INDICATING LIGHTS

1. Type: 120VAC.
2. Lamp5. High visibility LED type, long life (20,000 hours minimum). Available in red, green and amber, lens color must match LEO color.
3. Indicating lights shall be push-to-test.

E. ENVIRONMENTAL

1. Operating Temperature: 0 C to +55 C.
2. Storage Temperature: -40 C to +185 C.
3. Humidity: 50 percent at 40 C.

F. PRODUCT AND MANUFACTURER

1. Components as manufactured by Allen-Bradley:
 - a. 2 Position Selector Switch Model No. 800T-H2A
 - b. 3 Position Selector Switch Model No. 800T-J2A
 - c. Pushbutton Model No. 800T-A2A
 - d. Indicating Lights:
 - (1) Model No. 800T-QTH10R
 - (2) Model No. 800T-QTH10G
 - (3) Model No. 800T-OTH10A
 - e. Closing Button Model No. 800T-N1B
2. Or equal.

2.01-2 PROCESS INDICATORS

- A. Type Indicator shall be a microprocessor-based, seven-segment red LED display, capable of five-digit readout, programmable to four decimal places.
- B. Required Design and Construction Features:
 1. Front panel red LED type display.
 2. 4-20 mAdc optically isolated retransmission output.

3. Inputs:
 - a. 4-20mA dc.
 - b. Sample Rate: 3 times per second.
4. Ratings:
 - a. Accuracy: 0.1 percent of full scale.
 - b. Normal Mode Rejection: 55 dB at 60 Hz.
 - c. Common Mode Rejection: 120 dB at 60 Hz.
- C. Supply integral 24 VDC power supply for transducer applications.
- D. PRODUCT AND MANUFACTURER
 1. Model 760 as manufactured by Chessell Corporation
 2. Or equal.

2.01-3 TERMINAL STRIPS

- A. TYPE: General purpose terminal strips.
- B. RATINGS
 1. Voltage Rating: 600 VAC/VDC maximum.
 2. Current Rating: 30 Amps maximum.
 3. Insulation Temperature Range: -40 to +90C.
- C. CONSTRUCTION
 1. Housing:
 - a. The housing shall be designed to be self-extinguishing, polyamide 6.6 material with UL 94-2v2 flammability rating.
 - b. Housing shall be finger-safe design to prevent contact with live circuits.
 - c. Four-sided funnel wire guides for wire insertion.
 - d. Color: Terminal block housing shall be gray, permanent in color throughout the material.
 2. Metal Parts:
 - a. Nickel plated terminals and stainless steel screws.
 - b. Contacts shall have high copper content alloy.
 3. Screws:
 - a. Terminal blocks shall be provided with backed out screws.
 - b. Tightening torque for each screw shall be 5.0 to 5.6 pounds per inch.
 4. Wire Range:
 - a. Terminal blocks shall accept maximum of four #22 through one #12 AWG wire.
 - b. Wire strip length shall be 0.35 inches.
 5. OTHER: Terminal blocks shall be provided with center jumper capability.

D. MOUNTING REQUIREMENTS

1. All devices shall be suitable for mounting on DIN rail.
2. Mounting rail shall allow easy installation to a panel using #10-32 screws.
3. Rail shall allow easy installation and removal of a block in a row.
4. DIN rail shall be zinc plated, yellow chromated steel.
5. Rail shall be symmetrical 35 mm wide by 7.5 mm deep by 1 meter long.
6. Density: 50 pieces per foot.

E. ACCESSORIES: Terminal blocks shall have end barriers, end anchors, jumpers and preprinted markers.

F. PRODUCT AND MANUFACTURER

1. Terminal blocks as manufactured by Allen-Bradley:
 - a. Terminal Block Model No. 1492-W4
 - b. DIN Rail Model No. 199-DR1
 - c. End Barrier Model No. 1492-EB3
 - d. End Anchor Model No. 1492-EA35
 - e. Pre-printed Marker card Model Nos:
 - i. 1492-SM6X12H1-50
 - ii. 1492-SM6X12H51-100
 - f. 10-Pole Center Jumper Bar Model No. 1492-CJ6-10
2. Or equal.

2.01-4 CIRCUIT BREAKERS

A. Type: Energy limiting, thermal magnetic, term nat block style circuit breakers.

B. RATINGS

1. Voltage Rating: 480 VAC.
2. Current Rating: 15 Amps.
3. Number of Poles: One.
4. Magnetic Trip Range: 6 to 10 times the rated current.

C. CONSTRUCTION

1. Housing:
 - a. The housing shall be designed to be melamine/phenolic.
 - b. Housing shall be finger-safe design to prevent contact with live circuits.
 - c. Wire termination shall be clamping style, self-lifting box lug.
2. Wire Range:
 - a. Circuit breaker shall accept #16 through #6 AWG wire.
 - b. Wire strip length shall be 0.50 inches.

D. MOUNTING REQUIREMENTS

1. All devices shall be suitable for mounting on DIN rail.
2. Mounting rail shall allow easy installation to a panel using #10-32 screws.
3. Rail shall allow easy installation and removal of a block in a row.
4. DIN rail shall be zinc plated, yellow chromated steel.
5. Rail shall be symmetrical 35 mm wide by 7.5 mm deep by 1 meter long.

E. ACCESSORIES: Circuit breakers shall have end anchors and group markers.

F. PRODUCT AND MANUFACTURER

1. Components as manufactured by Allen-Bradley:
 - a. Circuit Breaker Model No. 1492-CB1C150
 - b. DIN Rail Model No. 199-DR1
 - c. End Anchor Model No. 1492-EA35
2. Or equal.

2.01-5 FUSE BLOCKS

A. TYPE: General purpose fuse blocks.

B. RATINGS

1. Voltage Rating: 300 VAC/VDC maximum.
2. Current Rating: 12 Amps maximum.
3. Insulation Temperature Range: -40C to +105C.

C. CONSTRUCTION

1. Housing:
 - a. The housing shall be designed to be self-extinguishing, polyamide 6.6 material with UL 94-2v2 flammability rating.
 - b. Housing shall be finger-safe design to prevent contact with live circuits.
 - c. Four-sided funnel wire guides for wire insertion.
 - d. Color: Fuse Block housing shall be gray, permanent in color throughout the material.
2. Metal Pins:
 - a. Nickel plated terminals and stainless steel screws.
 - b. Contacts shall have high copper content alloy.
3. Screws:
 - a. Fuse blocks shall be provided with backed out screws.
 - b. Tightening torque for each screw shall be 3 to 7 pounds per inch.
4. Wire Range:
 - a. Terminal blocks shall accept #30 through #12 AWG wire.
 - b. Wire strip length shall be 0.35 inches.

5. Fuse block shall be provided with neon blown fuse indication.

D. MOUNTING REQUIREMENTS:

1. All devices shall be suitable for mounting on DIN rail.
2. Mounting rail shall allow easy installation to a panel using #10-32 screws.
3. Rail shall allow easy installation and removal of a beek in a row.
4. DIN rail shall be zinc plated, yellow chromated steel.
5. Rail shall be symmetrical 35 mm wide by 7.5 mm deep by 1 meter long.
6. Density: 50 pieces per toot.

E. ACCESSORIES: Fuse blocks shall have end barriers, end anchors, jumpers and group markers.

F. PRODUCT AND MANUFACTURER:

1. Components as manufactured by Allen-Bradley:
 - a. Fuse Block Model No. 1492-H4
 - b. End Barrier Model No. 14g2-N37
 - c. End Anchor Model No. 1492-EA35
 - d. Marker Model No. 1492-GM35
 - e. Jumper Model No. 1492-N49
 - f. Fuses: 1/4" x 1-1/4", 2 Amp. Glass Fast Blow Type
2. Or equal.

2.01-6 CONTROL RELAYS:

A. TYPE: General purpose, plug-in type rated for continuous duly.

B. ELECTRICAL:

1. Pilot Duty Rating: NEMA B300.
2. Insulation Voltage: 300 VAC.
3. Contacts:
 - a. Contacts shall be Form C SPDT, with three terminals - one normally open, one normally closed and one common.
 - b. Ratings shall be Form C 10 Amps continuous at 120 VAC.
 - c. Rated thermal current 20 Amps maximum for all three poles.
 - d. Contact material shall be silver cadmium oxide.
 - e. Relay shall be 3PDT, 3 pole, 3 Form C, contacts.
4. Coil Voltages; 120 VAC.
5. Coil Consumption: +10 percent.
6. Inrush Current: 3.75 VA at 60 Hz.
7. Sealed Current: 2.5 VA at 60 Hz.
8. Relay shall have a dielectric withstand voltage of 1500 VAC pole to pole, contact to coil and contact to frame.

C. MECHANICAL

1. Guarded terminal sockets.
2. 30 million life operations.
3. 3600 switching frequency operations per hour.
4. Operating Time Pickup: 15 msec.
5. Dropout Time: 10 msec.
6. Operating Rate: Maximum of four operations per second.

D. ENVIRONMENTAL

1. Operating Temperature: -45C to +55C.
2. Storage Temperature: -55C to +85C.
3. Altitude: 2000 meters.

E. CONSTRUCTION

1. Relay shall be 1.40 inches wide, 1.46 inches high and 2.34 inches deep.
2. Tube base with pin style terminations.
3. Enclosure shall be transparent polycarbonate dust cover, with finger grips for installation or removal.
4. Marking area molded into cover.
5. Mechanical ON/OFF indicator.
6. Insulating material shall be molded high dielectric material.
7. Each terminal shall be marked in accordance with EN50 0005.
8. Relay shall mount on an 11 pin, screw terminal base socket which can be panel or DIN rail mounted.

F. PRODUCT AND MANUFACTURER

1. Components as manufactured by Allen-Bradley:
 - a. Relay Model No. 700-HA33A1-1
 - b. Relay Mounting Base Model No. 700-HN101
2. Or equal.

2.01-7 TIMING RELAYS

- A. Timing relays shall be Allen-Bradley plug-in timing relay, model number 700-HR, multi-function, multi-range dial timing relay with pin terminals, no equal.

2.01-8 SIGNAL WIRING

- A. GENERAL: Signal wire shall be #22 stranded, MTW type, 600 V.
- B. PRODUCT AND MANUFACTURER:
1. Components as manufactured by American Insulated Wire:
 - a. #22-STR-MTW-GREY
 - b. #22-STR-MTW-GREEN

- c. #22-STR-MTW-BROWN
- d. #22-STR-MTW-VIOLET
- e. #22-STR-MTW-RED
- f. #22-STR~MTW-WHITE
- g. #22-STR-MTW-BLUE
- h. #22-STR-MTW-ORANGE
- i. #22-STR-MTW-YELLOW
- j. #22-STR-MTW-BLACK

2. Or equal.

2.01-9 RAIN GAUGE

Optical rain gauge shall be Hydreon Corp. Model RG-11, no equal.

PART 4 – MEASUREMENT AND PAYMENT

4.01 Payment for Control Panels shall be made per the Contract unit bid price per each for site 2 and per lump sum for site 11, 12 & 13 and shall be full compensation for conforming to the requirements of this Section, WASTE WATER COLLECTION DIVISION SCADA and the Electrical Plans, and no additional compensation will be allowed therefore.

END OF SECTION 16150

APPENDIX J

Sample Archaeology 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

CITY CONTACT: Eleida Felix Yackel, Contract Specialist, Email: EFelixYackel@sandiego.gov
Phone No. (619) 533-3449, Fax No. (619) 533-3633

ADDENDUM "A"

FOR



AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT / SEWER AND WATER GROUP 809

BID NO.: _____ K-13-5979-DBB-3
SAP NO. (WBS/IO/CC): _____ S-13018, B-00416, B-00102
CLIENT DEPARTMENT: _____ 2116, 2011, 2013
COUNCIL DISTRICT: _____ 1
PROJECT TYPE: _____ CA, JA, KB

BID DUE DATE:

**2:00 PM
JULY 31, 2013
CITY OF SAN DIEGO
PUBLIC WORKS DEPARTMENT
1010 SECOND AVENUE, SUITE 1400, MS 614C
SAN DIEGO, CA 92101**

ENGINEER OF WORK

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



1) For City Engineer

7/12/2014

Date

Seal:



A. CHANGES TO CONTRACT DOCUMENTS

The following changes to the Contract Documents are hereby made effective as though originally issued with the bid package. Bidders are reminded that all previous requirements to this solicitation remain in full force and effect.

B. VOLUME 1

1. To Cover Sheet, **DELETE** in its entirety and **SUBSTITUTE** with page 6 of 40 of this Addendum.

2. To Notice Inviting Bids, item 2, "Description of Work", page 5, **DELETE** in its entirety and **SUBSTITUTE** with the following:

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

Construction consists of the replacement and installation of a 51-in x 183-in RCB storm drain, 8-in, 10-in, 12-in and 15-in sewer mains, 8-in water main, a 29-ft x 44-ft storm drain outfall structure, beach access ramp, low-flow diversion system, nutrient separating baffle box, sewer rehabilitation, sewer pipe bursting, sewer manholes, sewer laterals, sewer replumbs, water pipe bursting, water services, fire services, valves, fire hydrants, street resurfacing, curb ramps and traffic control.

2.1 The Work shall be performed in accordance with:

2.1.1 This Notice Inviting Bids and Plans **36465-01-D** through **36465-33-D**, and **34419-01-D** through **34419-39-D**, inclusive.

3. To Notice Inviting Bids, item 4.5, "Environmental Protection Agency (EPA)", page 8, **DELETE** in its entirety and **SUBSTITUTE** the following:

4.5. Environmental Protection Agency (EPA) - In accordance with EPA's Program for Utilization of Small, Minority Disadvantaged and Women Business Enterprises in procurement under Federal assistance programs, the Contractor agrees to the applicable "fair share" objectives negotiated with EPA as follows:

| | MBE* | WBE* |
|----------------------------------|------|------|
| 1. Construction | 22% | 6% |
| 2. Supplies | 17% | 22% |
| 3. Services | 18% | 24% |
| 4. Equipment (combined in above) | 17% | 9% |

Note: MBEs and WBEs must be certified by EPA, SBA, DOT or by state, local, Tribal, or private entities whose certification criteria match EPAs in order to be counted toward MBE/WBE accomplishments. MBEs and WBEs are a part of the larger universe of DBEs. The Small Business Administration (SBA) (SBA 8(a) program certifications or SBA Small Disadvantaged Business (SDB) Program self-certifications)

4. To Notice Inviting Bids, item 7, “Construction Cost”, page 10, **DELETE** in its entirety and **SUBSTITUTE** with the following:
7. **CONSTRUCTION COST:** The City’s estimated construction cost for this contract is **\$8,080,000**.
5. To Notice Inviting Bids, item 14.2, “Prequalification of Contractors”, page 11, **DELETE** in its entirety and **SUBSTITUTE** with the following:
6. **14.2.** 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 Contracting Group, Prequalification Program, 1010 Second Avenue, Suite 1400, San Diego, CA 92101. For additional information or the answer to questions about the prequalification program, contact David Stucky at 619-533-3474 or dstucky@saniego.gov.
7. To Funding Agency Provisions, item 9, “Wage Rates”, pages 40 through 65, **DELETE** in their entirety and **SUBSTITUTE** with page 7 of 40 through 32 of 40 of this Addendum.
8. To Funding Agency Provisions, item 12.9, “State Agencies”, page 74, **DELETE** in its entirety and **SUBSTITUTE** with the following:

12.9. State Agencies (must be contacted):

| Name and Address | Telephone and Web Site |
|--|---|
| California Department of Transportation | Mailing Address: PO Box 942874 |
| (CALTRANS) Business Enterprise Program ⁴ | Sacramento, CA 94274-0015 |
| 1820 Alhambra Blvd. | (916) 227-9599 |
| Sacramento, CA 95816 | www.dot.ca.gov/hq/bep |
| CA Public Utilities Commission (CPUC)⁵ | |
| 505 Van Ness Avenue | http://www.cpuc.ca.gov/static/supplierdiversity |
| San Francisco, CA 94102-3298 | |

Notes:

1. PRO-Net new database is the SBA’s electronic search engine that was put on line January 1, 2004, containing business profiles for nearly 200,000 businesses. The SBA requests Internet contact only for a list of potential DBE subcontractors that can be downloaded from PRO-Net: <http://www.ccr.gov>. Downloading will verify that the prime contractor made the required contact with the SBA. Provide copy of search records with GFE documentation.
2. The Contractor shall use SUB-Net to post subcontracting opportunities. The Contractor shall post Subcontractor opportunities at least 15 Working Days prior to bid opening. Small businesses can review this web site to identify opportunities in their areas of expertise. The web site is designed primarily as a place for large businesses to post solicitations and notices. Provide copy of the Display Solicitation Record with GFE documentation.

3. The Contractors shall use MBDA web portal to post subcontracting opportunities. The Contractor shall post subcontractor opportunities at least 15 Working Days prior to Bid opening. Small businesses can review this web site to identify opportunities in their areas of expertise. The web site is designed primarily as a place for large businesses to post solicitations and notices. Provide copy of the Offer Overview with GFE documentation.
4. Based on the federal DBE program, CALTRANS maintains a database and provides directories of minority and woman-owned firms. Provide copy of search records with GFE documentation.
5. CPUC maintains a database of DBE-owned business enterprises and serves to inform the public. Provide copy of search records with GFE documentation.

C. VOLUME 2

1. To Bidding Documents, "Proposal (Bid)", pages 15 through 25, **DELETE** in their entirety and **SUBSTITUTE** with page 33 of 40 through 40 of 40 of this Addendum.

Tony Heinrichs, Director
Public Works Department

Dated: *July 12, 2013*
San Diego, California

TH/BD/EFY/egz

City of San Diego

CONTRACTOR'S NAME: _____
ADDRESS: _____
TELEPHONE NO.: _____ FAX NO.: _____
CITY CONTACT: Eleida Felix Yackel, Contract Specialist, Email: EFelixYackel@sandiego.gov
Phone No. (619) 533-3449, Fax No. (619) 533-3633
A.Bassyouni/BD/egz

CONTRACT DOCUMENTS



FOR

AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT / SEWER AND WATER GROUP 809

VOLUME 1 OF 2

BID NO.: _____ K-13-5979-DBB-3
SAP NO. (WBS/IO/CC): _____ S-13018, B-00416, B-00102
CLIENT DEPARTMENT: _____ 2116, 2011, 2013
COUNCIL DISTRICT: _____ 1
PROJECT TYPE: _____ CA, JA, KB

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:

- PHASED-FUNDING.
- FEDERAL EQUAL OPPORTUNITY CONTRACTING REQUIREMENTS.
- PREVAILING WAGE RATES: STATE FEDERAL
- THIS IS A UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX FUNDED CONTRACT.

BID DUE DATE:

**2:00 PM
JULY 31, 2013
CITY OF SAN DIEGO
PUBLIC WORKS DEPARTMENT
1010 SECOND AVENUE, SUITE 1400, MS 614C
SAN DIEGO, CA 92101**

9. WAGE RATES. This contract shall be subject to the following Davis-Bacon Wage Decisions:

General Decision Number: CA130001 07/05/2013 CA1

Superseded General Decision Number: CA20120001

State: California

Construction Types: Building, Heavy (Heavy and Dredging),
Highway and Residential

County: San Diego County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS; RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories)

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/04/2013 |
| 1 | 01/18/2013 |
| 2 | 03/01/2013 |
| 3 | 03/08/2013 |
| 4 | 03/22/2013 |
| 5 | 04/12/2013 |
| 6 | 05/10/2013 |
| 7 | 05/31/2013 |
| 8 | 07/05/2013 |

ASBE0005-002 06/28/2010

| | Rates | Fringes |
|--|----------|---------|
| Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems)..... | \$ 32.79 | 16.31 |
| Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls)..... | \$ 24.21 | 13.76 |

ASBE0005-004 06/28/2010

| | Rates | Fringes |
|--|----------|---------|
| Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not).... | \$ 18.70 | 8.65 |

BOIL0092-003 10/01/2012

| | Rates | Fringes |
|------------------|----------|---------|
| BOILERMAKER..... | \$ 41.17 | 28.27 |

BRCA0004-008 11/01/2012

| | Rates | Fringes |
|--------------------------------|----------|---------|
| BRICKLAYER; MARBLE SETTER..... | \$ 33.75 | 14.55 |

BRCA0018-004 06/01/2012

| | Rates | Fringes |
|----------------------|----------|---------|
| MARBLE FINISHER..... | \$ 27.04 | 10.66 |
| TILE FINISHER..... | \$ 22.37 | 9.19 |
| TILE LAYER..... | \$ 33.55 | 13.55 |

BRCA0018-010 09/01/2009

| | Rates | Fringes |
|-----------------------------|----------|---------|
| TERRAZZO FINISHER..... | \$ 26.59 | 9.62 |
| TERRAZZO WORKER/SETTER..... | \$ 33.63 | 10.46 |

CARP0409-002 07/01/2008

| | Rates | Fringes |
|---------------------------|-----------|---------|
| Diver | | |
| (1) Wet..... | \$ 663.68 | 9.82 |
| (2) Standby..... | \$ 331.84 | 9.82 |
| (3) Tender..... | \$ 323.84 | 9.82 |
| (4) Assistant Tender..... | \$ 299.84 | 9.82 |

Amounts in "Rates" column are per day

CARP0409-008 08/01/2010

| | Rates | Fringes |
|----------------------------------|----------|---------|
| Modular Furniture Installer..... | \$ 17.00 | 7.41 |

CARP0547-001 07/01/2009

| | Rates | Fringes |
|-----------------------------|----------|---------|
| CARPENTER | | |
| (1) Bridge..... | \$ 37.28 | 10.58 |
| (2) Commercial Building.... | \$ 32.30 | 10.58 |
| (3) Heavy & Highway..... | \$ 37.15 | 10.58 |
| (4) Residential Carpenter.. | \$ 25.84 | 10.58 |
| (5) Residential | | |
| Insulation Installer..... | \$ 18.00 | 8.16 |
| MILLWRIGHT..... | \$ 37.65 | 10.58 |
| PILEDRIVERMAN..... | \$ 37.28 | 10.58 |

CARP0547-002 07/01/2009

| | Rates | Fringes |
|---|----------|---------|
| Drywall | | |
| (1) Work on wood framed construction of single family residences, apartments or condominiums under four stories | | |
| Drywall Installer/Lather... | \$ 21.00 | 8.58 |
| Drywall Stocker/Scrapper... | \$ 11.00 | 6.67 |
| (2) All other work | | |
| Drywall Installer/Lather... | \$ 27.35 | 9.58 |
| Drywall Stocker/Scrapper... | \$ 11.00 | 6.67 |

* ELEC0569-001 06/03/2013

| | Rates | Fringes |
|---|----------|----------|
| Electricians (Tunnel Work) | | |
| Cable Splicer..... | \$ 43.78 | 3%+11.87 |
| Electrician..... | \$ 43.03 | 3%+11.87 |
| Electricians: (All Other Work, Including 4 Stories | | |

| | Rates | Fringes |
|--------------------|----------|----------|
| Residential) | | |
| Cable Splicer..... | \$ 39.00 | 3%+11.87 |
| Electrician..... | \$ 38.25 | 3%+11.87 |

ELEC0569-005 12/01/2012

| | Rates | Fringes |
|------------------------|----------|----------|
| Sound & Communications | | |
| Sound Technician..... | \$ 27.57 | 3%+10.81 |
| Soundman..... | \$ 22.06 | 3%+9.17 |

SOUND TECHNICIAN: Terminating, operating and performing final check-out

SOUNDMAN: Wire-pulling, splicing, assembling and installing devices

SCOPE OF WORK Assembly, installation, operation, service and maintenance of components or systems as used in closed circuit television, amplified master television distribution, CATV on private property, intercommunication, burglar alarm, fire alarm, life support and all security alarms, private and public telephone and related telephone interconnect, public address, paging, audio, language, electronic, background music system less than line voltage or any system acceptable for class two wiring for private, commercial, or industrial use furnished by leased wire, frequency modulation or other recording devices, electrical apparatus by means of which electricity is applied to the amplification, transmission, transference, recording or reproduction of voice, music, sound, impulses and video. Excluded from this Scope of Work - transmission, service and maintenance of background music. All of the above shall include the installation and transmission over fiber optics.

ELEC0569-006 02/25/2013

Work on street lighting; traffic signals; and underground systems and/or established easements outside of buildings

| | Rates | Fringes |
|---|----------|---------|
| Traffic signal, street light and underground work | | |
| Utility Technician #1..... | \$ 27.50 | 3%+7.42 |
| Utility Technician #2..... | \$ 22.65 | 3%+7.42 |

STREET LIGHT & TRAFFIC SIGNAL WORK:

UTILITY TECHNICIAN #1: Installation of street lights and traffic signals, including electrical circuitry, programmable controller, pedestal-mounted electrical meter enclosures and laying of pre-assembled cable in ducts. The layout of electrical systems and communication installation

including proper position of trench depths, and radius at duct banks, location for manholes, street lights and traffic signals.

UTILITY TECHNICIAN #2: Distribution of material at jobsite, installation of underground ducts for electrical, telephone, cable TV land communication systems. The setting, leveling, grounding and racking of precast manholes, handholes and transformer pads.

 ELEC0569-008 06/01/2011

| | Rates | Fringes |
|---|----------|---------|
| ELECTRICIAN (Residential, 1-3 Stories)..... | \$ 22.37 | 3%+2.90 |

 ELEC1245-001 06/01/2012

| | Rates | Fringes |
|---|----------|---------|
| LINE CONSTRUCTION | | |
| (1) Lineman; Cable splicer.. | \$ 48.95 | 14.05 |
| (2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment)..... | \$ 39.09 | 12.97 |
| (3) Groundman..... | \$ 29.91 | 12.70 |
| (4) Powderman..... | \$ 43.71 | 13.15 |

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

 ELEV0018-001 01/01/2013

| | Rates | Fringes |
|------------------------|----------|---------|
| ELEVATOR MECHANIC..... | \$ 48.23 | 25.185 |

FOOTNOTE:

PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
 PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

 ENGI0012-003 07/01/2012

| | Rates | Fringes |
|---------------------------|-------|---------|
| OPERATOR: Power Equipment | | |

| | Rates | Fringes |
|------------------|----------|---------|
| (All Other Work) | | |
| GROUP 1..... | \$ 37.40 | 20.00 |
| GROUP 2..... | \$ 38.18 | 20.00 |
| GROUP 3..... | \$ 38.47 | 20.00 |
| GROUP 4..... | \$ 39.96 | 20.00 |
| GROUP 5..... | \$ 41.06 | 20.00 |
| GROUP 6..... | \$ 40.18 | 20.00 |
| GROUP 8..... | \$ 41.39 | 20.00 |
| GROUP 9..... | \$ 40.41 | 20.00 |
| GROUP 10..... | \$ 40.41 | 20.00 |
| GROUP 11..... | \$ 40.58 | 20.00 |
| GROUP 12..... | \$ 40.58 | 20.00 |
| GROUP 13..... | \$ 40.68 | 20.00 |
| GROUP 14..... | \$ 40.71 | 20.00 |
| GROUP 15..... | \$ 40.79 | 20.00 |
| GROUP 16..... | \$ 40.91 | 20.00 |
| GROUP 17..... | \$ 41.08 | 20.00 |
| GROUP 18..... | \$ 41.18 | 20.00 |
| GROUP 19..... | \$ 41.29 | 20.00 |
| GROUP 20..... | \$ 41.41 | 20.00 |
| GROUP 21..... | \$ 41.58 | 20.00 |
| GROUP 22..... | \$ 41.68 | 20.00 |
| GROUP 23..... | \$ 41.79 | 20.00 |
| GROUP 24..... | \$ 41.91 | 20.00 |
| GROUP 25..... | \$ 42.08 | 20.00 |

OPERATOR: Power Equipment
(Cranes, Piledriving &
Hoisting)

| | | |
|---------------|----------|-------|
| GROUP 1..... | \$ 38.75 | 20.00 |
| GROUP 2..... | \$ 39.53 | 20.00 |
| GROUP 3..... | \$ 39.82 | 20.00 |
| GROUP 4..... | \$ 39.96 | 20.00 |
| GROUP 5..... | \$ 40.18 | 20.00 |
| GROUP 6..... | \$ 40.29 | 20.00 |
| GROUP 7..... | \$ 40.41 | 20.00 |
| GROUP 8..... | \$ 40.58 | 20.00 |
| GROUP 9..... | \$ 40.75 | 20.00 |
| GROUP 10..... | \$ 41.75 | 20.00 |
| GROUP 11..... | \$ 42.75 | 20.00 |
| GROUP 12..... | \$ 43.75 | 20.00 |
| GROUP 13..... | \$ 44.75 | 20.00 |

OPERATOR: Power Equipment
(Tunnel Work)

| | | |
|--------------|----------|-------|
| GROUP 1..... | \$ 39.25 | 20.00 |
| GROUP 2..... | \$ 40.03 | 20.00 |
| GROUP 3..... | \$ 40.32 | 20.00 |
| GROUP 4..... | \$ 40.46 | 20.00 |
| GROUP 5..... | \$ 40.68 | 20.00 |
| GROUP 6..... | \$ 40.79 | 20.00 |
| GROUP 7..... | \$ 40.91 | 20.00 |

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics

Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator,

bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (guniting work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator

(any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator,

operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system

(single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator;

Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator
ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SMB to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1S, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM.

Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a think strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

ENGI0012-004 08/01/2012

| | Rates | Fringes |
|---|----------|---------|
| OPERATOR: Power Equipment (DREDGING) | | |
| (1) Leverman..... | \$ 45.40 | 20.00 |
| (2) Dredge dozer..... | \$ 40.93 | 20.00 |
| (3) Deckmate..... | \$ 40.82 | 20.00 |
| (4) Winch operator (stern winch on dredge)..... | \$ 40.27 | 20.00 |
| (5) Fireman-Oiler, Deckhand, Bargeman, Leveehand..... | \$ 39.73 | 20.00 |
| (6) Barge Mate..... | \$ 40.34 | 20.00 |

IRON0377-002 01/01/2013

| | Rates | Fringes |
|--|----------|---------|
| Ironworkers: | | |
| Fence Erector..... | \$ 26.58 | 16.74 |
| Ornamental, Reinforcing and Structural..... | \$ 33.00 | 25.30 |

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

LABO0089-001 07/01/2012

| | Rates | Fringes |
|---|----------|---------|
| LABORER (BUILDING and all other Residential Construction) | | |
| Group 1..... | \$ 27.10 | 15.17 |
| Group 2..... | \$ 27.56 | 15.17 |
| Group 3..... | \$ 27.97 | 15.17 |
| Group 4..... | \$ 28.81 | 15.17 |
| Group 5..... | \$ 32.93 | 15.17 |
| LABORER (RESIDENTIAL | | |

| | Rates | Fringes |
|---|----------|---------|
| CONSTRUCTION - See definition below) | | |
| (1) Laborer..... | \$ 23.48 | 14.13 |
| (2) Cleanup, Landscaping, Fencing (chain link or wood)..... | \$ 22.19 | 14.13 |

RESIDENTIAL DEFINITION: Wood or metal frame construction of single family residences, apartments and condominiums - excluding (a) projects that exceed three stories over a garage level, (b) any utility work such as telephone, gas, water, sewer and other utilities and (c) any fine grading work, utility work or paving work in the future street and public right-of-way; but including all rough grading work at the job site behind the existing right of way

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete Screeding for Rought Strike-off; Concrete, water curing; Demolition laborer; Flagman; Gas, oil and/or water pipeline laborer; General Laborer; General clean-up laborer; Landscape laborer; Jetting laborer; Temporary water and air lines laborer; Material hoseman (walls, slabs, floors and decks); Plugging, filling of Shee-bolt holes; Dry packing of concrete; Railroad maintenance, Repair Trackman and road beds, Streetcar and railroad construction trac laborers; Slip form raisers; Slurry seal crews (mixer operator, applicator operator, squeegee man, Shuttle man, top man), filling of cracks by any method on any surface; Tarman and mortar man; Tool crib or tool house laborer; Window cleaner; Wire Mesh puling-all concrete pouring operations

GROUP 2: Asphalt Shoveler; Cement Dumper (on 1 yard or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute man, pouring concrete, the handling of the cute from ready mix trucks, such as walls, slabs, decks, floors, foundations, footings, curbs, gutters and sidewalks; Concrete curer-impervious membrane and form oiler; Cutting torch operator (demoliton); Guinea chaser; Headboard man-asphlt; Laborer, packing rod steel and pans; membrane vapor barrier installer; Power broom sweepers (small); Riiprap, stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Tank sealer and cleaner; Tree climber, faller, chain saw operator, Pittsburgh Chipper and similar type brush shredders; Underground laborers, including caisson bellower

GROUP 3: Buggymobile; Concrete cutting torch; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2 1/2 feet drill steel or longer; Dri Pak-it machine; High sealer (including drilling of same); Hydro seeder and similar type; Impact wrench, mult-plate; Kettlemen, potmen and mean applying asphalt, lay-kold, creosote, line caustic and similar type materials (applying means applying, dipping, brushing or handling of such materials for pipe

wrapping and waterproofing); Operators of pneumatic, gas, electric tools, vibratring machines, pavement breakers, air blasting, come-along, and similar mechanical tools not separately classified herein; Pipelayers back up man coating, grouting, making of joints, sealing, caulking, diapering and inlcuding rubber gasket joints, pointing and any and all other services; Rotary Scarifier or multiple head concrete chipping scaarifier; Steel header board man and guideline setter; Tampers, Barko, Wacker and similar type; Trenching machine, handpropelled

GROUP 4: Asphalt raker, luterman, ironer, apshalt dumpman and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), Grinder or sander; Concrete saw man; cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Laser beam in connection with laborer's work; Oversize concrete vibrator operator 70 pounds and over; Pipelayer performing all services in the laying, installation and all forms of connection of pipe from the point of receiving pipe in the ditch until completion of oepration, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit, and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid, gas, air or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzleman), Porta shot-blast, water blasting

GROUP 5: Blasters Powderman-All work of loading holes, placing and blasting of all pwder and explosives of whatever type, regardless of method used for such loading and placing; Driller-all power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power.

LABO0089-002 07/01/2010

| | Rates | Fringes |
|-----------------------------|----------|---------|
| LABORER (MASON TENDER)..... | \$ 27.11 | 14.38 |

LABO0089-004 07/01/2012

HEAVY AND HIGHWAY CONSTRUCTION

| | Rates | Fringes |
|--------------|----------|---------|
| Laborers: | | |
| GROUP 1..... | \$ 27.10 | 15.17 |
| GROUP 2..... | \$ 27.56 | 15.17 |
| GROUP 3..... | \$ 27.97 | 15.17 |
| GROUP 4..... | \$ 28.81 | 15.17 |
| GROUP 5..... | \$ 32.93 | 15.17 |

LABORER CLASSIFICATIONS

GROUP 1: Laborer: General or Construction Laborer, Landscape Laborer. Asphalt Rubber Material Loader. Boring Machine Tender (outside), Carpenter Laborer (cleaning, handling, oiling & blowing of panel forms and lumber), Concrete Laborer, Concrete Screeding for rough strike-off, Concrete water curing. Concrete Curb & Gutter laborer, Certified Confined Space Laborer, Demolition laborer & Cleaning of Brick and lumber, Expansion Joint Caulking; Environmental Remediation, Monitoring Well, Toxic waste and Geotechnical Drill tender, Fine Grader, Fire Watcher, Limbers, Brush Loader, Pilers and Debris Handlers. flagman. Gas Oil and Water Pipeline Laborer. Material Hoseman (slabs, walls, floors, decks); Plugging, filling of shee bolt holes; Dry packing of concrete and patching; Post Holer Digger (manual); Railroad maintenance, repair trackman, road beds; Rigging & signaling; Scaler, Slip-Form Raisers, Filling cracks on any surface, tool Crib or Tool House Laborer, Traffic control (signs, barriers, barricades, delineator, cones etc.), Window Cleaner

GROUP 2: Asphalt abatement; Buggymobile; Cement dumper (on 1 yd. or larger mixers and handling bulk cement); Concrete curer, impervious membrane and form oiler; Chute man, pouring concrete; Concrete cutting torch; Concrete pile cutter; driller/Jackhammer, with drill steel 2 1/2 feet or longer; Dry pak-it machine; Fence erector; Pipeline wrapper, gas, oil, water, pot tender & form man; Grout man; Installation of all asphalt overlay fabric and materials used for reinforcing asphalt; Irrigation laborer; Kettleman-Potman hot mop, includes applying asphalt, lay-klold, creosote, lime caustic and similar tyhpes of materials (dipping, brushing, handling) and waterproofing; Membrane vapor barrier installer; Pipelayer backup man (coating, grouting, making of joints, sealing caulkiing, diapering including rubber basket joints, pointing); Rotary scarifier, multiple head concrete chipper; Rock slinger; Roto scraper & tiller; Sandblaster pot tender; Septic tank digger/installer; Tamper/wacker operator; Tank scaler & cleaner; Tar man & mortar man; Tree climber/faller, chainb saw operator, Pittsburgh chipper & similar type brush shredders.

GROUP 3: Asphalt, installation of all frabrics; Buggy Mobile Man, Bushing hammer; Compactor (all types), Concrete Curer - Impervious membrane, Form Oiler, Concrete Cutting Torch, Concrete Pile Cutter, Driller/Jackhammer with drill steel 2 1/2 ft or longer, Dry Pak-it machine, Fence erector including manual post hole digging, Gas oil or water Pipeline Wrapper - 6 ft pipe and over, Guradrail erector, Hydro seeder, Impact Wrench man (multi plate), kettleman-Potman Hot Mop includes applying Asphalt, Lay-Kold, Creosote, lime caustic and similar types of materials (dipping, brushing or handling) and waterproofing. Laser Beam in connection with Laborer work. High Scaler, Operators of Pneumatic Gas or Electric Tools, Vibrating Machines, Pavement Breakers, Air Blasting,

Come-Alongs and similar mechanical tools, Remote-Controlled Robotic Tools in connection with Laborers work. Pipelayer Backup Man (Coating, grouting, making of joints, sealing, caulking, diapering including rubber gasket joints, pointing and other services). Power Post Hole Digger, Rotary Scarifier (multiple head concrete chipper scarifier), Rock Slinger, Shot Blast equipment (8 to 48 inches), Steel Headerboard Man and Guideline Setter, Tamper/Wacker operator and similar types, Trenching Machine hand propelled.

GROUP 4: Any worker exposed to raw sewage. Asphalt Raker, Luteman, Asphalt Dumpman, Asphalt Spreader Boxes, Concrete Core Cutter, Concrete Saw Man, Cribber, Shorer, Head Rock Slinger. Installation of subsurface instrumentation, monitoring wells or points, remediation system installer; Laborer, asphalt-rubber distributor bootman; Oversize concrete vibrator operators, 70 pounds or over. Pipelayer, Prefabricated Manhole Installer, Sandblast Nozzleman (Water Balsting-Porta Shot Blast), Traffic Lane Closure.

GROUP 5: Blasters Powderman-All work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Horizontal directional driller, Boring system, Electronic tracking, Driller: all power drills excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and all other types of mechanical drills without regard to form of motive power. Environmental remediation, Monitoring well, Toxic waste and Geotechnical driller, Toxic waste removal. Welding in connection with Laborer's work.

LABO0300-008 08/05/2009

| | Rates | Fringes |
|------------------------------|----------|---------|
| LABORER | | |
| PLASTER CLEAN-UP LABORER.... | \$ 26.65 | 15.95 |
| PLASTER TENDER..... | \$ 29.20 | 15.95 |

Work at Military Bases - \$3.00 additional per hour:
 Coronado Naval Amphibious Base, Fort Irwin, Marine Corps Air Station-29 Palms, Imperial Beach Naval Air Station, Marine Corps Logistics Supply Base, Marine Corps Pickle Meadows, Mountain Warfare Training Center, Naval Air Facility-Seeley, North Island Naval Air Station, Vandenberg AFB.

LABO0882-002 01/01/2010

| | Rates | Fringes |
|-------------------------------|----------|---------|
| Asbestos Removal Laborer..... | \$ 26.15 | 11.65 |

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and

disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

 * LAB01184-001 07/01/2013

| | Rates | Fringes |
|--|----------|---------|
| Laborers: (HORIZONTAL DIRECTIONAL DRILLING) | | |
| (1) Drilling Crew Laborer... | \$ 30.11 | 11.83 |
| (2) Vehicle Operator/Hauler. | \$ 30.28 | 11.83 |
| (3) Horizontal Directional Drill Operator..... | \$ 32.13 | 11.83 |
| (4) Electronic Tracking Locator..... | \$ 34.13 | 11.83 |
| Laborers: (STRIPING/SLURRY SEAL) | | |
| GROUP 1..... | \$ 29.96 | 14.38 |
| GROUP 2..... | \$ 31.26 | 14.38 |
| GROUP 3..... | \$ 33.27 | 14.38 |
| GROUP 4..... | \$ 35.01 | 14.38 |

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

PAIN0036-001 03/01/2013

| | Rates | Fringes |
|--|----------|---------|
| Painters: (Including Lead Abatement) | | |
| (1) Repaint (excludes San Diego County)..... | \$ 26.05 | 11.13 |
| (2) All Other Work..... | \$ 29.32 | 11.13 |

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

PAIN0036-010 01/01/2013

| | Rates | Fringes |
|--|----------|---------|
| DRYWALL FINISHER/TAPER | | |
| (1) Building & Heavy Construction..... | \$ 25.08 | 13.19 |
| (2) Residential Construction (Wood frame apartments, single family homes and multi-duplexes up to and including four stories)..... | \$ 21.00 | 12.81 |

PAIN0036-012 10/01/2012

| | Rates | Fringes |
|--------------|----------|---------|
| GLAZIER..... | \$ 38.80 | 16.25 |

PAIN0036-019 02/01/2009

| | Rates | Fringes |
|-----------------------|----------|---------|
| SOFT FLOOR LAYER..... | \$ 26.77 | 11.75 |

PLAS0200-005 08/01/2011

| | Rates | Fringes |
|----------------|----------|---------|
| PLASTERER..... | \$ 35.29 | 12.05 |

NORTH ISLAND NAVAL AIR STATION, COLORADO NAVAL AMPHIBIOUS BASE, IMPERIAL BEACH NAVAL AIR STATION: \$3.00 additional per hour.

PLAS0500-001 07/01/2012

| | Rates | Fringes |
|--------------------------------|----------|---------|
| CEMENT MASON/CONCRETE FINISHER | | |
| GROUP 1..... | \$ 26.47 | 12.10 |

| | Rates | Fringes |
|--------------|----------|---------|
| GROUP 2..... | \$ 28.12 | 12.10 |
| GROUP 3..... | \$ 30.75 | 12.60 |

CEMENT MASONS - work inside the building line, meeting the following criteria:

GROUP 1: Residential wood frame project of any size; work classified as Type III, IV or Type V construction; interior tenant improvement work regardless the size of the project; any wood frame project of four stories or less.

GROUP 2: Work classified as type I and II construction

GROUP 3: All other work

 PLUM0016-006 07/01/2012

| | Rates | Fringes |
|--|----------|---------|
| PLUMBER, PIPEFITTER, STEAMFITTER | | |
| Camp Pendleton..... | \$ 46.10 | 19.68 |
| Plumber and Pipefitter All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work..... | \$ 41.60 | 19.68 |
| Work ONLY on new additions and remodeling of commercial buildings, bars, restaurants, and stores not to exceed 5,000 sq. ft. of floor space..... | \$ 40.33 | 18.70 |
| Work ONLY on strip malls, light commercial, tenant improvement and remodel work..... | \$ 32.49 | 17.03 |

 PLUM0016-011 07/01/2012

| | Rates | Fringes |
|--------------------|----------|---------|
| PLUMBER/PIPEFITTER | | |
| Residential..... | \$ 33.63 | 15.60 |

 PLUM0345-001 07/01/2012

| | Rates | Fringes |
|---------|-------|---------|
| PLUMBER | | |

| | | |
|---------------------------------|-------|-------|
| Landscape/Irrigation Fitter..\$ | 27.35 | 17.09 |
| Sewer & Storm Drain Work....\$ | 31.00 | 16.01 |

 ROOF0045-001 07/01/2012

| | Rates | Fringes |
|---------------|-------|---------|
| ROOFER.....\$ | 25.08 | 7.28 |

 SFCA0669-001 01/01/2013

| | Rates | Fringes |
|-------------------------|-------|---------|
| SPRINKLER FITTER.....\$ | 34.18 | 18.66 |

 SHEE0206-001 01/01/2012

| | Rates | Fringes |
|-------------------------------|-------|---------|
| SHEET METAL WORKER | | |
| Camp Pendleton.....\$ | 35.05 | 19.23 |
| Except Camp Pendleton.....\$ | 33.05 | 19.23 |
| Sheet Metal Technician.....\$ | 25.22 | 6.69 |

SHEET METAL TECHNICIAN - SCOPE:

a. Existing residential buildings, both single and multi-family, where each unit is heated and/or cooled by a separate system b. New single family residential buildings including tracts. c. New multi-family residential buildings, not exceeding five stories of living space in height, provided each unit is heated or cooled by a separate system. Hotels and motels are excluded. d. LIGHT COMMERCIAL WORK: Any sheet metal, heating and air conditioning work performed on a project where the total construction cost, excluding land, is under \$1,000,000 e. TENANT IMPROVEMENT WORK: Any work necessary to finish interior spaces to conform to the occupants of commercial buildings, after completion of the building shell

 TEAM0036-001 07/01/2012

| | Rates | Fringes |
|----------------|-------|---------|
| Truck drivers: | | |
| GROUP 1.....\$ | 15.40 | 20.50 |
| GROUP 2.....\$ | 24.99 | 20.50 |
| GROUP 3.....\$ | 25.19 | 20.50 |
| GROUP 4.....\$ | 25.39 | 20.50 |
| GROUP 5.....\$ | 25.59 | 20.50 |
| GROUP 6.....\$ | 26.09 | 20.50 |
| GROUP 7.....\$ | 27.59 | 20.50 |

FOOTNOTE: HAZMAT PAY: Work on a hazmat job, where hazmat certification is required, shall be paid, in addition to the classification working in, as follows: Levels A, B and C - +\$1.00 per hour. Workers shall be paid hazmat pay in increments of four (4) and eight (8) hours.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Fuel Man, Swamper

GROUP 2: 2-axle Dump Truck, 2-axle Flat Bed, Concrete Pumping Truck, Industrial Lift Truck, Motorized Traffic Control, Pickup Truck on Jobsite

GROUP 3: 2-axle Water Truck, 3-axle Dump Truck, 3-axle Flat Bed, Erosion Control Nozzleman, Dump Crete Truck under 6.5 yd, Forklift 15,000 lbs and over, Prell Truck, Pipeline Work Truck Driver, Road Oil Spreader, Cement Distributor or Slurry Driver, Bootman, Ross Carrier

GROUP 4: Off-road Dump Truck under 35 tons 4-axles but less than 7-axles, Low-Bed Truck & Trailer, Transit Mix Trucks under 8 yd, 3-axle Water Truck, Erosion Control Driver, Grout Mixer Truck, Dump Crete 6.5yd and over, Dumpster Trucks, DW 10, DW 20 and over, Fuel Truck and Dynamite, Truck Greaser, Truck Mounted Mobile Sweeper 2-axle Winch Truck

GROUP 5: Off-road Dump Truck 35 tons and over, 7-axles or more, Transit Mix Trucks 8 yd and over, A-Frame Truck, Swedish Cranes

GROUP 6: Off-Road Special Equipment (including but not limited to Water Pull Tankers, Athey Wagons, DJB, B70 Wuclids or like Equipment)

GROUP 7: Repairman

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with

characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

BIDDING DOCUMENTS

PROPOSAL (BID)

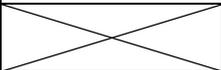
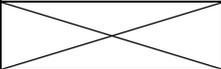
The Bidder agrees to the construction of **Avenida De La Playa Infrastructure Replacement /Sewer and Water Group 809**, for the City of San Diego, in accordance with these contract documents for the prices listed below. The Bidder guarantees the Contract Price for a period of 120 days (90 days for federally funded contracts and 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 | NAICS | Payment Reference | Description | Unit Price | Extension |
|---|----------|------|--------|-------------------|---|---------------------------------|--------------|
| BASE BID | | | | | | | |
| Sewer and Water Group 809 - These bid items include sewer and water work to be done as part of Avenida De La Playa Infrastructure Replacement | | | | | | | |
| Common | | | | | | | |
| 1. | 1 | LS | 524126 | 2-4.1 | Bonds (Payment and Performance) | | \$ |
| 2. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ |
| 3. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ |
| 4. | 1 | LS | | 7-16.3 | Exclusive Community Liaison | | \$ |
| 5. | 1 | LS | 237110 | 9-3.4.1 | Mobilization | | \$ |
| 6. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$200,000.00 |
| 7. | 10 | CY | 237310 | 300-1.4 | Additional Pavement Removal & Disposal | \$ | \$ |
| 8. | 10 | EA | 237310 | 301-1.7 | Adjusting Existing Gate Valve Cover to Grade | \$ | \$ |
| 9. | 2 | EA | 237310 | 301-1.7 | Adjusting Existing Manhole Frame & Cover to Grade | \$ | \$ |
| 10. | 21,480 | SF | 237310 | 302-1.12 | Cold Mill AC Pavement (0 - 1 1/2") | \$ | \$ |
| 11. | 141,060 | SF | 237310 | 302-4.12.4 | Rubber Polymer Modified Slurry Type II and Striping | \$ | \$ |
| 12. | 1,710 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ | \$ |
| 13. | 49,945 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ | \$ |
| 14. | 20,000 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ | \$ |
| 15. | 415 | LF | 237310 | 303-5.9 | Additional Curb and Gutter | \$ | \$ |
| 16. | 1,660 | SF | 237310 | 303-5.9 | Additional Sidewalk Removal and Replacement | \$ | \$ |
| 17. | 800 | SF | 237310 | 303-5.9 | Cross Gutter | \$ | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|-------------|-----------------|-------------|--------------|--------------------------|--|-------------------|------------------|
| 18. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Detectable Warning Tiles | \$ | \$ |
| 19. | 7 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 20. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Detectable Warning Tiles | \$ | \$ |
| 21. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 22. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C1 with Detectable Warning Tiles | \$ | \$ |
| 23. | 1 | EA | 237310 | 303-5.10.2 | Directional Curb Ramp with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 24. | 15 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Detectable Warning Tiles | \$ | \$ |
| 25. | 22 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 26. | 6 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Detectable Warning Tiles | \$ | \$ |
| 27. | 13 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 28. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Case A (SDG-130) with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 29. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | \$ | \$ |
| 30. | 315 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ | \$ |
| 31. | 685 | TON | 237310 | 306-1.5.1 | Temporary Resurfacing | \$ | \$ |
| 32. | 4,100 | TON | 237110 | 306-1.6 | Imported Backfill | \$ | \$ |
| 33. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | \$ | \$ |
| 34. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | \$ | \$ |
| 35. | 1 | AL | 238990 | 705-2.7 | Dewatering Permit and Discharge Fees - Type I | \$ | \$100,000.00 |
| 36. | 1 | LS | 238990 | 705-2.7 | Dewatering – Non-Hazardous Contaminated Water | \$ | \$ |
| 37. | 15 | DAYS | 541690 | 707-1 | Suspension of Work - Resources | \$ | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--------------|-----------------|-------------|--------------|--------------------------|---|---|------------------|
| Sewer | | | | | | | |
| 38. | 3 | EA | 237110 | 306-1.6 | Sewer Main Cleanout | \$ | \$ |
| 39. | 2,673 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main | \$ | \$ |
| 40. | 23 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main | \$ | \$ |
| 41. | 505 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main, Special Strength SDR-26 | \$ | \$ |
| 42. | 624 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main | \$ | \$ |
| 43. | 625 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main, Special Strength SDR-26 | \$ | \$ |
| 44. | 925 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main, Special Strength SDR-26 | \$ | \$ |
| 45. | 47 | EA | 237110 | 306-1.8.6 | Manholes (4' x 3'), PVC Lined | \$ | \$ |
| 46. | 6 | EA | 237110 | 306-1.8.6 | Connection to Existing Manhole and Rechanneling. | \$ | \$ |
| 47. | 90 | EA | 237110 | 306-1.9.1 | 4-Inch Sewer Lateral & Cleanout (Street) | \$ | \$ |
| 48. | 4 | EA | 237110 | 306-1.9.2.5 | 4-Inch Trenchless Method For Private Replumbing | \$ | \$ |
| 49. | 12 | EA | 237110 | 306-5.3 | Abandon Existing Manhole Outside of Trench | \$ | \$ |
| 50. | 1 | LS | 237110 | 306-5.3 | Abandon and Fill Existing Sewer Mains Outside of Trench Limit |  | \$ |
| 51. | 5 | EA | 237110 | 306-13 | Abandon Water Services (Stiff) | \$ | \$ |
| 52. | 870 | LF | 237110 | 306-21.9 | 8-inch Pipe Bursting (Sewer) | \$ | \$ |
| 53. | 555 | LF | 237110 | 306-21.9 | 12-inch Pipe Bursting (Sewer) | \$ | \$ |
| 54. | 980 | LF | 237110 | 306-21.9 | 15-inch Pipe Bursting (Sewer) | \$ | \$ |
| 55. | 42 | EA | 237110 | 306-21.9 | Trenchless 4-Inch Sewer Lateral Connection & Cleanout | \$ | \$ |
| 56. | 233 | LF | 237110 | 500-1.1.9 | Rehabilitate 8-Inch Sewer Main | \$ | \$ |
| 57. | 1,141 | LF | 237110 | 500-1.1.9 | Rehabilitate 10-Inch Sewer Main | \$ | \$ |
| 58. | 27 | EA | 237110 | 500-1.6.2.6 | Service Lateral Connection | \$ | \$ |
| 59. | 3 | EA | 237110 | 500-2.10.2 | Rehabilitate Existing Manhole | \$ | \$ |
| 60. | 1 | LS | 237110 | 704-4 | Sewage Bypass and Pumping Plan (Diversion Plan) |  | \$ |
| Water | | | | | | | |
| 61. | 6,621 | LF | 237110 | 306-1.6 | 8-Inch Water Main | \$ | \$ |
| 62. | 1 | EA | 237110 | 306-1.6 | 6-Inch Fire Service Connection | \$ | \$ |

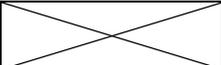
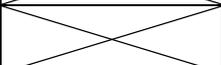
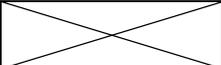
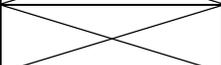
BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|---|----------|------|--------|-------------------|--|---------------------------------|-------------|
| 63. | 2 | EA | 237110 | 306-1.6 | 4-Inch Fire Service Connection | \$ | \$ |
| 64. | 12 | EA | 237110 | 306-1.6 | 6-Inch Fire Hydrant Assembly & Marker | \$ | \$ |
| 65. | 23 | EA | 237110 | 306-1.6 | 8-Inch Gate Valve | \$ | \$ |
| 66. | 133 | EA | 237110 | 306-14.1 | 1-Inch Water Service | \$ | \$ |
| 67. | 5 | EA | 237110 | 306-14.1 | 2-Inch Water Service | \$ | \$ |
| 68. | 4 | EA | 237110 | 306-14.1 | 1-Inch Water Service Transfer | \$ | \$ |
| 69. | 1 | EA | 237110 | 306-14.1 | 2-Inch Water Service Transfer | \$ | \$ |
| 70. | 24 | EA | 237110 | 306-14.2.4 | 1-Inch Water Service (trenchless) | \$ | \$ |
| 71. | 2 | EA | 237110 | 306-18 | 2-Inch Blowoff Valve Assembly | \$ | \$ |
| 72. | 2 | EA | 237110 | 306-19 | 2-Inch Air & Vacuum Valve, Class 235 | \$ | \$ |
| 73. | 1,385 | LF | 237110 | 306-21.9 | 8-Inch Pipe Bursting (Water) | \$ | \$ |
| 74. | 16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor | \$ | \$ |
| 75. | 1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work | | \$ |
| 76. | 400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection | \$ | \$ |
| Avenida De La Playa Infrastructure Replacement | | | | | | | |
| 77. | 1 | LS | | 2-4.1 | Bonds (Payment and Performance) | | \$ |
| 78. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ |
| 79. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ |
| 80. | 1 | LS | 237310 | 7-16.3 | Exclusive Community Liaison | | \$ |
| 81. | 1 | LS | | 9-3.4.1 | Mobilization | | \$ |
| 82. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$80,000.00 |
| 83. | 7 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ | \$ |
| 84. | 17,770 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ | \$ |
| 85. | 80 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ | \$ |
| 86. | 636 | LF | 237110 | 303-1.11 | 51" Wide x 183" High Box Culvert reinforced Pre-cast Concrete Double Box Culvert | \$ | \$ |
| 87. | 600 | LF | 237310 | 303-5.9 | Curb & Gutter (6-Inch Curb, Type G) | \$ | \$ |
| 88. | 3 | EA | 237310 | 303-5.9 | Commercial Concrete Driveway | \$ | \$ |
| 89. | 1,900 | SF | 237310 | 303-5.9 | Remove and Replace Existing Sidewalk | \$ | \$ |
| 90. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A w/ Composite Detectable Warning Tiles | \$ | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension | |
|----------------------------------|----------|------|--------|-------------------|---|---------------|-----------|--|
| 91. | 1 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 w/ Composite Detectable Warning Tiles | \$ | \$ | |
| 92. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | \$ | \$ | |
| 93. | 18 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ | \$ | |
| 94. | 435 | TON | 237110 | 306-1.6 | Imported Backfill | \$ | \$ | |
| 95. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | \$ | \$ | |
| 96. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | \$ | \$ | |
| 97. | 5 | DAYS | 541330 | 707-1 | Suspension of Work - Resources | \$ | \$ | |
| 98. | 1 | EA | 237110 | 9-3.1 | Outfall Structure | \$ | \$ | |
| 99. | 1 | EA | 237110 | 9-3.1 | Junction Structure | \$ | \$ | |
| 100. | 1 | EA | 237110 | 9-3.1 | Seawall | \$ | \$ | |
| 101. | 1 | LS | 237110 | 9-3.1 | Color Treatment for Outfall Structure, Sidewalk and Seawall (San Diego Buff) | \$ | \$ | |
| 102. | 1 | EA | 237110 | 9-3.1 | Transition Structure | \$ | \$ | |
| 103. | 1 | EA | 237110 | 9-3.1 | Beach Access Ramp | \$ | \$ | |
| 104. | 1 | EA | 237110 | 9-3.1 | Low Flow Diverter System | \$ | \$ | |
| 105. | 1 | EA | 237310 | 9-3.1 | Baffle Box/Trash Collector Unit | \$ | \$ | |
| 106. | 1,600 | SF | 237110 | 302-5.9 | PCC Boardwalk Realignment (6" standard) | \$ | \$ | |
| 107. | 1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk | \$ | \$ | |
| 108. | 1 | LS | 237310 | 9-3.1 | Misc. Surface Improvements/Landscaping | \$ | \$ | |
| 109. | 1 | LS | 238990 | 9-3.1 | Site Demolition | \$ | \$ | |
| ESTIMATED TOTAL BASE BID: | | | | | | | \$ | |
| ALTERNATE "A" | | | | | | | | |
| 1. | -1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work (Bid Item 75) | \$ | \$ | |
| 2. | 1 | LS | 237110 | 600-1.2.2.10 | High-lining by the Contractor | \$ | \$ | |
| 3. | -16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor (Bid Item 74) | \$ | \$ | |
| ESTIMATED ALTERNATE "A": | | | | | | | \$ | |
| ALTERNATE "B" | | | | | | | | |
| 1. | -400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection (Bid Item 76) | \$ | \$ | |
| 2. | 7 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cut-in Tee by Contractor | \$ | \$ | |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension | |
|---|-----------------|-------------|--------------|--------------------------|---|---|------------------|--|
| 3. | 1 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cross by Contractor | \$ | \$ | |
| 4. | 10 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Connections to the Existing System by Contractor | \$ | \$ | |
| 5. | 9 | EA | 237110 | 600-1.4.9 | Cut and Plug of the Existing System by Contractor | \$ | \$ | |
| ESTIMATED ALTERNATE "B": | | | | | | | \$ | |
| ALTERNATE "C" | | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Customized Color |  | \$ | |
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for Seawall with Customized Color |  | \$ | |
| 3. | -1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk (Bid Item 107) | \$ | \$ | |
| ESTIMATED ALTERNATE "C": | | | | | | | \$ | |
| ALTERNATE "D" | | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Embedded Seashell |  | \$ | |
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for seawall with Embedded Seashell |  | \$ | |
| ESTIMATED ALTERNATE "D": | | | | | | | \$ | |
| ESTIMATED TOTAL BASE BID + ALTERNATE "A" + ALTERNATE "B" + ALTERNATE "C"+ ALTERNATE "D": | | | | | | | \$ | |

BIDDING DOCUMENTS

TOTAL BID PRICE FOR BID (Items 1 through 109 Plus Alternate "A", Items 1 through 3 Plus Alternate "B", Items 1 through 5 Plus Alternate "C", Items 1 through 3, Alternate "D", Items 1 through 2 inclusive) amount written in words:

The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on the Bid form. If an addendum or addenda has been issued by the City and not noted as being received by the Bidder, this proposal shall be rejected as being **non-responsive**. The following addenda have been received and are acknowledged in this bid: _____

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

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

Bidder: _____

Title: _____

Business Address: _____

Place of Business: _____

Place of Residence: _____

Signature: _____

BIDDING DOCUMENTS

NOTES:

- A. The City shall determine the low Bid based on the Base Bid plus the following Alternates: A, B, C, D.
- B. After the low Bid has been determined, the City may award the Contract for the Base Bid alone or if applicable, for the Base Bid plus any combination of alternates selected in the City's sole discretion.
- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
- H. 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.
- I. 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.

City of San Diego

CITY CONTACT: Eleida Felix Yackel, Contract Specialist, Email: EFelixYackel@sandiego.gov
Phone No. (619) 533-3449, Fax No. (619) 533-3633

ADDENDUM "B"

FOR



AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT / SEWER AND WATER GROUP 809

BID NO.: _____ K-13-5979-DBB-3
SAP NO. (WBS/IO/CC): _____ S-13018, B-00416, B-00102
CLIENT DEPARTMENT: _____ 2116, 2011, 2013
COUNCIL DISTRICT: _____ 1
PROJECT TYPE: _____ CA, JA, KB

BID DUE DATE:

**2:00 PM
JULY 31, 2013
CITY OF SAN DIEGO
PUBLIC WORKS CONTRACTING GROUP
1010 SECOND AVENUE, SUITE 1400, MS 614C
SAN DIEGO, CA 92101**

ENGINEER OF WORK

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



For City Engineer

7/19/2013

Date

Seal:



A. CHANGES TO CONTRACT DOCUMENTS

The following changes to the Contract Documents are hereby made effective as though originally issued with the bid package. Bidders are reminded that all previous requirements to this solicitation remain in full force and effect.

B. BIDDER'S QUESTIONS

Questions pertaining to Scope or Specifications

- Q1. Can you please clarify the DR to be used for the HDPE water main to be installed via pipe bursting? Also, can Fusible PVC™ be added as an equal to HDPE for this portion of the project? Please see the attached technical data sheet for recommended pipe options of similar pressure rating (PR) and inside diameter (ID).
- A1. The contractor shall install HDPE pipe for water pipe bursting, per the Plans. Any substitution shall be submitted by the contractor in accordance with Section 4-1.6 for review and approval. The DR for the substitute pipe shall meet or exceed the pipe requirements in the City of San Diego contract/supplement and approved materials list. Per the City of San Diego supplement, the pressure and SDR rating shall be 235 and 18, respectively, for water pipe 4"-12".

C. VOLUME 1

- 1. To Funding Agency Provisions, item 9, "Wage Rates", pages 40 through 65, **DELETE** in their entirety and **SUBSTITUTE** with page 4 of 29 through 29 of 29 of this Addendum.

Tony Heinrichs, Director
Public Works Department

Dated: *July 19, 2013*
San Diego, California

TH/BD/EFY/egz

9. WAGE RATES. This contract shall be subject to the following Davis-Bacon Wage Decisions:

General Decision Number: CA130001 07/19/2013 CA1

Superseded General Decision Number: CA20120001

State: California

Construction Types: Building, Heavy (Heavy and Dredging),
Highway and Residential

County: San Diego County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS; RESIDENTIAL CONSTRUCTION PROJECTS (consisting of single family homes and apartments up to and including 4 stories)

| Modification Number | Publication Date |
|---------------------|------------------|
| 0 | 01/04/2013 |
| 1 | 01/18/2013 |
| 2 | 03/01/2013 |
| 3 | 03/08/2013 |
| 4 | 03/22/2013 |
| 5 | 04/12/2013 |
| 6 | 05/10/2013 |
| 7 | 05/31/2013 |
| 8 | 07/05/2013 |
| 9 | 07/19/2013 |

ASBE0005-002 06/28/2010

| | Rates | Fringes |
|--|----------|---------|
| Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems)..... | \$ 32.79 | 16.31 |
| Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain walls)..... | \$ 24.21 | 13.76 |

ASBE0005-004 06/28/2010

| | Rates | Fringes |
|--|----------|---------|
| Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not).... | \$ 18.70 | 8.65 |

BOIL0092-003 10/01/2012

| | Rates | Fringes |
|------------------|----------|---------|
| BOILERMAKER..... | \$ 41.17 | 28.27 |

BRCA0004-008 11/01/2012

| | Rates | Fringes |
|--------------------------------|----------|---------|
| BRICKLAYER; MARBLE SETTER..... | \$ 33.75 | 14.55 |

BRCA0018-004 06/01/2012

| | Rates | Fringes |
|----------------------|----------|---------|
| MARBLE FINISHER..... | \$ 27.04 | 10.66 |
| TILE FINISHER..... | \$ 22.37 | 9.19 |
| TILE LAYER..... | \$ 33.55 | 13.55 |

BRCA0018-010 09/01/2009

| | Rates | Fringes |
|-----------------------------|----------|---------|
| TERRAZZO FINISHER..... | \$ 26.59 | 9.62 |
| TERRAZZO WORKER/SETTER..... | \$ 33.63 | 10.46 |

CARP0409-002 07/01/2008

| | Rates | Fringes |
|---------------------------|-----------|---------|
| Diver | | |
| (1) Wet..... | \$ 663.68 | 9.82 |
| (2) Standby..... | \$ 331.84 | 9.82 |
| (3) Tender..... | \$ 323.84 | 9.82 |
| (4) Assistant Tender..... | \$ 299.84 | 9.82 |

Amounts in "Rates" column are per day

CARP0409-008 08/01/2010

| | Rates | Fringes |
|----------------------------------|----------|---------|
| Modular Furniture Installer..... | \$ 17.00 | 7.41 |

CARP0547-001 07/01/2009

| | Rates | Fringes |
|-----------------------------|----------|---------|
| CARPENTER | | |
| (1) Bridge..... | \$ 37.28 | 10.58 |
| (2) Commercial Building.... | \$ 32.30 | 10.58 |
| (3) Heavy & Highway..... | \$ 37.15 | 10.58 |
| (4) Residential Carpenter.. | \$ 25.84 | 10.58 |
| (5) Residential | | |
| Insulation Installer..... | \$ 18.00 | 8.16 |
| MILLWRIGHT..... | \$ 37.65 | 10.58 |
| PILEDRIVERMAN..... | \$ 37.28 | 10.58 |

CARP0547-002 07/01/2009

| | Rates | Fringes |
|---|----------|---------|
| Drywall | | |
| (1) Work on wood framed construction of single family residences, apartments or condominiums under four stories | | |
| Drywall Installer/Lather... | \$ 21.00 | 8.58 |
| Drywall Stocker/Scrapper... | \$ 11.00 | 6.67 |
| (2) All other work | | |
| Drywall Installer/Lather... | \$ 27.35 | 9.58 |
| Drywall Stocker/Scrapper... | \$ 11.00 | 6.67 |

ELEC0569-001 06/03/2013

| | Rates | Fringes |
|---|----------|----------|
| Electricians (Tunnel Work) | | |
| Cable Splicer..... | \$ 43.78 | 3%+11.87 |
| Electrician..... | \$ 43.03 | 3%+11.87 |
| Electricians: (All Other Work, Including 4 Stories | | |

Residential)

| | | |
|--------------------|----------|----------|
| Cable Splicer..... | \$ 39.00 | 3%+11.87 |
| Electrician..... | \$ 38.25 | 3%+11.87 |

ELEC0569-005 12/01/2012

| | Rates | Fringes |
|------------------------|----------|----------|
| Sound & Communications | | |
| Sound Technician..... | \$ 27.57 | 3%+10.81 |
| Soundman..... | \$ 22.06 | 3%+9.17 |

SOUND TECHNICIAN: Terminating, operating and performing final check-out

SOUNDMAN: Wire-pulling, splicing, assembling and installing devices

SCOPE OF WORK Assembly, installation, operation, service and maintenance of components or systems as used in closed circuit television, amplified master television distribution, CATV on private property, intercommunication, burglar alarm, fire alarm, life support and all security alarms, private and public telephone and related telephone interconnect, public address, paging, audio, language, electronic, background music system less than line voltage or any system acceptable for class two wiring for private, commercial, or industrial use furnished by leased wire, frequency modulation or other recording devices, electrical apparatus by means of which electricity is applied to the amplification, transmission, transference, recording or reproduction of voice, music, sound, impulses and video. Excluded from this Scope of Work - transmission, service and maintenance of background music. All of the above shall include the installation and transmission over fiber optics.

ELEC0569-006 02/25/2013

Work on street lighting; traffic signals; and underground systems and/or established easements outside of buildings

| | Rates | Fringes |
|---|----------|---------|
| Traffic signal, street light and underground work | | |
| Utility Technician #1..... | \$ 27.50 | 3%+7.42 |
| Utility Technician #2..... | \$ 22.65 | 3%+7.42 |

STREET LIGHT & TRAFFIC SIGNAL WORK:

UTILITY TECHNICIAN #1: Installation of street lights and traffic signals, including electrical circuitry, programmable controller, pedestal-mounted electrical meter enclosures and laying of pre-assembled cable in ducts. The layout of electrical systems and communication installation

including proper position of trench depths, and radius at duct banks, location for manholes, street lights and traffic signals.

UTILITY TECHNICIAN #2: Distribution of material at jobsite, installation of underground ducts for electrical, telephone, cable TV land communication systems. The setting, leveling, grounding and racking of precast manholes, handholes and transformer pads.

 ELEC0569-008 06/01/2011

| | Rates | Fringes |
|---|----------|---------|
| ELECTRICIAN (Residential, 1-3 Stories)..... | \$ 22.37 | 3%+2.90 |

 ELEC1245-001 06/01/2012

| | Rates | Fringes |
|---|----------|---------|
| LINE CONSTRUCTION | | |
| (1) Lineman; Cable splicer.. | \$ 48.95 | 14.05 |
| (2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment)..... | \$ 39.09 | 12.97 |
| (3) Groundman..... | \$ 29.91 | 12.70 |
| (4) Powderman..... | \$ 43.71 | 13.15 |

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

 ELEV0018-001 01/01/2013

| | Rates | Fringes |
|------------------------|----------|---------|
| ELEVATOR MECHANIC..... | \$ 48.23 | 25.185 |

FOOTNOTE:
 PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
 PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

 ENGI0012-003 07/01/2012

| Rates | Fringes |
|-------|---------|
|-------|---------|

OPERATOR: Power Equipment
 (All Other Work)

| | | |
|----------|----------|-------|
| GROUP 1 | \$ 37.40 | 20.00 |
| GROUP 2 | \$ 38.18 | 20.00 |
| GROUP 3 | \$ 38.47 | 20.00 |
| GROUP 4 | \$ 39.96 | 20.00 |
| GROUP 5 | \$ 41.06 | 20.00 |
| GROUP 6 | \$ 40.18 | 20.00 |
| GROUP 8 | \$ 41.39 | 20.00 |
| GROUP 9 | \$ 40.41 | 20.00 |
| GROUP 10 | \$ 40.41 | 20.00 |
| GROUP 11 | \$ 40.58 | 20.00 |
| GROUP 12 | \$ 40.58 | 20.00 |
| GROUP 13 | \$ 40.68 | 20.00 |
| GROUP 14 | \$ 40.71 | 20.00 |
| GROUP 15 | \$ 40.79 | 20.00 |
| GROUP 16 | \$ 40.91 | 20.00 |
| GROUP 17 | \$ 41.08 | 20.00 |
| GROUP 18 | \$ 41.18 | 20.00 |
| GROUP 19 | \$ 41.29 | 20.00 |
| GROUP 20 | \$ 41.41 | 20.00 |
| GROUP 21 | \$ 41.58 | 20.00 |
| GROUP 22 | \$ 41.68 | 20.00 |
| GROUP 23 | \$ 41.79 | 20.00 |
| GROUP 24 | \$ 41.91 | 20.00 |
| GROUP 25 | \$ 42.08 | 20.00 |

OPERATOR: Power Equipment
 (Cranes, Piledriving &
 Hoisting)

| | | |
|----------|----------|-------|
| GROUP 1 | \$ 38.75 | 20.00 |
| GROUP 2 | \$ 39.53 | 20.00 |
| GROUP 3 | \$ 39.82 | 20.00 |
| GROUP 4 | \$ 39.96 | 20.00 |
| GROUP 5 | \$ 40.18 | 20.00 |
| GROUP 6 | \$ 40.29 | 20.00 |
| GROUP 7 | \$ 40.41 | 20.00 |
| GROUP 8 | \$ 40.58 | 20.00 |
| GROUP 9 | \$ 40.75 | 20.00 |
| GROUP 10 | \$ 41.75 | 20.00 |
| GROUP 11 | \$ 42.75 | 20.00 |
| GROUP 12 | \$ 43.75 | 20.00 |
| GROUP 13 | \$ 44.75 | 20.00 |

OPERATOR: Power Equipment
 (Tunnel Work)

| | | |
|---------|----------|-------|
| GROUP 1 | \$ 39.25 | 20.00 |
| GROUP 2 | \$ 40.03 | 20.00 |
| GROUP 3 | \$ 40.32 | 20.00 |
| GROUP 4 | \$ 40.46 | 20.00 |
| GROUP 5 | \$ 40.68 | 20.00 |
| GROUP 6 | \$ 40.79 | 20.00 |
| GROUP 7 | \$ 40.91 | 20.00 |

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics

Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator,

bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (guniting work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator

(any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bending machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator,

operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system

(single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator;

Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SBM to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1S, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW

corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34.T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a think strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

ENGI0012-004 08/01/2012

| | Rates | Fringes |
|---|----------|---------|
| OPERATOR: Power Equipment (DREDGING) | | |
| (1) Leverman..... | \$ 45.40 | 20.00 |
| (2) Dredge dozer..... | \$ 40.93 | 20.00 |
| (3) Deckmate..... | \$ 40.82 | 20.00 |
| (4) Winch operator (stern winch on dredge)..... | \$ 40.27 | 20.00 |
| (5) Fireman-Oiler, Deckhand, Bargeman, Leveehand..... | \$ 39.73 | 20.00 |
| (6) Barge Mate..... | \$ 40.34 | 20.00 |

IRON0377-002 01/01/2013

| | Rates | Fringes |
|--|----------|---------|
| Ironworkers: | | |
| Fence Erector..... | \$ 26.58 | 16.74 |
| Ornamental, Reinforcing and Structural..... | \$ 33.00 | 25.30 |

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

* LABO0089-001 08/01/2012

| | Rates | Fringes |
|---|----------|---------|
| LABORER (BUILDING and all other Residential Construction) | | |
| Group 1..... | \$ 26.13 | 15.17 |
| Group 2..... | \$ 26.81 | 15.17 |
| Group 3..... | \$ 27.52 | 15.17 |

| | | |
|-------------------------------|----------|-------|
| Group 4..... | \$ 28.32 | 15.17 |
| Group 5..... | \$ 30.25 | 15.17 |
| LABORER (RESIDENTIAL | | |
| CONSTRUCTION - See definition | | |
| below) | | |
| (1) Laborer..... | \$ 24.03 | 13.50 |
| (2) Cleanup, Landscape, | | |
| Fencing (Chain Link & Wood). | \$ 22.74 | 13.50 |
| (2) Cleanup, Landscaping, | | |
| Fencing (chain link or | | |
| wood)..... | \$ 22.19 | 14.13 |

RESIDENTIAL DEFINITION: Wood or metal frame construction of single family residences, apartments and condominiums - excluding (a) projects that exceed three stories over a garage level, (b) any utility work such as telephone, gas, water, sewer and other utilities and (c) any fine grading work, utility work or paving work in the future street and public right-of-way; but including all rough grading work at the job site behind the existing right of way

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete Screeding for Rought Strike-off; Concrete, water curing; Demolition laborer; Flagman; Gas, oil and/or water pipeline laborer; General Laborer; General clean-up laborer; Landscape laborer; Jetting laborer; Temporary water and air lines laborer; Material hoseman (walls, slabs, floors and decks); Plugging, filling of Shee-bolt holes; Dry packing of concrete; Railroad maintenance, Repair Trackman and road beds, Streetcar and railroad construction trac laborers; Slip form raisers; Slurry seal crews (mixer operator, applicator operator, squeegee man, Shuttle man, top man), filling of cracks by any method on any surface; Tarman and mortar man; Tool crib or tool house laborer; Window cleaner; Wire Mesh puling-all concrete pouring operations

GROUP 2: Asphalt Shoveler; Cement Dumper (on 1 yard or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute man, pouring concrete, the handling of the cute from ready mix trucks, such as walls, slabs, decks, floors, foundations, footings, curbs, gutters and sidewalks; Concrete curer-impervious membrane and form oiler; Cutting torch operator (demoliton); Guinea chaser; Headboard man-asphlt; Laborer, packing rod steel and pans; membrane vapor barrier installer; Power broom sweepers (small); Riiprap, stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Tank sealer and cleaner; Tree climber, faller, chain saw operator, Pittsburgh Chipper and similar type brush shredders; Underground laborers, including caisson bellower

GROUP 3: Buggymobile; Concrete cutting torch; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2 1/2 feet drill steel or longer; Dri Pak-it machine; High sealer (including drilling of same); Hydro seeder and

similar type; Impact wrench, mult-plate; Kettlemen, potmen and men applying asphalt, lay-kold, creosote, line caustic and similar type materials (applying means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operators of pneumatic, gas, electric tools, vibrating machines, pavement breakers, air blasting, come-along, and similar mechanical tools not separately classified herein; Pipelayers back up man coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rotary Scarifier or multiple head concrete chipping scarifier; Steel header board man and guideline setter; Tampers, Barko, Wacker and similar type; Trenching machine, handpropelled

GROUP 4: Asphalt raker, luterman, ironer, asphalt dumpman and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), Grinder or sander; Concrete saw man; cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Laser beam in connection with laborer's work; Oversize concrete vibrator operator 70 pounds and over; Pipelayer performing all services in the laying, installation and all forms of connection of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit, and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid, gas, air or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzleman), Porta shot-blast, water blasting

GROUP 5: Blasters Powderman-All work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller-all power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power.

 * LABO0089-002 11/01/2012

| | Rates | Fringes |
|-----------------------------|----------|---------|
| LABORER (MASON TENDER)..... | \$ 27.98 | 13.39 |

 * LABO0089-004 07/01/2013

HEAVY AND HIGHWAY CONSTRUCTION

| | Rates | Fringes |
|-----------|-------|---------|
| Laborers: | | |

| | | |
|--------------|----------|-------|
| GROUP 1..... | \$ 27.10 | 15.17 |
| Group 1..... | \$ 27.38 | 15.17 |
| GROUP 2..... | \$ 27.56 | 15.17 |
| Group 2..... | \$ 28.06 | 15.17 |
| GROUP 3..... | \$ 27.97 | 15.17 |
| Group 3..... | \$ 28.77 | 15.17 |
| GROUP 4..... | \$ 28.81 | 15.17 |
| Group 4..... | \$ 29.57 | 15.17 |
| GROUP 5..... | \$ 32.93 | 15.17 |
| Group 5..... | \$ 31.50 | 15.17 |

LABORER CLASSIFICATIONS

GROUP 1: Laborer: General or Construction Laborer, Landscape Laborer. Asphalt Rubber Material Loader. Boring Machine Tender (outside), Carpenter Laborer (cleaning, handling, oiling & blowing of panel forms and lumber), Concrete Laborer, Concrete Screeding for rough strike-off, Concrete water curing. Concrete Curb & Gutter laborer, Certified Confined Space Laborer, Demolition laborer & Cleaning of Brick and lumber, Expansion Joint Caulking; Environmental Remediation, Monitoring Well, Toxic waste and Geotechnical Drill tender, Fine Grader, Fire Watcher, Limbers, Brush Loader, Pilers and Debris Handlers. flagman. Gas Oil and Water Pipeline Laborer. Material Hoseman (slabs, walls, floors, decks); Plugging, filling of shee bolt holes; Dry packing of concrete and patching; Post Holer Digger (manual); Railroad maintenance, repair trackman, road beds; Rigging & signaling; Scaler, Slip-Form Raisers, Filling cracks on any surface, tool Crib or Tool House Laborer, Traffic control (signs, barriers, barricades, delineator, cones etc.), Window Cleaner

GROUP 2: Asphalt abatement; Buggymobile; Cement dumper (on 1 yd. or larger mixers and handling bulk cement); Concrete curer, impervious membrane and form oiler; Chute man, pouring concrete; Concrete cutting torch; Concrete pile cutter; driller/Jackhammer, with drill steel 2 1/2 feet or longer; Dry pak-it machine; Fence erector; Pipeline wrapper, gas, oil, water, pot tender & form man; Grout man; Installation of all asphalt overlay fabric and materials used for reinforcing asphalt; Irrigation laborer; Kettleman-Potman hot mop, includes applying asphalt, lay-klold, creosote, lime caustic and similar tyhpes of materials (dipping, brushing, handling) and waterproofing; Membrane vapor barrier installer; Pipelayer backup man (coating, grouting, making of joints, sealing caulkiing, diapering including rubber basket joints, pointing); Rotary scarifier, multiple head concrete chipper; Rock slinger; Roto scraper & tiller; Sandblaster pot tender; Septic tank digger/installer; Tamper/wacker operator; Tank scaler & cleaner; Tar man & mortar man; Tree climber/faller, chainb saw operator, Pittsburgh chipper & similar type brush shredders.

GROUP 3: Asphalt, installation of all frabrics; Buggy Mobile Man, Bushing hammer; Compactor (all types), Concrete Curer - Impervious membrane, Form Oiler, Concrete Cutting Torch,

Concrete Pile Cutter, Driller/Jackhammer with drill steel 2 1/2 ft or longer, Dry Pak-it machine, Fence erector including manual post hole digging, Gas oil or water Pipeline Wrapper - 6 ft pipe and over, Guradrail erector, Hydro seeder, Impact Wrench man (multi plate), kettleman-Potman Hot Mop includes applying Asphalt, Lay-Kold, Creosote, lime caustic and similar types of materials (dipping, brushing or handling) and waterproofing. Laser Beam in connection with Laborer work. High Scaler, Operators of Pneumatic Gas or Electric Tools, Vibrating Machines, Pavement Breakers, Air Blasting, Come-Alongs and similar mechanical tools, Remote-Controlled Robotic Tools in connection with Laborers work. Pipelayer Backup Man (Coating, grouting, making of joints, sealing, caulking, diapering including rubber gasket joints, pointing and other services). Power Post Hole Digger, Rotary Scarifier (multiple head concrete chipper scarifier), Rock Slinger, Shot Blast equipment (8 to 48 inches), Steel Headerboard Man and Guideline Setter, Tamper/Wacker operator and similar types, Trenching Machine hand propelled.

GROUP 4: Any worker exposed to raw sewage. Asphalt Raker, Luteman, Asphalt Dumpman, Asphalt Spreader Boxes, Concrete Core Cutter, Concrete Saw Man, Cribber, Shorer, Head Rock Slinger. Installation of subsurface instrumentation, monitoring wells or points, remediation system installer; Laborer, asphalt-rubber distributor bootman; Oversize concrete vibrator operators, 70 pounds or over. Pipelayer, Prefabricated Manhole Installer, Sandblast Nozzleman (Water Blasting-Porta Shot Blast), Traffic Lane Closure.

GROUP 5: Blasters Powderman-All work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Horizontal directional driller, Boring system, Electronic tracking, Driller: all power drills excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and all other types of mechanical drills without regard to form of motive power. Environmental remediation, Monitoring well, Toxic waste and Geotechnical driller, Toxic waste removal. Welding in connection with Laborer's work.

LABO0882-002 01/01/2010

| | Rates | Fringes |
|-------------------------------|----------|---------|
| Asbestos Removal Laborer..... | \$ 26.15 | 11.65 |

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of decontamination stations.

LABO1184-001 07/01/2013

| | Rates | Fringes |
|---|----------|---------|
| Laborers: (HORIZONTAL DIRECTIONAL DRILLING) | | |
| (1) Drilling Crew Laborer... | \$ 30.11 | 11.83 |
| (2) Vehicle Operator/Hauler. | \$ 30.28 | 11.83 |
| (3) Horizontal Directional Drill Operator..... | \$ 32.13 | 11.83 |
| (4) Electronic Tracking Locator..... | \$ 34.13 | 11.83 |
| Laborers: (STRIPING/SLURRY SEAL) | | |
| GROUP 1..... | \$ 29.96 | 14.38 |
| GROUP 2..... | \$ 31.26 | 14.38 |
| GROUP 3..... | \$ 33.27 | 14.38 |
| GROUP 4..... | \$ 35.01 | 14.38 |

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method (sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

* LABO1414-003 08/01/2012

| | Rates | Fringes |
|--|-------|---------|
| LABORER | | |
| PLASTER CLEAN-UP LABORER....\$ 27.45 | | 15.98 |
| PLASTER TENDER.....\$ 30.00 | | 15.98 |
| Work at Military Bases - \$3.00 additional per hour: | | |
| Coronado Naval Amphibious Base, Fort Irwin, Marine Corps Air Station-29 Palms, Imperial Beach Naval Air Station, Marine Corps Logistics Supply Base, Marine Corps Pickle Meadows, Mountain Warfare Training Center, Naval Air Facility-Seeley, North Island Naval Air Station, Vandenberg AFB. | | |

PAIN0036-001 03/01/2013

| | Rates | Fringes |
|--|-------|---------|
| Painters: (Including Lead Abatement) | | |
| (1) Repaint (excludes San Diego County).....\$ 26.05 | | 11.13 |
| (2) All Other Work.....\$ 29.32 | | 11.13 |

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and sports facilities.

PAIN0036-010 01/01/2013

| | Rates | Fringes |
|--|-------|---------|
| DRYWALL FINISHER/TAPER | | |
| (1) Building & Heavy Construction.....\$ 25.08 | | 13.19 |
| (2) Residential Construction (Wood frame apartments, single family homes and multi-duplexes up to and including four stories).....\$ 21.00 | | 12.81 |

PAIN0036-012 10/01/2012

| | Rates | Fringes |
|----------------------|-------|---------|
| GLAZIER.....\$ 38.80 | | 16.25 |

PAIN0036-019 02/01/2009

| | Rates | Fringes |
|-------------------------------|-------|---------|
| SOFT FLOOR LAYER.....\$ 26.77 | | 11.75 |

PLAS0200-005 08/01/2011

| | Rates | Fringes |
|----------------|----------|---------|
| PLASTERER..... | \$ 35.29 | 12.05 |

NORTH ISLAND NAVAL AIR STATION, COLORADO NAVAL AMPHIBIOUS
 BASE, IMPERIAL BEACH NAVAL AIR STATION: \$3.00 additional
 per hour.

PLAS0500-001 07/01/2012

| | Rates | Fringes |
|--------------------------------|----------|---------|
| CEMENT MASON/CONCRETE FINISHER | | |
| GROUP 1..... | \$ 26.47 | 12.10 |
| GROUP 2..... | \$ 28.12 | 12.10 |
| GROUP 3..... | \$ 30.75 | 12.60 |

CEMENT MASONS - work inside the building line, meeting the
 following criteria:

GROUP 1: Residential wood frame project of any size; work
 classified as Type III, IV or Type V construction;
 interior tenant improvement work regardless the size of the
 project; any wood frame project of four stories or less.

GROUP 2: Work classified as type I and II construction

GROUP 3: All other work

PLUM0016-006 07/01/2012

| | Rates | Fringes |
|--|----------|---------|
| PLUMBER, PIPEFITTER, STEAMFITTER | | |
| Camp Pendleton..... | \$ 46.10 | 19.68 |
| Plumber and Pipefitter All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work..... | \$ 41.60 | 19.68 |
| Work ONLY on new additions and remodeling of commercial buildings, bars, restaurants, and stores not to exceed 5,000 sq. ft. of floor space..... | \$ 40.33 | 18.70 |

Work ONLY on strip malls,
 light commercial, tenant
 improvement and remodel
 work.....\$ 32.49 17.03

 PLUM0016-011 07/01/2012

| | Rates | Fringes |
|--------------------|-------|---------|
| PLUMBER/PIPEFITTER | | |
| Residential.....\$ | 33.63 | 15.60 |

 PLUM0345-001 07/01/2012

| | Rates | Fringes |
|--------------------------------|-------|---------|
| PLUMBER | | |
| Landscape/Irrigation Fitter.\$ | 27.35 | 17.09 |
| Sewer & Storm Drain Work....\$ | 31.00 | 16.01 |

 ROOF0045-001 07/01/2012

| | Rates | Fringes |
|---------------|-------|---------|
| ROOFER.....\$ | 25.08 | 7.28 |

 SFCA0669-001 01/01/2013

| | Rates | Fringes |
|-------------------------|-------|---------|
| SPRINKLER FITTER.....\$ | 34.18 | 18.66 |

 SHEE0206-001 01/01/2012

| | Rates | Fringes |
|-------------------------------|-------|---------|
| SHEET METAL WORKER | | |
| Camp Pendleton.....\$ | 35.05 | 19.23 |
| Except Camp Pendleton.....\$ | 33.05 | 19.23 |
| Sheet Metal Technician.....\$ | 25.22 | 6.69 |

SHEET METAL TECHNICIAN - SCOPE:
 a. Existing residential buildings, both single and multi-family, where each unit is heated and/or cooled by a separate system b. New single family residential buildings including tracts. c. New multi-family residential buildings, not exceeding five stories of living space in height, provided each unit is heated or cooled by a separate system. Hotels and motels are excluded. d. LIGHT COMMERCIAL WORK: Any sheet metal, heating and air conditioning work performed on a project where the total construction cost, excluding land, is under \$1,000,000 e. TENANT IMPROVEMENT WORK: Any work necessary to finish interior spaces to conform to the occupants of commercial buildings, after completion of the building shell

 TEAM0036-001 07/01/2012

| | Rates | Fringes |
|----------------|----------|---------|
| Truck drivers: | | |
| GROUP 1..... | \$ 15.40 | 20.50 |
| GROUP 2..... | \$ 24.99 | 20.50 |
| GROUP 3..... | \$ 25.19 | 20.50 |
| GROUP 4..... | \$ 25.39 | 20.50 |
| GROUP 5..... | \$ 25.59 | 20.50 |
| GROUP 6..... | \$ 26.09 | 20.50 |
| GROUP 7..... | \$ 27.59 | 20.50 |

FOOTNOTE: HAZMAT PAY: Work on a hazmat job, where hazmat certification is required, shall be paid, in addition to the classification working in, as follows: Levels A, B and C - +\$1.00 per hour. Workers shall be paid hazmat pay in increments of four (4) and eight (8) hours.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Fuel Man, Swamper

GROUP 2: 2-axle Dump Truck, 2-axle Flat Bed, Concrete Pumping Truck, Industrial Lift Truck, Motorized Traffic Control, Pickup Truck on Jobsite

GROUP 3: 2-axle Water Truck, 3-axle Dump Truck, 3-axle Flat Bed, Erosion Control Nozzleman, Dump Crete Truck under 6.5 yd, Forklift 15,000 lbs and over, Prell Truck, Pipeline Work Truck Driver, Road Oil Spreader, Cement Distributor or Slurry Driver, Bootman, Ross Carrier

GROUP 4: Off-road Dump Truck under 35 tons 4-axles but less than 7-axles, Low-Bed Truck & Trailer, Transit Mix Trucks under 8 yd, 3-axle Water Truck, Erosion Control Driver, Grout Mixer Truck, Dump Crete 6.5yd and over, Dumpster Trucks, DW 10, DW 20 and over, Fuel Truck and Dynamite, Truck Greaser, Truck Mounted Mobile Sweeper 2-axle Winch Truck

GROUP 5: Off-road Dump Truck 35 tons and over, 7-axles or more, Transit Mix Trucks 8 yd and over, A-Frame Truck, Swedish Cranes

GROUP 6: Off-Road Special Equipment (including but not limited to Water Pull Tankers, Athey Wagons, DJB, B70 Wuclids or like Equipment)

GROUP 7: Repairman

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.
=====

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after

award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
 Wage and Hour Division
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
 U.S. Department of Labor
 200 Constitution Avenue, N.W.
 Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION

City of San Diego

CITY CONTACT: Eleida Felix Yackel, Contract Specialist, Email: EFelixYackel@sandiego.gov
Phone No. (619) 533-3449, Fax No. (619) 533-3633

ADDENDUM "C"

FOR



AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT / SEWER AND WATER GROUP 809

BID NO.: _____ K-13-5979-DBB-3
SAP NO. (WBS/IO/CC): _____ S-13018, B-00416, B-00102
CLIENT DEPARTMENT: _____ 2116, 2011, 2013
COUNCIL DISTRICT: _____ 1
PROJECT TYPE: _____ CA, JA, KB

BID DUE DATE:

**2:00 PM
AUGUST 6, 2013
CITY OF SAN DIEGO
PUBLIC WORKS CONTRACTING GROUP
1010 SECOND AVENUE, SUITE 1400, MS 614C
SAN DIEGO, CA 92101**

ENGINEER OF WORK

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


Registered Engineer

7/25/2013
Date

Seal:



A. CHANGES TO CONTRACT DOCUMENTS

The following changes to the Contract Documents are hereby made effective as though originally issued with the bid package. Bidders are reminded that all previous requirements to this solicitation remain in full force and effect.

THE SUBMITTAL DATE FOR THIS PROJECT HAS BEEN EXTENDED AS STATED ON THE COVER PAGE.

B. BIDDER'S QUESTIONS

Questions pertaining to Scope or Specifications

Q1. Item 86 of the bid form says 51"x183" High Box Culvert reinforce Precast Concrete Double Box Culvert, but drawing show single only as shown on section drawing 2/M-4/S13. And in the drawing C-1/S03 shows 600.72 LF only while the bid form shows 636 LF

A1. Please see updated bid item description on bid list in this Addendum, please bid quantity per bid list.

Q2. The Pipe bursting Contractor that we contacted stated that there is a real good chance that the pavement will heave during the pipe bursting process for the water main installation, due to the shallow depth of water mains.

If the pavement doses heave how will the street repair be paid?

Can this portion of pipe be installed by open trench method?

A2. These costs would be covered by the contractor, please refer to section 306-21.6. This portion cannot be installed using open trench method.

Q3. Item # 86 ask for a 51" wide x 183" high double box culvert. The plans call for a 51" high x 183"wide single box culvert. What one is right?

A3. Please see updated bid item description on bid list in this Addendum

Q4. Will the quantities for Items 13 & 84, Concrete Pavement, be reduced by the trench widths of utilities placed in roadways receiving concrete pavement?

A4. Yes

Q5. Avenida De La Playa drawing C-4/S06 and C-5/S07 shows sewer and water replacement which are not included in the Sewer & Water Group 809. Which pay item in the bid form are these included?

A5. Please see note at beginning of bid list.

Q6. We are missing T-1 and T-2 traffic plans for group 809.

A6. Please see sheets on this Addendum

C. ADDENDUM "A"

1. To Item B, Volume 1, Section 2, Notice Inviting Bids, page 3, sub-item 2.1.1, **DELETE** in its entirety and **SUBSTITUTE** with the following:

2.1.1 This Notice Inviting Bids and Plans **36465-01-D** through **36465-33-D**, and **34419-01-D** through **34419-39-D** and **34419-T01-D** through **34419-T02-D**, inclusive.

2. To Item "C, Volume 2", Bidding Document, Proposal (BID), pages 33 through 40, **DELETE** in their entirety and **SUBSTITUTE** with pages 5 of 17 through 13 of 17 of this Addendum. .

D. PLANS

1. To Drawing Numbers 34419-01-D through 34419-39-D **ADD** pages 16 of 17 through 17 of 17 of this Addendum.

Tony Heinrichs, Director
Public Works Department

Dated: *July 26, 2013*
San Diego, California

TH/BD/EFY/egz

BIDDING DOCUMENTS

PROPOSAL (BID)

The Bidder agrees to the construction of **Avenida De La Playa Infrastructure Replacement /Sewer and Water Group 809**, 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 and 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 | NAICS | Payment Reference | Description | Unit Price | Extension |
|---|----------|------|--------|-------------------|---|---------------------------------|--------------|
| BASE BID | | | | | | | |
| Sewer and Water Group 809 - These bid items include sewer and water work to be done as part of Avenida De La Playa Infrastructure Replacement | | | | | | | |
| Common | | | | | | | |
| 1. | 1 | LS | 524126 | 2-4.1 | Bonds (Payment and Performance) | | \$ |
| 2. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ |
| 3. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ |
| 4. | 1 | LS | | 7-16.3 | Exclusive Community Liaison | | \$ |
| 5. | 1 | LS | 237110 | 9-3.4.1 | Mobilization | | \$ |
| 6. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$200,000.00 |
| 7. | 10 | CY | 237310 | 300-1.4 | Additional Pavement Removal & Disposal | \$ | \$ |
| 8. | 10 | EA | 237310 | 301-1.7 | Adjusting Existing Gate Valve Cover to Grade | \$ | \$ |
| 9. | 2 | EA | 237310 | 301-1.7 | Adjusting Existing Manhole Frame & Cover to Grade | \$ | \$ |
| 10. | 21,480 | SF | 237310 | 302-1.12 | Cold Mill AC Pavement (0 - 1 1/2") | \$ | \$ |

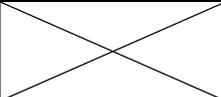
BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|-------------|-----------------|-------------|--------------|--------------------------|---|-------------------|------------------|
| 11. | 141,060 | SF | 237310 | 302-4.12.4 | Rubber Polymer Modified Slurry Type II and Striping | \$ | \$ |
| 12. | 1,710 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ | \$ |
| 13. | 49,945 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ | \$ |
| 14. | 20,000 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ | \$ |
| 15. | 415 | LF | 237310 | 303-5.9 | Additional Curb and Gutter | \$ | \$ |
| 16. | 1,660 | SF | 237310 | 303-5.9 | Additional Sidewalk Removal and Replacement | \$ | \$ |
| 17. | 800 | SF | 237310 | 303-5.9 | Cross Gutter | \$ | \$ |
| 18. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Detectable Warning Tiles | \$ | \$ |
| 19. | 7 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 20. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Detectable Warning Tiles | \$ | \$ |
| 21. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 22. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C1 with Detectable Warning Tiles | \$ | \$ |
| 23. | 1 | EA | 237310 | 303-5.10.2 | Directional Curb Ramp with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 24. | 15 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Detectable Warning Tiles | \$ | \$ |
| 25. | 22 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Stainless Steel Detectable Warning Tiles | \$ | \$ |

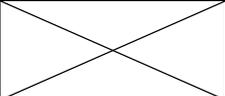
BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--------------|-----------------|-------------|--------------|--------------------------|--|---------------------------------|------------------|
| 26. | 6 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Detectable Warning Tiles | \$ | \$ |
| 27. | 13 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 28. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Case A (SDG-130) with Stainless Steel Detectable Warning Tiles | \$ | \$ |
| 29. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | | \$ |
| 30. | 315 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ | \$ |
| 31. | 685 | TON | 237310 | 306-1.5.1 | Temporary Resurfacing | \$ | \$ |
| 32. | 4,100 | TON | 237110 | 306-1.6 | Imported Backfill | \$ | \$ |
| 33. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | | \$ |
| 34. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | | \$ |
| 35. | 1 | AL | 238990 | 705-2.7 | Dewatering Permit and Discharge Fees - Type I | | \$100,000.00 |
| 36. | 1 | LS | 238990 | 705-2.7 | Dewatering – Non-Hazardous Contaminated Water | | \$ |
| 37. | 15 | DAYS | 541690 | 707-1 | Suspension of Work - Resources | \$ | \$ |
| Sewer | | | | | | | |
| 38. | 3 | EA | 237110 | 306-1.6 | Sewer Main Cleanout | \$ | \$ |
| 39. | 2,673 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main | \$ | \$ |
| 40. | 23 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main | \$ | \$ |
| 41. | 505 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main, Special Strength SDR-26 | \$ | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|-------------|-----------------|-------------|--------------|--------------------------|---|---|------------------|
| 42. | 624 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main | \$ | \$ |
| 43. | 625 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main, Special Strength SDR-26 | \$ | \$ |
| 44. | 925 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main, Special Strength SDR-26 | \$ | \$ |
| 45. | 47 | EA | 237110 | 306-1.8.6 | Manholes (4' x 3'), PVC Lined | \$ | \$ |
| 46. | 6 | EA | 237110 | 306-1.8.6 | Connection to Existing Manhole and Rechanneling. | \$ | \$ |
| 47. | 90 | EA | 237110 | 306-1.9.1 | 4-Inch Sewer Lateral & Cleanout (Street) | \$ | \$ |
| 48. | 4 | EA | 237110 | 306-1.9.2.5 | 4-Inch Trenchless Method For Private Replumbing | \$ | \$ |
| 49. | 12 | EA | 237110 | 306-5.3 | Abandon Existing Manhole Outside of Trench | \$ | \$ |
| 50. | 1 | LS | 237110 | 306-5.3 | Abandon and Fill Existing Sewer Mains Outside of Trench Limit |  | \$ |
| 51. | 5 | EA | 237110 | 306-13 | Abandon Water Services (Stiff) | \$ | \$ |
| 52. | 870 | LF | 237110 | 306-21.9 | 8-inch Pipe Bursting (Sewer) | \$ | \$ |
| 53. | 555 | LF | 237110 | 306-21.9 | 12-inch Pipe Bursting (Sewer) | \$ | \$ |
| 54. | 980 | LF | 237110 | 306-21.9 | 15-inch Pipe Bursting (Sewer) | \$ | \$ |
| 55. | 42 | EA | 237110 | 306-21.9 | Trenchless 4-Inch Sewer Lateral Connection & Cleanout | \$ | \$ |
| 56. | 233 | LF | 237110 | 500-1.1.9 | Rehabilitate 8-Inch Sewer Main | \$ | \$ |
| 57. | 1,141 | LF | 237110 | 500-1.1.9 | Rehabilitate 10-Inch Sewer Main | \$ | \$ |
| 58. | 27 | EA | 237110 | 500-1.6.2.6 | Service Lateral Connection | \$ | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--------------|----------|------|--------|-------------------|---|---|-----------|
| 59. | 3 | EA | 237110 | 500-2.10.2 | Rehabilitate Existing Manhole | \$ | \$ |
| 60. | 1 | LS | 237110 | 704-4 | Sewage Bypass and Pumping Plan (Diversion Plan) |  | \$ |
| Water | | | | | | | |
| 61. | 6,621 | LF | 237110 | 306-1.6 | 8-Inch Water Main | \$ | \$ |
| 62. | 1 | EA | 237110 | 306-1.6 | 6-Inch Fire Service Connection | \$ | \$ |
| 63. | 2 | EA | 237110 | 306-1.6 | 4-Inch Fire Service Connection | \$ | \$ |
| 64. | 12 | EA | 237110 | 306-1.6 | 6-Inch Fire Hydrant Assembly & Marker | \$ | \$ |
| 65. | 23 | EA | 237110 | 306-1.6 | 8-Inch Gate Valve | \$ | \$ |
| 66. | 133 | EA | 237110 | 306-14.1 | 1-Inch Water Service | \$ | \$ |
| 67. | 5 | EA | 237110 | 306-14.1 | 2-Inch Water Service | \$ | \$ |
| 68. | 4 | EA | 237110 | 306-14.1 | 1-Inch Water Service Transfer | \$ | \$ |
| 69. | 1 | EA | 237110 | 306-14.1 | 2-Inch Water Service Transfer | \$ | \$ |
| 70. | 24 | EA | 237110 | 306-14.2.4 | 1-Inch Water Service (trenchless) | \$ | \$ |
| 71. | 2 | EA | 237110 | 306-18 | 2-Inch Blowoff Valve Assembly | \$ | \$ |
| 72. | 2 | EA | 237110 | 306-19 | 2-Inch Air & Vacuum Valve, Class 235 | \$ | \$ |
| 73. | 1,385 | LF | 237110 | 306-21.9 | 8-Inch Pipe Bursting (Water) | \$ | \$ |
| 74. | 16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor | \$ | \$ |
| 75. | 1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work |  | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--|----------|------|--------|-------------------|---|---------------------------------|-------------|
| 76. | 400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection | \$ | \$ |
| Avenida De La Playa Infrastructure Replacement | | | | | | | |
| 77. | 1 | LS | | 2-4.1 | Bonds (Payment and Performance) | | \$ |
| 78. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ |
| 79. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ |
| 80. | 1 | LS | 237310 | 7-16.3 | Exclusive Community Liaison | | \$ |
| 81. | 1 | LS | | 9-3.4.1 | Mobilization | | \$ |
| 82. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$80,000.00 |
| 83. | 7 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ | \$ |
| 84. | 17,770 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ | \$ |
| 85. | 80 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ | \$ |
| 86. | 636 | LF | 237110 | 303-1.11 | 51" Wide x 183" High Box Culvert reinforced Pre-cast Concrete Box Culvert | \$ | \$ |
| 87. | 600 | LF | 237310 | 303-5.9 | Curb & Gutter (6-Inch Curb, Type G) | \$ | \$ |
| 88. | 3 | EA | 237310 | 303-5.9 | Commercial Concrete Driveway | \$ | \$ |
| 89. | 1,900 | SF | 237310 | 303-5.9 | Remove and Replace Existing Sidewalk | \$ | \$ |
| 90. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A w/ Composite Detectable Warning Tiles | \$ | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|------|----------|------|--------|-------------------|--|---------------------------------|-----------|
| 91. | 1 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 w/ Composite Detectable Warning Tiles | \$ | \$ |
| 92. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | | \$ |
| 93. | 18 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ | \$ |
| 94. | 435 | TON | 237110 | 306-1.6 | Imported Backfill | \$ | \$ |
| 95. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | | \$ |
| 96. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | | \$ |
| 97. | 5 | DAYS | 541330 | 707-1 | Suspension of Work - Resources | \$ | \$ |
| 98. | 1 | EA | 237110 | 9-3.1 | Outfall Structure | \$ | \$ |
| 99. | 1 | EA | 237110 | 9-3.1 | Junction Structure | \$ | \$ |
| 100. | 1 | EA | 237110 | 9-3.1 | Seawall | \$ | \$ |
| 101. | 1 | LS | 237110 | 9-3.1 | Color Treatment for Outfall Structure, Sidewalk and Seawall (San Diego Buff) | | \$ |
| 102. | 1 | EA | 237110 | 9-3.1 | Transition Structure | \$ | \$ |
| 103. | 1 | EA | 237110 | 9-3.1 | Beach Access Ramp | \$ | \$ |
| 104. | 1 | EA | 237110 | 9-3.1 | Low Flow Diverter System | \$ | \$ |
| 105. | 1 | EA | 237310 | 9-3.1 | Baffle Box/Trash Collector Unit | \$ | \$ |
| 106. | 1,600 | SF | 237110 | 302-5.9 | PCC Boardwalk Realignment (6" standard) | \$ | \$ |
| 107. | 1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk | \$ | \$ |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension | |
|----------------------------------|----------|------|--------|-------------------|---|---------------------------------|-----------|--|
| 108. | 1 | LS | 237310 | 9-3.1 | Misc. Surface Improvements/Landscaping | | \$ | |
| 109. | 1 | LS | 238990 | 9-3.1 | Site Demolition | | \$ | |
| ESTIMATED TOTAL BASE BID: | | | | | | | \$ | |
| ALTERNATE "A" | | | | | | | | |
| 1. | -1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work (Bid Item 75) | | \$ | |
| 2. | 1 | LS | 237110 | 600-1.2.2.10 | High-lining by the Contractor | | \$ | |
| 3. | -16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor (Bid Item 74) | \$ | \$ | |
| ESTIMATED ALTERNATE "A": | | | | | | | \$ | |
| ALTERNATE "B" | | | | | | | | |
| 1. | -400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection (Bid Item 76) | \$ | \$ | |
| 2. | 7 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cut-in Tee by Contractor | \$ | \$ | |
| 3. | 1 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cross by Contractor | \$ | \$ | |
| 4. | 10 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Connections to the Existing System by Contractor | \$ | \$ | |
| 5. | 9 | EA | 237110 | 600-1.4.9 | Cut and Plug of the Existing System by Contractor | \$ | \$ | |
| ESTIMATED ALTERNATE "B": | | | | | | | \$ | |
| ALTERNATE "C" | | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Customized Color | | \$ | |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|---|-----------------|-------------|--------------|--------------------------|--|-------------------|------------------|
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for Seawall with Customized Color | | \$ |
| 3. | -1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk (Bid Item 107) | \$ | \$ |
| ESTIMATED ALTERNATE "C": | | | | | | | \$ |
| ALTERNATE "D" | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Embedded Seashell | | \$ |
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for seawall with Embedded Seashell | | \$ |
| ESTIMATED ALTERNATE "D": | | | | | | | \$ |
| ESTIMATED TOTAL BASE BID + ALTERNATE "A" + ALTERNATE "B" + ALTERNATE "C"+ ALTERNATE "D": | | | | | | | \$ |

BIDDING DOCUMENTS

TOTAL BID PRICE FOR BID (Items 1 through 109 Plus Alternate "A", Items 1 through 3 Plus Alternate "B", Items 1 through 5 Plus Alternate "C", Items 1 through 3, Alternate "D", Items 1 through 2 inclusive) amount written in words:

The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on the Bid form. If an addendum or addenda has been issued by the City and not noted as being received by the Bidder, this proposal shall be rejected as being **non-responsive**. The following addenda have been received and are acknowledged in this bid: _____

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

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

Bidder: _____

Title: _____

Business Address: _____

Place of Business: _____

Place of Residence: _____

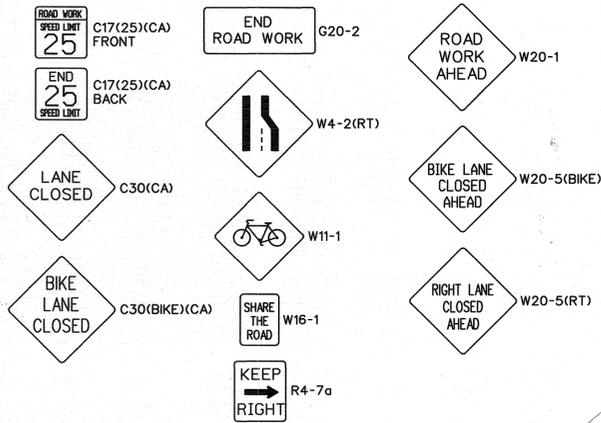
Signature: _____

BIDDING DOCUMENTS

NOTES:

- A. The City shall determine the low Bid based on the Base Bid plus the following Alternates: A, B, C, D.
- B. After the low Bid has been determined, the City may award the Contract for the Base Bid alone or if applicable, for the Base Bid plus any combination of alternates selected in the City's sole discretion.
- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
- H. 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.
- I. 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.

TEMPORARY CONSTRUCTION SIGNS (THIS SHEET ONLY)



 PIPELINE CONSTRUCTION
 WORK HOURS 11:00 PM TO 5:00 AM
 *****NIGHT WORK*****

*TRANSITION CALCULATION

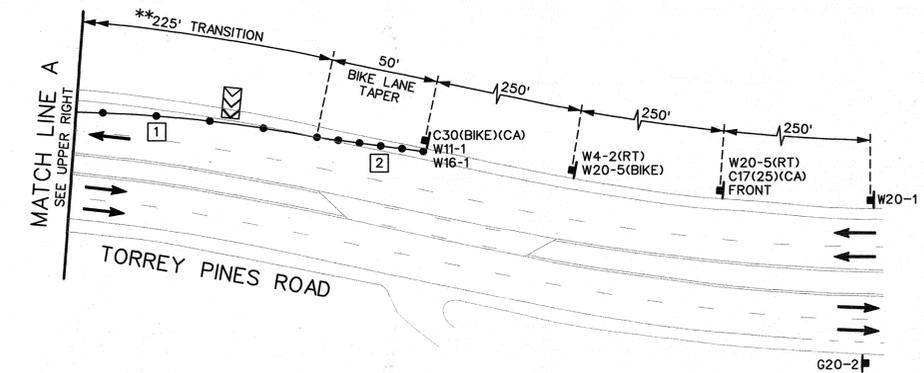
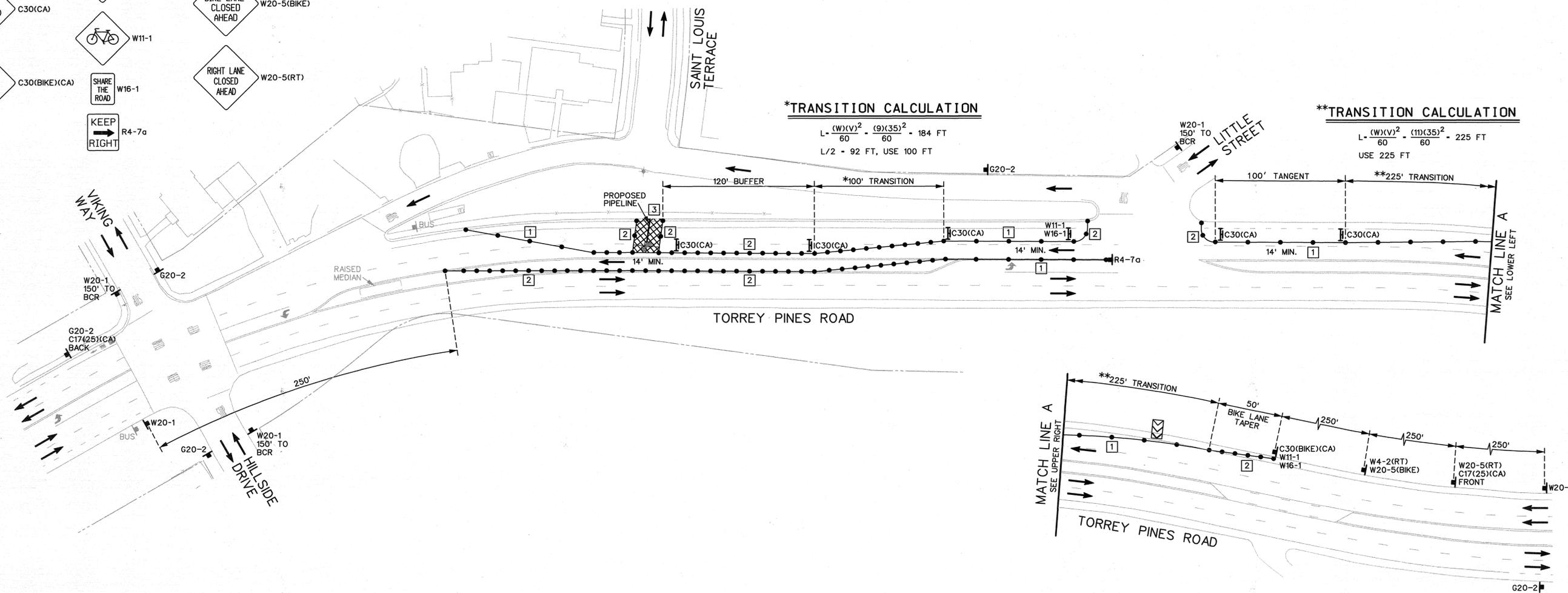
$$L = \frac{(W)(V)^2}{60} = \frac{(9)(35)^2}{60} = 184 \text{ FT}$$

$$L/2 = 92 \text{ FT, USE } 100 \text{ FT}$$

**TRANSITION CALCULATION

$$L = \frac{(W)(V)^2}{60} = \frac{(11)(35)^2}{60} = 225 \text{ FT}$$

$$\text{USE } 225 \text{ FT}$$



NOTES THIS SHEET

- 1 DELINEATORS SHALL BE PLACED AT 25' INTERVALS.
- 2 DELINEATORS SHALL BE PLACED AT 10' INTERVALS.
- 3 CONTRACTOR SHALL MAINTAIN A 4' CLEAR PATH ALONG SIDEWALK FOR PEDESTRIAN ACCESS.

TRAFFIC CONTROL DESIGN SPEED
 TORREY PINES ROAD = 35 MPH

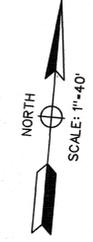
DECLARATION OF RESPONSIBLE CHARGE

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 1/17/13



LINSCOTT, LAW & GREENSPAN, ENGINEERS
 4542 Ruffner Street, Suite 100
 San Diego, Ca 92111
 (858)300-8800 (PH) (858)300-8810 (FX)

LLG 3-076350-39.1 TC2-6350-39STG1.DGN 1/17/13
 Designed By: JSM Drawn By: DVS Checked By: JPK

NOTE
 FOR TRAFFIC CONTROL GENERAL NOTES AND LEGEND SEE SHEET 1.

T-2

TRAFFIC CONTROL PLANS FOR:

**WATER GROUP 809
 TORREY PINES ROAD
 (STAGE 1)**

| | | |
|---|----------------|---|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 2 OF 2 SHEETS | | WATER WBS B-00102 SEWER WBS B-00416 |
| APPROVED BY: <i>Edward Castaneda</i> 01/29/2013 | DATE | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| FOR CITY ENGINEER | DATE | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED |
| ORIGINAL | LLG | |
| | | DATE |
| | | FILMED |
| | | |
| | | |
| | | |
| | | |
| | | |
| CONTRACTOR | DATE STARTED | 34419-T02-D |
| INSPECTOR | DATE COMPLETED | |

City of San Diego

CONTRACTOR'S NAME: HPS Mechanical, Inc.
ADDRESS: 3100 E. Belle Terrace, Bakersfield, CA 93307
TELEPHONE NO.: 661-397-2121 FAX NO.: 661-396-2589
CITY CONTACT: Eleida Yackel Felix, Contract Specialist, Email: EFelixYackel@sandiego.gov
Phone No. (619) 533-3449, Fax No. (619) 533-3633
A.Bassyouni/BD/egz

CONTRACT DOCUMENTS



FOR

AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT / SEWER AND WATER GROUP 809

VOLUME 2 OF 2

BID NO.: K-13-5979-DBB-3
SAP NO. (WBS/IO/CC): S-13018, B-00416, B-00102
CLIENT DEPARTMENT: 2116, 2011, 2013
COUNCIL DISTRICT: 1
PROJECT TYPE: CA, JA, KB

THIS CONTRACT IS SUBJECT TO THE FOLLOWING:

- PHASED-FUNDING
- FEDERAL EQUAL OPPORTUNITY CONTRACTING REQUIREMENTS.
- PREVAILING WAGE RATES: STATE FEDERAL
- THIS IS A UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION IX FUNDED CONTRACT.

**THIS BIDDING DOCUMENT TO BE SUBMITTED IN ITS ENTIRETY
REFER TO VOLUME 1 COVER PAGE 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.

| | |
|--|----|
| 1. Bid/Proposal..... | 3 |
| 2. Bid Bond..... | 7 |
| 3. Non-Collusion Affidavit to be executed by Bidder and Submitted with Bid under 23 USC 112 and PCC 7106 | 8 |
| 4. Contractors Certification of Pending Actions | 9 |
| 5. Equal Benefits Ordinance Certification of Compliance..... | 10 |
| 6. Lobby Prohibition, Certification and Disclosure | 11 |
| 7. Instructions for Completion of SF-LLL, Disclosure of Lobbying Activities | 12 |
| 8. Disclosure of Lobbying Activities | 13 |
| 9. Proposal (Bid) | 15 |
| 10. Form AA35 - List of Subcontractors | 26 |
| 11. Form AA40 - Named Equipment/Material Supplier List | 27 |
| 12. Form AA45 - Subcontractors Additive/Deductive Alternate..... | 28 |
| 13. EPA FORM 6100-3 – DBE Subcontractor Performance Form..... | 29 |
| 14. EPA FORM 6100-4 – DBE Subcontractor Utilization Form | 30 |

BIDDING DOCUMENTS

IF A PARTNERSHIP, SIGN HERE:

(1) Name under which business is conducted N/A

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

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

Full Name and Character of partner

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

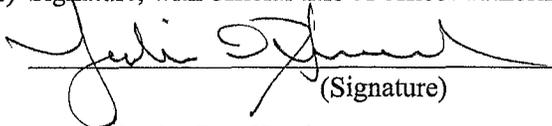
(5) City and State _____ Zip Code _____

(6) Telephone No. _____ Facsimile No. _____

IF A CORPORATION, SIGN HERE:

(1) Name under which business is conducted HPS Mechanical, Inc.

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



(Signature)

Leslie DenHerder

(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) 3100 E. Belle Terrace

(5) City and State Bakersfield, CA Zip Code 93307

(6) Telephone No. 661-397-2121 Facsimile No. 661-396-2589

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

Please see attached for Jurat Certificate

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

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

(NOTARIAL SEAL)

BIDDING DOCUMENTS

BID BOND

KNOW ALL MEN BY THESE PRESENTS,

That HPS MECHANICAL, INC. as Principal, and THE HANOVER INSURANCE COMPANY as Surety, are held and firmly bound unto The City of San Diego hereinafter called "OWNER," in the sum of 10% OF THE TOTAL BID AMOUNT for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Principal has submitted a Bid to said OWNER to perform the WORK required under the bidding schedule(s) of the OWNER's Contract Documents entitled

AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT/SEWER & WATER GROUP 809

NOW THEREFORE, if said Principal is awarded a contract by said OWNER and, within the time and in the manner required in the "Notice Inviting 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 5TH day of AUGUST, 20 13

HPS MECHANICAL, INC. (SEAL) THE HANOVER INSURANCE COMPANY (SEAL) (Principal) (Surety)

By: [Signature] (Signature)

By: [Signature] (Signature) JOHANNAH GRIFFITH, ATTORNEY-IN-FACT

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

POWERS OF ATTORNEY
CERTIFIED COPY

KNOW ALL MEN BY THESE PRESENTS: That THE HANOVER INSURANCE COMPANY and MASSACHUSETTS BAY INSURANCE COMPANY, both being corporations organized and existing under the laws of the State of New Hampshire, and CITIZENS INSURANCE COMPANY OF AMERICA, a corporation organized and existing under the laws of the State of Michigan, do hereby constitute and appoint

Wes Bradford, Johannah Griffith, Vicki Pratt and/or Lorinda Hoffmann

of Bakersfield, CA and each is a true and lawful Attorney(s)-in-fact to sign, execute, seal, acknowledge and deliver for, and on its behalf, and as its act and deed any place within the United States, or, if the following line be filled in, only within the area therein designated any and all bonds, recognizances, undertakings, contracts of indemnity or other writings obligatory in the nature thereof, as follows:

Any such obligations in the United States, not to exceed Ten Million and No/100 (\$10,000,000) in any single instance

and said companies hereby ratify and confirm all and whatsoever said Attorney(s)-in-fact may lawfully do in the premises by virtue of these presents. These appointments are made under and by authority of the following Resolution passed by the Board of Directors of said Companies which resolutions are still in effect:

"RESOLVED, That the President or any Vice President, in conjunction with any Vice President, be and they are hereby authorized and empowered to appoint Attorneys-in-fact of the Company, in its name and as its acts, to execute and acknowledge for and on its behalf as Surety any and all bonds, recognizances, contracts of indemnity, waivers of citation and all other writings obligatory in the nature thereof, with power to attach thereto the seal of the Company. Any such writings so executed by such Attorneys-in-fact shall be as binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company in their own proper persons." (Adopted October 7, 1981 - The Hanover Insurance Company; Adopted April 14, 1982 - Massachusetts Bay Insurance Company; Adopted September 7, 2001 - Citizens Insurance Company of America)

IN WITNESS WHEREOF, THE HANOVER INSURANCE COMPANY, MASSACHUSETTS BAY INSURANCE COMPANY and CITIZENS INSURANCE COMPANY OF AMERICA have caused these presents to be sealed with their respective corporate seals, duly attested by two Vice Presidents, this 29th day of May 2012.



THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

Robert Thomas
Robert Thomas, Vice President

Mary Fitzgerald
Mary Fitzgerald, Vice President

THE COMMONWEALTH OF MASSACHUSETTS)
COUNTY OF WORCESTER) ss.

On this 29th day of May 2012 before me came the above named Vice Presidents of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, to me personally known to be the individuals and officers described herein, and acknowledged that the seals affixed to the preceding instrument are the corporate seals of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, respectively, and that the said corporate seals and their signatures as officers were duly affixed and subscribed to said instrument by the authority and direction of said Corporations.



BARBARA A. GARLICK
Notary Public
Commonwealth of Massachusetts
My Commission Expires Sept. 21, 2018

Barbara A. Garlick
Barbara A. Garlick, Notary Public
My Commission Expires September 21, 2018

I, the undersigned Vice President of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America, hereby certify that the above and foregoing is a full, true and correct copy of the Original Power of Attorney issued by said Companies, and do hereby further certify that the said Powers of Attorney are still in force and effect.

This Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of The Hanover Insurance Company, Massachusetts Bay Insurance Company and Citizens Insurance Company of America.

"RESOLVED, That any and all Powers of Attorney and Certified Copies of such Powers of Attorney and certification in respect thereto, granted and executed by the President or any Vice President in conjunction with any Vice President of the Company, shall be binding on the Company to the same extent as if all signatures therein were manually affixed, even though one or more of any such signatures thereon may be facsimile." (Adopted October 7, 1981 - The Hanover Insurance Company; Adopted April 14, 1982 - Massachusetts Bay Insurance Company; Adopted September 7, 2001 - Citizens Insurance Company of America)

GIVEN under my hand and the seals of said Companies, at Worcester, Massachusetts, this 5TH day of AUGUST 2013.

THE HANOVER INSURANCE COMPANY
MASSACHUSETTS BAY INSURANCE COMPANY
CITIZENS INSURANCE COMPANY OF AMERICA

Glen Margosian
Glen Margosian, Vice President

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

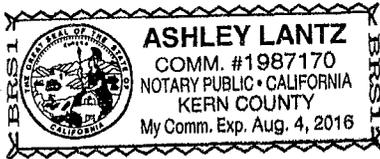
State of California

County of KERN

On 08/05/2013 before me, Ashley Lantz, Notary Public
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")

personally appeared Johannah Griffith
Name(s) of Signer(s)

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 the 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.

Ashley Lantz
Signature of Notary

Place Notary Seal Above

OPTIONAL

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

Description of Attached Document

Title or Type of Document: Bid Bond

Document Date: 08/05/2013 Number of Pages: _____

Signer(s) Other Than Named Above: _____

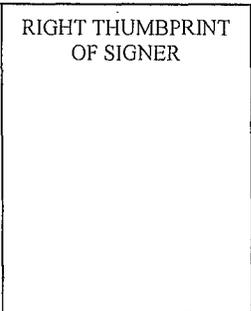
Capacity(ies) Claimed by Signer

Signer's Name: _____

- Individual
- Corporate Officer -- Titles(s) _____
- Partner(s) Limited
- Attorney in Fact
- Trustee(s)
- Guardian/Conservator
- Other: _____

Signer is Representing: The Hanover Insurance Company

Name of Person(s) or Entity(ies) _____



CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Kern

On 08/05/13 before me, Alma L. Martinez, Notary Public

Date

Here Insert Name and Title of the Officer

personally appeared Leslie DenHerder

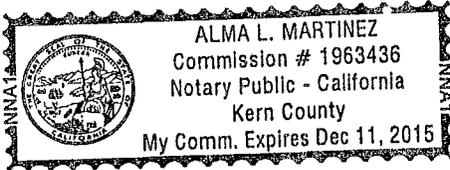
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person ~~(X)~~ whose name ~~(X)~~ is/a ~~(X)~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity ~~(X)~~, and that by his/~~her/their~~ signature ~~(X)~~ on the instrument the person ~~(X)~~, or the entity upon behalf of which the person ~~(X)~~ 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 [Handwritten 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: Bid Bond

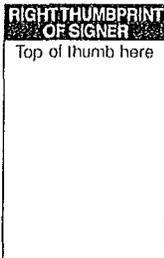
Document Date: 8/5/13 Number of Pages: _____

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: _____



Signer Is Representing: _____

Signer's Name: _____

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



Signer Is Representing: _____

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

State of California)
County of Kern) ss.

Leslie DenHerder , 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

Please see attached for Jurat Certificate
Subscribed and sworn to before me this _____ day of _____, 2_____

Notary Public

(SEAL)

CONTRACTORS CERTIFICATION OF PENDING ACTIONS

As part of its bid or proposal (Non-Price Proposal in the case of Design-Build contracts), the Bidder shall provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Bidder in a legal or administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

CHECK ONE BOX ONLY.

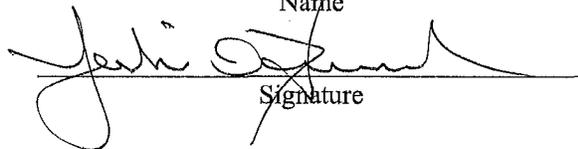
- The undersigned certifies that within the past 10 years the Bidder has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers.
- The undersigned certifies that within the past 10 years the Bidder has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Bidder discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

| DATE OF CLAIM | LOCATION | DESCRIPTION OF CLAIM | LITIGATION (Y/N) | STATUS | RESOLUTION/REMEDIAL ACTION TAKEN |
|--|----------|----------------------|------------------|--------|----------------------------------|
| Please see attached for Lawsuit History. | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Contractor Name: HPS Mechanical, Inc.

Certified By Leslie DenHerder Title President

Name



Signature

Date August 1, 2013

USE ADDITIONAL FORMS AS NECESSARY

HPS Mechanical, Inc. Lawsuit History

| Case No. | Party Name | Party Type | Case Title | Case Type | Filing date | Synopsis | Status | |
|----------|---|----------------|---------------|---|-----------------|------------|---|--|
| 1 | Recovery on payment bond for 3rd party contractor | HPS Mechanical | Defendant | Siemens Industry vs P&J Electric, Hanover, HPS | Civil Complaint | 12/11/2012 | 3rd party sub did not file prelim - then filed suit on sub, HPS and Bonding company | Dismissed 4/10/13 |
| 2 | Stop Notice and Bond claim | HPS Mechanical | Plaintiff | HPS vs. Gonzales Construction | Civil Complaint | 10/3/2012 | Miller Act | Filed Suit 3/25/13 for breach of contract for stop Case No. BC503965 |
| 3 | C11-02630 U.S. Federal Court/Oakland | HPS Mechanical | Plaintiff | HPS vs. JMR Construction | Civil Complaint | 6/1/2011 | Miller Act | Complaint out for service on JMR & bonding company. |
| 4 | 37-2011-0009204-CU-CD-CTL County of San Diego | HPS Mechanical | Defendant | Ayala Boring | Civil Complaint | 5/27/2011 | Ayala negligently bored, causing damage to I-8. | HPS & Ins. Co. of the West answer due 7/13/11 |
| 5 | MC022416 Los Angeles County/Lancaster | HPS Mechanical | Plaintiff | HPS vs. Universal Health Services (Palmdale Hospital) | Civil Complaint | 3/14/2011 | Mechanic's Lien | Settled. 10/3/11 |
| 6 | 37-2011-00000127-SC-SC-CTL County of San Diego | HPS Mechanical | Defendant | City of San Diego, a Municipal Corporation | Civil Complaint | 1/7/2011 | Disputed Fees | Disputed-In Process to Resolve |
| 7 | S-1500-CL-255729 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | Marla Sacco | Civil Complaint | 12/16/2010 | Complaint for Damages | Settled 9/1/2011 |
| 8 | 10-238378 County of Tulare | HPS Mechanical | X-complainant | Hensel Phelps v. Haws Corp. | Civil Complaint | 6/29/2010 | Negligence, Product Liability | Settled 12/10/2011 |
| 9 | 1338973 County of Santa Barbara | HPS Mechanical | Plaintiff | HPS vs. McCarthy Building, Cottage Health Services | Civil Complaint | 8/13/2009 | Mechanic's Lien | Settled. Dismissed 12/21/09. |
| 10 | S-1500-CV-267626 County of Kern | HPS Mechanical | Plaintiff | HPS vs. Tank Specialties | Civil Complaint | 6/24/2009 | Breach of Contract, Recovery on Contractor's License Bond | Settled 3/5/09. Dismissed 6/29/10. |
| 11 | S-1500-CV-263819 County of Kern (661) 868-7204 | HPS Mechanical | Plaintiff | HPS vs. Moreland Corporation, Moreland Family LLC, City of Bakersfield, C&O Bakersfield LLC | Civil Complaint | 5/1/2008 | Mechanics lien | Judgment 2-20-09 |
| 12 | S-1500-CV-263489 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | Golden State Boring vs HPS | Civil Complaint | 4/2/2008 | Contractual Dispute | Settled. Dismissed 6-23-08 |

"HPS is a large corporation and is subject to many legal issues in the normal process of its business. Any omission from this list is unintentional. For further information, please contact HPS."

**HPS Mechanical, Inc.
Lawsuit History**

| | | | | | | | | |
|----|--|----------------|-------------------------|---|-----------------|------------|---|-----------------------------------|
| 13 | GIN058484 County of San Diego (760) 726-9595 | HPS Mechanical | Defendant | Anthony P. Stampul vs HPS | Civil Complaint | 1/23/2007 | Plaintiff involved in vehicle accident with Defendant. Insurance Co. handling defense. | Dismissed 3-3-08 San Diego County |
| 14 | S-1500-CV-258832 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | Rocha vs HPS | Civil Complaint | 8/10/2006 | Wrongful termination | Dismissed 6-11-07 |
| 15 | S-1500-CV-257590 County of Kern (661) 868-7204 | HPS Mechanical | Plaintiff and Defendant | HPS vs Advanced Boring & Microtunneling | Civil Complaint | 3/3/2006 | ABM was a sub to HPS that abandoned the project. ABM has agreed to pay HPS & lawsuit is being dismissed | Settled. Dismissed 9-21-07 |
| 16 | S-1500-CL-206012 County of Kern (661) 868-7204 | HPS Mechanical | Plaintiff | HPS vs Joanna Fava | Civil Complaint | 1/20/2006 | Mechanics lien | Settled. Dismissed 2-15-06 |
| 17 | S-1500-CV-256782 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | Davenport vs HPS | Civil Complaint | 11/7/2005 | Service Call Leak | Settlement as of 1-25-08 |
| 18 | S-1500-CV-256541 County of Kern (661) 868-7204 | HPS Mechanical | Cross-Defendant | Barcelona Housing vs General Dev. Const. | Civil Complaint | 9/30/2005 | Alleged Construction Defects at Multi-Family Housing Project | Dismissed as of 12-8-08 |
| 19 | S-1500-CV-256399 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | SC Anderson vs California Avenue Senior Housing | Civil Complaint | 9/21/2005 | HPS was named as defendant by SC Anderson but was concluded that HPS had no fault | Dismissed 5-19-06 |
| 20 | S-1500-CV-255184 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | St Paul Fire vs HPS | Civil Complaint | 4/1/2005 | Leak in a Building Handled by a Predecessor Company | Settled. Dismissed 4-25-06 |
| 21 | S-1500-CV-249116 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | McDonald vs HPS | Civil Complaint | 1/10/2003 | Slip and fall (Carmen Hernandez) case was settled (see next) | Dismissed 1-13-04 |
| 22 | S-1500-CV-249036 County of Kern (661) 868-7204 | HPS Mechanical | Defendant | Hernandez vs HPS | Civil Complaint | 12/30/2002 | Slip and fall case was settled | Dismissed 1-2-04 |

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Claims filed with Contractor State License Board

Marla Saco v HPS Mechanical

This litigation is a recent claim filed by Ms. Saco against HPS for services performed on an investment property of hers. During the course of performance, Ms. Saco made it impossible to complete the job. We credited her with thousands of dollars worth of services and products to try to make her happy. We believed this to be resolved until Ms. Saco filed an 11th hour claim almost 4 years after the cessation of services. We believe HPS will be completely exonerated in all issues of this claim.

Claims filed with California State Labor Board

Rocha v HPS

This claim was filed by Mr. Rocha who alleged he was terminated for discrimination based. This claim was filed in 2006, and we are unsure if a Labor Board Claim was filed, however we know a civil suit was filed for the same issue. This claim was eventually dismissed as baseless.

Huesca v HPS

Mr. Huesca filed a claim with the California Department of Labor claiming he was terminated for Disability Discrimination. HPS agreed to voluntarily mediate this claim at the request the State. HPS denied any allegations, but in March 2010, agreed to settle this claim for a nuisance value.

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: HPS Mechanical, Inc. | Contact Name: Leslie DenHerder |
| Company Address: 3100 E. Belle Terrace Bakersfield, CA 93307 | Contact Phone: 661-397-2121 Contact Email: les@hpsmechanical.com |

CONTRACT INFORMATION

| | |
|--|-------------|
| Contract Title: Avenida De La Playa Infrastructure Replacement | Start Date: |
| Contract Number (if no number, state location): S&W 809 | 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.

Leslie DenHerder, President

Name/Title of Signatory

Signature

FOR OFFICIAL CITY USE ONLY

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

rev 02/15/2011

LOBBY PROHIBITION, CERTIFICATION AND DISCLOSURE

In acknowledgment that funds received under this agreement have been provided pursuant to a Federal grant, recipient hereby recognizes the prohibitions against lobbying the Federal government with any of these funds. Recipient agrees that it shall comply with the laws set forth at 31 U.S.C. § 1352 (1989) and 24 C.F.R. part 87, to wit:

A. Conditions on use of funds

Recipient shall not expend any funds received pursuant to this agreement to pay any person to influence an officer or employee of Federal agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress in connection with any of the following Covered Federal actions:

- (1) The awarding of any federal contract
- (2) The making of any Federal grant
- (3) The making of any Federal Loan
- (4) The entering into of any cooperative agreement
- (5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

For purposes of defining the terms of this part of the agreement, the definitions set forth in 24 C.F.R. § 87.105 are hereby adopted and incorporated herein by reference.

B. Certification and Disclosure

Each recipient at every tier under this agreement shall file a certification regarding lobbying, and a Disclosure Form-LLL, where required by 24 C.F.R. § 87.110. The certification form and Disclosure Form-LLL are attached to this agreement.

C. Certifications must be filed:

- (1) By any person upon each submission that initiates agency consideration for an award of a Federal contract, grant, or cooperative agreement exceeding \$100,000, or a Federal loan or loan guarantee exceeding \$150,000.
- (2) Upon receipt by any person of a Federal contract, grant, or cooperative agreement exceeding \$100,000, or upon receipt of a Federal loan or loan guarantee exceeding \$150,000.
- (3) By any person who requests or receives from a person referred to in subsections 1 and 2 of this paragraph:
 - a. A subcontract exceeding \$100,000 at any tier under a Federal contract;
 - b. A subgrant, contract or subcontract exceeding \$100,000 at any tier under a Federal grant;
 - c. A contract or subcontract exceeding \$100,000 at any tier under a Federal loan exceeding \$150,000;
 - d. A contract or subcontract exceeding \$100,000 at any tier under a Federal cooperative agreement.

D. Disclosure Forms-LLL must be filed in every instance when a person applies for, requests, or receives Federal appropriations exceeding \$100,000 pursuant to a contract, subcontract, grant, subgrant, loan, or cooperative agreement when such person has paid or expects to pay any sum, in cash or in kind, to influence or attempt to influence any officer or employee of an agency, a member of Congress, an officer or employee of Congress, or an employee of a member of Congress. Further, Disclosure Form-LLL must be filed by recipients at any tier at the end of each calendar quarter in which there occurs any event that requires disclosure or materially affects information submitted in prior disclosures. Such events include:

- (1) 1. An increase of \$25,000 in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action;
- (2) 2. A change in the person(s) influencing or attempting to influence a covered action;
- (3) 3. A change in the officer(s), employee(s), or member(s) contacted to influence a covered action.

All disclosure Forms-LLL, but not certifications, shall be forwarded from tier to tier until received by the principal recipient, which in turn will file them with the appropriate Federal agency.

BIDDING DOCUMENTS

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLLA Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing there port in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
15. Check whether or not a SF-LLLA Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

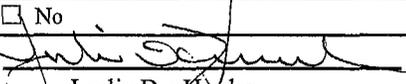
According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

BIDDING DOCUMENTS

DISCLOSURE OF LOBBYING ACTIVITIES Approved by OMB
Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352

0348-0046

(See reverse for public burden disclosure)

| | | |
|--|--|--|
| 1. Type of Federal Action: <input type="checkbox"/> a. Contract <input type="checkbox"/> a. Grant <input type="checkbox"/> b. Cooperative agreement <input type="checkbox"/> c. Loan <input type="checkbox"/> d. Loan guarantee <input type="checkbox"/> e. Loan insurance | 2. Status of Federal Action: <input checked="" type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award | 3. Report Type: <input type="checkbox"/> a. initial finding <input type="checkbox"/> b. material change For Material Change Only year _____ quarter _____ date of last report _____ |
| 4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: HPS Mechanical, Inc. 3100 E. Belle Terrace Bakersfield, CA 93307 Congressional District, if known: | 5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known: | |
| 6. Federal Department/Agency: N/A | 7. Federal Program Name/Description: CFDA Number, if applicable: _____ | |
| 8. Federal Action Number, if known: | 9. Award Amount, if known: \$ _____ | |
| 10. a. Name and Address of Lobbying Entity (if individual, last name, first name, M) (attach Continuation Sheet(s) SF-LLLA, if necessary) | b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI): (attach Continuation Sheet(s) SF-LLLA, if necessary) | |
| 11. Amount of Payment (check all that apply) \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned | 13. Type of Payment (check all that apply) <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferral <input type="checkbox"/> f. other: specify: _____ | |
| 12. Form of Payment (check all that apply) <input type="checkbox"/> a, cash <input type="checkbox"/> b. in-kind: specify: nature _____ Value _____ | | |
| 14. Brief Description of Services Performed or to be Performed and Date(s) of Service, Including officer(s), employee(s), or Member(s), contacted, for Payment indicated in item 11: (attach Continuation Sheet(s) SF-LLLA, if necessary) | | |
| 15. Continuation Sheet(s) SF-LLLA attached: <input type="checkbox"/> Yes <input type="checkbox"/> No | | |
| 16. Information requested through this for misauthorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. | Signature:  Print Name: <u>Leslie Denfelder</u> Title: <u>President</u> Telephone No.: <u>661-397-2121</u> Date: <u>08/01/2013</u> | |
| Federal Use Only: | Authorized for Local Reproduction Standard Form LLL (Rev. 7-07) | |

BIDDING DOCUMENTS

**DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET**

Approved by
OMB0348-0046

Reporting Entity: _____ Page _____ of _____

N/A

Authorized for Local Reproduction
Standard Form - LLL-A

BIDDING DOCUMENTS

PROPOSAL (BID)

The Bidder agrees to the construction of **Avenida De La Playa Infrastructure Replacement /Sewer and Water Group 809**, 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 and 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 | NAICS | Payment Reference | Description | Unit Price | Extension |
|--|----------|------|--------|-------------------|---|---------------------------------|--------------|
| BASE BID | | | | | | | |
| Sewer and Water Group 809 - These bid items include sewer and water work to be done as part of Avenida De La Playa Infrastructure Replacement. | | | | | | | |
| Common | | | | | | | |
| 1. | 1 | LS | 524126 | 2-4.1 | Bonds (Payment and Performance) | | \$ 50,000.00 |
| 2. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ 2,400.00 |
| 3. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ 87,425.00 |
| 4. | 1 | LS | | 7-16.3 | Exclusive Community Liaison | | \$ 21,540.00 |
| 5. | 1 | LS | 237110 | 9-3.4.1 | Mobilization | | \$ 60,000.00 |
| 6. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$200,000.00 |
| 7. | 10 | CY | 237310 | 300-1.4 | Additional Pavement Removal & Disposal | \$ 90.00 | \$ 900.00 |
| 8. | 10 | EA | 237310 | 301-1.7 | Adjusting Existing Gate Valve Cover to Grade | \$ 450.00 | \$ 4,500.00 |
| 9. | 2 | EA | 237310 | 301-1.7 | Adjusting Existing Manhole Frame & Cover to Grade | \$ 560.00 | \$ 1,120.00 |
| 10. | 21,480 | SF | 237310 | 302-1.12 | Cold Mill AC Pavement (0 - 1 1/2") | \$ 1.00 | \$ 21,480.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|------|----------|------|--------|-------------------|---|-------------|---------------|
| 11. | 141,060 | SF | 237310 | 302-4.12.4 | Rubber Polymer Modified Slurry Type II and Striping | \$ 1.00 | \$ 141,060.00 |
| 12. | 1,710 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ 125.00 | \$ 213,750.00 |
| 13. | 49,945 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ 10.00 | \$499,450.00 |
| 14. | 20,000 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ 4.50 | \$ 90,000.00 |
| 15. | 415 | LF | 237310 | 303-5.9 | Additional Curb and Gutter | \$ 35.00 | \$ 14,525.00 |
| 16. | 1,660 | SF | 237310 | 303-5.9 | Additional Sidewalk Removal and Replacement | \$ 8.00 | \$ 13,280.00 |
| 17. | 800 | SF | 237310 | 303-5.9 | Cross Gutter | \$ 15.00 | \$ 12,000.00 |
| 18. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Detectable Warning Tiles | \$2,400.00 | \$ 4,800.00 |
| 19. | 7 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Stainless Steel Detectable Warning Tiles | \$ 2,800.00 | \$ 19,600.00 |
| 20. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Detectable Warning Tiles | \$ 2,600.00 | \$5,200.00 |
| 21. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Stainless Steel Detectable Warning Tiles | \$ 2,800.00 | \$ 8,400.00 |
| 22. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C1 with Detectable Warning Tiles | \$ 2,600.00 | \$ 7,800.00 |
| 23. | 1 | EA | 237310 | 303-5.10.2 | Directional Curb Ramp with Stainless Steel Detectable Warning Tiles | \$ 2,800.00 | \$ 2,800.00 |
| 24. | 15 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Detectable Warning Tiles | \$ 2,700.00 | \$ 40,500.00 |
| 25. | 22 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Stainless Steel Detectable Warning Tiles | \$ 3,000.00 | \$ 66,000.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--------------|----------|------|--------|-------------------|--|---------------------------------|---------------|
| 26. | 6 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Detectable Warning Tiles | \$ 2,500.00 | \$ 15,000.00 |
| 27. | 13 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Stainless Steel Detectable Warning Tiles | \$ 2,500.00 | \$ 32,500.00 |
| 28. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Case A (SDG-130) with Stainless Steel Detectable Warning Tiles | \$ 3,000.00 | \$ 9,000.00 |
| 29. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | | \$ 8,000.00 |
| 30. | 315 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ 20.00 | \$ 6,300.00 |
| 31. | 685 | TON | 237310 | 306-1.5.1 | Temporary Resurfacing | \$ 117.00 | \$ 80,145.00 |
| 32. | 4,100 | TON | 237110 | 306-1.6 | Imported Backfill | \$ 10.00 | \$ 41,000.00 |
| 33. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | | \$ 500.00 |
| 34. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | | \$ 8,000.00 |
| 35. | 1 | AL | 238990 | 705-2.7 | Dewatering Permit and Discharge Fees - Type I | | \$100,000.00 |
| 36. | 1 | LS | 238990 | 705-2.7 | Dewatering – Non-Hazardous Contaminated Water | | \$ 135,000.00 |
| 37. | 15 | DAYS | 541690 | 707-1 | Suspension of Work - Resources | \$ 500.00 | \$ 7,500.00 |
| Sewer | | | | | | | |
| 38. | 3 | EA | 237110 | 306-1.6 | Sewer Main Cleanout | \$ 1,080.00 | \$ 3,240.00 |
| 39. | 2,673 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main | \$ 90.00 | \$240,570.00 |
| 40. | 23 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main | \$ 305.00 | \$ 7,015.00 |
| 41. | 505 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main, Special Strength SDR-26 | \$ 193.00 | \$97,465.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|------|----------|------|--------|-------------------|---|---|---------------|
| 42. | 624 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main | \$ 145.00 | \$ 90,480.00 |
| 43. | 625 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main, Special Strength SDR-26 | \$ 143.00 | \$ 89,375.00 |
| 44. | 925 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main, Special Strength SDR-26 | \$ 230.00 | \$ 212,750.00 |
| 45. | 47 | EA | 237110 | 306-1.8.6 | Manholes (4' x 3'), PVC Lined | \$ 15,000.00 | \$ 705,000.00 |
| 46. | 6 | EA | 237110 | 306-1.8.6 | Connection to Existing Manhole and Rechanneling. | \$ 2,600.00 | \$ 15,600.00 |
| 47. | 90 | EA | 237110 | 306-1.9.1 | 4-Inch Sewer Lateral & Cleanout (Street) | \$ 2,778.00 | \$ 250,020.00 |
| 48. | 4 | EA | 237110 | 306-1.9.2.5 | 4-Inch Trenchless Method For Private Replumbing | \$ 9,820.00 | \$ 39,280.00 |
| 49. | 12 | EA | 237110 | 306-5.3 | Abandon Existing Manhole Outside of Trench | \$ 560.00 | \$ 6,720.00 |
| 50. | 1 | LS | 237110 | 306-5.3 | Abandon and Fill Existing Sewer Mains Outside of Trench Limit |  | \$ 44,170.00 |
| 51. | 5 | EA | 237110 | 306-13 | Abandon Water Services (Stiff) | \$ 900.00 | \$ 4,500.00 |
| 52. | 870 | LF | 237110 | 306-21.9 | 8-inch Pipe Bursting (Sewer) | \$ 83.00 | \$ 72,210.00 |
| 53. | 555 | LF | 237110 | 306-21.9 | 12-inch Pipe Bursting (Sewer) | \$ 100.00 | \$ 55,500.00 |
| 54. | 980 | LF | 237110 | 306-21.9 | 15-inch Pipe Bursting (Sewer) | \$ 104.00 | \$ 101,920.00 |
| 55. | 42 | EA | 237110 | 306-21.9 | Trenchless 4-Inch Sewer Lateral Connection & Cleanout | \$ 4,620.00 | \$ 194,040.00 |
| 56. | 233 | LF | 237110 | 500-1.1.9 | Rehabilitate 8-Inch Sewer Main | \$ 75.00 | \$ 17,475.00 |
| 57. | 1,141 | LF | 237110 | 500-1.1.9 | Rehabilitate 10-Inch Sewer Main | \$ 48.00 | \$ 54,768.00 |
| 58. | 27 | EA | 237110 | 500-1.6.2.6 | Service Lateral Connection | \$ 1,500.00 | \$ 40,500.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--------------|----------|------|--------|-------------------|---|-------------------|---------------|
| 59. | 3 | EA | 237110 | 500-2.10.2 | Rehabilitate Existing Manhole | \$ 4,183.00 | \$ 12,549.00 |
| 60. | 1 | LS | 237110 | 704-4 | Sewage Bypass and Pumping Plan (Diversion Plan) | XXXXXX | \$ 140,000.00 |
| Water | | | | | | | |
| 61. | 6,621 | LF | 237110 | 306-1.6 | 8-Inch Water Main | \$ 72.00 | \$ 476,712.00 |
| 62. | 1 | EA | 237110 | 306-1.6 | 6-Inch Fire Service Connection | \$ 4,300.00 | \$ 4,300.00 |
| 63. | 2 | EA | 237110 | 306-1.6 | 4-Inch Fire Service Connection | \$ 3,000.00 | \$ 6,000.00 |
| 64. | 12 | EA | 237110 | 306-1.6 | 6-Inch Fire Hydrant Assembly & Marker | \$ 5,400.00 | \$ 64,800.00 |
| 65. | 23 | EA | 237110 | 306-1.6 | 8-Inch Gate Valve | \$ 2,000.00 | \$ 46,000.00 |
| 66. | 133 | EA | 237110 | 306-14.1 | 1-Inch Water Service | \$ 1,500.00 | \$ 199,500.00 |
| 67. | 5 | EA | 237110 | 306-14.1 | 2-Inch Water Service | \$ 4,306.00 | \$ 21,530.00 |
| 68. | 4 | EA | 237110 | 306-14.1 | 1-Inch Water Service Transfer | \$ 1,300.00 | \$ 5,200.00 |
| 69. | 1 | EA | 237110 | 306-14.1 | 2-Inch Water Service Transfer | \$ 1,800.00 | \$ 1,800.00 |
| 70. | 24 | EA | 237110 | 306-14.2.4 | 1-Inch Water Service (trenchless) | \$ 2,400.00 | \$ 57,600.00 |
| 71. | 2 | EA | 237110 | 306-18 | 2-Inch Blowoff Valve Assembly | \$ 2,700.00 | \$ 5,400.00 |
| 72. | 2 | EA | 237110 | 306-19 | 2-Inch Air & Vacuum Valve, Class 235 | \$ 3,900.00 | \$ 7,800.00 |
| 73. | 1,385 | LF | 237110 | 306-21.9 | 8-Inch Pipe Bursting (Water) | \$ 62.00 | \$ 85,870.00 |
| 74. | 16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor | \$ 4.00 | \$ 64,000.00 |
| 75. | 1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work | XXXXXX | \$ 200,000.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|---|----------|------|--------|-------------------|---|---------------------------------|---------------|
| 76. | 400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection | \$ 15.00 | \$ 6,000.00 |
| Avenida De La Playa Infrastructure Replacement | | | | | | | |
| 77. | 1 | LS | | 2-4.1 | Bonds (Payment and Performance) | | \$ 10,000.00 |
| 78. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ 600.00 |
| 79. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ 36,000.00 |
| 80. | 1 | LS | 237310 | 7-16.3 | Exclusive Community Liaison | | \$ 3,000.00 |
| 81. | 1 | LS | | 9-3.4.1 | Mobilization | | \$ 40,000.00 |
| 82. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$80,000.00 |
| 83. | 7 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ 536.00 | \$ 3,752.00 |
| 84. | 17,770 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ 5.50 | \$97,735.00 |
| 85. | 80 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ 3.00 | \$ 240.00 |
| 86. | 636 | LF | 237110 | 303-1.11 | 51" Wide x 183" High Box Culvert reinforced Pre-cast Concrete Box Culvert | \$ 1,489.00 | \$ 947,004.00 |
| 87. | 600 | LF | 237310 | 303-5.9 | Curb & Gutter (6-Inch Curb, Type G) | \$ 30.00 | \$ 18,000.00 |
| 88. | 3 | EA | 237310 | 303-5.9 | Commercial Concrete Driveway | \$ 2,575.00 | \$ 7,725.00 |
| 89. | 1,900 | SF | 237310 | 303-5.9 | Remove and Replace Existing Sidewalk | \$ 8.00 | \$ 15,200.00 |
| 90. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A w/ Composite Detectable Warning Tiles | \$ 2,400.00 | \$ 7,200.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|------|----------|------|--------|-------------------|--|---------------------------------|---------------------------|
| 91. | 1 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 w/ Composite Detectable Warning Tiles | \$ 2,635.00 | \$2,635.00 |
| 92. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | | \$ 5,000.00 |
| 93. | 18 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ 20.00 | \$ 360.00 |
| 94. | 435 | TON | 237110 | 306-1.6 | Imported Backfill | \$ 10.00 | \$ 4,350.00 |
| 95. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | | \$ 500.00 |
| 96. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | | \$ 3,000.00 |
| 97. | 5 | DAYS | 541330 | 707-1 | Suspension of Work - Resources | \$ 500.00 | \$ 2,500.00 |
| 98. | 1 | EA | 237110 | 9-3.1 | Outfall Structure | \$ 335,000. ⁰⁰ | \$ 335,000. ⁰⁰ |
| 99. | 1 | EA | 237110 | 9-3.1 | Junction Structure | \$ 205,000. ⁰⁰ | \$ 205,000. ⁰⁰ |
| 100. | 1 | EA | 237110 | 9-3.1 | Seawall | \$ 90,000. ⁰⁰ | \$ 90,000. ⁰⁰ |
| 101. | 1 | LS | 237110 | 9-3.1 | Color Treatment for Outfall Structure, Sidewalk and Seawall (San Diego Buff) | | \$12,365.00 |
| 102. | 1 | EA | 237110 | 9-3.1 | Transition Structure | \$ 90,000.00 | \$ 90,000.00 |
| 103. | 1 | EA | 237110 | 9-3.1 | Beach Access Ramp | \$ 8,800.00 | \$ 8,800.00 |
| 104. | 1 | EA | 237110 | 9-3.1 | Low Flow Diverter System | \$ 255,000. ⁰⁰ | \$ 255,000. ⁰⁰ |
| 105. | 1 | EA | 237310 | 9-3.1 | Baffle Box/Trash Collector Unit | \$ 207,000. ⁰⁰ | \$ 207,000. ⁰⁰ |
| 106. | 1,600 | SF | 237110 | 302-5.9 | PCC Boardwalk Realignment (6" standard) | \$ 20.00 | \$ 32,000.00 |
| 107. | 1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk | \$ 20.00 | \$ 32,000.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|----------------------------------|----------|------|--------|-------------------|---|---------------------------------|----------------------------|
| 108. | 1 | LS | 237310 | 9-3.1 | Misc. Surface Improvements/Landscaping | | \$ 3,000.00 |
| 109. | 1 | LS | 238990 | 9-3.1 | Site Demolition | | \$ 110,000.00 |
| ESTIMATED TOTAL BASE BID: | | | | | | | \$ 8,444,800.00 |
| ALTERNATE "A" | | | | | | | 8,444,100.00 → |
| 1. | -1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work (Bid Item 75) | | \$-200,000.00 |
| 2. | 1 | LS | 237110 | 600-1.2.2.10 | High-lining by the Contractor | | \$365,850.00 |
| 3. | -16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor (Bid Item 74) | \$ 3.12 | \$ -49,920.00 |
| ESTIMATED ALTERNATE "A": | | | | | | | \$ 115,930.00 |
| ALTERNATE "B" | | | | | | | |
| 1. | -400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection (Bid Item 76) | \$ 12.00 | \$ -4,800.00 |
| 2. | 7 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cut-in Tee by Contractor | \$2,820.00 | \$ 19,740.00 |
| 3. | 1 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cross by Contractor | \$ 3,480.00 | \$ 3,480.00 |
| 4. | 10 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Connections to the Existing System by Contractor | \$ 675.00 | \$ 6,750.00 |
| 5. | 9 | EA | 237110 | 600-1.4.9 | Cut and Plug of the Existing System by Contractor | \$960.00 | \$8,640.00 |
| ESTIMATED ALTERNATE "B": | | | | | | | \$ 33,810.00 |
| ALTERNATE "C" | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Customized Color | | \$ 18,000.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--|----------|------|--------|-------------------|--|---------------------------------|----------------------------|
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for Seawall with Customized Color | | \$ 11,000.00 |
| 3. | -1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk (Bid Item 107) | \$ 2.50 | \$ -4,000.00 |
| ESTIMATED ALTERNATE "C": | | | | | | | \$ 25,000.00 |
| ALTERNATE "D" | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Embedded Seashell | | \$ 17,054.00 |
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for seawall with Embedded Seashell | | \$ 5,027.00 |
| ESTIMATED ALTERNATE "D": | | | | | | | \$ 22,081.00 |
| ESTIMATED TOTAL BASE BID + ALTERNATE "A" + ALTERNATE "B" + ALTERNATE "C" + ALTERNATE "D": | | | | | | | \$ 8,641,621.00 |

8640921.00 ✓

BIDDING DOCUMENTS

TOTAL BID PRICE FOR BID (Items 1 through 109 Plus Alternate "A", Items 1 through 3 Plus Alternate "B", Items 1 through 5 Plus Alternate "C", Items 1 through 3, Alternate "D", Items 1 through 2 inclusive) amount written in words:

Eight million Six Hundred forty-one thousand six hundred twenty-one

The Bid shall contain an acknowledgment of receipt of all addenda, the numbers of which shall be filled in on the Bid form. If an addendum or addenda has been issued by the City and not noted as being received by the Bidder, this proposal shall be rejected as being **non-responsive**. The following addenda have been received and are acknowledged in this bid: A, B, C

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

- HPS Mechanical, Inc.
- Leslie DenHerder, President
- Susan DenHerder, Secretary

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.

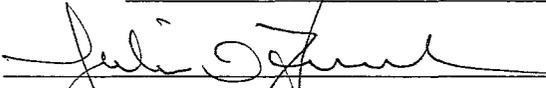
Bidder: HPS Mechanical, Inc.

Title: President

Business Address: 3100 E. Belle Terrace, Bakersfield, CA 93307

Place of Business: 3100 E. Belle Terrace, Bakersfield, CA 93307

Place of Residence: Bakersfield, CA 93307

Signature: 

BIDDING DOCUMENTS

NOTES:

- A. The City shall determine the low Bid based on the Base Bid plus the following Alternates: A, B, C, D.
- B. After the low Bid has been determined, the City may award the Contract for the Base Bid alone or if applicable, for the Base Bid plus any combination of alternates selected in the City's sole discretion.
- C. 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.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
- H. 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.
- I. 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, SLBE, SDB, WoSB, HUBZone, OR SDVOSB ^① | WHERE CERTIFIED ^② | CHECK IF JOINT VENTURE PARTNERSHIP |
|--|-------------------------|--------------|-----------------------------|--|------------------------------|------------------------------------|
| Name: Statewide Stripes, Inc. Address: PO Box 600710 City: San Diego State: CA Zip: 92160 Phone: 858-560-6887 | Constructor | Striping | \$14,801.00 | MBE/SB/DBE | CALTRANS, CADoGS | |
| Name: G. Scott Asphalt, Inc. Address: 358 Trousdale Drive City: Chula Vista State: CA Zip: 91910 Phone: 619-420-1854 | Constructor | Slurry Seal | \$55,614.00 | SLBE/DVBE | CADoGS, City | |
| Name: SANCON Engineering Address: 5841 Engineer Drive City: Huntington Beach State: CA Zip: 92649 Phone: 714-891-2323 | Constructor | CIPP Lining | \$70,571.00 | OBE | City | |

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25.82

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.

Form Title: LIST OF SUBCONTRACTORS

(Rev. July 2012)

Form Number: AA35

Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809

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BIDDING DOCUMENTS

LIST OF SUBCONTRACTORS

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| 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 ^① | WHERE CERTIFIED ^② | CHECK IF JOINT VENTURE PARTNERSHIP |
|---|-------------------------|-----------------|-----------------------------|--|------------------------------|------------------------------------|
| Name: McGrath Consulting Address: PO Box 20205 City: El Cajon State: CA Zip: 92021 Phone: 619-443-3459 | Constructor | WPCP | \$850.00 | ELBE | City | |
| Name: Mocon Address: 79-975 Double Eagle Way City: La Quinta State: CA Zip: 92253 Phone: 760-564-2536 | Cosntructor | Pipe Bursting | \$287,748.00 | OBE | City | |
| Name: Vic Salazar Address: 2514 Jamacha Road #502-21 City: El Cajon State: CA Zip: 92019 Phone: 619-517-4744 | Constructor | Video Recording | \$23,600.00 | ELBE/SLBE/DBE/ MBE/SB/SBE | City/CADoGS CA | |

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| | | | |
|---|--------|--|---------|
| Certified Minority Business Enterprise | MBE | Certified Woman Business Enterprise | WBE |
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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 |

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Form Title: LIST OF SUBCONTRACTORS

(Rev. July 2012)

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Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809

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BIDDING DOCUMENTS

LIST OF SUBCONTRACTORS

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| 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 ^① | WHERE CERTIFIED ^② | CHECK IF JOINT VENTURE PARTNERSHIP |
|--|----------------------------|-----------------|--------------------------------|--|------------------------------------|---|
| Name: Safe T Lite Rentals Address: 777 Gable Way City: El Cajon State: CA Zip: 92022-0117 Phone: 619-441-3644 | Constructor | Traffic Control | \$5,400.00 | WBE/SLBE | City, CPUC, CALTRANS | |
| Name: Tunnel Vision Pipeline Cleaning & Video Insp. Address: 18699 Shoshonee Road City: Apple Valley State: CA Zip: 92307 Phone: 760-269-5199 | Constructor | CCTV | \$4,800.00 | OBE | City | |
| Name: MD Concrete Cutting & Demo Address: 7501 Downing Ave City: Bakersfield State: CA Zip: 93308 Phone: 661-322-4201 | Constructor | Demo | \$62,400.00 | OBE | City | |

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| | | | |
|---|--------|--|---------|
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Form Title: LIST OF SUBCONTRACTORS

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Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809

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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 ① | WHERE CERTIFIED ② | CHECK IF JOINT VENTURE PARTNERSHIP |
|--|-------------------------|----------------------|-----------------------------|---|-------------------|------------------------------------|
| Name: <u>Kissinger Trucking & Equipment Rental</u> Address: <u>PO Box 1127</u> City: <u>Spring Valley</u> State: <u>CA</u> Zip: <u>91979</u> Phone: <u>619-660-7488</u> | Constructor | Dirt Haul off Spoils | \$40,000.00 | WBE, DBE | CADoGS, Caltrans | |
| Name: <u>Baker Corp.</u> Address: <u>1726 Don Lee Place</u> City: <u>Escondido</u> State: <u>CA</u> Zip: <u>92029</u> Phone: <u>760-745-1767</u> | Constructor | Bypass-Highlining | \$20,922.30 | OBE | City | |
| Name: <u>Seal Right Paving</u> Address: <u>PO Box 2753</u> City: <u>Spring Valley</u> State: <u>CA</u> Zip: <u>91979</u> Phone: <u>619-465-7411</u> | Constructor | Asphalt Paving | \$277,207.23 | SLBE | City | |

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

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

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

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

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

Form Title: LIST OF SUBCONTRACTORS

(Rev. July 2012)

Form Number: AA35

Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809

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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.

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|---|-------------------------|--|-----------------------------|--|------------------------------|------------------------------------|
| Name: YBS Concrete Address: 821 Kuhn Drive Suite 204 City: Chula Vista State: CA Zip: 91914 Phone: 619-271-6122 | Constructor | Concrete Pavement Curb & Gutter | \$545,402.50 | ELBE | City | |
| Name: Old Precast Address: 2020 Goetz Road City: Perris State: CA Zip: 92570 Phone: 951-490-4108 | Constructor | Concrete Maholes Low Flow Diverters | \$341,785.00 | OB | City | |
| Name: Bowcon Company Address: 1348 La Mirada Drive Suite A City: San Marcos State: CA Zip: 92078 Phone: 760-736-8283 | Constructor | Concrete Structures | \$435,323.00 | SLBE/ELBE/SBE | City | |

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| | | | |
|---|--------|--|---------|
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| | | | |
|--|--------|--|----------|
| 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 |
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Form Title: LIST OF SUBCONTRACTORS

(Rev. July 2012)

Form Number: AA35

Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809

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BIDDING DOCUMENTS

LIST OF SUBCONTRACTORS

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|--|-------------------------|--------------|-----------------------------|---|-------------------|------------------------------------|
| Name: Southern Contracting Company Address: 559 Twin Oaks Valley Road City: San Marcos State: CA Zip: 92079 Phone: 760-744-0760 | Constructor | Electrical | \$45,100.00 | OBE | City | |
| Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ | | | | | | |
| Name: _____ Address: _____ City: _____ State: _____ Zip: _____ Phone: _____ | | | | | | |

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Form Title: LIST OF SUBCONTRACTORS

(Rev. July 2012)

Form Number: AA35

Avenida De La Playa Infrastructure Replacement / Sewer and Water Group 809

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Plumbing Specialists

13 August 2013

The City of San Diego
Attention: Toni Thompson
Contracting Division
1010 Second Avenue, Suite 1400
San Diego, CA 92101

VIA FACSIMILE (619) 533-3633

**SUBJECT: Avenida De La Playa Infrastructure Replacement
Sewer and Water Group 809
Bid Number: K-13-5979-DBB-3**

LOCATION: San Diego, California

Dear Toni Thompson,

After reviewing HPS Mechanical, Inc.'s bid submitted on August 8th, 2013; we are in agreement that the estimated total base bid is \$8,640,921.00 and not \$8,641,621.00.

In this regard, we hope the City of San Diego will consider awarding the project to HPS Mechanical, Inc.

Respectfully,

A handwritten signature in black ink, appearing to read "Chad Kinsey".

Chad Kinsey
Chief Estimator



THE CITY OF SAN DIEGO

Public Works Contracting Group
Contracting Division
1010 Second Avenue, Suite 1400
San Diego, CA 92101
(619) 533-3633

FAX TRANSMITTAL

Date: August 13, 2013

The following pages are intended for:

To: Estimator
Company: HPS Mech, Inc.
FAX # 661-396-2589
Phone # 661-397-2121

From: Toni Thompson
Division: Contracting Division
FAX # 619-533-3633
Phone # 619-533-3435

RE: Bid # K-13-5979-DBB-3 Avenida De La Playa Infrastructure Replacement/Sewer and Water Group 809

COMMENTS: In tabulating the bid results of subject project, we have found that the ESTIMATED TOTAL BASE BID is \$8,640,921.00 NOT \$8,641,621.00 as per your bid. Please FAX acknowledgement/concurrence of the correct amount, by 12:00pm noon today.

If there are any problems with receiving this FAX transmission (such as missing pages), please contact the Sender at the "From" phone number given above.

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED, AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW, RECEIPT BY AN UNINTENDED RECIPIENT DOES NOT CONSTITUTE A WAIVER OF ANY APPLICABLE PRIVILEGE.

If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and return the original message to us at the above address via the U.S. Postal Service.

BIDDING DOCUMENTS

PROPOSAL (BID)

The Bidder agrees to the construction of **Avenida De La Playa Infrastructure Replacement /Sewer and Water Group 809**, 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 and 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 | NAICS | Payment Reference | Description | Unit Price | Extension |
|---|----------|------|--------|-------------------|---|---------------------------------|--------------|
| BASE BID | | | | | | | |
| Sewer and Water Group 809 - These bid items include sewer and water work to be done as part of Avenida De La Playa Infrastructure Replacement | | | | | | | |
| Common | | | | | | | |
| 1. | 1 | LS | 524126 | 2-4.1 | Bonds (Payment and Performance) | | \$ 50,000.00 |
| 2. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ 2,400.00 |
| 3. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ 87,425.00 |
| 4. | 1 | LS | | 7-16.3 | Exclusive Community Liaison | | \$ 21,540.00 |
| 5. | 1 | LS | 237110 | 9-3.4.1 | Mobilization | | \$ 60,000.00 |
| 6. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$200,000.00 |
| 7. | 10 | CY | 237310 | 300-1.4 | Additional Pavement Removal & Disposal | \$ 90.00 | \$ 900.00 |
| 8. | 10 | EA | 237310 | 301-1.7 | Adjusting Existing Gate Valve Cover to Grade | \$ 450.00 | \$ 4,500.00 |
| 9. | 2 | EA | 237310 | 301-1.7 | Adjusting Existing Manhole Frame & Cover to Grade | \$ 560.00 | \$ 1,120.00 |
| 10. | 21,480 | SF | 237310 | 302-1.12 | Cold Mill AC Pavement (0 - 1 1/2") | \$ 1.00 | \$ 21,480.00 |

TRANSACTION REPORT

AUG/13/2013/TUE 12:22 PM

FAX (TX)

| # | DATE | START T. | RECEIVER | COM.TIME | PAGE | TYPE/NOTE | FILE |
|-----|--------|----------|--------------|----------|------|-----------|----------|
| 001 | AUG/13 | 12:18PM | 916613962589 | 0:04:17 | 10 | MEMORY OK | SG3 2541 |



THE CITY OF SAN DIEGO

Public Works Contracting Group
 Contracting Division
 1010 Second Avenue, Suite 1400
 San Diego, CA 92101
 (619) 533-3633

FAX TRANSMITTAL

Date: August 13, 2013

The following pages are intended for:

To: Estimator
 Company: HPS Mech, Inc.
 FAX # 661-396-2589
 Phone # 661-397-2121

From: Toni Thompson
 Division: Contracting Division
 FAX # 619-533-3633
 Phone # 619-533-3435

RE: Bid # K-13-5979-DBB-3 Avenida De La Playa Infrastructure Replacement/Sewer and Water Group 809

COMMENTS: In tabulating the bid results of subject project, we have found that the ESTIMATED TOTAL BASE BID is \$8,640,921.00 NOT \$8,641,621.00 as per your bid. Please FAX acknowledgement/concurrence of the correct amount, by 12:00pm noon today.

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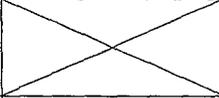
BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|------|----------|------|--------|-------------------|---|-------------|---------------|
| 11. | 141,060 | SF | 237310 | 302-4.12.4 | Rubber Polymer Modified Slurry Type II and Striping | \$ 1.00 | \$ 141,060.00 |
| 12. | 1,710 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ 125.00 | \$ 213,750.00 |
| 13. | 49,945 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ 10.00 | \$499,450.00 |
| 14. | 20,000 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ 4.50 | \$ 90,000.00 |
| 15. | 415 | LF | 237310 | 303-5.9 | Additional Curb and Gutter | \$ 35.00 | \$ 14,525.00 |
| 16. | 1,660 | SF | 237310 | 303-5.9 | Additional Sidewalk Removal and Replacement | \$ 8.00 | \$ 13,280.00 |
| 17. | 800 | SF | 237310 | 303-5.9 | Cross Gutter | \$ 15.00 | \$ 12,000.00 |
| 18. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Detectable Warning Tiles | \$ 2,400.00 | \$ 4,800.00 |
| 19. | 7 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A with Stainless Steel Detectable Warning Tiles | \$ 2,800.00 | \$ 19,600.00 |
| 20. | 2 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Detectable Warning Tiles | \$ 2,600.00 | \$ 5,200.00 |
| 21. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type B with Stainless Steel Detectable Warning Tiles | \$ 2,800.00 | \$ 8,400.00 |
| 22. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C1 with Detectable Warning Tiles | \$ 2,600.00 | \$ 7,800.00 |
| 23. | 1 | EA | 237310 | 303-5.10.2 | Directional Curb Ramp with Stainless Steel Detectable Warning Tiles | \$ 2,800.00 | \$ 2,800.00 |
| 24. | 15 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Detectable Warning Tiles | \$ 2,700.00 | \$ 40,500.00 |
| 25. | 22 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 with Stainless Steel Detectable Warning Tiles | \$ 3,000.00 | \$ 66,000.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--------------|----------|------|--------|-------------------|--|---------------------------------|---------------|
| 26. | 6 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Detectable Warning Tiles | \$ 2,500.00 | \$ 15,000.00 |
| 27. | 13 | EA | 237310 | 303-5.10.2 | Curb Ramp Type D with Stainless Steel Detectable Warning Tiles | \$ 2,500.00 | \$ 32,500.00 |
| 28. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Case A (SDG-130) with Stainless Steel Detectable Warning Tiles | \$ 3,000.00 | \$ 9,000.00 |
| 29. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | | \$ 8,000.00 |
| 30. | 315 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ 20.00 | \$ 6,300.00 |
| 31. | 685 | TON | 237310 | 306-1.5.1 | Temporary Resurfacing | \$ 117.00 | \$ 80,145.00 |
| 32. | 4,100 | TON | 237110 | 306-1.6 | Imported Backfill | \$ 10.00 | \$ 41,000.00 |
| 33. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | | \$ 500.00 |
| 34. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | | \$ 8,000.00 |
| 35. | 1 | AL | 238990 | 705-2.7 | Dewatering Permit and Discharge Fees - Type I | | \$100,000.00 |
| 36. | 1 | LS | 238990 | 705-2.7 | Dewatering – Non-Hazardous Contaminated Water | | \$ 135,000.00 |
| 37. | 15 | DAYS | 541690 | 707-1 | Suspension of Work - Resources | \$ 500.00 | \$ 7,500.00 |
| Sewer | | | | | | | |
| 38. | 3 | EA | 237110 | 306-1.6 | Sewer Main Cleanout | \$ 1,080.00 | \$ 3,240.00 |
| 39. | 2,673 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main | \$ 90.00 | \$240,570.00 |
| 40. | 23 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main | \$ 305.00 | \$ 7,015.00 |
| 41. | 505 | LF | 237110 | 306-1.6 | 10-Inch Sewer Main, Special Strength SDR-26 | \$ 193.00 | \$ 97,465.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|------|----------|------|--------|-------------------|---|---|---------------|
| 42. | 624 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main | \$ 145.00 | \$ 90,480.00 |
| 43. | 625 | LF | 237110 | 306-1.6 | 8-Inch Sewer Main, Special Strength SDR-26 | \$ 143.00 | \$ 89,375.00 |
| 44. | 925 | LF | 237110 | 306-1.6 | 15-Inch Sewer Main, Special Strength SDR-26 | \$ 230.00 | \$ 212,750.00 |
| 45. | 47 | EA | 237110 | 306-1.8.6 | Manholes (4' x 3'), PVC Lined | \$ 15,000.00 | \$ 705,000.00 |
| 46. | 6 | EA | 237110 | 306-1.8.6 | Connection to Existing Manhole and Rechanneling. | \$ 2,600.00 | \$ 15,600.00 |
| 47. | 90 | EA | 237110 | 306-1.9.1 | 4-Inch Sewer Lateral & Cleanout (Street) | \$ 2,778.00 | \$ 250,020.00 |
| 48. | 4 | EA | 237110 | 306-1.9.2.5 | 4-Inch Trenchless Method For Private Replumbing | \$ 9,820.00 | \$ 39,280.00 |
| 49. | 12 | EA | 237110 | 306-5.3 | Abandon Existing Manhole Outside of Trench | \$ 560.00 | \$ 6,720.00 |
| 50. | 1 | LS | 237110 | 306-5.3 | Abandon and Fill Existing Sewer Mains Outside of Trench Limit |  | \$ 44,170.00 |
| 51. | 5 | EA | 237110 | 306-13 | Abandon Water Services (Stiff) | \$ 900.00 | \$ 4,500.00 |
| 52. | 870 | LF | 237110 | 306-21.9 | 8-inch Pipe Bursting (Sewer) | \$ 83.00 | \$ 72,210.00 |
| 53. | 555 | LF | 237110 | 306-21.9 | 12-inch Pipe Bursting (Sewer) | \$ 100.00 | \$ 55,500.00 |
| 54. | 980 | LF | 237110 | 306-21.9 | 15-inch Pipe Bursting (Sewer) | \$ 104.00 | \$ 101,920.00 |
| 55. | 42 | EA | 237110 | 306-21.9 | Trenchless 4-Inch Sewer Lateral Connection & Cleanout | \$ 4,620.00 | \$ 194,040.00 |
| 56. | 233 | LF | 237110 | 500-1.1.9 | Rehabilitate 8-Inch Sewer Main | \$ 75.00 | \$ 17,475.00 |
| 57. | 1,141 | LF | 237110 | 500-1.1.9 | Rehabilitate 10-Inch Sewer Main | \$ 48.00 | \$ 54,768.00 |
| 58. | 27 | EA | 237110 | 500-1.6.2.6 | Service Lateral Connection | \$ 1,500.00 | \$ 40,500.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--------------|----------|------|--------|-------------------|---|-----------------------|---------------|
| 59. | 3 | EA | 237110 | 500-2.10.2 | Rehabilitate Existing Manhole | \$ 4,183.00 | \$ 12,549.00 |
| 60. | 1 | LS | 237110 | 704-4 | Sewage Bypass and Pumping Plan (Diversion Plan) | XXXXXXXXXX | \$ 140,000.00 |
| Water | | | | | | | |
| 61. | 6,621 | LF | 237110 | 306-1.6 | 8-Inch Water Main | \$ 72.00 | \$ 476,712.00 |
| 62. | 1 | EA | 237110 | 306-1.6 | 6-Inch Fire Service Connection | \$ 4,300.00 | \$ 4,300.00 |
| 63. | 2 | EA | 237110 | 306-1.6 | 4-Inch Fire Service Connection | \$ 3,000.00 | \$ 6,000.00 |
| 64. | 12 | EA | 237110 | 306-1.6 | 6-Inch Fire Hydrant Assembly & Marker | \$ 5,400.00 | \$ 64,800.00 |
| 65. | 23 | EA | 237110 | 306-1.6 | 8-Inch Gate Valve | \$ 2,000.00 | \$ 46,000.00 |
| 66. | 133 | EA | 237110 | 306-14.1 | 1-Inch Water Service | \$ 1,500.00 | \$ 199,500.00 |
| 67. | 5 | EA | 237110 | 306-14.1 | 2-Inch Water Service | \$ 4,306.00 | \$ 21,530.00 |
| 68. | 4 | EA | 237110 | 306-14.1 | 1-Inch Water Service Transfer | \$ 1,300.00 | \$ 5,200.00 |
| 69. | 1 | EA | 237110 | 306-14.1 | 2-Inch Water Service Transfer | \$ 1,800.00 | \$ 1,800.00 |
| 70. | 24 | EA | 237110 | 306-14.2.4 | 1-Inch Water Service (trenchless) | \$ 2,400.00 | \$ 57,600.00 |
| 71. | 2 | EA | 237110 | 306-18 | 2-Inch Blowoff Valve Assembly | \$ 2,700.00 | \$ 5,400.00 |
| 72. | 2 | EA | 237110 | 306-19 | 2-Inch Air & Vacuum Valve, Class 235. | \$ 3,900.00 | \$ 7,800.00 |
| 73. | 1,385 | LF | 237110 | 306-21.9 | 8-Inch Pipe Bursting (Water) | \$ 62.00 | \$ 85,870.00 |
| 74. | 16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor | \$ 4.00 | \$ 64,000.00 |
| 75. | 1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work | XXXXXXXXXX | \$ 200,000.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|---|----------|------|--------|-------------------|---|---------------------------------|---------------|
| 76. | 400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection | \$ 15.00 | \$ 6,000.00 |
| Avenida De La Playa Infrastructure Replacement | | | | | | | |
| 77. | 1 | LS | | 2-4.1 | Bonds (Payment and Performance) | | \$ 10,000.00 |
| 78. | 1 | LS | 238990 | 7-9.1.1 | Video Recording of Pre-existing Conditions | | \$ 600.00 |
| 79. | 1 | LS | 237310 | 7-10.2.6 | Traffic Control | | \$ 36,000.00 |
| 80. | 1 | LS | 237310 | 7-16.3 | Exclusive Community Liaison | | \$ 3,000.00 |
| 81. | 1 | LS | | 9-3.4.1 | Mobilization | | \$ 40,000.00 |
| 82. | 1 | AL | | 9-3.5 | Field Orders - Type II | | \$80,000.00 |
| 83. | 7 | TON | 237310 | 302-5.9 | 1-1/2 Inch Asphalt Concrete Overlay and Striping | \$ 536.00 | \$ 3,752.00 |
| 84. | 17,770 | SF | 237310 | 302-6.8 | Concrete Pavement | \$ 5.50 | \$97,735.00 |
| 85. | 80 | SY | 237310 | 302-7.4 | Pavement Fabric | \$ 3.00 | \$ 240.00 |
| 86. | 636 | LF | 237110 | 303-1.11 | 51" Wide x 183" High Box Culvert reinforced Pre-cast Concrete Box Culvert | \$ 1,489.00 | \$ 947,004.00 |
| 87. | 600 | LF | 237310 | 303-5.9 | Curb & Gutter (6-Inch Curb, Type G) | \$ 30.00 | \$ 18,000.00 |
| 88. | 3 | EA | 237310 | 303-5.9 | Commercial Concrete Driveway | \$ 2,575.00 | \$ 7,725.00 |
| 89. | 1,900 | SF | 237310 | 303-5.9 | Remove and Replace Existing Sidewalk | \$ 8.00 | \$ 15,200.00 |
| 90. | 3 | EA | 237310 | 303-5.10.2 | Curb Ramp Type A w/ Composite Detectable Warning Tiles | \$ 2,400.00 | \$ 7,200.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|------|----------|------|--------|-------------------|--|---------------------------------|---------------------------|
| 91. | 1 | EA | 237310 | 303-5.10.2 | Curb Ramp Type C2 w/ Composite Detectable Warning Tiles | \$ 2,635.00 | \$ 2,635.00 |
| 92. | 1 | LS | 237110 | 306-1.1.6 | Trench Shoring | | \$ 5,000.00 |
| 93. | 18 | CY | 237110 | 306-1.2.1.1 | Additional Bedding | \$ 20.00 | \$ 360.00 |
| 94. | 435 | TON | 237110 | 306-1.6 | Imported Backfill | \$ 10.00 | \$ 4,350.00 |
| 95. | 1 | LS | 541330 | 701-13.9.5 | Water Pollution Control Program Development | | \$ 500.00 |
| 96. | 1 | LS | 237990 | 701-13.9.5 | Water Pollution Control Program Implementation | | \$ 3,000.00 |
| 97. | 5 | DAYS | 541330 | 707-1 | Suspension of Work - Resources | \$ 500.00 | \$ 2,500.00 |
| 98. | 1 | EA | 237110 | 9-3.1 | Outfall Structure | \$ 335,000. ⁰⁰ | \$ 335,000. ⁰⁰ |
| 99. | 1 | EA | 237110 | 9-3.1 | Junction Structure | \$ 205,000. ⁰⁰ | \$ 205,000. ⁰⁰ |
| 100. | 1 | EA | 237110 | 9-3.1 | Seawall | \$ 90,000. ⁰⁰ | \$ 90,000. ⁰⁰ |
| 101. | 1 | LS | 237110 | 9-3.1 | Color Treatment for Outfall Structure, Sidewalk and Seawall (San Diego Buff) | | \$ 12,365.00 |
| 102. | 1 | EA | 237110 | 9-3.1 | Transition Structure | \$ 90,000.00 | \$ 90,000.00 |
| 103. | 1 | EA | 237110 | 9-3.1 | Beach Access Ramp | \$ 8,800.00 | \$ 8,800.00 |
| 104. | 1 | EA | 237110 | 9-3.1 | Low Flow Diverter System | \$ 255,000. ⁰⁰ | \$ 255,000. ⁰⁰ |
| 105. | 1 | EA | 237310 | 9-3.1 | Baffle Box/Trash Collector Unit | \$ 207,000. ⁰⁰ | \$ 207,000. ⁰⁰ |
| 106. | 1,600 | SF | 237110 | 302-5.9 | PCC Boardwalk Realignment (6" standard) | \$ 20.00 | \$ 32,000.00 |
| 107. | 1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk | \$ 20.00 | \$ 32,000.00 |

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|--|----------|------|--------|-------------------|--|---------------------------------|----------------------------|
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for Seawall with Customized Color | | \$ 11,000.00 |
| 3. | -1,600 | SF | 237110 | 9-3.1 | Seashell Treatment for PCC Boardwalk (Bid Item 107) | \$ 2.50 | \$ -4,000.00 |
| ESTIMATED ALTERNATE "C": | | | | | | | \$ 25,000.00 |
| ALTERNATE "D" | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Embedded Seashell | | \$ 17,054.00 |
| 2. | 1 | LS | 237110 | 9-3.1 | Formliner for seawall with Embedded Seashell | | \$ 5,027.00 |
| ESTIMATED ALTERNATE "D": | | | | | | | \$ 22,081.00 |
| ESTIMATED TOTAL BASE BID + ALTERNATE "A" + ALTERNATE "B" + ALTERNATE "C" + ALTERNATE "D": | | | | | | | \$ 8,641,621.00 |

8640921.7A

BIDDING DOCUMENTS

| Item | Quantity | Unit | NAICS | Payment Reference | Description | Unit Price | Extension |
|----------------------------------|----------|------|--------|-------------------|---|---------------------------------|--|
| 108. | 1 | LS | 237310 | 9-3.1 | Misc. Surface Improvements/Landscaping | | \$ 3,000.00 |
| 109. | 1 | LS | 238990 | 9-3.1 | Site Demolition | | \$ 110,000.00 |
| ESTIMATED TOTAL BASE BID: | | | | | | | \$ 8,444,800.00 |
| ALTERNATE "A" | | | | | | | \$ 8,444,800.00 8,444,100.00 |
| 1. | -1 | LS | 237110 | 600-1.2.1.3 | Contractor Furnished Materials for the City Forces High-line Work (Bid Item 75) | | \$-200,000.00 |
| 2. | 1 | LS | 237110 | 600-1.2.2.10 | High-lining by the Contractor | | \$365,850.00 |
| 3. | -16,000 | LF | 237110 | 600-1.2.1.3 | High-lining removed by Contractor (Bid Item 74) | \$ 3.12 | \$ -49,920.00 |
| ESTIMATED ALTERNATE "A": | | | | | | | \$ 115,930.00 |
| ALTERNATE "B" | | | | | | | |
| 1. | -400 | SF | 237110 | 600-1.3.1.5 | Pavement Restoration for City Forces Final Connection (Bid Item 76) | \$ 12.00 | \$ -4,800.00 |
| 2. | 7 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cut-in Tee by Contractor | \$ 2,820.00 | \$ 19,740.00 |
| 3. | 1 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Cross by Contractor | \$ 3,480.00 | \$ 3,480.00 |
| 4. | 10 | EA | 237110 | 600-1.3.2.10 | 8-Inch through 12-Inch Connections to the Existing System by Contractor | \$ 675.00 | \$ 6,750.00 |
| 5. | 9 | EA | 237110 | 600-1.4.9 | Cut and Plug of the Existing System by Contractor | \$960.00 | \$8,640.00 |
| ESTIMATED ALTERNATE "B": | | | | | | | \$ 33,810.00 |
| ALTERNATE "C" | | | | | | | |
| 1. | 1 | LS | 237110 | 9-3.1 | Formliner for Outfall Structure with Customized Color | | \$ 18,000.00 |

AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT

WORK TO BE DONE

CONSTRUCTION CONSISTS OF THE REPLACEMENT OF 629 LF OF DOUBLE 51" RCP STORM DRAIN WITH 601 LF OF SINGLE 51"x183" RCB STORM DRAIN; OUTFALL STRUCTURE; REPLACEMENT OF 494 LF OF 4" & 8" WATER MAIN; REPLACEMENT OF 508 LF OF 8" & 10" SEWER MAIN; LOW-FLOW DIVERSION SYSTEM; NUTRIENT SEPARATING BAFFLE BOX; STREET RESURFACING; CURB RAMPS; TRAFFIC CONTROL & OTHER APPURTENANCES SHOWN ON THESE PLANS & SPECIFICATIONS.

CONTRACTOR'S RESPONSIBILITIES

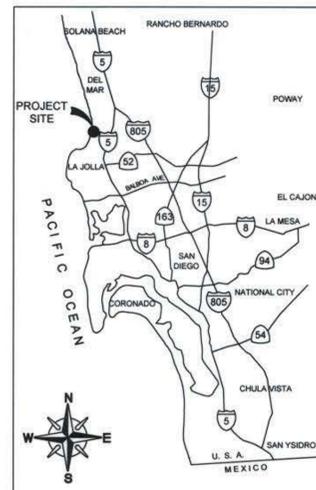
- PURSUANT TO SECTION 4216 OF THE CALIFORNIA GOVERNMENT CODE, AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION, YOU MUST CONTACT THE REGIONAL NOTIFICATION CENTER. (E.G., UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA) AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
- NOTIFY SDG&E AT LEAST 10 WORKING DAYS PRIOR TO EXCAVATING WITHIN 10' OF SDG&E UNDERGROUND HIGH VOLTAGE TRANSMISSION POWER LINES. (I.E., 69 KV & HIGHER).
- LOCATE AND RECONNECT ALL SEWER LATERALS. LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY, LATERAL RECORDS ARE AVAILABLE AT THE PUBLIC UTILITIES DEPARTMENT, 2797 CAMINITO CHOLLAS. LOCATE THE IMPROVEMENTS THAT WILL BE AFFECTED BY LATERAL REPLACEMENTS.
- EXCAVATE AROUND WATER METER BOX (I.E., CITY PROPERTY SIDE) TO DETERMINE IN ADVANCE, THE SIZE OF EACH SERVICE BEFORE TAPPING THE MAIN.
- CITY FORCES, WHEN SPECIFIED OR SHOWN ON THE PLANS, WILL MAKE PERMANENT CUTS AND PLUGS AND CONNECTIONS.
- KEEP EXISTING MAINS IN SERVICE IN LIEU OF HIGH-LINING, UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE PLANS.
- THE LOCATION OF EXISTING BUILDINGS AS SHOWN ON THE PLANS ARE APPROXIMATE.
- UNLESS OTHERWISE NOTED AS PREVIOUSLY POTHOLED (PH), ELEVATIONS SHOWN ON THE PROFILE FOR EXISTING UTILITIES ARE BASED ON A SEARCH OF THE AVAILABLE RECORDED INFORMATION ONLY AND ARE SOLELY FOR YOUR CONVENIENCE. THE CITY DOES NOT GUARANTEE THAT IT HAS REVIEWED ALL AVAILABLE DATA. PRIOR TO EXCAVATION, YOU MUST VERIFY 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.

STORM WATER PROTECTION

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

DISCIPLINE CODE

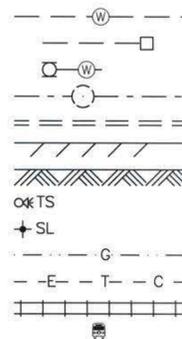
- G GENERAL
- D DEMOLITION
- C CIVIL
- A ARCHITECTURAL
- S STRUCTURAL
- M MECHANICAL
- E ELECTRICAL
- I INSTRUMENTATION
- T TRAFFIC CONTROL



VICINITY MAP
NO SCALE

EXISTING STRUCTURES

- EX WATER MAIN & VALVE
- EX WATER METER
- EX FIRE HYDRANT
- EX SEWER MAIN & MANHOLE
- EX STORM DRAIN
- EX PAVEMENT (PROFILE)
- EX GROUND LINE (PROFILE)
- EX TRAFFIC SIGNAL
- EX STREET LIGHT
- GAS MAIN
- ELEC. COND., TEL. COND., CATV
- RAILROAD, TROLLEY TRACKS
- BUS STOP



LIMITS OF WORK

| SHEET NO. | DISCIPLINE CODE | TITLE | LIMITS | PIPE | | LENGTH (FT) |
|-----------|-----------------|---|--|-----------|----------|-------------|
| | | | | SIZE (IN) | MATERIAL | |
| 1 | G-1 | COVER SHEET | | | | |
| 2 | D-1 | STORM DRAIN DEMOLITION | STORM DRAIN | | | |
| 3 | C-1 | STORM DRAIN REPLACEMENT | LA VEREDA TO CAMINO DEL SOL | 51X183 | RCB | 601 |
| 4 | C-2 | STORM DRAIN REPLACEMENT | STA. 20+50.00 TO 20+75.33 | 148X304 | RCB | 25 |
| 5 | C-3 | SITE PLAN | | | | |
| 6 | C-4 | SEWER MAIN REPLACEMENT | SEWER | | | |
| 7 | C-5 | WATER MAIN REPLACEMENT | LA VEREDA TO CAMINO DEL ORO | 8 | PVC | 128 |
| 8 | C-6 | CURB RAMPS & DETAILS | CAMINO DEL ORO TO CAMINO DEL SOL | 15 | PVC | 324 |
| 9 | C-7 | STREET RESURFACING | CAMINO DEL ORO | 10 | PVC | 23 |
| 10 | M-1 | OUTFALL STRUCTURE | CAMINO DEL SOL | 8 | PVC | 21 |
| 11 | M-2 | LOW-FLOW DIVERSION | WATER | | | |
| 12 | M-3 | MISCELLANEOUS DETAILS | ILA VEREDA TO CAMINO DEL SOL | 8 | PVC | 439 |
| 13 | M-4 | STORM DRAIN STRUCTURES | STA. 10+00.00 TO 10+27.92 | 8 | PVC | 28 |
| 14 | A-1 | PLAN AND ELEVATIONS | STA. 10+10.00 TO 10+48.08 | 8 | PVC | 38 |
| 15 | A-2 | OUTFALL STRUCTURE ARCHITECTURAL DETAILS | CURB RAMP LOCATION & TYPE REQUIREMENTS | | | |
| 16 | S-1 | GENERAL STRUCTURAL NOTES | STREET RESURFACING | | | |
| 17 | S-2 | OUTFALL STRUCTURE INVERT SLAB PLAN | LA VEREDA TO PASEO DEL OCAJO | | | |
| 18 | S-3 | OUTFALL STRUCTURE ROOF SLAB PLAN | | | | |
| 19 | S-4 | OUTFALL STRUCTURE SECTIONS | | | | |
| 20 | S-5 | OUTFALL STRUCTURE SECTION | | | | |
| 21 | S-6 | OUTFALL STRUCTURE TYPICAL DETAILS | | | | |
| 22 | S-7 | OUTFALL STRUCTURE DETAILS | | | | |
| 23 | S-8 | OUTFALL STRUCTURE GATE AND TRASH RACK DETAILS | | | | |
| 24 | S-9 | OUTFALL STRUCTURE GATE AND TRASH RACK DETAILS | | | | |
| 25 | E-1 | ELEC. SYMBOLS AND ABBR. | TRAFFIC PLANS | | | |
| 26 | E-2 | ELEC. SITE PLAN & DEMO. | LA VEREDA TO CAMINO DEL ORO | | | |
| 27 | E-3 | SCHEMATIC DIAGRAM | CAMINO DEL ORO TO CAMINO DEL SOL | | | |
| 28 | E-4 | ELECTRICAL DETAILS | CAMINO DEL SOL TO CALLE DE LA PLATA | | | |
| 29 | T-1 | TRAFFIC CONTROL COVER | EL PASEO GRANDE | | | |
| 30 | T-2 | TRAFFIC CONTROL - PH I | | | | |
| 31 | T-3 | TRAFFIC CONTROL - PH II | | | | |
| 32 | T-4 | TRAFFIC CONTROL - PH III | | | | |
| 33 | T-5 | TRAFFIC CONTROL - PH IV | | | | |

ABBREVIATIONS

- ABAND ABANDONED
- AC ASBESTOS CEMENT PIPE
- AHD AHEAD
- ASSY ASSEMBLY
- BK BACK
- BTWN BETWEEN
- CATV CABLE TV
- CI CAST IRON PIPE
- C CENTER LINE
- COND CONDUIT
- CONT CONTINUED
- CONTR CONTRACTOR
- DB DIRECT BURIED
- EB ENCASED BURIED
- EL, ELEV ELEVATION
- ELEC ELECTRIC
- EX, EXIST EXISTING
- F FLANGE
- FL FLOW LINE
- FS FINISHED SURFACE
- HS AASHTO LOADING DESIGNATION
- ID INSIDE DIMENSION (FOR PIPE); INSIDE DIMENSIONS FOR SQUARE/RECTANGULAR CONDUITS.
- IE INVERT ELEVATION
- LT LEFT
- MJ MECHANICAL JOINT
- MTD MULTIPLE TELEPHONE DUCT
- PVC POLYVINYL CHLORIDE
- PROP PROPOSED
- RCB REINFORCED CONCRETE BOX
- RCP REINFORCED CONCRETE PIPE
- RED REDUCER
- RT RIGHT
- SD STORM DRAIN
- S SURVEY LINE
- SS SANITARY SEWER
- SWR SEWER
- TEL TELEPHONE
- UNK UNKNOWN
- VC VITRIFIED CLAY PIPE
- WM WATER METER
- WTR WATER

SURVEY

- BENCHMARK: ELEVATION 239.02 MSL
SEBP-NAUTILUS ST. & AVENIDA MIROLA
- FIELD NOTES: DAVIS/RAMETTA, 242-1686, 3/28/2007
W.O. 188261
- DATUM: MEAN SEA LEVEL
- STREETS REQUIRING 12" TRENCH CAP: AVENIDA DE LA PLAYA

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.

C. Howard Arnold
(ENGINEERS NAME) C. HOWARD ARNOLD DATE 6-13-13

TEMPORARY BMP CONSTRUCTION SITE STORM WATER PRIORITY: HIGH X MEDIUM LOW SPEC. NO. 5979

| AS-BUILT INFORMATION | |
|----------------------|--------------|
| MATERIALS | MANUFACTURER |
| PIPE CL 235 (WATER) | - |
| PIPE SDR 35 (SEWER) | - |
| GATE VALVES | - |
| PRE-CAST RCB (SD) | - |
| BAFFLE BOX (SD) | - |
| SEWER MANHOLES | - |

LEGEND

| IMPROVEMENTS | STANDARD DRAWINGS | SYMBOL |
|---|--|--------|
| TRENCH RESURFACING | SDG-107, SDG-108 | |
| SEWER MAIN | SDS-101, SDS-108, SDS-110 (TYPE C) | |
| SEWER MANHOLE/PVC LINED | SDS-106, SDS-107, SDM-113, SDS-120 M-3, SM-07 | |
| 4" SEWER LATERAL WITH C.O. UNLESS OTHERWISE SPECIFIED | SDS-102, SDS-103, SDS-104, SDS-105, SDS-108 SDS-110 (TYPE C), SDS-118 | |
| CONCRETE PROTECTION FOR EXIST SEWER PIPE | SDS-116 | |
| CONCRETE ENCASEMENT | SDS-112 | |
| ABANDON EX MANHOLE | SM-08 | |
| SURVEY MONUMENT | M-10 | |
| WATER MAIN & APPURTENANCES | SDW-110, SDW-148, SDW-151 | |
| VALVES WITH CAPS AND WELLS | SDW-109, SDW-152, SDW-153, WV-05 | |
| FIRE SERVICE CONNECTION AND ASSEMBLY | SDW-109, SDW-118, SDW-148, SDW-152, SDW-153 | |
| BLOWOFF ASSEMBLY | SDW-106, SDW-143, SDW-144, SDW-145, SDW-146 SDS-148, WB-05 | |
| AIR & VACUUM VALVE | SDW-117, SDW-148, SDW-158, SDW-159, SDW-160 | |
| 1" WATER SERVICE UNLESS OTHERWISE SPECIFIED | SDW-107, SDW-134, SDW-135, SDW-136 SDW-137, SDW-149, SDW-150, WS-03 | |
| STORM DRAIN BOX CULVERT | SEE PLANS & SPEC. | |
| PIPE BEDDING AND TRENCH BACKFILL FOR STORM DRAINS | SDD-110 | |
| STORM DRAIN CLEAN OUT - TYPE 'A' | | |
| CONCRETE CURB | SDG-156 | |
| CONCRETE PAVEMENT | SDG-156 | |
| FOR ADDITIONAL SYMBOLS SEE RESURFACING, CURB RAMP, AND TRAFFIC CONTROL SHEETS | | |



KEY MAP
NO SCALE

LEGEND

- STORM DRAIN REPLACEMENT
- SEWER REPLACEMENT
- WATER REPLACEMENT

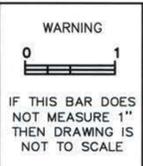
G-1



PLANS FOR THE CONSTRUCTION OF AVENIDA DE LA PLAYA COVER SHEET

| | | |
|---|----------------|-----------------------------------|
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 01 OF 33 SHEETS | | STORM WBS S-13018 |
| DATE 6-17-2013 | | WATER WBS B-00416 |
| FOR CITY ENGINEER | | SEWER WBS B-00102 |
| DESCRIPTION | BY | APPROVED |
| REVISION | DATE | FILED |
| SUBMITTED BY AKRAM BASSYOUNI PROJECT MANAGER | | EDWARD CASTANEDA PROJECT ENGINEER |
| SEE SHEETS CCS27 COORDINATE | | SEE SHEETS CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | 36465-01-D |
| INSPECTOR | DATE COMPLETED | |

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



CITY OF SAN DIEGO PUBLIC WORKS PROJECT

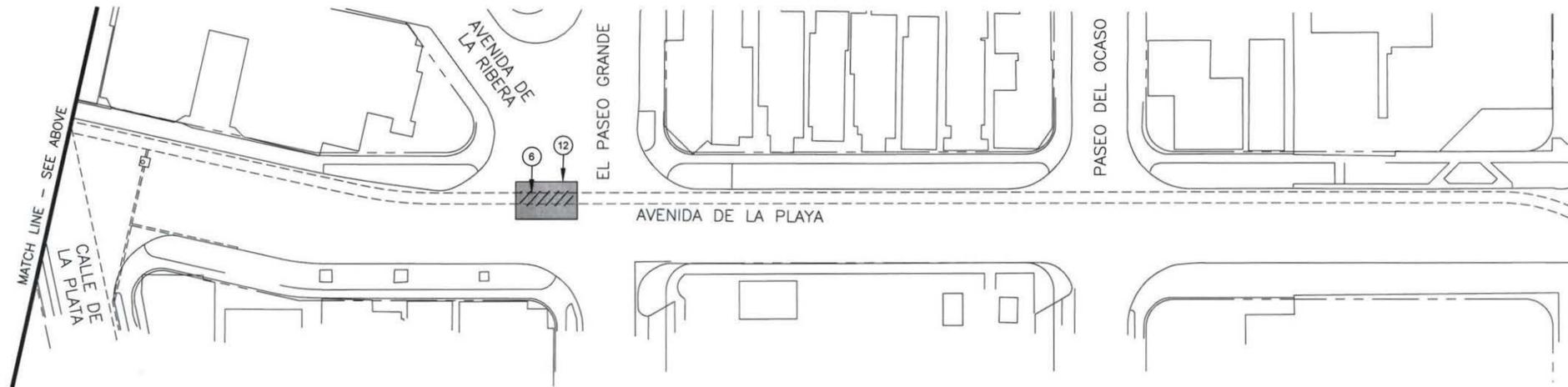
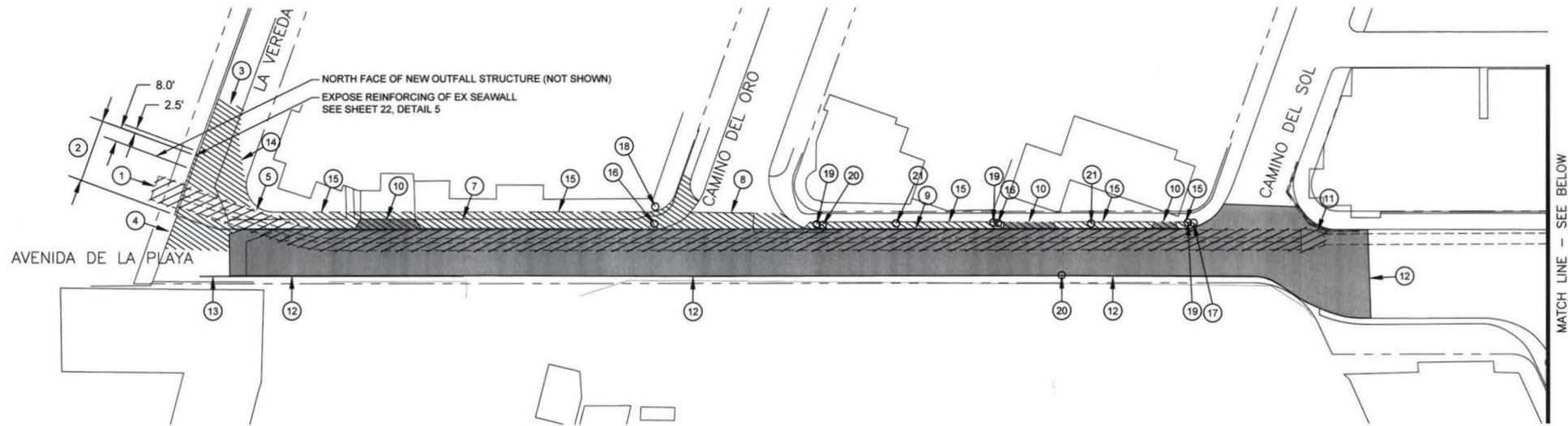


AVENIDA DE LA PLAYA INFRASTRUCTURE REPLACEMENT



DEMOLITION NOTES:

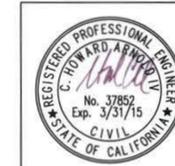
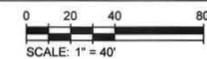
- ① DEMOLISH EXISTING OUTFALL STRUCTURE AND HEADWALL
- ② DEMOLISH EXISTING SEAWALL
- ③ DEMOLISH EXISTING BOARDWALK
- ④ DEMOLISH EXISTING CONCRETE PAVEMENT
- ⑤ DEMOLISH EXISTING DOUBLE 51" RCP STORM DRAIN PIPE
- ⑥ DEMOLISH EXISTING 72" RCP STORM DRAIN PIPE
- ⑦ DEMOLISH EXISTING SIDEWALK AND CURB AND GUTTER
- ⑧ DEMOLISH EXISTING CROSS GUTTER
- ⑨ DEMOLISH EXISTING CURB AND GUTTER
- ⑩ DEMOLISH EXISTING DRIVEWAY APRON
- ⑪ DEMOLISH EXISTING JUNCTION STRUCTURE
- ⑫ SAWCUT AND DEMOLISH EXISTING AC PAVEMENT IN ACCORDANCE WITH TRAFFIC CONTROL PHASES
- ⑬ EXISTING CONCRETE PAVEMENT TO REMAIN
- ⑭ CLEAR EXISTING LANDSCAPING
- ⑮ EXISTING LANDSCAPING AND HARDSCAPE IMPROVEMENTS TO REMAIN, OR SALVAGE FOR RESTORATION
- ⑯ EX. STREET LIGHT POLE TO PRESERVE
- ⑰ EX. STREET NAME SIGN TO PRESERVE
- ⑱ EX. SURVEY MONUMENT TO PRESERVE
- ⑲ EX. ELECTRIC BOX TO PRESERVE
- ⑳ EX. TRAFFIC SIGN TO PRESERVE
- ㉑ EX. WATER METER TO PRESERVE



D-1

STORM DRAIN DEMOLITION

TETRA TECH
www.tetrattech.com
10815 Rancho Bernardo Road, Suite 500
San Diego, California 92127
Phone: (949) 809-5000
Fax: (949) 809-5010



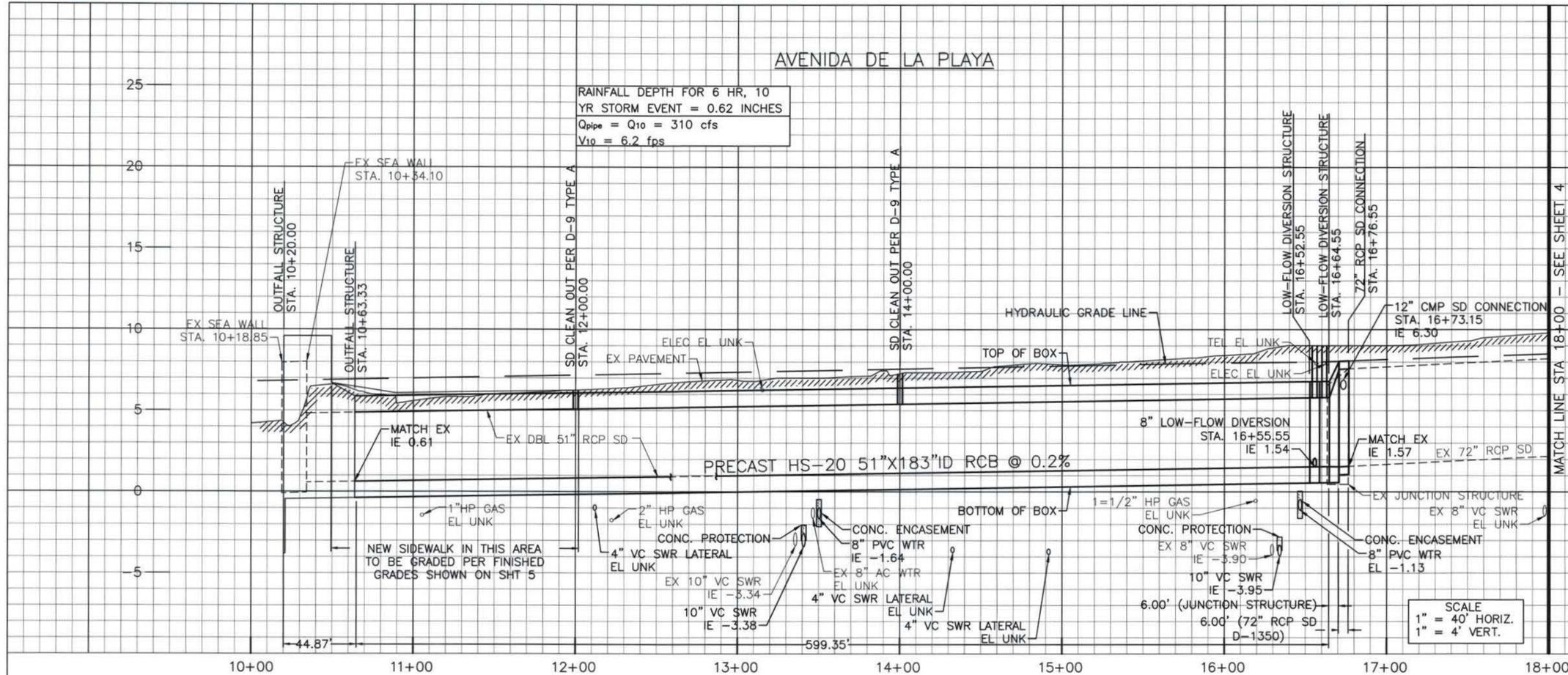
**AVENIDA DE LA PLAYA
STORM DRAIN DEMOLITION**

| | | |
|---|---------------|--------------------|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 02 OF 33 SHEETS | | STORM WBS: S-13018 |
| APPROVED: <i>[Signature]</i> 6-17-2013 FOR CITY ENGINEER | | WATER WBS: B-00416 |
| SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | | SEWER WBS: B-00102 |
| DESCRIPTION | APPROVED DATE | FILED |
| REVISION | 04/12 | |
| | | |
| | | |
| | | |
| CONTRACTOR: _____ DATE STARTED: _____ | | 36465-02-D |
| INSPECTOR: _____ DATE COMPLETED: _____ | | |

AVENIDA DE LA PLAYA

RAINFALL DEPTH FOR 6 HR, 10 YR STORM EVENT = 0.62 INCHES
 $Q_{pipe} = Q_{10} = 310$ cfs
 $V_{10} = 6.2$ fps

NOTES:
 1. WHERE VERTICAL CLEARANCE BETWEEN UTILITIES IS LESS THAN 1', PROVIDE 1" SAND CUSHION OR MINIMUM 6" OF SAND WITH 1" NEOPRENE PAD.



| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 10+00.00 | STA 17+00.00 | 700.00 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
| STA 10+00.00 | STA 17+00.00 | 700.00 |

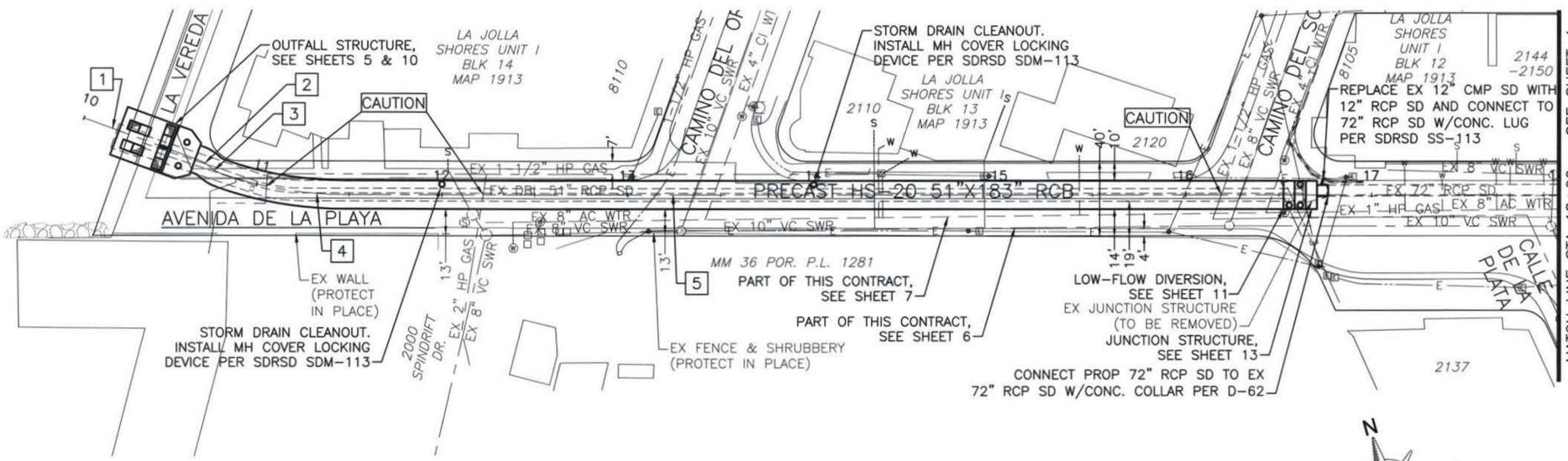
NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE PROJECT.

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

REFERENCE:

- WATER: 12079-4-D, 19580-10-D, 26331-7-D
- SEWER: 1381&2-D, 3700-D
- STORM DRAIN: 25160-2-D, 28986-3-D, 4598-D, 4601-D, 5064-D, 5065-D, 7888-L
- SDG&E GAS: 45-307 - 45-316
- SDG&E ELECTRIC: 250-1689D
- TIME WARNER CABLE TV: C2501686
- AT&T TELEPHONE: LJ0406DC&DD, LJ0606CC&CD
- WATER FIELD BOOK: B09S
- SEWER FIELD BOOK: B09S
- THOMAS BROS.: 1227-G5&H5
- HCL: 241

- RETIREMENTS:
 629' - DBL 51" RCP SD - 1958
 1 OUTFALL STRUCTURE
 1 JUNCTION STRUCTURE
 1 MH

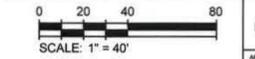


| NO. | Δ / BEARING | RADIUS | LEGNTH | DESCRIPTION |
|-----|-------------|---------|---------|--------------|
| 1 | S53°48'59"E | - | 2.04' | 51"X183" RCB |
| 2 | 22.10' | 17.37' | 6.70' | 51"X183" RCB |
| 3 | 22.10' | 17.37' | 6.70' | 51"X183" RCB |
| 4 | 19.45' | 200.00' | 67.88' | 51"X183" RCB |
| 5 | S74°02'40"E | - | 517.40' | 51"X183" RCB |

CONSTRUCTION NOTE:
 USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITIES

- NOTES:
 1. CONTRACTOR TO POTHOLE EXISTING UTILITIES AHEAD OF CONSTRUCTION.
 2. CONTRACTOR TO PROTECT IN PLACE EXISTING CHAIN FENCING AND SHRUBBERY.

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**AVENIDA DE LA PLAYA
 STORM DRAIN REPLACEMENT**

CITY OF SAN DIEGO, CALIFORNIA
 ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
 SHEET 03 OF 33 SHEETS

DATE: 6-17-2013

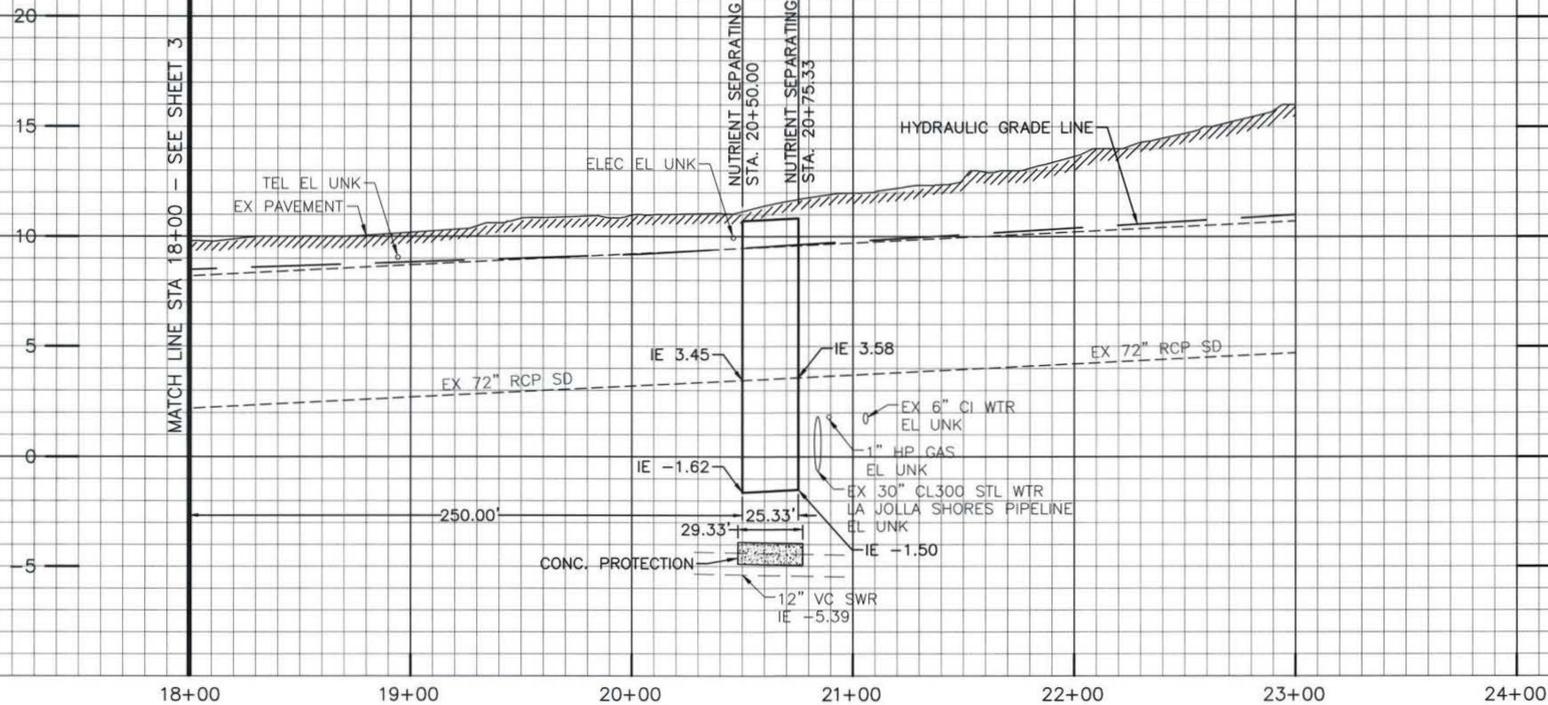
| DESCRIPTION | APPROVED | DATE | FILED |
|-------------|----------|-------|-------|
| REVISION | | 04/12 | |

CONTRACTOR: 36465-03-D
 DATE STARTED: _____
 DATE COMPLETED: _____

STORM DRAIN REPLACEMENT

RAINFALL DEPTH FOR 6 HR, 10 YR STORM EVENT = 0.62 INCHES
 $Q_{pipe} = Q_{10} = 310$ cfs
 $V_{10} = 6.2$ fps

AVENIDA DE LA PLAYA



NOTES:
 1. WHERE VERTICAL CLEARANCE BETWEEN UTILITIES IS LESS THAN 1', PROVIDE 1\"/>

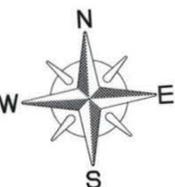
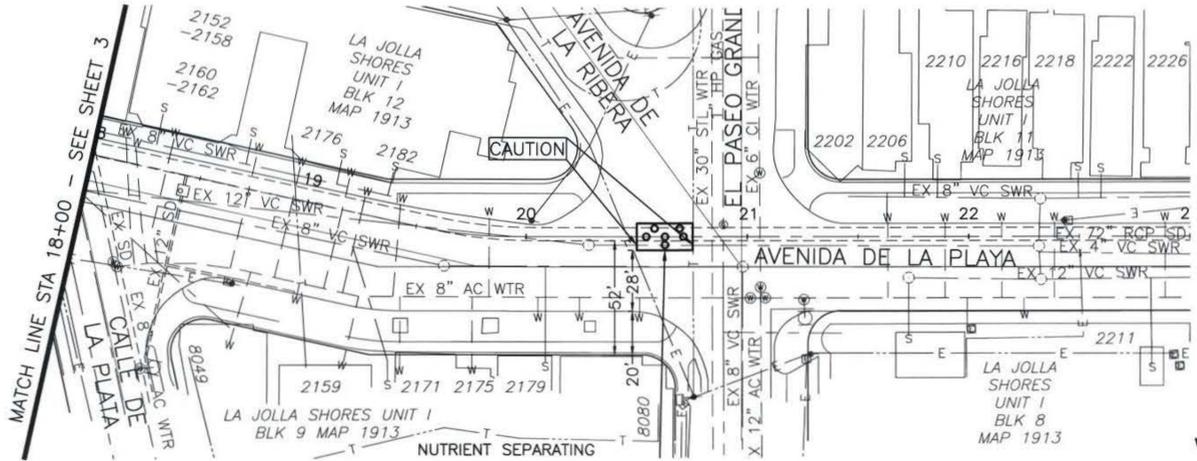
SCALE
 1" = 40' HORIZ.
 1" = 4' VERT.

| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 20+50.00 | STA 20+80.00 | 30.00 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
| STA 20+50.00 | STA 20+80.00 | 30.00 |
| NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE PROJECT. | | |

REFERENCE:

- WATER: 12079-4-D, 19580-10-D, 26331-7-D
- SEWER: 1381&2-D, 3700-D
- STORM DRAIN: 25160-2-D, 28986-3-D, 4598-D, 4601-D, 5064-D, 5065-D, 7888-L, 45-307 - 45-316
- SDG&E GAS: 250-1689D
- SDG&E ELECTRIC: C2501686
- TIME WARNER CABLE TV: LJO406DC&DD, LJO606CC&CD
- AT&T TELEPHONE: B09S
- WATER FIELD BOOK: B09S
- SEWER FIELD BOOK: 1227-C5&H5
- THOMAS BROS.: 241
- HGL:

RETIREMENTS:
 25.33' - 72" RCP SD



CONSTRUCTION NOTE:
 USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITIES

NOTES:
 1. CONTRACTOR TO COORDINATE WITH SDG&E AND TELEPHONE TO RELOCATE EXISTING UTILITIES.

C-2

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**AVENIDA DE LA PLAYA
 STORM DRAIN REPLACEMENT**

| | | |
|---|----------------|------------------------------|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 04 OF 33 SHEETS | | STORM WBS: S-13018 |
| SUBMITTED BY: <i>Edward Castaneda</i> 6-17-2013 | | WATER WBS: B-00416 |
| FOR CITY ENGINEER | DATE | SEWER WBS: B-00102 |
| DESCRIPTION | APPROVED | DATE |
| REVISION | 04/12 | |
| CREATED BY: EDWARD CASTANEDA PROJECT ENGINEER | | 000-0000 CCS27 COORDINATE |
| | | 000-0000 CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | 36465-04-D |
| INSPECTOR | DATE COMPLETED | |

STORM DRAIN REPLACEMENT



MEAN HIGHER WATER
EL = 2.73'

REPLACE EX SAND AROUND STRUCTURE

PROPOSED OUTFALL STRUCTURE

EX RIP RAP

EX WALL

PROPOSED OUTFALL STRUCTURE

EXIST ROW
EXIST SEA WALL

PROPOSED SEA WALL

PROPOSED BEACH ACCESS RAMP

8.0'

5% MAX
19.8'

8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

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8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

8.0'

EX ROW/FENCE

EX SIDEWALK

CONTRACTOR SHALL MEASURE AND RECORD THE EXISTING ELEVATIONS AT THESE LOCATIONS PRIOR TO DEMOLITION WHERE "MATCH EX" IS INDICATED AND USE THESE ELEVATIONS AT THESE EXISTING LOCATIONS AS A BASIS FOR SETTING THE ELEVATIONS OF THE NEW CONSTRUCTION

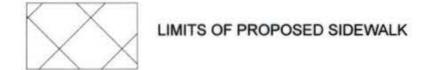
1 SITE IMPROVEMENTS
SCALE: 1"=10'

CONSTRUCTION NOTES:

1. DURING CONSTRUCTION, ACCESS FOR BEACH MAINTENANCE VEHICLES, INCLUDING FRONT-END LOADERS, DUMP TRUCKS AND LARGE RAKING TRUCKS WILL BE PROVIDED FROM 6 AM TO 12 NOON ON THURSDAYS, OR DURING TIMES AND DAYS TO BE COORDINATED WITH THE PARK AND RECREATION DEPARTMENT.
2. PERMITTEE/PROJECT MANAGER SHALL INVITE REPRESENTATIVES FROM THE PARK AND RECREATION DEPARTMENT'S SHORELINE BEACHES AND PARKS AND ASSET MANAGEMENT SECTIONS TO THE PRE-CONSTRUCTION MEETING. PERMITTEE/PROJECT MANAGER SHALL PROVIDE A COPY OF THE PROJECT SCHEDULE TO THE PARK AND RECREATION DEPARTMENT REPRESENTATIVES AT THE PRE-CONSTRUCTION MEETING.

LEGEND

- () EX
- [] BELOW GRADE STRUCTURE



STA. 11+71.58

STA. 12+01.83

11+00

12+00

13+00

14+00

15+00

16+00

17+00

18+00

19+00

20+00

21+00

22+00

23+00

24+00

25+00

26+00

27+00

28+00

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30+00

10+00

11+00

12+00

13+00

14+00

15+00

16+00

17+00

18+00

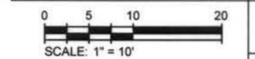
19+00

20+00

21+00

22+00

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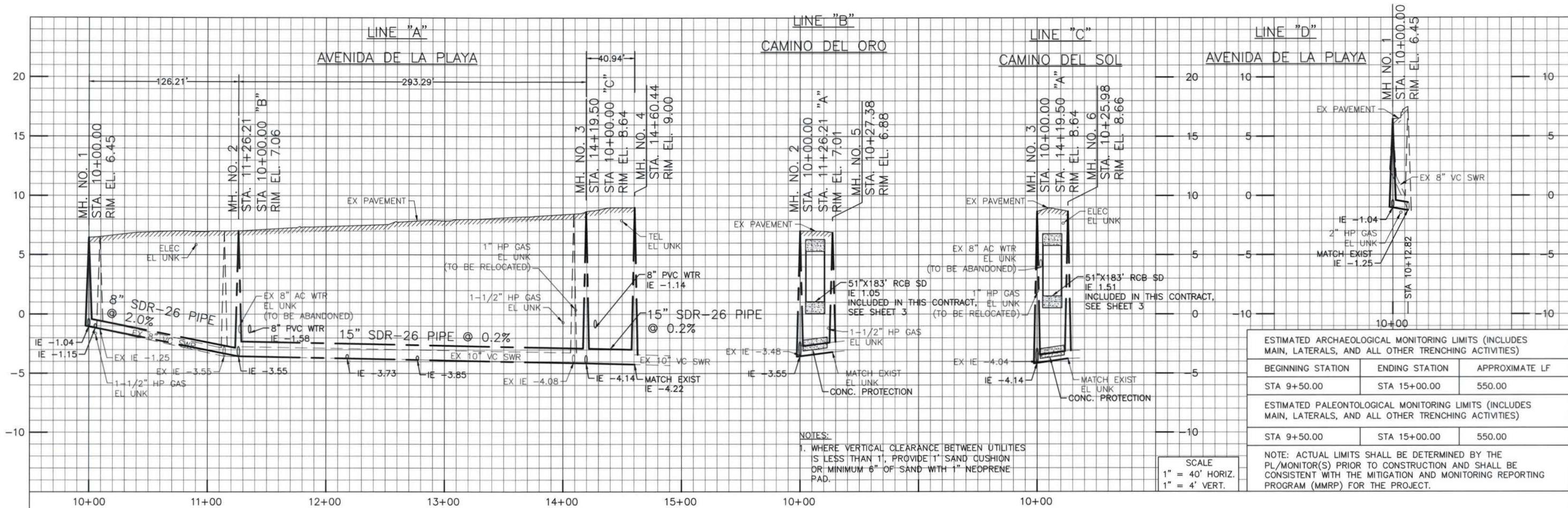


AVENIDA DE LA PLAYA
SITE PLAN

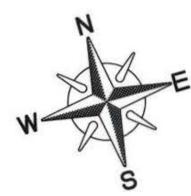
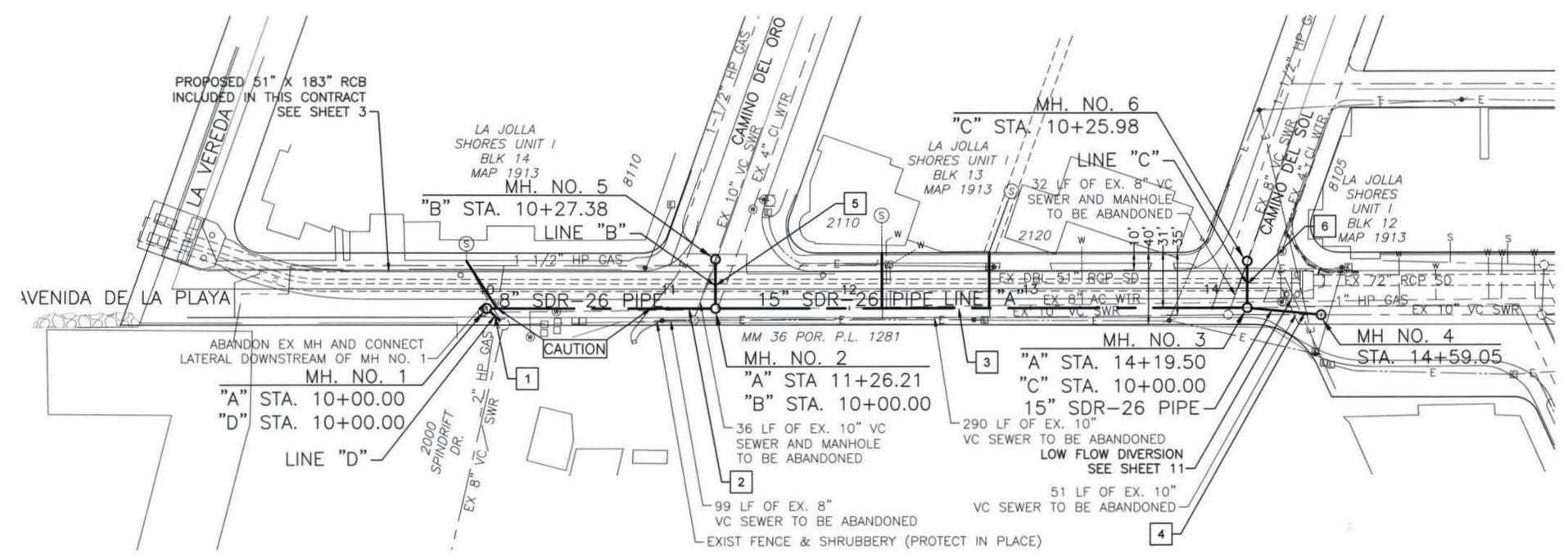
| | | | | |
|---|----------------|------|--------|---|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 05 OF 33 SHEETS | | | | STORM WBS S-13018 |
| SUBMITTED BY <i>Ron Arsen</i> 6-17-2013 | | | | WATER WBS B-00416 |
| FOR CITY ENGINEER | | | | SEWER WBS B-00102 |
| DESCRIPTION | APPROVED | DATE | FILMED | SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| REVISION | 04/12 | | | DESIGNED BY EDWARD CASTANEDA PROJECT ENGINEER |
| | | | | 000-0000 CCS27 COORDINATE |
| | | | | 000-0000 CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | | | 36465-05-D |
| INSPECTOR | DATE COMPLETED | | | |

C-3

SITE PLAN



| | | |
|---|----------------|----------------|
| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 9+50.00 | STA 15+00.00 | 550.00 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA 9+50.00 | STA 15+00.00 | 550.00 |
| NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE PROJECT. | | |



REFERENCE:

| | |
|-----------------------|---|
| WATER: | 12079-4-D, 19580-10-D, 26331-7-D |
| SEWER: | 1381&2-D, 3700-D |
| STORM DRAIN: | 25160-2-D, 28986-3-D, 4598-D, 4601-D, 5064-D, 5065-D, 7888-L, 45-307 - 45-316 |
| SDG&E GAS: | 250-1689D |
| SDG&E ELECTRIC: | C2501686 |
| TIME WARNER CABLE TV: | LJ0406DC&DD, LJ0606CC&CD |
| AT&T TELEPHONE: | B09S |
| WATER FIELD BOOK: | B09S |
| SEWER FIELD BOOK: | B09S |
| THOMAS BROS.: | 1227-G5&H5 |
| HGL: | 241 |

RETIREMENTS:

| |
|----------------------|
| 131' - 8" VC - 1948 |
| 377' - 10" VC - 1948 |
| 3 - 60" MH |
| 3 - 4" LATERAL |

C-4

CONSTRUCTION NOTE:
 USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITIES

- NOTES:**
- ALL SEWER MANHOLES TO BE PVC LINED.
 - CONTRACTOR TO PROTECT IN PLACE EXISTING CHAIN FENCING AND SHRUBBERY.

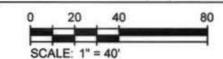
SEWER LATERAL TABLE

| STATION | I.E. AT MAIN | LEGNTH |
|----------|--------------|--------|
| 10+05.50 | -1.15' | 31.18' |
| 12+17.96 | -3.73' | 30.81' |
| 12+77.19 | -3.85' | 30.81' |

SEWER DATA TABLE

| NO. Δ / BEARING | RADIUS | LEGNTH | DESCRIPTION |
|-----------------|--------|---------|-------------|
| 1 S30°33'08"E | - | 7.22' | 8" SDR-26 |
| 2 S74°02'40"E | - | 121.21' | 8" SDR-26 |
| 3 S74°02'40"E | - | 288.29' | 15" SDR-26 |
| 4 S68°35'09"E | - | 35.94' | 15" SDR-26 |
| 5 S15°57'18"E | - | 22.40' | 10" SDR-26 |
| 6 S15°57'18"E | - | 21.00' | 8" SDR-26 |

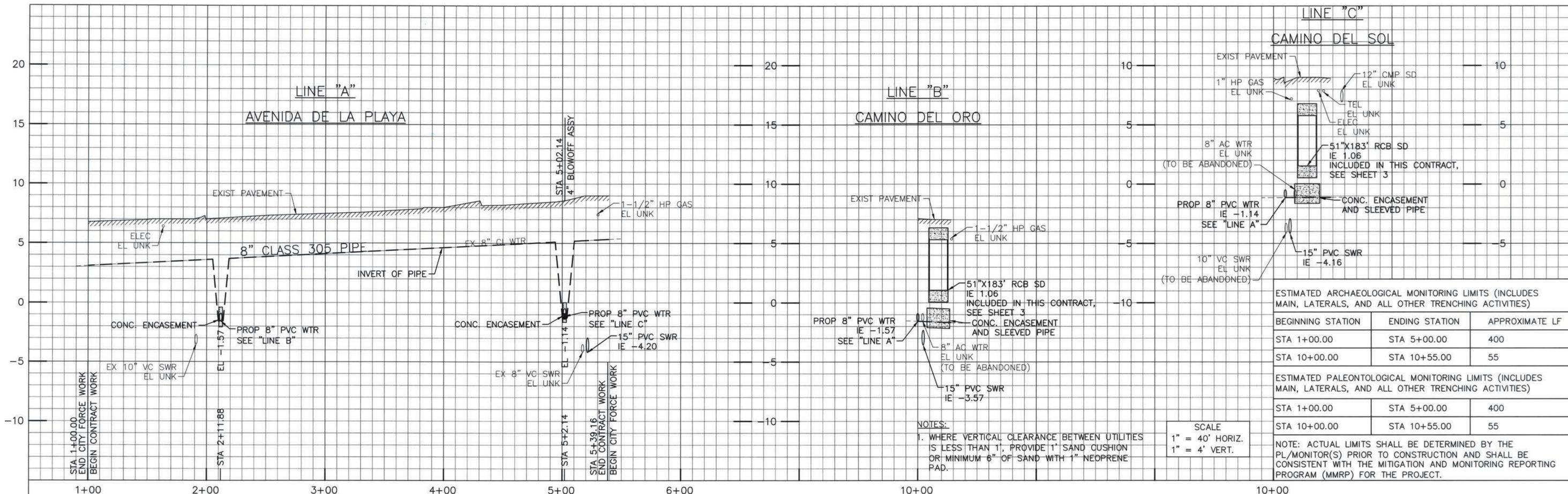
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 San Diego, California, 92127
 Phone: (949) 809-5000
 Fax: (949) 809-5010



**AVENIDA DE LA PLAYA
 SEWER MAIN REPLACEMENT/
 GROUP JOB 809**

| | | |
|---|--------------|------------------------------|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 06 OF 33 SHEETS | | STORM WBS S-13018 |
| SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | | WATER WBS B-00416 |
| FOR CITY ENGINEER: Edward Castaneda DATE: 6-17-2013 | | SEWER WBS B-00102 |
| DESCRIPTION | APPROVED | DATE |
| REVISION | 04/12 | |
| DESIGNED BY: EDWARD CASTANEDA PROJECT ENGINEER | | 000-0000 CCS27 COORDINATE |
| CONTRACTOR | | 000-0000 CCS83 COORDINATE |
| INSPECTOR | DATE STARTED | DATE COMPLETED |
| | | 36465-06-D |

SEWER MAIN REPLACEMENT



ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES)

| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
|-------------------|----------------|----------------|
| STA 1+00.00 | STA 5+00.00 | 400 |
| STA 10+00.00 | STA 10+55.00 | 55 |

ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND ALL OTHER TRENCHING ACTIVITIES)

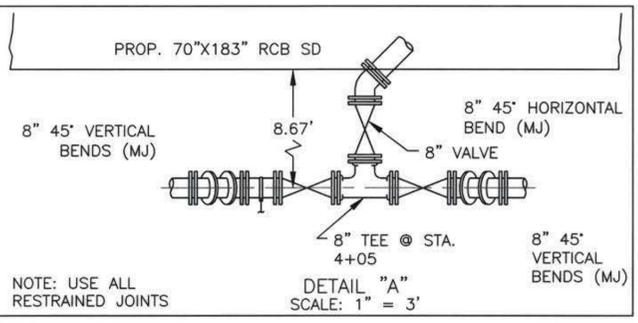
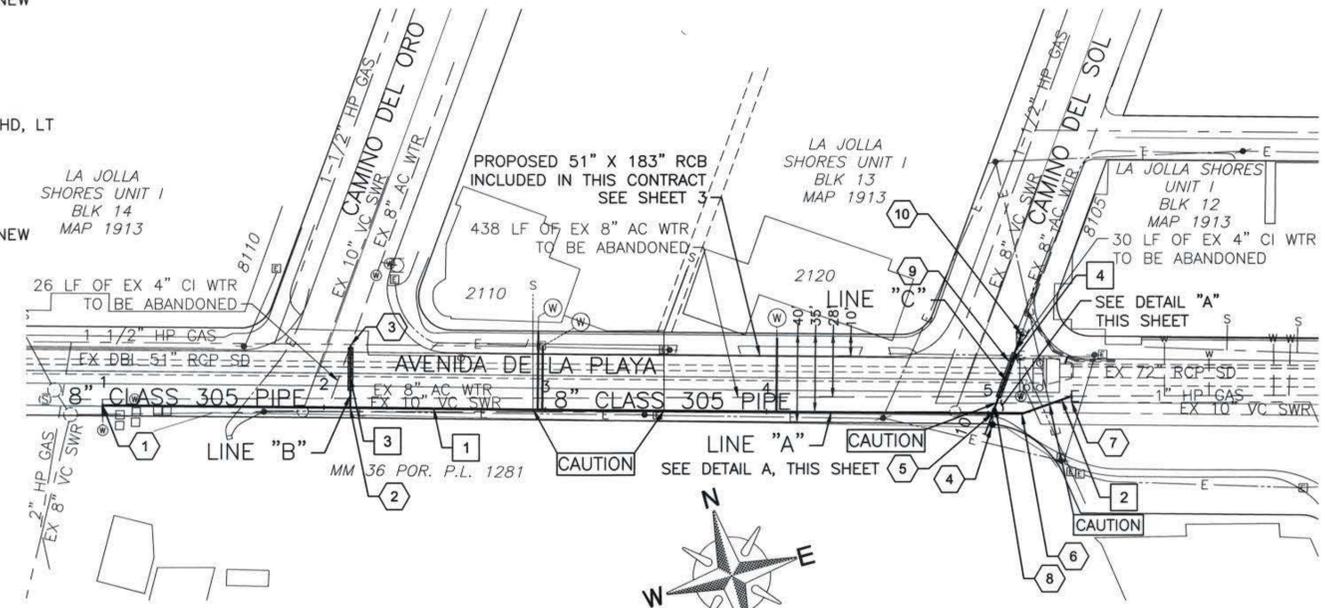
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
|-------------------|----------------|----------------|
| STA 1+00.00 | STA 5+00.00 | 400 |
| STA 10+00.00 | STA 10+55.00 | 55 |

NOTE: ACTUAL LIMITS SHALL BE DETERMINED BY THE PL/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING REPORTING PROGRAM (MMRP) FOR THE PROJECT.

NOTES:
 1. WHERE VERTICAL CLEARANCE BETWEEN UTILITIES IS LESS THAN 1', PROVIDE 1" SAND CUSHION OR MINIMUM 6" OF SAND WITH 1" NEOPRENE PAD.

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

- 1 BY CITY FORCES AHD OF CONTRACTOR "A" STA. 1+00.00
1 - 8"x4" REDUCER (MJ)
CONNECT TO 8" WTR AFTER NEW MAIN HAS BEEN ACCEPTED
- 2 BY CONTRACTOR FURNISH & INSTALL "A" STA. 2+11.88
1 - 8" X 8" TEE (F, F, F)
3 - 8" VALVE (F, MJ) BK, AHD, LT
- 3 BY CITY FORCES FURNISH & INSTALL "B" STA. 10+27.92
1 - 8" 45° BEND (MJ)
CONNECT TO 8" WTR AFTER NEW MAIN HAS BEEN ACCEPTED
- 4 BY CONTRACTOR FURNISH & INSTALL "A" STA. 5+02.14
BLOW OFF ASSEMBLY
- 5 BY CONTRACTOR FURNISH & INSTALL "A" STA. 4+02.14
1 - 8" X 8" TEE (F, F, F)
3 - 8" VALVE (F, MJ) BK, AHD, LT
- 6 BY CONTRACTOR FURNISH & INSTALL "A" STA. 5+15.39
2 - 8" 22.5° BEND (MJ)
- 7 BY CITY FORCES AHD OF CONTRACTOR "A" STA. 5+39.16
CUT AND PLUG EX 8" WTR RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED.
- 8 BY CONTRACTOR FURNISH & INSTALL "C" STA. 10+13.54
1 - 8" 45° BEND (MJ)



CITY FORCES NOTES:
 LIMITS OF HIGHLINING APPROXIMATELY FROM CAMINO DEL ORO TO CAMINO DEL SOL SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

CONSTRUCTION NOTES:
 USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITIES

REFERENCE:

| | |
|-----------------------|--|
| WATER: | 12079-4-D, 19580-10-D, 26331-7-D |
| SEWER: | 1381&2-D, 3700-D |
| STORM DRAIN: | 25160-2-D, 28986-3-D, 4598-D, 4601-D, 5064-D, 5065-D, 7888-L |
| SDG&E GAS: | 45-307 - 45-316 |
| SDG&E ELECTRIC: | 250-1689D |
| TIME WARNER CABLE TV: | C2501686 |
| AT&T TELEPHONE: | LJ0406C&D, LJ0606C&D |
| WATER FIELD BOOK: | B09S |
| SEWER FIELD BOOK: | B09S |
| THOMAS BROS.: | 1227-G5&H5 |
| HGL: | 241 |

RETIREMENTS:
 56' - 4" CI - 1948
 438' - 8" AC - 1948
 4 - WATER SERVICES

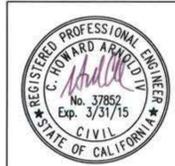
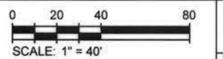
WATER DATA TABLE

| NO. | Δ / BEARING | RADIUS | LEGNTH | DESCRIPTION |
|-----|-------------|--------|---------|--------------|
| 1 | S74°02'40"E | - | 415.39' | 8" CLASS 305 |
| 2 | N85°57'20"E | - | 23.77' | 8" CLASS 305 |
| 3 | S15°57'20"E | - | 27.92' | 8" CLASS 305 |
| 4 | S35°26'46"E | - | 38.08' | 8" CLASS 305 |

WATER SERVICE TABLE

| STATION | LEGNTH | DESCRIPTION |
|---------|--------|-------------|
| 1+00.00 | 4.68' | - |
| 2+96.59 | 35.31' | - |
| 2+98.66 | 28.63' | - |
| 2+04.48 | 33.08' | - |

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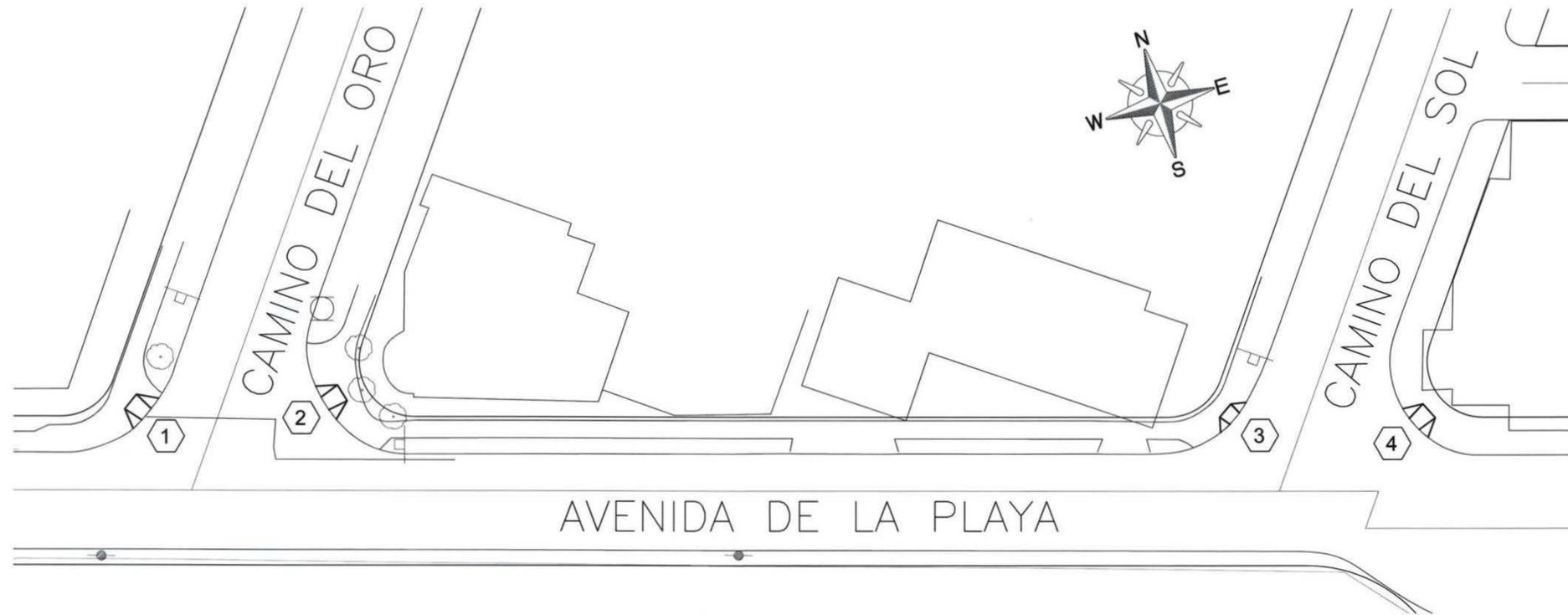


**AVENIDA DE LA PLAYA
 WATER MAIN REPLACEMENT/
 GROUP JOB 809**

| | | |
|---|----------------|---------------------------------------|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 07 OF 33 SHEETS | | STORM WBS S-13018 |
| SUBMITTED BY: <i>Edward Castaneda</i> 6-17-2013 | | WATER WBS B-00416 |
| FOR CITY ENGINEER | DATE | SEWER WBS B-00102 |
| APPROVED | DATE | AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| REVISION | 04/12 | EDWARD CASTANEDA PROJECT ENGINEER |
| | | 000-0000 CCS27 COORDINATE |
| | | 000-0000 CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | 36465-07-D |
| INSPECTOR | DATE COMPLETED | |

WATER MAIN REPLACEMENT

C-5



| LEGEND | |
|--|------------------|
| ① | CURB RAMP NUMBER |
| • | EX UTILITY POLE |
| ⊙ | EX FIRE HYDRANT |
| ⊗ | EX STREET LIGHT |
| ⊙ | EX TREE |
| ⊠ | EX STREET SIGN |
| PROPOSED CURB RAMPS PER STANDARD DRAWINGS: | |
| A & B | SDG-132 |
| C1 | SDG-134 |
| C2 | SDG-135 |
| TYPE D | SDG-136 |
| TRUNCATED DOMES | SDG-130 |
| CURB RAMP DETAILS | SDG-130 |
| EX STAMP/IMPRESSION PLACEMENT | SDG-115 |

AVENIDA DE LA PLAYA

CURB RAMPS
SCALE: 1" = 20'



| CURB RAMP NOTES TABLE | | | | | | | | |
|-----------------------|-----------|-----|-------------|-----------------|-------------------------|------------|-------------|--------------------------|
| LOCATION | RAMP TYPE | NEW | REPLACEMENT | HISTORIC STAMPS | TRUNCATED DOME MATERIAL | | CONSTRAINTS | COMMENTS / MODIFICATIONS |
| | | | | | *STAINLESS STEEL | *COMPOSITE | | |
| ① | A | | X | | | X | | |
| ② | A | | X | | | X | | PROTECT EX. TREES |
| ③ | C2 | | X | | | X | | ADJUST EX. STREET SIGN |
| ④ | A | | X | | | X | | |
| ⑤ | A | | X | | | X | | |
| ⑥ | A | | X | | | X | | |
| ⑦ | A | | X | | | X | | |
| ⑧ | A | | X | | | X | | |

* THE DETECTABLE WARNING TILES SHALL BE PER THE CITY'S APPROVED MATERIALS LIST.

NOTE:
CONTRACTOR TO NOTIFY CITY SURVEYING DEPT 30 DAYS PRIOR TO REMOVAL OF SIDEWALK FOR CURB RAMP CONSTRUCTION TO RELOCATE ANY SURVEY MARKERS IN THE AREA.

CURB RAMPS
SCALE: 1" = 20'

C-6

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AVENIDA DE LA PLAYA
CURB RAMPS & DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 08 OF 33 SHEETS

DATE: 6-17-2013

FOR CITY ENGINEER: *[Signature]*

STORM WBS: S-13018
WATER WBS: B-00416
SEWER WBS: B-00102

DESIGNED BY: AKRAM BASSYOUNI
ASSOCIATE ENGINEER

CHECKED BY: EDWARD CASTANEDA
PROJECT ENGINEER

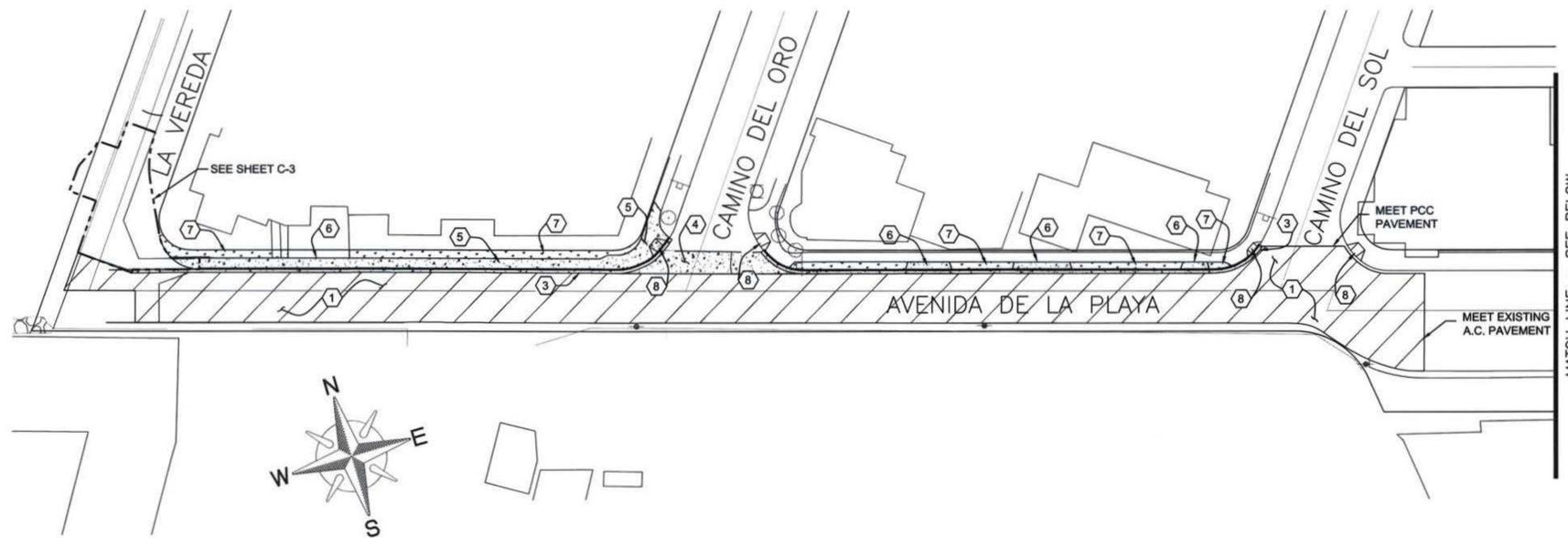
CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

36465-08-D

0 10 20 40
SCALE: 1" = 20'

| REVISION | DATE | APPROVED | DATE | FILMED |
|----------|------|----------|------|--------|
| 04/12 | | | | |

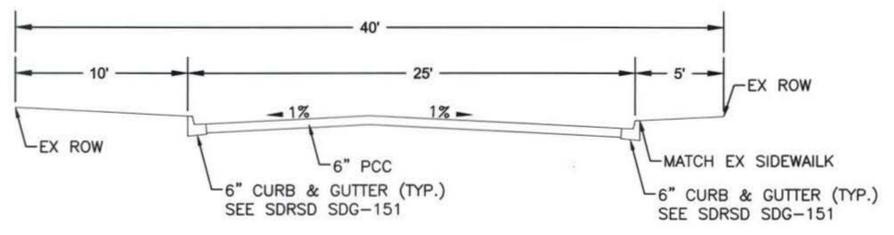
CURB RAMPS & DETAILS



LEGEND

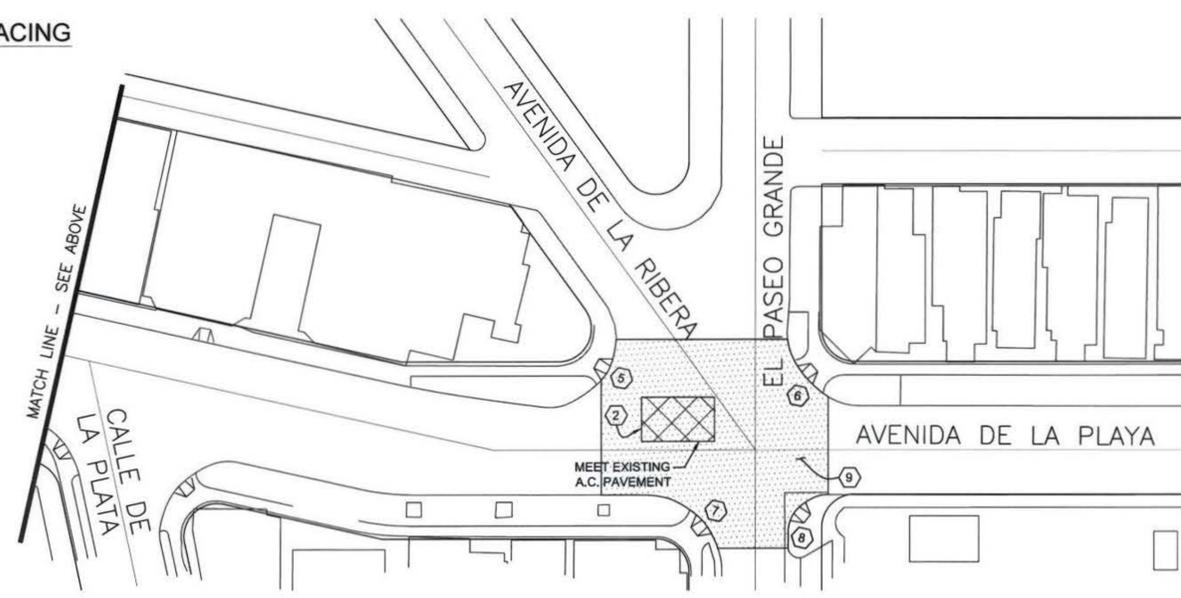
- CONCRETE PAVEMENT
- SIDEWALK/DRIVEWAY/C&G
- RESTORE LANDSCAPE IN LIKEKIND
- ASPHALT PAVEMENT
- SLURRY SEAL

STREET RESURFACING
SCALE: 1" = 40'

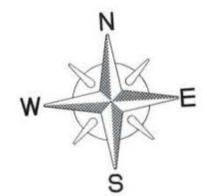


NOTES: SEE SDRSD G-18 FOR SECTION 40' IN WIDTH OR LESS.
SEE SDRSD G-19 FOR SECTION 40' TO 62' IN WIDTH

CONCRETE PAVEMENT TYPICAL SECTION
NTS

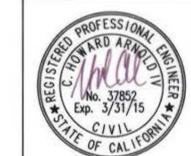
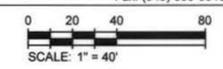


NOTE:
CONTRACTOR TO NOTIFY CITY SURVEYING DEPT 30 DAYS PRIOR TO REMOVAL OF SIDEWALK FOR CURB RAMP CONSTRUCTION TO RELOCATE ANY SURVEY MARKERS IN THE AREA.



| PAVING SCHEDULE NOTES | | | | |
|-----------------------|---------------------|--|----------|------|
| NO. | LOCATION | RESTORATION REQUIRED | QUANTITY | UNIT |
| 1 | AVENIDA DE LA PLAYA | CONCRETE PAVEMENT PER SDRSD G-18 | 17,700 | SF |
| 2 | AVENIDA DE LA PLAYA | ASPHALT PAVEMENT | 680 | SF |
| 3 | AVENIDA DE LA PLAYA | 6" CURB TYPE G PER SDRSD SDG-151 | 515 | LF |
| 4 | AVENIDA DE LA PLAYA | CROSS GUTTER PER SDRSD SDG-157 | 680 | SF |
| 5 | AVENIDA DE LA PLAYA | 5' SIDEWALK PER SDRSD SDG-155 | 1,535 | SF |
| 6 | AVENIDA DE LA PLAYA | COMMERCIAL CONCRETE DRIVEWAY PER SDRSD SDG-163 | 3 | EA |
| 7 | AVENIDA DE LA PLAYA | LANDSCAPE | 1,455 | SF |
| 8 | AVENIDA DE LA PLAYA | CURB RAMP-SEE SHEET C-6 | 4 | EA |
| 9 | AVENIDA DE LA PLAYA | SLURRY SEAL | 8000 | SF |

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San Diego, California, 92127
Phone: (949) 809-5000
Fax: (949) 809-5010



**AVENIDA DE LA PLAYA
STREET RESURFACING**

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 09 OF 33 SHEETS

APPROVED FOR CITY ENGINEER: *[Signature]* DATE: 6-17-2013

DESIGNED BY: EDWARD CASTANEDA, PROJECT ENGINEER

CHIEF ENGINEER: AKRAM BASSYOUNI, ASSOCIATE ENGINEER

CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

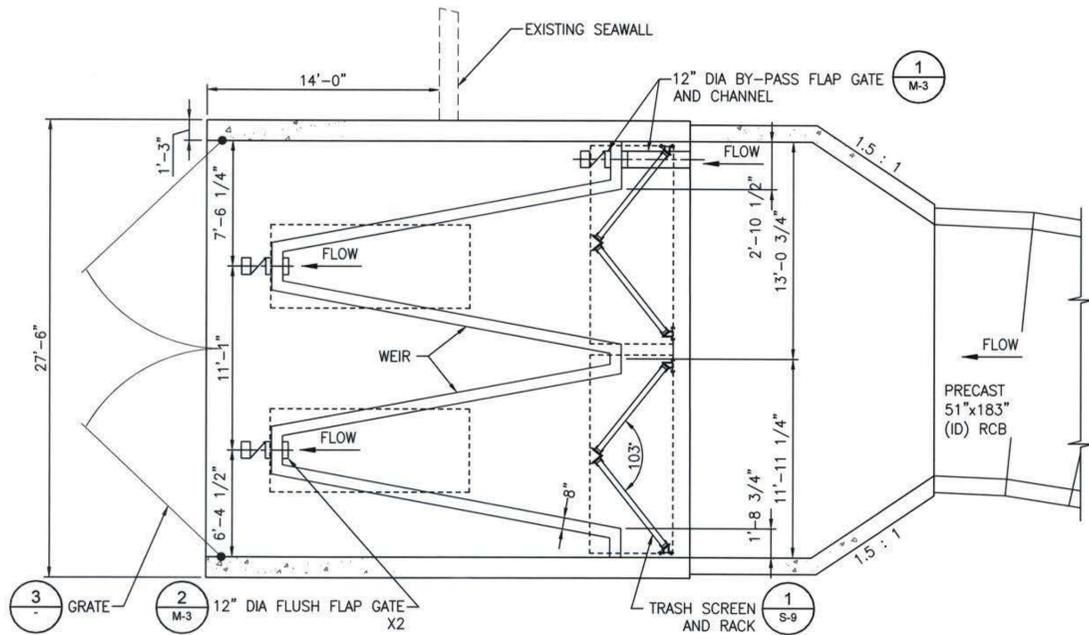
STORM WBS: S-13018
WATER WBS: B-00416
SEWER WBS: B-00102

000-0000
CCS27 COORDINATE
000-0000
CCS83 COORDINATE

36465-09-D

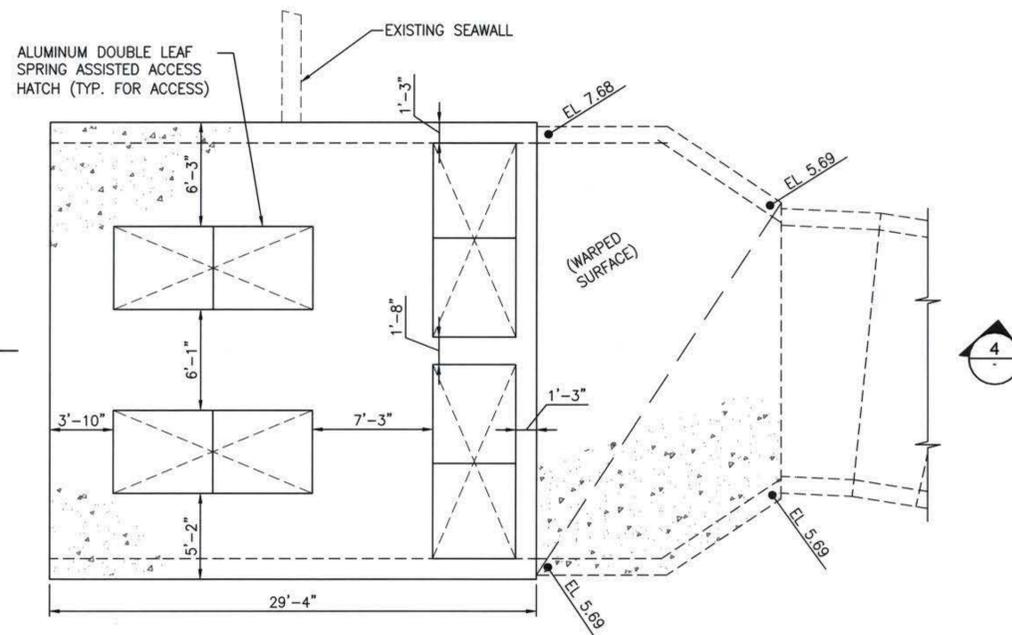
C-7

STREET RESURFACING



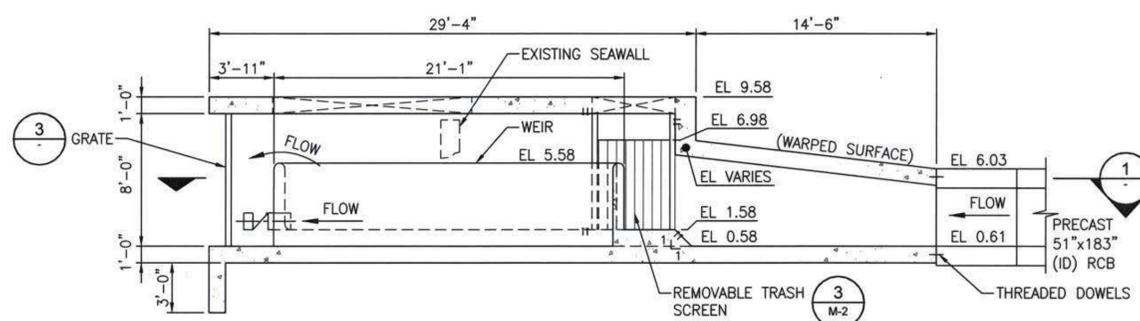
NOTE:
SEE SHEET 17 OF THESE PLANS FOR DESIGN SPECIFICATIONS

1 PLAN VIEW
SCALE: 3/16"=1'-0"

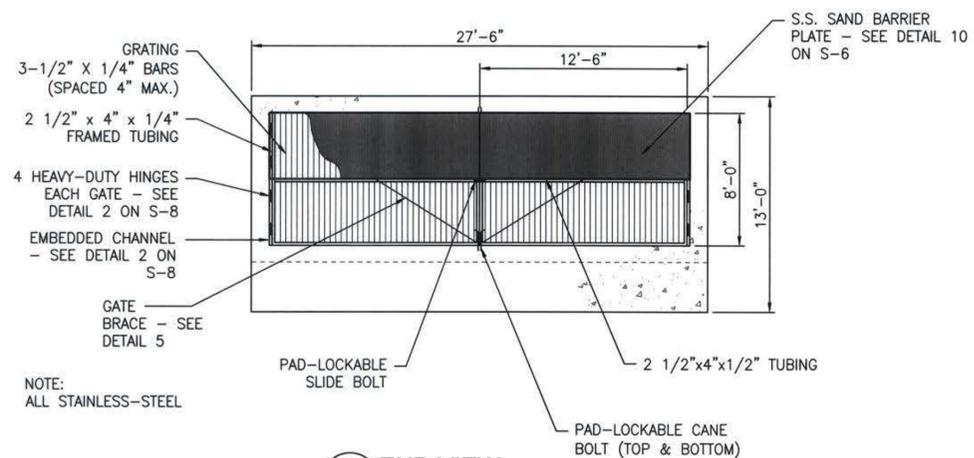


2 TOP VIEW
SCALE: 3/16"=1'-0"

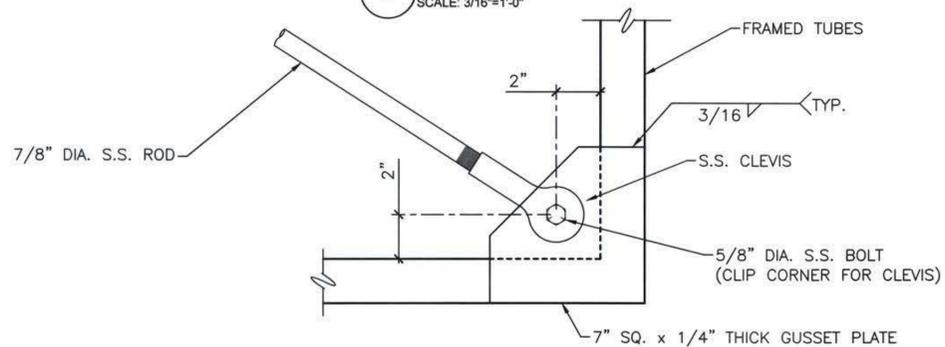
SEE SHEET 17 OF THESE PLANS FOR DESIGN SPECIFICATIONS



4 SECTION VIEW
SCALE: 3/16"=1'-0"



3 END VIEW
SCALE: 3/16"=1'-0"



5 GATE BRACE CONNECTION
SCALE: 3"=1'-0"

M-1

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**AVENIDA DE LA PLAYA
OUTFALL STRUCTURE**

STORM WBS S-13018
WATER WBS B-00416
SEWER WBS B-00102

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 10 OF 33 SHEETS

APPROVED: *[Signature]* 6-17-2013
FOR CITY ENGINEER DATE

SUBMITTED BY: AKRAM BASSYOUNI
ASSOCIATE ENGINEER

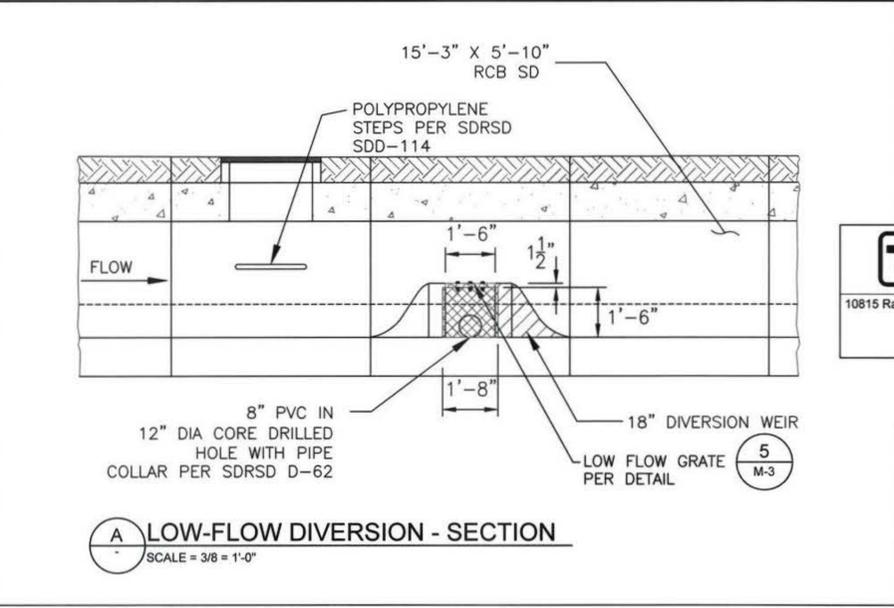
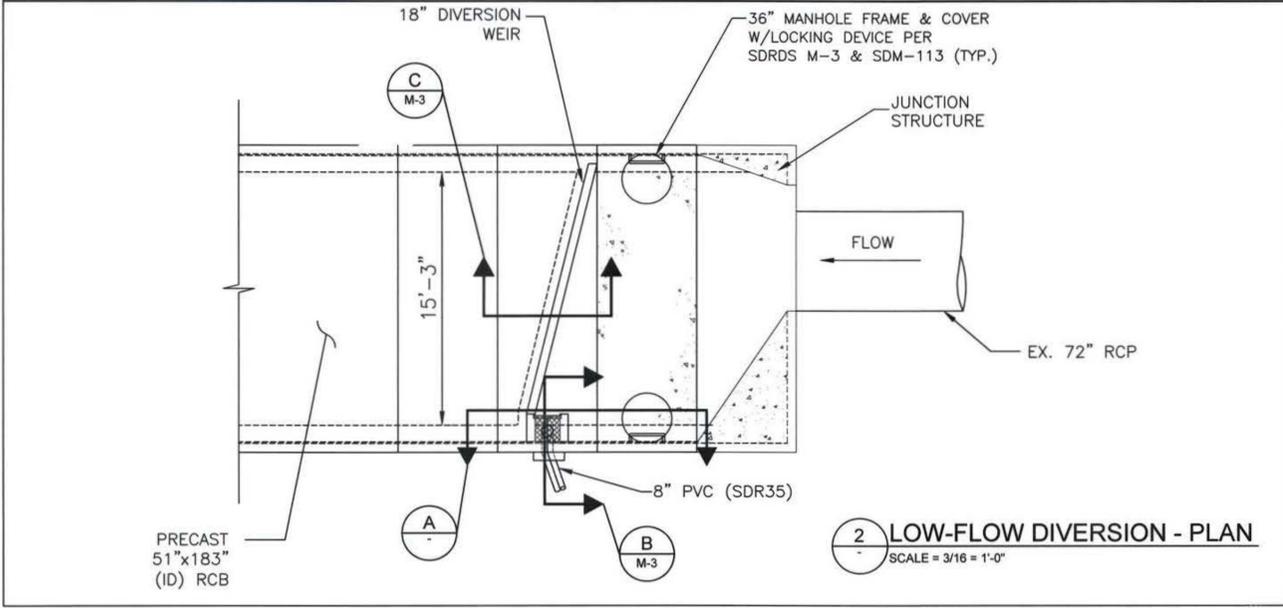
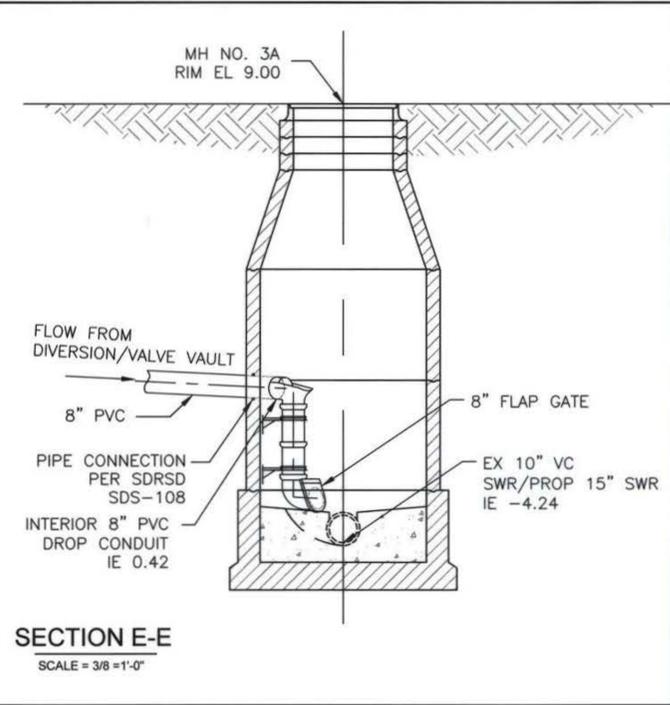
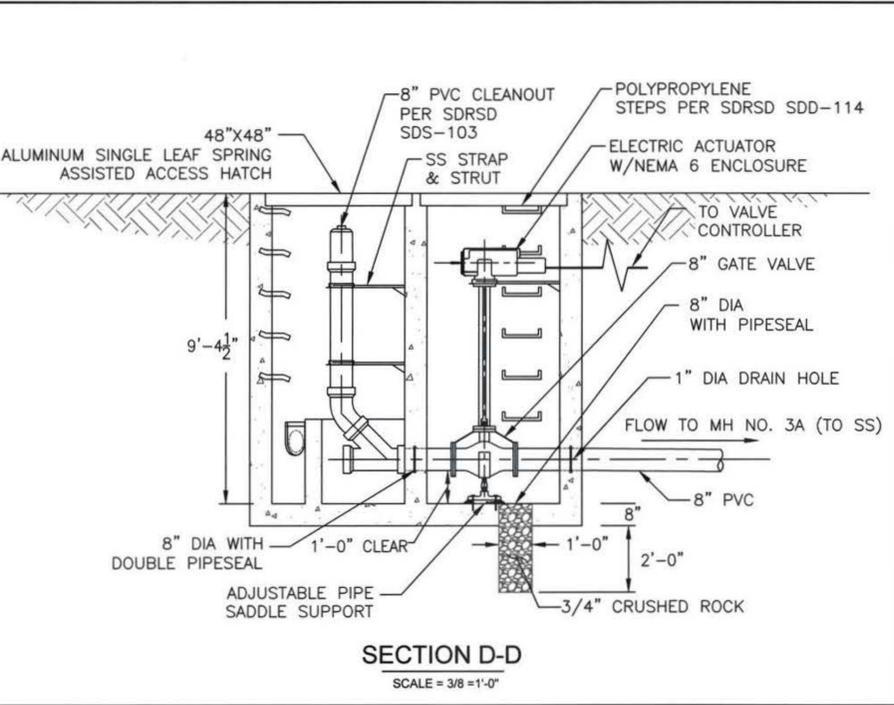
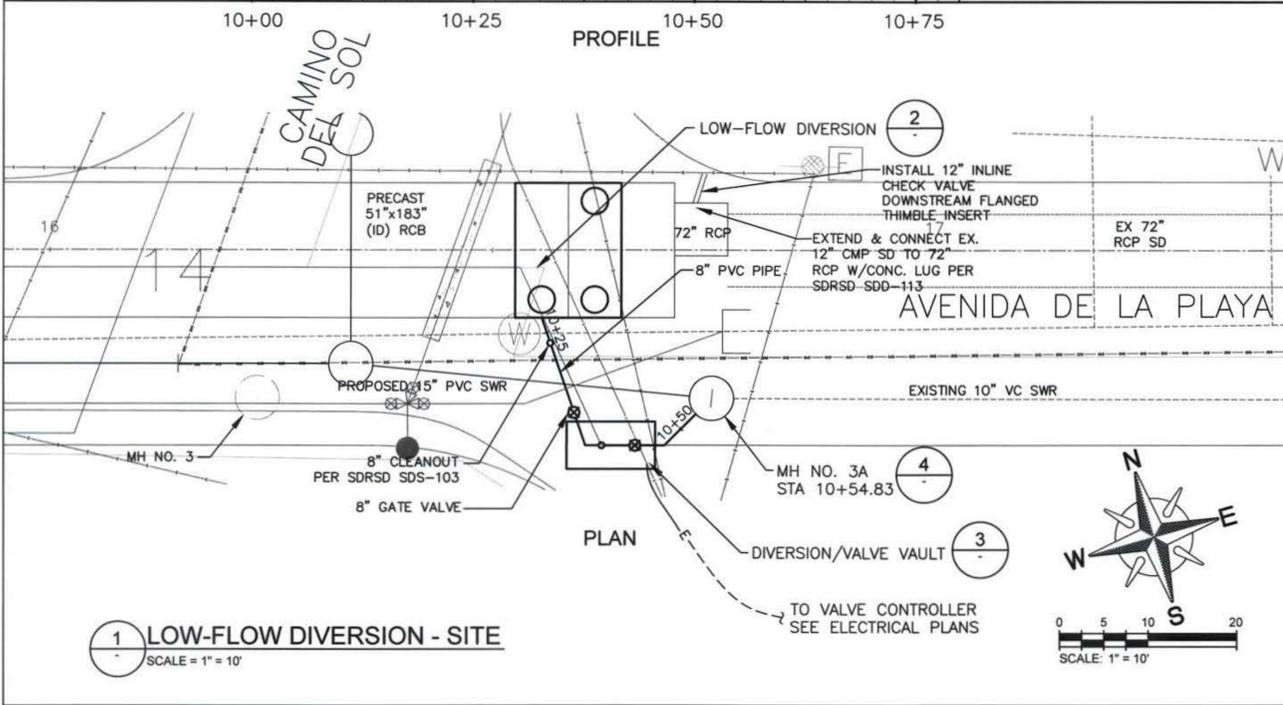
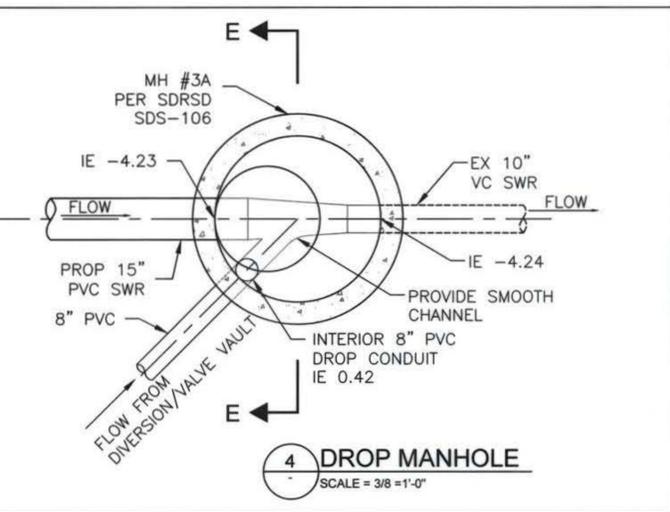
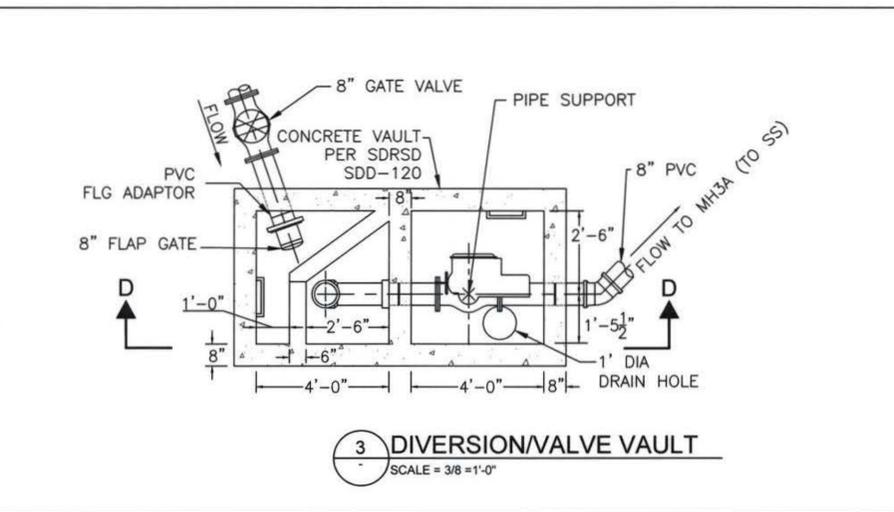
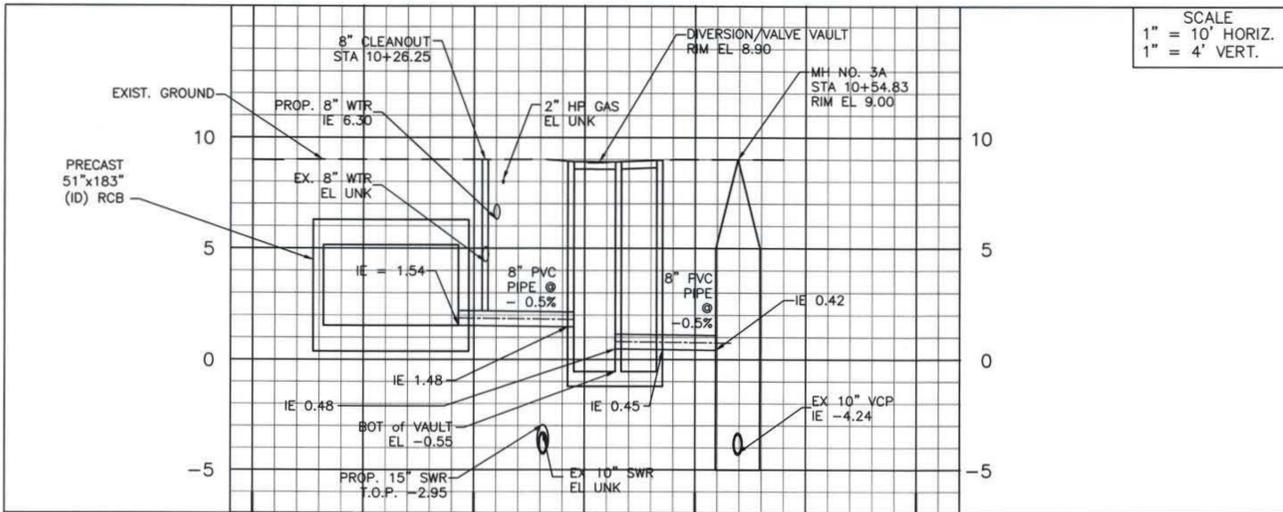
CHECKED BY: EDWARD CASTANEDA
PROJECT ENGINEER

| REVISION | DATE | APPROVED | DATE | FILMED |
|----------|------|----------|------|--------|
| 000-0000 | | | | |
| 000-0000 | | | | |
| 000-0000 | | | | |

CONTRACTOR _____ DATE STARTED _____
INSPECTOR _____ DATE COMPLETED _____

36465-10-D

OUTFALL STRUCTURE



M-2

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**AVENIDA DE LA PLAYA
LOW-FLOW DIVERSION**

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 11 OF 33 SHEETS

FOR CITY ENGINEER: *R. Amen* 6-17-2013
DATE: 6-17-2013

| DESCRIPTION | APPROVED | DATE | FILMED |
|-------------|----------|------|--------|
| REVISION | 04/12 | | |

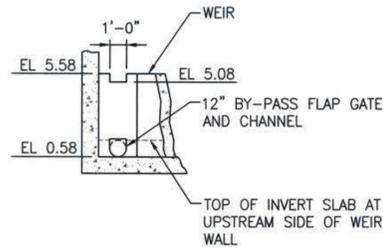
STORM WBS: S-13018
WATER WBS: B-00416
SEWER WBS: B-00102

DESIGNED BY: AL RAM BASSYOUNI, ASSOCIATE ENGINEER
CHECKED BY: EDWARD CASTANEDA, PROJECT ENGINEER

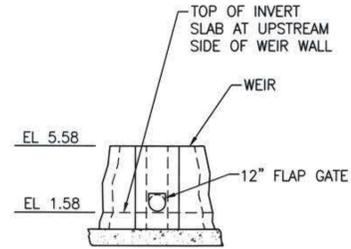
CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

36465-11-D

LOW-FLOW DIVERSION



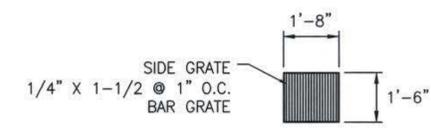
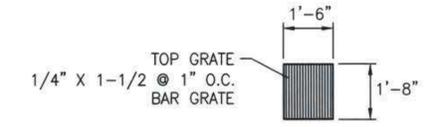
1 12" BY-PASS FLAP GATE AND CHANNEL
SCALE: 3/16=1'-0"



2 12" FLUSH FLAP GATE
SCALE: 3/16=1'-0"

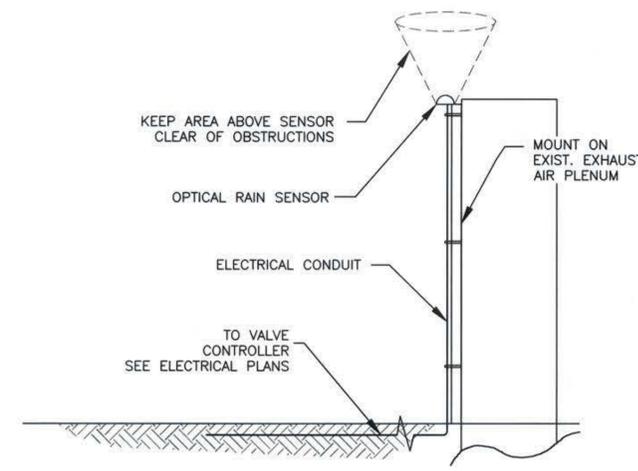
3 NOT USED
SCALE:

4 NOT USED
SCALE:

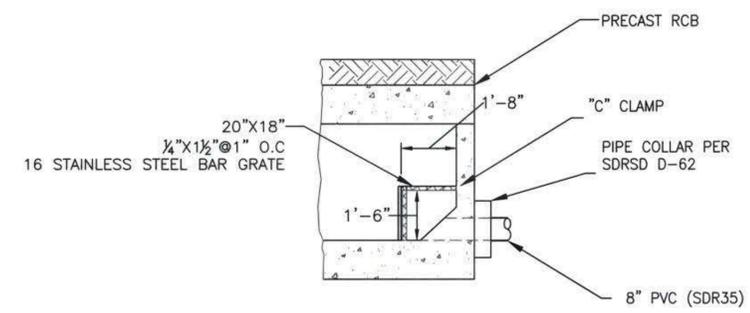


NOTE:
ALL STAINLESS-STEEL

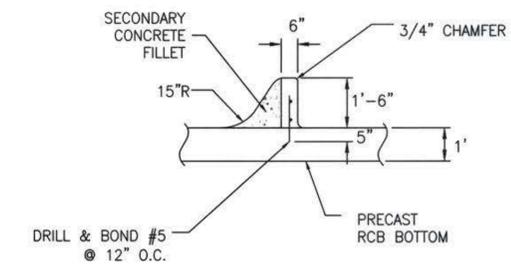
5 LOW-FLOW GRATE
SCALE: 3/8=1'-0"



6 RAIN SENSOR
SCALE = 1/4 = 1'-0"



B SECTION
M-2 SCALE = 3/8 = 1'-0"



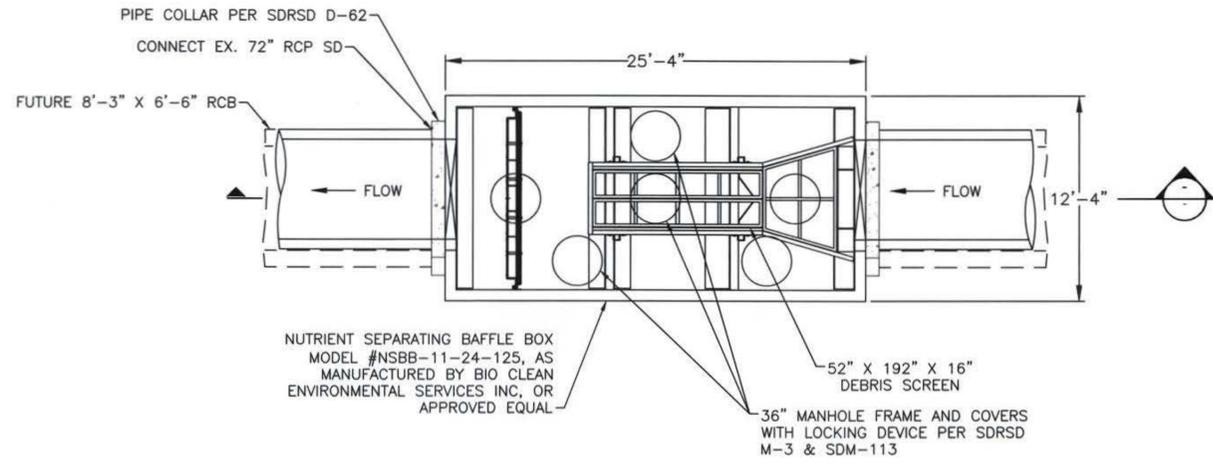
C SECTION
M-2 SCALE = 3/8 = 1'-0"

M-3

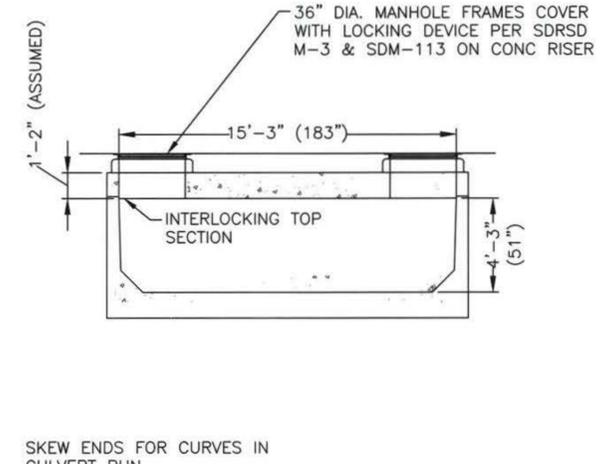
MISC. DETAILS

| | | | |
|--|--|------------------|---|
| <p>TETRA TECH www.tetrattech.com 10815 Rancho Bernardo Road, Suite 500 San Diego, California, 92127 Phone: (949) 809-5000 Fax: (949) 809-5010</p> | <p>AVENIDA DE LA PLAYA MISC. DETAILS</p> | | <p>STORM WBS S-13018</p> |
| | <p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 12 OF 33 SHEETS</p> | | <p>WATER WBS B-00416 SEWER WBS B-00102</p> |
| <p>FOR CITY ENGINEER <i>R. Dr. Amen</i> DATE 6-17-2013</p> | <p>APPROVED DATE FILMED</p> | | <p>SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER</p> |
| <p>DESCRIPTION</p> | <p>REVISION</p> | <p>04/12</p> | <p>DESIGNED BY EDUARDO CASTANEDA PROJECT ENGINEER</p> |
| | | | <p>000-0000 CCS27 COORDINATE</p> |
| | | | <p>000-0000 CCS83 COORDINATE</p> |
| <p>CONTRACTOR</p> | <p>DATE STARTED</p> | <p>INSPECTOR</p> | <p>DATE COMPLETED</p> |
| | | | <p>36465-12-D</p> |



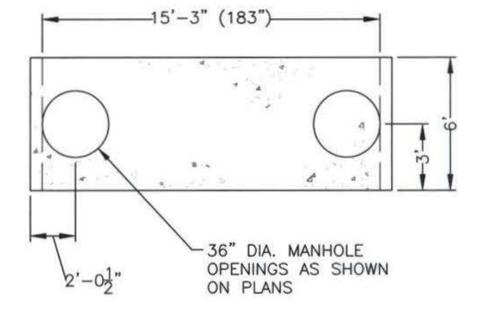


PLAN



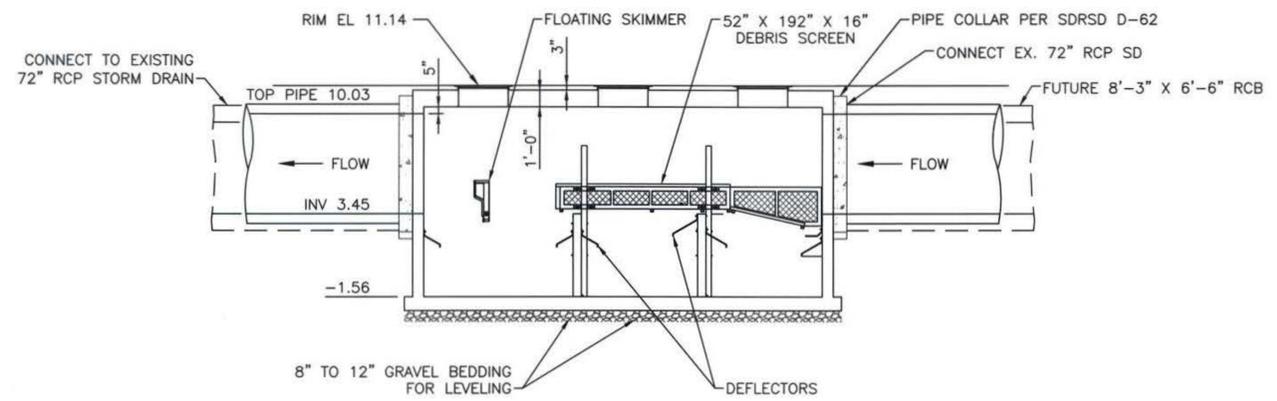
SKEW ENDS FOR CURVES IN CULVERT RUN

2 PRE-CAST RCB - SECTION
SCALE = 1/4" = 1'



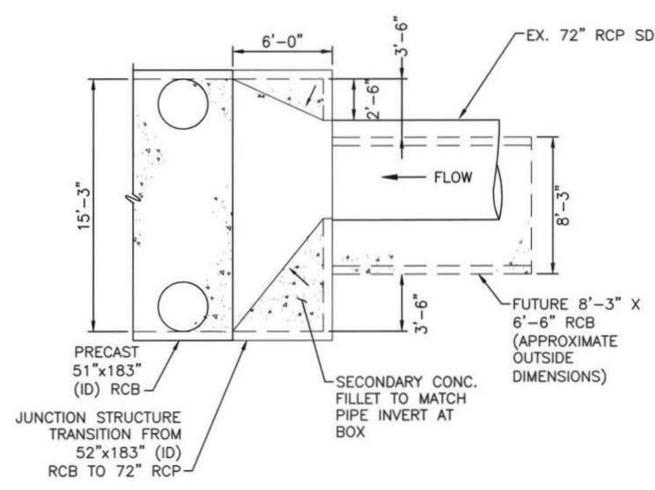
SKEW ENDS FOR CURVES IN CULVERT RUN

3 PRE-CAST RCB - PLAN
SCALE = 1" = XX'

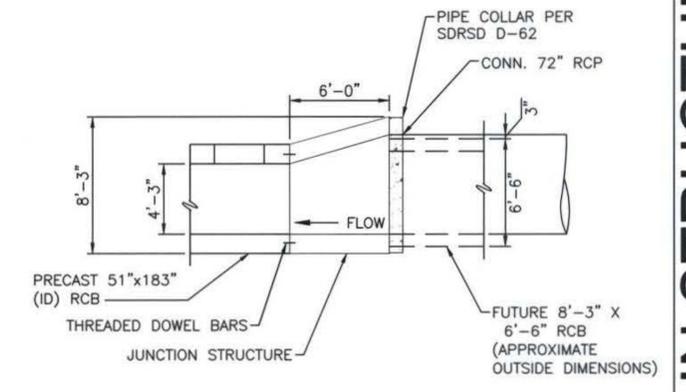


SECTION

1 NUTRIENT SEPARATING BAFFLE BOX
SCALE = 3/16" = 1'-0"



4 JUNCTION STRUCTURE - PLAN
SCALE = 3/16" = 1'-0"



5 JUNCTION STRUCTURE - SECTION
SCALE = 3/16" = 1'-0"

M-4

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**AVENIDA DE LA PLAYA
STORM DRAIN STRUCTURES**

STORM WBS S-13018
WATER WBS B-00416
SEWER WBS B-00102

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 13 OF 33 SHEETS

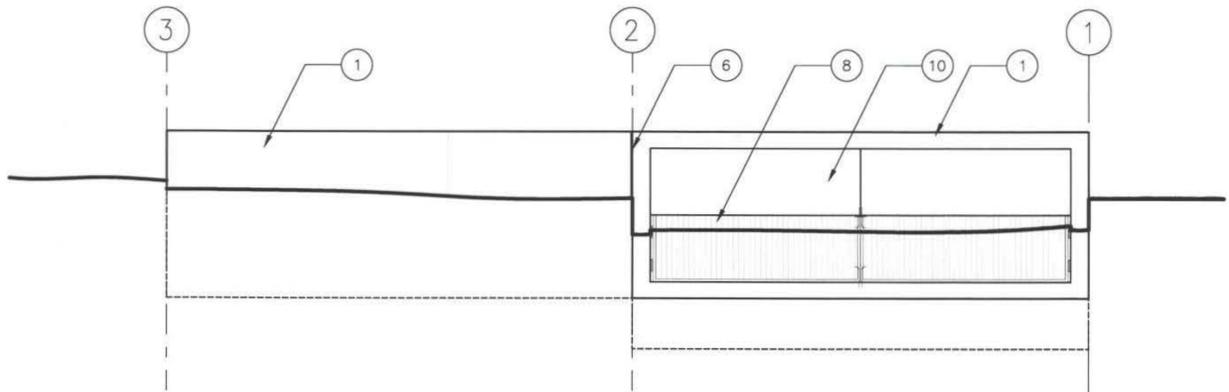
FOR CITY ENGINEER: *Ron Amen* DATE: 6-17-2013
SUBMITTED BY: AKRAM BASSYOUNI, ASSOCIATE ENGINEER
CHECKED BY: EDWARD CASTANEDA, PROJECT ENGINEER

| DESCRIPTION | APPROVED | DATE | FILMED |
|-------------|----------|-------|--------|
| REVISION | | 04/12 | |
| | | | |
| | | | |

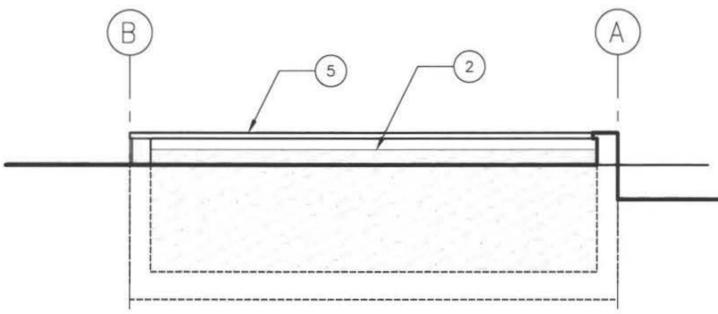
CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

36465-13-D

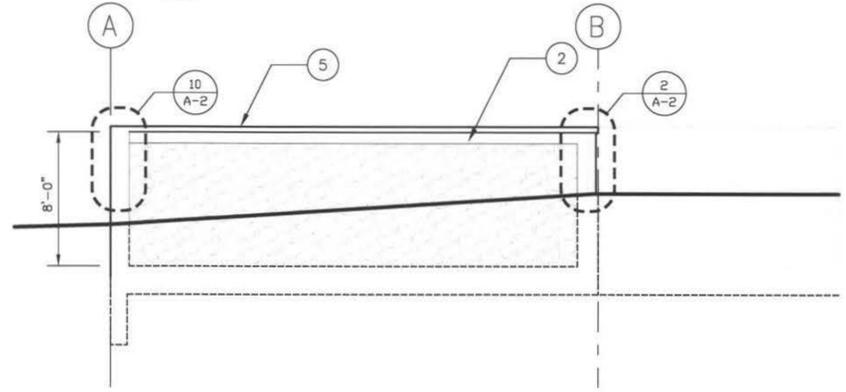
STORM DRAIN STRUCTURES



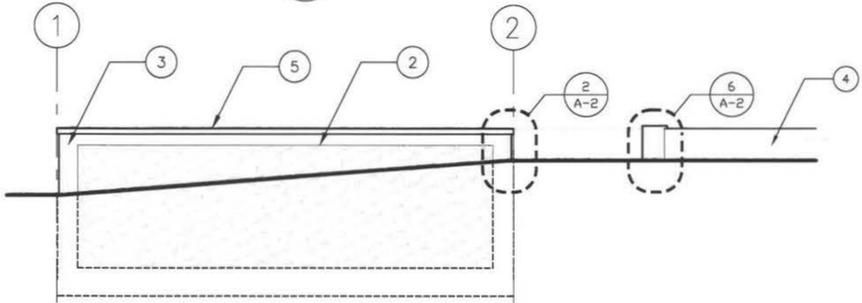
5 WEST ELEVATION
SCALE = 3/16" = 1'-0"



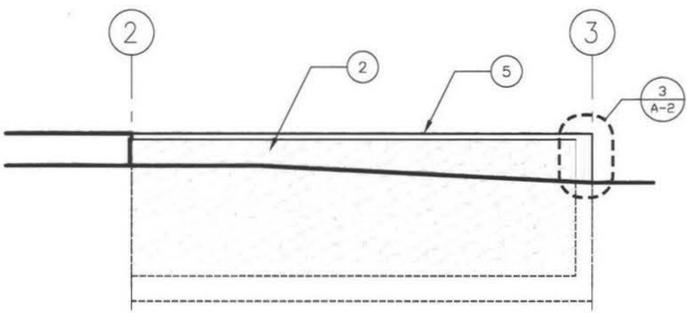
2 NORTH ELEVATION
SCALE = 3/16" = 1'-0"



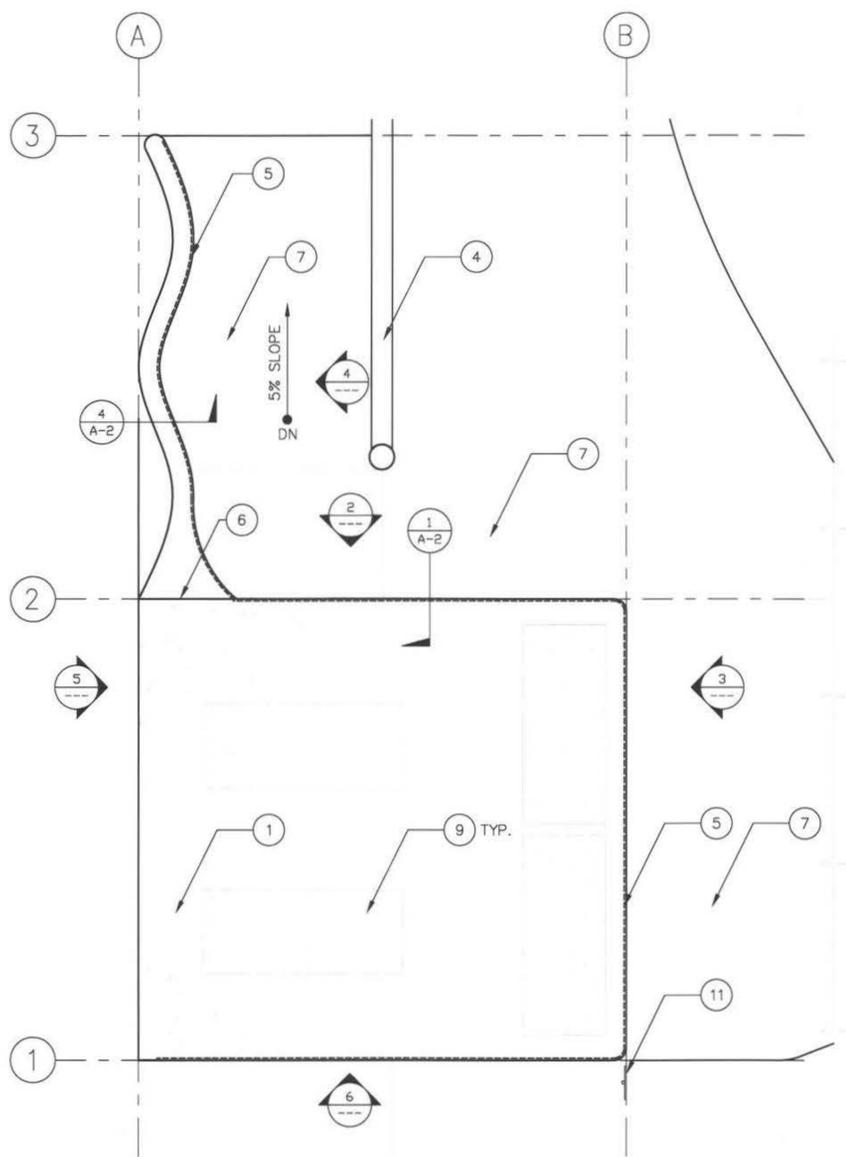
6 SOUTH ELEVATION
SCALE = 3/16" = 1'-0"



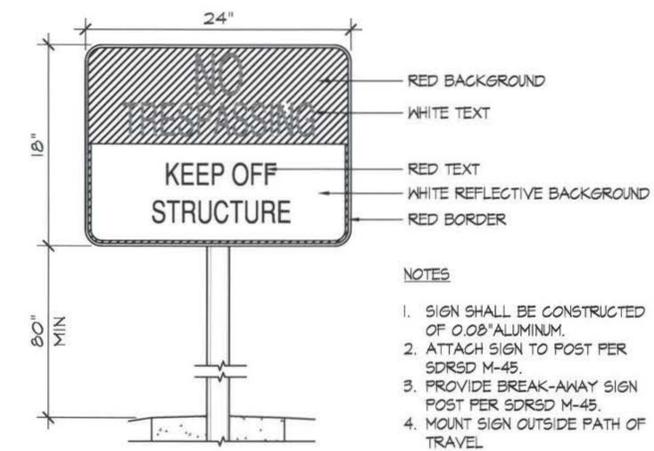
3 EAST ELEVATION
SCALE = 3/16" = 1'-0"



4 EAST ELEVATION - BEACH ACCESS WALL
SCALE = 3/16" = 1'-0"



1 PLAN
SCALE = 3/16" = 1'-0"



7 NO TRESPASSING SIGN
SCALE = 3/16" = 1'-0"

- NOTES**
- SIGN SHALL BE CONSTRUCTED OF 0.08" ALUMINUM.
 - ATTACH SIGN TO POST PER SDRSD M-45.
 - PROVIDE BREAK-AWAY SIGN POST PER SDRSD M-45.
 - MOUNT SIGN OUTSIDE PATH OF TRAVEL.

KEY NOTES

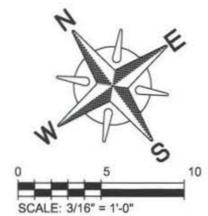
- | | |
|---|--|
| 1 SMOOTH CONCRETE | 8 GRATING |
| 2 COBBLESTONE FORM LINER FINISH | 9 ACCESS HATCH |
| 3 SMOOTH CONCRETE RADIUS CORNER | 10 SS PLATE |
| 4 EXISTING SEA WALL | 11 NO TRESPASSING SIGN. SEE DRAWING 7. |
| 5 OVERHANG | |
| 6 EXPANSION JOINT. SEE 5/A-2 | |
| 7 CONCRETE PAVING W/ EXPOSED SEASHELL AGGREGATE. SEE CIVIL SHEET C-3 FOR EXTENT OF CONCRETE WORK. | |

GENERAL NOTES

- SEE STRUCTURAL SHEET S-2 FOR DIMENSIONS.
- ALL CONCRETE SHALL HAVE SAN DIEGO BUFF INTEGRAL COLOR.
- CONCRETE OUTFALL STRUCTURE AND SEA WALL TO BE SEALED/COATED WITH ANTI GRAFFITI COATING.
- COBBLESTONE FORMLINER FINISH IS TO TERMINATE AT THE TOP OF SIDEWALK SLAB.

MATERIALS LEGEND

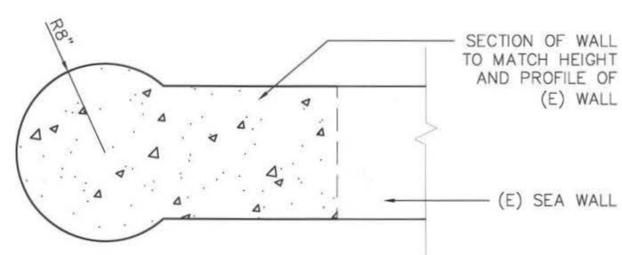
- | | |
|--|--|
| | COBBLESTONE FORM LINER FINISH WITH MULTI-COLORED STAINED FINISH. |
| | CONCRETE PAVING WITH EXPOSED SEASHELL FINISH. |



**100% SUBMITTAL
NOT FOR
CONSTRUCTION**

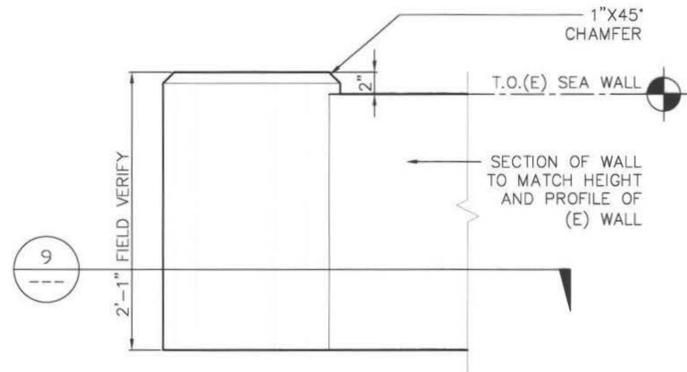


| | | | |
|---|----------------|---|--------|
| AVENIDA DE LA PLAYA OUTFALL STRUCTURE ARCHITECTURAL PLAN AND ELEVATIONS | | | |
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 14 OF 33 SHEETS | | STORM WBS S-13018 WATER WBS B-00416 SEWER WBS B-00102 | A-1 |
| APPROVED FOR CITY ENGINEER | DATE | 6-17-2013 | |
| DESCRIPTION | APPROVED | DATE | FILMED |
| SUBMITTED BY: AKRAM BASSYOUNI, ASSOCIATE ENGINEER | | | |
| CHECKED BY: EDWARD CASTANEDA, PROJECT ENGINEER | | | |
| CONTROL CERTIFICATION | | | |
| 000-0000 LAMBERT COORDINATES | | | |
| CONTRACTOR | DATE STARTED | 36465-14-D | |
| INSPECTOR | DATE COMPLETED | | |



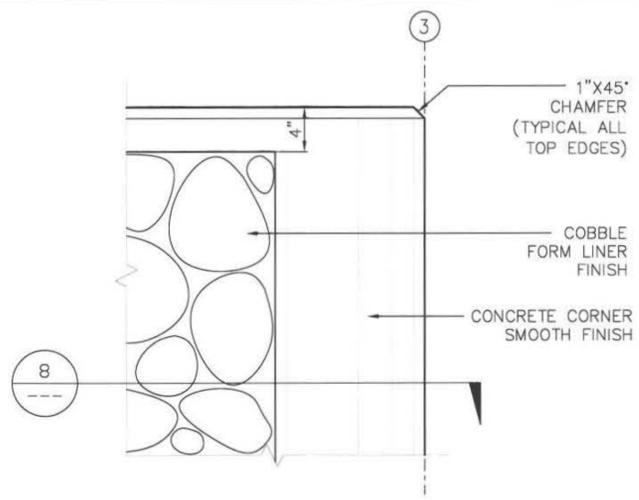
*SEE 3/S-7 FOR CONNECTION TO EXISTING SEA WALL

9 SECTION THRU SEA WALL PILASTER
A-2 1-1/2" = 1'-0"

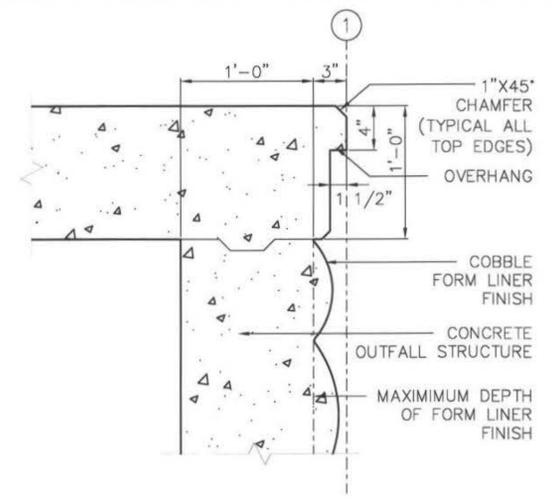


*SEE 5/S-7 FOR CONNECTION TO EXISTING SEA WALL

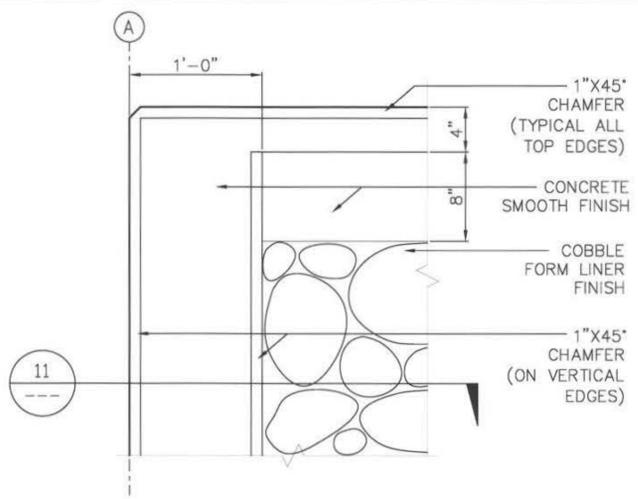
6 (E) BOARDWALK TERMINATION
A-2 1-1/2" = 1'-0"



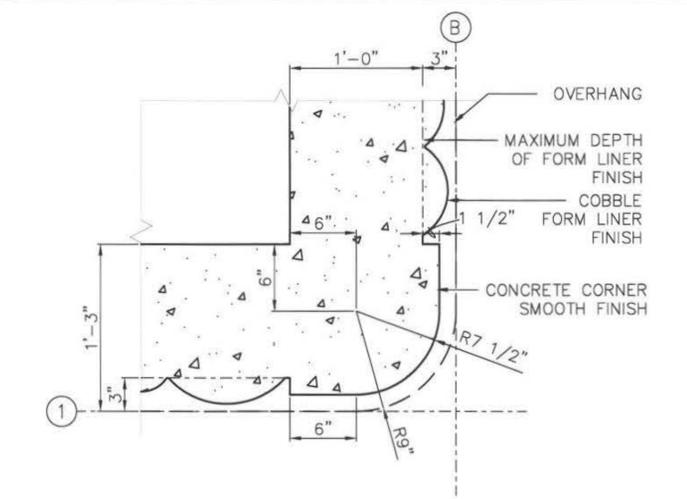
3 SEA WALL TERMINATION
A-2 1-1/2" = 1'-0"



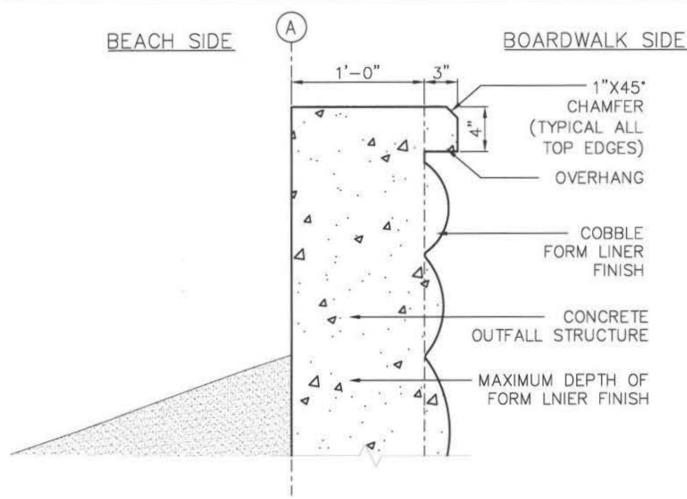
1 OUTFALL FORM LINER DETAIL
A-2 1-1/2" = 1'-0"



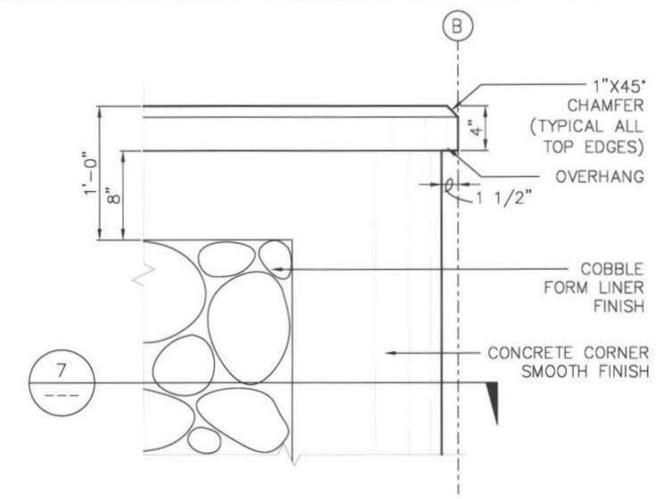
10 OUTFALL EDGE DETAIL
A-2 1-1/2" = 1'-0"



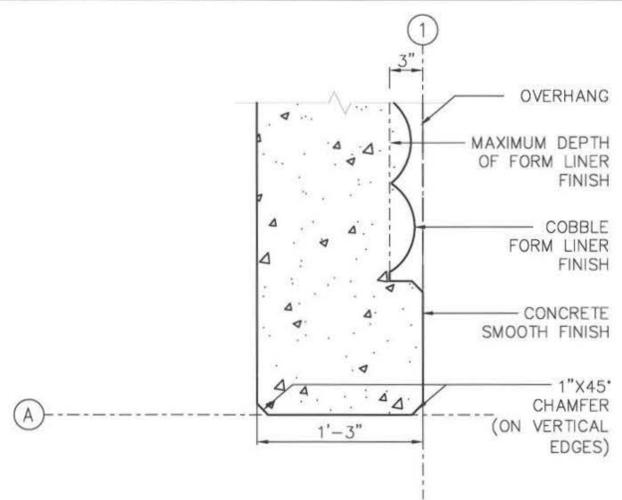
7 PLAN SECTION THRU OUTFALL CORNER
A-2 1-1/2" = 1'-0"



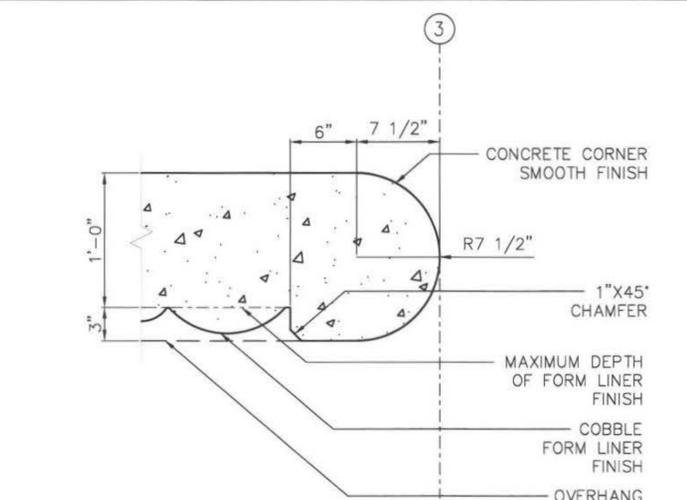
4 OUTFALL FORM LINER DETAIL
A-2 1-1/2" = 1'-0"



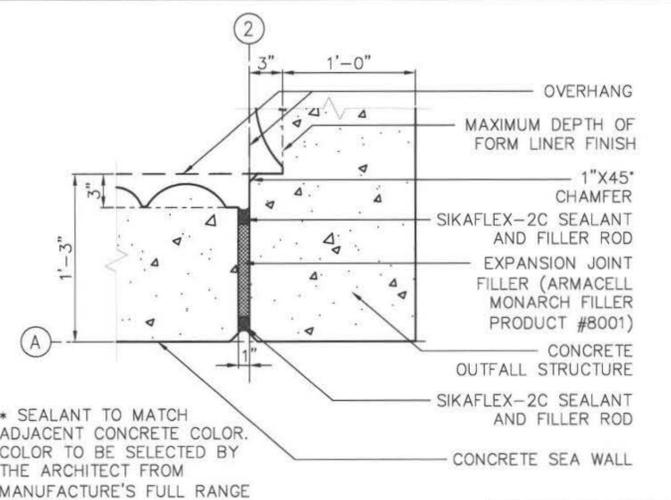
2 OUTFALL CORNER DETAIL
A-2 1-1/2" = 1'-0"



11 PLAN SECTION THRU OUTFALL CORNER
A-2 1-1/2" = 1'-0"



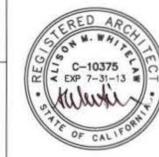
8 SECTION THRU SEA WALL
A-2 1-1/2" = 1'-0"



5 EXPANSION JOINT DETAIL
A-2 1-1/2" = 1'-0"

* SEALANT TO MATCH ADJACENT CONCRETE COLOR. COLOR TO BE SELECTED BY THE ARCHITECT FROM MANUFACTURE'S FULL RANGE COLORS.

100% SUBMITTAL
NOT FOR
CONSTRUCTION



A-2

**AVENIDA DE LA PLAYA
OUTFALL STRUCTURE ARCHITECTURAL
DETAILS**

| | |
|-----------|---------|
| STORM WBS | S-13018 |
| WATER WBS | B-00416 |
| SEWER WBS | B-00102 |

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 15 OF 33 SHEETS

FOR CITY ENGINEER: *Rowan* DATE: 6-17-2013

| DESCRIPTION | APPROVED | DATE | FILED |
|-------------|----------|------|-------|
| | | | |

CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

AKRAM BASSYOUNI
ASSOCIATE ENGINEER

EDWARD CASTANEDA
PROJECT ENGINEER

CONTROL CERTIFICATION
000-0000
LAMBERT COORDINATES
36465-15-D

GENERAL STRUCTURAL NOTES

THESE NOTES SHALL APPLY UNLESS SHOWN/INDICATED OTHERWISE ELSEWHERE IN THE STRUCTURAL DRAWINGS.

GENERAL

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE ACI 350-06.
- THE CONTRACTOR ACKNOWLEDGES RESPONSIBILITY FOR JOBSITE SAFETY AND ACKNOWLEDGES THAT THE ENGINEER WILL NOT HAVE SUCH RESPONSIBILITY. IF A LAWSUIT IS FILED BY ONE OF THE CONTRACTOR'S OR SUBCONTRACTOR'S EMPLOYEES, OR ANY ONE ELSE, THE CONTRACTOR WILL INDEMNIFY, DEFEND AND HOLD THE OWNER AND TETRA TECH, INC., THEIR PARENT AND SUBSIDIARY COMPANIES HARMLESS OF ANY AND ALL SUCH CLAIMS.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING WORK. DIMENSIONS OF (E) CONSTRUCTION WHERE SHOWN ON THESE DRAWINGS ARE NOMINAL AND SHOULD BE FIELD VERIFIED. SHOULD CONDITIONS EXIST WHICH ARE CONTRARY TO THOSE SHOWN ON PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING BEFORE PROCEEDING WITH WORK.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING WORK. SHOULD CONDITIONS EXIST WHICH ARE CONTRARY TO THOSE SHOWN ON PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING BEFORE PROCEEDING WITH WORK.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL ITEMS OF WORK ARE ADEQUATELY BRACED AND SHORED DURING CONSTRUCTION.
- UNLESS DETAILED, SPECIFIED, OR INDICATED OTHERWISE, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND THESE GENERAL NOTES. TYPICAL DETAILS ARE MEANT TO APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON DRAWINGS WHERE THE OCCUR.
- THE CONTRACT DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE, WORKERS AND PEDESTRIANS DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, TEMPORARY STRUCTURES, AND PARTIALLY COMPLETED WORK, ETC. OBSERVATION VISITS TO THE SITE BY THE ENGINEER SHALL NOT BE CONSIDERED AS INSPECTION OF SUCH ITEMS.
- DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALES SHOWN ON DRAWINGS.
- ALL WORK SHALL CONFORM TO THE PLANS AND SPECIFICATIONS IN ALL RESPECTS AND SHALL BE SUBJECT TO APPROVAL BY THE ENGINEER.
- SOIL PROPERTIES, ALLOWABLE DESIGN VALUES, GRADING AND COMPACTION REQUIREMENTS AS PER SOILS REPORT BY ALLIED GEOTECHNICAL ENGINEERS, INC. (AGE PROJECT NO. 119 GTS-08444A08) DATED JUNE 11TH, 2010 THIS REPORT SHALL BE CONSIDERED A PART OF THESE PLANS AND SHALL BE KEPT AT THE JOB SITE AT ALL TIMES. A COPY OF THIS REPORT IS AVAILABLE FOR REVIEW IN THE ENGINEER'S OFFICE.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL SITE UTILITIES PRIOR TO STARTING WORK, BOTH ABOVE GROUND AND BELOW GROUND, WHICH MAY BE IMPACTED BY THE WORK SHOWN ON THESE DRAWINGS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- ALL ITEMS SHOWN ON THESE PLANS ARE NEW UNLESS NOTED (E), EXIST OR EXISTING.

REINFORCING NOTES

- REINFORCEMENT FOR CONCRETE SHALL BE DEFORMED BARS CONFORMING TO ASTM SPECIFICATION A615 (A706/A706M FOR WELDED REINFORCING). GRADE 60 STEEL SHALL BE USED FOR ALL BARS.
- ALL REINFORCEMENT, ANCHOR BOLTS, AND OTHER ANCHORAGES PLACED IN CONCRETE SHALL BE ACCURATELY PLACED AND POSITIVELY SECURED AND SUPPORTED BY CONCRETE BLOCKS, METAL CHAIRS, SPACERS, OR METAL HANGERS, AND SHALL BE IN POSITION BEFORE CONCRETE PLACING IS BEGUN. DETAILING AND PLACING OF BARS SHALL CONFORM TO THE ACI MANUAL OF STANDARD PRACTICES.
- BARS SPECIFIED AS "CONTINUOUS" SHALL EXTEND THE FULL LENGTH OF THE MEMBER CONTAINING THEM AND MAY BE SPLICED (UNLESS NOTED OR SHOWN WITHOUT SPLICES ON THE PLANS). PROVIDE LAPS PER DETAIL 4 ON S-6 SHEET. STAGGER ALL SPLICES.
- DOWELS SHALL BE PROVIDED AT ALL POUR JOINTS AND SHALL BE THE SAME SIZE AND SPACING AS REINFORCING DIRECTLY BEYOND POUR JOINTS.
- WELDING OF REINFORCING STEEL, METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO ANSI/AWS 61.4-05. USE LOW HYDROGEN E-70 SERIES ELECTRODES FOR WELDING OF REINFORCING BARS. CONTINUOUS INSPECTION IS REQUIRED OF ALL FIELD WELDING IN ACCORDANCE WITH C.B.C. CHAPTER 17.

CONCRETE NOTES

- ALL CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS. AGGREGATES SHALL CONFORM TO ASTM C33.
- CEMENT FOR CONCRETE SHALL BE TYPE II OR V, MODIFIED WITH FLYASH. 20 PERCENT OF THE TOTAL CEMENTITIOUS MATERIAL SHALL CLASS F FLYASH. CEMENT SHALL CONFORM TO ASTM C150; FLYASH SHALL CONFORM TO ASTM C618.
- CONCRETE COVER FOR REINFORCING BARS SHALL BE: CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH = 3" EXPOSED TO EARTH OR WEATHER: NO. 6 THROUGH NO. 18 BARS = 2" NO. 5 BARS, W31 OR D31 WIRE, AND SMALLER = 1 1/2" NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND: SLABS, WALLS, JOISTS: NO. 14 AND NO. 18 BARS = 1 1/2" NO. 11 BARS AND SMALLER = 3/4" BEAMS, COLUMNS: PRIMARY REINFORCEMENT, TIES, STIRRUPS, SPIRALS = 1 1/2"

CONCRETE NOTES CONT.

- DRYPACK SHALL BE 1 PART CEMENT AND 3 PARTS SAND (BY VOLUME).
- NO PIPES OR DUCTS SHALL BE PLACED IN STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
- THE LOCATION OF ALL CONSTRUCTION JOINTS NOT SPECIFICALLY NOTED OR SHOWN SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.
- "ROUGHENED SURFACES", WHERE SPECIFIED ON THE DRAWINGS, SHALL BE MECHANICALLY ROUGHENED SUCH THAT A MINIMUM 1/4" AMPLITUDE IS ACHIEVED BETWEEN HIGH AND LOW SPOTS OF THE ROUGHENED SURFACE. THE SURFACE SHALL BE CLEAN AND FREE OF LAITANCE
- ALL CONCRETE POURED ON TOP OF PREVIOUSLY CAST CONCRETE SHALL BE KEPT MOIST DURING FINISHING PERIOD BY FOG NOZZLE.
- DURING CURING PERIOD, ALL CONCRETE POURED ON TOP OF PREVIOUSLY CAST CONCRETE SHALL BE KEPT MOIST AND COVERED WITH POLYETHYLENE SHEETS. PAD SHALL BE CURED FOR A PERIOD OF NOT LESS THAN SEVEN DAYS.

ADHESIVE ANCHORS

- ADHESIVE ANCHORS SHALL BE "HIT RE-500" ADHESIVE ANCHORS, MANUFACTURED BY HILTI, INC.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH I.C.C. EVALUATION REPORT No. 2322.
- SPECIAL INSPECTION PER CHAPTER 1704.13 OF THE C.B.C SHALL BE PROVIDED DURING ANCHOR INSTALLATION.
- AN ALTERNATIVE ADHESIVE ANCHOR PRODUCT MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL, PROVIDED THAT IT HAS A CURRENT I.C.C. EVALUATION REPORT APPROVAL.
- ALL ABANDONED HOLES SHALL BE FILLED WITH A DRYPACK GROUT A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. THE FILLED HOLE(S) SHALL BE PREPARED AND CLEANED AS REQUIRED BY THE GROUT MANUFACTURER.
- LOCATE EXISTING REINFORCING USING A NON-DESTRUCTIVE METHOD (PACHOMETER OR OTHER), PRIOR TO DRILLING HOLES FOR ANCHORS. MAINTAIN A MINIMUM CLEARANCE OF 1" BETWEEN THE REINFORCEMENT AND THE ANCHOR.
- PROVIDE SPECIAL INSPECTION DURING INSTALLATION PER SPECIAL INSPECTION NOTES ON THIS SHEET.

STAINLESS STEEL NOTES (APPLIES TO ALL EXPOSED METALS)

- STAINLESS STEEL SHALL CONFORM TO A.S.T.M. A276/A.I.S.I. 316. STAINLESS STEEL BOLTS SHALL CONFORM TO A.S.T.M. F593. STAINLESS STEEL NUTS SHALL CONFORM TO A.S.T.M. F594.
- WELDING OF STAINLESS STEEL SHALL CONFORM TO STRUCTURAL WELDING CODE - STAINLESS STEEL, ANSI/AWS D1.6-07.
- NO STRUCTURAL STEEL MEMBER SHALL BE CUT FOR PIPES, DUCTS, ETC. UNLESS SPECIFICALLY DETAILED AND APPROVED BY STRUCTURAL ENGINEER.

DESIGN CRITERIA

CODES AND REFERENCES

GEOTECHNICAL INVESTIGATION REPORT PREPARED BY ALLIED GEOTECHNICAL ENGINEERS, INC DATE: JUNE 11, 2010
 ASCE 7-05, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
 ACI 318-08, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
 ACI 350-06, CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES
 2009 INTERNATIONAL BUILDING CODE (FOR SEISMIC DESIGN ONLY)

GEOTECHNICAL PARAMETERS

SOIL BEARING CAPACITY: 3,000 PSF (FIRM NATIVE SOILS), 2000 PSF (UNIFORMLY COMPACTED FILL) w/ 1/3 INCREASE FOR SEISMIC LOADING
 LATERAL ACTIVE PRESSURE: 65 PCF ASSUMED FOR SATURATED SOIL
 LATERAL PASSIVE RESISTANCE: 300 PCF
 COEFFICIENT OF FRICTION: 0.40

SEISMIC DESIGN PARAMETERS

LOCATION: 32.85411, -117.25701
 SITE CLASS D
 SDS = 1.144; SD1 = 0.684
 I = 1.0 (OCCUPANCY GROUP II)
 R = 2.8 (OUTFALL STRUCTURE PER TABLE 4.4.1B OF ACI 350.3-06)
 R = 3.0 (JUNCTION STRUCTURE PER TABLE 4.4.1B OF ACI 350.3-06)

LOAD COMBINATIONS (PER ACI 350-06)

1.4 (D+F) LC: (9-1)
 1.2F (D+F) + 1.6H (9-2) WHEN SOIL AND FLUID LOADS ACT IN THE SAME DIRECTION
 1.2F (D+F) + 0.6H WHEN SOIL AND FLUID LOADS DO NOT ACT IN THE SAME DIRECTION
 1.2F (D+F) + 1.6H + 1.0E LC: (9-5) WHEN ALL LOADS ACT IN THE SAME DIRECTION
 1.2F (D+F) + 0.6H + 1.0E WHEN SOIL LOAD REDUCES THE EFFECT OF FLUID AND SEISMIC LOADS
 F = LOADS DUE TO FLUIDS WITH WELL DEFINED PRESSURES AND MAXIMUM HEIGHTS
 H = LOADS DUE TO LATERAL EARTH PRESSURE, INCLUDING GROUND WATER PRESSURE
 E = EARTHQUAKE LOAD

FACTORS OF SAFETY FOR GLOBAL STABILITY

RETAINING WALLS
 SLIDING FS = 1.50
 OVERTURNING FS = 1.50

LOADING

OUTFALL STRUCTURE ROOF SLAB LIVE LOAD = 100 PSF
 ALUMINUM ROOF HATCHES = 23 PSF
 JUNCTION STRUCTURE ROOF SLAB LIVE LOAD = H-20 LOADING
 HYDROSTATIC LOADING = 62.4 PCF
 HYDRODYNAMIC IMPULSIVE AND CONVECTIVE LOADS PER ACI 350-06 DESIGN REQUIREMENTS

SPECIAL INSPECTIONS REQUIRED

SPECIAL INSPECTIONS REQUIRED FOR THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH C.B.C. CHAPTER 17. SPECIAL INSPECTIONS SHALL BE PERFORMED BY AN APPROVED INSPECTION AGENCY U.N.O, EMPLOYED BY THE OWNER.

THE SPECIAL INSPECTOR SHALL BE CERTIFIED BY THE INTERNATIONAL CODE COUNCIL (I.C.C.) TO PERFORM INSPECTION FOR THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION PRIOR TO THE COMPLETION OF THAT PHASE OF THE WORK.

THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND/OR THE ENGINEER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE STRUCTURAL ENGINEER AND TO THE BUILDING OFFICIAL.

THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THIS CODE.

IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE AT LEAST 48 HOURS ADVANCE NOTICE TO THE OWNER/OWNER'S REPRESENTATIVE WHEN HIS WORK IS READY FOR ANY REQUIRED SPECIAL INSPECTIONS.

SPECIAL INSPECTION SHALL BE PROVIDED FOR THE FOLLOWING TYPES OF WORK PERFORMED IN THE FIELD, OR NOT PERFORMED IN AN APPROVED FABRICATION SHOP AS DEFINED ABOVE, UNLESS NOTED AS "N/A".

| ADHESIVE ANCHORS: | CONT | PERIODIC | N/A |
|--|--------------------------|-------------------------------------|--------------------------|
| 1. VERIFY ANCHOR TYPE: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. VERIFY ADHESIVE IDENTIFICATION AND EXPIRATION DATE. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. VERIFY ANCHOR DIMENSIONS: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4. VERIFY CONCRETE TYPE: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 5. VERIFY CONCRETE COMPRESSIVE STRENGTH | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 6. VERIFY HOLE DRILLING METHOD | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 7. VERIFY HOLE DIMENSIONS | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 8. VERIFY HOLE CLEANING PROCEDURES | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 9. VERIFY ANCHOR SPACING | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 10. VERIFY EDGE DISTANCES | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. VERIFY CONCRETE THICKNESS | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 12. VERIFY ANCHOR EMBEDMENT | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 13. VERIFY TIGHTENING TORQUE | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 14. VERIFY ADHERENCE TO THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

THE SPECIAL INSPECTOR MUST VERIFY THE INITIAL INSTALLATIONS OF EACH TYPE AND SIZE OF ADHESIVE ANCHOR INSTALLED BY THE CONSTRUCTION PERSONNEL ON SITE. SUBSEQUENT INSTALLATIONS OF THE SAME ANCHOR TYPE AND SIZE BY THE SAME CONSTRUCTION PERSONNEL MAY BE PERMITTED, WITH THE APPROVAL OF THE ENGINEER AND THE SPECIAL INSPECTOR, TO BE PERFORMED IN THE ABSENCE OF THE SPECIAL INSPECTOR. ANY CHANGE IN THE ANCHOR PRODUCT BEING INSTALLED OR THE PERSONNEL PERFORMING THE INSTALLATION REQUIRES AN INITIAL INSPECTION. FOR ONGOING INSTALLATIONS OVER AN EXTENDED PERIOD, THE SPECIAL INSPECTOR MUST MAKE REGULAR INSPECTIONS TO CONFIRM CORRECT HANDLING AND INSTALLATION OF THE PRODUCT. THE SPECIAL INSPECTOR SHALL INFORM THE ENGINEER OF THE FREQUENCY OF THE PERIODIC ANCHOR INSPECTIONS. THE ENGINEER MAY REQUEST ADDITIONAL INSPECTIONS AT ANY TIME.

S-1



TETRA TECH
www.tetrattech.com
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San Diego, California, 92127
Phone: (949) 809-5000
Fax: (949) 809-5010

AVENIDA DE LA PLAYA
GENERAL STRUCTURAL NOTES

STORM WBS: **S-13018**
WATER WBS: **B-00416**
SEWER WBS: **B-00102**

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 16 OF 33 SHEETS

APPROVED: *Ron Amen* 6-17-2013
FOR CITY ENGINEER DATE

DESIGNED BY: *AKRAM BASSYOUNI*
ASSOCIATE ENGINEER

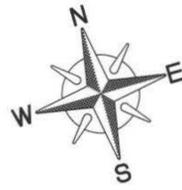
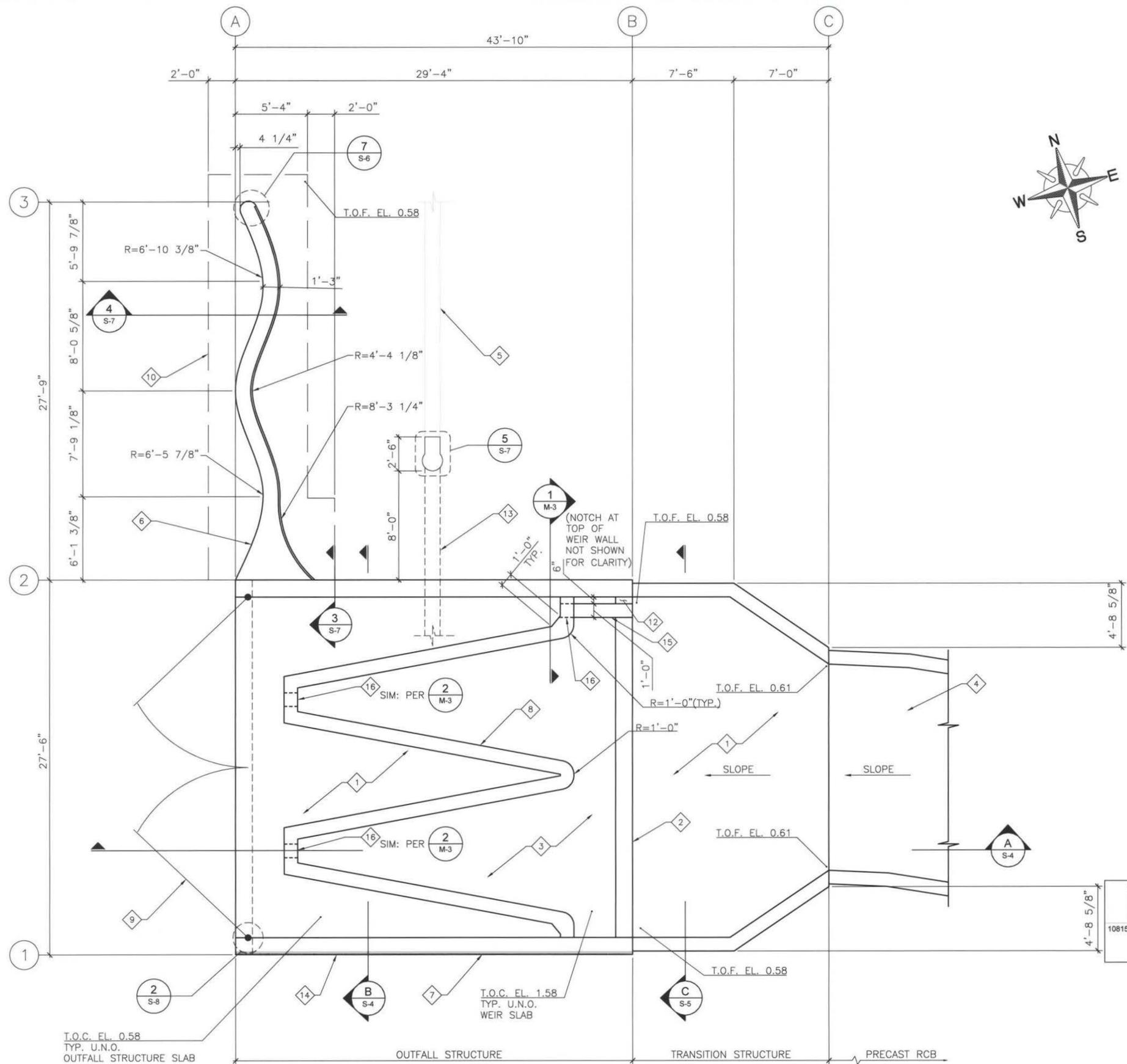
CHECKED BY: *EDWARD CASTANEDA*
PROJECT ENGINEER

| DESCRIPTION | APPROVED | DATE | FILMED |
|-------------|----------|-------|--------|
| REVISION | | 04/12 | |
| | | | |
| | | | |

CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

36465-16-D

GENERAL STRUCTURAL NOTES



KEYNOTES: ◊

1. 18" THICK CONCRETE SLAB w/#7 @ 6" EACH WAY TOP & BOTTOM
2. CONSTRUCTION JOINT - SEE DETAIL B ON SHEET S-6
3. 12" THICK WEIR SLAB (POURED ON TOP OF OUTFALL STRUCTURE INVERT SLAB) w/#5 @ 12" TOP AND BOTTOM, EACH WAY. SEE NOTE 10 OF CONCRETE NOTES FOR SPECIAL CURING REQUIREMENTS FOR CONCRETE POURED ON TOP OF PREVIOUSLY CAST CONCRETE.
4. PRECAST RCB
5. EXISTING SEAWALL ABOVE (WALL FOUNDATION NOT SHOWN)
6. NEW SEAWALL - SEE C-3 FOR LAYOUT GEOMETRY
7. CONCRETE WALL
8. 12" THICK WEIR WALL
9. GRATING SWING GATE
10. SEAWALL FOOTING
11. PORTION OF EXISTING WALL FOUNDATION (NOT SHOWN) TO BE DEMOLISHED. SEE SHEET D-1
12. WEIR SLAB FILLET
13. PORTION OF EXISTING WALL, WALL FOUNDATION (NOT SHOWN) TO BE DEMOLISHED. SEE SHEET D-1
14. ARCHITECTURAL FORMLINER (SHADED AREA)
15. LOW FLOW CHANNEL. SEE DETAIL 1 ON SHEET M-3
16. WEIR WALL PENETRATION FOR FLAP GATE BYPASS. SEE DETAIL 1 ON SHEET M-3

S-2

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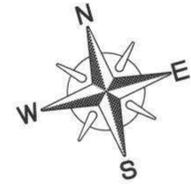
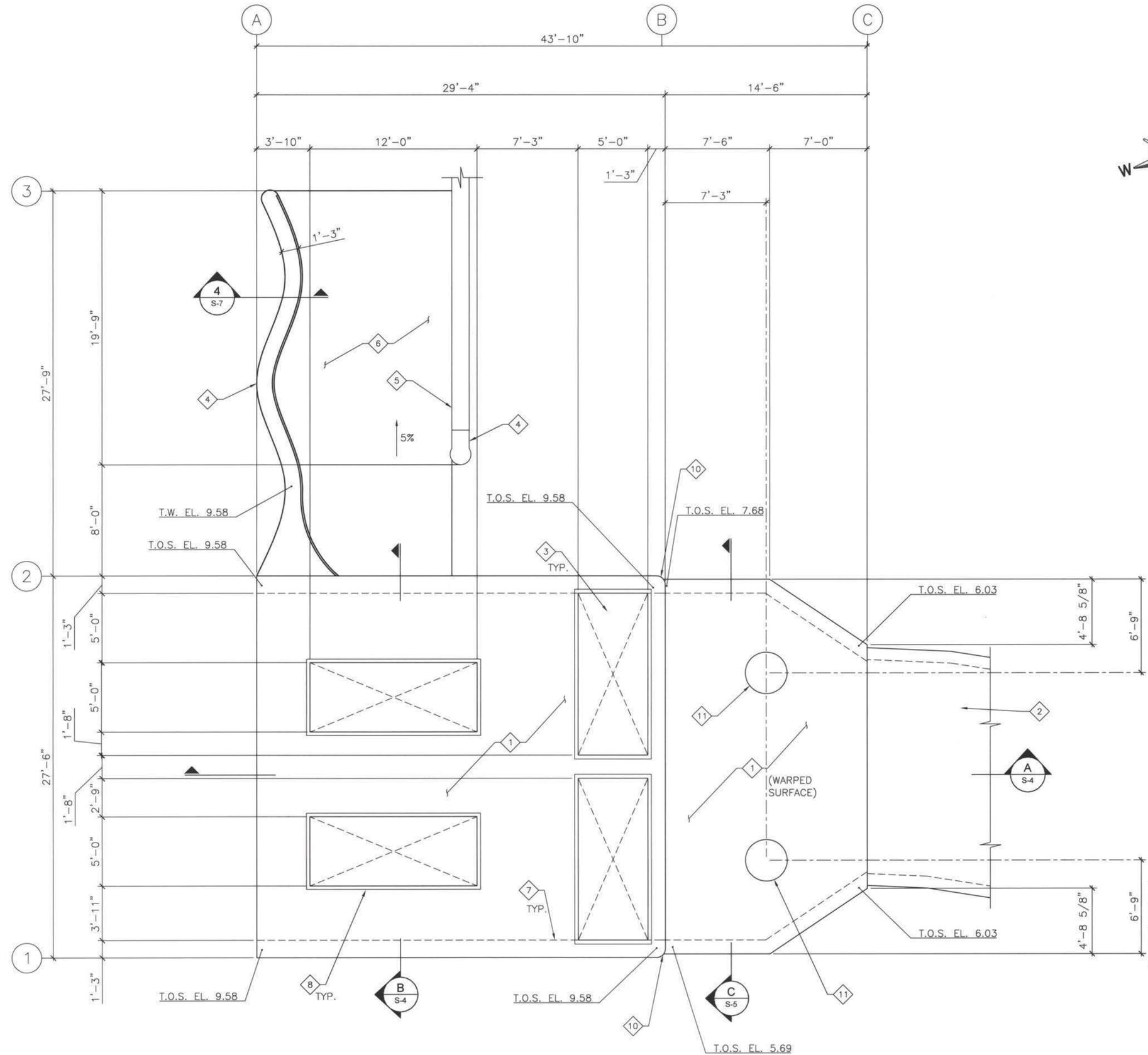
**AVENIDA DE LA PLAYA
 OUTFALL STRUCTURE
 INVERT SLAB PLAN**

| | | |
|---|----------------|---|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 17 OF 33 SHEETS | | STORM WBS S-13018 WATER WBS B-00416 SEWER WBS B-00102 |
| SUBMITTED BY: <i>Ron Almon</i> 6-17-2013 FOR CITY ENGINEER DATE | | APPROVED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| DESCRIPTION | APPROVED | DATE |
| REVISION | 04/12 | |
| | | |
| | | |
| | | |
| CONTRACTOR | DATE STARTED | 000-0000 CCS27 COORDINATE |
| INSPECTOR | DATE COMPLETED | 000-0000 CCS83 COORDINATE |
| | | 36465-17-D |



INVERT SLAB PLAN
 SCALE: 1/4"=1'-0"

OUTFALL STRUCTURE INVERT SLAB PLAN



KEYNOTES: ◊

1. 12" THICK ROOF SLAB w/#8 @ 6" EACH WAY TOP AND BOTTOM
2. PRE-CAST RCB
3. ALUMINUM HATCH OPENING (DOOR LEAFS NOT SHOWN FOR CLARITY)
4. NEW SEAWALL
5. EXISTING SEAWALL
6. 6" THICK BEACH ACCESS RAMP w/ #5 @ 12" EACH WAY - SEE SHEET C-3 FOR FS ELEVATIONS
7. CONCRETE WALL BELOW
8. ACCESS HATCH FRAMES EMBEDDED IN ROOF SLAB (TYP). APPLY TWO COATS OF BITUMINOUS PAINT TO ALL PORTIONS OF HATCH FRAMES THAT ARE IN CONTACT WITH CONCRETE
9. NOT USED
10. FOR WALL REINFORCING AT CORNERS SEE DETAIL 9 ON SHEET S-6
11. 36" MANHOLE FRAME & COVER w/ LOCKING DEVICE PER SDRS M-3 & SDM-113

S-3

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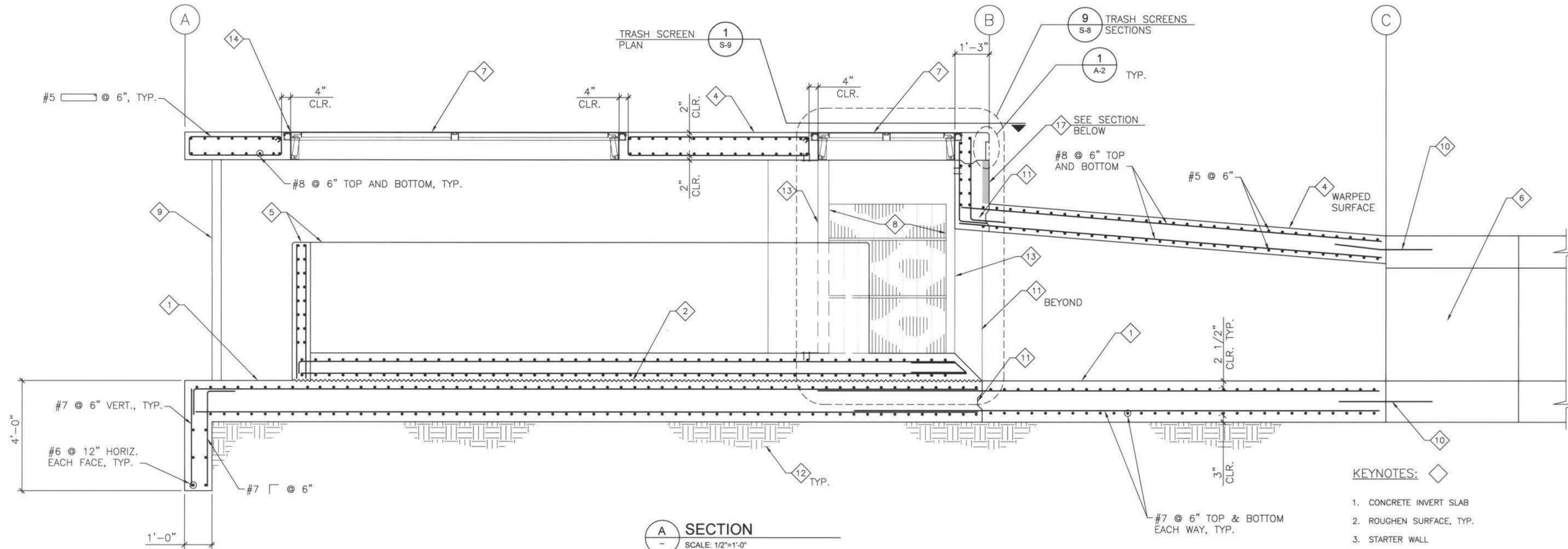
**AVENIDA DE LA PLAYA
 OUTFALL STRUCTURE
 ROOF SLAB PLAN**

| | | |
|---|----------------|---|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 18 OF 33 SHEETS | | STORM WBS S-13018 WATER WBS B-00416 SEWER WBS B-00102 |
| FOR CITY ENGINEER | DATE 6-17-2013 | SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| DESCRIPTION | APPROVED | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER |
| REVISION | 04/12 | 000-0000 CCS27 COORDINATE |
| | | 000-0000 CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | 36465-18-D |
| INSPECTOR | DATE COMPLETED | |



ROOF SLAB PLAN
 SCALE: 1/4"=1'-0"

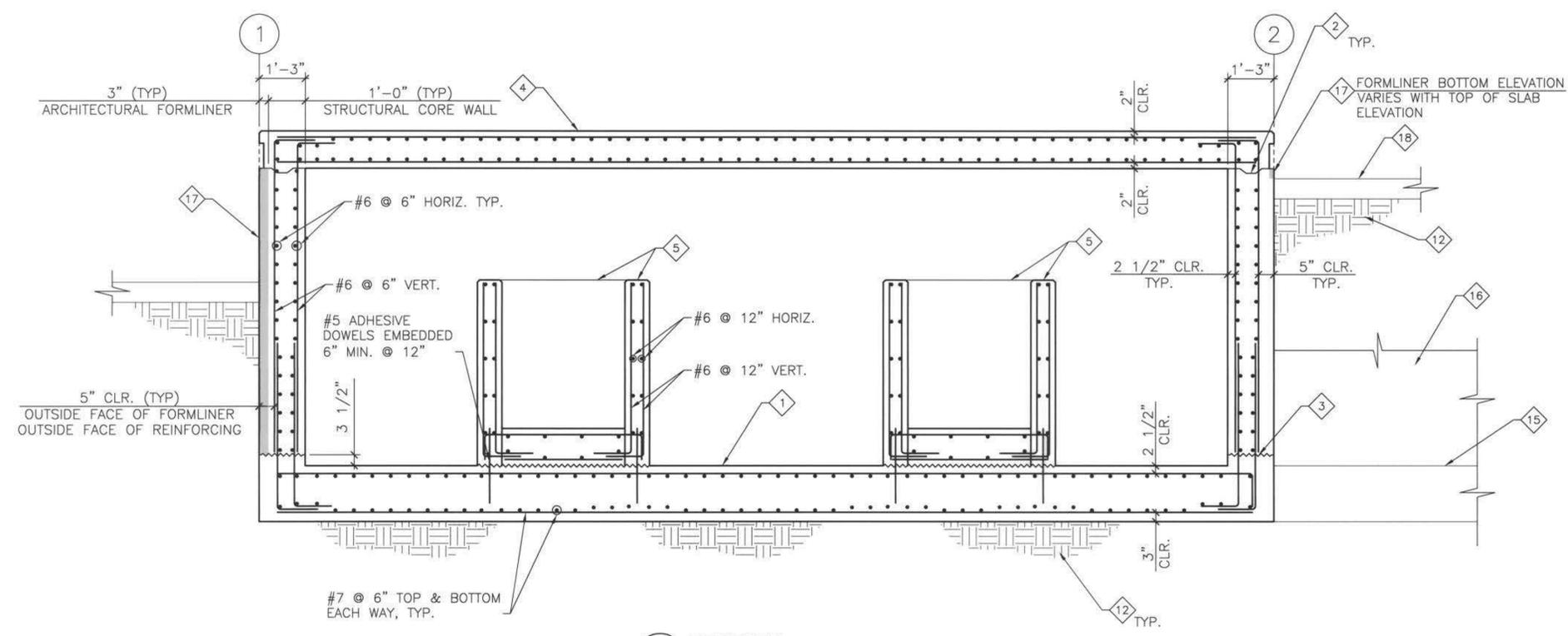
OUTFALL STRUCTURE ROOF SLAB PLAN



A SECTION
SCALE: 1/2"=1'-0"

KEYNOTES: ◆

1. CONCRETE INVERT SLAB
2. ROUGHEN SURFACE, TYP.
3. STARTER WALL
4. ROOF SLAB
5. WEIR WALL
6. PRE-CAST/PRE-ENGINEERED RCB - PRECASTER TO PROVIDE DOWELS FROM PRECAST RCP TO CIP CONCRETE AS SHOWN
7. ALUMINUM ACCESS HATCH OPENING (DOOR LEAFS NOT SHOWN FOR CLARITY)
8. REMOVABLE TRASH SCREEN (ONE OF THREE STACKED SECTIONS)
9. GRATING SWING GATE
10. #5 (x 4'-0") SMOOTH DOWELS @ 12" O.C. - ALSO PROVIDE AT WALLS (NOT SHOWN)
11. CONSTRUCTION JOINT IN SLAB - SEE DETAIL 8 ON SHEET S-6
12. COMPACTED FILL PER GEOTECHNICAL REPORT
13. TRASH RACK SUPPORT COLUMN
14. ACCESS HATCH FRAMES EMBEDDED IN ROOF SLAB (TYP.)
15. SEAWALL FOOTING BEYOND
16. SEAWALL BEYOND
17. ARCHITECTURAL FORMLINER (SHADED AREA)
18. CONCRETE SLAB
19. 1 1/2" OVERHANG - SEE DETAIL 1 ON SHEET A-2 SIM.



B SECTION
SCALE: 1/2"=1'-0"

S-4

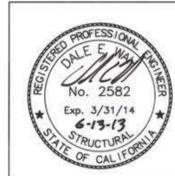
TETRA TECH
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**AVENIDA DE LA PLAYA
OUTFALL STRUCTURE
SECTIONS**

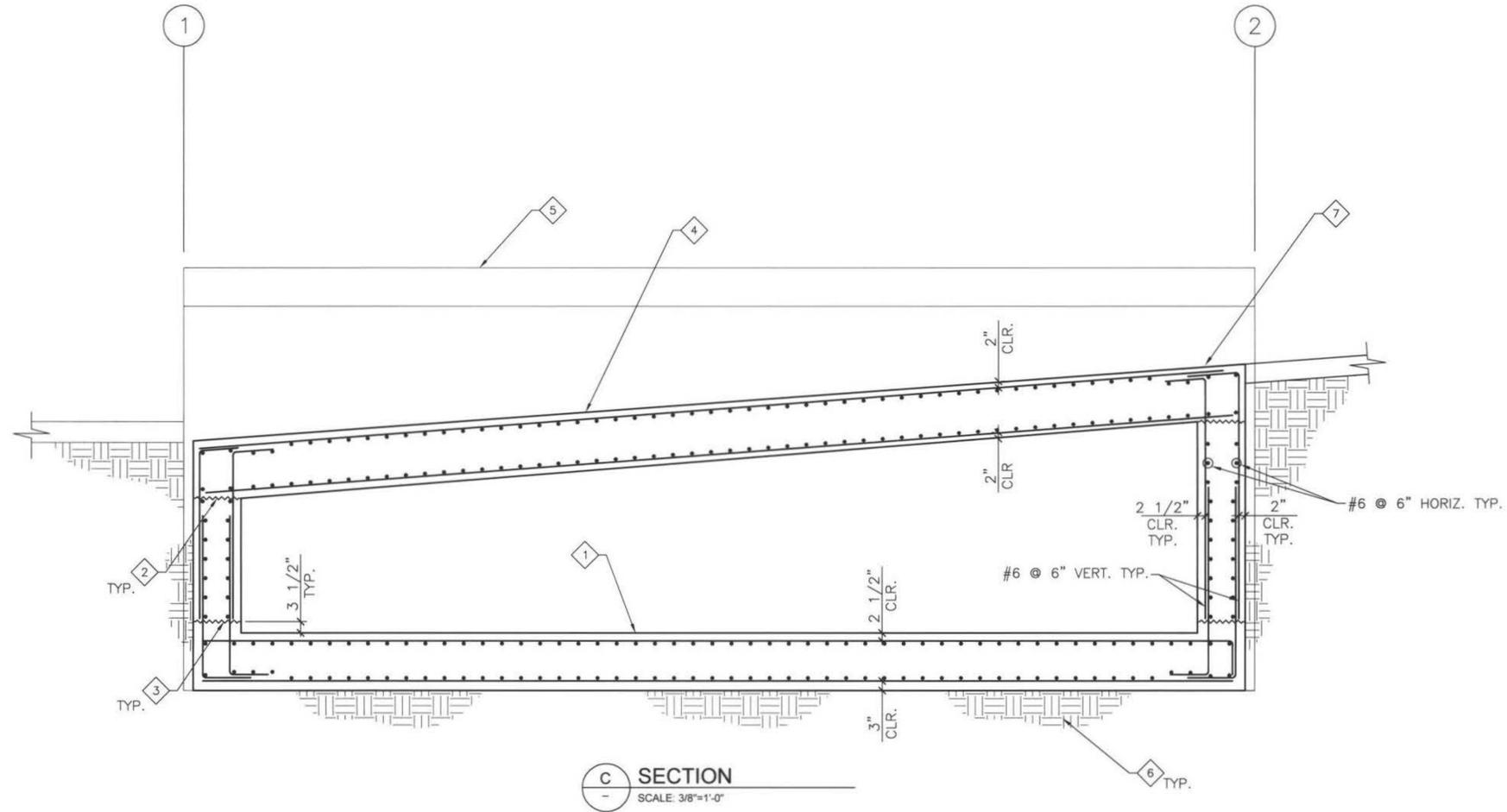
CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 19 OF 33 SHEETS

| | | | |
|-------------------|----------------|------|--------|
| FOR CITY ENGINEER | APPROVED | DATE | FILMED |
| REVISION | 04/12 | | |
| | | | |
| | | | |
| | | | |
| CONTRACTOR | DATE STARTED | | |
| INSPECTOR | DATE COMPLETED | | |

| | |
|--------------|---------------------------------------|
| STORM WBS | S-13018 |
| WATER WBS | B-00416 |
| SEWER WBS | B-00102 |
| SUBMITTED BY | AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| CHECKED BY | EDWARD CASTANEDA PROJECT ENGINEER |
| | 000-0000 CCS27 COORDINATE |
| | 000-0000 CCS83 COORDINATE |
| | 36465-19-D |



OUTFALL STRUCTURE SECTIONS

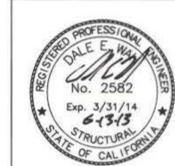


- KEYNOTES:** ◊
1. CONCRETE SLAB
 2. ROUGHEN SURFACE, TYP.
 3. STARTER WALL
 4. ROOF SLAB
 5. ROOF SLAB BEYOND
 6. COMPACTED FILL PER GEOTECHNICAL REPORT
 7. SIDEWALK

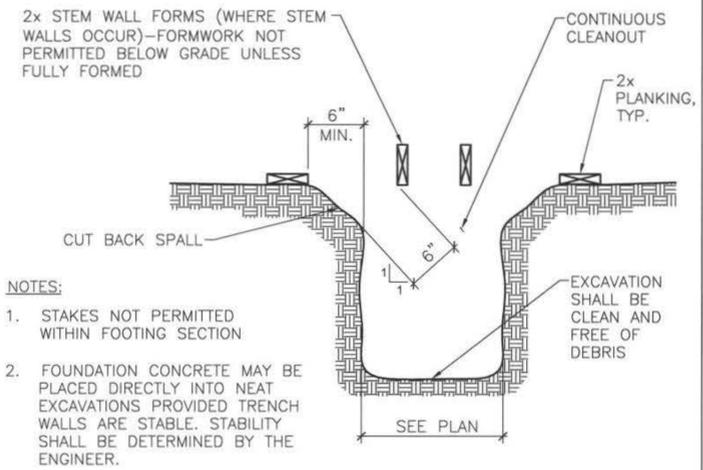
C SECTION
SCALE: 3/8"=1'-0"

S-5

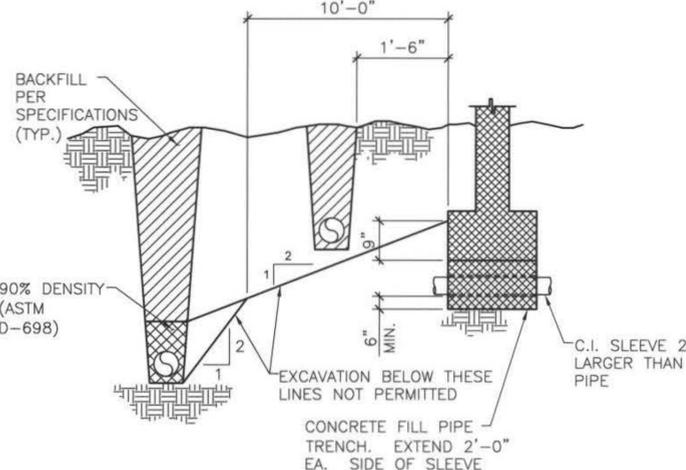
| <p>TETRA TECH www.tetrattech.com 10815 Rancho Bernardo Road, Suite 500 San Diego, California, 92127 Phone: (949) 809-5000 Fax: (949) 809-5010</p> | <p>AVENIDA DE LA PLAYA OUTFALL STRUCTURE SECTION</p> | | <p>STORM WBS S-13018</p> | | | | | | | | | | | | | | | | |
|---|--|---|---|--------|----------|-------|--|--|--|--|--|--|--|--|--|--|---|--|--|
| | <p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 20 OF 33 SHEETS</p> | | <p>WATER WBS B-00416</p> <p>SEWER WBS B-00102</p> | | | | | | | | | | | | | | | | |
| <p>APPROVED: <i>John Amen</i> FOR CITY ENGINEER</p> | <p>DATE 6-17-2015</p> | <p>DESIGNED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER</p> | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>DESCRIPTION</th> <th>APPROVED</th> <th>DATE</th> <th>FILMED</th> </tr> </thead> <tbody> <tr> <td>REVISION</td> <td>04/12</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> | DESCRIPTION | APPROVED | DATE | FILMED | REVISION | 04/12 | | | | | | | | | | | <p>ORDERED BY EDWARD CASTANEDA PROJECT ENGINEER</p> <p>000-0000 CCS27 COORDINATE</p> <p>000-0000 CCS83 COORDINATE</p> | | |
| DESCRIPTION | APPROVED | DATE | FILMED | | | | | | | | | | | | | | | | |
| REVISION | 04/12 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| <p>CONTRACTOR _____</p> <p>INSPECTOR _____</p> | <p>DATE STARTED _____</p> <p>DATE COMPLETED _____</p> | <p>36465-20-D</p> | | | | | | | | | | | | | | | | | |



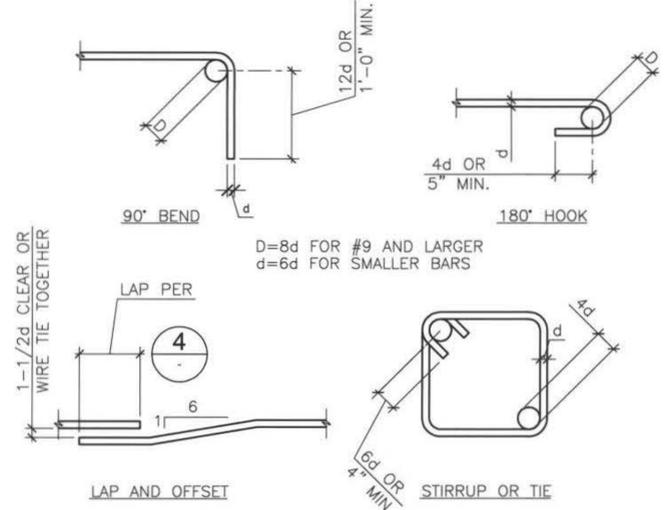
OUTFALL STRUCTURE SECTION



1 TYPICAL FOOTING EXCAVATION
SCALE: N.T.S.



2 SLEEVE THRU FOOTING AND PIPE TRENCH LOCATION
SCALE: N.T.S.

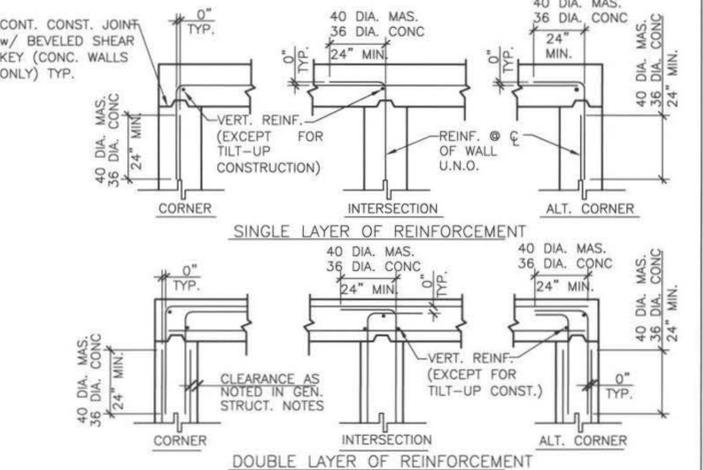


3 TYPICAL BAR BENDS
SCALE: N.T.S.

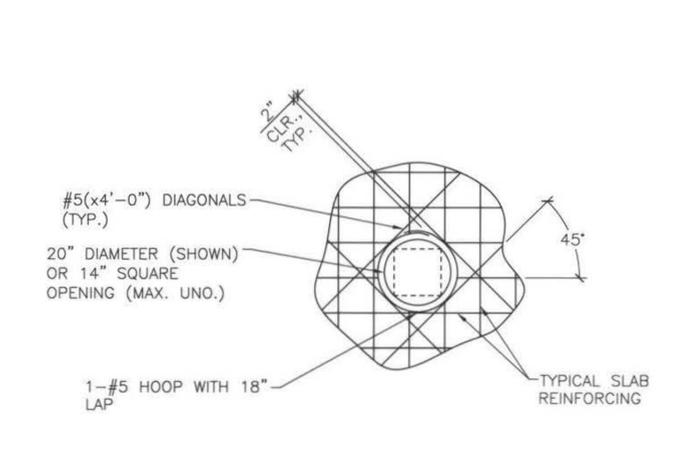
| REINFORCING LAP SPLICE SCHEDULE | | | | |
|---------------------------------|------------|------------|------------|------------|
| BAR | f'c=2500 | f'c=3250 | f'c=4000 | f'c=5000 |
| | L (inches) | L (inches) | L (inches) | L (inches) |
| 3 | 24 | 21 | 19 | 17 |
| 4 | 32 | 28 | 25 | 23 |
| 5 | 39 | 35 | 31 | 28 |
| 6 | 47 | 42 | 37 | 34 |
| 7 | 69 | 60 | 54 | 49 |
| 8 | 78 | 69 | 62 | 56 |

NOTES:
1. LAPS SHOWN IN THIS TABLE ARE CLASS B, CATEGORY 3 TYPE SPLICES. LAP LENGTH IS BASED UPON SMALLER OF TWO BARS BEING SPLICED WHEN NOT THE SAME SIZE.
2. INCREASE LAP LENGTHS BY A FACTOR OF 1.3 FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THIS REINFORCEMENT.

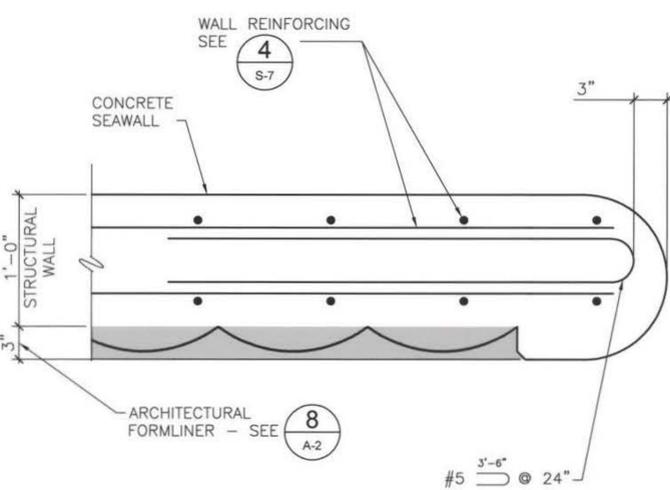
4 REINF. LAP SPLICE SCHEDULE
SCALE: N.T.S.



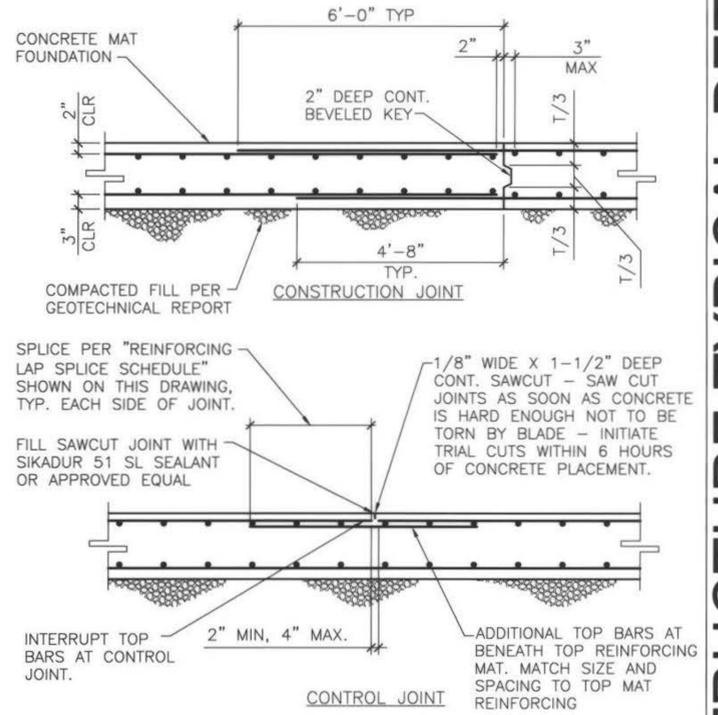
5 WALL & FOOTING REINF. AT CORNERS & INTERSECTIONS
SCALE: N.T.S.



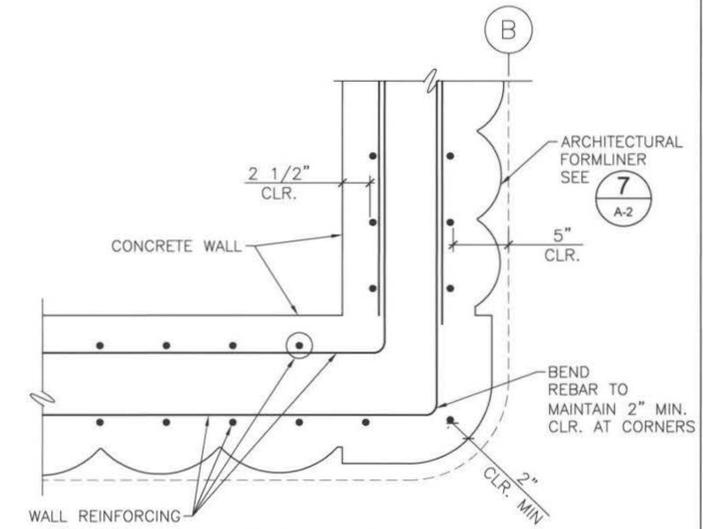
6 TYPICAL REINF. FOR OPENINGS THRU STRUCT WALL & FLOOR SLAB
SCALE: N.T.S.



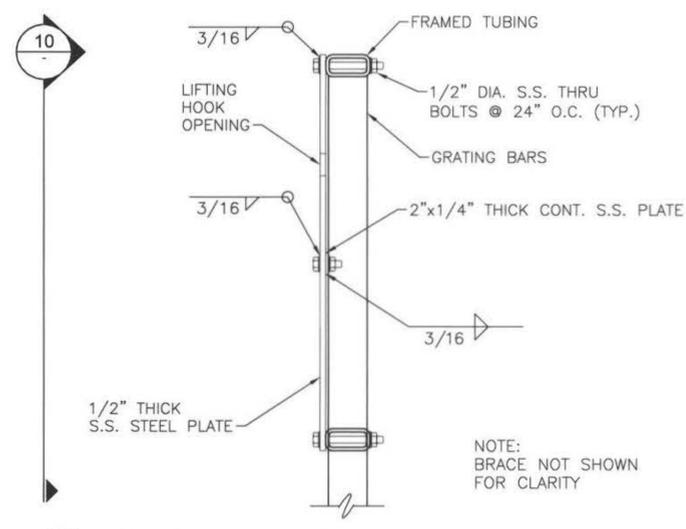
7 SEAWALL AT ROUNDED END
SCALE: 1 1/2"=1'-0"



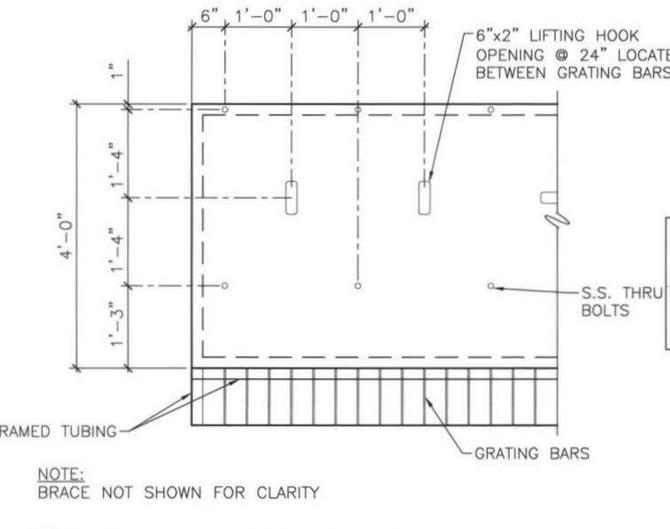
8 CONSTRUCTION OR CONTROL JOINT
SCALE: N.T.S.



9 WALL REINFORCING AT CORNERS
SCALE: 1 1/2"=1'-0"



10 PLATE BARRIER DETAIL 1
SCALE: 1 1/2"=1'-0"



11 PLATE BARRIER DETAIL 2
SCALE: 3/4"=1'-0"

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San Diego, California, 92127
Phone: (949) 809-5000
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**AVENIDA DE LA PLAYA
OUTFALL STRUCTURE
TYPICAL DETAILS**

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 21 OF 33 SHEETS

APPROVED: *Edward Castaneda* 6-17-2013
DATE: 6-17-2013

| DESCRIPTION | APPROVED | DATE | FILMED |
|-------------|----------|------|--------|
| REVISION | 04/12 | | |

CONTRACTOR: _____ DATE STARTED: _____
INSPECTOR: _____ DATE COMPLETED: _____

STORM WBS: S-13018
WATER WBS: B-00416
SEWER WBS: B-00102

AKRAM BASSYOUNI
ASSOCIATE ENGINEER

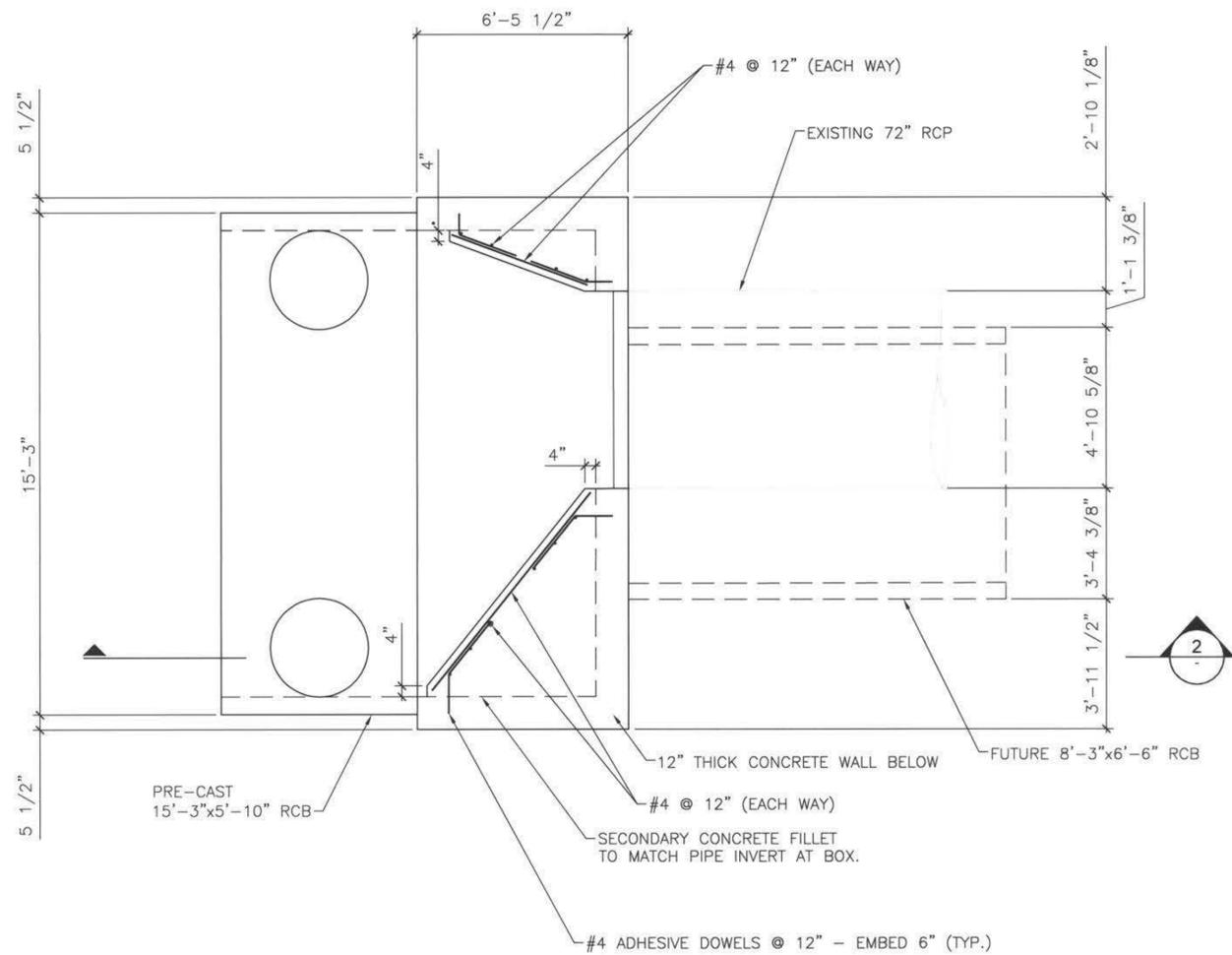
EDWARD CASTANEDA
PROJECT ENGINEER

000-0000
CCS27 COORDINATE

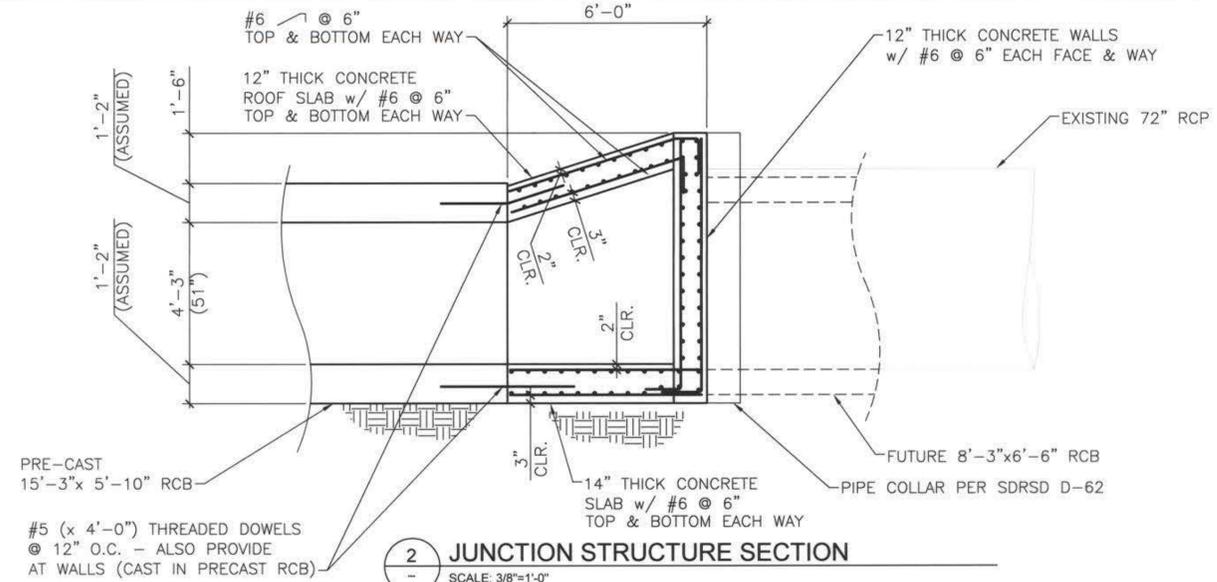
000-0000
CCS83 COORDINATE

36465-21-D

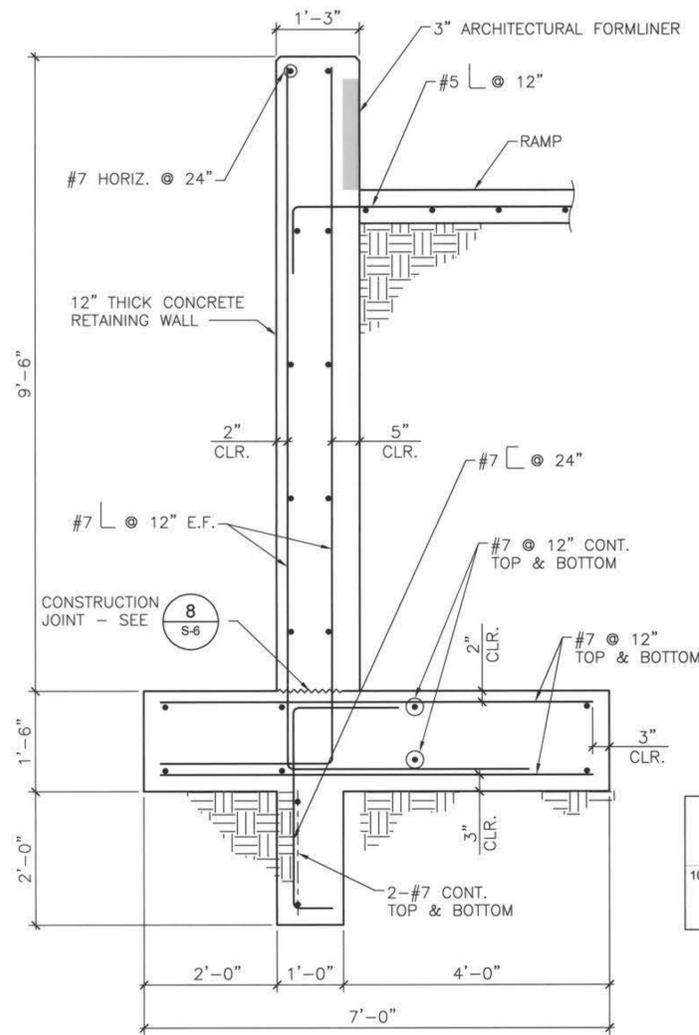
OUTFALL STRUCTURE TYPICAL DETAILS



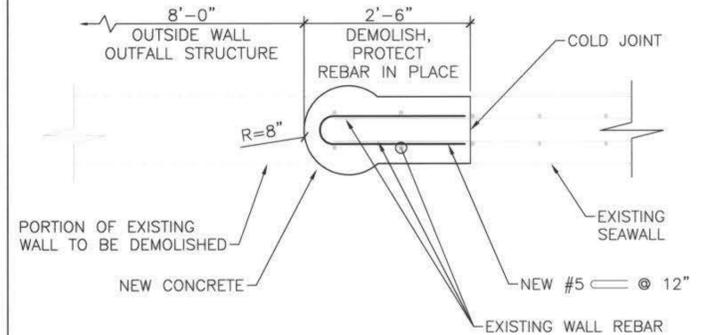
1 JUNCTION STRUCTURE PLAN
SCALE: 3/8"=1'-0"



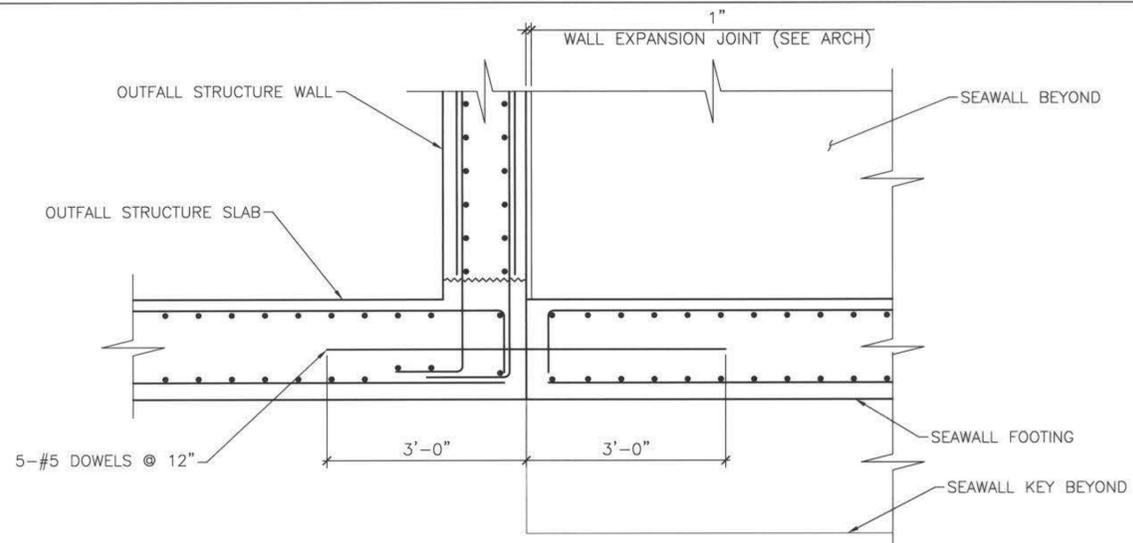
2 JUNCTION STRUCTURE SECTION
SCALE: 3/8"=1'-0"



4 NEW SEAWALL SECTION
SCALE: 3/4"=1'-0"



5 EXISTING SEAWALL
SCALE: 3/4"=1'-0"



3 SEAWALL FOOTING TO OUTFALL STRUCTURE
SCALE: 3/4"=1'-0"

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AVENIDA DE LA PLAYA
OUTFALL STRUCTURE
DETAILS

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 22 OF 33 SHEETS

APPROVED: *R. Amen* 6-17-2013
FOR CITY ENGINEER DATE

DESIGNER: *R. Amen* 6-17-2013
DATE

REVISION 04/12

APPROVED DATE FILMED

CONTRACTOR DATE STARTED
INSPECTOR DATE COMPLETED

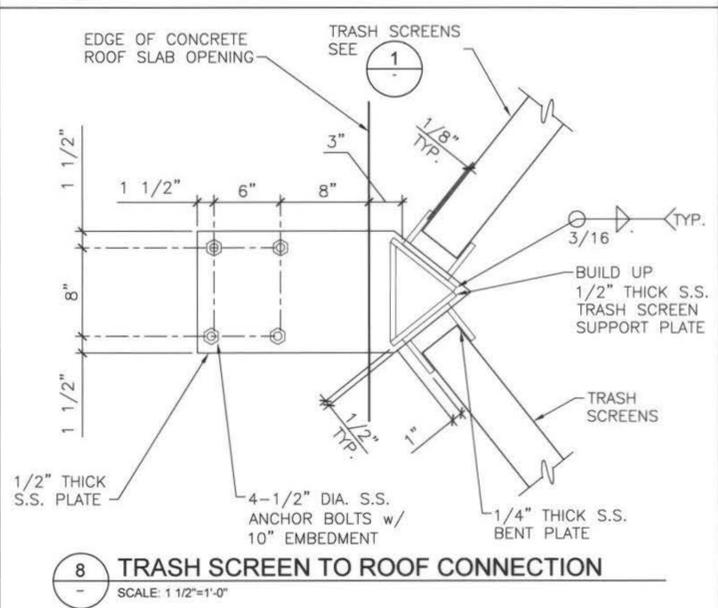
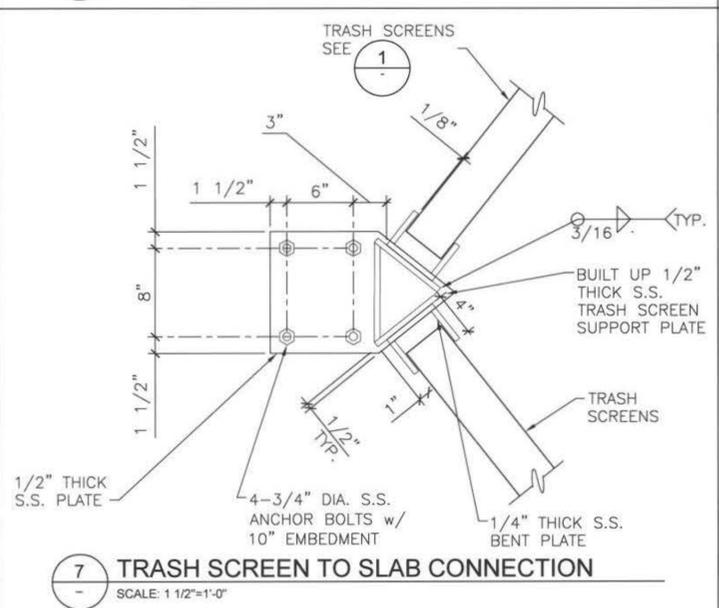
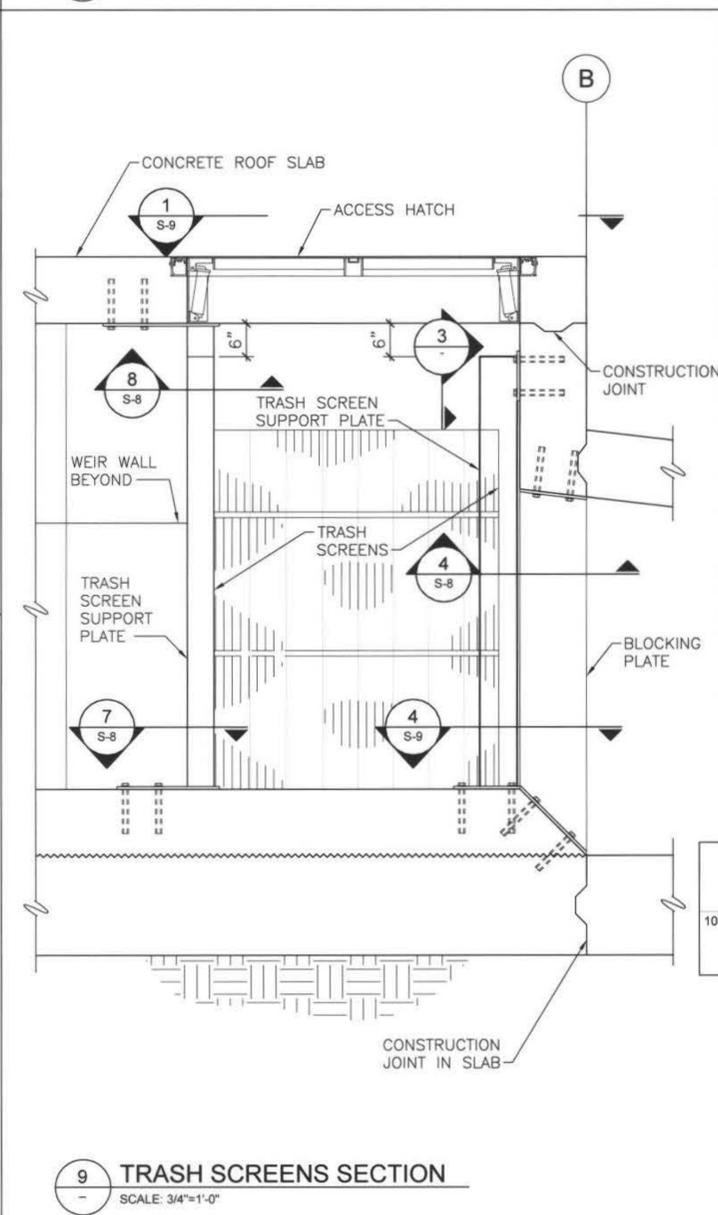
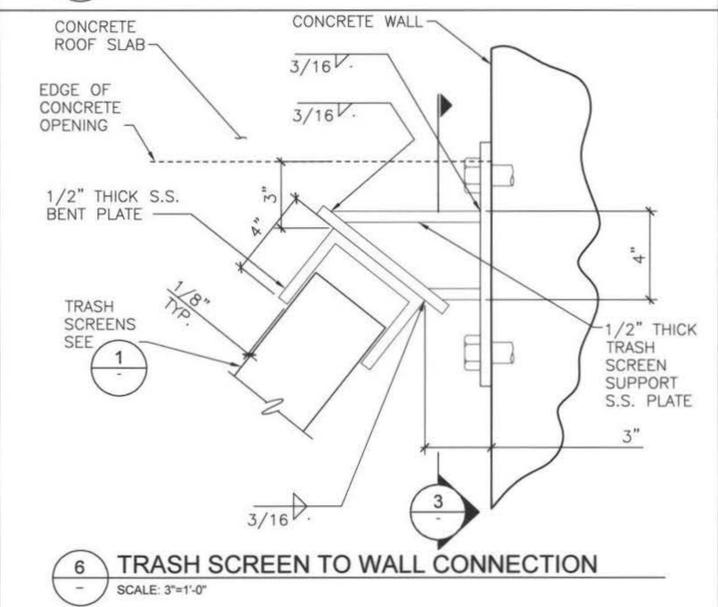
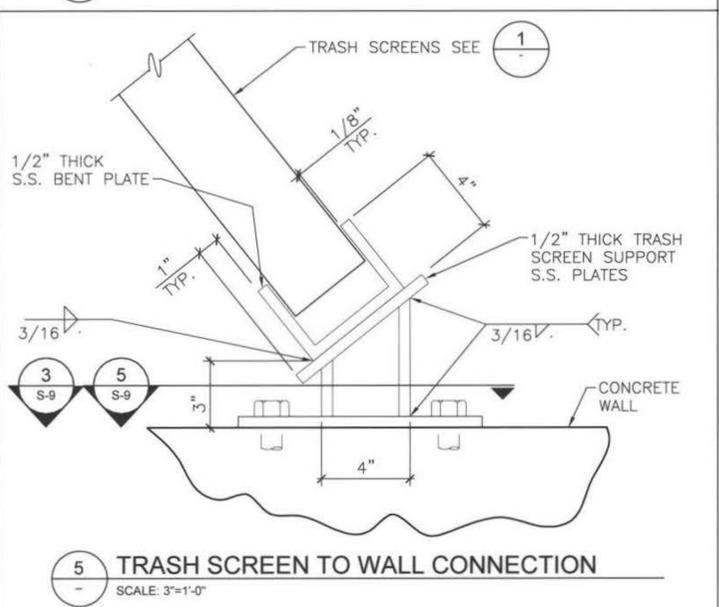
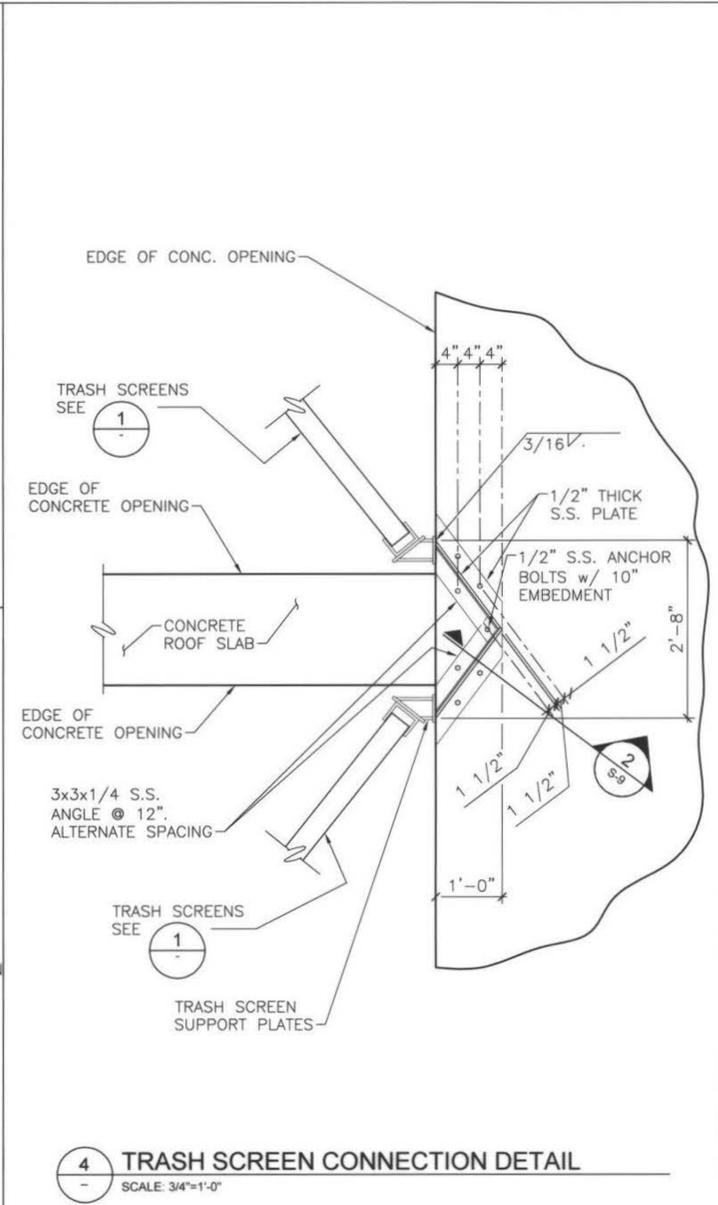
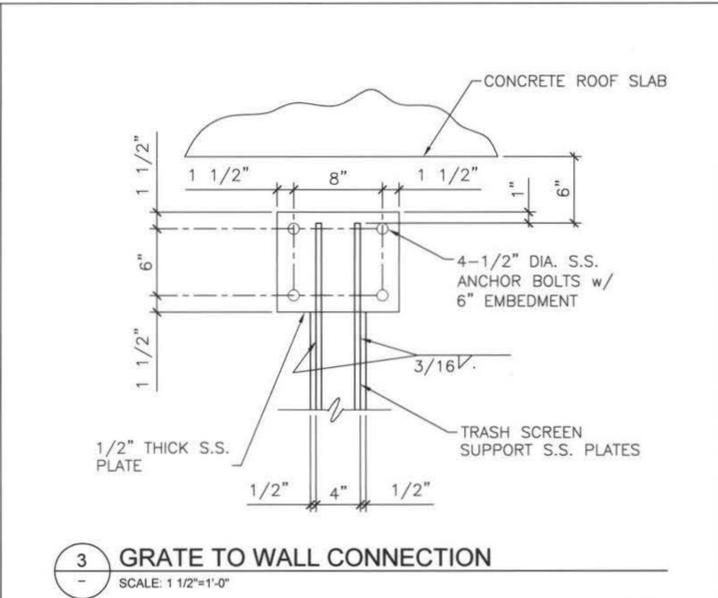
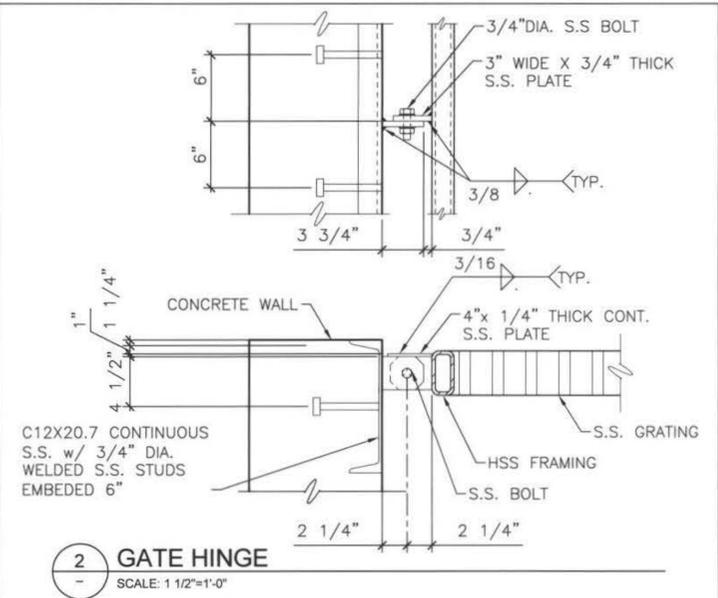
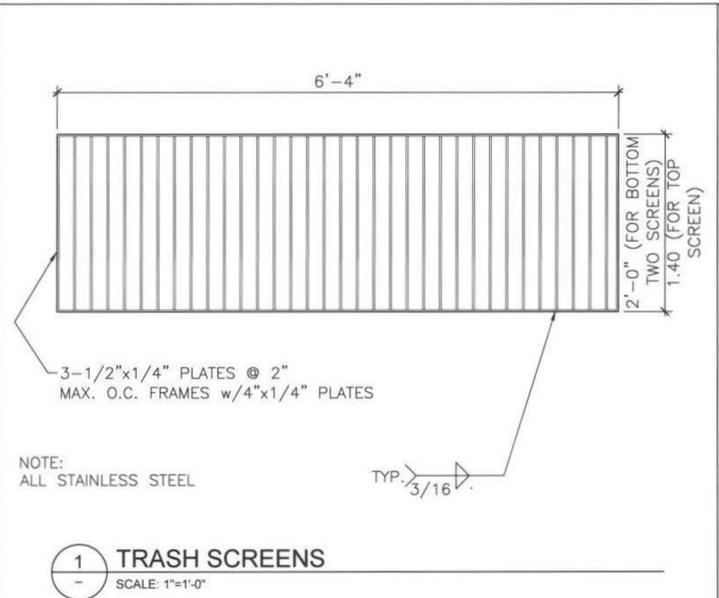
STORM WBS S-13018
WATER WBS B-00416
SEWER WBS B-00102
DESIGNED BY: AKRAM BASSYOUNI
ASSOCIATE ENGINEER
CHECKED BY: EDWARD CASTANEDA
PROJECT ENGINEER
000-0000
CCS27 COORDINATE
000-0000
CCS83 COORDINATE
36465-22-D



S-7

OUTFALL STRUCTURE DETAILS

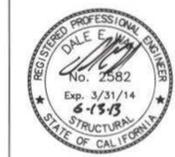
OUTFALL STRUCTURE GATE AND TRASH RACK DETAILS



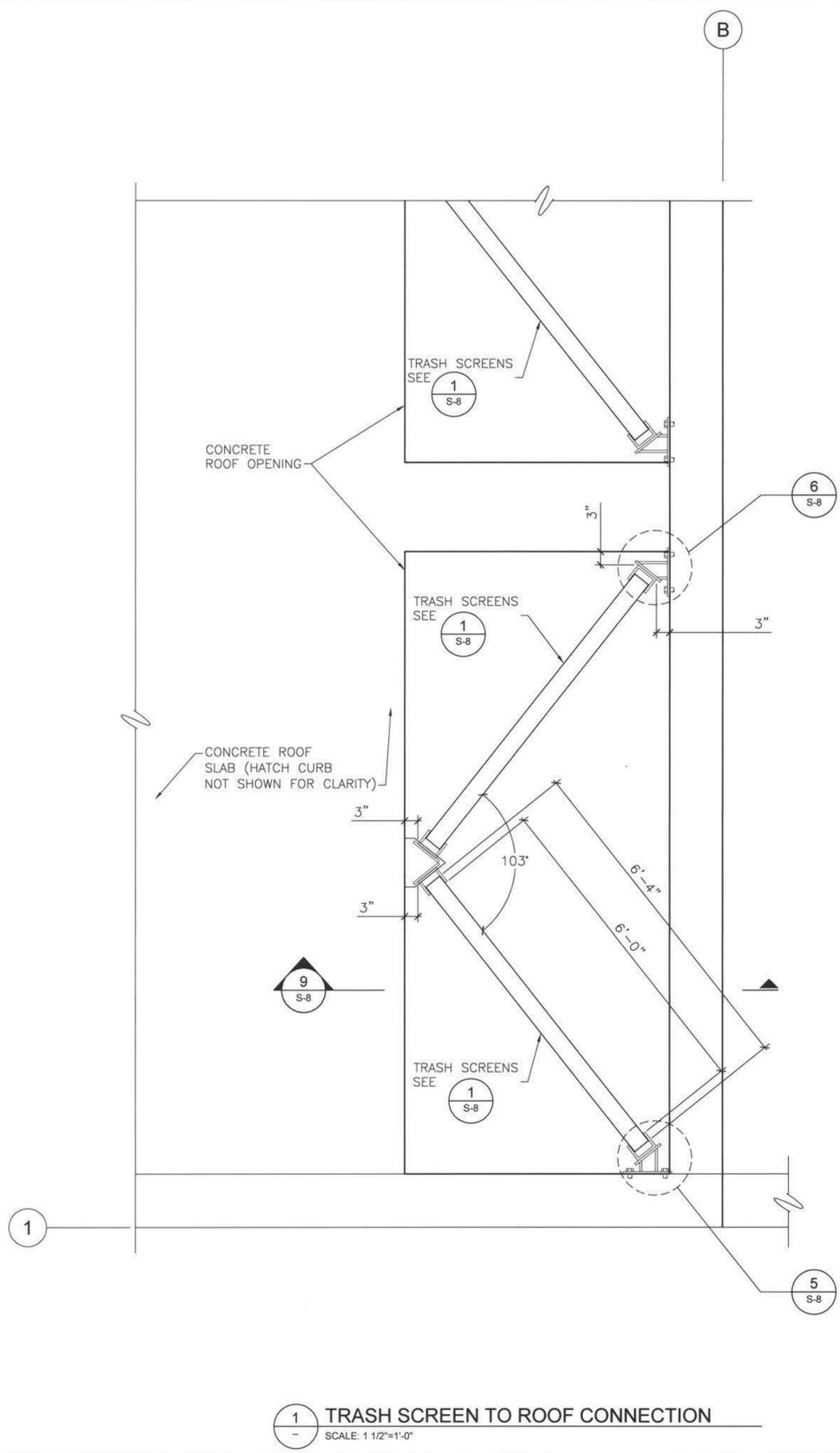
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**AVENIDA DE LA PLAYA
OUTFALL STRUCTURE
GATE AND TRASH RACK DETAILS**

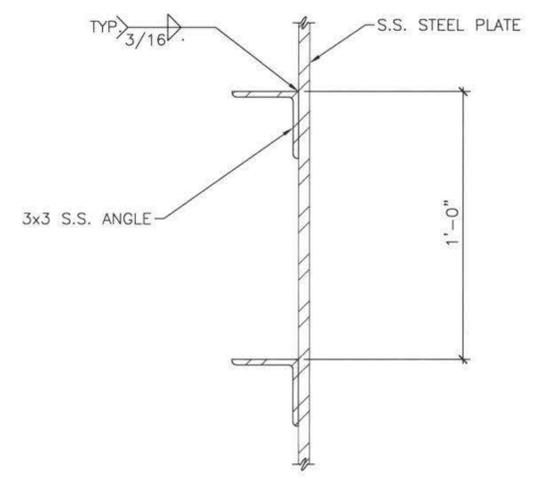
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|---|----------|--|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 23 OF 33 SHEETS | | STORM WBS: S-13018 WATER WBS: B-00416 SEWER WBS: B-00102 |
| FOR CITY ENGINEER: <i>R. Amen</i> DATE: 6-17-2013 | | DESIGNED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| DESCRIPTION | APPROVED | DATE |
| REVISION | 04/12 | |
| CONTRACTOR: _____ | | DATE STARTED: _____ |
| INSPECTOR: _____ | | DATE COMPLETED: _____ |
| | | 36465-23-D |



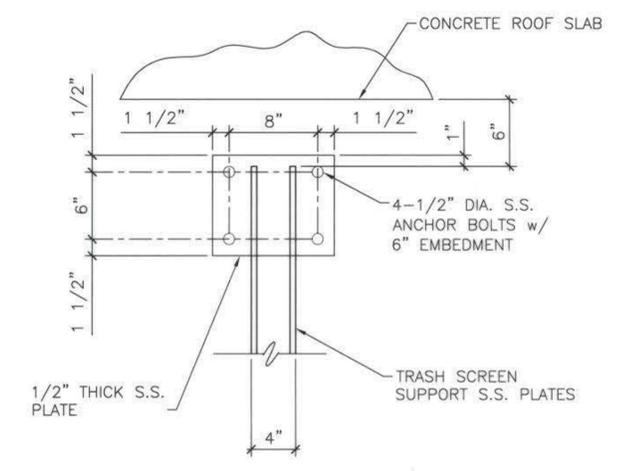
S-8



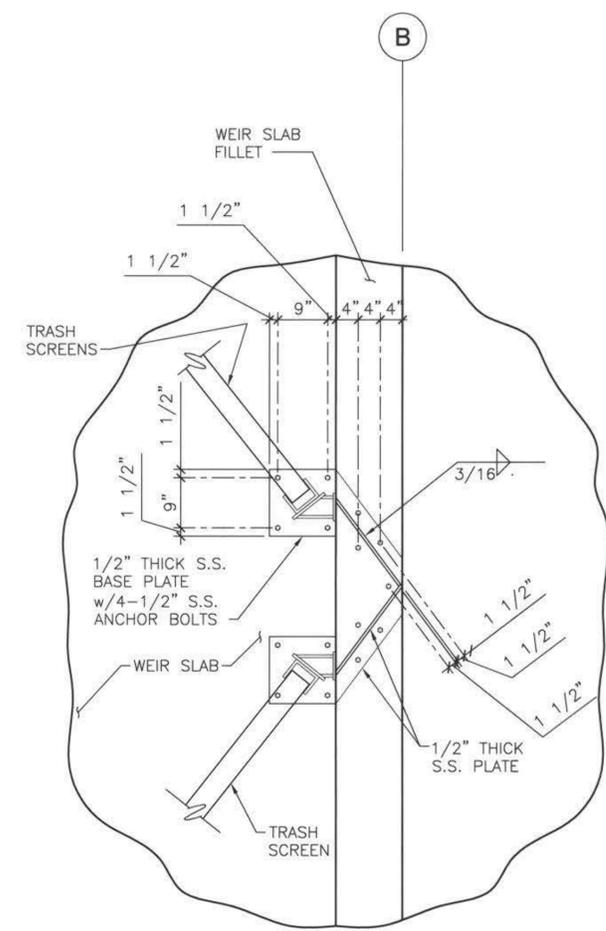
1 TRASH SCREEN TO ROOF CONNECTION
SCALE: 1 1/2"=1'-0"



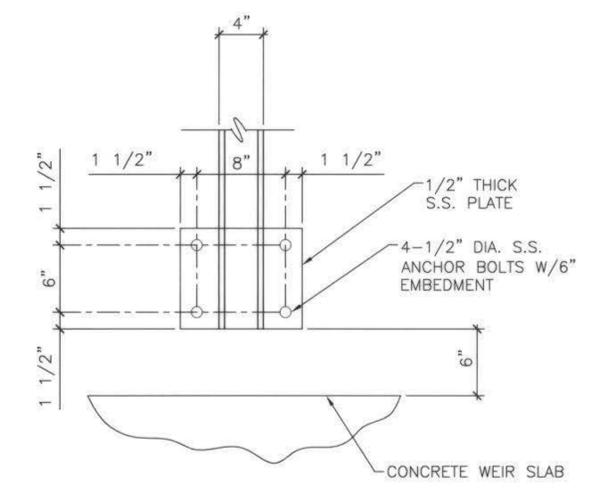
2 PLATE REINFORCING
SCALE: 3"=1'-0"



3 TRASH SCREEN TO WALL CONNECTION
SCALE: 1 1/2"=1'-0"



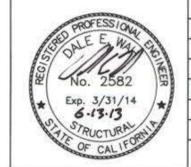
4 TRASH SCREENS SUPPORT BASE CONNECTION
SCALE: 3/4"=1'-0"



5 TRASH SCREEN TO WALL CONNECTION
SCALE: 1 1/2"=1'-0"

S-9

| | | | |
|--|--|--------------------------------------|---|
| <p>TETRA TECH www.tetrattech.com 10815 Rancho Bernardo Road, Suite 500 San Diego, California, 92127 Phone: (949) 809-5000 Fax: (949) 809-5010</p> | <p>AVENIDA DE LA PLAYA OUTFALL STRUCTURE GATE AND TRASH RACK DETAILS</p> | | <p>STORM WBS S-13018 WATER WBS B-00416 SEWER WBS B-00102</p> |
| | <p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 24 OF 33 SHEETS</p> | | <p>DATE 6-17-2013 SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER</p> |
| <p>FOR CITY ENGINEER <i>Pro Amen</i></p> | <p>APPROVED 04/12</p> | <p>DATE</p> | <p>FILED</p> |
| <p>DESCRIPTION</p> | <p>REVISION</p> | <p>000-0000 CCS27 COORDINATE</p> | <p>000-0000 CCS83 COORDINATE</p> |
| <p>CONTRACTOR</p> | <p>DATE STARTED</p> | <p>DATE COMPLETED</p> | <p>36465-24-D</p> |



OUTFALL STRUCTURE GATE AND TRASH RACK DETAILS

| ELECTRICAL SYMBOLS - PLANS | |
|----------------------------|--|
| SYMBOL | SYMBOL DESCRIPTION |
| | DUPLEX RECEPTACLE |
| | JUNCTION BOX |
| | LIGHTING SWITCH |
| | 3-WAY SWITCH |
| | FLUORESCENT FIXTURE |
| | WALL MOUNTED FIXTURE |
| | EXIT LIGHT |
| | LIGHT POLE |
| | CONDUIT REFERENCE |
| | CONDUIT OR DUCTBANK IN SLAB OR UNDERGROUND |
| | CONDUIT EXPOSED. SEE GENERAL NOTE 2. |
| | GROUNDING CONDUCTOR 30" BELOW GRADE |
| | GROUND WELL |
| | HOMERUN TO PANEL, CIRCUIT 3 |
| | HOMERUN PER CONDUIT SCHEDULE |
| | CONDUIT BENDS TOWARD OBSERVER |
| | CONDUIT BENDS AWAY FROM OBSERVER |
| | STUB-UP AND CAP |
| | FLEXIBLE CONDUIT CONNECTION |
| | PANELBOARD |
| | DISCONNECT SWITCH |
| | CONDUIT TRANSITION TO EXPOSED CABLE |
| | LOCAL CONTROL SWITCH |
| | THERMOSTAT |

| ELECTRICAL SYMBOLS - SCHEMATIC DIAGRAMS | | |
|---|-----------------|--|
| NORMALLY OPEN | NORMALLY CLOSED | SYMBOL DESCRIPTION |
| | | CONTACT |
| | | TIMED CONTACT, CONTACT ACTION RETARDED ON ENERGIZATION (ON DELAY) |
| | | TIMED CONTACT, CONTACT ACTION RETARDED ON DE-ENERGIZATION (OFF DELAY) |
| | | LEVEL SWITCH |
| | | PRESSURE SWITCH |
| | | PUSH BUTTON SINGLE CIRCUIT MOMENTARY CONTACT |
| | | TEMPERATURE SWITCH |
| | | LIMIT SWITCH |
| | | SELECTOR SWITCH HOA : HAND - OFF - AUTO HO : HAND - OFF HOR : HAND - OFF - REMOTE R-O : REMOTE - OFF |
| | | MOTOR OVERLOAD HEATER CONTACTS |
| | | PILOT LIGHT R= RED, W= WHITE, G= GREEN, A= AMBER |
| | | RELAY, 120VAC |
| | | TIME DELAY RELAY |
| | | STARTER COIL |
| | | SOLENOID OPERATED VALVE |
| | | ELAPSED TIME METER |
| | | FUSE |
| | | CONTROL POWER TRANSFORMER |
| | | GROUND |
| | | MOTOR SPACE HEATER |

| ELECTRICAL SYMBOLS - SINGLE LINE DIAGRAM | |
|--|---|
| DEVICE | SYMBOL DESCRIPTION |
| | DRY-TYPE TRANSFORMER |
| | POTENTIAL TRANSFORMER |
| | CURRENT TRANSFORMER |
| | FUSE |
| | CIRCUIT BREAKER, 3P - 3 POLE, MCP - MOTOR CIRCUIT PROTECTOR |
| | MOTOR, 40 HORSEPOWER |
| | GROUND |
| | FUSED DISCONNECT SWITCH WITH CURRENT LIMITING FUSES |
| | TRANSIENT VOLTAGE SURGE SUPPRESSOR |
| | VALVE MOTOR AND ACTUATOR |
| | POWER QUALITY MONITOR |
| | VARIABLE FREQUENCY DRIVE |
| | MAGNETIC MOTOR STARTER, NEMA SIZE INDICATED, FULL VOLTAGE NON-REVERSING UNLESS NOTED. |
| | MOTOR OVERLOAD HEATER |
| | NON-FUSED DISCONNECT SWITCH |
| | FUSED DISCONNECT SWITCH |

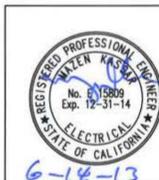
ELECTRICAL ABBREVIATIONS

| | |
|--------|--|
| A | AMPERES, ANALOG |
| AC | ALTERNATING CURRENT |
| AICS | AMPERES INTERRUPTING CAPACITY, SYMMETRICAL |
| BC | BARE COPPER |
| C | CONDUIT |
| CB | CIRCUIT BREAKER |
| CO | CONDUIT ONLY |
| CP | CONTROL PANEL |
| CPT | CONTROL POWER TRANSFORMER |
| DC | DIRECT CURRENT |
| ELEV | ELEVATION |
| ETM | ELAPSED TIME METER |
| EXIST | EXISTING |
| F | FLUORESCENT |
| FIT | FLOW TRANSMITTER |
| FLEX | FLEXIBLE |
| G, GND | GROUND |
| GFI | GROUND FAULT INTERRUPTER |
| HOA | HAND OFF AUTOMATIC |
| HP | HORSEPOWER |
| HPS | HIGH PRESSURE SODIUM |
| HS | HAND SWITCH |
| JB | JUNCTION BOX |
| KVA | KILOVOLT-AMPERE |
| KW | KILOWATT |
| LIT | LEVEL INDICATOR TRANSMITTER |
| LOS | LOCKOUT SWITCH |
| MCC | MOTOR CONTROL CENTER |
| MIN | MINIMUM |
| MSB | MAIN SWITCHBOARD |
| N | NEUTRAL |
| NC | NORMALLY CLOSED |
| NIC | NOT IN CONTRACT |
| NO | NORMALLY OPEN |
| NO. | NUMBER |
| NTS | NOT TO SCALE |
| OL'S | MOTOR OVERLOAD CONTACTS |
| P | POLE |
| PB | PUSHBUTTON, PULLBOX |
| PFR | PHASE FAILURE RELAY |
| PH | PHASE |
| PIT | PRESSURE INDICATOR TRANSMITTER |
| PLC | PROGRAMMABLE LOGIC CONTROLLER |
| PSHL | PRESSURE SWITCH HIGH/LOW |
| REC | RECEPTACLE |
| SCE | SOUTHERN CALIFORNIA EDISON |
| SWBD | SWITCHBOARD |
| T | TELEPHONE |
| TSP | TWISTED SHIELDED PAIR |
| TTB | TERMINAL TELEPHONE BACKBOARD |
| TYP | TYPICAL |
| V | VOLT |
| VFD | VARIABLE FREQUENCY DRIVE |
| VS | VIBRATION SWITCH |
| W | WATT, WIRE |
| WP | WEATHERPROOF |
| XFMR | TRANSFORMER |
| ZS | LIMIT SWITCH |

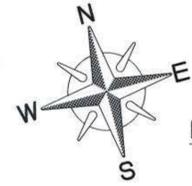
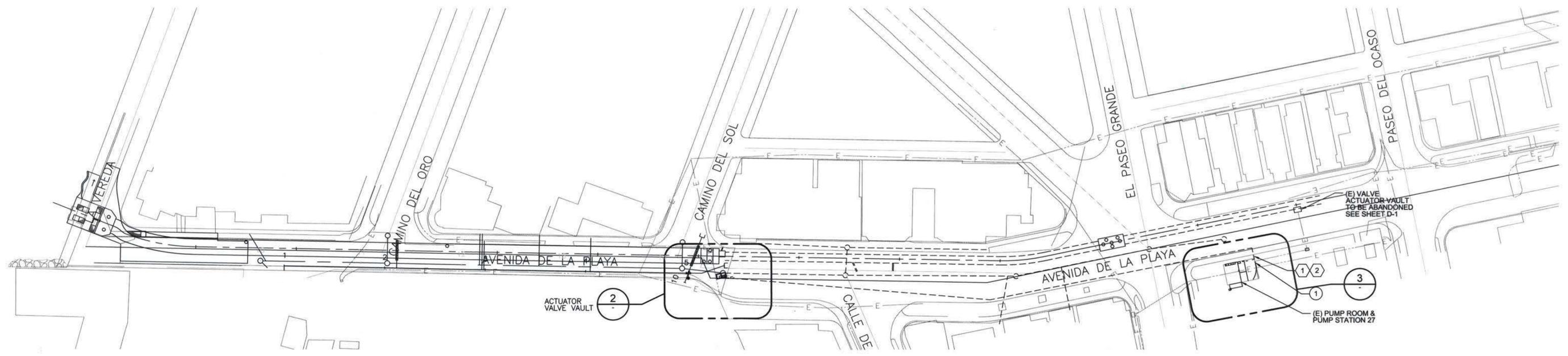
GENERAL NOTES:

- NOT ALL SYMBOLS AND/OR ABBREVIATIONS INCLUDED IN THIS DRAWING ARE NECESSARILY REQUIRED IN THIS PROJECT.
- IF WIRE QUANTITY IN CIRCUITS ASSOCIATED WITH PANELBOARD AND LIGHTING IS NOT SHOWN, PROVIDE QUANTITY AS REQUIRED. MINIMUM CONDUCTOR SIZE SHALL BE #12 WITH #12 GROUND UNLESS LARGER SIZES ARE NOTED.

| | | | |
|--|--|---|--|
| <p>TETRA TECH www.tetrattech.com 10815 Rancho Bernardo Road, Suite 500 San Diego, California, 92127 Phone: (949) 809-5000 Fax: (949) 809-5010</p> | <p>AVENIDA DE LA PLAYA ELECTRICAL SYMBOLS AND ABBREVIATIONS</p> | | <p>STORM WBS S-13018</p> |
| | <p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 25 OF 33 SHEETS</p> | | <p>WATER WBS B-00416 SEWER WBS B-00102</p> |
| <p>APPROVED BY: <i>[Signature]</i> 6-17-2013 FOR CITY ENGINEER DATE</p> | | <p>SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER</p> | |
| <p>DESCRIPTION APPROVED DATE FILMED</p> | | <p>CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER</p> | |
| <p>REVISION 04/12</p> | | <p>000-0000 CCS27 COORDINATE</p> | |
| | | <p>000-0000 CCS83 COORDINATE</p> | |
| <p>CONTRACTOR _____ DATE STARTED _____</p> | | <p>INSPECTOR _____ DATE COMPLETED _____</p> | |
| | | <p>36465-25-D</p> | |

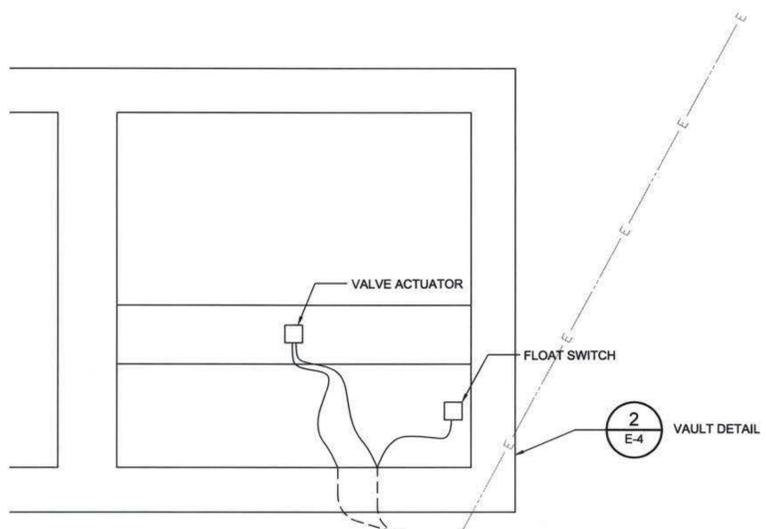


ELECTRICAL SYMBOLS AND ABBREVIATIONS

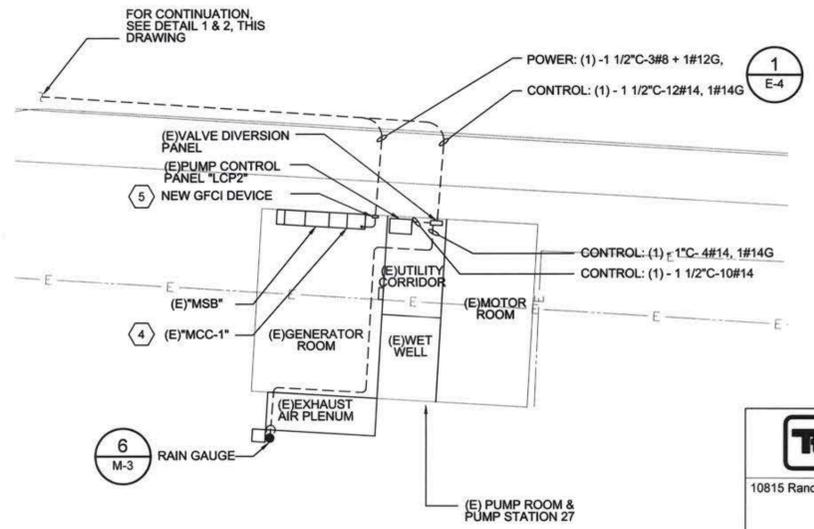


ELECTRICAL SITE PLAN 1
1" = 50'

- CONSTRUCTION NOTES:**
- PULL AND REMOVE EXISTING CABLES AND CAP CONDUITS AT (E)PUMP STATION.
- NOTES:**
- COREDRIILL AND INSTALL NEW CONDUITS AND WIRES. EXTEND CONDUITS AND WIRES TO THE NEW VALVE ACTUATOR.
 - RUN CONDUIT ALONG CIVIL ROUTE WITH APPROPRIATE DISTANCE BETWEEN THEM.
 - SEE DRAWING E-4 FOR INSTALLATION DETAILS.
 - INSTALL NEW 15A EATON FREEDOM 2100 FEEDER BREAKER UNIT IN 12" SPACE (PART NUMBER FZF1A12) IN EXISTING SPACE IN "MCC-1." IMPLEMENT LOCKOUT/TAGOUT PROCEDURE FOR PROTECTION OF MAINTENANCE CREW IN VALVE VAULT.
 - INSTALL NEW WALL-MOUNTED BENDER LIFEGUARD SERIES GROUND FAULT CIRCUIT INTERRUPTER (WITH STANDARD ENCLOSURE). PART NUMBER LG20-480-3/3-6-12-PA-CH-S (20A, 480V, 3PH, 3W, 6mA TRIP, NEMA 12 ENCLOSURE).



ACTUATOR VALVE VAULT 2
6" = 1'

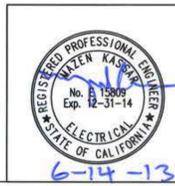


ELECTRICAL PLAN 3
1" = 10'

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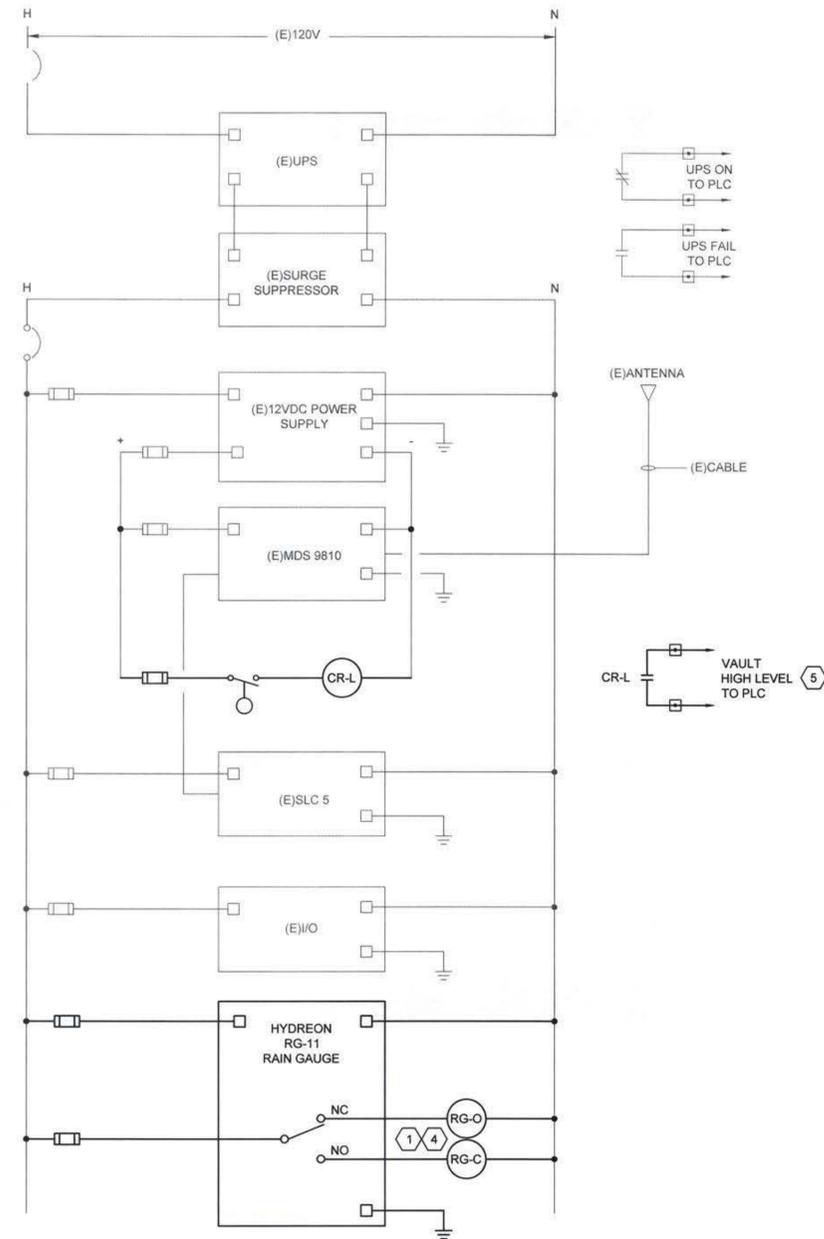
**AVENIDA DE LA PLAYA
ELECTRICAL SITE PLAN**

| | |
|---|----------------------|
| STORM WBS | S-13018 |
| WATER WBS | B-00416 |
| SEWER WBS | B-00102 |
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 26 OF 33 SHEETS | |
| APPROVED FOR CITY ENGINEER | DATE: 6-17-2013 |
| DESCRIPTION | APPROVED DATE FILMED |
| REVISION | 04/12 |
| SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | |
| 000-0000 CCS27 COORDINATE | |
| 000-0000 CCS83 COORDINATE | |
| CONTRACTOR | DATE STARTED |
| INSPECTOR | DATE COMPLETED |
| 36465-26-D | |

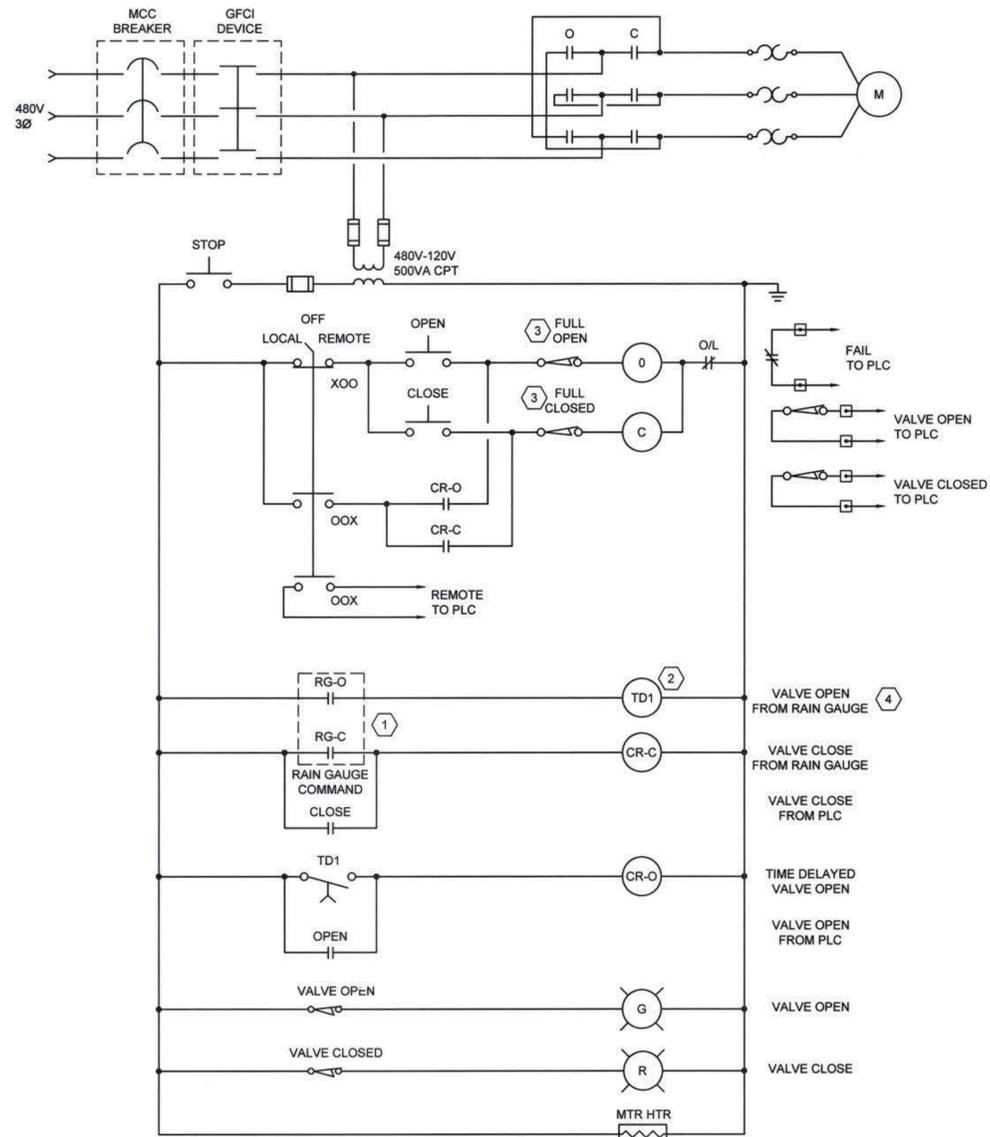


ELECTRICAL SITE PLAN

E-2



1 UPS POWER DISTRIBUTION (LCP-2)
NTS



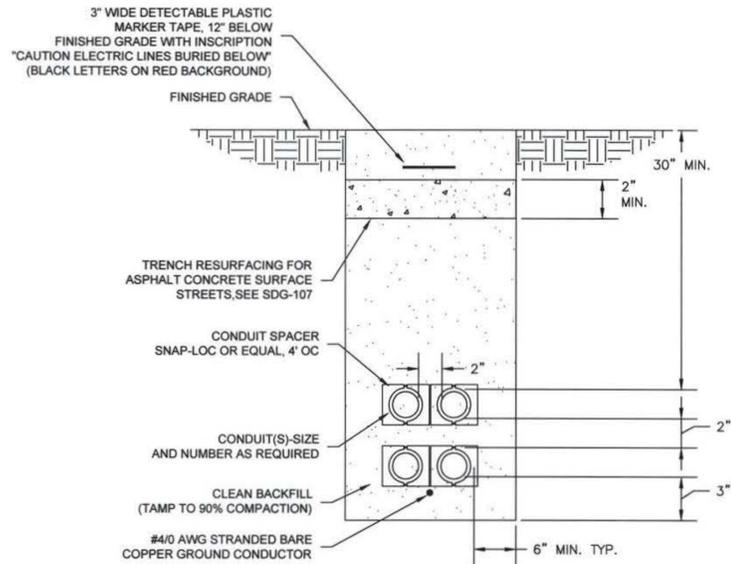
2 MOTOR OPERATED VALVE SCHEMATIC
NTS

- NOTES:
- INTERPOSING RELAYS RG-O AND RG-C SHALL OPEN AND CLOSE MOTOR OPERATED VALVE, RESPECTIVELY. SEE BOTH DETAILS 1 AND 2, ON THIS SHEET.
 - ALLEN BRADLEY 700-HR ON-DELAY RELAY.
 - "FULL OPEN:" NORMALLY CLOSED = VALVE IS CLOSED.
"FULL CLOSED:" NORMALLY CLOSED = VALVE IS OPEN.
 - VALVE SHALL OPEN ON RAIN EVENT (1/10" OF RAIN) TO LET STORM WATER ROUTE TO OCEAN.
 - CONTRACTOR SHALL INSTALL INTERPOSING RELAY FOR 12VDC FLOAT SWITCH AND CONNECT TO (E)PLC DI CARD IN LCP2.

E-3

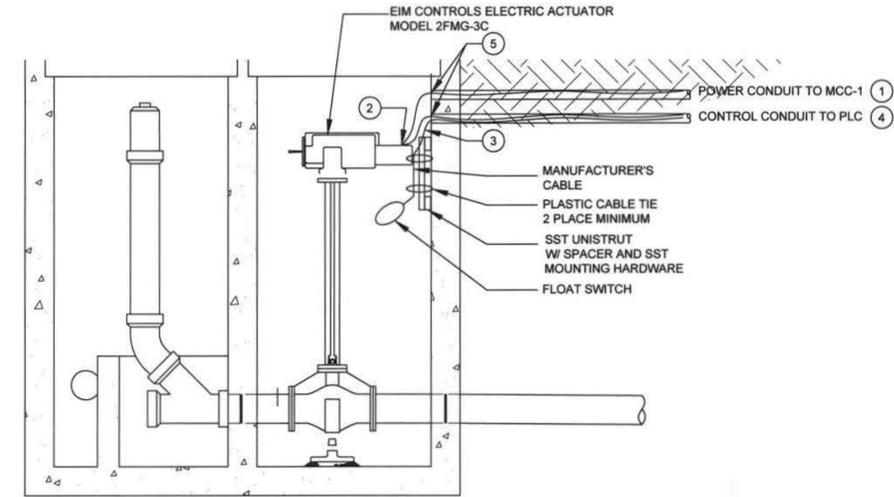
SCHEMATIC DIAGRAM

| <p>TETRA TECH www.tetrattech.com 10815 Rancho Bernardo Road, Suite 500 San Diego, California, 92127 Phone: (949) 809-5000 Fax: (949) 809-5010</p> | | <p>AVENIDA DE LA PLAYA SCHEMATIC DIAGRAM</p> | | | | | | | | | | | |
|--|--|--|--|----------|------|--------|--|--|--|--|--|---|---|
| <p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 27 OF 33 SHEETS</p> | | <p>STORM WBS S-13018 WATER WBS B-00416 SEWER WBS B-00102</p> | <p>FOR CITY ENGINEER: <i>Ran Amen</i> DATE: 6-17-2013 SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER</p> | | | | | | | | | | |
| <p>DESIGNER: EDUARDO CASTANEDA PROJECT ENGINEER</p> | <table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>APPROVED</th> <th>DATE</th> <th>FILMED</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> | REVISION | DATE | APPROVED | DATE | FILMED | | | | | | <p>000-0000 CCS27 COORDINATE</p> <p>000-0000 CCS83 COORDINATE</p> | <p>CONTRACTOR: _____ DATE STARTED: _____ INSPECTOR: _____ DATE COMPLETED: _____</p> |
| REVISION | DATE | APPROVED | DATE | FILMED | | | | | | | | | |
| | | | | | | | | | | | | | |
| <p>6-14-13</p> | | <p>36465-27-D</p> | | | | | | | | | | | |



NOTES:
1. ALL DIMENSIONS ARE MINIMUM.

1 TYPICAL DUCT BANK DETAIL
NTS

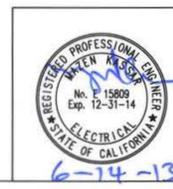


- CONSTRUCTION NOTES:
- POWER CABLE SHALL BE SERVICE WIRE CO. SUBMERSIBLE MULTI-CONDUCTOR PUMP CABLE TYPE THW, PART # PTJ8/3GG, OR EQUAL.
 - CABLE CONNECTION TO ELECTRIC VALVE ACTUATOR SHALL BE DORN EQUIPMENT CORP. MODEL NO. NYST-1 WITH PROPER PACKING ASSEMBLY FOR SUBMERSIBLE USE, OR EQUAL.
 - INSTALL UF SPLICE KIT MANUFACTURED BY 3M FOR CONNECTION TO FLOAT SWITCH CABLES. SHALL BE RATED FOR SUBMERSION.
 - CONTROL CABLE TO ACTUATOR SHALL BE PAIGE PUMPWIRE SUBMERSIBLE PUMP MULTI-CONDUCTOR CABLE TYPE P7266-SP OR EQUAL.
 - SEAL CONDUITS AFTER PULLING THE CABLES.

2 VAULT DETAIL
NTS

E-4

| | | | |
|---|--|--|---|
| <p>TETRA TECH www.tetratech.com 10815 Rancho Bernardo Road, Suite 500 San Diego, California, 92127 Phone: (949) 809-5000 Fax: (949) 809-5010</p> | <p>AVENIDA DE LA PLAYA ELECTRICAL DETAILS</p> | | <p>STORM WBS S-13018 WATER WBS B-00416 SEWER WBS B-00102</p> |
| | <p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 28 OF 33 SHEETS</p> | | <p>APPROVED: <i>[Signature]</i> 6-17-2013 FOR CITY ENGINEER DATE SUBMITTED BY: AKRAM FASSYOUNI ASSOCIATE ENGINEER CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER</p> |
| <p>DESCRIPTION APPROVED DATE FILMED</p> <p>REVISION 04/12</p> | | <p>000-0000 CCS27 COORDINATE 000-0000 CCS83 COORDINATE</p> | |
| <p>CONTRACTOR _____ DATE STARTED _____ INSPECTOR _____ DATE COMPLETED _____</p> | | <p>36465-28-D</p> | |



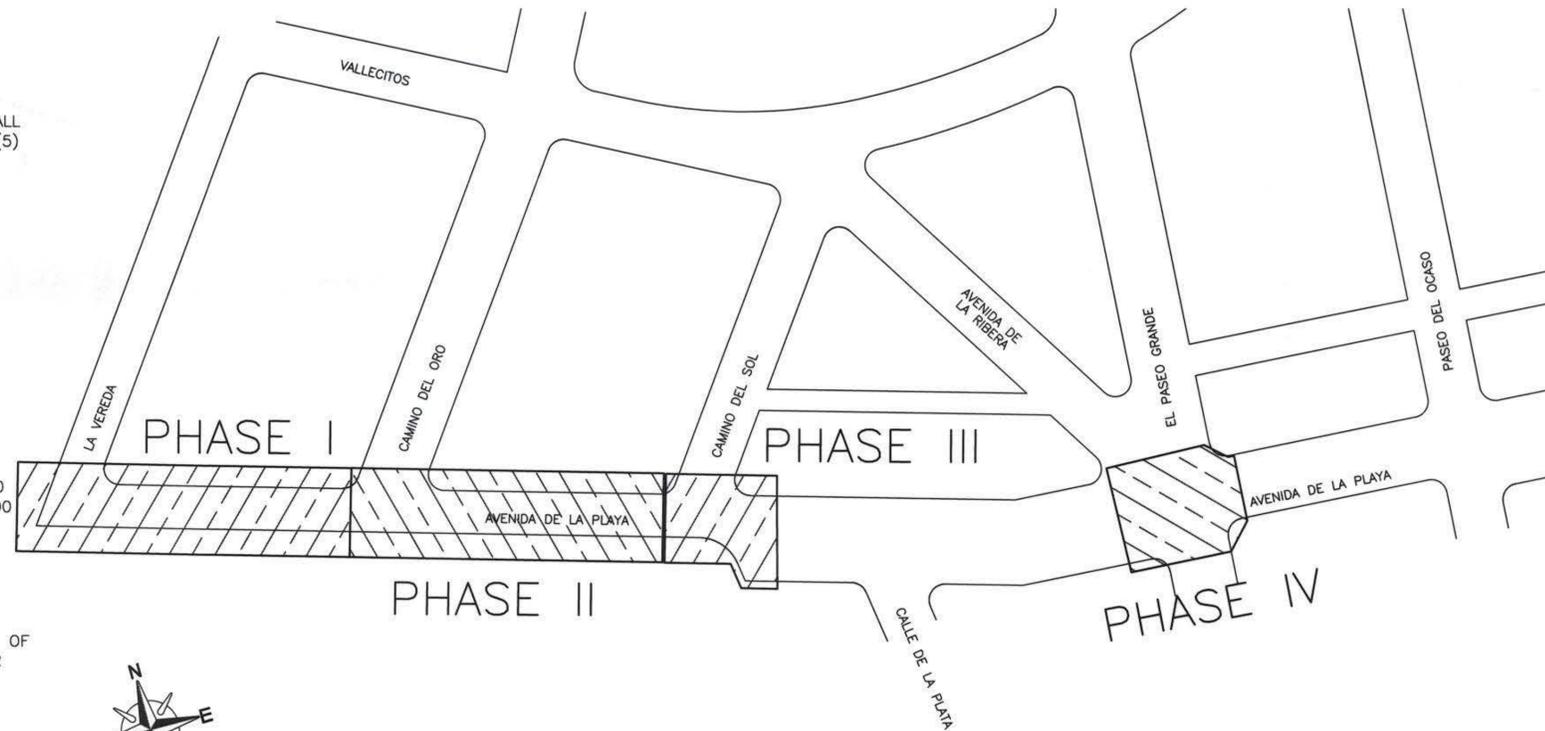
ELECTRICAL DETAILS

STANDARD TRAFFIC CONTROL NOTES

- VALIDATION:** THIS TRAFFIC CONTROL PLAN IS NOT VALID UNTIL WORK DATES ARE APPROVED. THE CONTRACTOR SHALL PER SECTION 7-10.1.3 OF THE CONTRACT SPECIAL PROVISIONS, CALL THE 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.
- STANDARDS:** THIS 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
 - STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK"), INCLUDING REGIONAL AND CITY OF SAN DIEGO SUPPLEMENTS.
- 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 DEPT. DISPATCH - (STREET AND ALLEY CLOSURE) - (858) 573-1300
 - POLICE DEPT. TRAFFIC - (STREET AND 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.

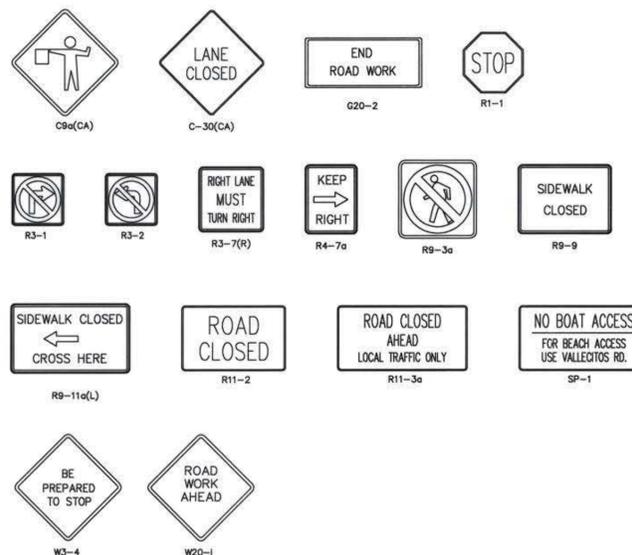
- POSTING NO PARKING SIGNS:** THE CONTRACTOR SHALL POST "TOW-AWAY/NO PARKING" SIGNS TWENTY-FOUR (24) IN ADVANCE OF TEMPORARY PARKING REMOVAL. SIGNS SHALL INDICATE SPECIFIC DAYS, DATES, AND TIMES OF RESTRICTIONS.
- EXCAVATIONS:** EXCEPT AS SHOWN ON THE PLANS, TRENCHES SHALL BE BACKFILLED OR TRENCH PLATED 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.
- RESTORATION OF TRAFFIC CONTROL DEVICES:** THE CONTRACTOR SHALL REPAIR OR REPLACE TRAFFIC CONTROL DEVICES (INCLUDING TRAFFIC SIGNS, STRIPING, PAVEMENT MARKERS, PAVEMENT MARKINGS, LEGENDS, CURB MARKINGS, LOOP DETECTORS, TRAFFIC SIGNAL EQUIPMENT, ETC.) DAMAGED OR REMOVED AS 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.
- 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 SUPERCEDE THESE PLANS.
- FOR WORK NOT COVERED BY THESE TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL, PER SECTION 7-10.1.1 OF THE CONTRACT SPECIAL PROVISIONS PREPARE TRAFFIC CONTROL SHOP DRAWINGS AND SUBMIT THEM TO THE RESIDENT ENGINEER. THE CONTRACTOR SHALL ALLOW A MINIMUM OF TWENTY (20) WORKING DAYS FOR REVIEW OF THE SHOP DRAWINGS. UPON APPROVAL OF THE TRAFFIC CONTROL PLAN, THE ENGINEERING TRAFFIC CONTROL SECTION WILL ISSUE A TRAFFIC CONTROL PERMIT (TCP) FOR THIS WORK.



SUPPLEMENTAL TRAFFIC CONTROL NOTES

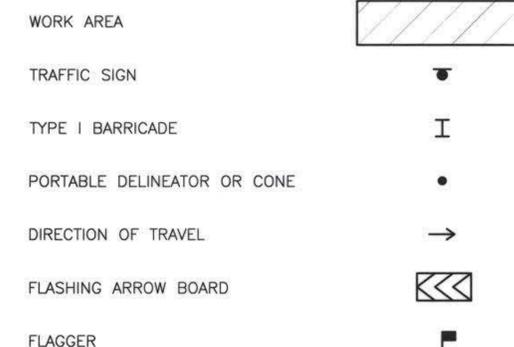
WORK HOURS: 7AM TO 7PM
 TRAFFIC CONTROL DESIGN SPEED: 25 MPH
 MINIMUM SIGN SPACING: 150 FT
 MAXIMUM CONE SPACING: 10 FT
 MINIMUM TAPER LENGTH: 50 FT

TRAFFIC CONTROL PHASING AND LOCATIONS
 N.T.S.



TRAFFIC CONTROL SIGN LEGEND
 N.T.S.

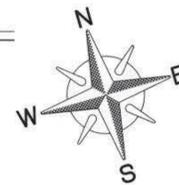
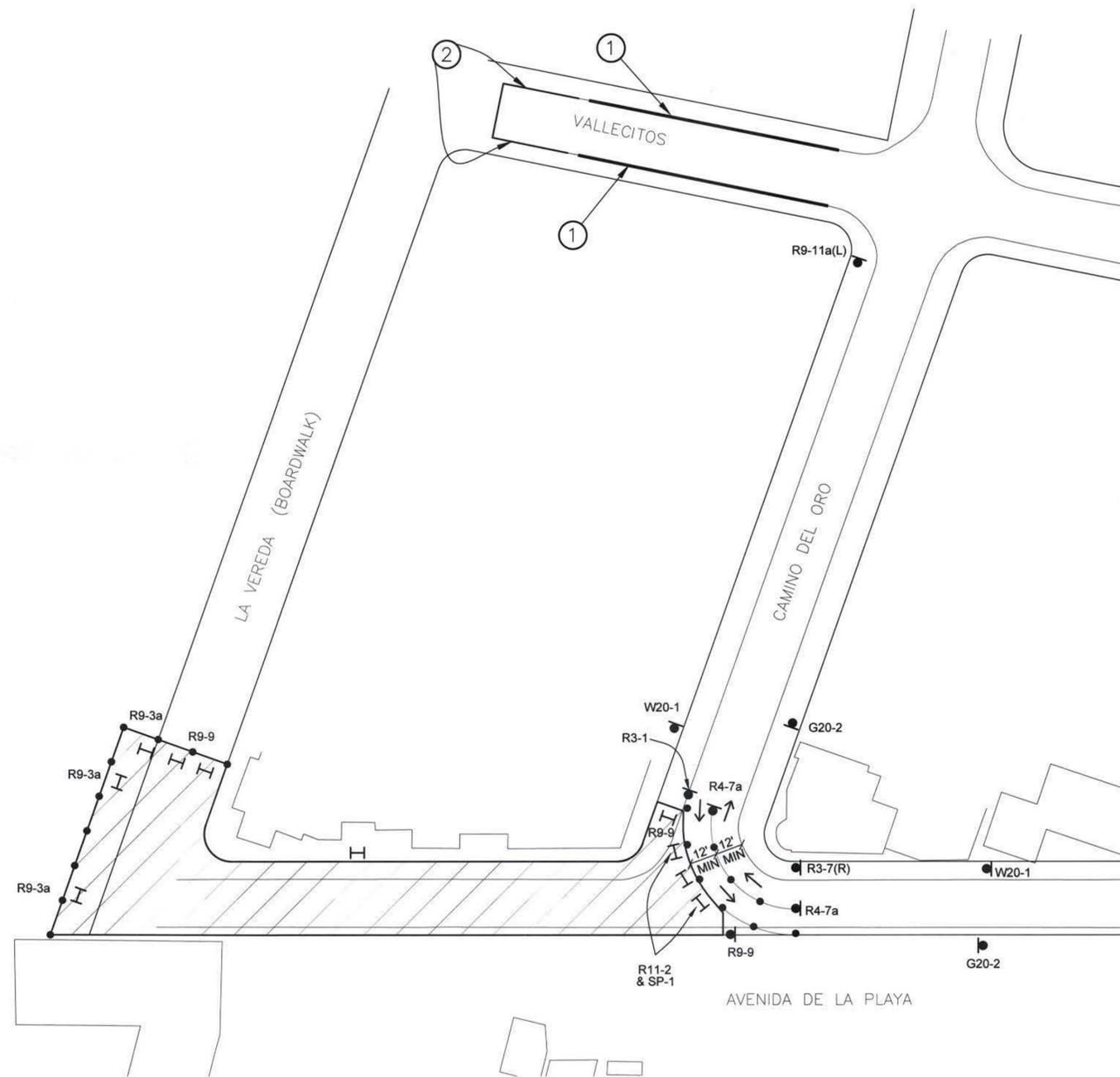
LEGEND



T-1

| | | | |
|---|--|---|---|
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| | <p>CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 29 OF 33 SHEETS</p> | | <p>SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER</p> |
| <p>FOR CITY ENGINEER: <i>Ahmed Almadani</i> 06/17/2013</p> | <p>DATE: 06/17/2013</p> | <p>CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER</p> | <p>000-0000 CCS27 COORDINATE 000-0000 CCS83 COORDINATE</p> |
| <p>CONTRACTOR: _____ DATE STARTED: _____ INSPECTOR: _____ DATE COMPLETED: _____</p> | <p>36465-29-D</p> | | |

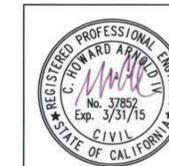
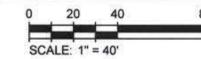
TRAFFIC CONTROL - COVER



CONSTRUCTION NOTES:

- ① AT VALLECITOS CHANGE EX. 15 MIN PARKING TO 2 MIN. PASSENGER LOADING FOR PHASE I ONLY
- ② EX. NO PARKING TO REMAIN

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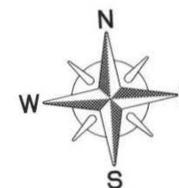
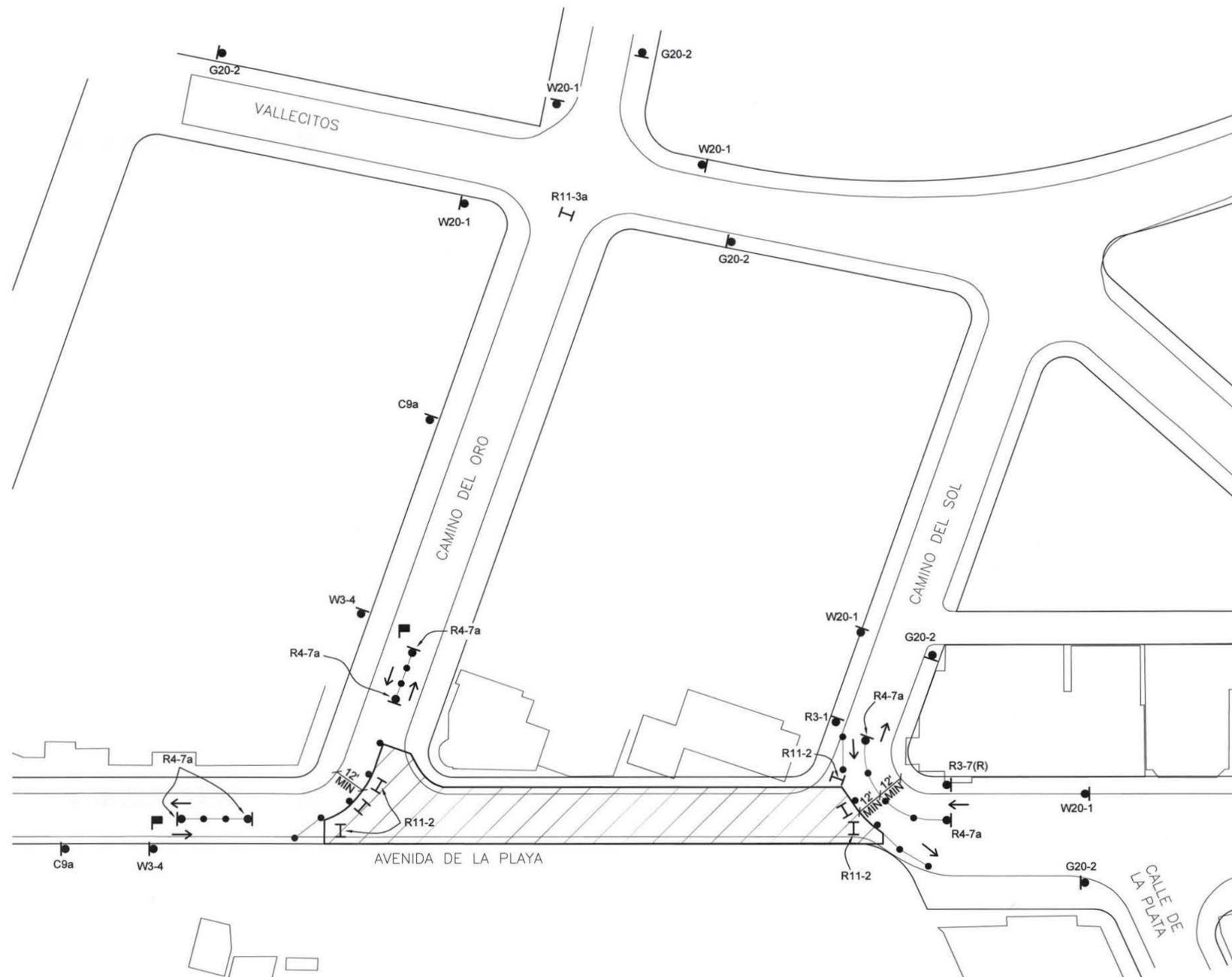


T-2

**AVENIDA DE LA PLAYA
 TRAFFIC CONTROL - PHASE I**

| | | | | |
|---|----------------|------|--------|--|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 30 OF 33 SHEETS | | | | STORM WBS S-13018 |
| APPROVED: <i>Edward Castaneda</i> 06/17/2013 FOR CITY ENGINEER DATE | | | | WATER WBS B-00416 |
| SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | | | | SEWER WBS B-00102 |
| DESCRIPTION | APPROVED | DATE | FILMED | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER |
| REVISION | 04/12 | | | 000-0000 CCS27 COORDINATE |
| | | | | 000-0000 CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | | | 36465-30-D |
| INSPECTOR | DATE COMPLETED | | | |

TRAFFIC CONTROL - PHASE I



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**AVENIDA DE LA PLAYA
TRAFFIC CONTROL - PHASE II**

CITY OF SAN DIEGO, CALIFORNIA
ENGINEERING AND CAPITAL PROJECTS DEPARTMENT
SHEET 31 OF 33 SHEETS

STORM WBS S-13018
WATER WBS B-00416
SEWER WBS B-00102

APPROVED: *[Signature]* 06/17/2013
FOR CITY ENGINEER

DATE: 06/17/2013

CHIEF OF PROJECT: AKRAM BASSYOUNI
ASSOCIATE ENGINEER

PROJECT ENGINEER: EDWARD CASTANEDA

000-0000
CCS27 COORDINATE
000-0000
CCS83 COORDINATE

CONTRACTOR: _____
INSPECTOR: _____

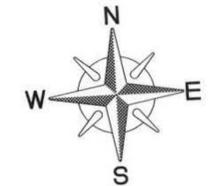
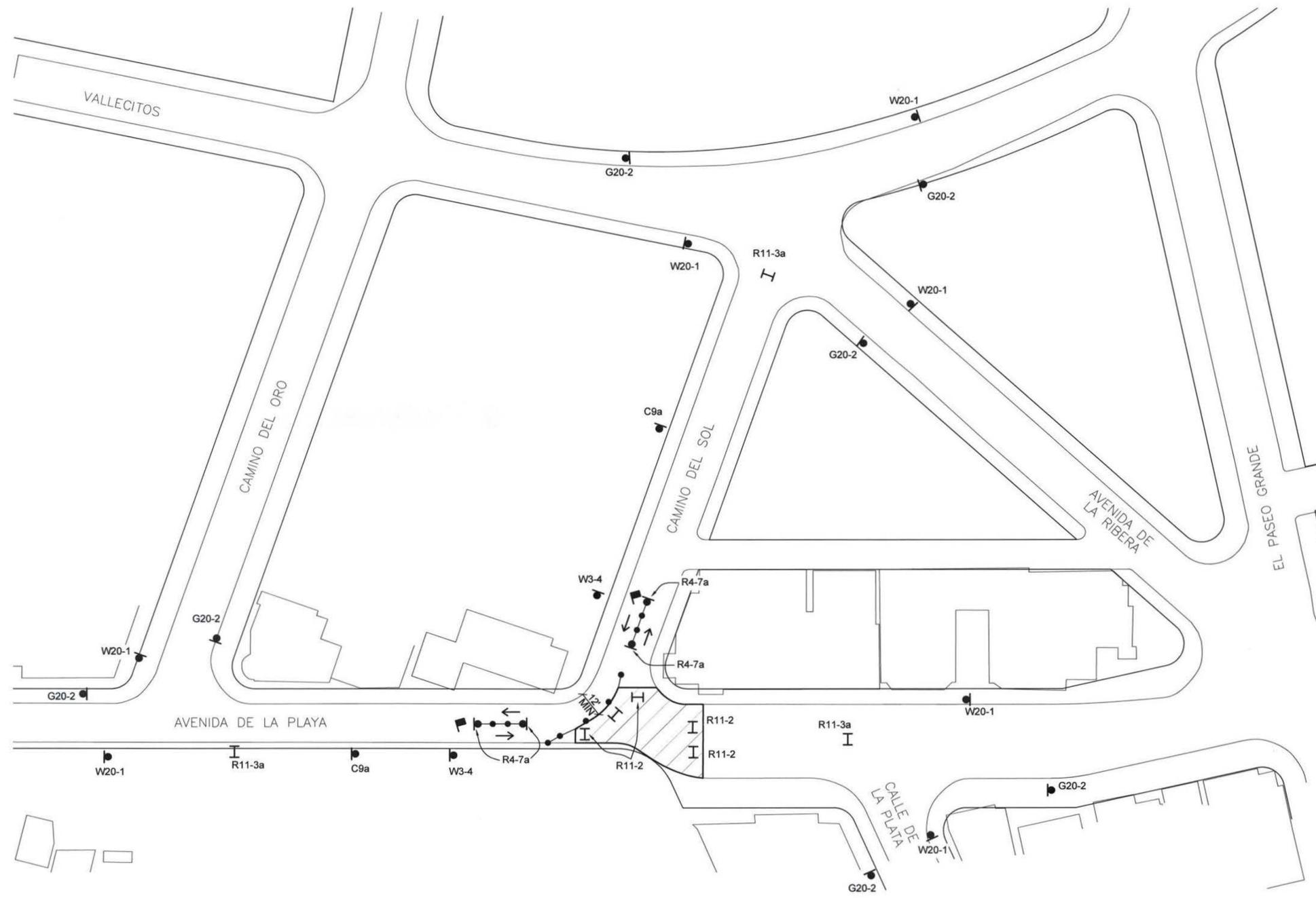
DATE STARTED: _____
DATE COMPLETED: _____

36465-31-D

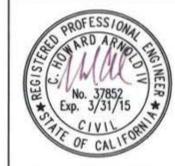
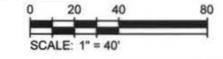
TRAFFIC CONTROL - PHASE II

TRAFFIC CONTROL - PHASE III

T-4

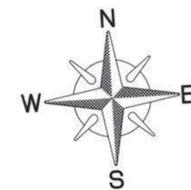
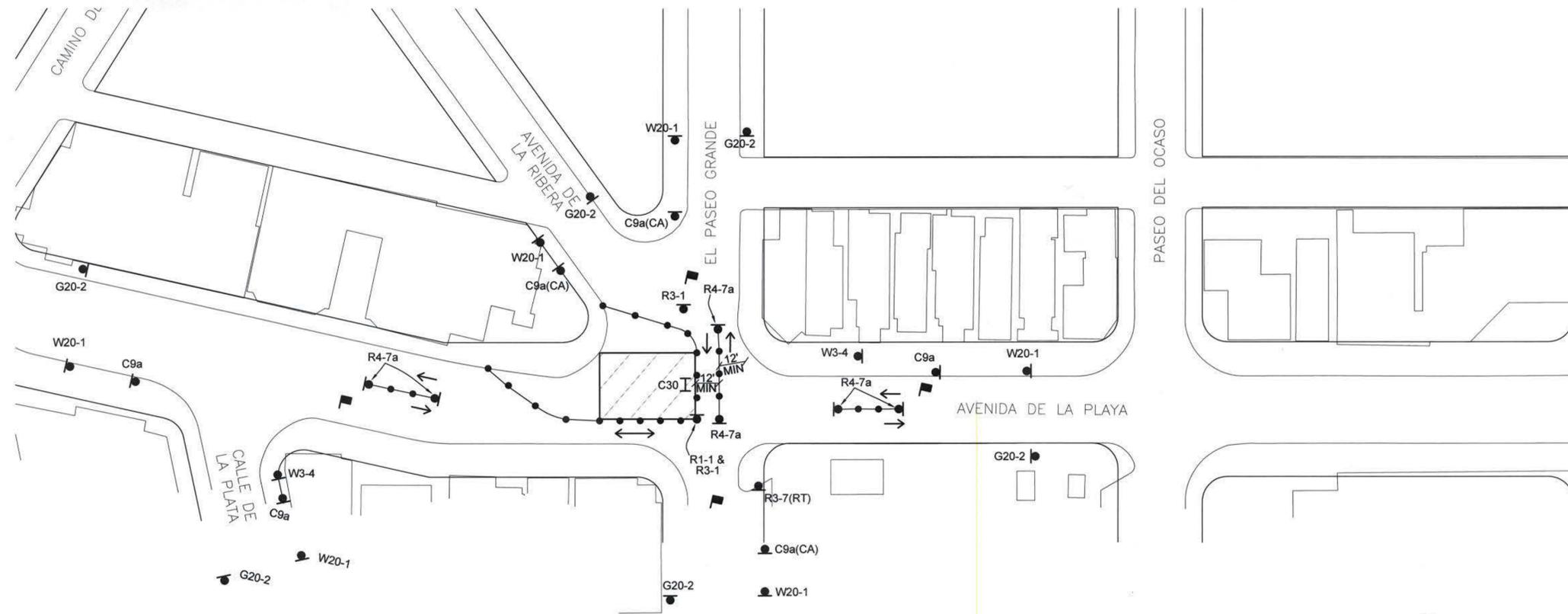


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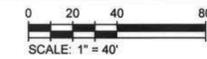
**AVENIDA DE LA PLAYA
 TRAFFIC CONTROL - PHASE III**

| | | | | |
|---|----------------|------|--------|---|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 32 OF 33 SHEETS | | | | STORM WBS S-13018 |
| APPROVED: <i>[Signature]</i> DATE: 06/17/2018 | | | | WATER WBS B-00416 |
| FOR CITY ENGINEER | | | | SEWER WBS B-00102 |
| DESCRIPTION | APPROVED | DATE | FILMED | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| REVISION | 04/12 | | | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER |
| | | | | 000-0000 CCS27 COORDINATE |
| | | | | 000-0000 CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | | | 36465-32-D |
| INSPECTOR | DATE COMPLETED | | | |



T-5

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**AVENIDA DE LA PLAYA
 TRAFFIC CONTROL - PHASE IV**

| | | | | |
|---|----------------|------|--------|---|
| CITY OF SAN DIEGO, CALIFORNIA ENGINEERING AND CAPITAL PROJECTS DEPARTMENT SHEET 33 OF 33 SHEETS | | | | STORM WBS: S-13018 |
| APPROVED: <i>[Signature]</i> 06/17/2013 | | | | WATER WBS: B-00416 |
| FOR CITY ENGINEER | | | | SEWER WBS: B-00102 |
| DESCRIPTION | APPROVED | DATE | FILMED | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| REVISION | 04/12 | | | DRAWN BY: EDWARD CASTANEDA PROJECT ENGINEER |
| | | | | 000-0000 CCS27 COORDINATE |
| | | | | 000-0000 CCS83 COORDINATE |
| CONTRACTOR | DATE STARTED | | | 36465-33-D |
| INSPECTOR | DATE COMPLETED | | | |

TRAFFIC CONTROL - PHASE IV

SEWER & WATER GROUP 809

CONTRACTOR'S RESPONSIBILITIES

- PURSUANT TO SECTION 4216 OF THE CALIFORNIA GOVERNMENT CODE, AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION, YOU MUST CONTACT THE REGIONAL NOTIFICATION CENTER (E.G., UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA) AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
- 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 & HIGHER)
- LOCATE AND RECONNECT ALL SEWER LATERALS, LOCATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY, LATERAL RECORDS ARE AVAILABLE AT THE PUBLIC UTILITIES DEPARTMENT, 2797 CAMINITO CHOLLAS, LOCATE THE IMPROVEMENTS THAT WILL BE AFFECTED BY LATERAL REPLACEMENTS.
- EXCAVATE AROUND WATER METER BOX (I.E., CITY PROPERTY SIDE) TO DETERMINE IN ADVANCE, THE SIZE OF EACH SERVICE BEFORE TAPPING THE MAIN.
- CITY FORCES, WHEN SPECIFIED OR SHOWN ON THE PLANS, WILL MAKE PERMANENT CUTS AND PLUGS AND CONNECTIONS.
- KEEP EXISTING MAINS IN SERVICE IN LIEU OF HIGH-LINING, UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE PLANS.
- THE LOCATIONS OF EXISTING BUILDINGS AS SHOWN ON THE PLANS ARE APPROXIMATE.
- KEEP STORM DRAIN INLETS FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.
- UNLESS OTHERWISE NOTED AS PREVIOUSLY POTHOLED (PH), ELEVATIONS SHOWN ON THE PROFILE FOR EXISTING UTILITIES ARE BASED ON A SEARCH OF THE AVAILABLE RECORDED INFORMATION ONLY AND ARE SOLELY FOR YOUR CONVENIENCE. THE CITY DOES NOT GUARANTEE THAT IT HAS REVIEWED ALL AVAILABLE DATA. PRIOR TO EXCAVATION, YOU MUST VERIFY 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.

STORM WATER PROTECTION

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

ABBREVIATIONS

| | | | | | |
|---------|----------------------|-----------|---------------------------|------|---------------------|
| ABAND | ABANDON | EB | ENCASED BURIED | OVHD | OVER HEAD |
| ABAND'D | ABANDONED | EL, ELEV | ELEVATION | PVC | POLYVINYL CHLORIDE |
| AC | ASBESTOS CEMENT PIPE | ELEC | ELECTRIC | PROP | PROPOSED |
| AHD | AHEAD | EX, EXIST | EXISTING | RED | REDUCER |
| ASSY | ASSEMBLY | E/O | EAST OF | RT | RIGHT |
| BK | BACK | F | FLANGE | S | SURVEY LINE |
| BTWN | BETWEEN | GV | GATE VALVE | SO | STUB OUT |
| CATV | CABLE TV | HDPE | HIGH-DENSITY POLYETHYLENE | S/O | SOUTH OF |
| CI | CAST IRON PIPE | HP | HIGH PRESSURE | SWR | SEWER |
| C | CENTER LINE | IE | INVERT ELEVATION | TEL | TELEPHONE |
| COND | CONDUIT | LT | LEFT | UNK | UNKNOWN |
| CONT | CONTINUED | MJ | MECHANICAL JOINT | VC | VITRIFIED CLAY PIPE |
| CONTR | CONTRACTOR | MTD | MULTIPLE TELEPHONE DUCT | WM | WATER METER |
| DB | DIRECT BURIED | N/O | NORTH OF | WTR | WATER |
| | | | | W/O | WEST OF |

EXISTING STRUCTURES

| | |
|-------------------------------|------|
| EX WATER MAIN & VALVES | --- |
| EX WATER METER | --- |
| EX FIRE HYDRANT | ○ |
| EX SEWER MAIN & MANHOLES | ○ |
| EX DRAINS | --- |
| EX PAVEMENT (PROFILE) | //// |
| EX GROUND LINE (PROFILE) | //// |
| EX TRAFFIC SIGNAL | ⊕ |
| EX STREET LIGHT | + |
| GAS MAIN | --- |
| ELEC. COND., TEL. COND., CATV | --- |
| RAILROAD, TROLLEY TRACKS | --- |
| BUS STOP | ⊕ |

LIMITS OF WORK

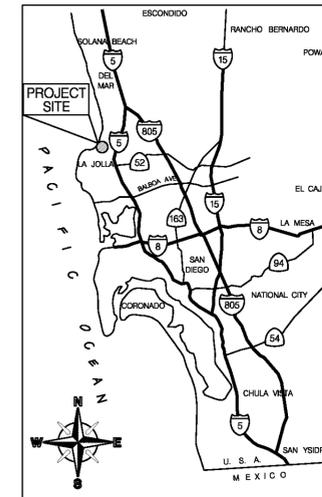
| SHEET NO. | DISCIPLINE CODE | TITLE | LIMITS | PIPE | | LENGTH (FT) |
|-----------|-----------------|--|---|-----------|-------------|-------------|
| | | | | SIZE (IN) | MATERIAL | |
| 1 | G-1 | COVER SHEET | SEWER | | | |
| 2 | G-2 | KEY MAP | | | | |
| 3 | C-1 | CAMINO DEL SOL | AVENIDA DE LA PLAYA TO VALLECITOS | 8 | | 333.70 |
| 4 | C-1 | AVENIDA DE LA RIBERA | VALLECITOS TO ALLEY | 8 | | 170.38 |
| 4 | C-2 | EL PASEO GRANDE | ALLEY S/O AVENIDA DE LA PLAYA TO AVENIDA DE LA PLAYA | 8 | | 213.50 |
| 4 | C-2 | EL PASEO GRANDE | AVENIDA DE LA PLAYA TO VALLECITOS | 8 | | 277.86 |
| 5 | C-3 | CAMINO DEL ORO | AVENIDA DE LA PLAYA TO VALLECITOS | 15 | | 392.10 |
| 5 | C-3 | VALLECITOS | LA VEREDA TO CAMINO DEL ORO | 8 | | 238.77 |
| 6 | C-4 | CAMINO DEL ORO | VALLECITOS TO CALLE FRESCOTA | 15 | | 587.42 |
| 6 | C-4 | CAMINO DEL ORO | CALLE FRESCOTA TO N/O CALLE FRESCOTA | 8 | | 182.83 |
| 7 | C-5 | CALLE FRESCOTA | CAMINO DEL ORO TO W/O EL PASEO GRANDE | 12 | | 267.64 |
| 7 | C-5 | CALLE FRESCOTA | W/O EL PASEO GRANDE TO EL PASEO GRANDE | 10 | | 27.55 |
| 7 | C-5 | EL PASEO GRANDE | CALLE FRESCOTA TO S/O CAMINO DEL ORO | 10 | | 404.80 |
| 8 | C-6 | EL PASEO GRANDE | S/O CAMINO DEL ORO TO CALLE OPIMA | 10 | | 708.46 |
| 8 | C-6 | EL PASEO GRANDE | CALLE OPIMA TO N/O CALLE OPIMA | 8 | | 91.54 |
| 9 | C-7 | EL PASEO GRANDE | N/O CALLE OPIMA TO PASEO DEL OCASO | 8 | | 507.33 |
| 10 | C-8 | CAMINO DEL ORO | EL PASEO GRANDE TO PASEO DEL OCASO | 8 | | 317.79 |
| 10 | C-8 | PASEO DEL OCASO | S/O EL PASEO GRANDE | 8 | | 85.00 |
| 11 | C-9 | LA JOLLA SHORES DR. | S/O CALLE FRESCOTA TO CALLE DE LA GARZA | | | |
| 12 | C-10 | VALLECITOS | PASEO DEL OCASO TO LA JOLLA SHORES DRIVE | 12 | | 287.74 |
| 12 | C-10 | VALLECITOS | E/O LA JOLLA SHORES DRIVE TO W/O VALLECITOS COURT | 8 | | 218.78 |
| 13 | C-11 | AVENIDA DE LA PLAYA | LA JOLLA SHORES DRIVE TO W/O CALLE DEL CIELO | 8 | | 600.15 |
| 14 | C-12 | PASEO DORADO | LA JOLLA SHORES DRIVE TO DORADO COURT | 8 | | 338.29 |
| 15 | C-13 | PASEO DEL OCASO | ALLEY TO AVENIDA DE LA PLAYA | 8 | | 206.11 |
| 15 | C-13 | PASEO DEL OCASO | AVENIDA DE LA PLAYA TO ALLEY | 15 | | 596.38 |
| 16 | C-14 | AVENIDA DE LA PLAYA | E/O EL PASEO GRANDE TO PASEO DEL OCASO | 15 | | 123.71 |
| 16 | C-14 | AVENIDA DE LA PLAYA | PASEO DEL OCASO TO W/O PASEO DEL OCASO | 8 | | 171.78 |
| 16 | C-14 | AVENIDA DE LA PLAYA | W/O PASEO DEL OCASO CONNECTION TO COLLECTOR PIPE LINE | 8 | | 36.97 |
| 16 | C-14 | AVENIDA DE LA PLAYA | CONNECTION TO COLLECTOR PIPE AT CALLE DE LA PLATA | 8 | | 27.72 |
| 17 | C-15 | CALLE DE LA PLATA | AVENIDA DE LA PLAYA TO DORADO COURT | 12 | | 505.05 |
| 18 | C-16 | AVENIDA DE LA PLAYA | CAMINO DEL SOL TO E/O EL PASEO GRANDE | 15 | | 504.36 |
| 18 | C-16 | AVENIDA DE LA PLAYA | CATCH PIPE BETWEEN CAMINO DEL SOL & AVENIDA DE RIBERA | 8 | | 233.19 |
| 19 | C-17 | CAMINO DEL SOL | AVENIDA DE LA PLAYA TO VALLECITOS | 8 | | 350.05 |
| 20 | C-18 | AVENIDA DE LA RIBERA | VALLECITOS TO EL PASO GRANDE | 8 | | 422.92 |
| 21 | C-19 | VALLECITOS | LA VEREDA TO EL PASEO GRANDE | 8 | | 835.93 |
| 22 | C-20 | EL PASEO GRANDE | AVENIDA DE LA PLAYA TO S/O ALLEY | 8 | | 850.00 |
| 23 | C-21 | EL PASEO GRANDE | S/O ALLEY TO CAMINO DEL ORO | 8 | | 673.03 |
| 24 | C-22 | CALLE FRESCOTA | CAMINO DEL ORO TO EL PASEO GRANDE | 8 | | 304.60 |
| 25 | C-23 | PASEO DEL OCASO | AVENIDA DE LA PLAYA TO N/O VALLECITOS | 8 | | 700.00 |
| 26 | C-24 | PASEO DEL OCASO | N/O VALLECITOS TO S/O CAMINO DEL ORO | 8 | | 800.00 |
| 27 | C-25 | PASEO DEL OCASO | S/O CAMINO DEL ORO TO S/O CAMINO DEL ORO | 8 | | 700.00 |
| 28 | C-26 | PASEO DEL OCASO | N/O CAMINO DEL ORO TO EL PASEO GRANDE | 8 | | 478.61 |
| 29 | C-27 | SAINT LOUIS TERRACE | SPINDRIFT DRIVE TO TORREY PINES ROAD | 8 | | 628.30 |
| 30 | C-28 | HYPATIA WAY | SAINT LOUIS TERRACE TO ROSELAND DRIVE | 8 | | 519.80 |
| 31 | C-29 | LA JOTA WAY | HYPATIA WAY TO S/O SPINDRIFT DRIVE | 8 | | 236.94 |
| 32 | C-30 | STREET RESURFACING | | | TOTAL SEWER | 8656.90 |
| 33 | C-31 | CURB RAMP LOCATION | | | TOTAL WATER | 7500.18 |
| 34 | C-32 | CITY FORCES | | | | |
| 35 | C-33 | SEWER ABANDONMENT SHEET | | | | |
| 36 | C-34 | REPLUMBING DETAILS | | | | |
| 37 | C-35 | WATER POLLUTION CONTROL SITE PLAN | | | | |
| 38 | C-36 | SEWER HORIZONTAL ALIGNMENT COORDINATE INDEX REPORT | | | | |
| 39 | C-37 | WATER HORIZONTAL ALIGNMENT COORDINATE INDEX REPORT | | | | |
| T-1-T-2 | | TRAFFIC PLANS | | | | |

DISCIPLINE CODE

- G GENERAL
- C CIVIL
- T TRAFFIC CONTROL

WORK TO BE DONE

CONSTRUCTION OF SEWER AND WATER GROUP 809 CONSISTS OF THE INSTALLATION OF EIGHT INCH (8") WATER MAINS, WATER SERVICES, FIRE SERVICES, VALVES, FIRE HYDRANTS, MARKERS, TRENCH RESURFACING, SLURRY SEALING, THRUST BLOCKS, EIGHT INCH (8") SEWER MAINS, TEN INCH (10") SEWER MAINS, TWELVE INCH (12") SEWER MAINS, FIFTEEN INCH (15") SEWER MAINS, SEWER MAIN REHABILITATION, SEWER MANHOLES, SEWER MANHOLE REHABILITATION, SEWER LATERALS, SEWER LATERAL REPLUMBS, PAVEMENT RESURFACING, CURB RAMPS, TRAFFIC CONTROL & ALL OTHER WORK AND APPURTENANCES IN ACCORDANCE WITH THESE SPECIFICATIONS AND DRAWINGS NUMBERED 34419-01-D THROUGH 34419-39-D.



VICINITY MAP NOT TO SCALE

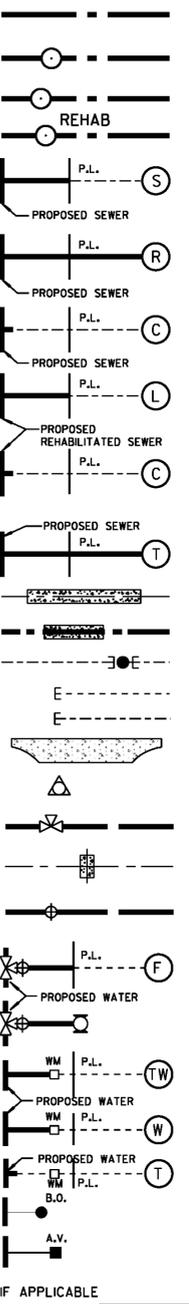
IMPROVEMENTS

- TRENCH RESURFACING
- SEWER MAIN
- SEWER MANHOLE/PVC LINED
- REHAB. EX. SEWER MANHOLE
- SEWER MAIN REHAB.
- 4" SEWER LATERAL WITH C.O. UNLESS OTHERWISE SPECIFIED
- TUNNEL REPLUMB SEWER LATERAL WITH C.O.
- SEWER LATERAL CONNECTION
- REHAB SEWER LATERAL (LINED) WITH C.O.
- SERVICE LATERAL CONNECTION TO REHABILITATED SEWER
- TRENCHLESS SEWER LATERAL WITH C.O.
- CONCRETE PROTECTION FOR EXIST SEWER PIPE
- CONCRETE ENCASEMENT
- ABANDON EX MANHOLE
- CUTTING AND PLUGGING ABANDONED WATER MAIN
- SLURRY FILL ABANDONED SEWER MAIN
- CONCRETE CROSS GUTTER
- SURVEY MONUMENT
- WATER MAIN & APPURTENANCES
- PIPE SUPPORT FOR UNDERCUT AC WATER
- VALVES WITH CAPS AND WELLS
- FIRE SERVICE CONNECTION & ASSEMBLY
- 6" FIRE HYDRANT ASSEMBLY & MARKER 2-PORT UNLESS SPECIFIED AS 3-PORT
- TRENCHLESS METHOD FOR WATER SERVICES
- 1" WATER SERVICE UNLESS OTHERWISE SPECIFIED
- WATER SERVICE TRANSFER
- BLOW-OFF ASSEMBLY
- AIR & VACUUM VALVE
- HIGHLINING BY CONTRACTOR

STANDARD DRAWINGS

- SDG-107, SDG-108
- SDS-101, SDS-110 (TYPE C)
- SDS-106, SDS-107, SDS-120, SDM-113, M-3, SM-07
- SEE PLANS & SPECS
- SEE PLANS & SPECS
- SDS-102, SDS-103, SDS-104, SDS-105, SDS-110 (TYPE C), SDS-118
- SDS-102, SDS-103, SDS-104, SDS-105, SDS-110 (TYPE C), SDS-118
- SEE PLANS & SPECS
- SEE PLANS & SPECS
- SEE PLANS & SPECS
- SDS-102
- SDS-103, SDS-104, SDS-105
- SDS-116
- SDS-112
- SM-08
- WP-03
- SEE PLANS & SPECS
- M-10
- SDW-148, SDW-151, SDW-110, SDW-161
- SDW-162
- SDW-109, SDW-153, SDW-152, WV-5
- SDW-109, SDW-118, SDW-148, SDW-152, SDW-153
- SDW-109, SDW-104, SDW-148, SDW-152, SDW-153, M-19,
- SDW-149, SDW-150, WS-03
- SDW-149, SDW-150
- SDW-106, SDW-143, SDW-144, SDW-145, SDW-146, WB-05, SDW-148
- SDW-117, SDW-148, SDW-158, SDW-159, SDW-160
- SDW-170, SDW-171, SDW-172, SDW-173

SYMBOL



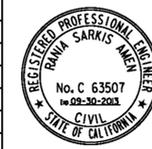
CONTRACTOR'S NOTE:

- IF ADDITIVE ALTERNATE "A" IS AWARDED, CONTRACTOR SHALL FURNISH MATERIALS, INSTALL, MAINTAIN AND DISMANTLE HI-LINE (EXCLUDING FINAL CONNECTIONS TO SERVICES AND FIRE HYDRANTS) PER SPECIFICATION SECTION 700-1.1.2.
- IF ADDITIVE ALTERNATE "B" IS AWARDED, CONTRACTOR SHALL PERFORM ALL CONNECTIONS TO EXISTING WATER SYSTEM PER SPECIFICATION SECTION 700-1.2 AND ALL CUT AND PLUG WORK PER SPECIFICATION SECTION 700-1.3. VALVES ON CITY'S WATER SYSTEM SHALL BE OPERATED BY CITY FORCES ONLY.

FIELD DATA

BENCHMARK: NEBP GENTER ST. & FAY AVE.
 FIELD NOTES: DAVIS/BERGEN, 242-1683/244-1683, 177511
 DATUM: MEAN SEA LEVEL
 STREETS REQUIRING 12" TRENCH CAP:
 TORREY PINES ROAD, PASEO DEL OCASO,
 EL PASEO GRANDE, LA JOLLA SHORES.

| | | |
|---|--------------|----------------|
| CONSTRUCTION SITE STORM WATER PRIORITY (INSPECTION FREQUENCY): HIGH... MEDIUM... LOW... | | SPEC. NO. 5979 |
| AS-BUILT INFORMATION | | |
| MATERIALS | MANUFACTURER | |
| PIPE CL 235 (WATER) | - | |
| PIPE SDR 35 (SEWER) | - | |
| GATE VALVES | - | |
| FIRE HYDRANTS | - | |
| SEWER MANHOLES | - | |
| REHABILITATE SEWER MANHOLES | - | |
| REHABILITATE SEWER MAIN | - | |



PLANS FOR THE CONSTRUCTION OF SEWER & WATER GROUP 809 COVER SHEET

| | | |
|--------------------------------|----------------|------------------------------------|
| CITY OF SAN DIEGO, CALIFORNIA | | WATER WBS B00102 |
| SHEET 1 OF 39 SHEETS | | SEWER WBS B00416 |
| DATE: 6/14/13 | | DESIGNED BY: AKRAM BASSYOUNI |
| FOR CITY ENGINEER: [Signature] | | ASSOCIATE ENGINEER |
| DCE NAME: [Signature] | | PROJECT ENGINEER: EDWARD CASTANEDA |
| DESCRIPTION | BY | APPROVED |
| ORIGINAL | EC/PE | |
| SEE SHEETS | | CCS27 COORDINATE |
| SEE SHEETS | | CCS88 COORDINATE |
| CONTRACTOR | DATE STARTED | 34419-01-D |
| INSPECTOR | DATE COMPLETED | |

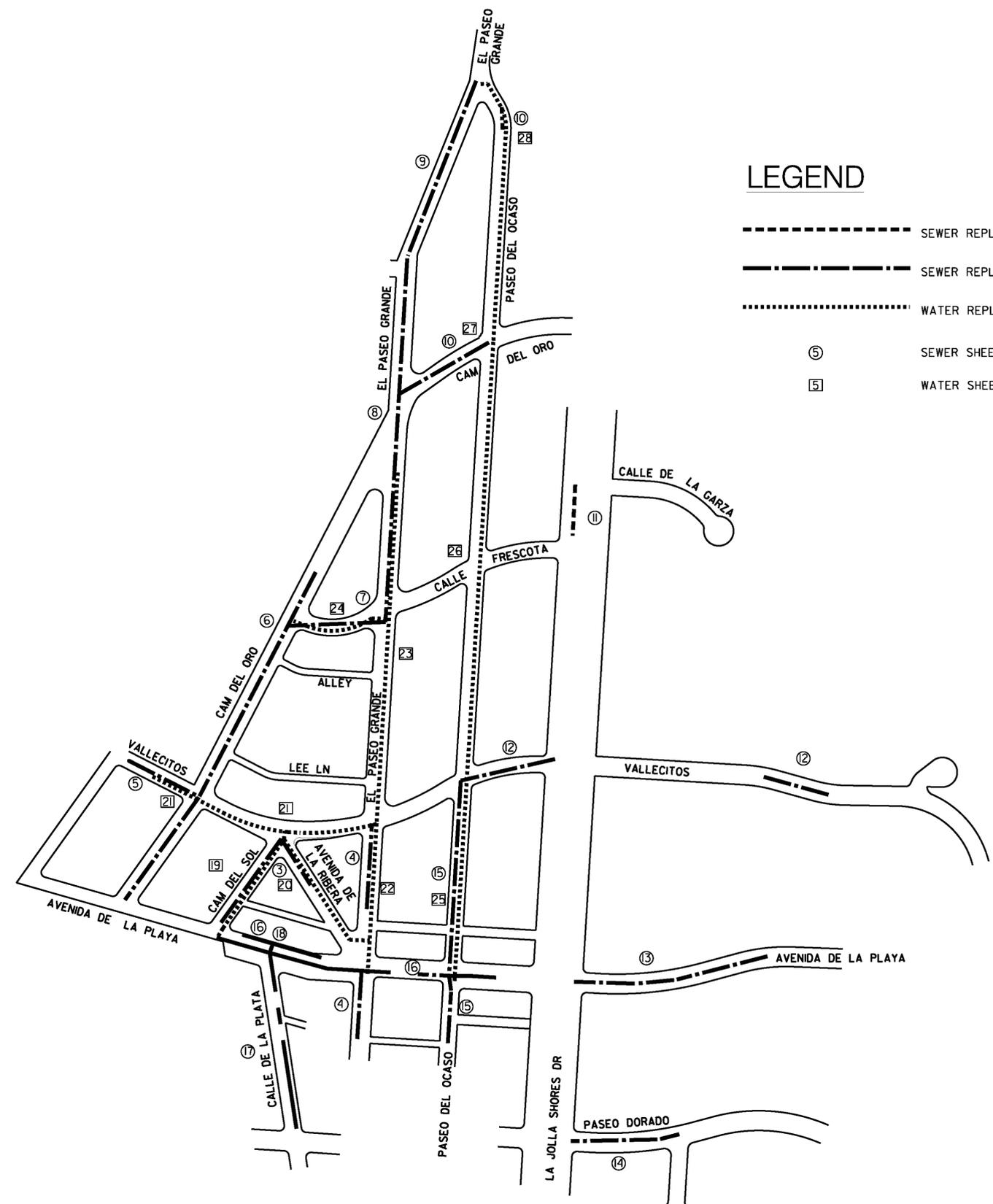
| CONSTRUCTION CHANGE / ADDENDUM | | | |
|--------------------------------|------|---------------------------------|--------------|
| CHANGE | DATE | AFFECTED OR ADDED SHEET NUMBERS | APPROVAL NO. |
| | | | |
| | | | |
| | | | |
| | | | |

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

CITY OF SAN DIEGO PUBLIC WORKS PROJECT

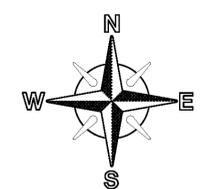
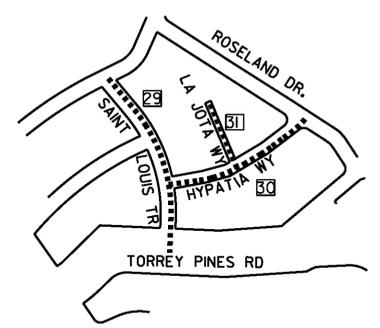


SEWER & WATER GROUP 809

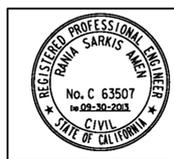


LEGEND

- SEWER REPLUMB
- SEWER REPLACEMENT
- WATER REPLACEMENT
- ⑤ SEWER SHEET NUMBER
- ⑤ WATER SHEET NUMBER

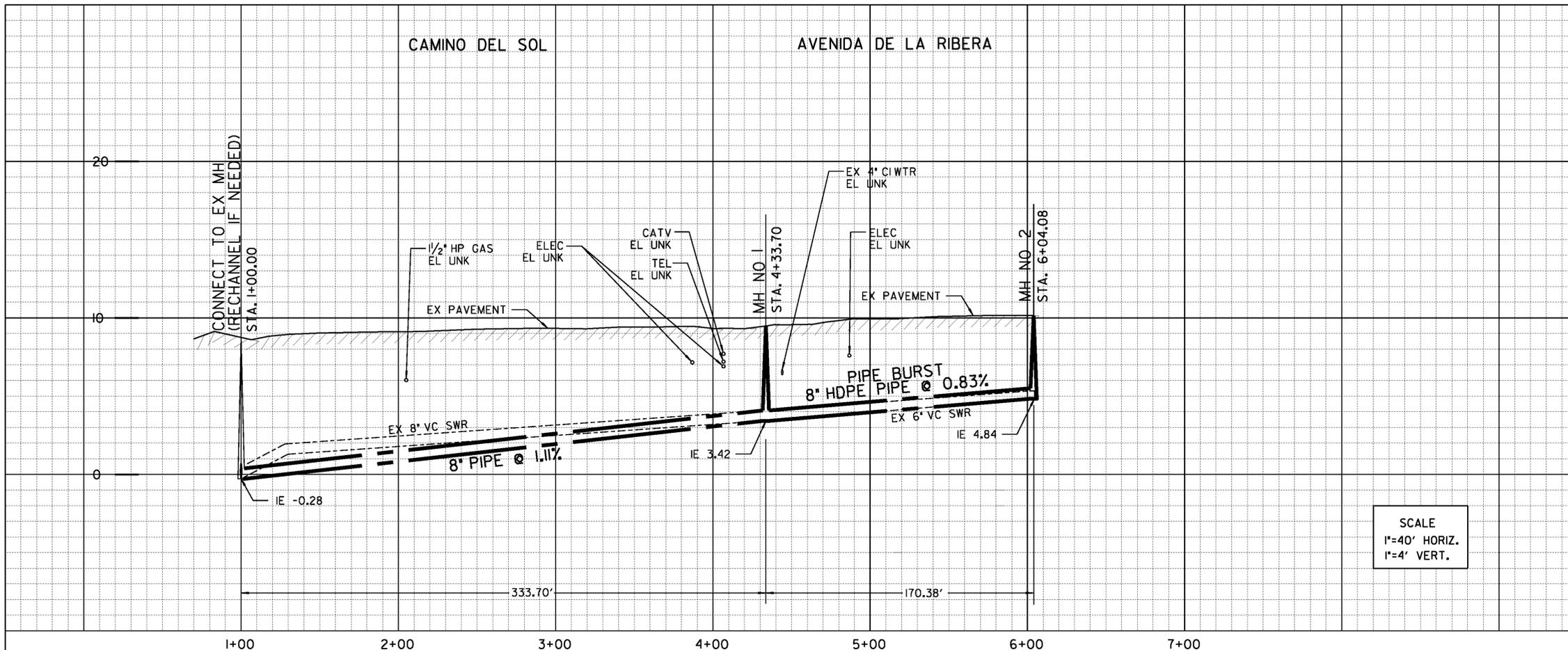


KEY MAP
NO SCALE



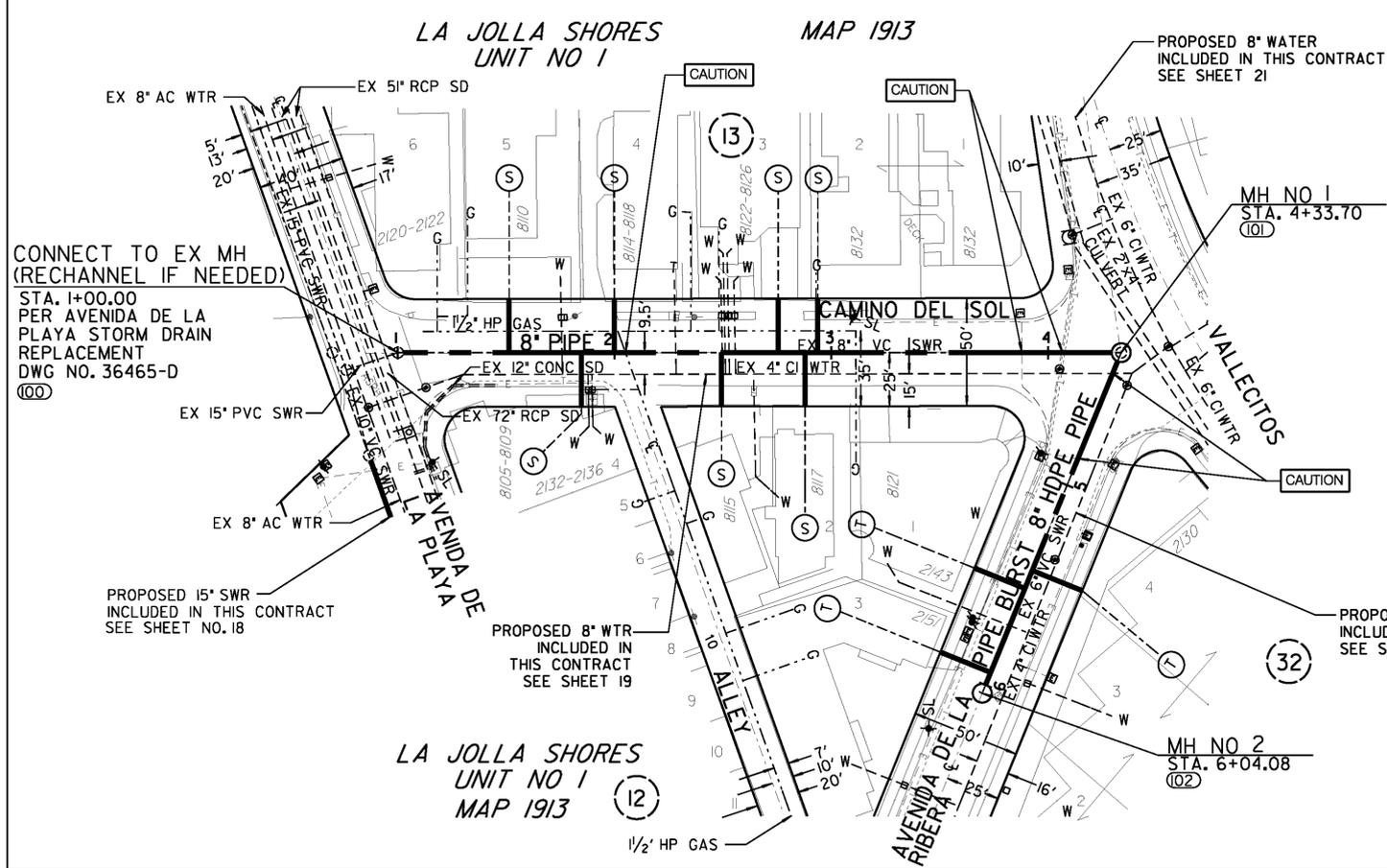
G-2

| | | | | |
|--|-----------------|--|------|--------------------------------|
| SEWER AND WATER GROUP 809 KEY MAP | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 2 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | | |
| FOR CITY ENGINEER <i>[Signature]</i> | DATE 6/14/13 | ENGINEER BY AKRAM BASSYOUNI ASSOCIATE ENGINEER | | |
| DCE NAME | | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER | | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| | | | | SEE SHEETS CC827 COORDINATE |
| | | | | SEE SHEETS CC883 COORDINATE |
| CONTRACTOR | | DATE STARTED | | 34419-02-D |
| INSPECTOR | | DATE COMPLETED | | |



| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 1+00 | STA. 4+33 | 333 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 1+00 | STA. 2+35 | 418 |
| ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT. | | |

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



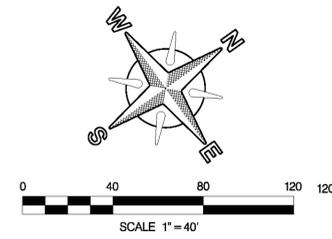
CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

REFERENCE:
WATER: 7888-L
SEWER: I392-D, I383-D, 5064-D
STORM DRAIN: 5064-D, 7887-L, 25160-2-D
GAS: 45-315, 45-316
ELECTRIC: 250-1689D, 7888-2-L
CABLE TV: ILLJ028
TELEPHONE: LJ406DB, LJ406DC, LJ406DD
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: 1227

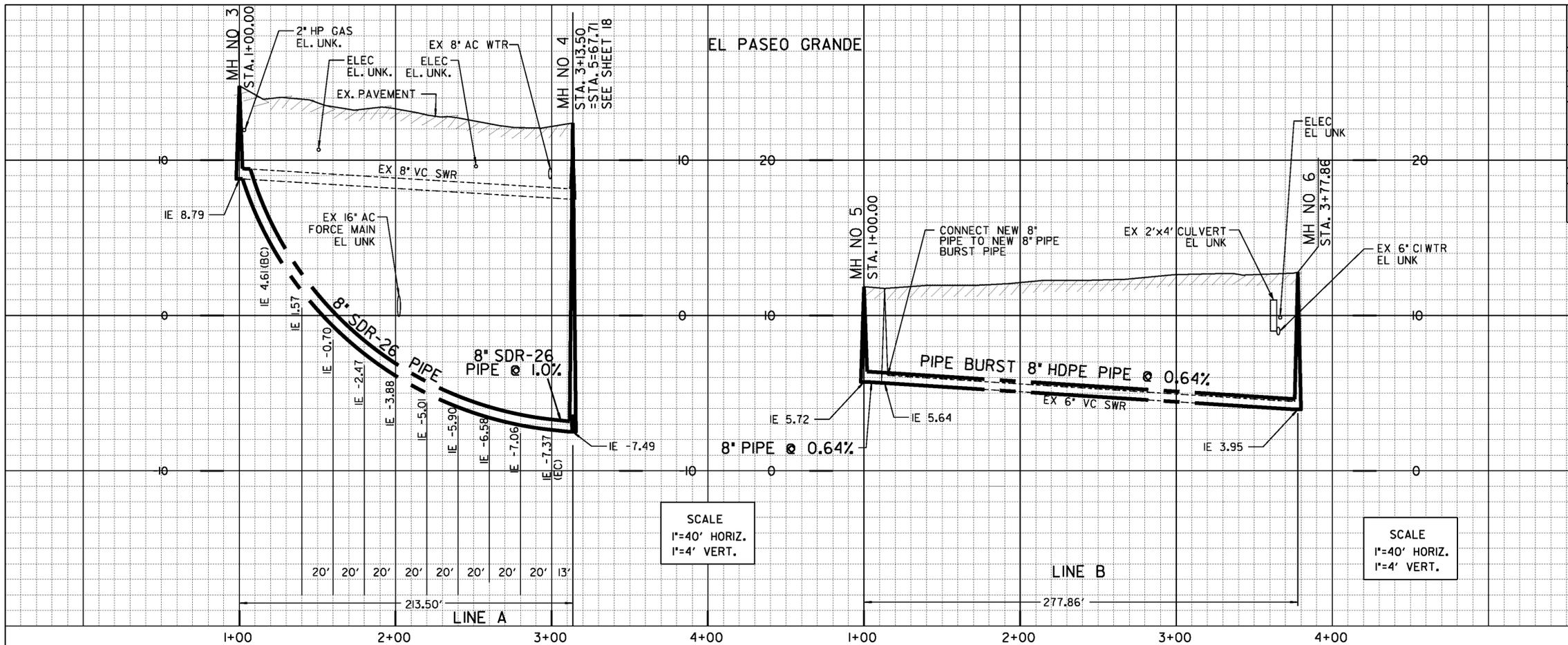
RETIREMENTS:
8" - VC - 364.11' - 1950
6" - VC - 170.64' - 1950
MH - 4X3 - 1 - 1950
4" LATERAL - 10 - VC - 1950

C-1

| SEWER AND WATER GROUP 809 | | | | |
|--|----------------|---------------------------------------|------|--------------|
| CAMINO DEL SOL AVENIDA DE LA PLAYA TO VALLECITOS AVENIDA DE LA RIBERA VALLECITOS TO ALLEY | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 3 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | | DATE 6/14/13 |
| FOR CITY ENGINEER | | AKRAM BASSYOUNI ASSOCIATE ENGINEER | | DATE |
| DCE NAME | | EDWARD CASTANEDA PROJECT ENGINEER | | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| | | 250-1691 CCS27 COORDINATE | | |
| | | 6252407-1890444 CCS88 COORDINATE | | |
| CONTRACTOR | DATE STARTED | 44419-03-D | | |
| INSPECTOR | DATE COMPLETED | | | |



CAMINO DEL SOL / AVENIDA DE LA RIBERA



| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 1+00 | STA. 3+14 | 214 |
| STA. 1+00 | STA. 1+14 | 14 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 1+26 | STA. 3+14 | 188 |
| ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT. | | |

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

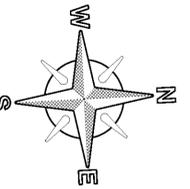
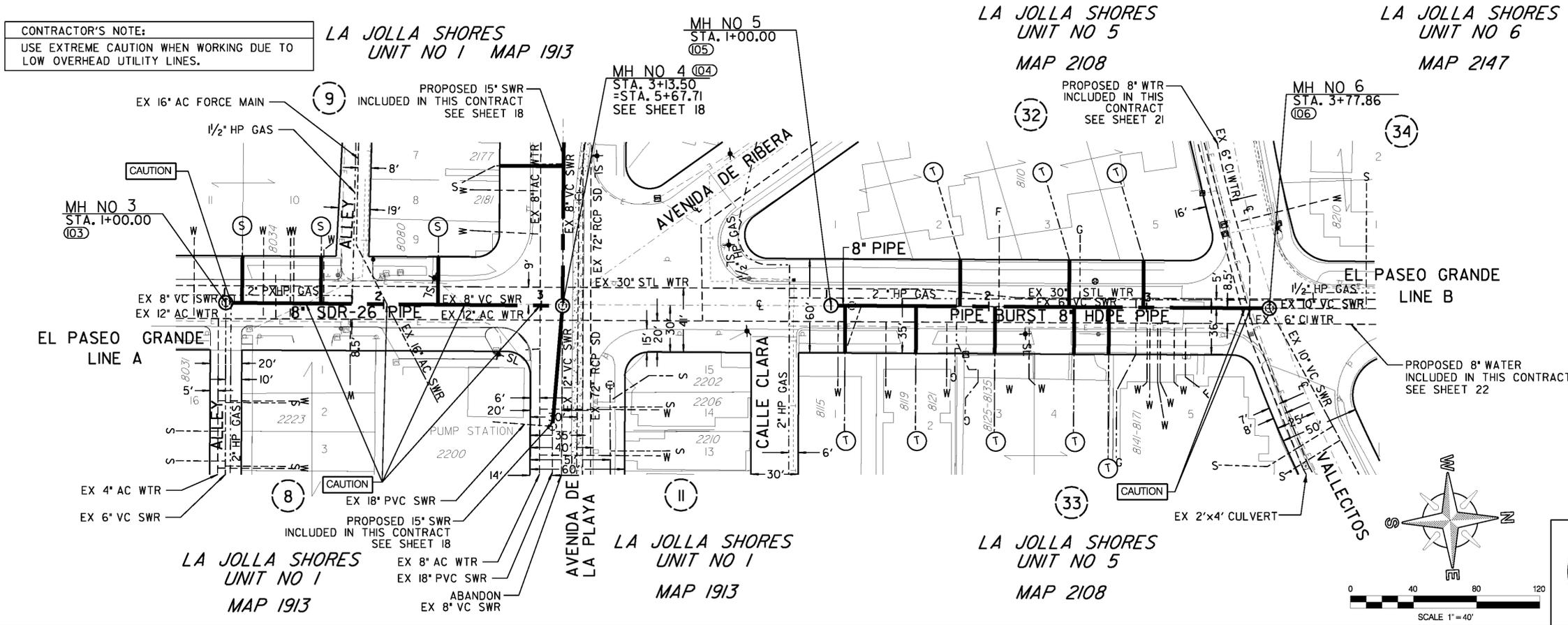
SCALE
1"=40' HORIZ.
1"=4' VERT.

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

REFERENCE:
WATER: I2079-4-D, 26331-7-D, 26331-8-D
SEWER: I382-D, I383-D,
STORM DRAIN: 5064-D, I2079-4-D, 26331-7-D
GAS: 45-310, 45-314, 45-315
ELECTRIC: 250-1689D, 7882-2-L
CABLE TV: ILJ028
TELEPHONE: LJ406DB, LJ406DD
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: I227

RETIREMENTS:
6" - VC - 264.64' - 1952
8" - VC - 213.58' - 1952
MH - 4X3 - 4 - 1952
4" LATERAL - II - CP - 1952

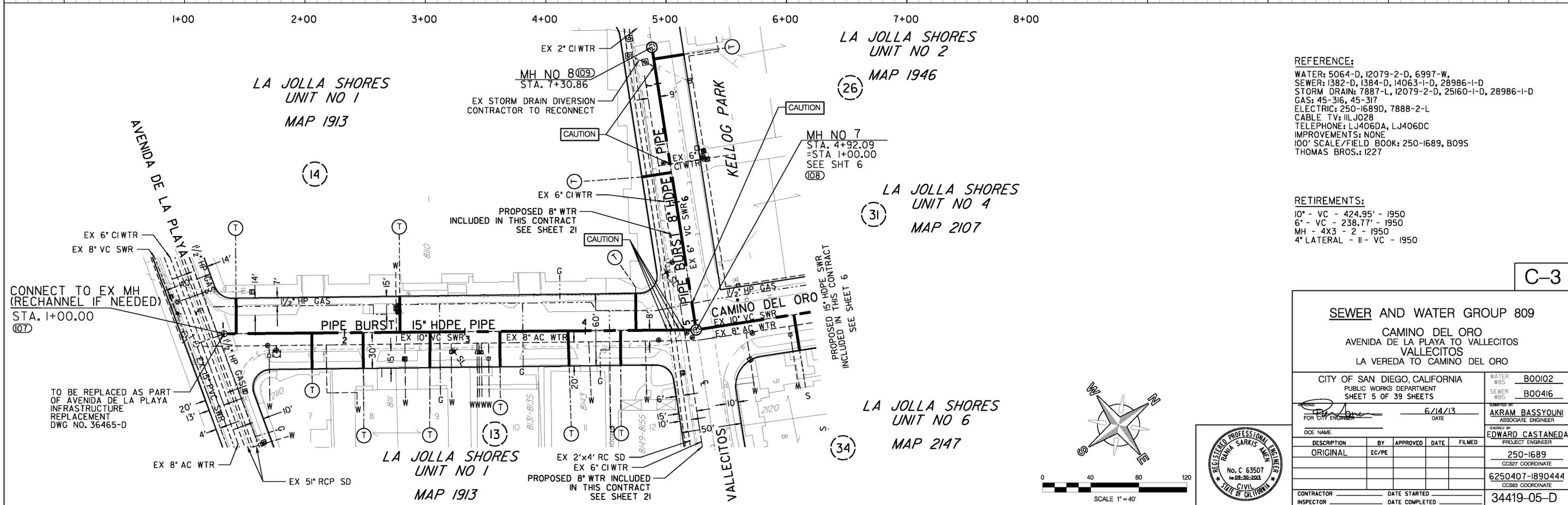
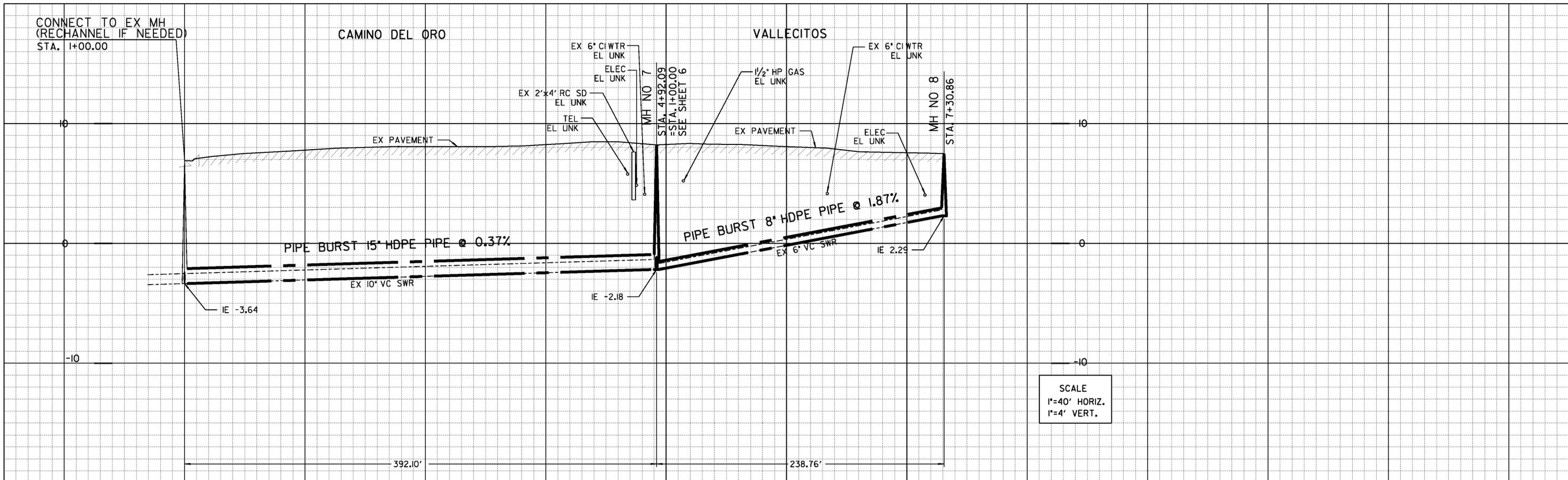
PROFILE 'A' CONTRACTOR'S NOTE:
1. CONTRACTOR TO POTHOLE FROM STA 1+00 TO STA 3+23.03 TO VERIFY LOCATION OF EX FORCE MAIN AND VERIFY THAT PROPOSED PIPE IS NOT IN CONFLICT PRIOR TO PERFORMING WORK.
2. CONTRACTOR TO USE HIGH DEFLECTION COUPLINGS FOR CURVES PER MANUFACTURER'S RECOMMENDATIONS.



| | | | | | |
|--|-------|------------------------|----------------------|---|------------------|
| SEWER AND WATER GROUP 809 | | EL PASEO GRANDE | | AVENIDA DE LA PLAYA TO VALLECITOS | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 4 OF 39 SHEETS | | | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> DATE: 6/14/13 | | | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME: _____ | | | | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE | FILED | 250-1691 |
| ORIGINAL | EC/PE | | | | CCS27 COORDINATE |
| | | | | | 6252407-1890444 |
| | | | | | CCS88 COORDINATE |
| CONTRACTOR _____ | | | DATE STARTED _____ | | 34419-04-D |
| INSPECTOR _____ | | | DATE COMPLETED _____ | | |

EL PASEO GRANDE

C-2



REFERENCE:
 WATER: 5064-D, 12079-2-D, 6997-W,
 SEWER: 1382-D, 1384-D, 14063-I-D, 28986-I-D
 STORM DRAIN: 7887-L, 12079-2-D, 25160-I-D, 28986-I-D
 GAS: 45-316, 45-317
 ELECTRIC: 250-1689D, 7888-2-L
 CABLE TV: ILJ028
 TELEPHONE: LJ406DA, LJ406DC
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 250-1689, B09S
 THOMAS BROS.: 1227

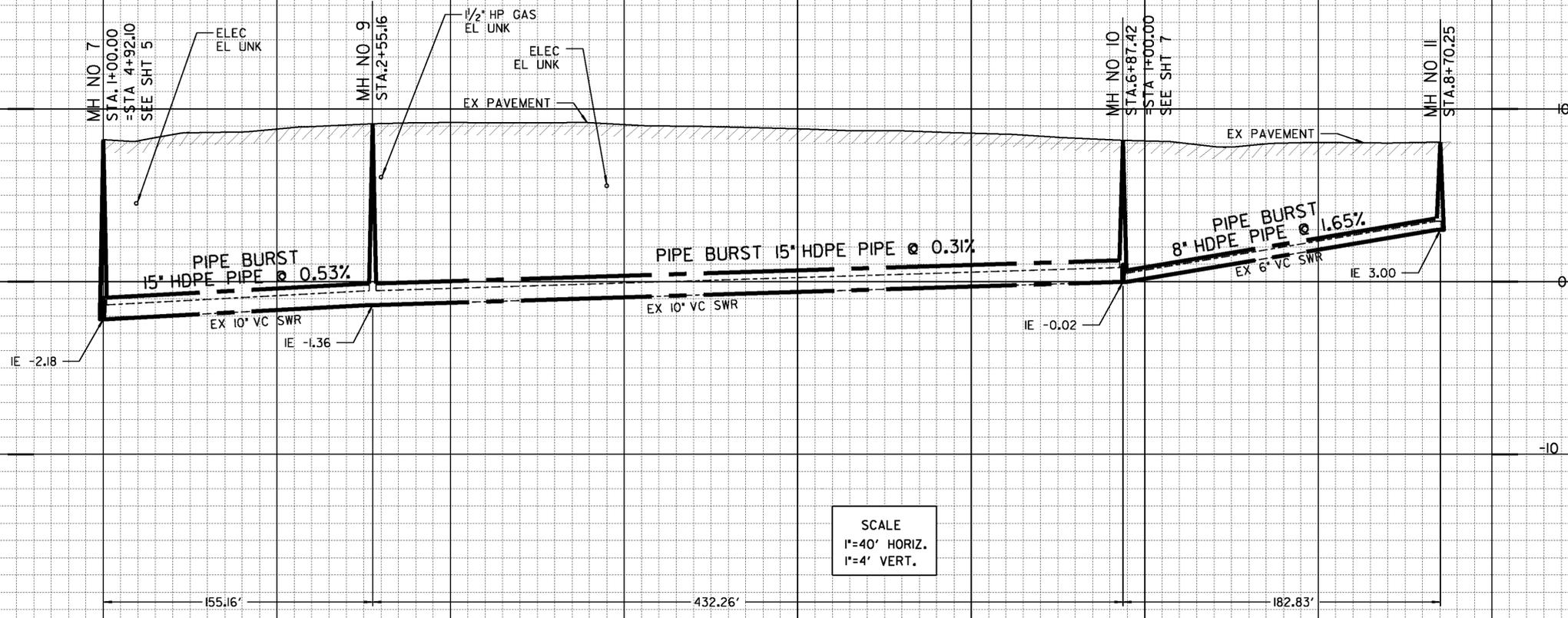
RETIREMENTS:
 10" - VC - 424.95' - 1950
 6" - VC - 238.77' - 1950
 MH - 4X3 - 2 - 1950
 4" LATERAL - II - VC - 1950

| | | | |
|--|-------|--------------------------------------|----------|
| SEWER AND WATER GROUP 809 | | | |
| CAMINO DEL ORO AVENIDA DE LA PLAYA TO VALLECITOS LA VEREDA TO CAMINO DEL ORO | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 5 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | |
| DATE: 6/14/13 | | PROJECT ENGINEER: EDWARD CASTANEDA | |
| DCE NAME: [Signature] | | ASSOCIATE ENGINEER: AKRAM BASSYOUNI | |
| DESCRIPTION | | BY | APPROVED |
| ORIGINAL | EC/PE | | |
| DATE | | FILMED | |
| 250-1689 | | CCS27 COORDINATE | |
| 6250407-1890444 | | CCS88 COORDINATE | |
| CONTRACTOR | | DATE STARTED | |
| INSPECTOR | | DATE COMPLETED | |
| 34419-05-D | | | |

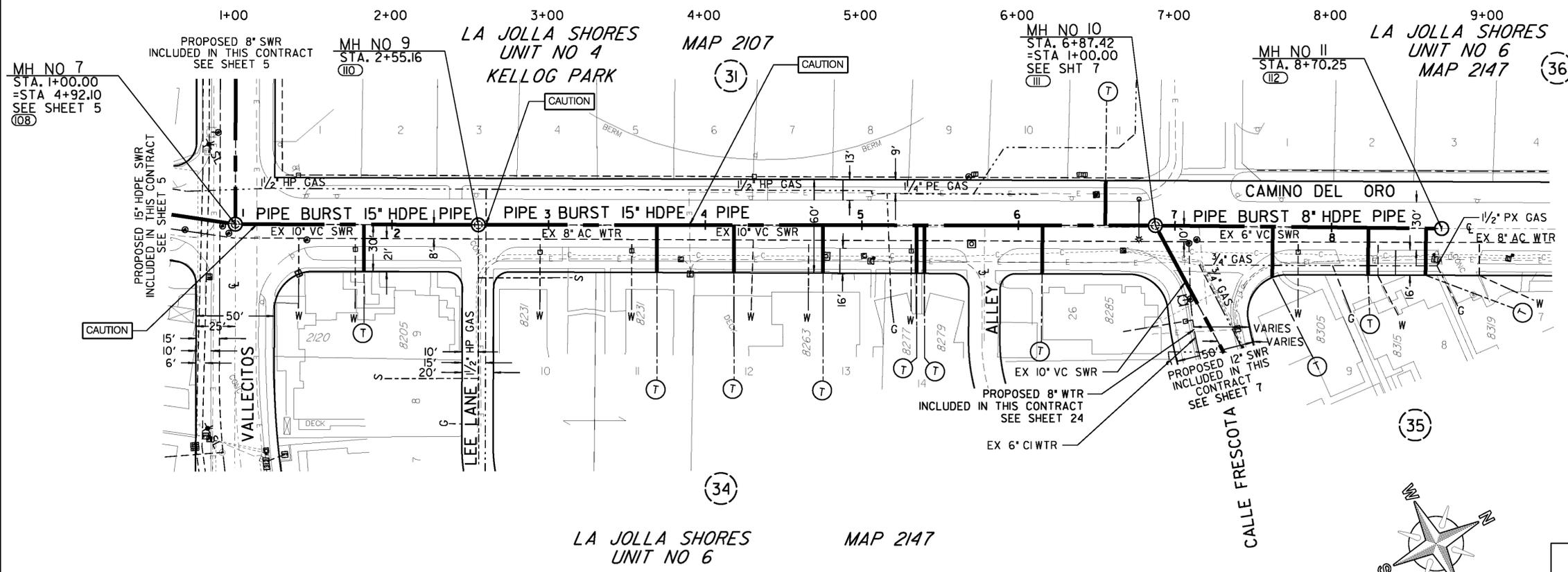
CAMINO DEL ORO / VALLECITOS

C-3

CAMINO DEL ORO

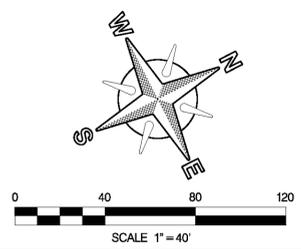


SCALE
1"=40' HORIZ.
1"=4' VERT.



REFERENCE:
WATER: I2079-2-D
SEWER: I382-D, I384-D
STORM DRAIN: 7887-L
GAS: 45-318, 45-319, 45-323A
ELECTRIC: 252-1689B
CABLE TV: ILJ030
TELEPHONE: LJ0406B, LJ406DB
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 252-1691, B09S
THOMAS BROS.: I227

RETIREMENTS:
6" - VC - 182.83 - 1950
10" - VC - 587.42' - 1950
MH - 4X3 - 2 - 1950
4" LATERAL - II - VC - 1950



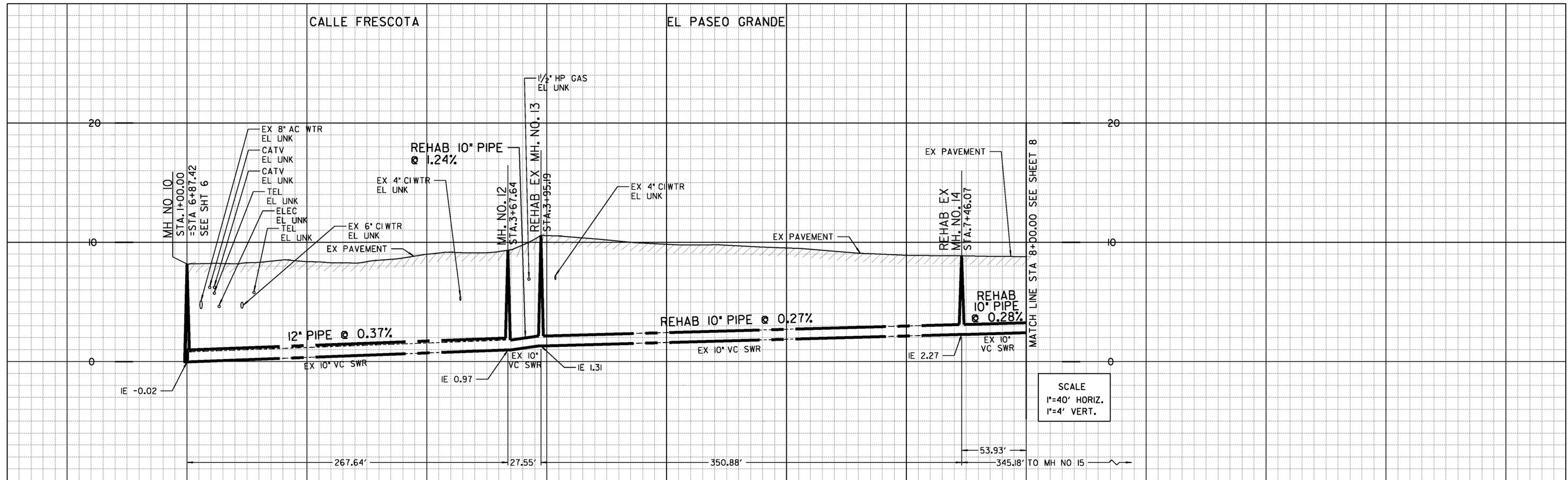
| | | | | | |
|--|--|--------------------------------------|----------|--|--------|
| SEWER AND WATER GROUP 809 | | CAMINO DEL ORO | | VALLECITOS TO NO CALLE FRESCOTA | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 6 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | | DATE 6/14/13 | |
| FOR CITY ENGINEER | | ASSOCIATE ENGINEER | | PROJECT ENGINEER | |
| DESCRIPTION ORIGINAL | | BY EC/PE | APPROVED | DATE | FILMED |
| | | | | | |
| CONTRACTOR | | DATE STARTED | | 4419-06-D | |
| INSPECTOR | | DATE COMPLETED | | | |

CAMINO DEL ORO

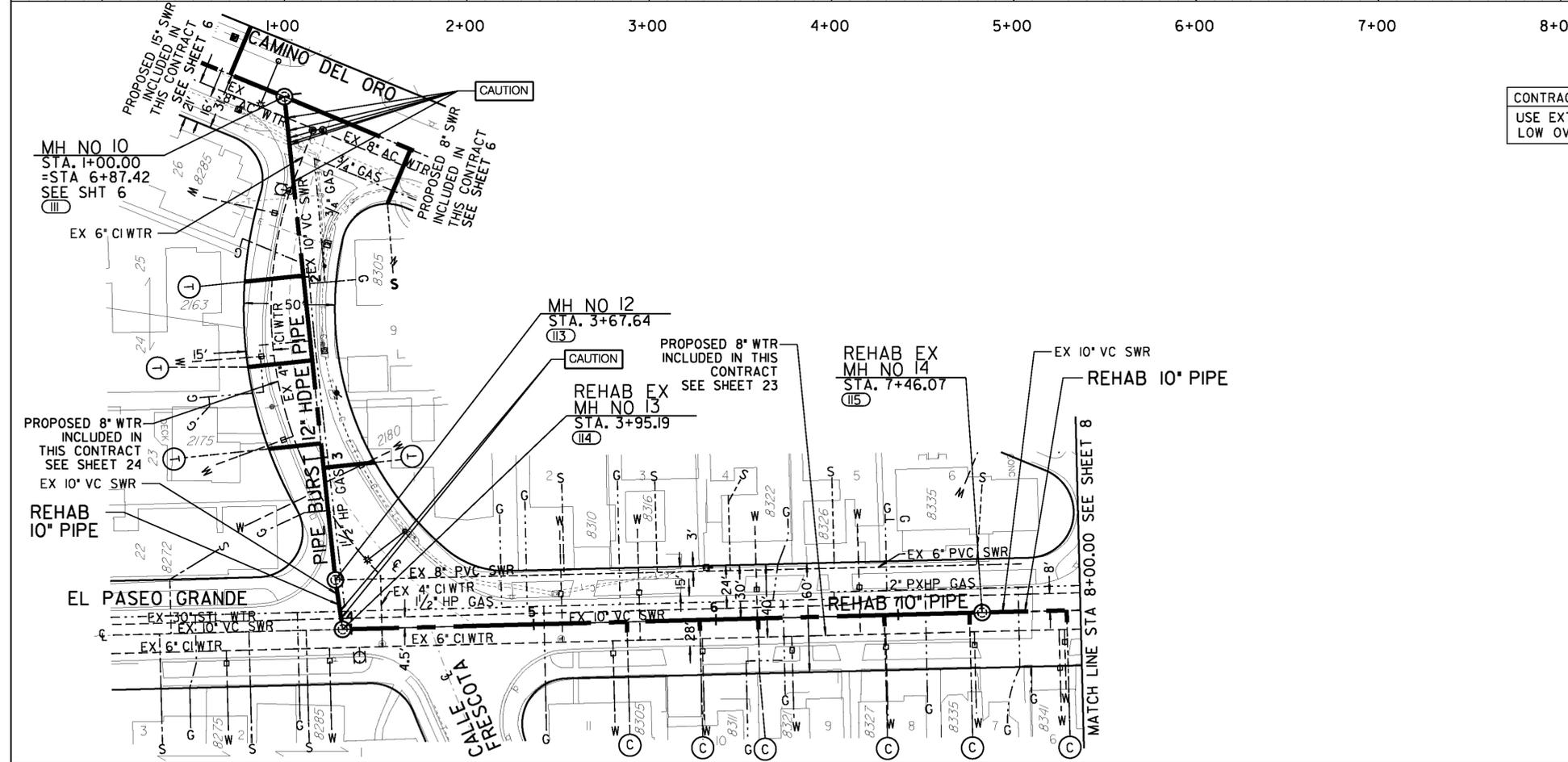
C-4

CALLE FRESCOTA

EL PASEO GRANDE



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



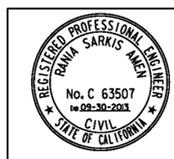
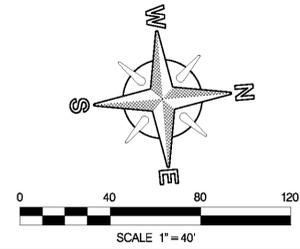
CONTRACTOR'S NOTE:
 USE EXTREME CAUTION WHEN WORKING DUE TO
 LOW OVERHEAD UTILITY LINES.

REFERENCE:
 WATER: 26331-6-D
 SEWER: 1382-D, 1384-D, 26331-6A-D
 STORM DRAIN:
 GAS: 45-319, 45-320, 45-323A
 ELECTRIC: 252-1689B
 CABLE TV: ILJ030
 TELEPHONE: LJ0406B, LJ0606AA
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 252-1691, B09S
 THOMAS BROS.: 1227

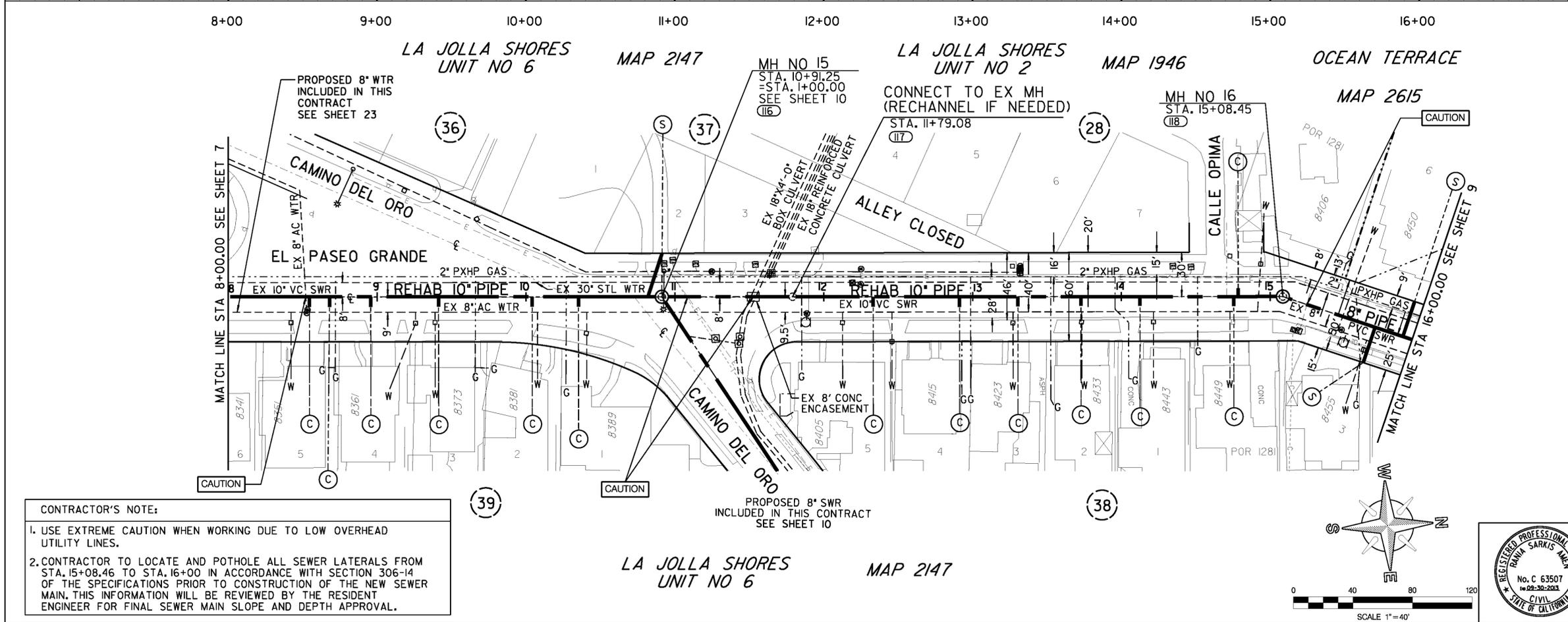
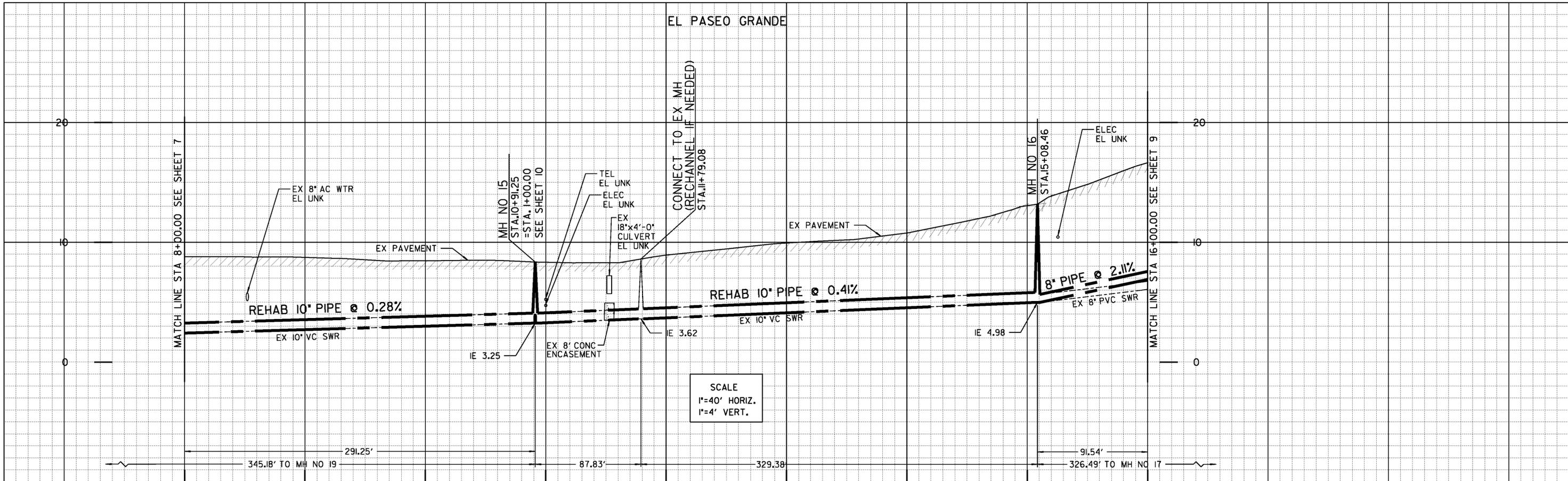
RETIREMENTS:
 10" - VC - 700.00' - 1950
 MH - 4X3 - 2 - 1950
 MH - 4X3 - 1 - 1994
 4" LATERAL - 4 - VC - 1950

C-5

| | | | |
|-------------------------------------|--------------|--------------------|----------------|
| SEWER AND WATER GROUP 809 | | WATER WBS B00102 | |
| CALLE FRESCOTA | | SEWER WBS B00416 | |
| CAMINO DEL ORO TO EL PASEO GRANDE | | | |
| EL PASEO GRANDE | | | |
| CALLE FRESCOTA TO SO CAMINO DEL ORO | | | |
| CITY OF SAN DIEGO, CALIFORNIA | | DATE 6/14/13 | |
| PUBLIC WORKS DEPARTMENT | | FOR CITY ENGINEER | |
| SHEET 7 OF 39 SHEETS | | DATE | |
| DESIGNED BY | | CHECKED BY | |
| AKRAM BASSYOUNI | | ASSOCIATE ENGINEER | |
| PROJECT ENGINEER | | 252-1691 | |
| CCS27 COORDINATE | | 6252407-1892444 | |
| CCS88 COORDINATE | | 34419-07-D | |
| CONTRACTOR | DATE STARTED | INSPECTOR | DATE COMPLETED |



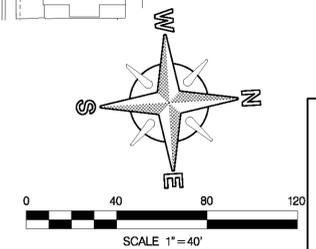
CALLE FRESCOTA / EL PASEO GRANDE



REFERENCE:
 WATER: 19580-9-D, 26331-5-D
 SEWER: 1382-D, 1384-D, 28986-2-D
 STORM DRAIN: 1382-D, 1384-D, 10394-L, 28986-2-D
 GAS: 45-323, 45-325
 ELECTRIC: 252-1689D
 CABLE TV: ILJ030
 TELEPHONE: LJ0608CC, LJ0606AA
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 252-1691, B095
 THOMAS BROS.: 1227

RETIREMENTS:
 10" - VC - 708.46 - 1950
 8" - PVC - 91.54' - 1995
 MH - 4X3 - 2 - 1950
 4" LATERAL - 2 - PVC - 1995

CONTRACTOR'S NOTE:
 1. USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.
 2. CONTRACTOR TO LOCATE AND POTHOLE ALL SEWER LATERALS FROM STA. 15+08.46 TO STA. 16+00 IN ACCORDANCE WITH SECTION 306-14 OF THE SPECIFICATIONS PRIOR TO CONSTRUCTION OF THE NEW SEWER MAIN. THIS INFORMATION WILL BE REVIEWED BY THE RESIDENT ENGINEER FOR FINAL SEWER MAIN SLOPE AND DEPTH APPROVAL.

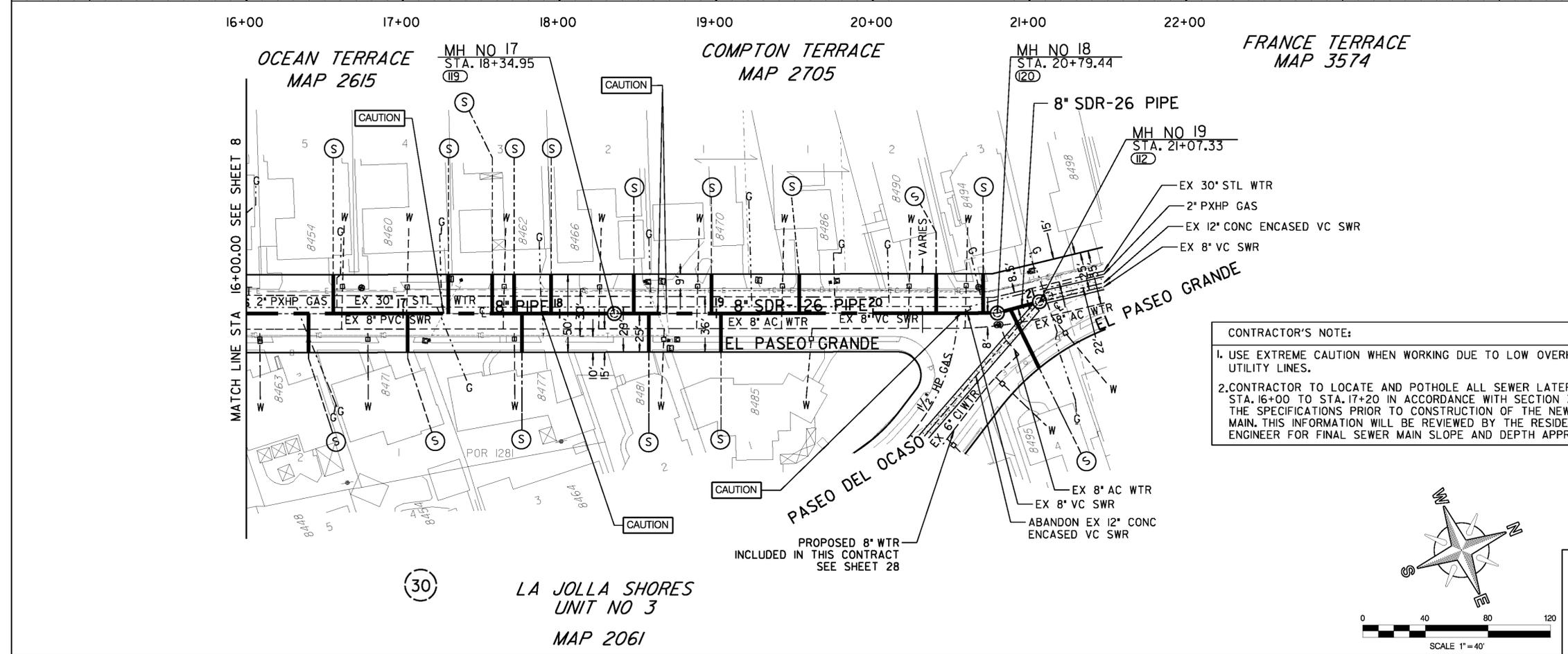
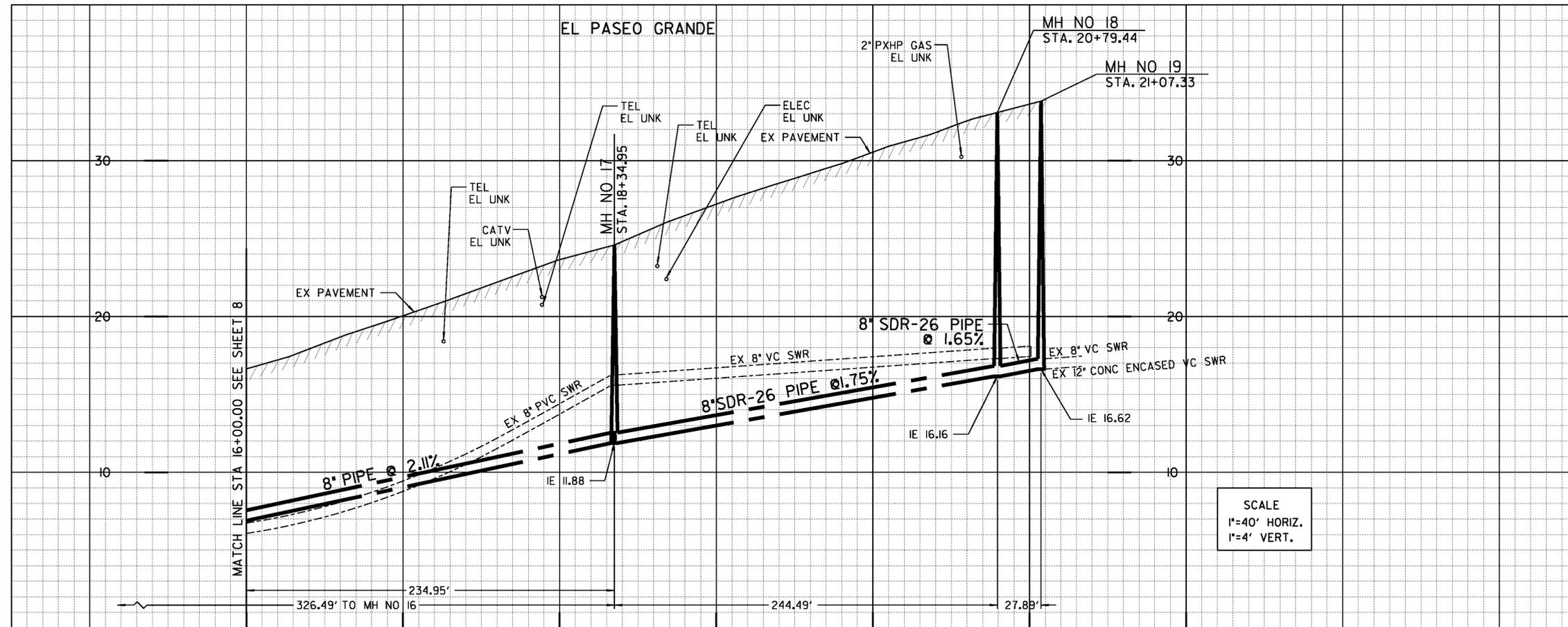


| | | | |
|--|-------|---|------|
| SEWER AND WATER GROUP 809 | | | |
| EL PASEO GRANDE | | | |
| SO OF CAMINO DEL ORO TO NO CALLE OPIMA | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 8 OF 39 SHEETS | | WATER WBS: B00102 SEWER WBS: B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> | | DATE: 6/14/13 | |
| DCE NAME: _____ | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | | NO. C 63507 02-30-2013 CIVIL | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| CONTRACTOR: _____ | | DATE STARTED: _____ | |
| INSPECTOR: _____ | | DATE COMPLETED: _____ | |
| | | 34419-08-D | |

C-6

EL PASEO GRANDE

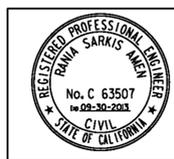
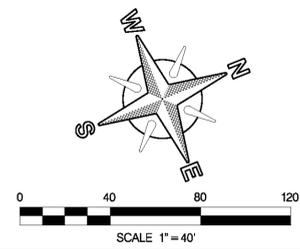
| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 17+14 | STA. 21+07 | 735 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 17+14 | STA. 21+07 | 735 |
| ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT. | | |



REFERENCE:
 WATER: 19580-9-D, 26331-4-D
 SEWER: 1382-D, 1384-D, 26331-4A-D
 STORM DRAIN:
 GAS: 45-325, 45-333
 ELECTRIC: 252-1689D, 7882-2-L
 CABLE TV: ILJ030
 TELEPHONE: LJ0608CA
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 252-1691, B095
 THOMAS BROS.: 1227

RETIREMENTS:
 8" - VC - 271.51' - 1950
 8" - PVC - 234.95' - 1995
 MH - 4X3 - 1 - 1995
 MH - 4X3 - 1 - 1971
 MH - 4X3 - 1 - 1950
 4" LATERAL - 8 - VC - 1950
 4" LATERAL - 8 - PVC - 1995

CONTRACTOR'S NOTE:
 1. USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.
 2. CONTRACTOR TO LOCATE AND POTHOLE ALL SEWER LATERALS FROM STA. 16+00 TO STA. 17+20 IN ACCORDANCE WITH SECTION 306-14 OF THE SPECIFICATIONS PRIOR TO CONSTRUCTION OF THE NEW SEWER MAIN. THIS INFORMATION WILL BE REVIEWED BY THE RESIDENT ENGINEER FOR FINAL SEWER MAIN SLOPE AND DEPTH APPROVAL.



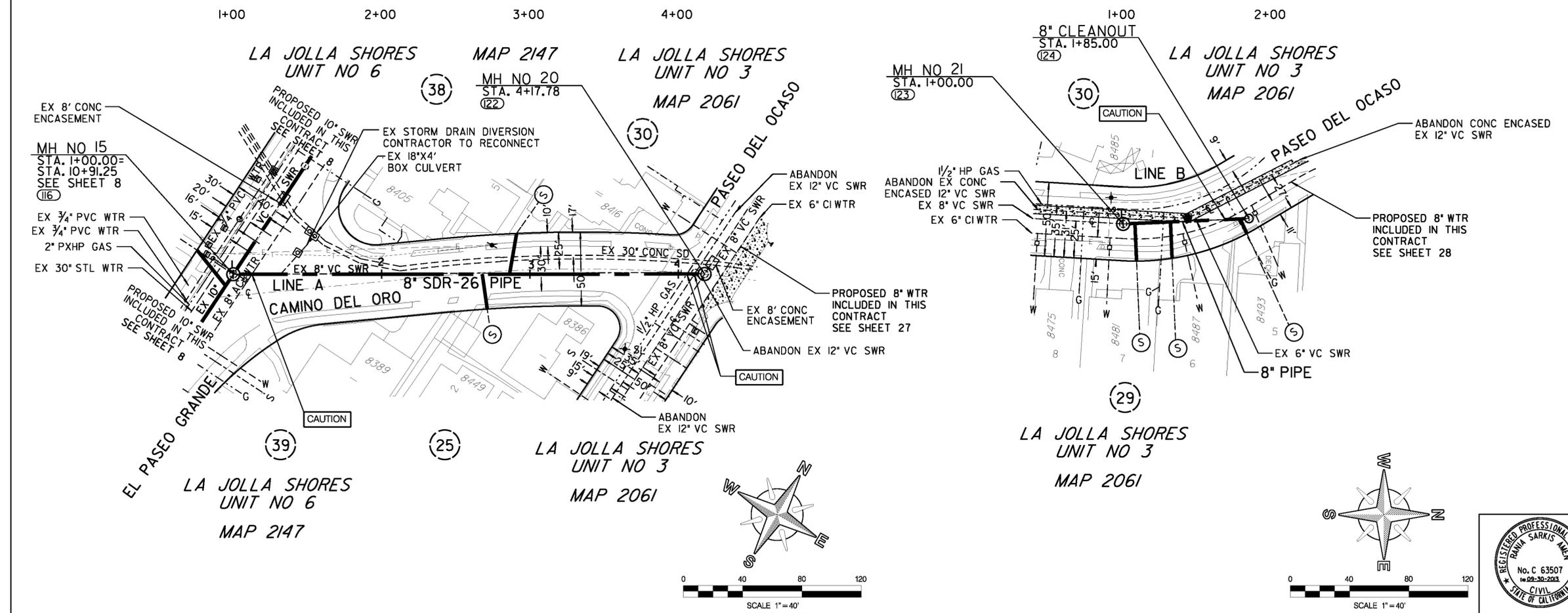
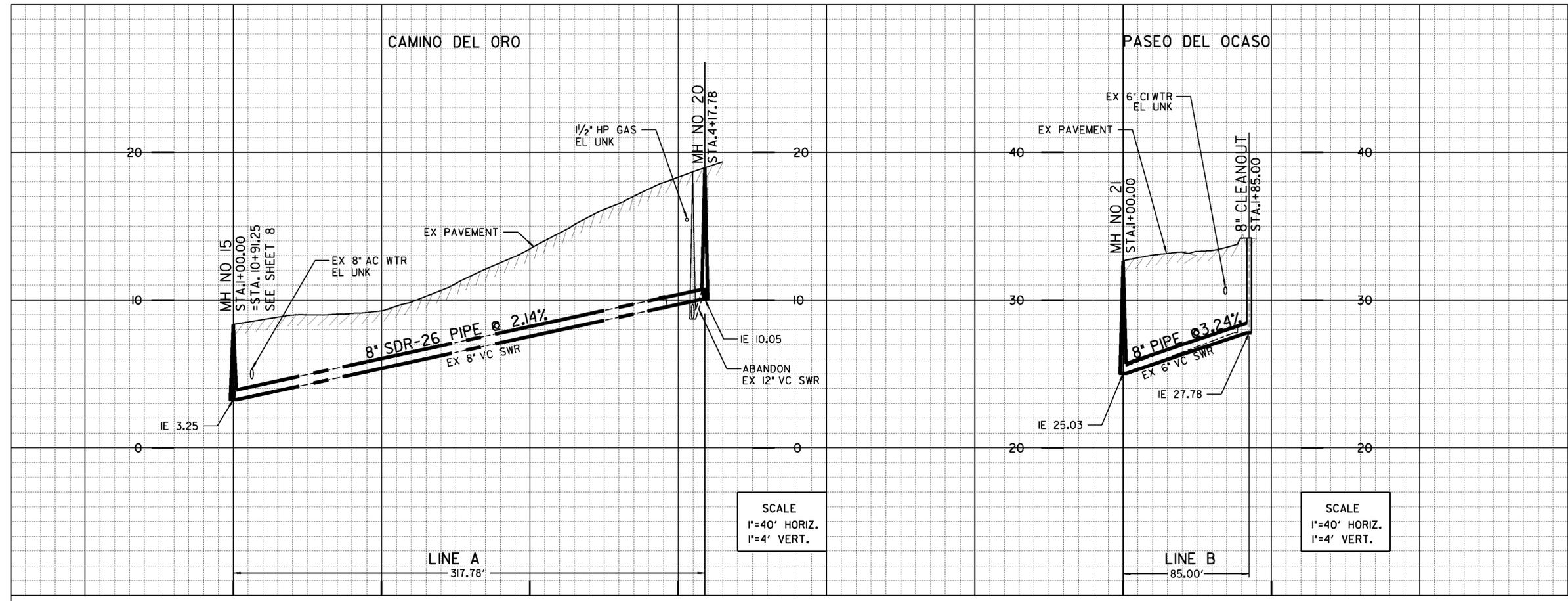
| | | | |
|--|-------|---|------|
| SEWER AND WATER GROUP 809 | | EL PASEO GRANDE | |
| NO CALLE OPIMA TO PASEO DEL OCASO | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 9 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> | | DATE: 6/14/13 | |
| DCE NAME: _____ | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | | NO. C 63507 02-30-2013 CIVIL COORDINATE | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| CONTRACTOR: _____ | | DATE STARTED: _____ | |
| INSPECTOR: _____ | | DATE COMPLETED: _____ | |
| | | 252-1691 CCS27 COORDINATE 6252407-1892444 CCS88 COORDINATE 34419-09-D | |

C-7

EL PASEO GRANDE

| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|---|-------------|----------------|
| BEGIN STATION | END STATION | APPROXIMATE LF |
| STA. 4+02 | STA. 4+18 | 16 |
| STA. 1+00 | STA. 1+85 | 146 |
| STA. --+-- | STA. --+-- | --- |

ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE PROJECT'S MITIGATION AND MONITORING PROGRAM (MMRP).



REFERENCE:
 WATER: 19580-9-D, 25502-16-D, 26331-5-D
 SEWER: 1382-D, 1384-D, 26331-5-D, 28986-2-D
 STORM DRAIN: 10394-L, 28986-2-D
 GAS: 45-325, 45-333
 ELECTRIC: 252-1689D, 7882-2-L
 CABLE TV: ILJ030
 TELEPHONE: LJ0608CA, LJ0608CC, LJ0606AA
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 252-1691, B095
 THOMAS BROS.: 1227

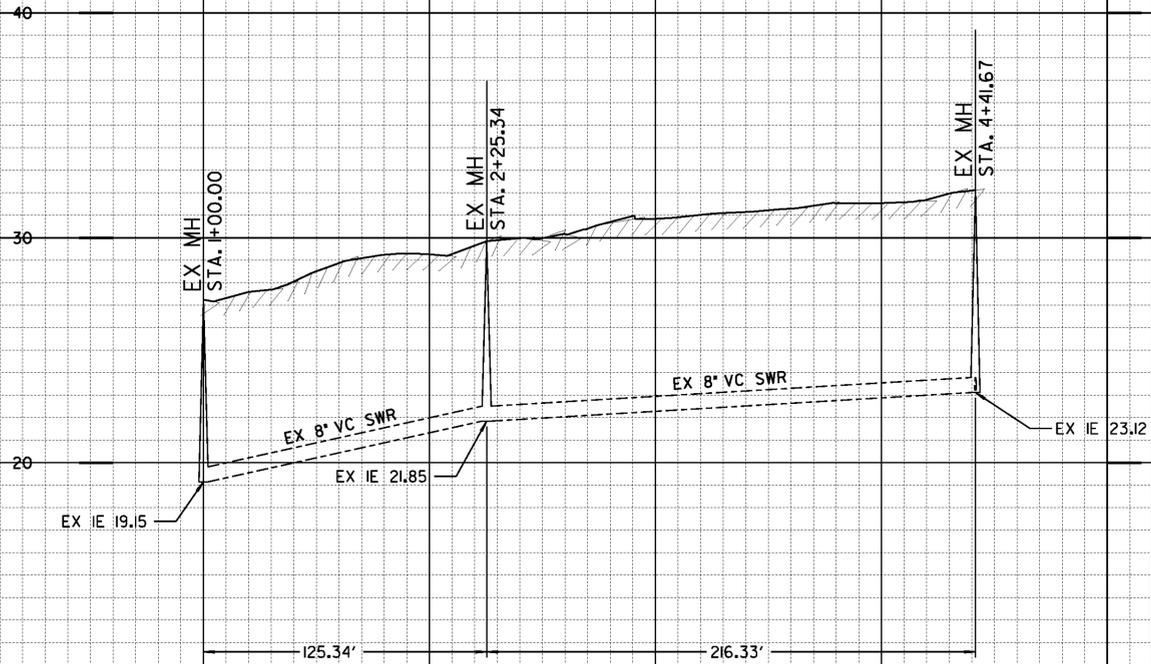
RETIREMENTS:
 8" - VC - 402.79' - 1950
 MH - 4X3 - 2 - 1950
 4" LATERAL - 5 - VC - 1950

| SEWER AND WATER GROUP 809 | | | |
|---|-------|---|------------|
| CAMINO DEL ORO EL PASO GRANDE TO PASEO DEL OCASO PASEO DEL OCASO SO EL PASO GRANDE | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 10 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> | | DATE: 6/14/13 | |
| DCE NAME: | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DESCRIPTION | | BY | APPROVED |
| ORIGINAL | EC/PE | | |
| CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | | DATE | FILED |
| | | 252-1691 | |
| | | CCS27 COORDINATE | |
| | | 6252407-1892444 | |
| | | CCS88 COORDINATE | |
| CONTRACTOR | | DATE STARTED | 34419-10-D |
| INSPECTOR | | DATE COMPLETED | |

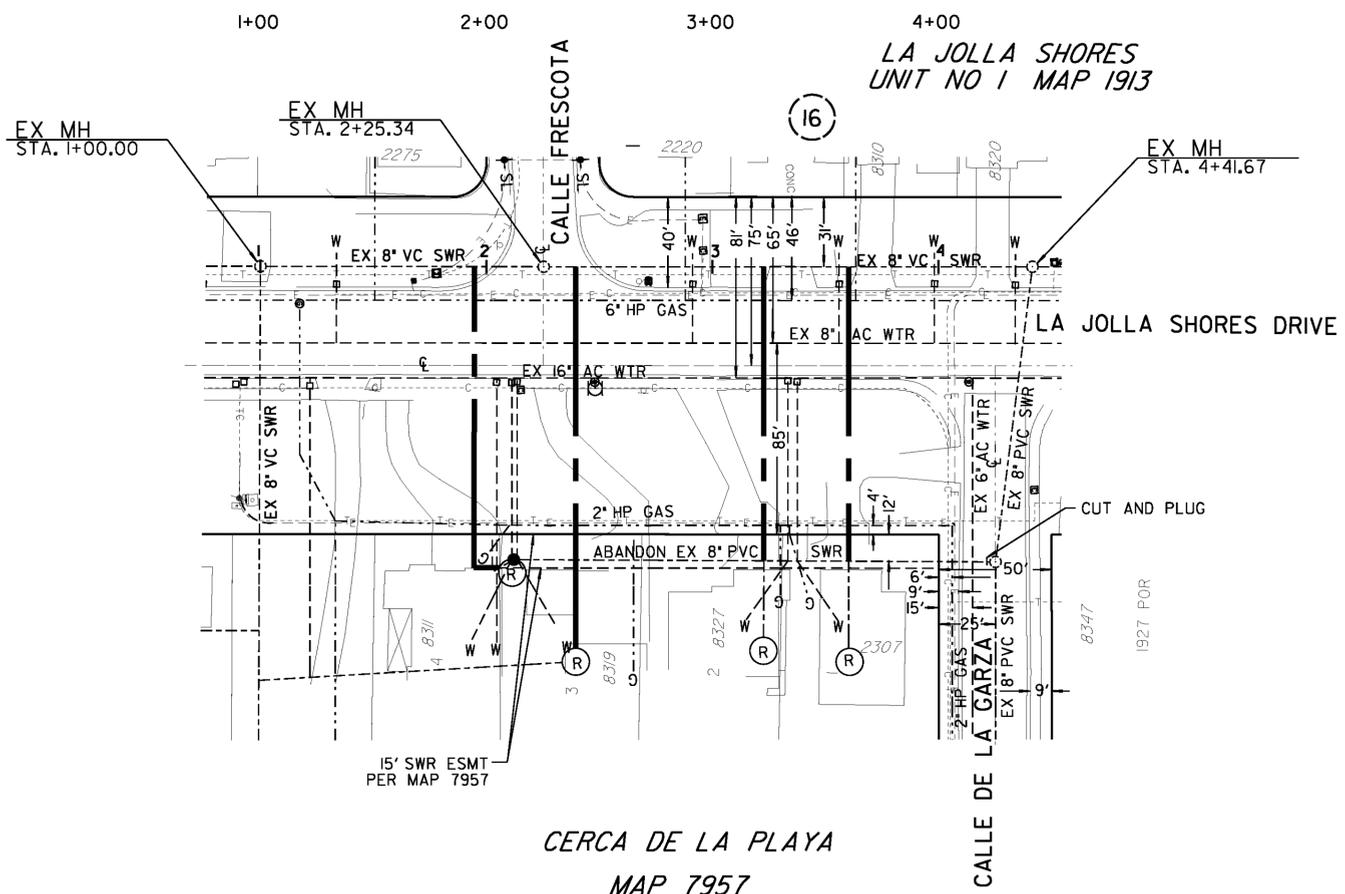
CAMINO DEL ORO / PASEO DEL OCASO

C-8

LA JOLLA SHORES DRIVE



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



CERCA DE LA PLAYA
MAP 7957

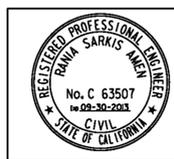
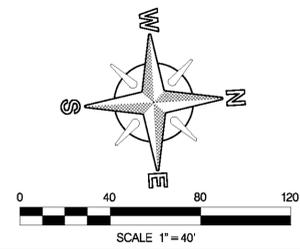
LA JOLLA SHORES
UNIT NO 1 MAP 1913

REFERENCE:
WATER: 3706-2-W, 16001-2-D
SEWER: 16001-2-D
STORM DRAIN: NONE
GAS: 45-321, 45-321C, 45-322, 45-336
ELECTRIC: 252-1692, 7882-I-L
CABLE TV: LJI031
TELEPHONE: LJO606AB, LJO606AC
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 252-1691, B09S
THOMAS BROS.: 1227

RETIREMENTS:
8" - PVC - 213.25' - UNK
MH - 4X3 - 1 - 1976
4" LATERAL - 4 - VC - 1976

CONTRACTOR'S NOTE:
1. CONTRACTOR SHALL COORDINATE WITH MTS REGARDING AFFECTED BUS STOP 21 DAYS BEFORE THE BEGINNING OF CONSTRUCTION
2. REPLUMB LATERALS TO THE EX 8" VC SEWER ON LA JOLLA SHORES DRIVE
3. SEE SHEET 36 FOR REPLUMB DETAILS

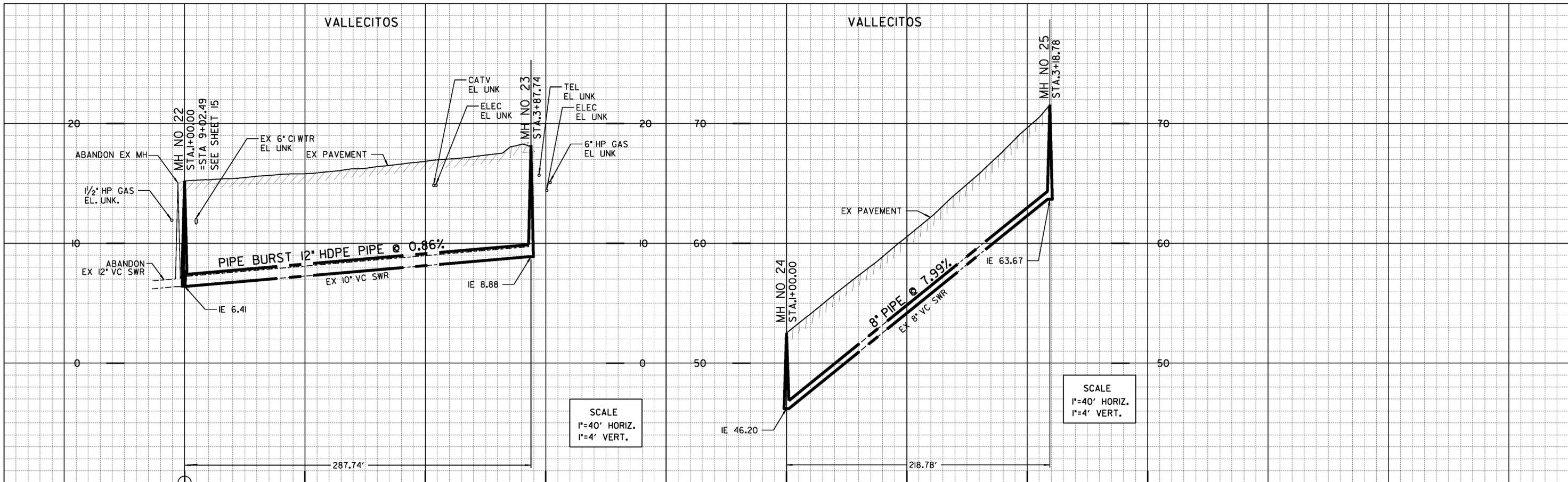
CAUTION
6" HP GAS! CONTRACTOR TO VERIFY EXACT LOCATION AND MUST NOTIFY SDG&E THREE (3) WEEKS IN ADVANCE PRIOR TO EXCAVATION
SDG&E STANDBY REQUIRED



| | | | | |
|---|-------|--|---|----------|
| SEWER AND WATER GROUP 809 | | | | |
| CALLE DE LA GARZA | | | | |
| LA JOLLA SHORES DRIVE TO WO CALLE DEL CIELO | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 11 OF 39 SHEETS | | | WATER WBS: B00102 SEWER WBS: B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> | | | DATE: 6/14/13 | |
| DCE NAME: _____ | | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DESCRIPTION | | | BY | APPROVED |
| ORIGINAL | EC/PE | | | |
| DATE | | | FILMED | |
| | | | | |
| PROJECT ENGINEER: EDWARD CASTANEDA | | | 252-1691 | |
| CC827 COORDINATE | | | 6252407-1892444 | |
| CONTRACTOR: _____ | | | DATE STARTED: _____ | |
| INSPECTOR: _____ | | | DATE COMPLETED: _____ | |
| | | | CC888 COORDINATE | |
| | | | 34419-11-D | |

C-9

LA JOLLA SHORES DRIVE



CONTRACTOR'S NOTE:
 CONTRACTOR SHALL COORDINATE WITH MTS REGARDING AFFECTED BUS STOP 21DAYS BEFORE THE BEGINNING OF CONSTRUCTION

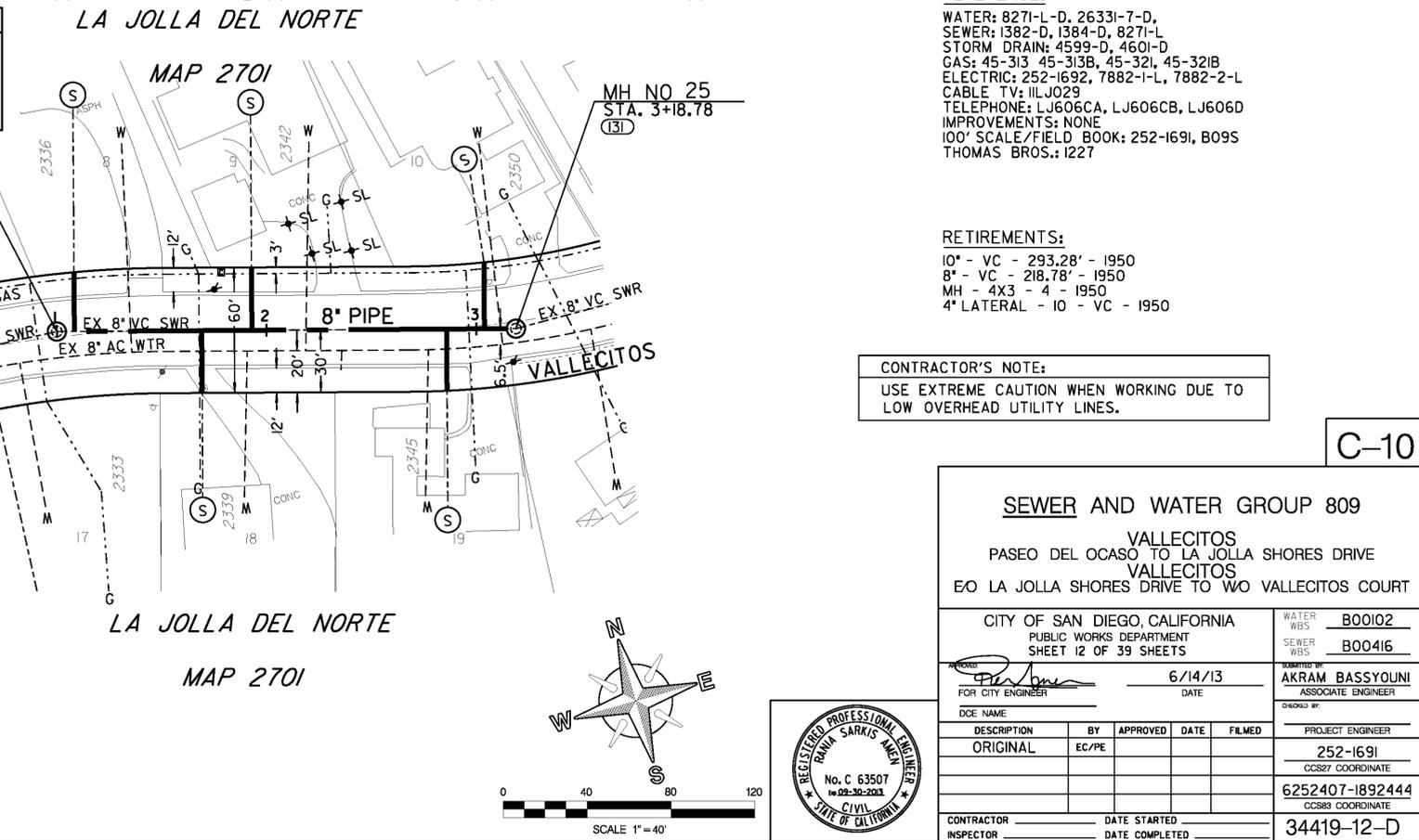
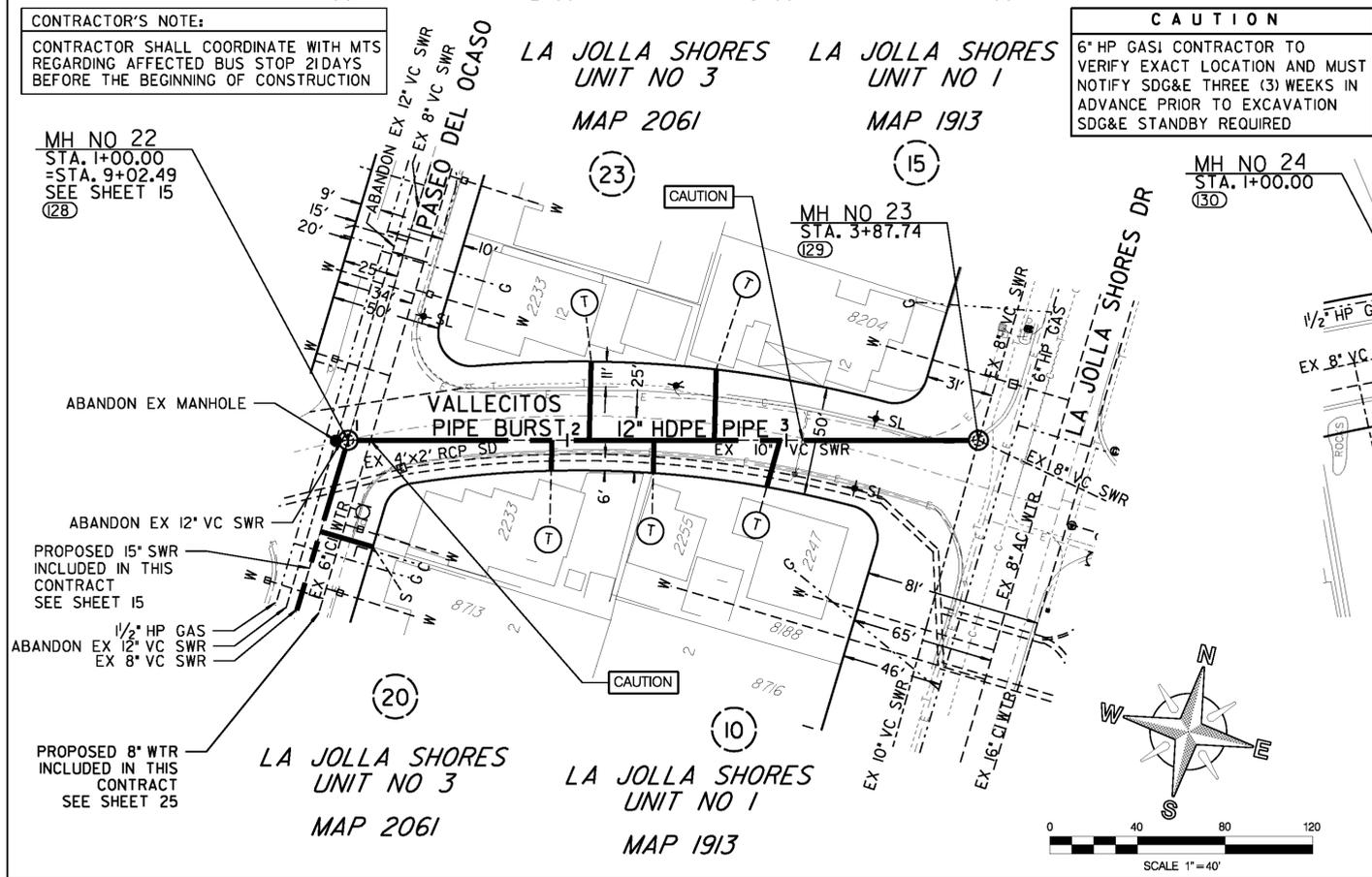
LA JOLLA SHORES UNIT NO 3 MAP 2061
 LA JOLLA SHORES UNIT NO 1 MAP 1913

CAUTION
 6" HP GAS CONTRACTOR TO VERIFY EXACT LOCATION AND MUST NOTIFY SDG&E THREE (3) WEEKS IN ADVANCE PRIOR TO EXCAVATION SDG&E STANDBY REQUIRED

REFERENCE:
 WATER: 8271-L-D, 26331-7-D,
 SEWER: 1382-D, 1384-D, 8271-L
 STORM DRAIN: 4599-D, 4601-D
 GAS: 45-313 45-313B, 45-321, 45-321B
 ELECTRIC: 252-1692, 7882-1-L, 7882-2-L
 CABLE TV: ILJ029
 TELEPHONE: LJ606CA, LJ606CB, LJ606D
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 252-1691, B09S
 THOMAS BROS.: 1227

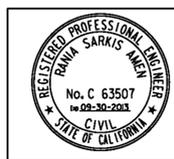
RETIREMENTS:
 10" - VC - 293.28' - 1950
 8" - VC - 218.78' - 1950
 MH - 4X3 - 4 - 1950
 4" LATERAL - 10 - VC - 1950

CONTRACTOR'S NOTE:
 USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.



C-10

| | | | | |
|--|-------|----------|---|---|
| SEWER AND WATER GROUP 809 | | | | |
| VALLECITOS PASO DEL OCASO TO LA JOLLA SHORES DRIVE VALLECITOS EO LA JOLLA SHORES DRIVE TO WO VALLECITOS COURT | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 12 OF 39 SHEETS | | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> DATE: 6/14/13 | | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME: _____ | | | | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| CONTRACTOR: _____ DATE STARTED: _____ | | | | PROJECT ENGINEER: _____ |
| INSPECTOR: _____ DATE COMPLETED: _____ | | | | 252-1691 CC827 COORDINATE 6252407-1892444 CC888 COORDINATE |
| | | | | 34419-12-D |



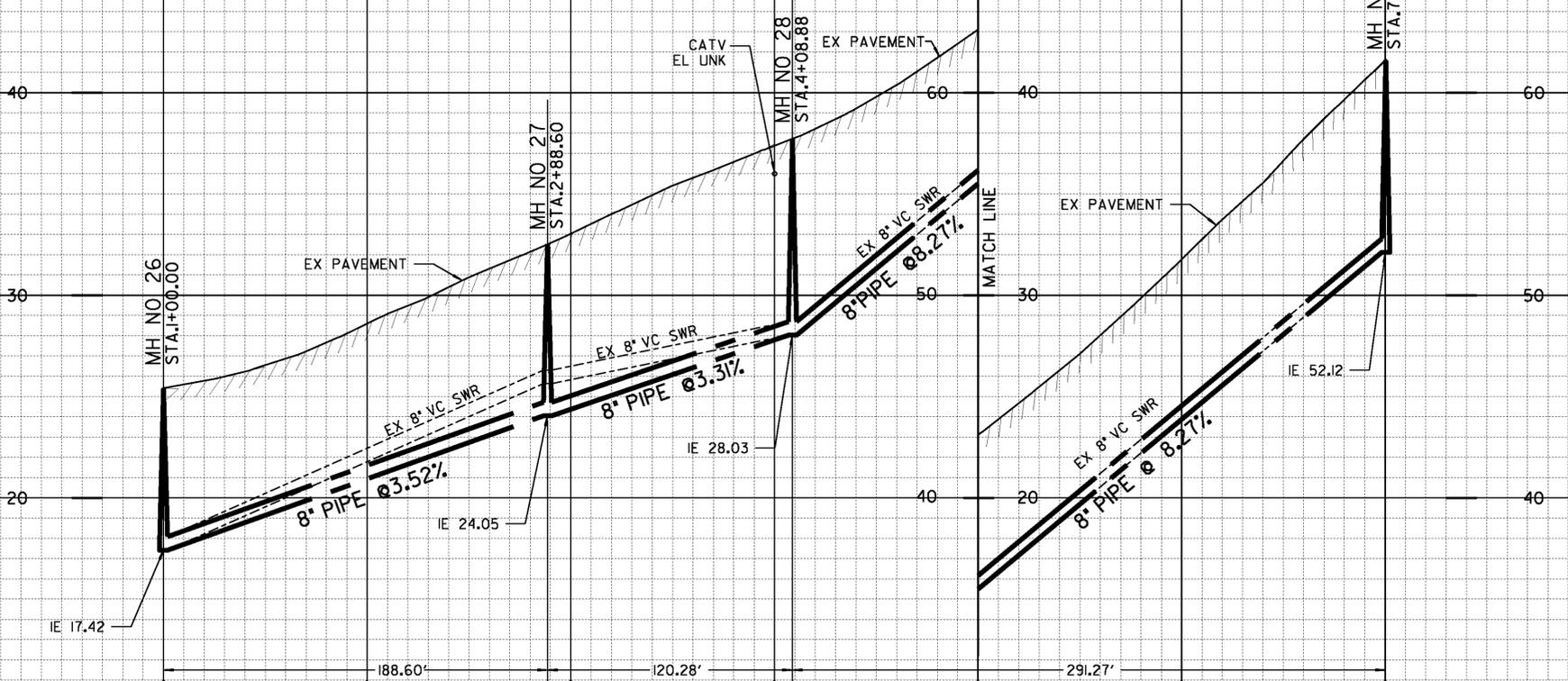
VALLECITOS

AVENIDA DE LA PLAYA

AVENIDA DE LA PLAYA

| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|---|-------------|----------------|
| BEGIN STATION | END STATION | APPROXIMATE LF |
| STA. 1+00 | STA. 4+09 | 489 |
| STA. --- | STA. --- | --- |
| STA. --- | STA. --- | --- |

ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE PROJECT'S MITIGATION AND MONITORING PROGRAM (MMRP).



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

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

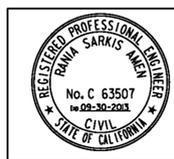
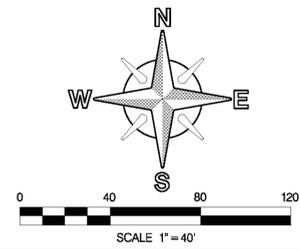
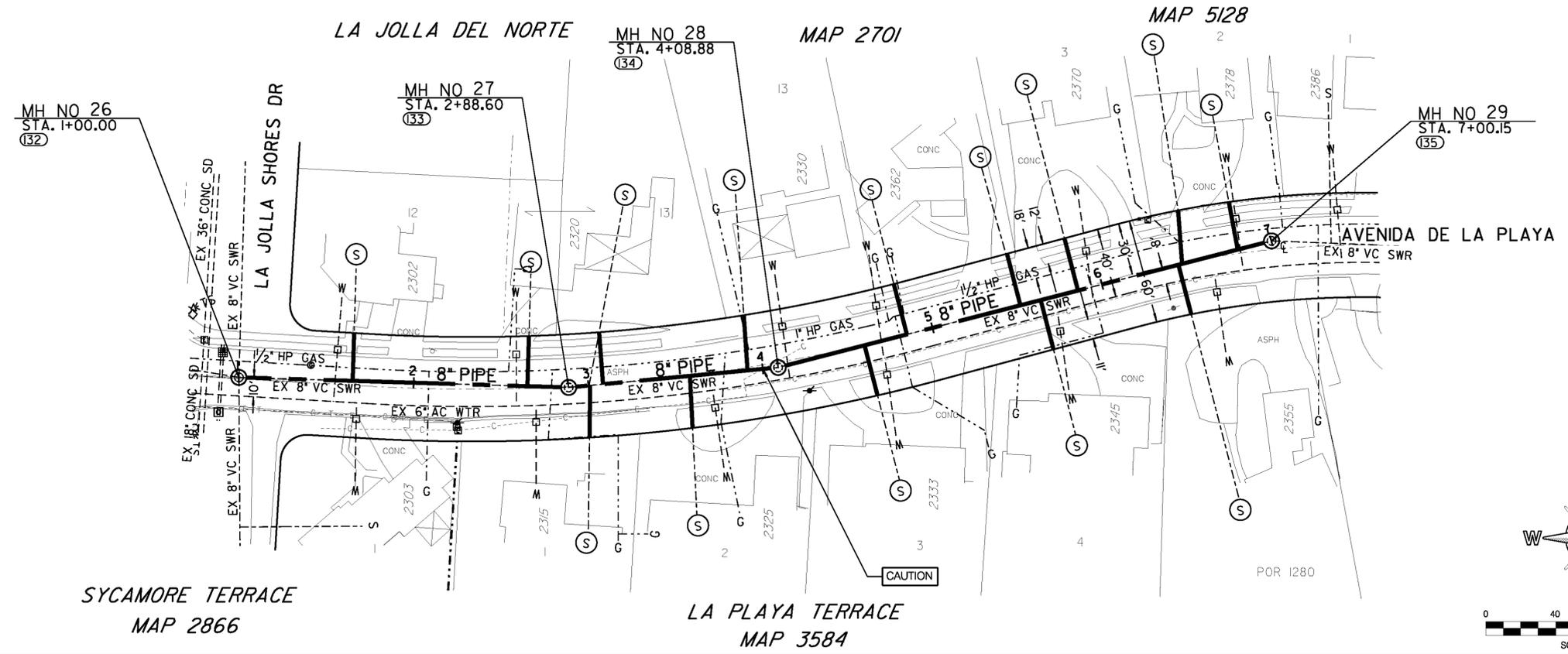
SEARS SUBDIVISION

REFERENCE:
WATER: 3700-D, 4961-D
SEWER: 3700-D, 4961-D
STORM DRAIN: 4598-D, 4601-D
GAS: 45-313, 45-313A, 45-313B
ELECTRIC: 250-1692
CABLE TV: ILJ029
TELEPHONE: LJ606CD
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: I227

RETIREMENTS:
8" - VC - 600.15' - 1957
MH - 4X3 - 4 - 1957
4" LATERAL - 14 - VC - 1957

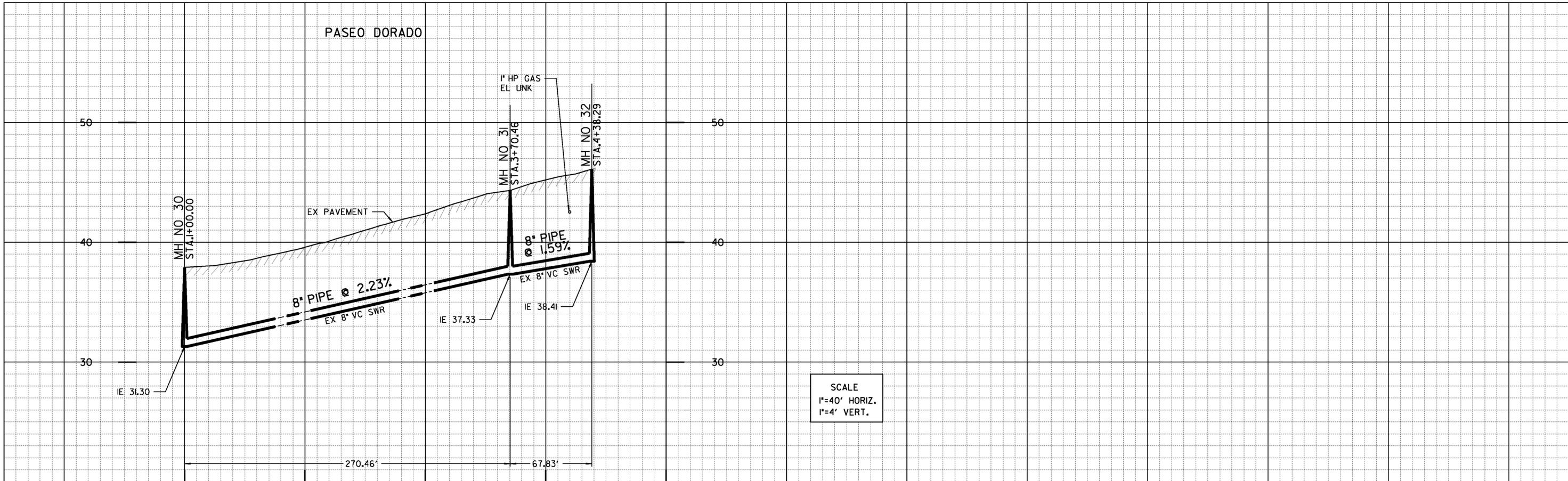
CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

C-11

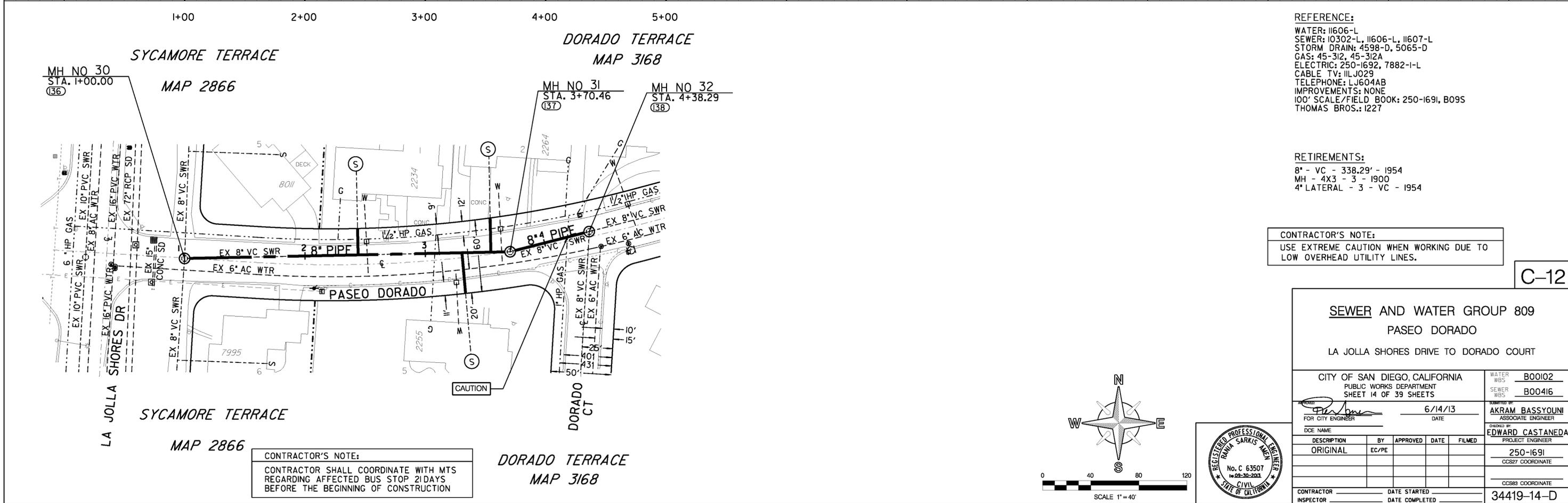


| SEWER AND WATER GROUP 809 AVENIDA DE LA PLAYA LA JOLLA SHORES DRIVE TO WO CALLE DEL CIELO | | | | |
|---|-------|----------------------|--|------------|
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 13 OF 39 SHEETS | | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> DATE: 6/14/13 | | | SUBMITTED BY: AKRAM BASSYOJINI ASSOCIATE ENGINEER | |
| DCE NAME: _____ | | | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| | | | 250-1691 CCS27 COORDINATE | |
| | | | 6252407-1890444 CCS88 COORDINATE | |
| CONTRACTOR _____ | | DATE STARTED _____ | | 34419-13-D |
| INSPECTOR _____ | | DATE COMPLETED _____ | | |

AVENIDA DE LA PLAYA



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

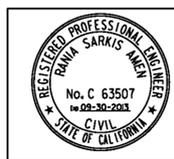
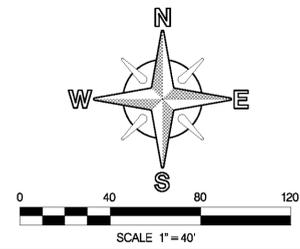


REFERENCE:
WATER: I1606-L
SEWER: I0302-L, I1606-L, I1607-L
STORM DRAIN: 4598-D, 5065-D
GAS: 45-312, 45-312A
ELECTRIC: 250-1692, 7882-1-L
CABLE TV: I1J029
TELEPHONE: LJ604AB
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: I227

RETIREMENTS:
8" - VC - 338.29' - 1954
MH - 4X3 - 3 - 1900
4" LATERAL - 3 - VC - 1954

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO
LOW OVERHEAD UTILITY LINES.

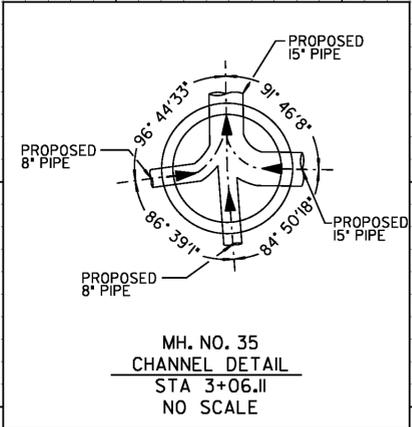
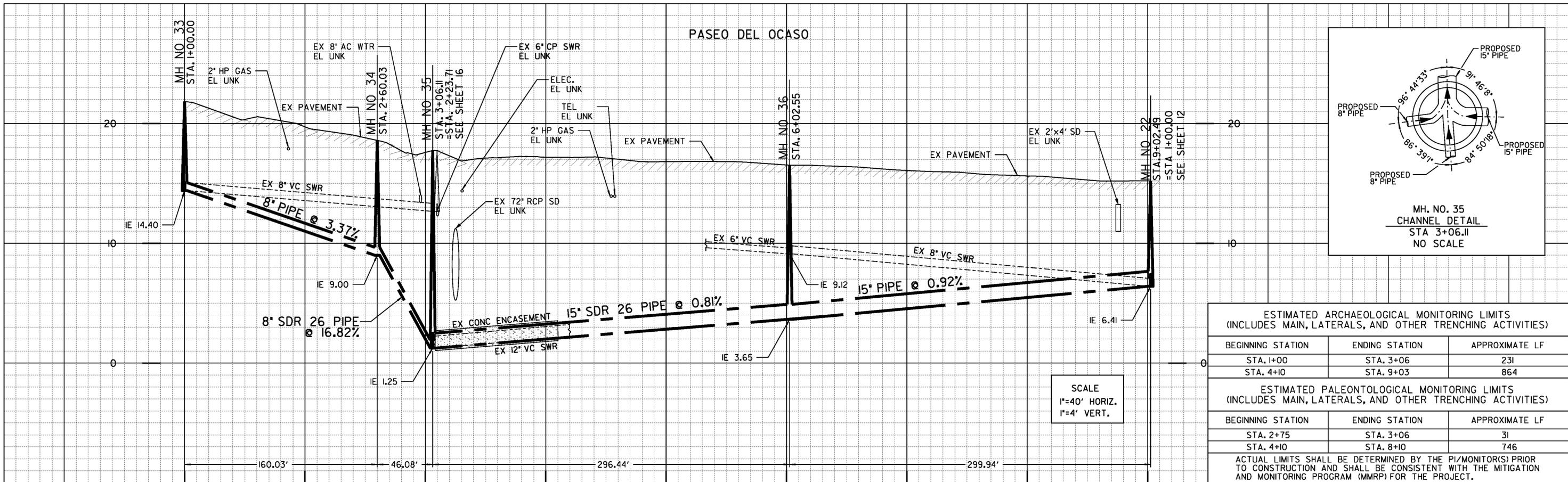
CONTRACTOR'S NOTE:
CONTRACTOR SHALL COORDINATE WITH MTS
REGARDING AFFECTED BUS STOP 21 DAYS
BEFORE THE BEGINNING OF CONSTRUCTION



| | | | |
|---|-------|--------------------|------------------|
| SEWER AND WATER GROUP 809 | | WATER WBS | B00102 |
| PASEO DORADO | | SEWER WBS | B00416 |
| LA JOLLA SHORES DRIVE TO DORADO COURT | | DATE | 6/14/13 |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 14 OF 39 SHEETS | | FOR CITY ENGINEER | DATE |
| DCE NAME: <i>[Signature]</i> | | ASSOCIATE ENGINEER | AKRAM BASSYOUNI |
| PROJECT ENGINEER | | PROJECT ENGINEER | EDWARD CASTANEDA |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| CONTRACTOR | | DATE STARTED | 34419-14-D |
| INSPECTOR | | DATE COMPLETED | |

C-12

PASEO DORADO



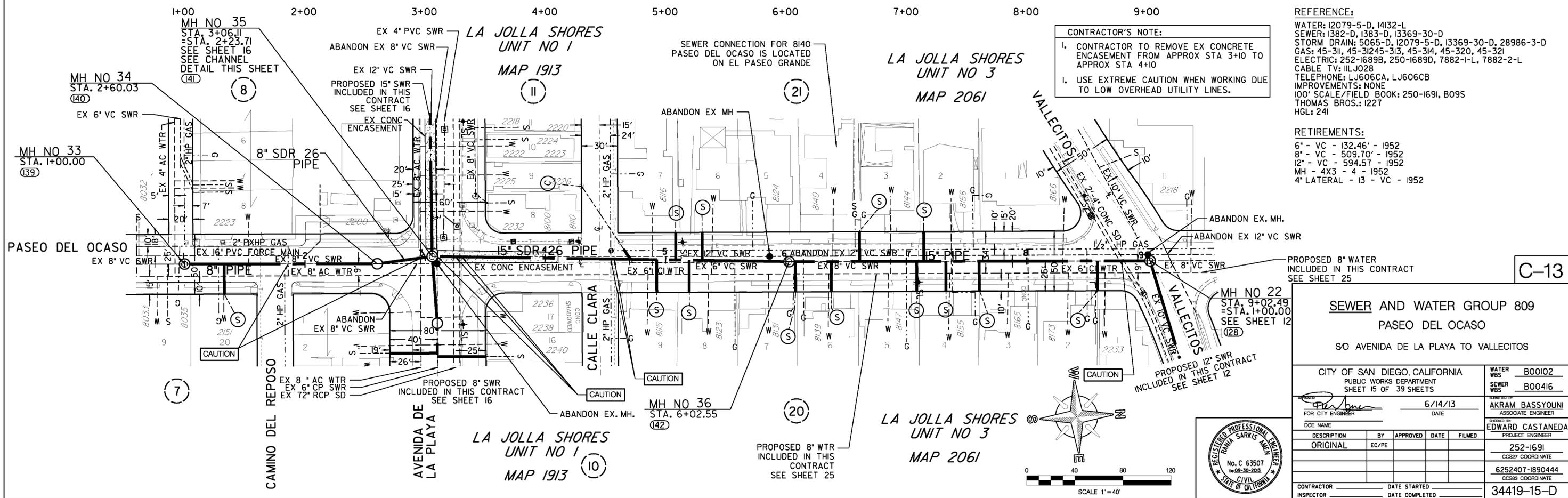
ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES)

| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
|-------------------|----------------|----------------|
| STA. 1+00 | STA. 3+06 | 231 |
| STA. 4+10 | STA. 9+03 | 864 |

ESTIMATED PALEONTOLOGICAL MONITORING LIMITS
(INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES)

| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
|-------------------|----------------|----------------|
| STA. 2+75 | STA. 3+06 | 31 |
| STA. 4+10 | STA. 8+10 | 746 |

ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMP) FOR THE PROJECT.



CONTRACTOR'S NOTE:

- CONTRACTOR TO REMOVE EX CONCRETE ENCASEMENT FROM APPROX STA 3+10 TO APPROX STA 4+10
- USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

REFERENCE:

WATER: I2079-5-D, I4132-L
 SEWER: I382-D, I383-D, I3369-30-D, 28986-3-D
 STORM DRAIN: 5065-D, I2079-5-D, I3369-30-D, 28986-3-D
 GAS: 45-311, 45-31245-313, 45-314, 45-320, 45-321
 ELECTRIC: 252-1689B, 250-1689D, 7882-1-L, 7882-2-L
 CABLE TV: IILJ028
 TELEPHONE: LJ606CA, LJ606CB
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 250-1691, B09S
 THOMAS BROS.: I227
 HGL: 241

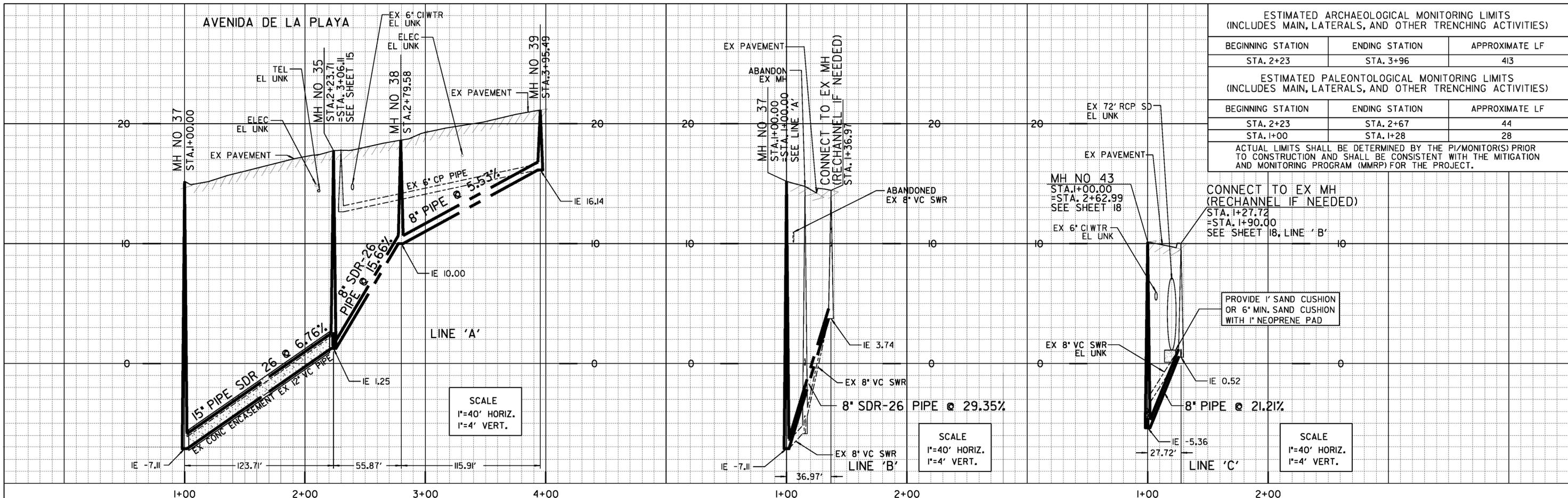
RETIREMENTS:

6" - VC - 132.46' - 1952
 8" - VC - 509.70' - 1952
 12" - VC - 594.57' - 1952
 MH - 4X3 - 4 - 1952
 4" LATERAL - 13 - VC - 1952

C-13

SEWER AND WATER GROUP 809
PASEO DEL OCASO
 SO AVENIDA DE LA PLAYA TO VALLECITOS

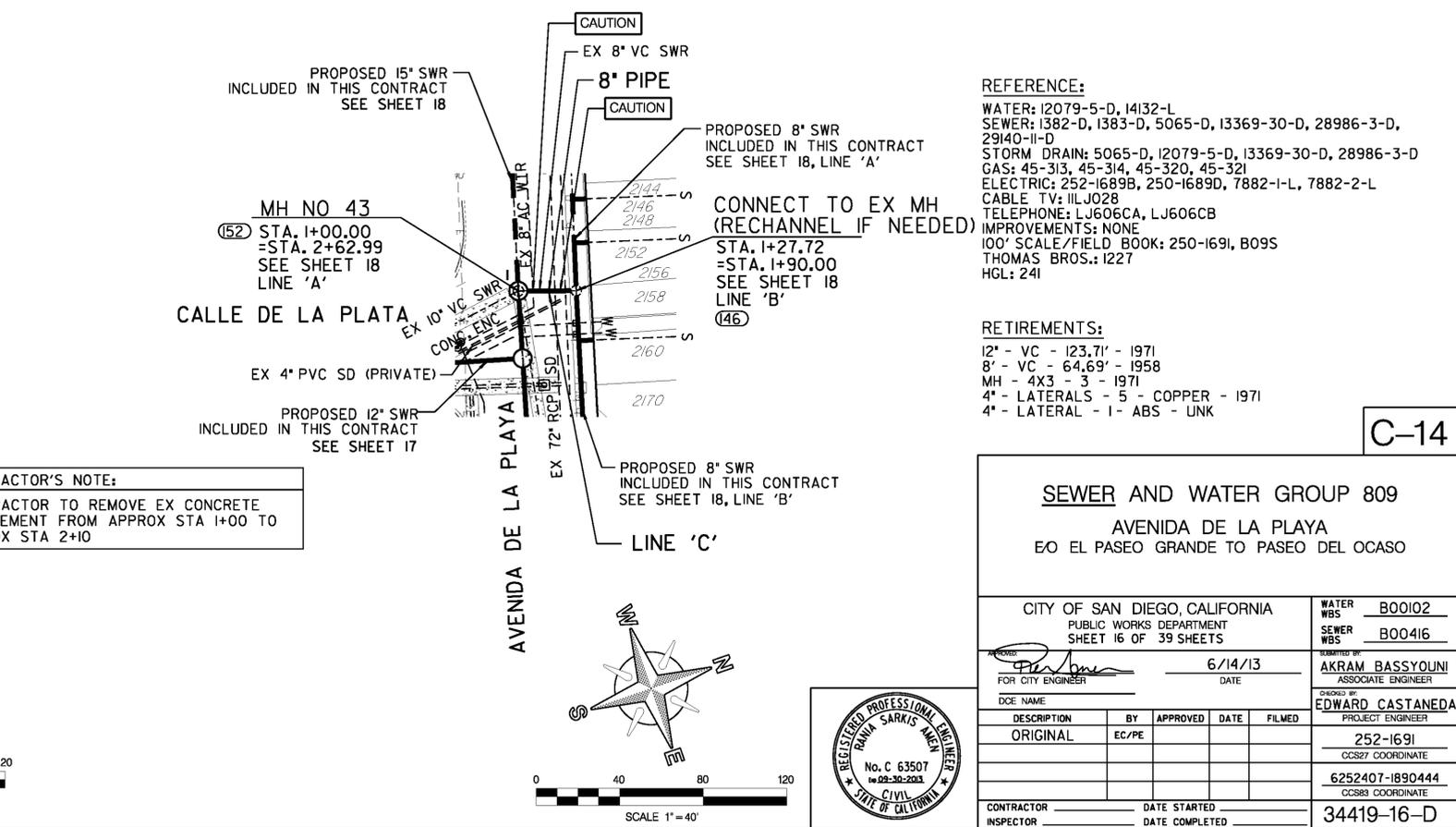
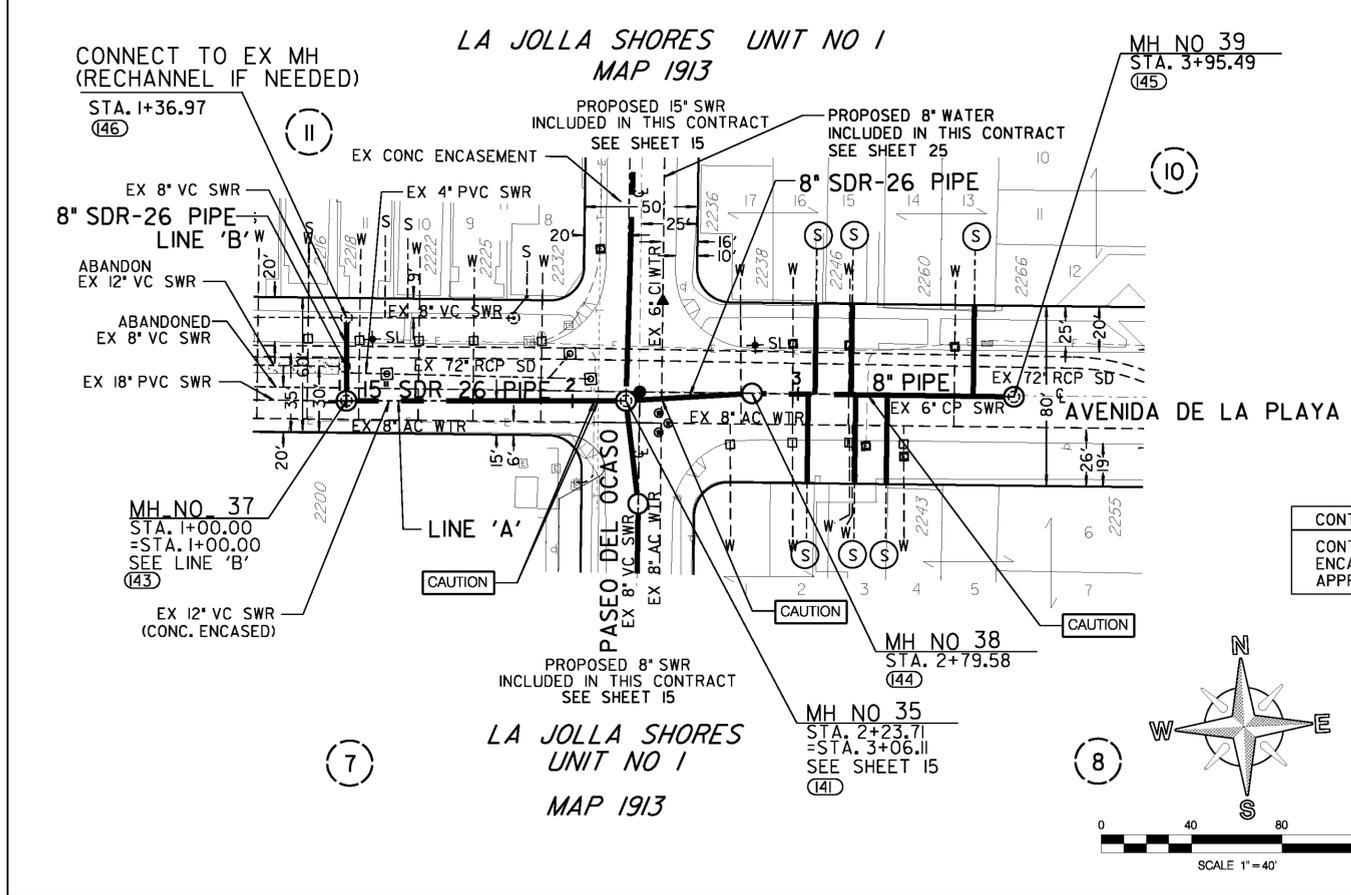
| | | | | |
|---|-------|---|------|---|
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 15 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | | |
| DATE: 6/14/13 | | ENGINEER: AKRAM BASSYOUNI ASSOCIATE ENGINEER | | |
| CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | | NO. C 63507 02-30-2013 CIVIL STATE OF CALIFORNIA | | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| CONTRACTOR: _____ | | DATE STARTED: _____ | | 252-1691 |
| INSPECTOR: _____ | | DATE COMPLETED: _____ | | CCS27 COORDINATE 6252407-1890444 CCS88 COORDINATE 34419-15-D |



| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 2+23 | STA. 3+96 | 413 |

| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|--|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 2+23 | STA. 2+67 | 44 |
| STA. 1+00 | STA. 1+28 | 28 |

ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT.

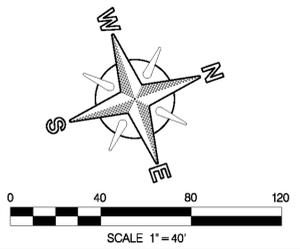
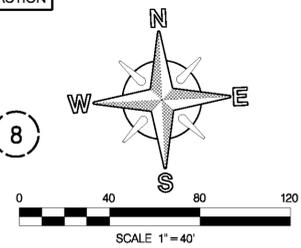


CONTRACTOR'S NOTE:
CONTRACTOR TO REMOVE EX CONCRETE ENCASUREMENT FROM APPROX STA 1+00 TO APPROX STA 2+10

REFERENCE:
WATER: 12079-5-D, 14132-L
SEWER: 1382-D, 1383-D, 5065-D, 13369-30-D, 28986-3-D, 29140-11-D
STORM DRAIN: 5065-D, 12079-5-D, 13369-30-D, 28986-3-D
GAS: 45-313, 45-314, 45-320, 45-321
ELECTRIC: 252-1689B, 250-1689D, 7882-1-L, 7882-2-L
CABLE TV: ILJ028
TELEPHONE: LJ606CA, LJ606CB
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
12" - VC - 123.71' - 1971
8" - VC - 64.69' - 1958
MH - 4X3 - 3 - 1971
4" - LATERALS - 5 - COPPER - 1971
4" - LATERAL - 1 - ABS - UNK

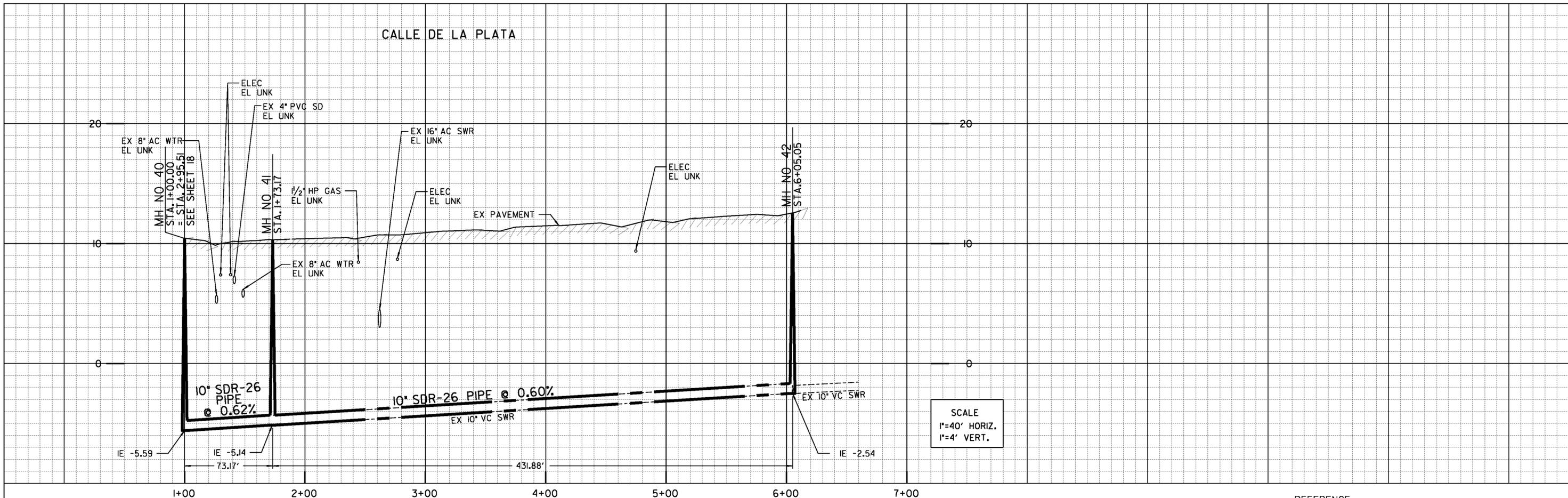
| SEWER AND WATER GROUP 809 | | | | |
|---|-------|---------------|--|-----------------------|
| AVENIDA DE LA PLAYA | | | | |
| EO EL PASEO GRANDE TO PASEO DEL OCASO | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 16 OF 39 SHEETS | | | WATER WBS: B00102 SEWER WBS: B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> | | DATE: 6/14/13 | ENGINEER: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME: | | DATE: | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| CONTRACTOR: _____ | | | DATE STARTED: _____ | DATE COMPLETED: _____ |
| INSPECTOR: _____ | | | DATE STARTED: _____ | DATE COMPLETED: _____ |



C-14

AVENIDA DE LA PLAYA

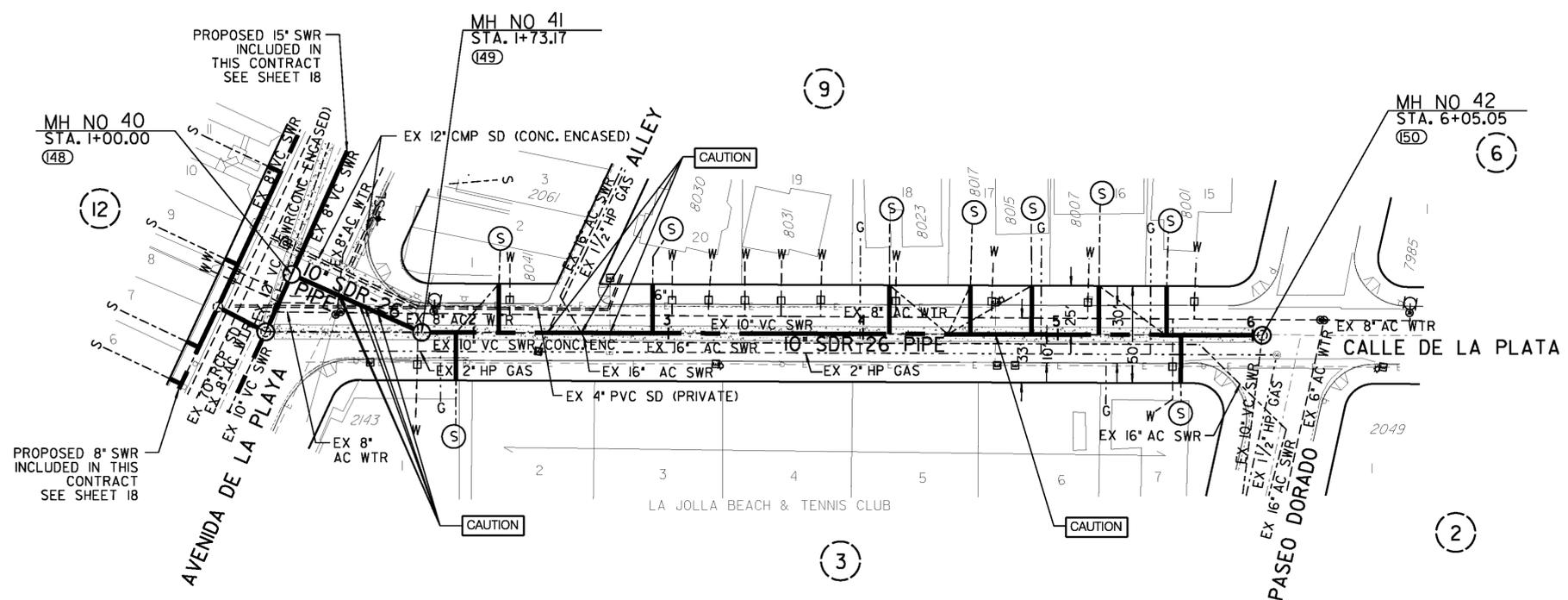
CALLE DE LA PLATA



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

REFERENCE:
WATER: 19580-10-D
SEWER: 1383-D, 13369-28,27-D, 5064-D
STORM DRAIN: 25160-2-D, 5064-D
GAS: 45-310, 45-309
ELECTRIC: 250-1689D
CABLE TV: ILLJ028
TELEPHONE: I2-65
IMPROVEMENTS: 2261-6-D, 21891-2-D
100' SCALE/FIELD BOOK: 250-1691, B095
THOMAS BROS.: I227
HGL: 241

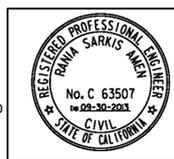
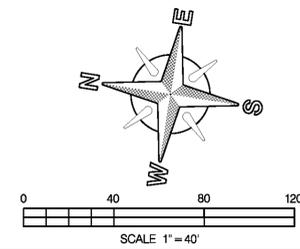
RETIREMENTS:
10" - VC - 511.95' - 1951
4" LATERAL - 8 - - 1951
6" LATERAL - 1 - PVC - 1985
MN - 4X3 - 1 - 1985



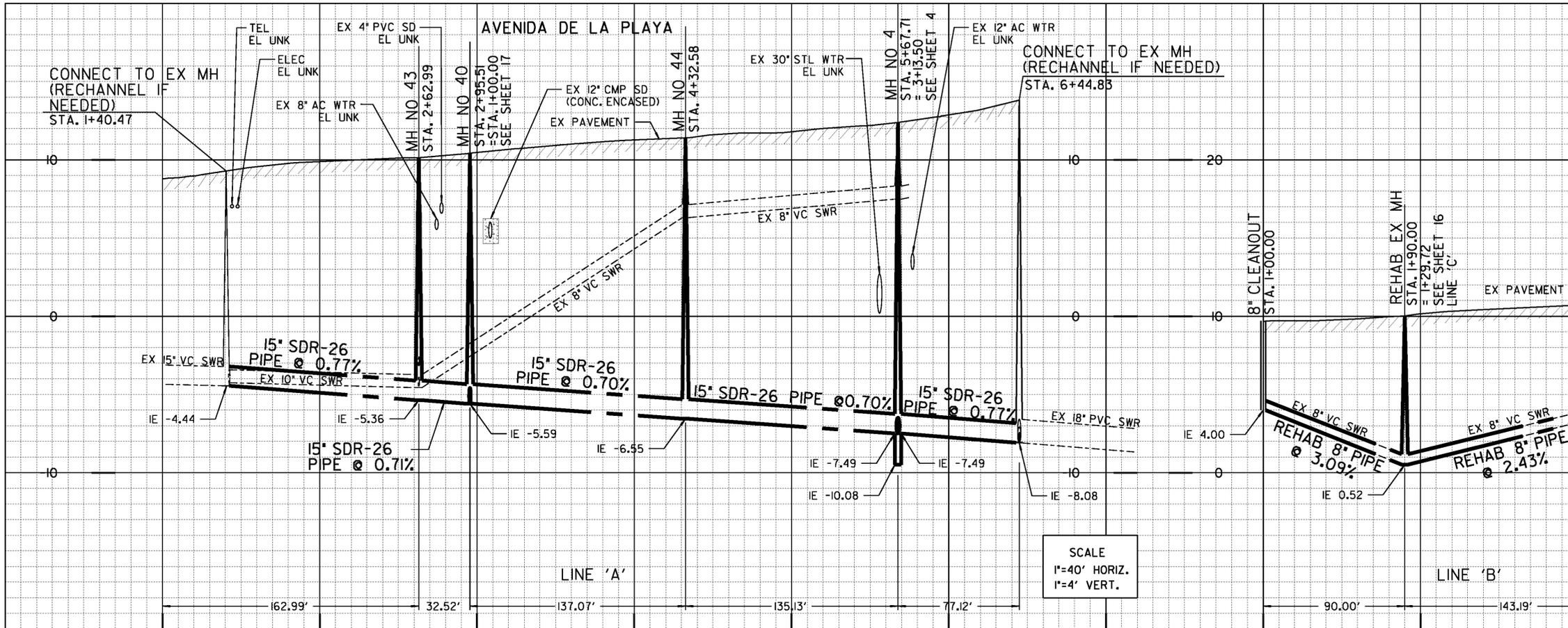
C-15

SEWER AND WATER GROUP 809
CALLE DE LA PLATA
AVENIDA DE LA PLAYA TO PASEO DORADO

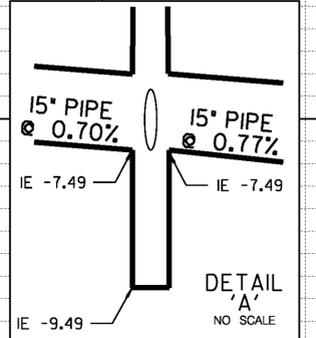
| | | |
|---|----------------|--|
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 17 OF 39 SHEETS | | WATER WBS B00102 |
| DATE: 6/14/13 | | SEWER WBS B00416 |
| FOR CITY ENGINEER | DATE | MANAGED BY AKRAM BASSYOUNI PROJECT MANAGER |
| DCE NAME | | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED |
| ORIGINAL | EC/PE | DATE |
| | | FILED |
| | | 252-1691 |
| | | CCS27 COORDINATE |
| | | 6252407-1890444 |
| | | CCS88 COORDINATE |
| CONTRACTOR | DATE STARTED | 34419-17-D |
| INSPECTOR | DATE COMPLETED | |



CALLE DE LA PLATA

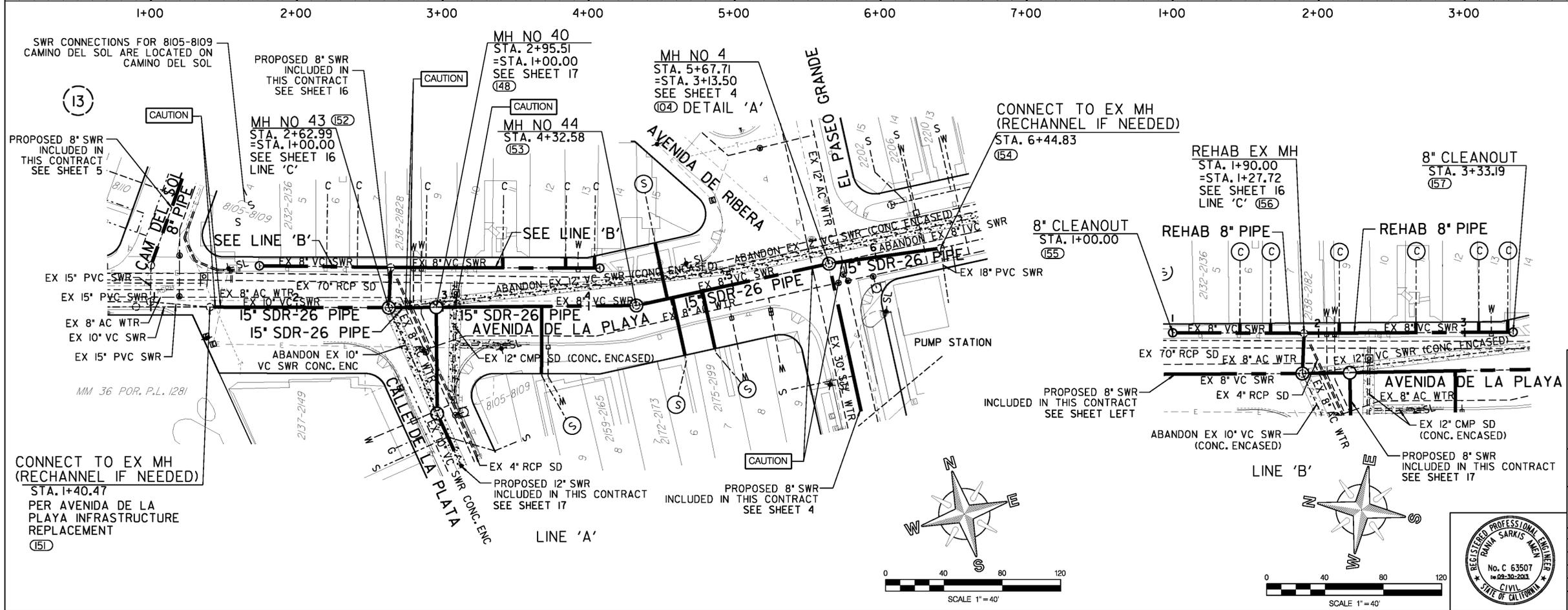


| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|--|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 3+80 | STA. 6+45 | 265 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| STA. 1+00 | STA. 6+45 | 545 |
| ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMP) FOR THE PROJECT. | | |



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

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



REFERENCE:
WATER: 19580-10-D, 26331-7-D
SEWER: 1381-D, 1382-D, 13369-28, 27-D, 5064-D
STORM DRAIN: 25160-2-D, 5064-D
GAS: 45-310, 45-309
ELECTRIC: 250-1689D
CABLE TV: ILLJ028
TELEPHONE: 12-65
IMPROVEMENTS: 2261-6-D, 21891-2-D
100' SCALE/FIELD BOOK: 250-1691, B095
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
10" - VC - 162.99' - 1958
8" - VC - 304.72' - 1958
4" LATERAL - 10 - UNK - 1958
MH - 4X3 - 1 - 1958

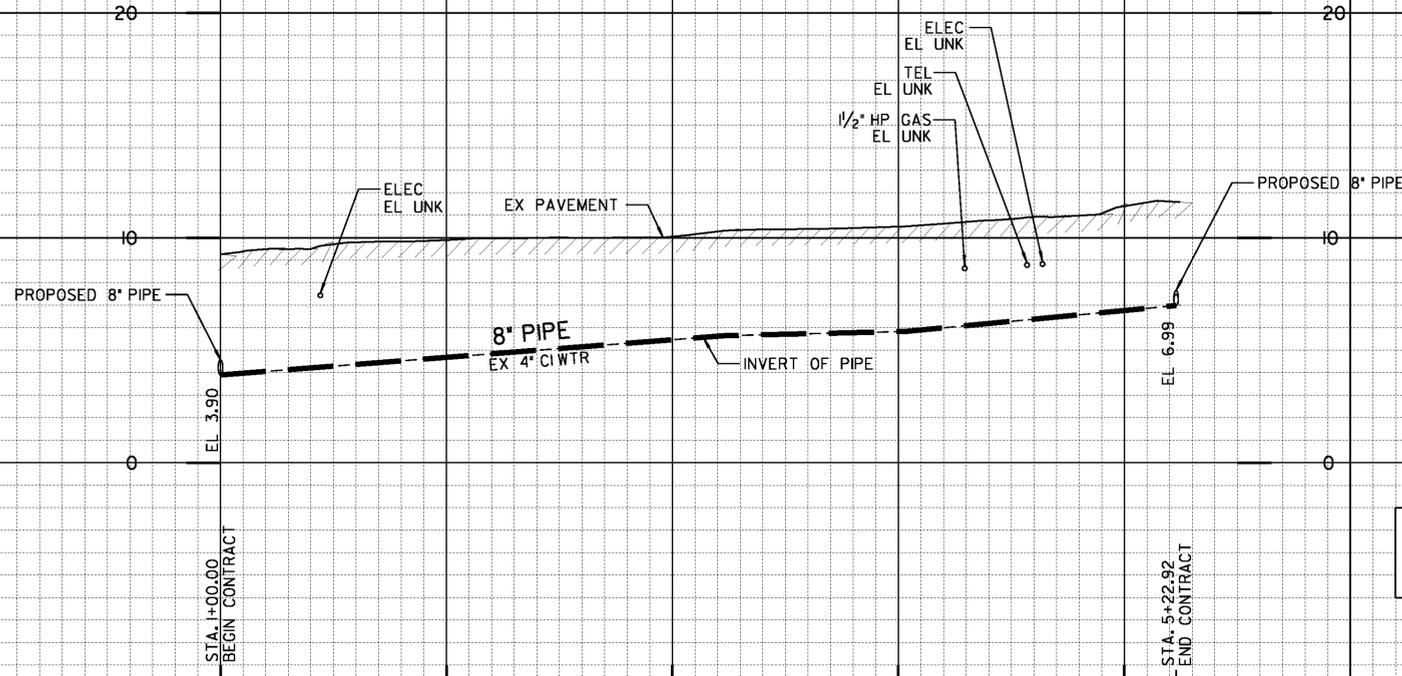
C-16

| | | | | |
|---|--------------------------------------|------------|------|-------|
| SEWER AND WATER GROUP 809 | | | | |
| AVENIDA DE LA PLAYA | | | | |
| CAMINO DEL SOL TO E/O EL PASEO GRANDE | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 18 OF 39 SHEETS | WATER WBS B00102 SEWER WBS B00416 | | | |
| FOR CITY ENGINEER <i>[Signature]</i> DATE 6/14/13 | PROJECT MANAGER AKRAM BASSYOUNI | | | |
| DRAWN BY EDWARD CASTANEDA | PROJECT ENGINEER EDWARD CASTANEDA | | | |
| DESCRIPTION | BY | APPROVED | DATE | FILED |
| ORIGINAL | EC/PE | | | |
| 252-1691 | | | | |
| CCS27 COORDINATE | | | | |
| 6252407-1890444 | | | | |
| CCS88 COORDINATE | | | | |
| CONTRACTOR | DATE STARTED | 34419-18-D | | |
| INSPECTOR | DATE COMPLETED | | | |

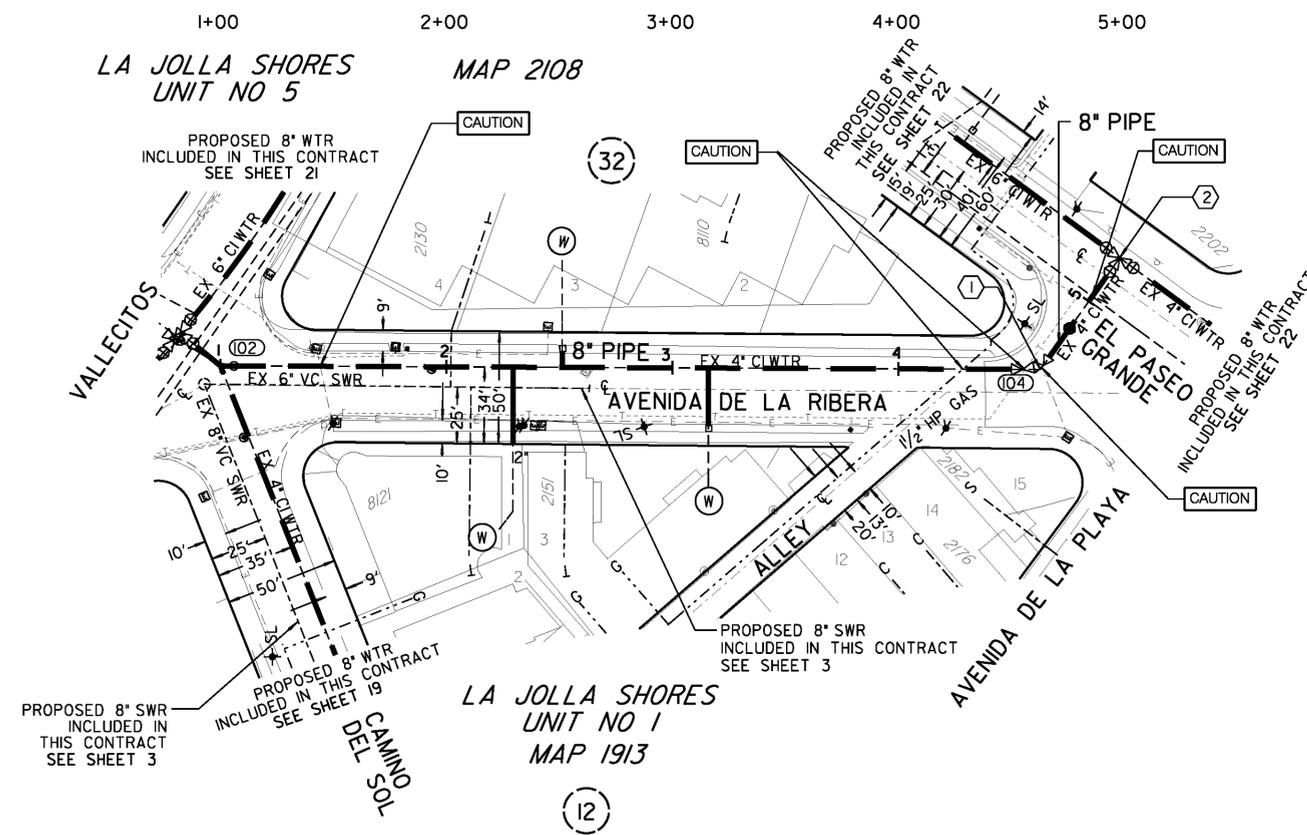


AVENIDA DE LA PLAYA

AVENIDA DE LA RIBERA



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



① 105
BY CONTRACTOR
FURNISH AND INSTALL
STA 4+64.48
1- 8" 1 1/4" BEND (MJ, MJ)
3- 8" PIPE, AHD
1- 8" 45° BEND (MJ, MJ) AHD

② 106
BY CONTRACTOR
FURNISH AND INSTALL
STA 5+22.92 (SHEET 20)
=STA. 1+98.19 (SHEET 22)
1- 8" X 8" TEE (F, F, F)
3 - 8" VALVES (F, MJ) BK, LT, RT

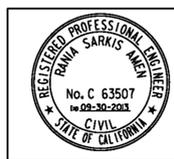
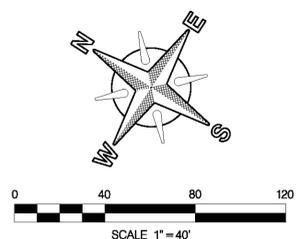
CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM VALLECITOS TO EL PASEO GRANDE AVENIDA DE LA RIBERA SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

REFERENCE:
WATER: 7888-L
SEWER: 1382-D, 1383-D, 5064-D
STORM DRAIN: 7887-L
GAS: 45-314, 45-315, 45-316
ELECTRIC: 250-1689D, 7882-2-L
CABLE TV: ILLJ028
TELEPHONE: LJ406DB, LJ406DC, LJ406DD
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: I227
HGL: 241

RETIREMENTS:
4" - CI - 423.67' - 1951
1" SERVICE - 2 - COPPER - 1951
2" SERVICE - 1 - UNK

C-18

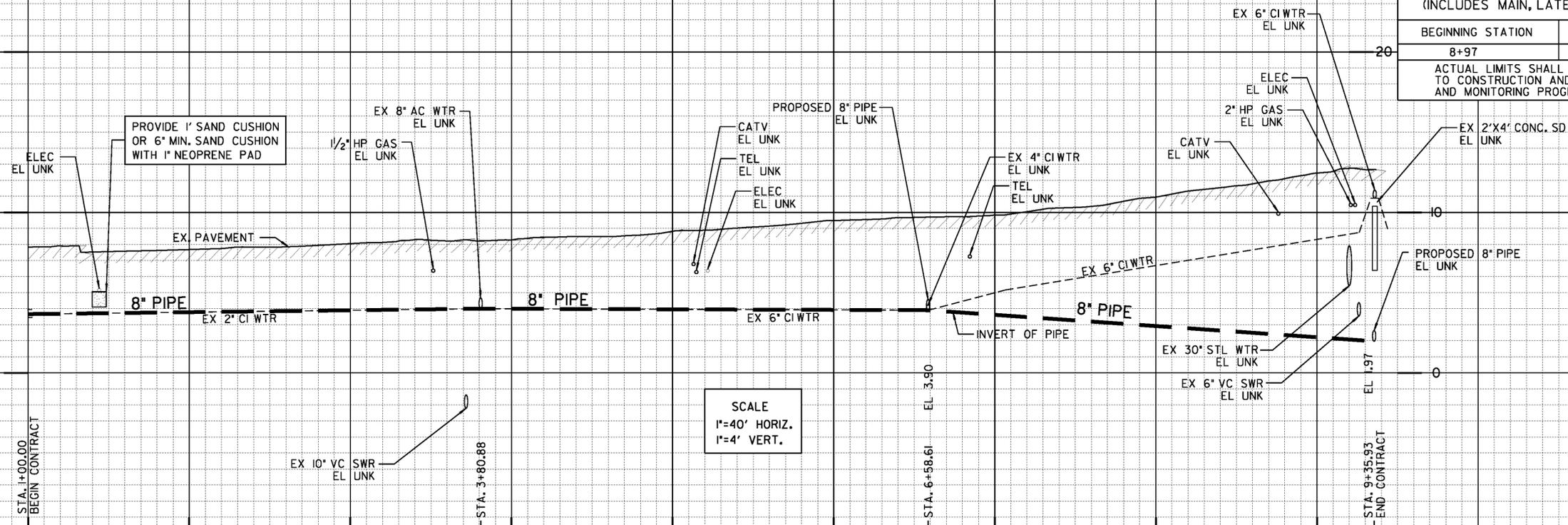


| | | | |
|---|----------------|---|-------------------|
| SEWER AND WATER GROUP 809 | | AVENIDA DE LA RIBERA VALLECITOS TO EL PASEO GRANDE | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 20 OF 39 SHEETS | | WATER WBS: B00102 | SEWER WBS: B00416 |
| FOR CITY ENGINEER: <i>[Signature]</i> DATE: 6/14/13 | | SUBMITTED BY: AKRAM BASSYOJUN ASSOCIATE ENGINEER | |
| DCE NAME: _____ | | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| | | 250-1691 CCS27 COORDINATE | |
| | | 6252407-1890444 CCS88 COORDINATE | |
| CONTRACTOR | DATE STARTED | 34419-20-D | |
| INSPECTOR | DATE COMPLETED | | |

AVENIDA DE LA RIBERA

VALLECITOS

| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|---|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| 3+80 | 9+36 | 680 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| 8+97 | 9+36 | 39 |
| ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMRP) FOR THE PROJECT. | | |



- ① ①⑦ BY CONTRACTOR FURNISH AND INSTALL
STA 1+00.00
1- 8" PLUG
- ② ①⑧ BY CITY FORCES FURNISH & INSTALL AHD OF CONTRACTOR
STA 2+33.14
CUT IN:
1- 8" X 6" TEE (F, F, F)
2 - 8" VALVE (F, MJ) BK, AHD
1- 6" VALVE (F, MJ) LT
RECONNECT AFTER NEW MAIN HAS BEEN ACCEPTED
- ③ ①⑨ BY CONTRACTOR FURNISH AND INSTALL
STA 3+14.51
CUT IN:
1- 8" X 6" TEE (MJ, MJ, F)
1- 6" FH ASSY AND MARKER
- ④ ①⑩ BY CITY FORCES FURNISH & INSTALL AHD OF CONTRACTOR
STA 3+80.90
CUT IN:
1- 8" X 8" CROSS (F, F, F, F)
4 - 8" VALVES (F, MJ) BK, AHD, LT, RT
CLOSE VALVES BK, AHD
OPEN VALVE AFTER NEW MAIN HAS BEEN ACCEPTED BK, AHD
- ⑤ ①⑫ BY CONTRACTOR FURNISH AND INSTALL
STA 5+91.53
1- 8" X 6" TEE (MJ, MJ, F)
1- 6" FH ASSY AND MARKER
- ⑥ ①⑬ EC BY CONTRACTOR FURNISH AND INSTALL
STA 8+98.14
1- 8" 22 1/2" BEND (F, MJ)

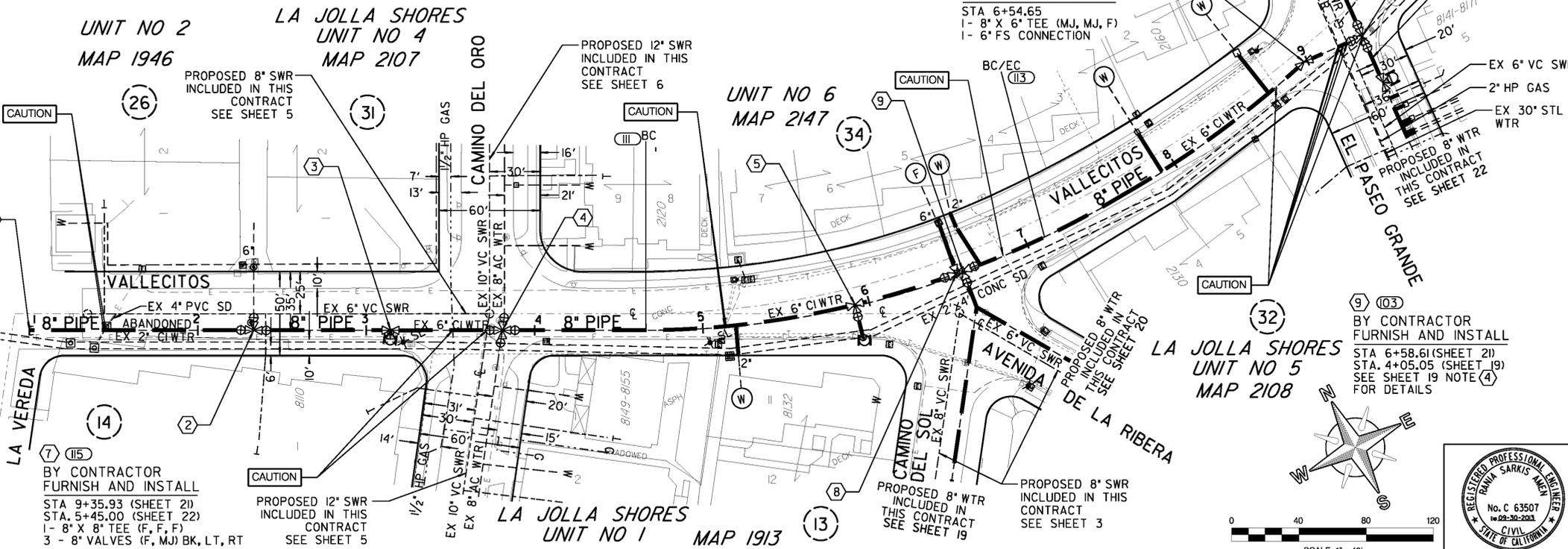
CITY FORCES NOTE:
LIMITS OF HIGHLINING APPROXIMATELY FROM LA VEREDA TO EL PASEO GRANDE VALLECITOS SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

CONTRACTOR'S NOTE:
CONTRACTOR TO VERIFY 2" CIWTR WEST OF STA 1+00 IS ABANDONED. NOTIFY RESIDENT ENGINEER IMMEDIATELY IF SERVICES FOUND.

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

REFERENCE:
WATER: 7887-L, 14063-D, 25502-10-D, 26331-7A-D, 28986-1-D
SEWER: 1382-D, 1384-D, 14063-1-D, 28986-1-D
STORM DRAIN: 7887-L, 10387-L, 25160-1-D, 26331-7A-D, 28986-1-D
GAS: 45-317, 45-319
ELECTRIC: 252-1689B, 250-1689D, 7882-2-L
CABLE TV: ILJ028
TELEPHONE: LJ406DA, LJ406DB
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
6" - CI - 835.03' - UNK
3/4" SERVICE - 2 - COPPER - UNK
2" SERVICE - 2 - COPPER - UNK
FH (2 PORT) - 2
6" FIRE SERVICE - 1 - UNK
6" WATER SERVICE - 1 - UNK

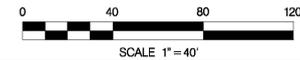


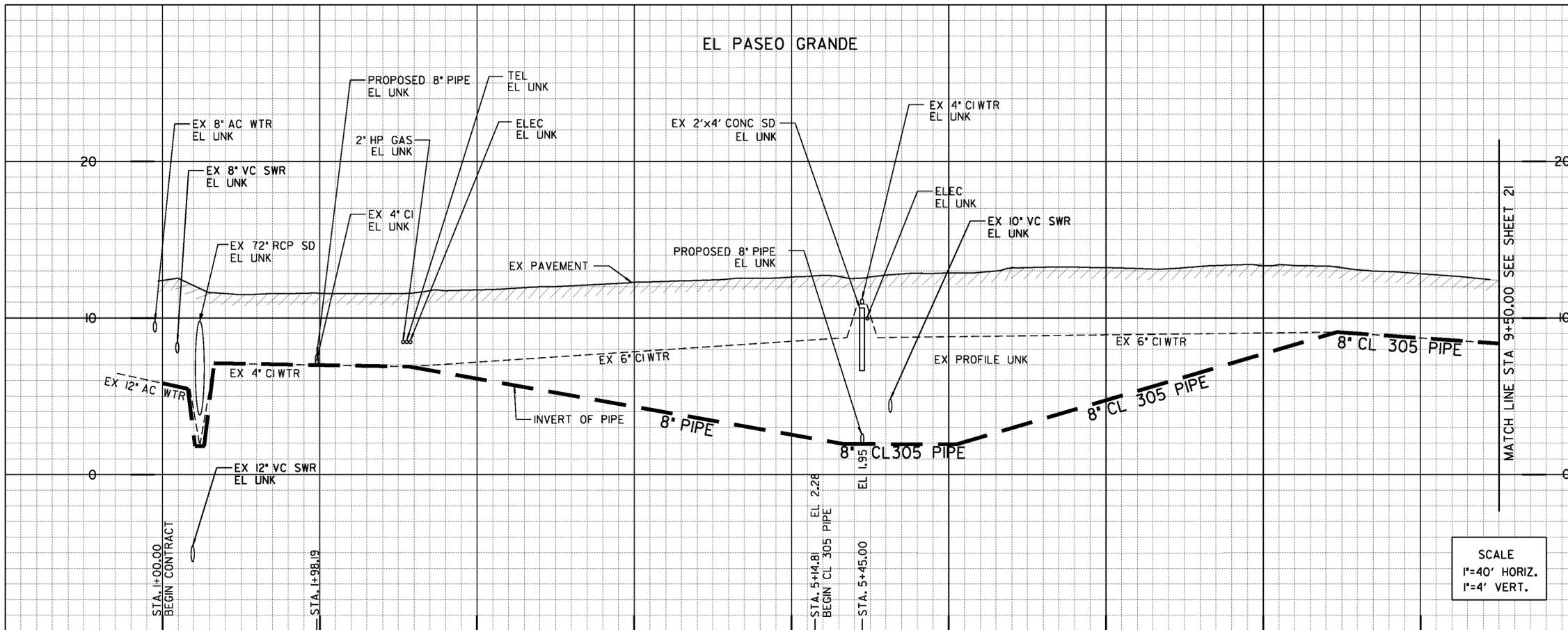
C-19

SEWER AND WATER GROUP 809
VALLECITOS
LA VEREDA TO EL PASEO GRANDE

| | | |
|---|--------------|--|
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 21 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 |
| FOR CITY ENGINEER | DATE 6/14/13 | CHECKED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| DCE NAME | | EDWARD CASTANEDA PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED |
| ORIGINAL | EC/PE | |
| CONTRACTOR | | DATE STARTED |
| INSPECTOR | | DATE COMPLETED |

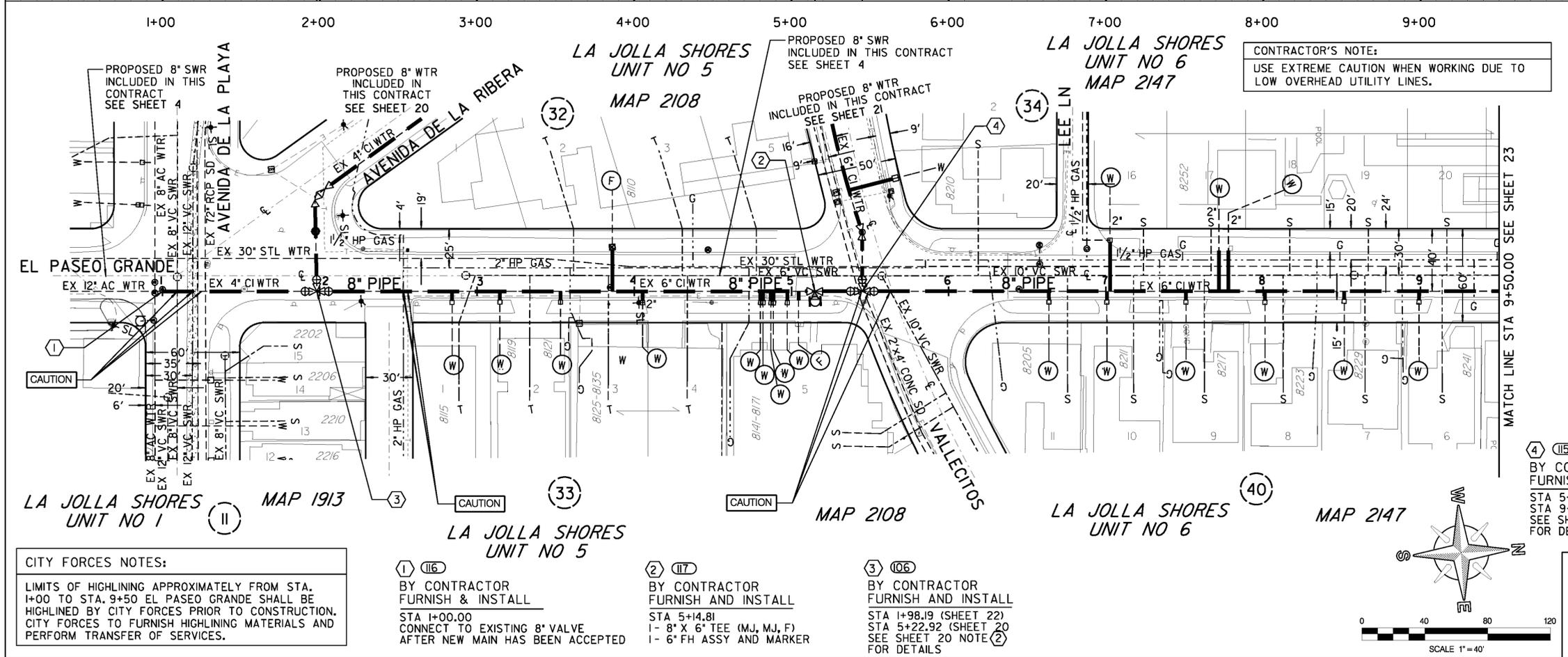
6252407-1890444
CC88 COORDINATE
34419-21-D





| ESTIMATED ARCHAEOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
|--|----------------|----------------|
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| 1+00 | 8+42 | 944 |
| ESTIMATED PALEONTOLOGICAL MONITORING LIMITS (INCLUDES MAIN, LATERALS, AND OTHER TRENCHING ACTIVITIES) | | |
| BEGINNING STATION | ENDING STATION | APPROXIMATE LF |
| 4+98 | 6+38 | 140 |
| ACTUAL LIMITS SHALL BE DETERMINED BY THE PI/MONITOR(S) PRIOR TO CONSTRUCTION AND SHALL BE CONSISTENT WITH THE MITIGATION AND MONITORING PROGRAM (MMP) FOR THE PROJECT. | | |

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



CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

REFERENCE:
WATER: 12079-4-D, 19580-10-D, 26331-6-D, 26331-7-D
SEWER: 1382-D, 1383-D, 26331-7-D
STORM DRAIN: 5064-D, 10387-L, 19850-10-D, 12079-4-D, 26331-7-D
GAS: 45-314, 45-315, 45-319, 45-320
ELECTRIC: 252-1689B, 250-1689D, 7882-2-L
CABLE TV: ILJ028
TELEPHONE: LJ406DB, LJ406DD
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B095
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
4" - CI - 98' - UNK
6" - CI - 752' - 1966
2" SERVICE - 3 - COPPER - UNK
1" SERVICE - 16 - COPPER - 1966
4" FIRE SERVICE - 1 - UNK
FH (2 PORT) - 1 - 1966

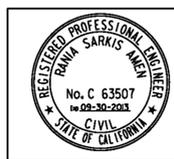
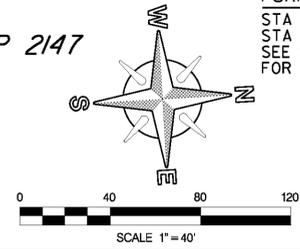
CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM STA. 1+00 TO STA. 9+50 EL PASEO GRANDE SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

① ①⑥
BY CONTRACTOR FURNISH & INSTALL
STA 1+00.00
CONNECT TO EXISTING 8" VALVE AFTER NEW MAIN HAS BEEN ACCEPTED

② ①⑦
BY CONTRACTOR FURNISH AND INSTALL
STA 5+14.81
1- 8" X 6" TEE (MJ, MJ, F)
1- 6" FH ASSY AND MARKER

③ ①⑧
BY CONTRACTOR FURNISH AND INSTALL
STA 1+98.19 (SHEET 22)
STA 5+22.92 (SHEET 20)
SEE SHEET 20 NOTE ② FOR DETAILS

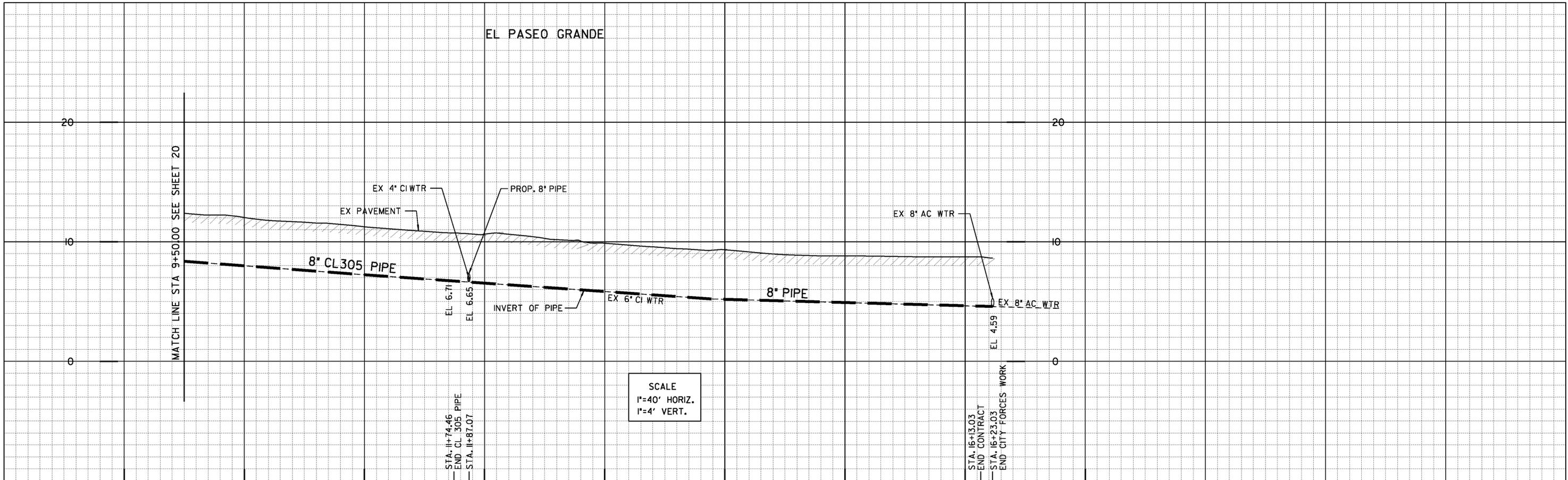
④ ①⑤
BY CONTRACTOR FURNISH AND INSTALL
STA 5+45.00 (SHEET 22)
STA 9+35.93 (SHEET 21)
SEE SHEET 21 NOTE ⑦ FOR DETAILS



| | | | |
|---|----------------|--------------------------------------|------|
| SEWER AND WATER GROUP 809 EL PASEO GRANDE AVENIDA DE LA PLAYA TO SO ALLEY | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 22 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | |
| DATE: 6/14/13 | | PROJECT ENGINEER: EDWARD CASTANEDA | |
| DCE NAME: [Signature] | | CHECKED BY: EDWARD CASTANEDA | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| 250-1691 CC827 COORDINATE | | 6252407-1890444 CC888 COORDINATE | |
| CONTRACTOR | DATE STARTED | 34419-22-D | |
| INSPECTOR | DATE COMPLETED | | |

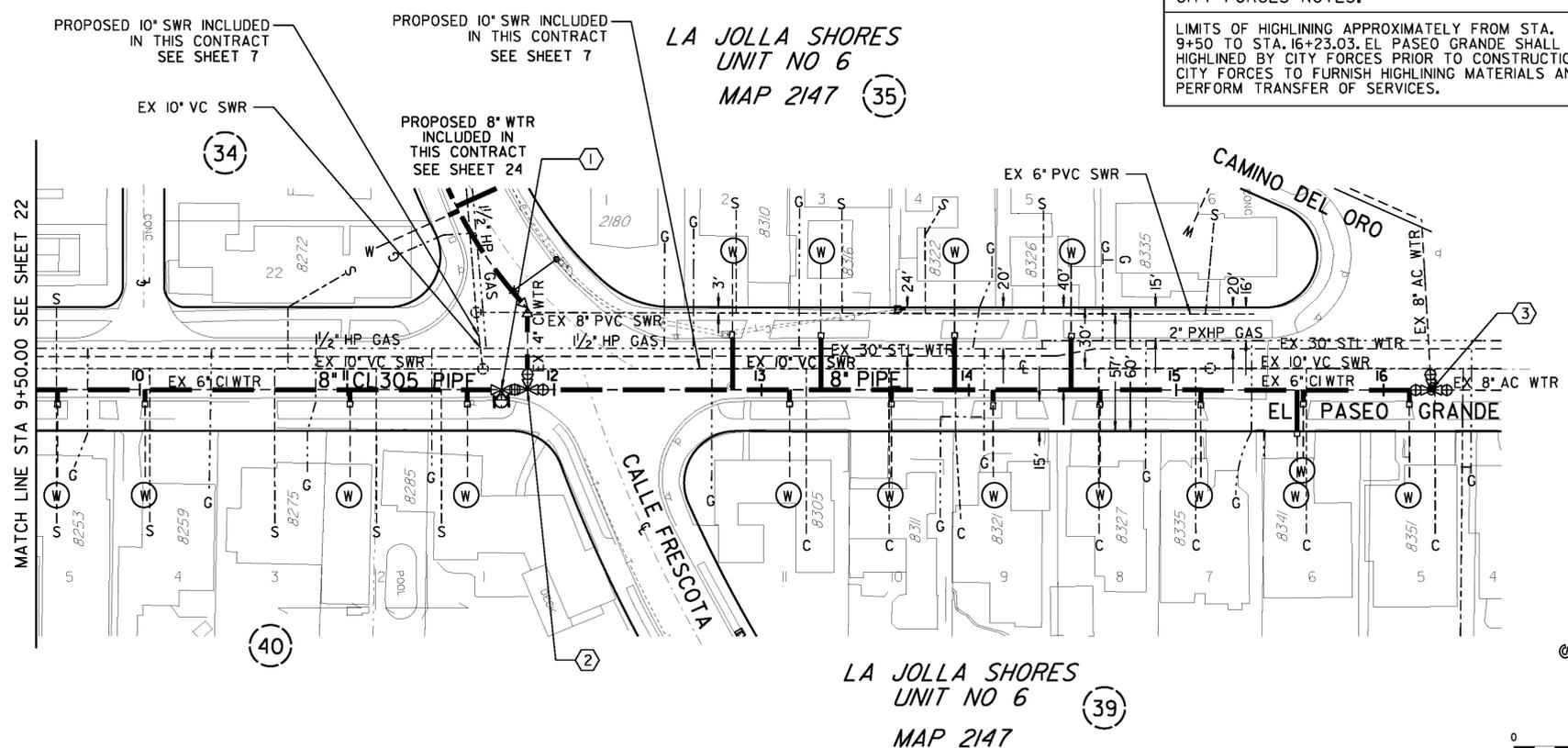
C-20

EL PASEO GRANDE



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

9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00



CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM STA. 9+50 TO STA. 16+23.03. EL PASEO GRANDE SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

① 118
BY CONTRACTOR
FURNISH AND INSTALL
STA 11+74.46
1- 8" X 6" TEE (MJ, MJ, F)
1- 6" FH ASSY AND MARKER

② 119
BY CONTRACTOR
FURNISH AND INSTALL
STA 11+87.07 (SHEET 23)
STA 4+04.60 (SHEET 24)
1- 8" X 8" TEE (F,F,F)
3- 8" VALVES (F, MJ) BK, AHD, LT

③ 120
BY CITY FORCES
FURNISH & INSTALL
AHD OF CONTRACTOR
STA 16+23.03
CUT IN:
1- 8" X 8" TEE (F,F,F)
3- 8" VALVES (F, MJ) BK, AHD, LT
CLOSE VALVE BK
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED
AND OPEN VALVE BK

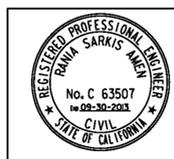
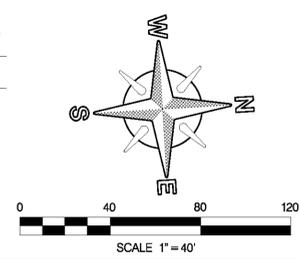
REFERENCE:
WATER: 26331-6-D
SEWER: 1382-D, 1383-D, 26331-6-D
STORM DRAIN: NONE
GAS: 45-319, 45-320, 45-323, 45-323A
CABLE TV: 252-1689B
ELECTRIC: 252-1689B
TELEPHONE: LJ0406BC, LJ0606AA, LJ0606AC
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 252-1691, B09S
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
6" - C1 - 237' - 1966
6" - C1 - 436' - 1980
FH (2-PORT) - 11966
1" SERVICE - 4 - COPPER - 1966
1" SERVICE - 12 - COPPER - 1980

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

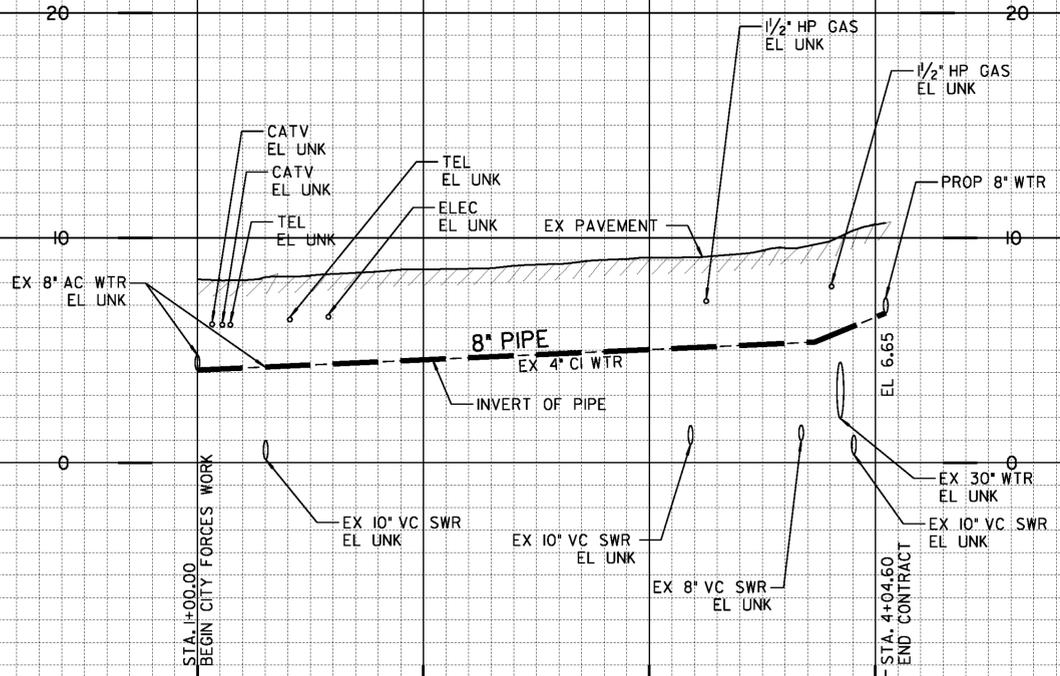
C-21

| | | | |
|---|-------|--------------------------------------|----------|
| SEWER AND WATER GROUP 809 | | WATER WBS B00102 | |
| EL PASEO GRANDE | | SEWER WBS B00416 | |
| SO ALLEY TO CAMINO DEL ORO | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 23 OF 39 SHEETS | | DATE 6/14/13 | |
| FOR CITY ENGINEER | | DATE | |
| DCE NAME | | EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | | BY | APPROVED |
| ORIGINAL | EC/PE | | |
| | | DATE | FILMED |
| | | | |
| | | 252-1691 CCS27 COORDINATE | |
| | | 6252407-1892444 CCS88 COORDINATE | |
| CONTRACTOR | | DATE STARTED | |
| INSPECTOR | | DATE COMPLETED | |
| | | 34419-23-D | |



EL PASEO GRANDE

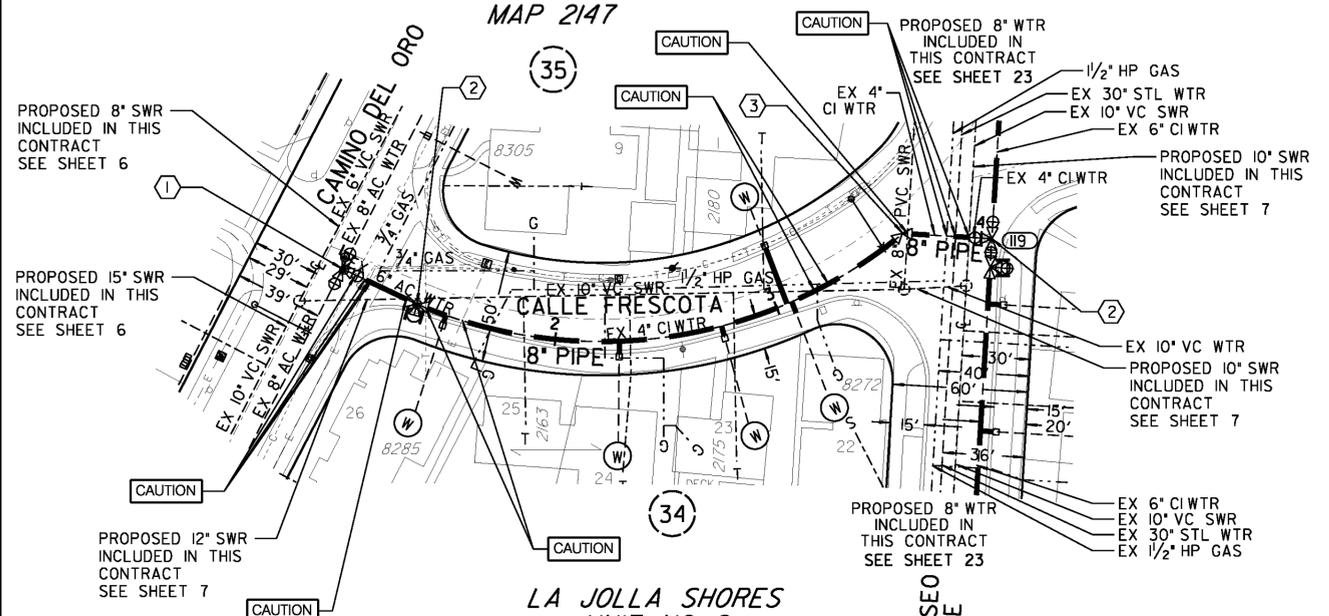
CALLE FRESCOTA



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

1+00 2+00 3+00 4+00 5+00

LA JOLLA SHORES
UNIT NO 6
MAP 2147



LA JOLLA SHORES
UNIT NO 6
MAP 2147

- ① ⑫
BY CITY FORCES
FURNISH & INSTALL
AHD OF CONTRACTOR
STA 1+00.00
CUT IN:
1 - 8" X 8" TEE (F, F, F)
3 - 8" VALVES (F, MJ) LT, RT, AHD
RECONNECT AFTER NEW MAIN
HAS BEEN ACCEPTED
- ② ⑫
BY CONTRACTOR
FURNISH AND INSTALL
STA 1+36.65
1 - 8" X 6" TEE (MJ, MJ, F)
1 - 6" FH ASSY AND MARKER
- ③ ⑫
BY CONTRACTOR
FURNISH AND INSTALL
STA 3+65.16
1 - 8" 45° BEND (MJ, MJ)
- ④ ⑫
BY CONTRACTOR
FURNISH AND INSTALL
STA 4+04.06 (SHEET 24)
=STA 11+87.07 (SHEET 23)
SEE SHEET 23 NOTE ②
FOR DETAILS

CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM CAMINO DEL ORO TO EL PASEO GRANDE CALLE FRESCOTA SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

REFERENCE:
WATER: I2079-2-D, 26331-6-D
SEWER: I382-D, I384-D
STORM DRAIN: NONE
GAS: 45-319, 45-323A
ELECTRIC: 252-1689B
CABLE TV: ILJ030
TELEPHONE: LJ0406B
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 252-1691, B09S
THOMAS BROS.: I227
HGL: 241

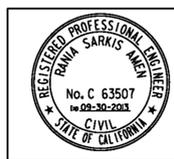
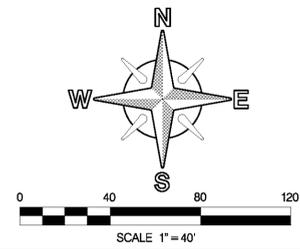
RETIREMENTS:
6" - AC - 36.65' - UNK
4" - CI - 267.95' - UNK
FH (2-PORT) - 1
1" SERVICE - 5 - COPPER - UNK

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

C-22

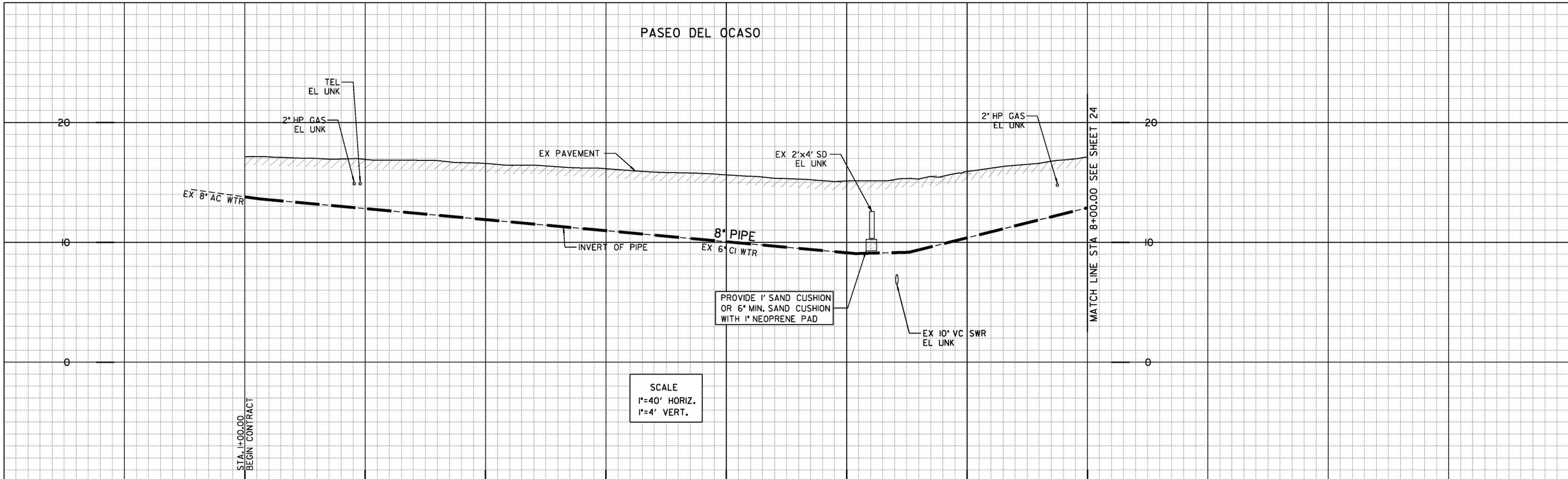
SEWER AND WATER GROUP 809
CALLE FRESCOTA
CAMINO DEL ORO TO EL PASEO GRANDE

| | | | |
|---|----------------|---|---------------------|
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 24 OF 39 SHEETS | | WATER WBS B00102 | SEWER WBS B00416 |
| FOR CITY ENGINEER <i>[Signature]</i> DATE 6/14/13 | | SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME | | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| | | 252-1691 | |
| | | CCS27 COORDINATE | |
| | | 6252407-1892444 | |
| | | CCS88 COORDINATE | |
| CONTRACTOR | DATE STARTED | 34419-24-D | |
| INSPECTOR | DATE COMPLETED | | |



CALLE FRESCOTA

PASEO DEL OCASO



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

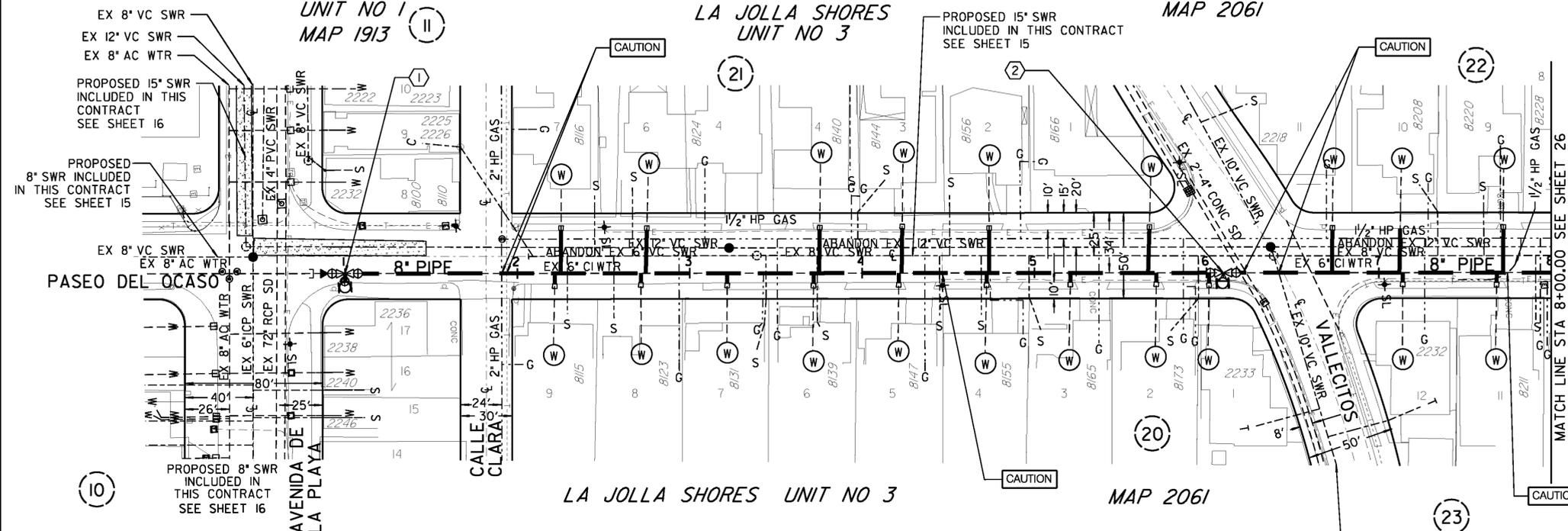
STA. 1+00.00
BEGIN CONTRACT

MATCH LINE STA 8+00.00 SEE SHEET 24

LA JOLLA SHORES
UNIT NO 1
MAP 1913

LA JOLLA SHORES
UNIT NO 3
MAP 2061

MAP 2061



REFERENCE:
WATER: 12079-5-D, 14132-L
SEWER: 1382-D, 1383-D, 13369-30-D, 28986-3-D
STORM DRAIN: 5065-D, 12079-5-D, 13369-30-D, 28986-3-D
GAS: 45-313, 45-314, 45-320, 45-321
ELECTRIC: 252-1689B, 250-1689D, 7882-1-L, 7882-2-L
CABLE TV: ILLJ028
TELEPHONE: LJ606CA, LJ606CB
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1691, B09S
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
6" - CI - 800' - 1928
FH (2-PORT) - 1 - 1928
3/4" SERVICE - 20 - UNK - 1928

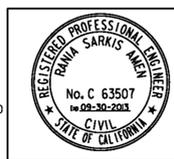
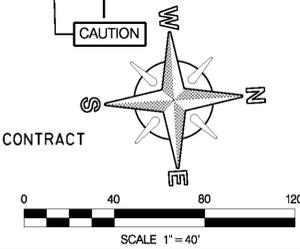
CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO
LOW OVERHEAD UTILITY LINES.

CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM STA. 1+00 TO STA. 8+00 PASEO DEL OCASO SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

1 (124)
BY CONTRACTOR
FURNISH AND INSTALL
STA 1+00.00
CUT IN:
1- 8" X 6" TEE (F, F, F)
1- 6" FH ASSY AND MARKER

2 (125)
BY CONTRACTOR
FURNISH AND INSTALL
STA 6+09.62
CUT IN:
1- 8" X 6" TEE (F, F, F)
1- 6" FH ASSY AND MARKER

LA JOLLA SHORES
UNIT NO 1
MAP 1913

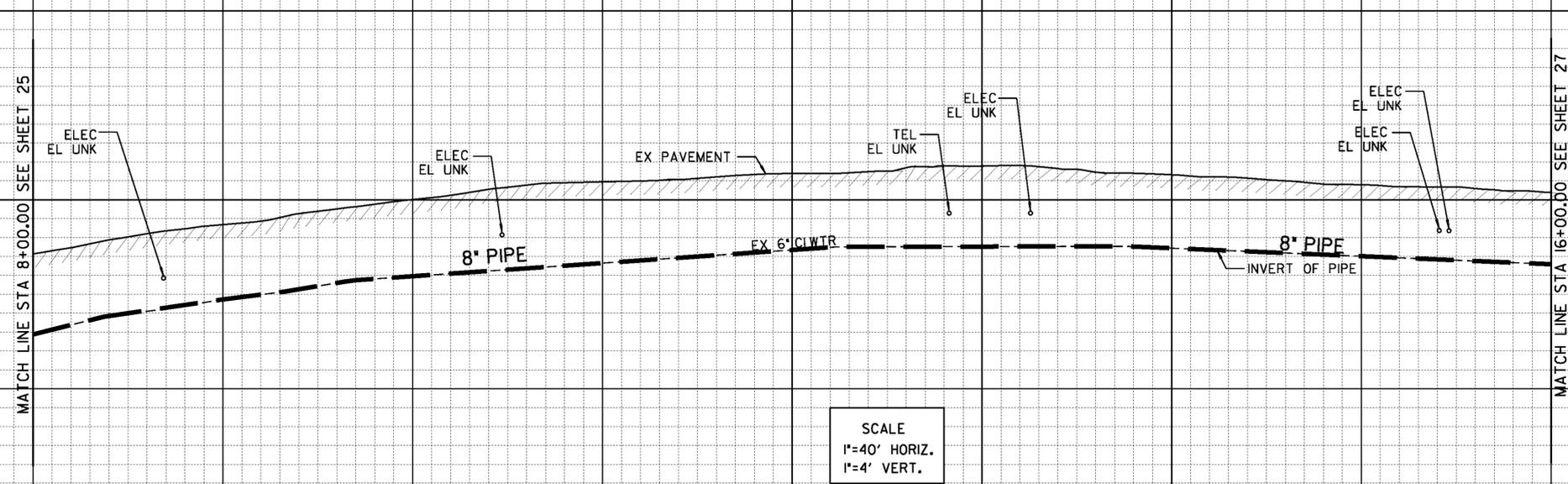


| | | |
|--|----------|--|
| SEWER AND WATER GROUP 809 PASEO DEL OCASO AVENIDA DE LA PLAYA TO NO VALLECITOS | | WATER WBS B00102 |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 25 OF 39 SHEETS | | SEWER WBS B00416 |
| DATE 6/14/13 | DATE | ENGINEER AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| FOR CITY ENGINEER | DATE | DRAWN BY EDWARD CASTANEDA PROJECT ENGINEER |
| DCE NAME | DATE | NO. 250-1691 CC827 COORDINATE |
| DESCRIPTION ORIGINAL | BY EC/PE | DATE |
| APPROVED | DATE | FILMED |
| CONTRACTOR | | DATE STARTED |
| INSPECTOR | | DATE COMPLETED |
| | | COORDINATE 6252407-1890444 CC888 COORDINATE |
| | | 34419-25-D |

C-23

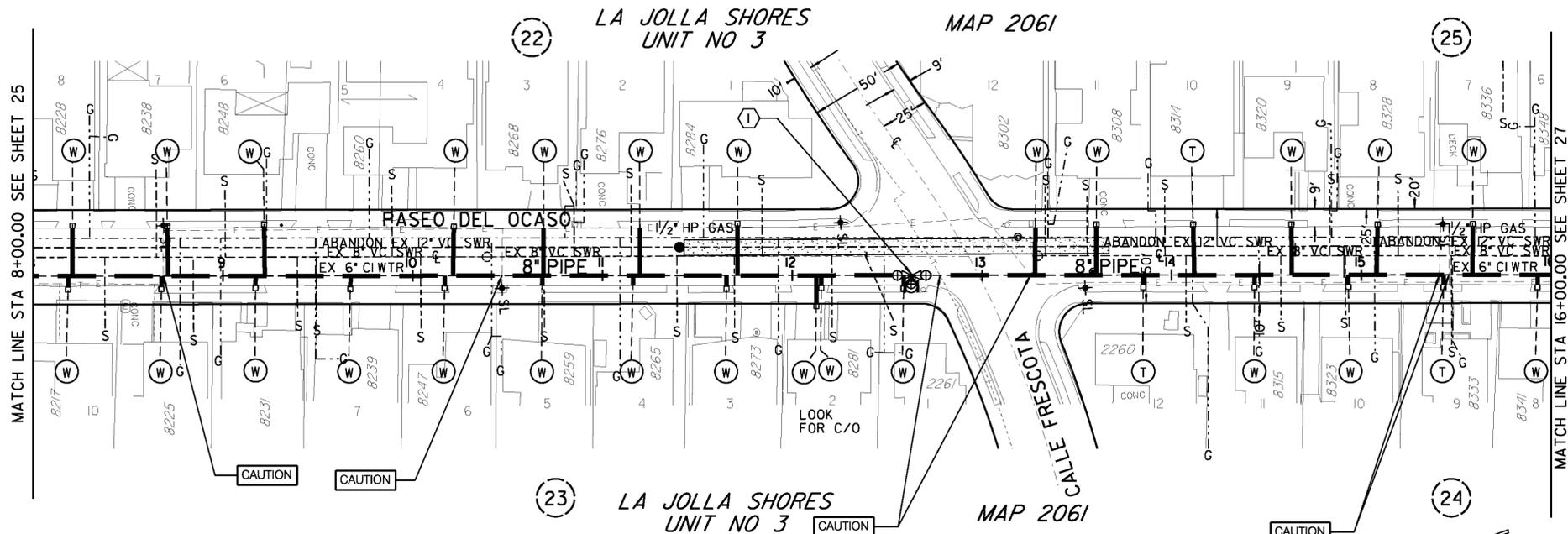
PASEO DEL OCASO

PASEO DEL OCASO



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

8+00 9+00 10+00 11+00 12+00 13+00 14+00 15+00 16+00

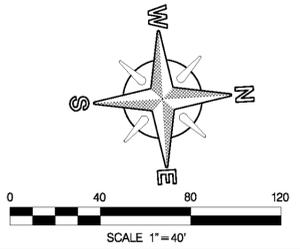


REFERENCE:
WATER: 19580-9-D, 26331-4-D, 12079-5-D, 14132-L
SEWER: 1382, 1384-D
STORM DRAIN: NONE
GAS: 45-320, 45-321, 45-322, 45-323
ELECTRIC: 252-1689B, 7882-I-L
CABLE TV: ILJ030
TELEPHONE: LJ0608CC, LJ0606AA LJ0606AC
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 252-1691, B09S
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
6" - CI - 800' - 1928
FH (2-PORT) - 1 - 1928
1" SERVICE - 29 - COPPER - 1928

1 (26)
BY CONTRACTOR
FURNISH AND INSTALL
STA 12+62.94
1- 8" X 6" TEE (F,F,F)
1- 6" FH ASSY AND MARKER

CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM STA. 8+00 TO STA. 16+00 PASEO DEL OCASO SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

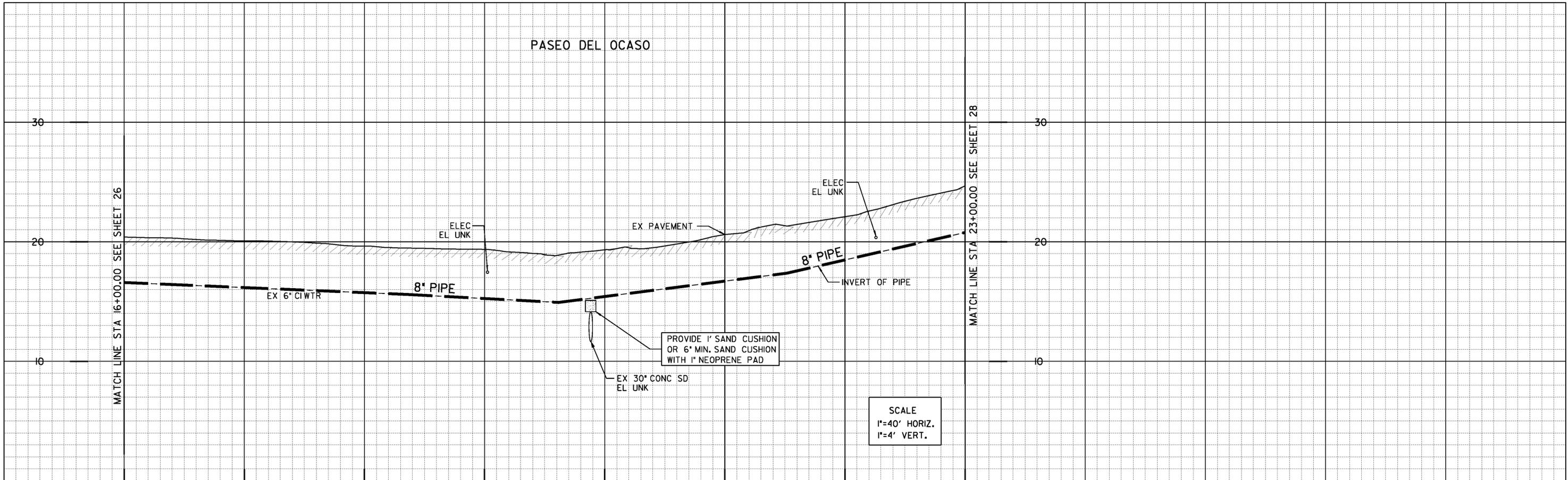


| | | | |
|--|----------------|--------------------------------------|------|
| SEWER AND WATER GROUP 809 PASEO DEL OCASO NO VALLECITOS TO SO CAMINO DEL ORO | | WATER WBS B00102 SEWER WBS B00416 | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 26 OF 39 SHEETS | | DATE 6/14/13 | |
| FOR CITY ENGINEER | | DATE | |
| DCE NAME | | PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| | | 252-1691 CCS27 COORDINATE | |
| | | 6252407-1892444 CCS88 COORDINATE | |
| CONTRACTOR | DATE STARTED | 34419-26-D | |
| INSPECTOR | DATE COMPLETED | | |

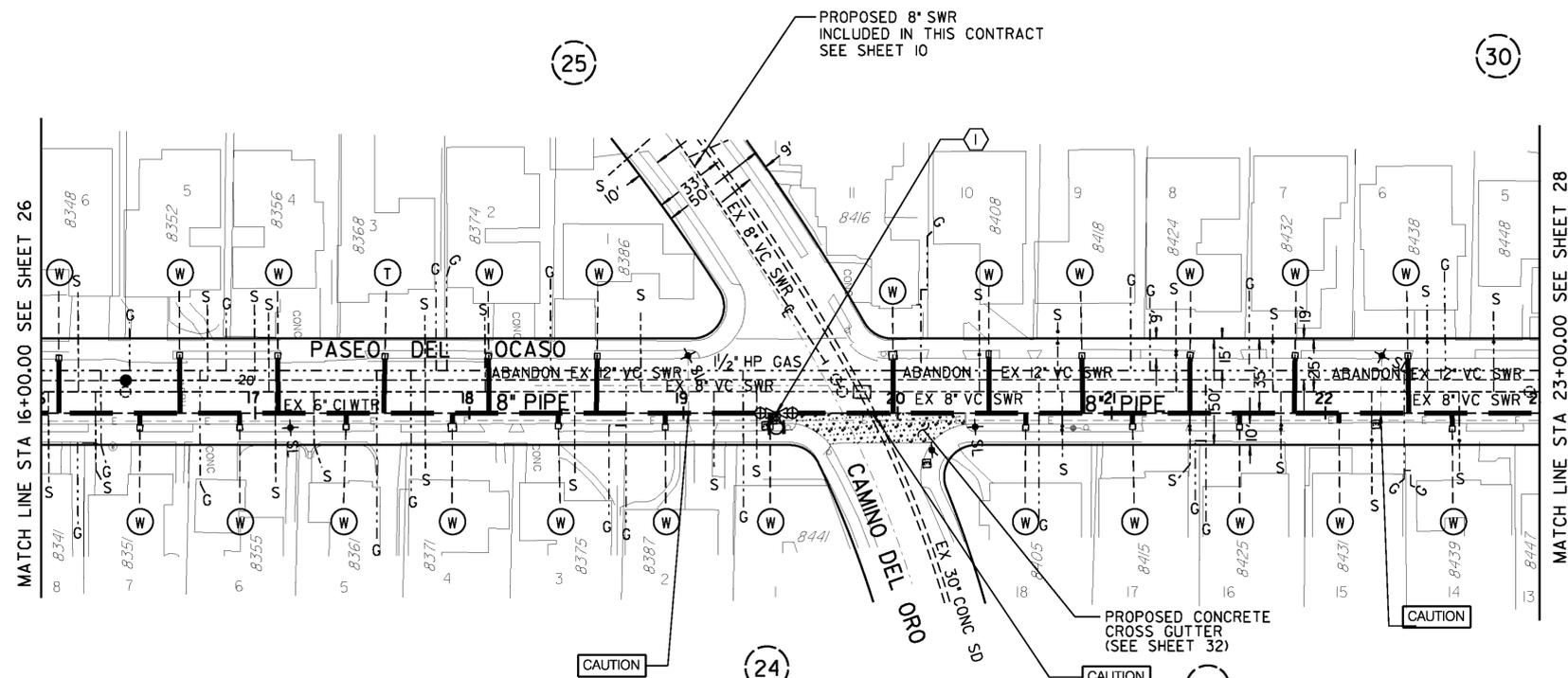
C-24

PASEO DEL OCASO

PASEO DEL OCASO



16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00



BY CONTRACTOR
FURNISH AND INSTALL
STA 19+43.43
1- 8" X 6" TEE (F, F, F)
1- 6" FH ASSY AND MARKER

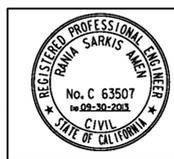
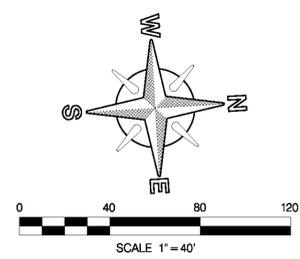
REFERENCE:
WATER: 19580-9-D, 26331-4-D
SEWER: 1382-D, 1384-D, 13369-31-D,
13369-32-D
STORM DRAIN: I0394-L
GAS: 45-325, 45-327, 45-333
ELECTRIC: 252-1689B, 252-1689D, 7882-I-L
CABLE TV: IILJ030
TELEPHONE: LJ0608CA, LJ0608CC
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 252-1691, B09S
THOMAS BROS.: I227
HGL: 241

RETIREMENTS:
6" - CI - 700' - 1928
FH (2-PORT) - 1 - 1928
1" SERVICE - 24 - COPPER - 1928

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO
LOW OVERHEAD UTILITY LINES.

CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM STA. 16+00 TO STA. 23+00 PASEO DEL OCASO SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

LA JOLLA SHORES
UNIT NO 3
MAP 2061

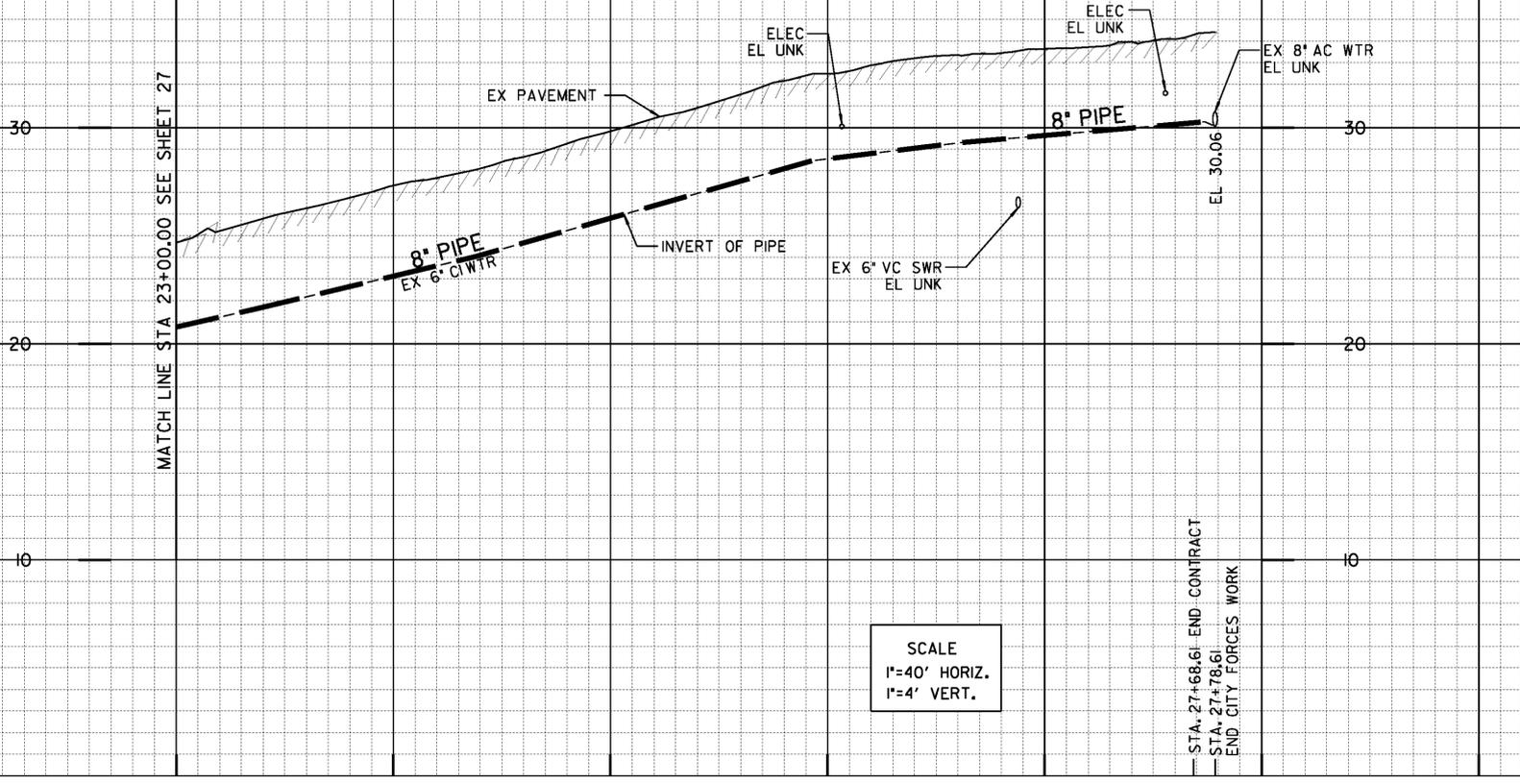


| | | |
|--|----------------|--------------------------------------|
| SEWER AND WATER GROUP 809 PASEO DEL OCASO SO CAMINO DEL ORO TO EL PASEO GRANDE | | WATER WBS B00102 SEWER WBS B00416 |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 27 OF 39 SHEETS | | DATE 6/14/13 |
| FOR CITY ENGINEER | | ASSOCIATE ENGINEER |
| DCE NAME | | PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED |
| ORIGINAL | EC/PE | |
| 252-1691 CCS27 COORDINATE | | 6252407-1892444 CCS88 COORDINATE |
| CONTRACTOR | DATE STARTED | 34419-27-D |
| INSPECTOR | DATE COMPLETED | |

C-25

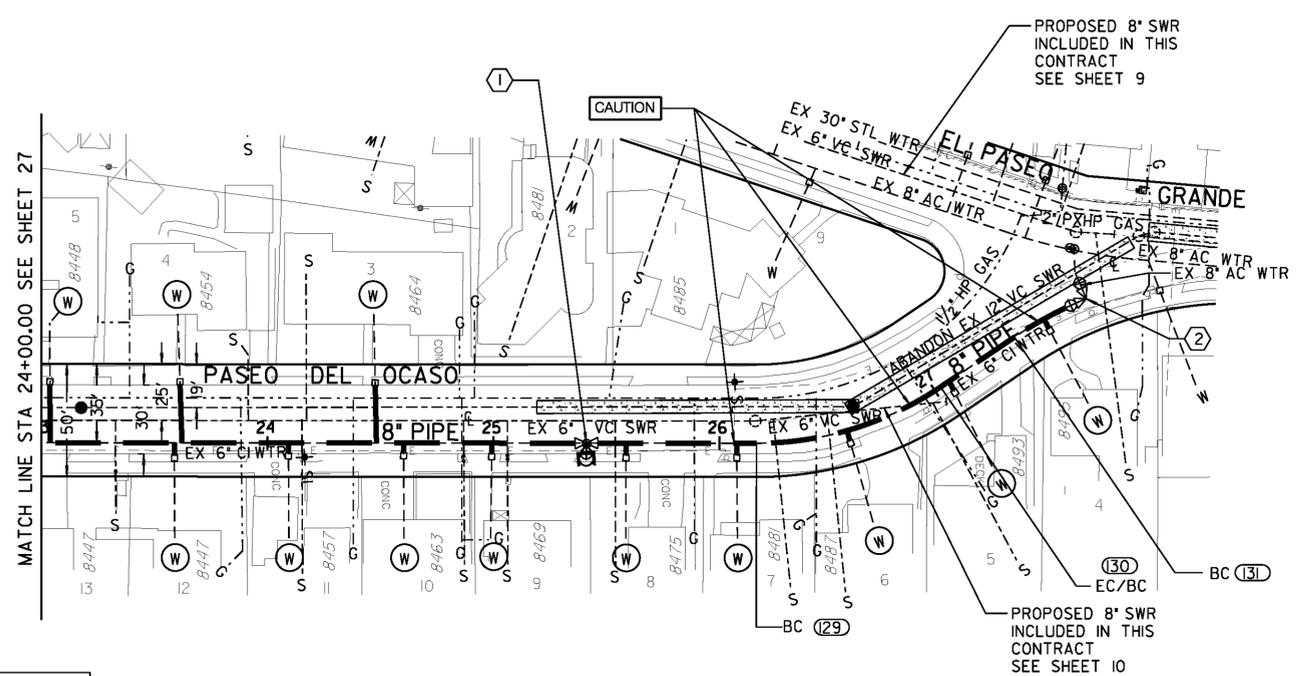
PASEO DEL OCASO

PASEO DEL OCASO



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

23+00 24+00 25+00 26+00 27+00 28+00 29+00



PROPOSED 8" SWR
INCLUDED IN THIS
CONTRACT
SEE SHEET 9

(1) (28)
BY CONTRACTOR
FURNISH AND INSTALL
STA 25+41.20
1- 8" X 6" TEE (MJ, MJ, F)
1- 6" FH ASSY AND MARKER

(2) (32)
BY CITY FORCES
FURNISH AND INSTALL
STA 27+78.61
CUT IN:
1- 8" X 8" 90° BEND (F, F, F)
2- 8" VALVES (F, MJ) BK, LT
1- 8" BLIND FLANGE (F) AHD

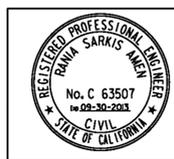
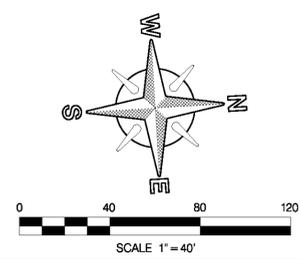
PROPOSED 8" SWR
INCLUDED IN THIS
CONTRACT
SEE SHEET 10

CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM STA. 23+00 TO STA. 27+78.61 PASEO DEL OCASO SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

REFERENCE:
WATER: 19580-9-D, 26331-4-D
SEWER: 1382-D, 1384-D, 13369-31-D, 13369-32-D
STORM DRAIN: 10394-L
GAS: 45-325, 45-327, 45-333
ELECTRIC: 252-1689B, 252-1689D, 7882-I-L
CABLE TV: ILLJ030
TELEPHONE: LJO608CA, LJO608CC
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 252-1691, B09S
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
6" - CI - 441' - 1928
FH (2-PORT) - 1 - 1928
1" SERVICE - 12 - COPPER - 1928

CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.

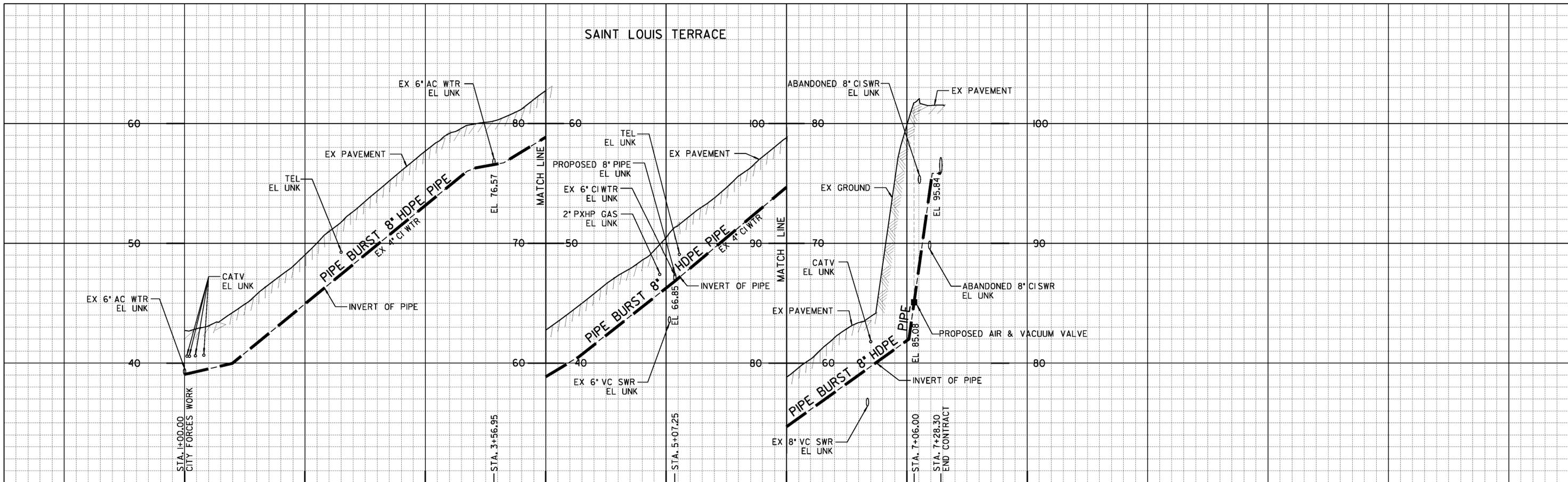


| | | |
|--|-------------|---|
| SEWER AND WATER GROUP 809 PASEO DEL OCASO SO CAMINO DEL ORO TO EL PASEO GRANDE | | WATER WBS: B00102 SEWER WBS: B00416 |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 28 OF 39 SHEETS | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| FOR CITY ENGINEER: <i>[Signature]</i> DATE: 6/14/13 | | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER |
| DCE NAME: _____ | | NO. C 63507 09-30-2013 CIVIL STATE OF CALIFORNIA |
| DESCRIPTION ORIGINAL | BY EC/PE | APPROVED DATE FILMED |
| CONTRACTOR: _____ | | DATE STARTED: _____ DATE COMPLETED: _____ |
| INSPECTOR: _____ | | 252-1691 CCS27 COORDINATE 6252407-1892444 CCS88 COORDINATE 34419-28-D |

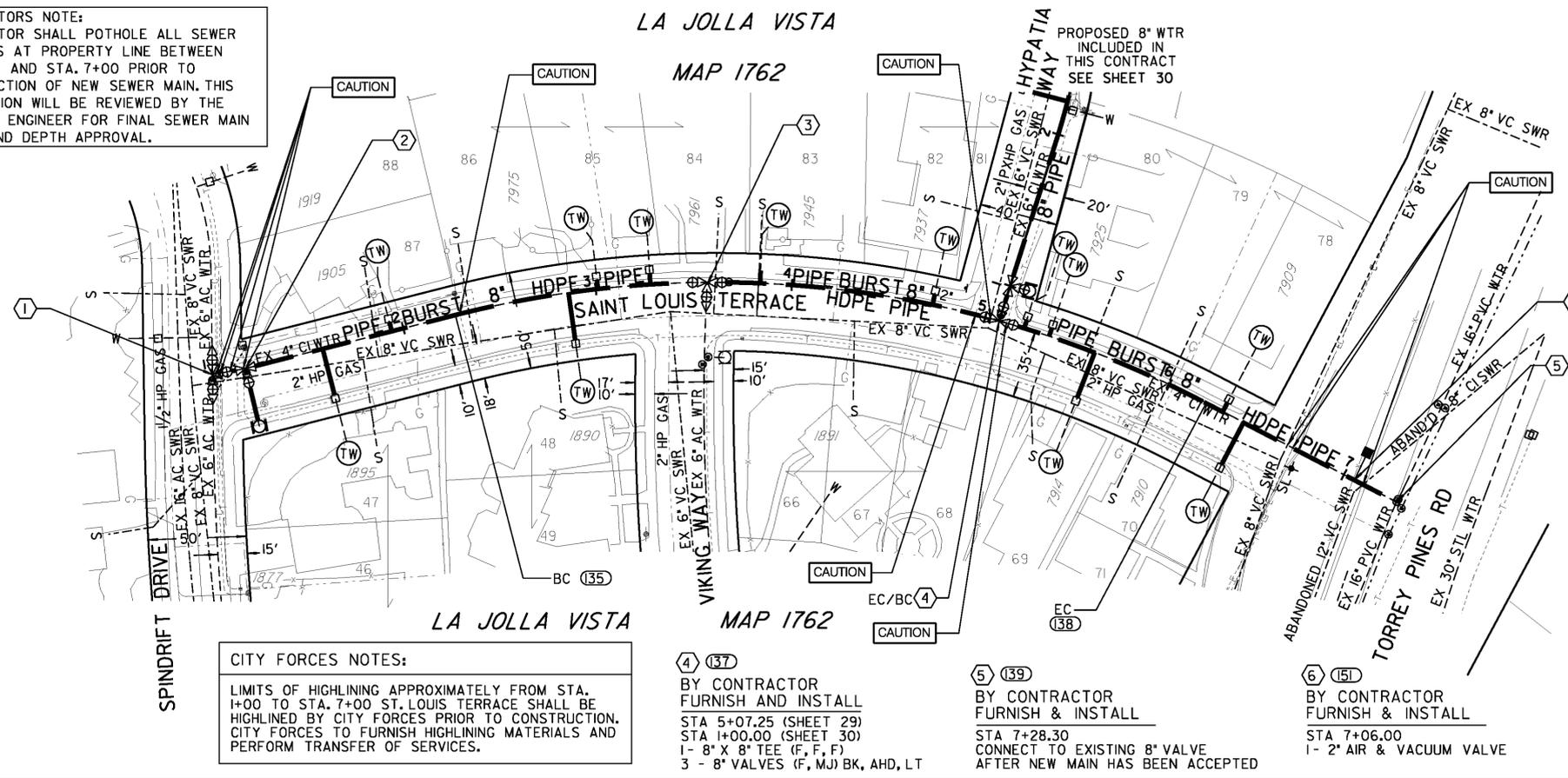
C-26

PASEO DEL OCASO

SAINT LOUIS TERRACE



CONTRACTORS NOTE:
 CONTRACTOR SHALL POTHOLE ALL SEWER
 LATERALS AT PROPERTY LINE BETWEEN
 STA. 1+00 AND STA. 7+00 PRIOR TO
 CONSTRUCTION OF NEW SEWER MAIN. THIS
 INFORMATION WILL BE REVIEWED BY THE
 RESIDENT ENGINEER FOR FINAL SEWER MAIN
 SLOPE AND DEPTH APPROVAL.



CITY FORCES NOTES:
 LIMITS OF HIGHLINING APPROXIMATELY FROM STA.
 1+00 TO STA. 7+00 ST. LOUIS TERRACE SHALL BE
 HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION.
 CITY FORCES TO FURNISH HIGHLINING MATERIALS AND
 PERFORM TRANSFER OF SERVICES.

4 (137)
 BY CONTRACTOR
 FURNISH AND INSTALL
 STA 5+07.25 (SHEET 29)
 STA 1+00.00 (SHEET 30)
 1 - 8" X 8" TEE (F, F, F)
 3 - 8" VALVES (F, MJ) BK, AHD, LT

5 (139)
 BY CONTRACTOR
 FURNISH & INSTALL
 STA 7+28.30
 CONNECT TO EXISTING 8" VALVE
 AFTER NEW MAIN HAS BEEN ACCEPTED

6 (151)
 BY CONTRACTOR
 FURNISH & INSTALL
 STA 7+06.00
 1 - 2" AIR & VACUUM VALVE

1 (133)
 BY CITY FORCES
 FURNISH & INSTALL
 AHD OF CONTRACTOR
 STA 1+00.00
 CUT IN:
 1 - 8" X 8" TEE (F, F, F)
 3 - 8" VALVES (F, MJ) AHD, LT, RT
 6' - 8" PIPE, LT, RT
 2 - 8" X 6" REDUCER (MJ, MJ) LT, RT
 CLOSE VALVE AHD
 RECONNECT AFTER NEW MAIN
 HAS BEEN ACCEPTED
 AND OPEN VALVE AHD

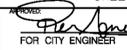
2 (134)
 BY CONTRACTOR
 FURNISH AND INSTALL
 STA 1+17.07
 1 - 8" X 6" TEE (MJ, MJ, F)
 1 - 6" FH ASSY AND MARKER

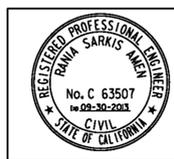
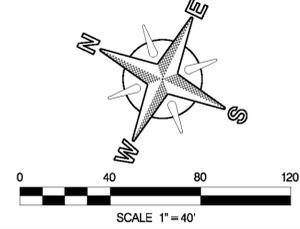
3 (136)
 BY CITY FORCES
 FURNISH & INSTALL
 AHD OF CONTRACTOR
 STA 3+56.95
 CUT IN:
 1 - 8" X 8" TEE (F, F, F)
 3 - 8" VALVES (F, MJ) BK, AHD, RT
 3' - 8" PIPE, RT
 1 - 8" X 6" REDUCER (MJ, MJ) RT
 CLOSE VALVE RT
 RECONNECT AFTER NEW MAIN
 HAS BEEN ACCEPTED
 AND OPEN VALVE RT

REFERENCE:
 WATER: 6486-L, 6685-D, 7073-W, 30862-8-D
 SEWER: 1499-D, 1500-D, 13369-28-D, 30862-23-D, 30862-31-D
 STORM DRAIN: NONE
 GAS: 45-237
 ELECTRIC: 250-1689A
 CABLE TV: ILJ026
 TELEPHONE: LJ040AC, LJ404CA
 IMPROVEMENTS: NONE
 100' SCALE/FIELD BOOK: 250-1689, B09S
 THOMAS BROS.: 1227
 HGL: 241

RETIREMENTS:
 4" - CI - 628' - 1958
 FH (2-PORT) - 1
 1" SERVICE - 11 - COPPER - 1958
 2" SERVICE - 1 - COPPER - 1958

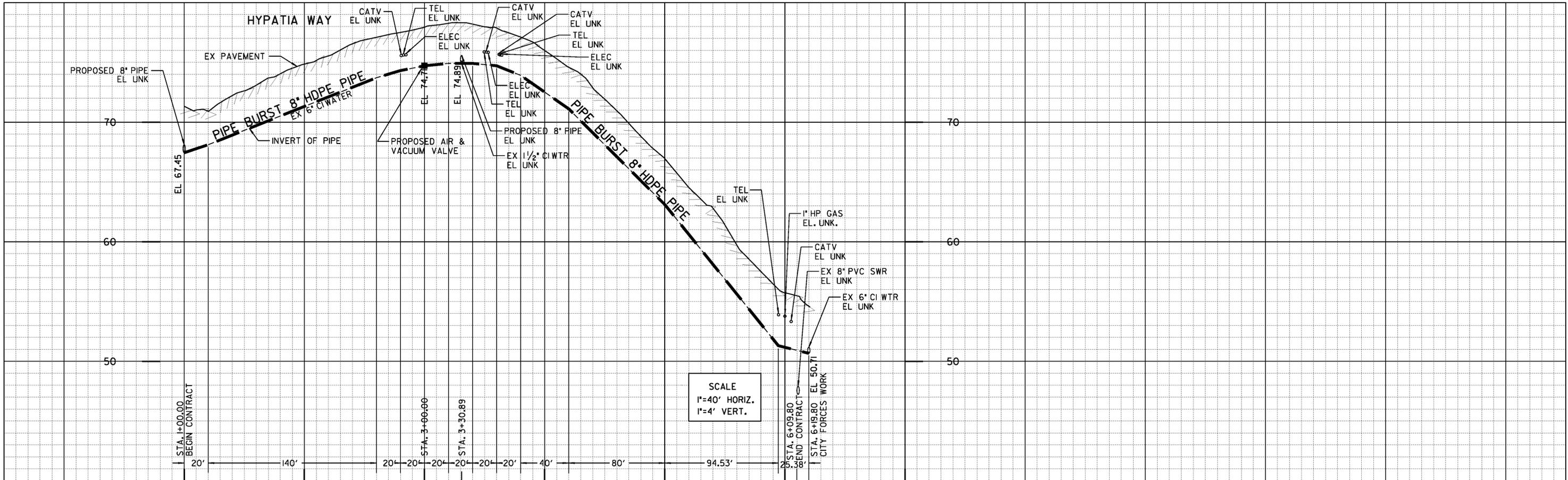
CONTRACTOR'S NOTE:
 USE EXTREME CAUTION WHEN WORKING DUE TO
 LOW OVERHEAD UTILITY LINES.

| | | | |
|---|----------------|---|--|
| SEWER AND WATER GROUP 809 | | WATER WBS | B00102 |
| SAINT LOUIS TERRACE | | SEWER WBS | B00416 |
| SPINDRIFT DRIVE TO TORREY PINES ROAD | | DATE | 6/14/13 |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 29 OF 39 SHEETS | | FOR CITY ENGINEER | DATE |
|  EDWARD CASTANEDA PROJECT ENGINEER | | SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| | | DATE | FILED |
| | | 250-1689 | |
| | | CCS27 COORDINATE | |
| | | 6250407-1890444 | |
| | | CCS88 COORDINATE | |
| CONTRACTOR | DATE STARTED | 34419-29-D | |
| INSPECTOR | DATE COMPLETED | | |



C-27

SAINT LOUIS TERRACE



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

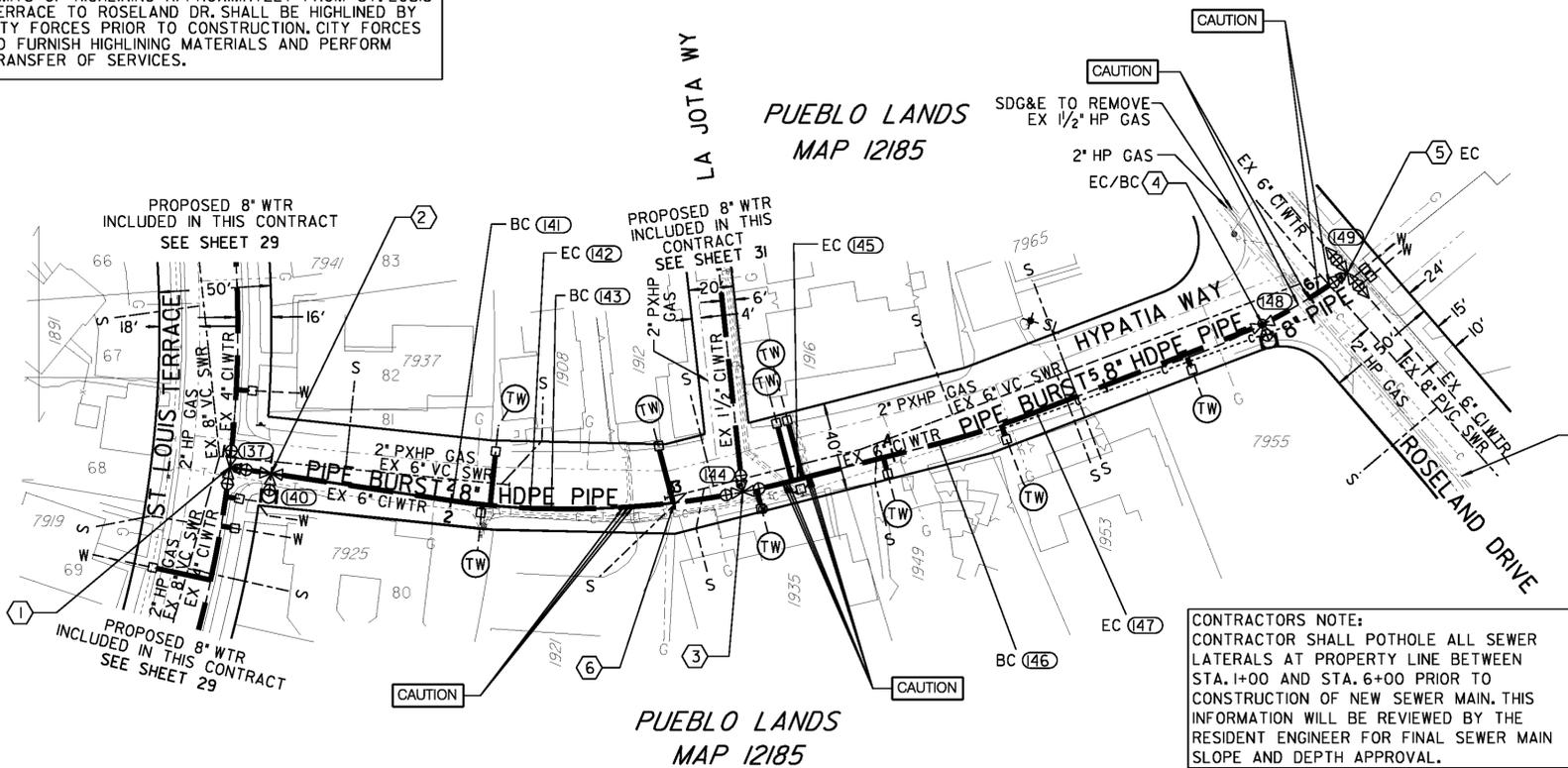
CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM ST. LOUIS TERRACE TO ROSELAND DR. SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

- (2) (140)
BY CONTRACTOR
FURNISH AND INSTALL
STA 1+18.76
1 - 8" X 6" TEE (MJ, MJ, F)
1 - 6" FH ASSY AND MARKER
- (3) (144)
BY CONTRACTOR
FURNISH AND INSTALL
STA 3+30.89
1 - 8" X 8" TEE (F, F, F)
3 - 8" VALVES (F, MJ) BK, AHD, LT
- (4) (148)
BY CONTRACTOR
FURNISH AND INSTALL
STA 5+75.32
1 - 8" X 6" TEE (MJ, MJ, F)
1 - 6" FH ASSY AND MARKER

REFERENCE:
WATER: 6486-L, 7072-W
SEWER: 1499-D, 1500-D
STORM DRAIN: NONE
GAS: 45-237, 45-238
ELECTRIC: 250-1689A
CABLE TV: ILJ026
TELEPHONE: LJ404AD, LJ404CA, LJ404CB
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1689, B09S
THOMAS BROS.: 1227
HGL: 241

RETIREMENTS:
6" - C1 - 519' - 1947
FH (2-PORT) - 2 - 1947
SERVICE - 9 - COPPER - 1947

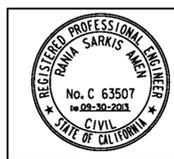
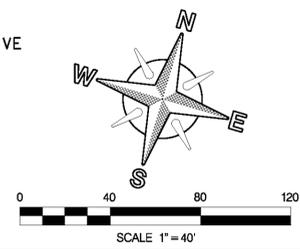
CONTRACTOR'S NOTE:
USE EXTREME CAUTION WHEN WORKING DUE TO LOW OVERHEAD UTILITY LINES.



- (1) (140)
BY CONTRACTOR
FURNISH AND INSTALL
STA 1+00.00 (SHEET 30)
STA 5+07.25 (SHEET 29)
SEE SHEET 29 NOTE (4)
FOR DETAILS

- (6) (152)
BY CONTRACTOR
FURNISH & INSTALL
STA 3+00.00
1 - 2" AIR & VACUUM VALVE

CONTRACTORS NOTE:
CONTRACTOR SHALL POTHOLE ALL SEWER LATERALS AT PROPERTY LINE BETWEEN STA. 1+00 AND STA. 6+00 PRIOR TO CONSTRUCTION OF NEW SEWER MAIN. THIS INFORMATION WILL BE REVIEWED BY THE RESIDENT ENGINEER FOR FINAL SEWER MAIN SLOPE AND DEPTH APPROVAL.

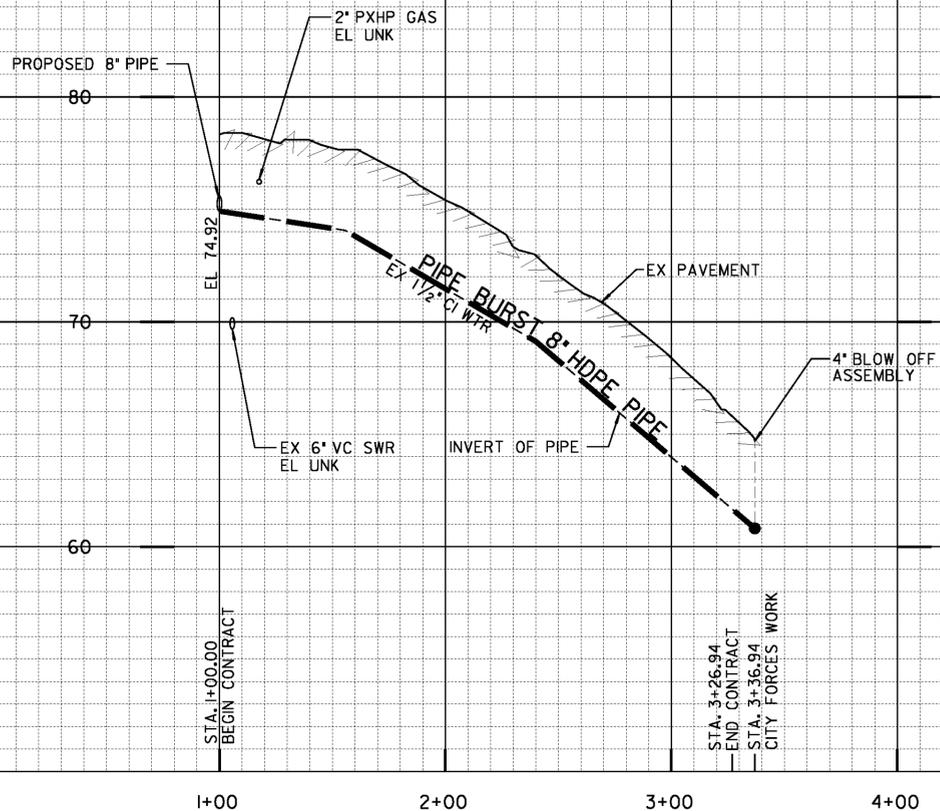


| | | | |
|---|--|--------------------------------------|--|
| SEWER AND WATER GROUP 809 | | | |
| HYPATHIA WAY | | | |
| SAINT LOUIS TERRACE TO ROSELAND DRIVE | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 30 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> | | DATE: 6/14/13 | |
| DCE NAME: _____ | | ASSOCIATE ENGINEER: AKRAM BASSYOUNI | |
| PROJECT ENGINEER: EDWARD CASTANEDA | | PROJECT NO: 250-1689 | |
| DESCRIPTION: ORIGINAL | | COORDINATE: CC827 | |
| BY: EC/PE | | COORDINATE: 6250407-1890444 | |
| APPROVED: _____ | | COORDINATE: CC888 | |
| DATE: _____ | | CONTRACTOR: _____ | |
| FILMED: _____ | | DATE STARTED: _____ | |
| DATE COMPLETED: _____ | | INSPECTOR: _____ | |
| DATE COMPLETED: _____ | | DATE COMPLETED: _____ | |

C-28

HYPATHIA WAY

LA JOTA WAY



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

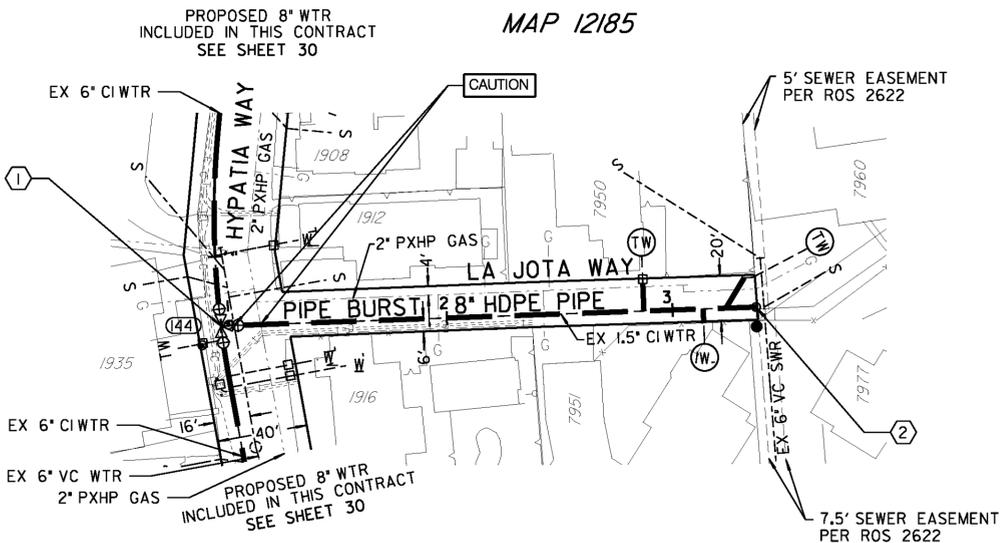
CITY FORCES NOTES:
LIMITS OF HIGHLINING APPROXIMATELY FROM STA. 1+00.00 TO STA. 3+36.94 LA JOTA WY SHALL BE HIGHLINED BY CITY FORCES PRIOR TO CONSTRUCTION. CITY FORCES TO FURNISH HIGHLINING MATERIALS AND PERFORM TRANSFER OF SERVICES.

CONTRACTORS NOTE:
CONTRACTOR SHALL POTHOLE ALL SEWER LATERALS AT PROPERTY LINE BETWEEN STA. 1+00 AND STA. 3+36 PRIOR TO CONSTRUCTION OF NEW SEWER MAIN. THIS INFORMATION WILL BE REVIEWED BY THE RESIDENT ENGINEER FOR FINAL SEWER MAIN SLOPE AND DEPTH APPROVAL.

REFERENCE:
WATER: 6486-L
SEWER: 1499-D, 1500-D
STORM DRAIN: NONE
GAS: 45-237C, 45-238
ELECTRIC: 250-1689A
CABLE TV: ILLJ026
TELEPHONE: LJ404AD, LJ404CB
IMPROVEMENTS: NONE
100' SCALE/FIELD BOOK: 250-1689, B095
THOMAS BROS.: 1227
HGL: 241

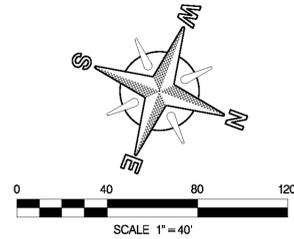
RETIREMENTS:
1 1/2" - CI - 237' - UNK
3/4" SERVICE - 3 - UNK - UNK

PUEBLO LANDS
MAP 12185



- ① (44)
BY CONTRACTOR
FURNISH & INSTALL
STA 1+00.00 (SHEET 31)
STA 3+30.89 (SHEET 30)
SEE SHEET 30 NOTE ③
FOR DETAILS
- ② (50)
BY CONTRACTOR
FURNISH & INSTALL
STA 3+36.94
BLOW-OFF ASSEMBLY

PUEBLO LANDS
MAP 12185



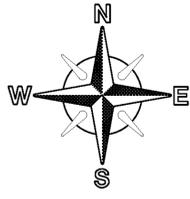
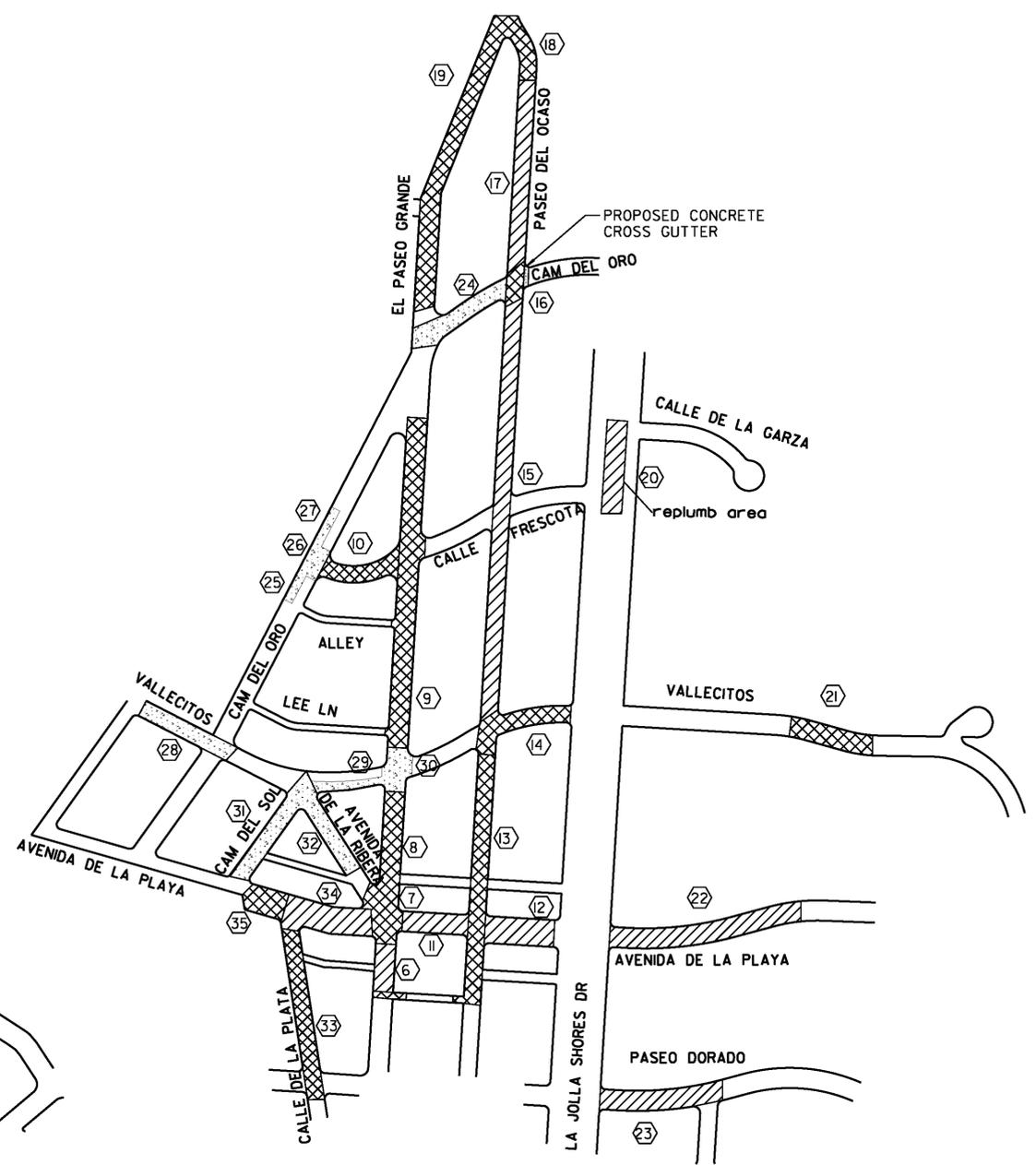
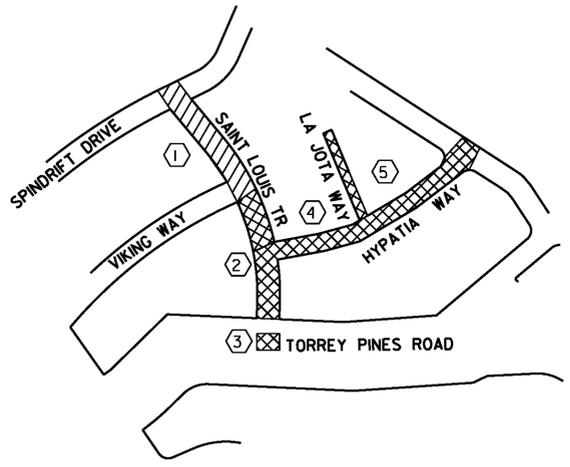
| | | | | |
|---|-------|----------------------|---|-------|
| SEWER AND WATER GROUP 809 LA JOTA WAY HYPATHIA WAY TO SO SPINDRIFT DRIVE | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 31 OF 39 SHEETS | | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER: <i>[Signature]</i> DATE: 6/14/13 | | | SUBMITTED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME: _____ | | | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE | FILED |
| ORIGINAL | EC/PE | | | |
| | | | 250-1689 CCS27 COORDINATE | |
| | | | 6250407-1890444 CCS88 COORDINATE | |
| CONTRACTOR _____ | | DATE STARTED _____ | | |
| INSPECTOR _____ | | DATE COMPLETED _____ | | |
| 34419-31-D | | | | |

C-29

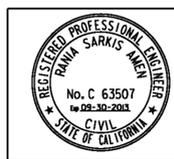
LA JOTA WAY

| LEGEND | |
|---|---|
|  | APPROXIMATE LOCATION OF SLURRY SEAL |
|  | APPROX. LIMITS OF RESURFACE AC OVERLAY |
|  | LOCATION PER PAVING SCHEDULE NOTES (THIS SHEET) |
|  | COLD MILLING ASPHALT CONCRETE PAVEMENT; SDG-106 |

| PAVING SCHEDULE NOTES | | | | | | |
|------------------------------|----------------------|----------------------|---------|---------|-------|--------------|
| NO. | LOCATION | RESTORATION REQUIRED | STATION | STATION | WIDTH | APPROX. AREA |
| 1 | ST LOUIS TERRACE | SLURRY | 1+00 | 3+70 | 30 | 8100 |
| 2 | ST LOUIS TERRACE | AC | 3+70 | 6+75 | 30 | 9150 |
| 3 | TORREY PINES ROAD | AC PATCH | 7+10 | 7+50 | 30 | 1200 |
| 4 | HYPATIA WY | AC | 1+00 | 6+15 | 30 | 15450 |
| 5 | LA JOTA WY | AC | 1+00 | 3+40 | 20 | 4800 |
| 6 | EL PASEO GRANDE | SLURRY | 1+00 | 3+10 | 30 | 6300 |
| 7 | EL PASEO GRANDE | AC | 1+00 | 2+00 | 80 | 8000 |
| 8 | EL PASEO GRANDE | AC | 2+00 | 5+05 | 30 | 9150 |
| 9 | EL PASEO GRANDE | AC | 6+37 | 15+44 | 30 | 27210 |
| 10 | CALLE FRESCOTA | AC | 1+00 | 3+50 | 30 | 7500 |
| 11 | AVENIDA DE LA PLAYA | SLURRY | 0+00 | 2+00 | 40 | 8000 |
| 12 | AVENIDA DE LA PLAYA | SLURRY | 2+60 | 4+00 | 40 | 5600 |
| 13 | PASEO DEL OCASO | AC | 1+00 | 8+50 | 30 | 22500 |
| 14 | VALLECITOS | AC | 0+75 | 4+00 | 50 | 16250 |
| 15 | PASEO DEL OCASO | SLURRY | 6+62 | 19+50 | 30 | 38640 |
| 16 | PASEO DEL OCASO | AC | 19+50 | 20+10 | 50 | 3000 |
| 17 | PASEO DEL OCASO | SLURRY | 20+10 | 26+00 | 30 | 17700 |
| 18 | PASEO DEL OCASO | AC | 26+00 | 27+90 | 30 | 5700 |
| 19 | EL PASEO GRANDE | AC | 11+90 | 21+10 | 30 | 27600 |
| 20 | LA JOLLA SHORES DR | SLURRY | 1+00 | 4+50 | 40 | 14000 |
| 21 | VALLECITOS | AC | 1+00 | 3+30 | 36 | 8280 |
| 22 | AVENIDA DE LA PLAYA | SLURRY | 1+00 | 7+10 | 37 | 22570 |
| 23 | PASEO DORADO | SLURRY | 1+00 | 4+50 | 37 | 12950 |
| 24 | CAMINO DEL ORO | CONC | 0+85 | 4+30 | 31 | 10695 |
| 25 | CAMINO DEL ORO | CONC | 6+00 | 6+50 | 15 | 750 |
| 26 | CAMINO DEL ORO | CONC | 6+50 | 7+50 | 30 | 3000 |
| 27 | CAMINO DEL ORO | CONC | 7+50 | 8+00 | 15 | 750 |
| 28 | VALLECITOS | CONC | 4+80 | 7+40 | 30 | 7800 |
| 29 | VALLECITOS | CONC | 6+50 | 9+00 | 15 | 750 |
| 30 | VALLECITOS | CONC | 9+00 | 9+50 | 50 | 2500 |
| 31 | CAMINO DEL SOL | CONC | 0+80 | 4+70 | 30 | 11700 |
| 32 | AVENIDA DE LA RIBERA | CONC | 1+00 | 5+00 | 30 | 12000 |
| 33 | CALLE DE LA PLATA | AC | 1+00 | 6+05 | 30 | 15150 |
| 34 | AVENIDA DE LA PLAYA | SLURRY | 2+60 | 5+00 | 30 | 7200 |
| 35 | AVENIDA DE LA PLAYA | AC | 1+40 | 2+60 | 30 | 3600 |
| TOTAL AREA OF SLURRY SEAL | | | | | | 141060 SF |
| TOTAL AREA OF RESURFACE AC | | | | | | 184540 SF |
| TOTAL AREA OF RESURFACE CONC | | | | | | 49945 SF |



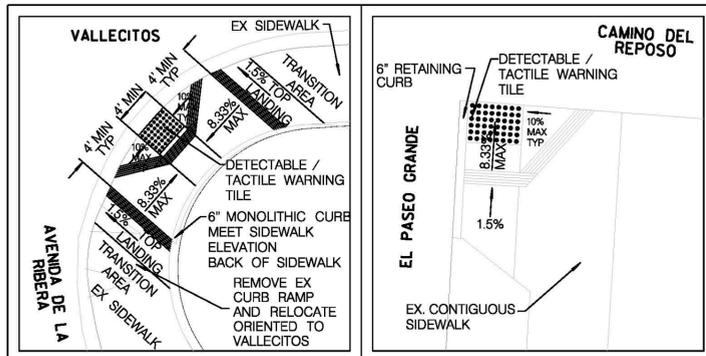
NO SCALE



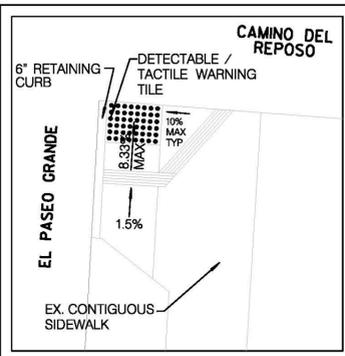
| | |
|---|--|
| SEWER AND WATER GROUP 809 STREET RESURFACING | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 32 OF 39 SHEETS | WATER WBS B00102 SEWER WBS B00416 |
| DATE: 6/14/13 FOR CITY ENGINEER: <i>[Signature]</i> | DATE: 6/14/13 ASSOCIATE ENGINEER: AKRAM BASSYOUNI |
| DCE NAME: _____ | PROJECT ENGINEER: EDWARD CASTANEDA |
| DESCRIPTION: ORIGINAL | BY: EC/PE |
| APPROVED: _____ | DATE: _____ |
| FILMED: _____ | FILED: _____ |
| CONTRACTOR: _____ | DATE STARTED: _____ |
| INSPECTOR: _____ | DATE COMPLETED: _____ |
| 34419-32-D | |

C-30

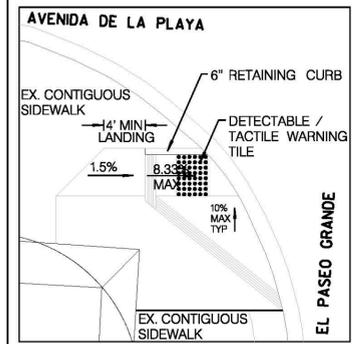
STREET RESURFACING



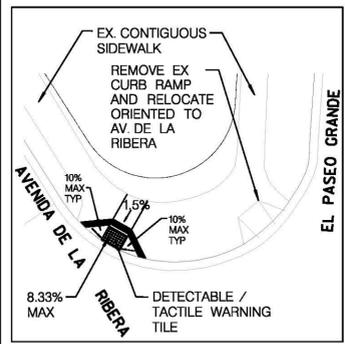
DETAIL No.1 NO SCALE



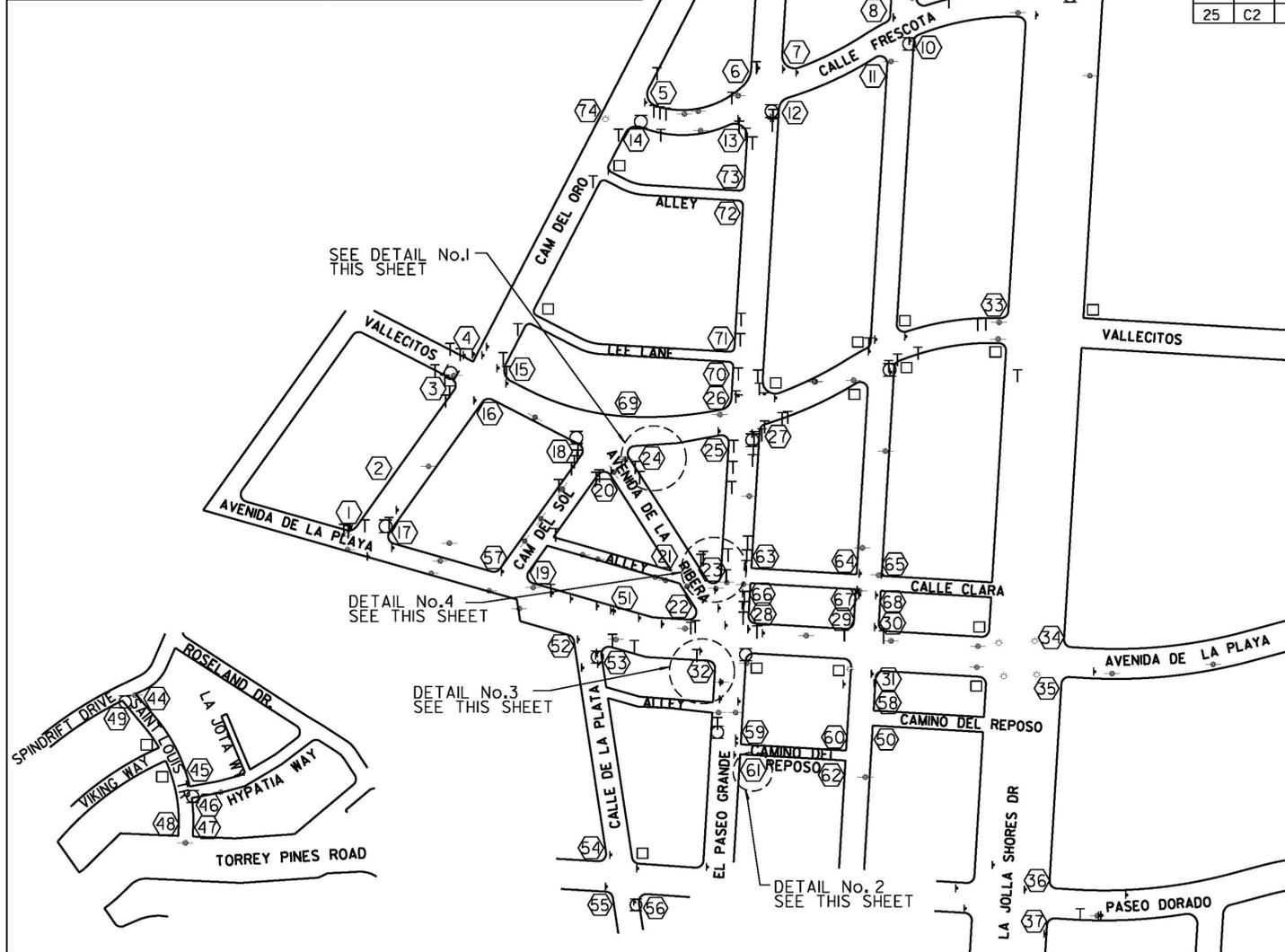
DETAIL No.2 NO SCALE



DETAIL No.3 NO SCALE



DETAIL No.4 NO SCALE



| CURB RAMP NOTES TABLE | | | | | | | | | |
|-----------------------|------|------|-----|-------------|-----------------|-------------------------|-------|-------------|--|
| LOCATION NO | RAMP | CASE | NEW | REPLACEMENT | HISTORIC STAMPS | TRUNCATED DOME MATERIAL | | CONSTRAINTS | COMMENTS / MODIFICATIONS |
| | | | | | | STAINLESS STEEL | OTHER | | |
| 1 | C2 | | | X | | X | | | |
| 2 | A | | | X | | X | | | CONTRACTOR TO MATCH EX SIDEWALK CONCRETE COLOR |
| 3 | C2 | | | X | | X | | | |
| 4 | C2 | | | X | | X | | | |
| 5 | C2 | | | X | | X | | | |
| 6 | C2 | | X | X | | X | | | |
| 7 | C2 | | X | | | X | | | |
| 8 | C2 | | | X | | X | | | |
| 9 | C2 | | | X | | X | | | |
| 10 | C2 | | | X | | X | | | |
| 11 | C2 | | | X | | X | | | |
| 12 | A | | X | X | | X | | | |
| 13 | C2 | | X | | | X | | | |
| 14 | C2 | | | X | X | X | | | |
| 15 | C2 | | | X | | X | | | |
| 16 | C2 | | | X | | X | | | |
| 17 | C2 | | | X | | X | | | |
| 18 | C2 | | | X | X | X | | | |
| 19 | C2 | | | X | | X | | | |
| 20 | C2 | | | X | | X | | | |
| 21 | A | | | X | | X | | | ALIGN WITH CURB RAMP No.23 (SEE SDG 130) |
| 22 | D | | | X | | X | | | |
| 23 | A | | | X | | X | | | REMOVE EX CURB RAMP, REPLACE WITH STANDARD SIDEWALK, CURB & GUTTER AND RELOCATE PER DETAIL 4 |
| 24 | C2 | | | X | X | X | | | REMOVE EX CURB RAMP, REPLACE WITH STANDARD SIDEWALK, CURB & GUTTER AND RELOCATE PER DETAIL 1 |
| 25 | C2 | | | X | | X | | | |

| CURB RAMP NOTES TABLE | | | | | | | | | |
|-----------------------|------|------|-----|-------------|-----------------|-------------------------|-------|-------------|--|
| LOCATION NO | RAMP | CASE | NEW | REPLACEMENT | HISTORIC STAMPS | TRUNCATED DOME MATERIAL | | CONSTRAINTS | COMMENTS / MODIFICATIONS |
| | | | | | | STAINLESS STEEL | OTHER | | |
| 26 | C2 | | | X | | X | | | |
| 27 | A | | | X | | X | | | |
| 28 | A | | | X | | X | | | |
| 29 | A | | | X | | X | | | |
| 30 | C2 | | | X | | X | | | |
| 31 | A | | | X | | X | | | |
| 32 | | | | X | | X | | | PER DETAIL No.3 DIRECTIONAL CURB RAMP |
| 33 | B | | | X | | X | | | |
| 34 | C2 | | | X | | X | | | |
| 35 | C2 | | | X | | X | | | |
| 36 | C2 | | | X | | X | | | |
| 37 | C2 | | | X | | X | | | |
| 38 | B | | | X | X | X | | | CONTRACTOR TO REPAIR DAMAGED SIDEWALK PANELS LEADING TO THE CURB RAMP LANDING. |
| 39 | C2 | | | X | | X | | | |
| 40 | C2 | | | X | | X | | | |
| 41 | C2 | | | X | | X | | | |
| 42 | C2 | | X | | | X | | | |
| 43 | C2 | | X | | X | X | | | |
| 44 | C2 | | | X | | X | | | |
| 45 | D | | | X | | X | | | |
| 46 | D | | | X | | X | | | |
| 47 | C1 | | | X | | X | | | |
| 48 | C1 | | | X | X | X | | | |
| 49 | C1 | | | X | | X | | | |
| 50 | D | | | | | X | | | |
| 51 | B | | | | | X | | | |
| 52 | C2 | | | | | X | | | |
| 53 | A | | | | | X | | | |
| 54 | C2 | | | | | X | | | |
| 55 | C2 | | | | | X | | | |
| 56 | C2 | | | | | X | | | |
| 57 | C2 | | | | | X | | | |
| 58 | D | | | | | X | | | |
| 59 | D | | | | | X | | | |
| 60 | D | | | | | X | | | |
| 61 | D | | | | | X | | | SEE DETAIL 2 |
| 62 | D | | | | | X | | | |
| 63 | D | | | | | X | | | |
| 64 | D | | | | | X | | | |
| 65 | D | | | | | X | | | |
| 66 | D | | | | | X | | | |
| 67 | D | | | | | X | | | |
| 68 | D | | | | | X | | | |
| 69 | A | | | | | X | | | SEE SDG-130 |
| 70 | D | | | | | X | | | |
| 71 | D | | | | | X | | | |
| 72 | D | | | | | X | | | |
| 73 | D | | | | | X | | | |
| 74 | A | | | | | X | | | |
| 75 | B | | | | | X | | | |
| 76 | A | | | | | X | | | SEE SDG-130 |

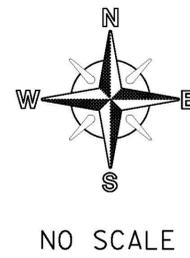
- NOTE:
- CONTRACTOR TO NOTIFY SURVEYING 30 DAYS PRIOR TO REMOVAL OF SIDEWALK FOR CURB RAMP CONSTRUCTION TO RELOCATE ANY SURVEY MARKERS.
 - CROSSWALKS AND LIMIT LINES ARE TO BE RESTRIPTED WITH 12" WIDE WHITE THERMOPLASTIC (YELLOW FOR SCHOOL SIDEWALKS)
 - CONTRACTOR TO ADJUST LIMIT LINES BEFORE EACH CURB RAMP
 - CONTRACTOR TO REPLACE, IN KIND, DRY DAMAGED BRICK FINISH ON SIDEWALK

LEGEND

- # CURB RAMP NO's
- EX UTILITY POLE
- EX FIRE HYDRANT
- EX STREET LIGHT
- T EX TREE
- EX STREET SIGN
- EX CURB RAMP

PROPOSED CURB RAMPS PER STANDARD DRAWINGS:

- A & B SDG-132
- C1 SDG-134
- C2 SDG-135
- D SDG-136
- TRUNCATED DOMES SDG-130
- CURB RAMP DETAILS SDG-130
- EX STAMP/IMPRESSION PLACEMENT SDG-115



SEWER AND WATER GROUP 809
CURB RAMP LOCATION

CITY OF SAN DIEGO, CALIFORNIA
PUBLIC WORKS DEPARTMENT
SHEET 33 OF 39 SHEETS

DATE: 6/14/13

FOR CITY ENGINEER: [Signature]

DCE NAME: [Blank]

| DESCRIPTION | BY | APPROVED | DATE | FILMED |
|-------------|-------|----------|------|--------|
| ORIGINAL | EC/PE | | | |

CONTRACTOR: [Blank] DATE STARTED: [Blank]
INSPECTOR: [Blank] DATE COMPLETED: [Blank]

WATER WBS: B00102
SEWER WBS: B00416

DESIGNED BY: EDWARD CASTANEDA
PROJECT ENGINEER

CHECKED BY: AKRAM BASSYOUNI
ASSOCIATE ENGINEER

SEE SHEETS
CC527 COORDINATE

SEE SHEETS
CC588 COORDINATE

34419-33-D

C-31

CURB RAMP LOCATION

WORK BY CITY FORCES

LEGEND

- EXISTING WATER MAIN
- PRESSURE ZONE BOUNDARY
- PROPOSED WATER MAIN
- FIRE HYDRANT TO REMAIN IN SERVICE DURING CONSTRUCTION
- ⊗ FIRE HYDRANT TO BE REPLACED

- ③ CITY FORCES NOTE NUMBER (THIS SHEET)
- ②④⑥ CITY FORCES NOTE NUMBER (PLAN & PROFILE SHT.)
- PLAN & PROFILE "D" SHEET NUMBER

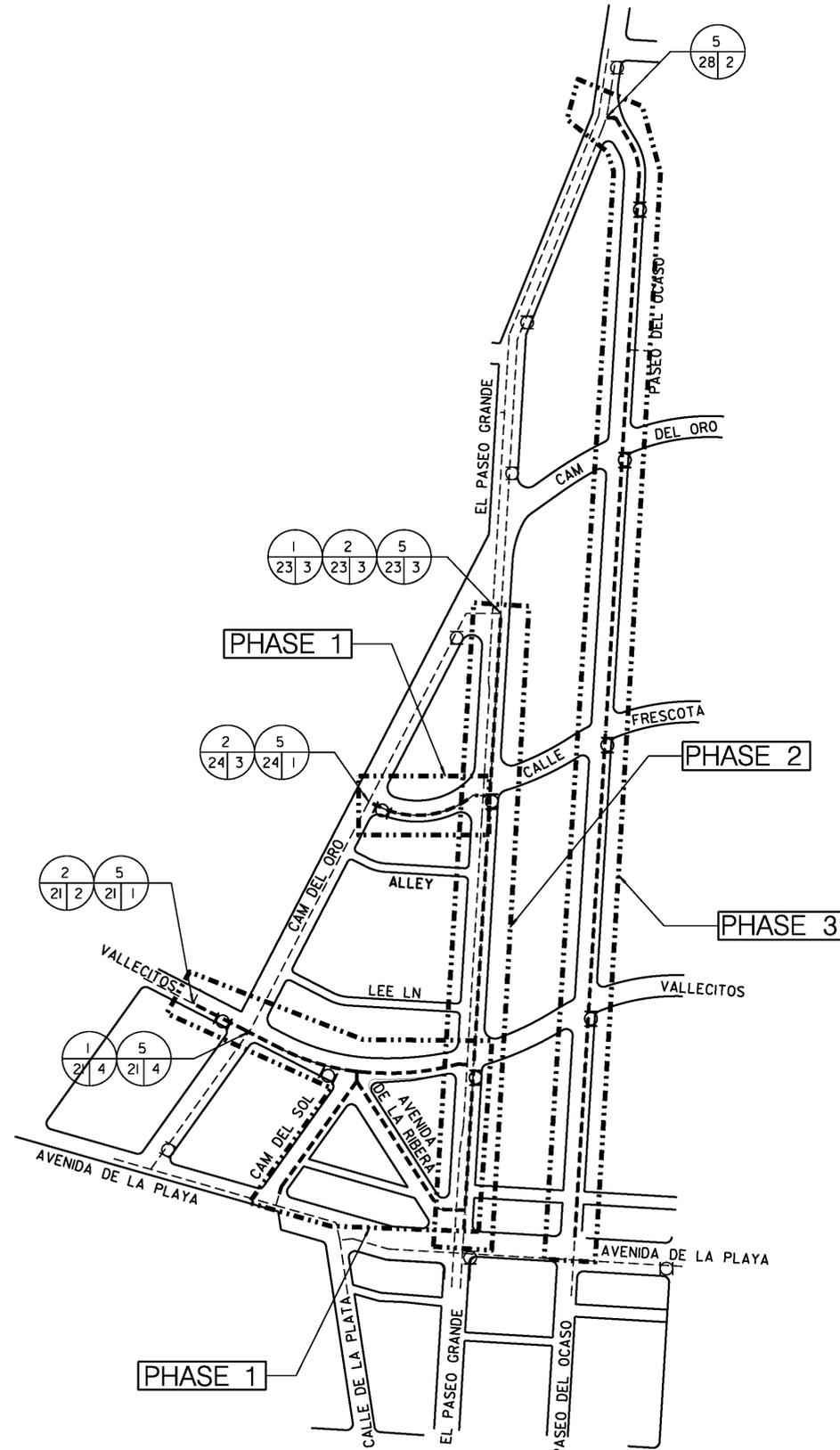
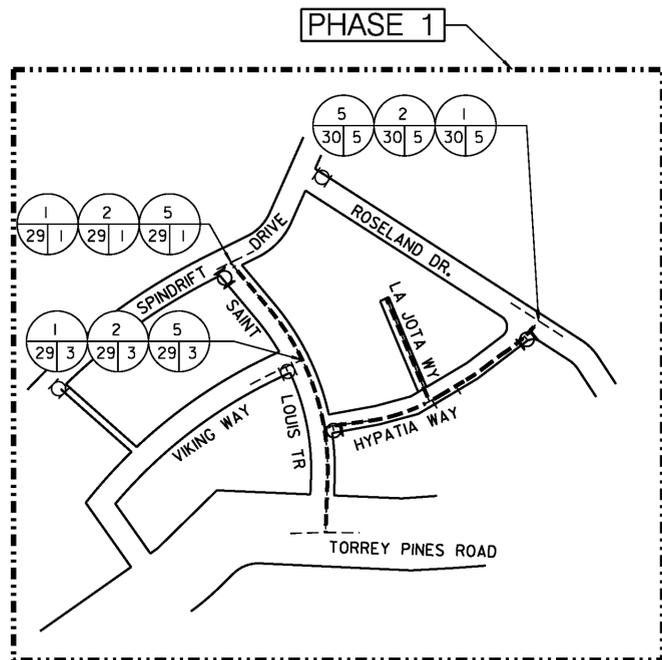
- BC --- BEFORE CONTRACTOR
- AC --- AFTER CONTRACTOR

WORK BY CITY FORCES

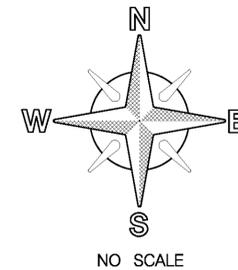
- ① BC - CLOSE EX. VALVE (REPLACE IF NEEDED)
AC - OPEN EX. VALVE
- ② BC - CUT & PLUG
AC - RECONNECT
- ③ BC - CUT AND ABANDON
- ④ AC - WET TAP
- ⑤ BC - TEE/CROSS CUT-IN

AREA TO BE HIGHLINED IN PHASES

- ① PHASE #



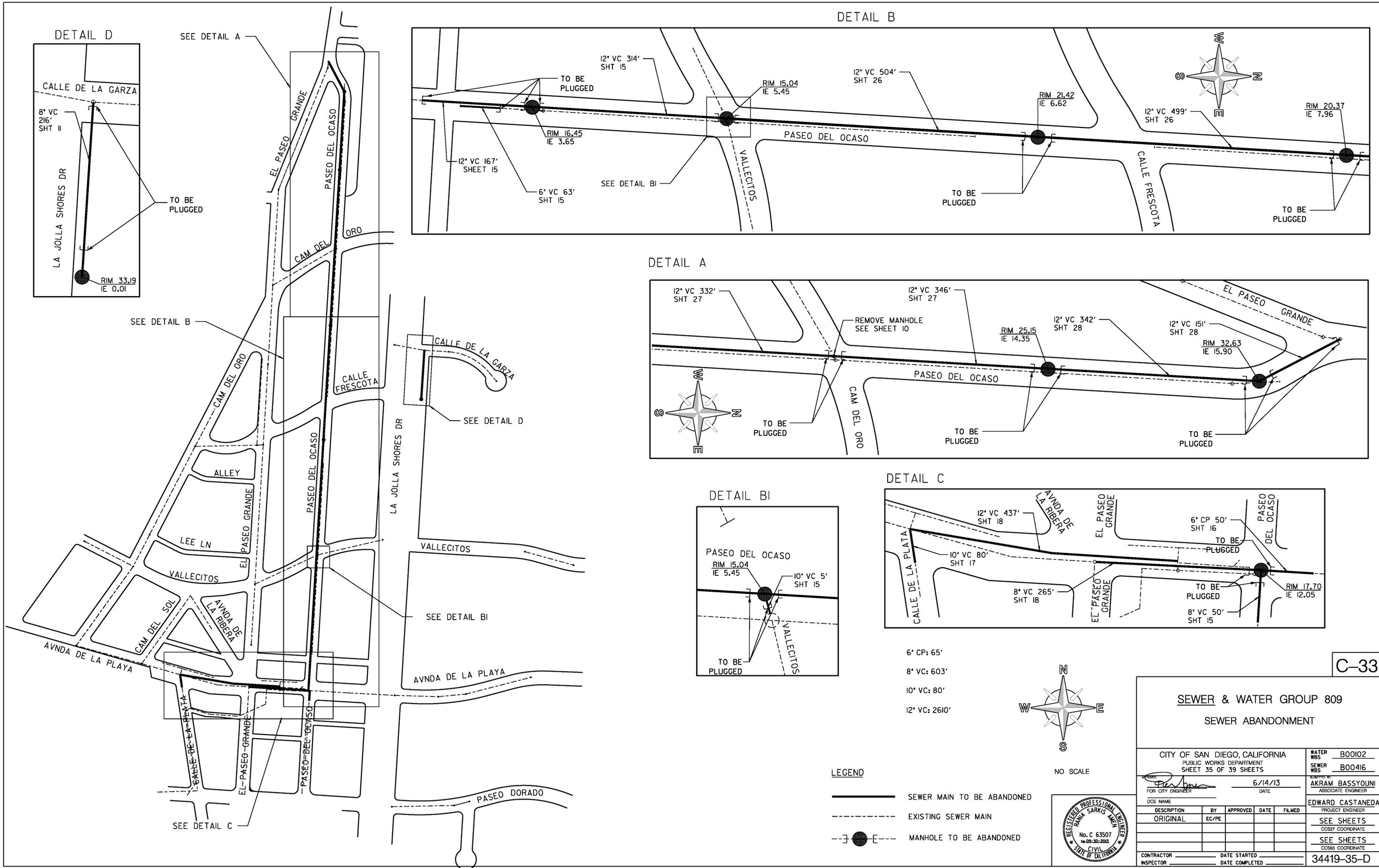
- NOTE:
- THERE WILL BE A MAXIMUM DELAY OF 30 DAYS BETWEEN CONSTRUCTION OF EACH HIGHLINE PHASE.
 - NO STRUCTURE SHALL BE MORE THAN 1000 FEET FROM A "LIVE" FIRE HYDRANT AT ANY TIME DURING CONSTRUCTION. THE DISTANCES SHALL BE MEASURED USING STREETS, PRIVATE ROADS, OR OTHER ROUTES DRIVEN BY EMERGENCY VEHICLES.



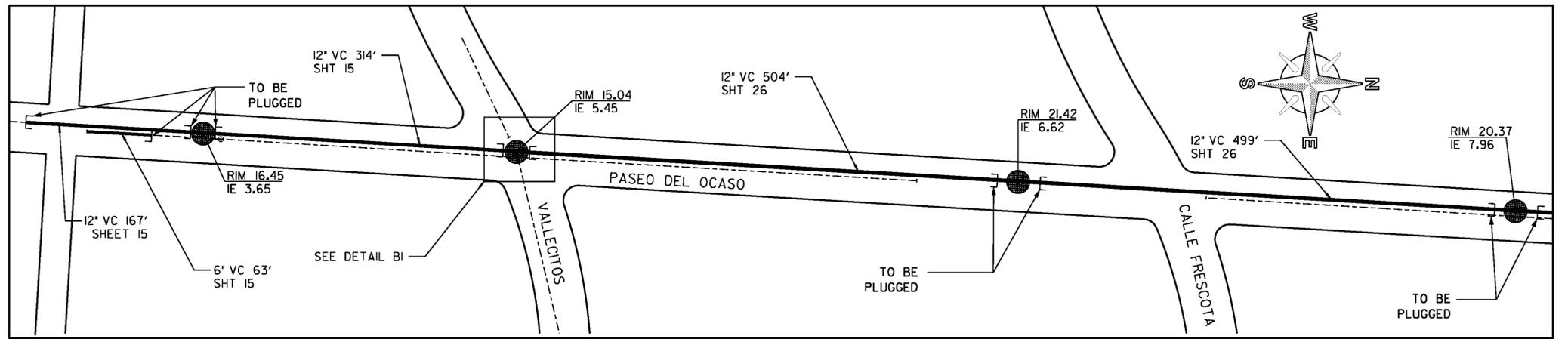
C-32

| | | | | |
|---|----------------|------------------|--------------------------------------|---|
| WORK BY CITY FORCES | | | | |
| WATER AND SEWER MAIN REPLACEMENT | | | | |
| SEWER AND WATER GROUP 809 | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 34 OF 39 SHEETS | | | WATER WBS B00102 SEWER WBS B00416 | |
| DCE NAME: <i>Edward Castaneda</i> | | DATE: 6/14/13 | | CHIEF BY: AKRAM BASSYOUNI SECTION HEAD |
| DESCRIPTION | | BY | APPROVED | DATE |
| ORIGINAL | | EC/PE | | |
| SEE SHEETS | | CCS27 COORDINATE | | |
| SEE SHEETS | | CCS88 COORDINATE | | |
| CONTRACTOR | DATE STARTED | INSPECTOR | | 34419-34-D |
| | DATE COMPLETED | | | |

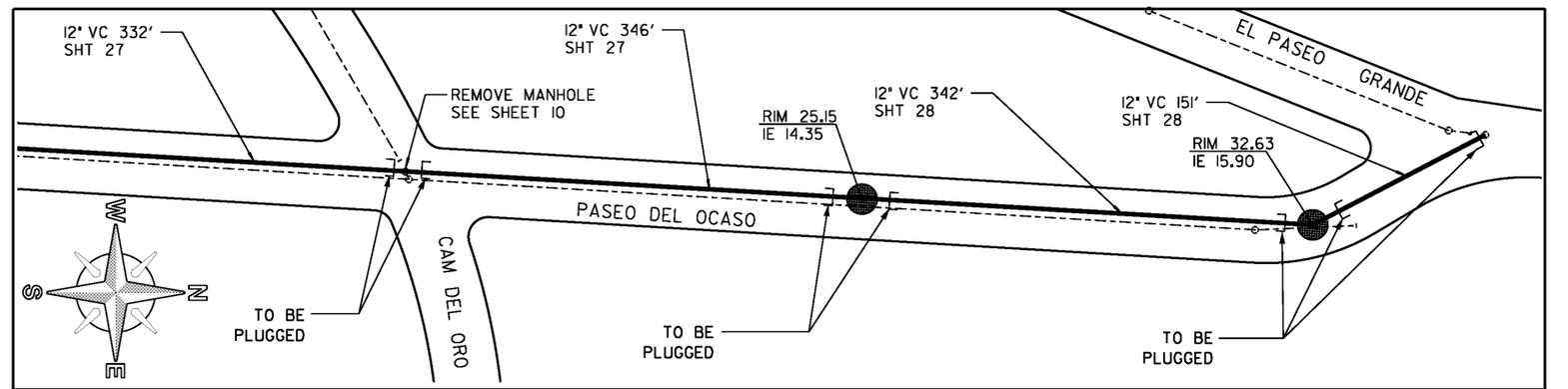
WORK BY CITY FORCES



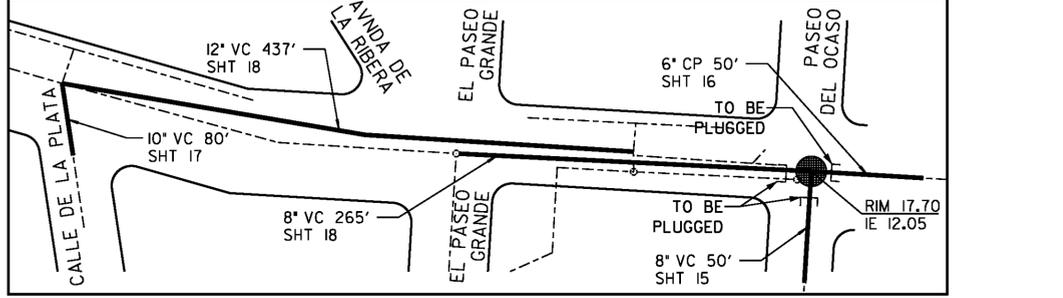
DETAIL B



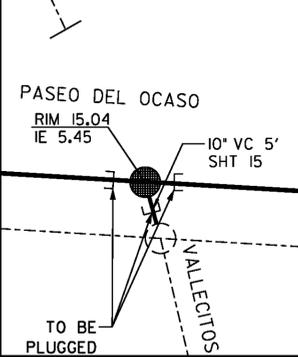
DETAIL A



DETAIL C

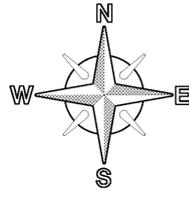


DETAIL BI



LEGEND

- SEWER MAIN TO BE ABANDONED
- EXISTING SEWER MAIN
- MANHOLE TO BE ABANDONED



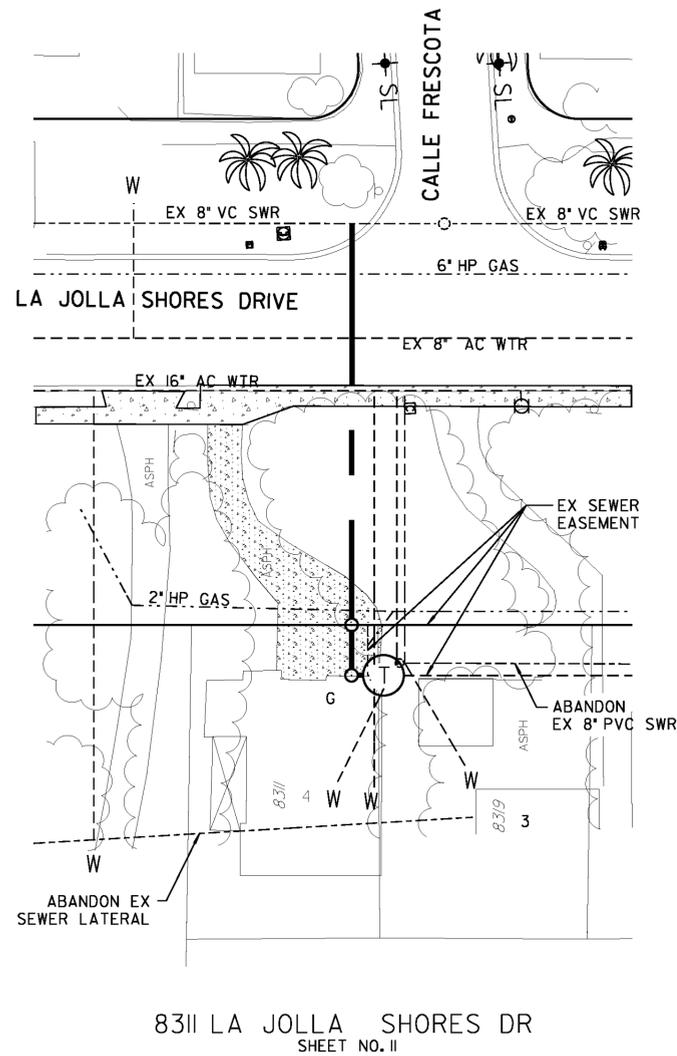
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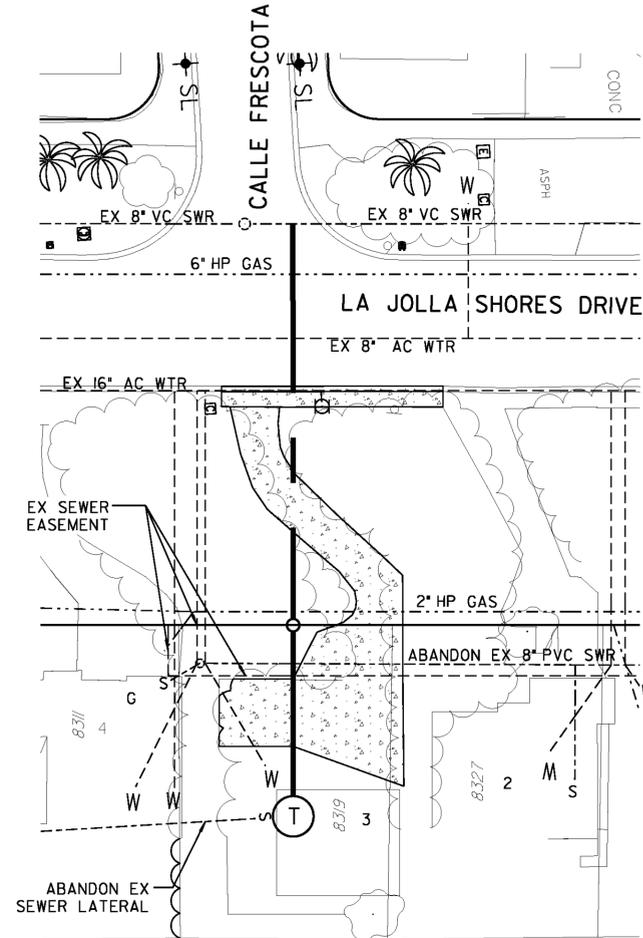
C-33

| | | | | |
|---|-------|----------|--|--|
| SEWER & WATER GROUP 809 | | | | |
| SEWER ABANDONMENT | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 35 OF 39 SHEETS | | | WATER WBS B00102 | SEWER WBS B00416 |
| FOR CITY ENGINEER: <i>[Signature]</i> DATE: 6/14/13 | | | REVIEWED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME: EDWARD CASTANEDA | | | | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| CONTRACTOR: _____ DATE STARTED: _____ | | | | |
| INSPECTOR: _____ DATE COMPLETED: _____ | | | | |
| | | | | SEE SHEETS CCS27 COORDINATE SEE SHEETS CCS88 COORDINATE 34419-35-D |

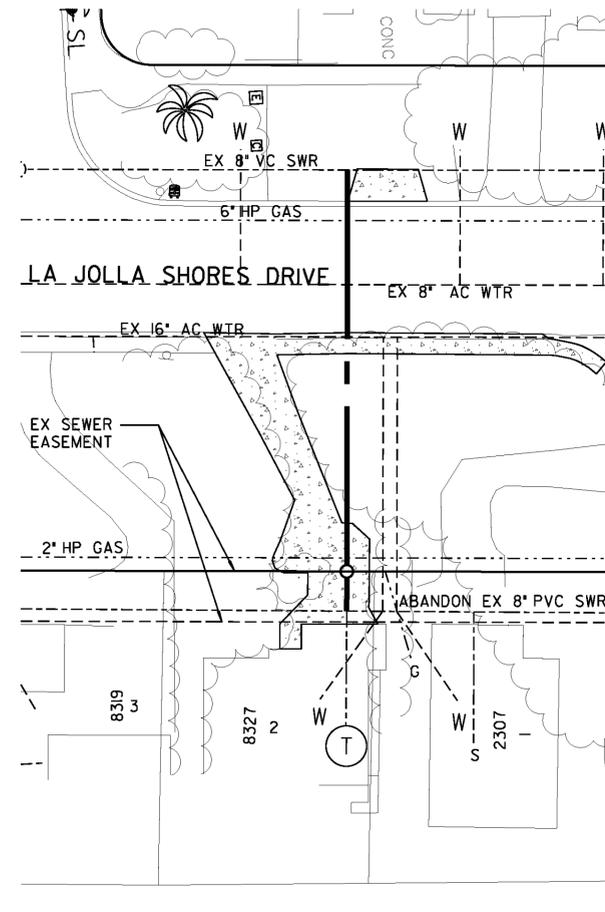
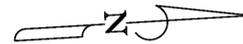
SEWER ABANDONMENT



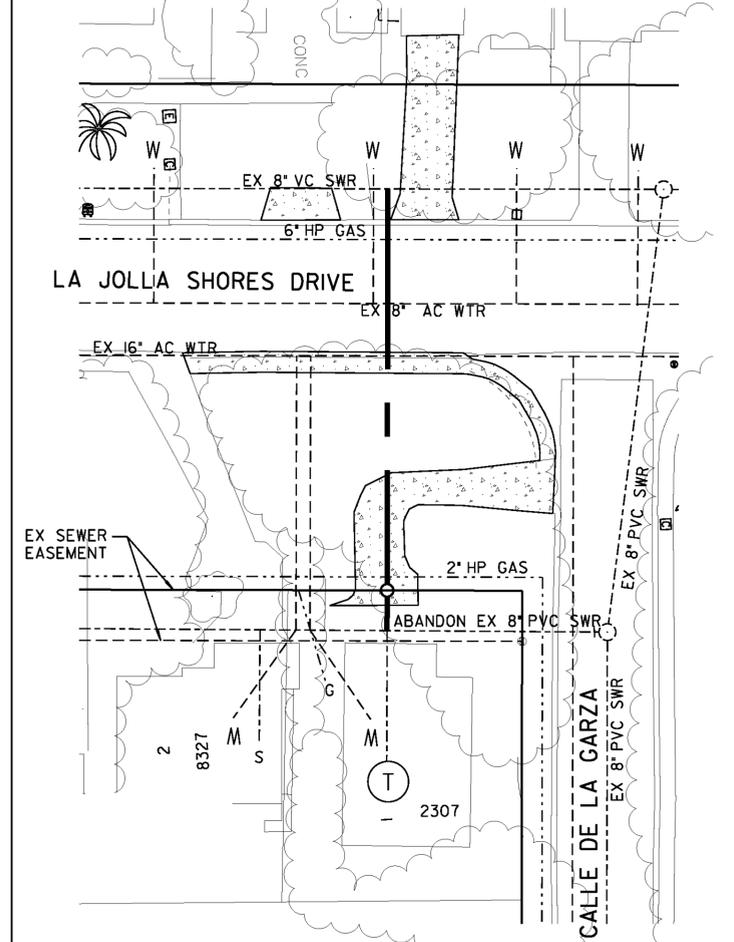
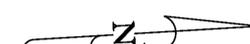
8311 LA JOLLA SHORES DR
SHEET NO. II



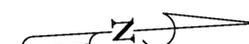
8319 LA JOLLA SHORES DR
SHEET NO. II



8327 LA JOLLA SHORES DR
SHEET NO. II



8307 CALLE DE LA GARZA
SHEET NO. II



REPLUMB LEGEND

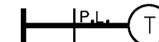
EX. SEWER MAIN



PROPOSED SEWER LATERAL CLEANOUT
(ALL BENDS AND/OR EVERY 100 FEET AND
BEHIND EACH PROPERTY LINE)



TUNNELED REPLUMB SEWER LATERAL
WITH C.O. (MIN 2% SLOPE)



SPECIAL NOTES:

- ① IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE ALL EXISTING SEWER LATERALS THAT REQUIRE RELOCATING. FIELD LOCATION SHALL BE INCLUDED IN THE BID ITEM FOR EACH SEWER LATERAL REPLUMB ADDRESS. SEWER LATERAL LOCATIONS SHOWN ARE FROM RECORD DRAWINGS ONLY.
- ② CONTRACTOR SHALL INVESTIGATE THE PROPER LOCATION OF THE BACKWATER DEVICE ON THE PROPERTIES INDICATED. THE CITY RESIDENT ENGINEER SHALL ENSURE PROPERTY OWNERS APPROVAL ON THE PROPOSED LOCATION PRIOR TO THE INSTALLATION.

CONTRACTOR'S NOTE:

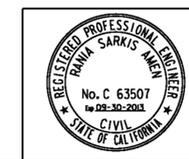
1. CONTRACTOR SHALL COORDINATE WITH MTS REGARDING AFFECTED BUS STOP 21 DAYS BEFORE THE BEGINNING OF CONSTRUCTION
2. REPLUMB LATERALS TO THE EX 8" VC SEWER ON LA JOLLA SHORES DRIVE

CAUTION

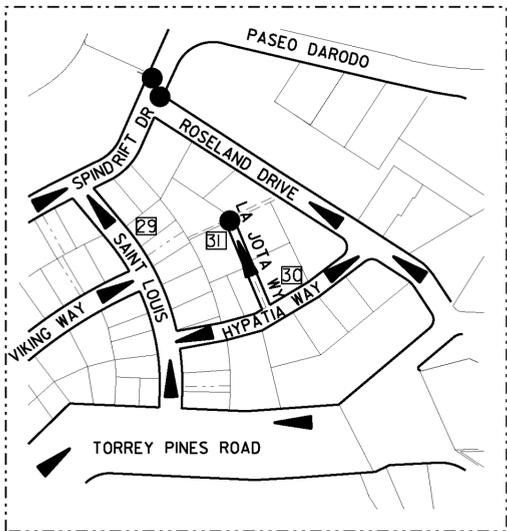
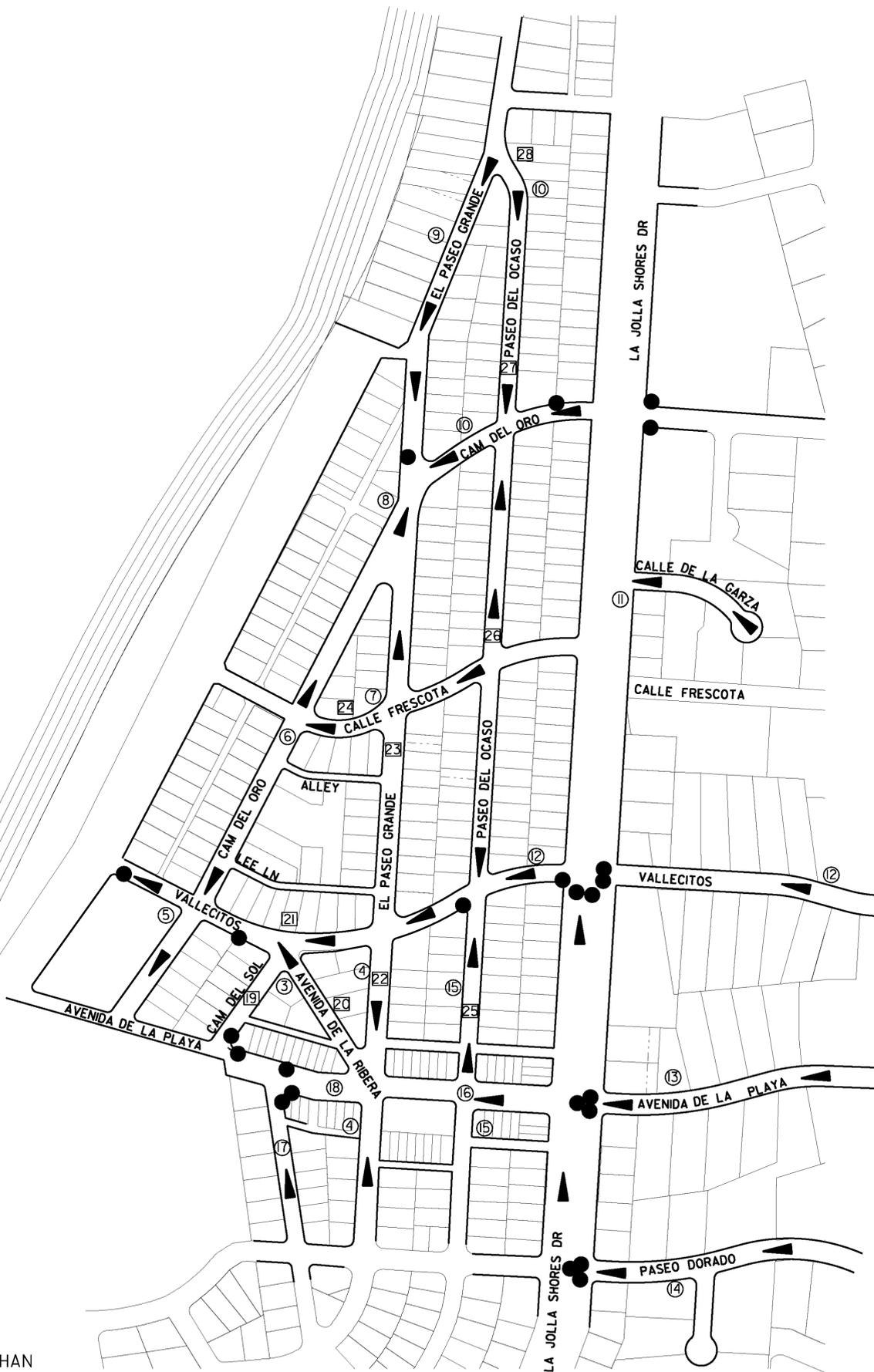
6" HP GAS CONTRACTOR TO VERIFY EXACT LOCATION AND MUST NOTIFY SDG&E THREE (3) WEEKS IN ADVANCE PRIOR TO EXCAVATION SDG&E STANDBY REQUIRED

C-34

| | | | | |
|---|----------------|--------------|---|--------|
| SEWER AND WATER GROUP 809 REPLUMBING DETAIL SHEET | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 36 OF 39 SHEETS | | | WATER WBS B00102 SEWER WBS B00416 | |
| FOR CITY ENGINEER <i>[Signature]</i> | | DATE 6/14/13 | DESIGNED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME | | | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| | | | SEE SHEETS CCS27 COORDINATE | |
| | | | SEE SHEETS CCS88 COORDINATE | |
| CONTRACTOR | DATE STARTED | | 34419-36-D | |
| INSPECTOR | DATE COMPLETED | | | |



REPLUMBING DETAIL SHEET



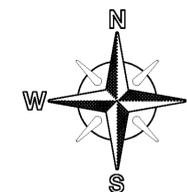
NOTE:
THIS SHEET IS USED FOR PROJECTS WITH LESS THAN ONE (1) ACRE IN DISTURBED SOIL AREAS.

NOTES:

1. THE INFORMATION ON THIS SITE 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 PROTECTION REQUIRED AT ALL STORM DRAINS RECEIVING RUNOFF FROM DISTURBED SOIL AREAS.
3. CONTRACTOR TO UPDATE / REVISE SHEET AS NECESSARY.
4. THE INFORMATION ON THE SITE PLAN IS ACCURATE FOR WATER POLLUTION CONTROL PURPOSES ONLY.
5. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITTEE SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH CHAPTER 14, ARTICLE 2, DIVISION 1 (GRADING REGULATIONS) OF THE SAN DIEGO MUNICIPAL CODE, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.

LEGEND

| | |
|---|---|
| SURFACE FLOW TO STORM DRAIN | ▲ |
| STORM DRAINS AFFECTED BY CONSTRUCTION | ● |
| NEW SEWER MAIN | — |
| SEWER SHEET NO's | ⑤ |
| WATER SHEET NO's | ⑱ |
| PAPER STREET | ⋯ |
| ADDITIONAL NOTES SUPPLIED BY CONTRACTOR | |
| STAGING/STOCKPILE AREA | X |



NO SCALE



| | | | |
|---|---------------------------------------|--|--|
| SEWER AND WATER GROUP 809 WATER POLLUTION CONTROL SITE PLAN | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 37 OF 39 SHEETS | | WATER WBS B00102 SEWER WBS B00416 | C-35 |
| DATE: 6/14/13 | FOR CITY ENGINEER: <i>[Signature]</i> | DATE: 6/14/13 | DESIGNED BY: AKRAM BASSYOUNI ASSOCIATE ENGINEER |
| DCE NAME: _____ | | CHECKED BY: EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| | | | SEE SHEETS CC527 COORDINATE |
| | | | SEE SHEETS CC583 COORDINATE |
| CONTRACTOR: _____ | DATE STARTED: _____ | 44419-37-D | |
| INSPECTOR: _____ | DATE COMPLETED: _____ | | |

HORIZONTAL ALIGNMENT REPORT

SEWER ALIGNMENT

Alignment Name: sht03

Alignment Name: CAMINO DEL SOL/AVENIDA DE LA RIBERA
Station Northing Easting

Element: Linear
POB (100) 1+00.00 1892063.01 6252384.30
PI (101) 4+33.70 1892334.47 6252578.36
Tangential Direction: N 35° 33' 38" E
Tangential Length: 333.70

Element: Linear
PI (101) 4+33.70 1892334.47 6252578.36
POE (102) 6+04.08 1892190.50 6252669.49
Tangential Direction: S 32° 20' 00" E
Tangential Length: 170.39

Alignment Name: sht04

Alignment Description: EL PASEO GRANDE SOUTH
Station Northing Easting

Element: Linear
POB (103) 1+00.00 1891724.14 6252817.86
POE (104) 3+13.50 1891947.00 6252832.06
Tangential Direction: N 3° 38' 45" E
Tangential Length: 223.31

Alignment Description: EL PASEO GRANDE NORTH
Station Northing Easting

Element: Linear
POB (105) 1+00.00 1892107.13 6252840.62
POE (106) 3+77.86 1892384.48 6252857.59
Tangential Direction: N 3° 30' 01" E
Tangential Length: 277.86

Alignment Name: sht05

Alignment Name: CAMINO DEL ORO/VALLECITOS
Station Northing Easting

Element: Linear
POB (107) 1+00.00 1892143.49 6252101.74
PI (108) 4+92.09 1892462.14 6252330.22
Tangential Direction: N 3° 38' 31" E
Tangential Length: 392.10

Element: Linear
PI (108) 4+92.09 1892462.14 6252330.22
POE (109) 7+30.86 1892571.47 6252117.96
Tangential Direction: N 62° 44' 48" W
Tangential Length: 238.77

Alignment Name: sht06

Alignment Description: CAMINO DEL ORO
Station Northing Easting

Element: Linear
POB (108) 1+00.00 1892462.14 6252330.22
PI (110) 2+55.16 1892600.08 6252401.26
Tangential Direction: N 27° 14' 56" E
Tangential Length: 155.16

Element: Linear
PI (110) 2+55.16 1892600.08 6252401.26
PI (111) 6+87.42 1892984.71 6252598.51
Tangential Direction: N 27° 09' 02" E
Tangential Length: 432.26

Element: Linear
PI (111) 6+87.42 1892984.71 6252598.51
POE (112) 8+70.25 1893146.58 6252683.51
Tangential Direction: N 27° 42' 19" E
Tangential Length: 182.82

Alignment Name: sht07-9

Alignment Description: CALLE FRESCOTA/
EL PASEO GRANDE
Station Northing Easting

Element: Linear
POB (111) 1+00.00 1892984.71 6252598.51
PI (113) 3+67.64 1892989.87 6252866.11
Tangential Direction: N 88° 53' 42" E
Tangential Length: 267.64

Alignment Name: sht07-9 CONT.

Alignment Description: CALLE FRESCOTA
Station Northing Easting

Element: Linear
PI (113) 3+67.64 1892989.87 6252866.11
PI (114) 3+95.19 1892991.45 6252893.61
Tangential Direction: N 86° 42' 57" E
Tangential Length: 27.55

Alignment Description: EL PASEO GRANDE
Station Northing Easting

Element: Linear
PI (114) 3+95.19 1892991.45 6252893.61
PI (115) 7+46.07 1893341.72 6252914.26
Tangential Direction: N 3° 22' 28" E
Tangential Length: 350.88

Element: Linear
PI (115) 7+46.07 1893341.72 6252914.26
PI (116) 10+91.25 1893686.27 6252935.04
Tangential Direction: N 3° 27' 04" E
Tangential Length: 345.18

Element: Linear
PI (116) 10+91.25 1893686.27 6252935.04
PI (117) 11+79.08 1893773.95 6252940.30
Tangential Direction: N 3° 25' 47" E
Tangential Length: 87.84

Element: Linear
PI (117) 11+79.08 1893773.95 6252940.30
PI (118) 15+08.46 1894102.73 6252960.00
Tangential Direction: N 3° 25' 47" E
Tangential Length: 329.37

Element: Linear
PI (118) 15+08.46 1894102.73 6252960.00
PI (119) 18+34.95 1894405.55 6253082.08
Tangential Direction: N 21° 57' 22" E
Tangential Length: 326.50

Element: Linear
PI (119) 18+34.95 1894405.55 6253082.08
PI (120) 20+79.44 1894632.43 6253173.15
Tangential Direction: N 21° 52' 18" E
Tangential Length: 244.48

Element: Linear
PI (120) 20+79.44 1894632.43 6253173.15
POE (121) 21+07.33 1894660.12 6253176.46
Tangential Direction: N 6° 48' 49" E
Tangential Length: 27.89

Alignment Name: sht10a

Alignment Description: CAMINO DEL ORO
Station Northing Easting

Element: Linear
POB (116) 1+00.00 1893686.27 6252935.04
POE (121) 4+17.78 1893845.21 6253210.23
Tangential Direction: N 59° 59' 26" E
Tangential Length: 317.79

Alignment Name: sht10b

Alignment Description: PASEO DEL OCASO
Station Northing Easting

Element: Linear
POB (122) 1+00.00 1894485.81 6253248.67
POE (123) 1+85.00 1894570.73 6253245.03
Tangential Direction: N 2° 27' 25" W
Tangential Length: 85.00

Alignment Name: sht12

Alignment Description: VALLECITOS WEST
Station Northing Easting

Element: Linear
POB (128) 1+00.00 1892512.31 6253130.72
POE (129) 3+87.74 1892577.88 6253410.89
Tangential Direction: N 76° 49' 39" E
Tangential Length: 287.74

Element: Linear
POB (130) 1+00.00 1892525.96 6254027.38
POE (131) 3+18.78 1892467.35 6254238.17
Tangential Direction: S 74° 27' 44" E
Tangential Length: 218.78

Alignment Name: sht13

Alignment Description: AVENIDA DE LA PLAYA
Station Northing Easting

Element: Linear
POB (132) 1+00.00 1891900.20 6253463.16
PI (133) 2+88.60 1891894.42 6253651.67
Tangential Direction: S 88° 14' 37" E
Tangential Length: 188.60

Element: Linear
PI (133) 2+88.60 1891894.42 6253651.67
PI (134) 4+08.88 1891905.89 6253771.41
Tangential Direction: N 84° 31' 40" E
Tangential Length: 120.28

Element: Linear
PI (134) 4+08.88 1891905.89 6253771.41
POE (135) 7+00.15 1891978.63 6254053.45
Tangential Direction: N 75° 32' 17" E
Tangential Length: 291.28

Alignment Name: sht14

Alignment Description: PASEO DORADO
Station Northing Easting

Element: Linear
POB (136) 1+00.00 1891415.37 6253450.69
PI (137) 3+70.46 1891420.96 6253721.09
Tangential Direction: N 88° 48' 56" E
Tangential Length: 270.46

Element: Linear
PI (137) 3+70.46 1891420.96 6253721.09
POE (138) 4+38.29 1891437.84 6253786.79
Tangential Direction: N 75° 35' 21" E
Tangential Length: 67.84

Alignment Name: sht15

Alignment Description: PASEO DEL OCASO
Station Northing Easting

Element: Linear
POB (139) 1+00.00 1891711.70 6253082.53
PI (140) 2+60.03 1891871.42 6253092.44
Tangential Direction: N 3° 33' 01" E
Tangential Length: 160.03

Element: Linear
PI (140) 2+60.03 1891871.42 6253092.44
PI (141) 3+06.11 1891917.39 6253089.21
Tangential Direction: N 4° 01' 15" W
Tangential Length: 46.08

Element: Linear
PI (141) 3+06.11 1891917.39 6253089.21
PI (142) 6+02.55 1892212.93 6253112.35
Tangential Direction: N 4° 28' 37" E
Tangential Length: 296.44

Element: Linear
PI (142) 6+02.55 1892212.93 6253112.35
POE (128) 9+02.49 1892512.31 6253130.72
Tangential Direction: N 3° 30' 38" E
Tangential Length: 299.94

Alignment Name: sht16

Alignment Description: AVENIDA LE LA PLAYA
Station Northing Easting

Element: Linear
POB (143) 1+00.00 1891923.26 6252965.64
PI (141) 2+23.71 1891917.39 6253089.21
Tangential Direction: N 89° 19' 44" E
Tangential Length: 55.87

Element: Linear
PI (141) 2+23.71 1891917.39 6253089.21
PI (144) 2+79.58 1891918.04 6253145.08
Tangential Direction: N 89° 19' 44" E
Tangential Length: 55.87

Element: Linear
PI (144) 2+79.58 1891918.04 6253145.08
POE (145) 3+95.49 1891911.04 6253260.78
Tangential Direction: S 86° 32' 02" E
Tangential Length: 115.91

Alignment Name: sht16 cont.

Alignment Name: CONNECTION TO PUMP STATION
Station Northing Easting

Element: Linear
POB (143) 1+00.00 1891923.26 6252965.64
POE (146) 1+36.97 1891960.18 6252967.47
Tangential Direction: N 2° 49' 45" E
Tangential Length: 36.97

Alignment Name: CATCH TO I5 PIPE
Station Northing Easting

Element: Linear
POB (147) 1+00.00 1891990.48 6252533.03
POE (148) 1+27.72 1892016.72 6252541.95
Tangential Direction: N 18° 45' 50" E
Tangential Length: 27.72

Alignment Name: sht17

Alignment Name: CALLE DE LA PLATA
Station Northing Easting

Element: Linear
POB (148) 1+00.00 1891981.87 6252564.39
PI (149) 1+73.17 1891911.31 6252545.02
Tangential Direction: S 15° 21' 06" W
Tangential Length: 73.17

Element: Linear
PI (149) 1+73.17 1891911.31 6252545.02
POE (150) 6+05.05 1891484.30 6252609.67
Tangential Direction: S 8° 36' 37" E
Tangential Length: 431.87

Alignment Name: sht18

Alignment Name: AVNDA DE LA PLAY WEST
Station Northing Easting

Element: Linear
POB (151) 1+00.00 1892035.56 6252376.40
PI (152) 2+62.99 1891990.48 6252533.03
Tangential Direction: S 73° 56' 31" E
Tangential Length: 162.99

Element: Linear
PI (152) 2+62.99 1891990.48 6252533.03
PI (148) 2+95.51 1891981.87 6252564.39
Tangential Direction: S 74° 38' 57" E
Tangential Length: 32.52

Element: Linear
PI (148) 2+95.51 1891981.87 6252564.39
PI (153) 4+32.58 1891945.58 6252696.57
Tangential Direction: S 74° 38' 53" E
Tangential Length: 137.08

Element: Linear
PI (153) 4+32.58 1891945.58 6252696.57
PI (104) 5+67.71 1891937.21 6252831.44
Tangential Direction: S 86° 26' 54" E
Tangential Length: 135.13

Element: Linear
PI (104) 5+67.71 1891937.21 6252831.44
POE (154) 6+44.83 1891926.60 6252907.83
Tangential Direction: S 82° 05' 27" E
Tangential Length: 77.12

Alignment Name: AVNDA DE LA PLAYA CATCH
Station Northing Easting

Element: Linear
POB (155) 1+00.00 1892042.42 6252455.69
PI (156) 1+90.00 1892016.72 6252541.95
Tangential Direction: S 73° 24' 33" E
Tangential Length: 90.00

Element: Linear
PI (156) 1+90.00 1892016.72 6252541.95
POE (157) 3+33.19 1891977.18 6252679.57
Tangential Direction: S 73° 58' 03" E
Tangential Length: 143.19

WATER ALIGNMENT

Alignment Name: sht19

Alignment Description: Camino Del Sol
Station Northing Easting

Element: Linear
POB (100) 1+00.00 1892064.14 6252404.94
PI (101) 1+17.95 1892081.37 6252409.96
Tangential Direction: N 16° 13' 57" E
Tangential Length: 17.95

Element: Linear
PI (101) 1+17.95 1892081.37 6252409.96
PI (102) 4+26.75 1892332.93 6252589.06
Tangential Direction: N 35° 27' 00" E
Tangential Length: 308.80

Element: Linear
PI (102) 4+26.75 1892332.93 6252589.06
POE (103) 4+50.05 1892356.23 6252588.65
Tangential Direction: N 1° 00' 22" W
Tangential Length: 23.31

Alignment Name: sht20

Alignment Description: AVENIDA DE LA RIBERA
Station Northing Easting

Element: Linear
POB (102) 1+00.00 1892332.93 6252589.06
PI (104) 4+55.04 1892034.23 6252780.98
Tangential Direction: S 32° 43' 17" E
Tangential Length: 355.04

Element: Linear
PI (104) 4+55.04 1892034.23 6252780.98
PI (105) 4+64.48 1892027.48 6252787.58
Tangential Direction: S 44° 23' 36" E
Tangential Length: 9.44

Element: Linear
PI (105) 4+64.48 1892027.48 6252787.58
POE (106) 5+22.92 1892025.25 6252845.98
Tangential Direction: S 87° 48' 57" E
Tangential Length: 58.43

Alignment Name: sht21

Alignment Description: VALLECITOS
Station Northing Easting

Element: Linear
POB (107) 1+00.00 1892578.70 6252082.82
PI (108) 2+31.53 1892518.39 6252199.72
Tangential Direction: S 62° 42' 32" E
Tangential Length: 131.53

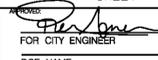
Element: Linear
PI (108) 2+31.53 1892518.39 6252199.72
PI (109) 3+14.51 1892480.35 6252273.45
Tangential Direction: S 62° 42' 32" E
Tangential Length: 82.97

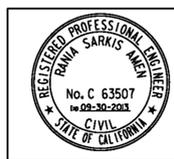
Element: Linear
PI (109) 3+14.51 1892480.35 6252273.45
PI (110) 3+80.90 1892449.90 6252332.46
Tangential Direction: S 62° 42' 32" E
Tangential Length: 66.39

Element: Linear
PI (110) 3+80.90 1892449.90 6252332.46
PC (111) 4+66.16 1892410.81 6252408.22
Tangential Direction: S 62° 42' 32" E
Tangential Length: 85.26

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SEWER AND WATER GROUP 809 SEWER AND WATER ALIGNMENT SHEET

| | | | |
|--|-------|--|---------------------|
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 38 OF 39 SHEETS | | WATER WBS B00102 | SEWER WBS B00416 |
|  FOR CITY ENGINEER DATE 6/14/13 | | SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME | | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER | |
| DESCRIPTION | BY | APPROVED | DATE |
| ORIGINAL | EC/PE | | |
| | | | |
| | | | |
| CONTRACTOR | | DATE STARTED | DATE COMPLETED |
| INSPECTOR | | | |
| | | 34419-38-D | |



COORDINATE INDEX

HORIZONTAL ALIGNMENT REPORT

WATER ALIGNMENT

Alignment Name: sht21 CONT.

Element: Circular
 PC (111) 4+66.16 1892410.81 6252408.22
 PI () 5+29.13 1892382.18 6252464.31
 CC () 1892884.22 6252649.91
 PCC (112) 5+91.53 1892367.44 6252525.55
 Radius: 531.53
 Delta: 13° 30' 52" Left
 Degree of Curvature (Arc): 10° 46' 46"
 Length: 125.37
 Tangent: 62.98
 Chord: 125.08
 Middle Ordinate: 3.69
 External: 3.72
 Tangent Direction: S 62° 57' 17" E
 Radial Direction: S 27° 02' 43" W
 Chord Direction: S 69° 42' 43" E
 Radial Direction: S 13° 31' 51" W
 Tangent Direction: S 76° 28' 09" E

Element: Circular
 PCC (112) 5+91.53 1892367.44 6252525.55
 PI () 6+25.13 1892359.58 6252558.21
 CC () 1892884.22 6252649.91
 PCC (103) 6+58.63 1892355.90 6252591.60
 Radius: 531.53
 Delta: 7° 14' 00" Left
 Degree of Curvature (Arc): 10° 46' 46"
 Length: 67.10
 Tangent: 33.60
 Chord: 67.06
 Middle Ordinate: 1.06
 External: 1.06
 Tangent Direction: S 76° 28' 09" E
 Radial Direction: S 13° 31' 51" W
 Chord Direction: S 80° 05' 09" E
 Radial Direction: S 6° 17' 51" W
 Tangent Direction: S 83° 42' 09" E

Element: Circular
 PCC (103) 6+58.63 1892355.90 6252591.60
 PI () 7+11.46 1892349.04 6252643.99
 CC () 1892883.14 6252660.57
 PCC (113) 7+63.95 1892352.63 6252696.70
 Radius: 531.74
 Delta: 11° 20' 53" Left
 Degree of Curvature (Arc): 10° 46' 31"
 Length: 105.32
 Tangent: 52.83
 Chord: 105.14
 Middle Ordinate: 2.61
 External: 2.62
 Tangent Direction: S 82° 32' 51" E
 Radial Direction: S 7° 27' 09" W
 Chord Direction: S 88° 13' 18" E
 Radial Direction: S 3° 53' 44" E
 Tangent Direction: N 86° 06' 16" E

Element: Circular
 PCC (113) 7+63.95 1892352.63 6252696.70
 PI () 8+31.32 1892355.77 6252764.00
 CC () 1892954.71 6252668.59
 PT (114) 8+98.14 1892373.70 6252828.94
 Radius: 602.73
 Delta: 12° 45' 22" Left
 Degree of Curvature (Arc): 9° 30' 22"
 Length: 134.19
 Tangent: 67.37
 Chord: 133.91
 Middle Ordinate: 3.73
 External: 3.75
 Tangent Direction: N 87° 19' 37" E
 Radial Direction: S 2° 40' 23" E
 Chord Direction: N 80° 56' 56" E
 Radial Direction: S 15° 25' 45" E
 Tangent Direction: N 74° 34' 15" E

Element: Linear
 PT (114) 8+98.14 1892373.70 6252828.94
 POE (115) 9+35.93 1892371.45 6252866.66
 Tangential Direction: S 86° 34' 53" E
 Tangential Length: 37.78

Alignment Name: sht22-23

Alignment Description: EL PASEO GRANDE
 Station Northing Easting

Element: Linear
 POB (116) 1+00.00 1891927.24 6252840.12
 PI (106) 1+98.19 1892025.25 6252845.98
 Tangential Direction: N 3° 25' 11" E
 Tangential Length: 98.19

Element: Linear
 PI (106) 1+98.19 1892025.25 6252845.98
 PI (117) 5+14.81 1892341.30 6252864.86
 Tangential Direction: N 3° 25' 11" E
 Tangential Length: 316.62

Element: Linear
 PI (117) 5+14.81 1892341.30 6252864.86
 PI (115) 5+45.00 1892371.45 6252866.66
 Tangential Direction: N 3° 25' 11" E
 Tangential Length: 30.19

Element: Linear
 PI (115) 5+45.00 1892371.45 6252866.66
 PI (118) 11+74.46 1892999.79 6252904.21
 Tangential Direction: N 3° 25' 11" E
 Tangential Length: 629.46

Element: Linear
 PI (118) 11+74.46 1892999.79 6252904.21
 PI (119) 11+87.07 1893012.37 6252904.96
 Tangential Direction: N 3° 25' 11" E
 Tangential Length: 12.61

Element: Linear
 PI (119) 11+87.07 1893012.37 6252904.96
 POE (120) 16+23.03 1893447.55 6252931.17
 Tangential Direction: N 3° 26' 48" E
 Tangential Length: 435.96

Alignment Name: sht24

Alignment Description: CALLE FRESCOTA
 Station Northing Easting

Element: Linear
 POB (121) 1+00.00 1892999.02 6252617.48
 PC (122) 1+36.65 1892983.26 6252650.57
 Tangential Direction: S 64° 31' 41" E
 Tangential Length: 36.65

Element: Circular
 PC (122) 1+36.65 1892983.26 6252650.57
 PI () 2+63.81 1892933.63 6252767.65
 CC () 1893175.83 6252732.20
 PT (123) 3+65.16 1893014.73 6252865.59
 Radius: 209.16
 Delta: 62° 35' 43" Left
 Degree of Curvature (Arc): 27° 23' 37"
 Length: 228.50
 Tangent: 127.16
 Chord: 217.31
 Middle Ordinate: 30.44
 External: 35.62
 Tangent Direction: S 67° 01' 43" E
 Radial Direction: S 22° 58' 17" W
 Chord Direction: N 81° 40' 25" E
 Radial Direction: S 39° 37' 26" E
 Tangent Direction: N 50° 22' 34" E

Element: Linear
 PT (123) 3+65.16 1893014.73 6252865.59
 POE (119) 4+04.60 1893012.37 6252904.96
 Tangential Direction: S 86° 34' 40" E
 Tangential Length: 39.44

Alignment Name: sht25-28

Alignment Description: PASEO DEL OCASO
 Station Northing Easting

Element: Linear
 POB (124) 1+00.00 1891973.78 6253108.38
 PI (125) 6+09.62 1892482.49 6253138.80
 Tangential Direction: N 3° 25' 20" E
 Tangential Length: 509.62

Element: Linear
 PI (125) 6+09.62 1892482.49 6253138.80
 PI (126) 12+62.94 1893134.64 6253177.77
 Tangential Direction: N 3° 25' 11" E
 Tangential Length: 653.32

Element: Linear
 PI (126) 12+62.94 1893134.64 6253177.77
 PI (127) 19+43.43 1893813.92 6253218.42
 Tangential Direction: N 3° 25' 28" E
 Tangential Length: 680.49

Element: Linear
 PI (127) 19+43.43 1893813.92 6253218.42
 PI (128) 25+41.20 1894410.63 6253254.10
 Tangential Direction: N 3° 25' 20" E
 Tangential Length: 597.77

Element: Linear
 PI (128) 25+41.20 1894410.63 6253254.10
 PC (129) 26+16.41 1894485.70 6253258.59
 Tangential Direction: N 3° 25' 20" E
 Tangential Length: 75.21

Element: Circular
 PC (129) 26+16.41 1894485.70 6253258.59
 PI () 26+61.03 1894530.24 6253261.25
 CC () 1894494.35 6253113.85
 PT (130) 27+02.98 1894568.57 6253238.41
 Radius: 145.00
 Delta: 34° 12' 24" Left
 Degree of Curvature (Arc): 39° 30' 52"
 Length: 86.57
 Tangent: 44.62
 Chord: 85.29
 Middle Ordinate: 6.41
 External: 6.71
 Tangent Direction: N 3° 25' 04" E
 Radial Direction: S 86° 34' 56" E
 Chord Direction: N 13° 41' 08" W
 Radial Direction: N 59° 12' 40" E
 Tangent Direction: N 30° 47' 20" W

Element: Linear
 PT (130) 27+02.98 1894568.57 6253238.41
 PC (131) 27+42.44 1894602.47 6253218.21
 Tangential Direction: N 30° 47' 22" W
 Tangential Length: 39.46

Element: Circular
 PC (131) 27+42.44 1894602.47 6253218.21
 PI () 27+60.59 1894618.06 6253208.92
 CC () 1894691.68 6253367.94
 PT (132) 27+78.61 1894635.23 6253203.04
 Radius: 174.29
 Delta: 11° 53' 26" Right
 Degree of Curvature (Arc): 32° 52' 26"
 Length: 36.17
 Tangent: 18.15
 Chord: 36.10
 Middle Ordinate: 0.94
 External: 0.94
 Tangent Direction: N 30° 47' 22" W
 Radial Direction: N 59° 12' 38" E
 Chord Direction: N 24° 50' 39" W
 Radial Direction: N 71° 06' 04" E
 Tangent Direction: N 18° 53' 56" W

Alignment Name: Sht29

Alignment Description: SAINT LOUIS TERRACE
 Station Northing Easting

Element: Linear
 POB (133) 1+00.00 1891040.54 6251108.84
 PI (134) 1+17.07 1891026.73 6251118.88
 Tangential Direction: S 36° 01' 07" E
 Tangential Length: 17.07

Element: Linear
 PI (134) 1+17.07 1891026.73 6251118.88
 PC (135) 2+27.32 1890941.99 6251189.41
 Tangential Direction: S 39° 46' 29" E
 Tangential Length: 110.25

Element: Circular
 PC (135) 2+27.32 1890941.99 6251189.41
 PI () 2+92.46 1890891.93 6251231.08
 CC () 1890599.73 6250778.22
 PCC (136) 3+56.95 1890833.33 6251259.52
 Radius: 535.00
 Delta: 13° 52' 59" Right
 Degree of Curvature (Arc): 10° 42' 34"
 Length: 129.63
 Tangent: 65.14
 Chord: 129.32
 Middle Ordinate: 3.92
 External: 3.95
 Tangent Direction: S 39° 46' 22" E
 Radial Direction: S 50° 13' 38" W
 Chord Direction: S 32° 49' 52" E
 Radial Direction: S 64° 06' 37" W
 Tangent Direction: S 25° 53' 23" E

Element: Circular
 PCC (136) 3+56.95 1890833.33 6251259.52
 PI () 4+32.60 1890765.28 6251292.55
 CC () 1890599.73 6250778.22
 PCC (137) 5+07.25 1890690.73 6251305.42
 Radius: 535.00
 Delta: 16° 05' 46" Right
 Degree of Curvature (Arc): 10° 42' 34"
 Length: 150.30
 Tangent: 75.65
 Chord: 149.80
 Middle Ordinate: 5.27
 External: 5.32
 Tangent Direction: S 25° 53' 23" E
 Radial Direction: S 64° 06' 37" W
 Chord Direction: S 17° 50' 30" E
 Radial Direction: S 80° 12' 23" W
 Tangent Direction: S 9° 47' 37" E

Element: Circular
 PCC (137) 5+07.25 1890690.73 6251305.42
 PI () 5+63.74 1890635.05 6251314.92
 CC () 1890600.76 6250778.04
 PT (138) 6+19.81 1890578.61 6251312.58
 Radius: 535.00
 Delta: 12° 03' 15" Right
 Degree of Curvature (Arc): 10° 42' 34"
 Length: 112.56
 Tangent: 56.49
 Chord: 112.35
 Middle Ordinate: 2.96
 External: 2.97
 Tangent Direction: S 9° 40' 55" E
 Radial Direction: S 80° 19' 05" W
 Chord Direction: S 3° 39' 18" E
 Radial Direction: N 87° 37' 41" W
 Tangent Direction: S 2° 22' 19" W

Element: Linear
 PT (138) 6+19.81 1890578.61 6251312.58
 POE (151) 7+06.00
 Tangential Direction: S 2° 07' 31" W
 Tangential Length: 86.19

Element: linear
 PT (151) 7+06.00
 POE (139) 7+28.30 1890470.22 6251308.56
 Tangential Direction: S 2° 07' 31" W
 Tangential Length: 22.30

Alignment Name: sht30

Alignment Description: HYPATIA WAY
 Station Northing Easting

Element: Linear
 POB (137) 1+00.00 1890690.73 6251305.42
 PI (140) 1+18.76 1890693.31 6251324.00
 Tangential Direction: N 82° 06' 10" E
 Tangential Length: 18.76

Element: Linear
 PI (140) 1+18.76 1890693.31 6251324.00
 PC (141) 2+00.59 1890704.55 6251405.06
 Tangential Direction: N 82° 06' 10" E
 Tangential Length: 81.83

Element: Circular
 PC (141) 2+00.59 1890704.55 6251405.06
 PI () 2+18.12 1890707.14 6251422.39
 CC () 1891100.17 6251346.01
 PT (142) 2+35.62 1890711.24 6251439.44
 Radius: 400.00
 Delta: 5° 01' 05" Left
 Degree of Curvature (Arc): 14° 19' 26"
 Length: 35.03
 Tangent: 17.53
 Chord: 35.02
 Middle Ordinate: 0.38
 External: 0.38
 Tangent Direction: N 81° 30' 37" E
 Radial Direction: S 8° 29' 23" E
 Chord Direction: N 79° 00' 04" E
 Radial Direction: S 13° 30' 28" E
 Tangent Direction: N 76° 29' 32" E

Element: Linear
 PT (142) 2+35.62 1890711.24 6251439.44
 PC (143) 2+44.98 1890713.72 6251448.46
 Tangential Direction: N 74° 36' 40" E
 Tangential Length: 9.36

Element: Circular
 PC (143) 2+44.98 1890713.72 6251448.46
 PI () 2+88.10 1890725.13 6251490.04
 CC () 1891099.45 6251342.59
 PCC (144) 3+30.89 1890745.15 6251528.24
 Radius: 400.00
 Delta: 12° 18' 21" Left
 Degree of Curvature (Arc): 14° 19' 26"
 Length: 85.91
 Tangent: 43.12
 Chord: 85.75
 Middle Ordinate: 2.30
 External: 2.32
 Tangent Direction: N 74° 39' 07" E
 Radial Direction: S 15° 20' 53" E
 Chord Direction: N 68° 29' 57" E
 Radial Direction: S 27° 39' 14" E
 Tangent Direction: N 62° 20' 46" E

Element: Circular
 PCC (144) 3+30.89 1890745.15 6251528.24
 PI () 3+43.46 1890750.98 6251539.37
 CC () 1891099.45 6251342.59
 PT (145) 3+56.02 1890757.50 6251550.12
 Radius: 400.00
 Delta: 3° 35' 58" Left
 Degree of Curvature (Arc): 14° 19' 26"
 Length: 25.13
 Tangent: 12.57
 Chord: 25.13
 Middle Ordinate: 0.20
 External: 0.20
 Tangent Direction: N 62° 20' 46" E
 Radial Direction: S 27° 39' 14" E
 Chord Direction: N 60° 32' 47" E
 Radial Direction: S 31° 15' 12" E
 Tangent Direction: N 58° 44' 48" E

Alignment Name: sht30 CONT.

Element: Linear
 PT (145) 3+56.02 1890757.50 6251550.12
 PC (146) 4+21.27 1890791.00 6251606.11
 Tangential Direction: N 59° 06' 28" E
 Tangential Length: 65.25

Element: Circular
 PC (146) 4+21.27 1890791.00 6251606.11
 PI () 4+44.10 1890802.82 6251625.64
 CC () 1891133.25 6251399.07
 PT (147) 4+66.88 1890816.78 6251643.71
 Radius: 400.00
 Delta: 6° 31' 59" Left
 Degree of Curvature (Arc): 14° 19' 26"
 Length: 45.61
 Tangent: 22.83
 Chord: 45.59
 Middle Ordinate: 0.65
 External: 0.65
 Tangent Direction: N 58° 49' 45" E
 Radial Direction: S 31° 10' 15" E
 Chord Direction: N 55° 33' 45" E
 Radial Direction: S 37° 42' 14" E
 Tangent Direction: N 52° 17' 46" E

Element: Linear
 PT (147) 4+66.88 1890816.78 6251643.71
 PC (148) 5+75.32 1890883.11 6251729.49
 Tangential Direction: N 52° 17' 28" E
 Tangential Length: 108.44

Element: Circular
 PC (148) 5+75.32 1890883.11 6251729.49
 PI () 5+97.60 1890898.54 6251745.56
 CC () 1891099.46 6251521.67
 PT (149) 6+19.80 1890916.18 6251759.17
 Radius: 300.00
 Delta: 8° 29' 40" Left
 Degree of Curvature (Arc): 19° 05' 55"
 Length: 44.48
 Tangent: 22.28
 Chord: 44.44
 Middle Ordinate: 0.82
 External: 0.83
 Tangent Direction: N 46° 09' 10" E
 Radial Direction: S 43° 50' 50" E
 Chord Direction: N 41° 54' 20" E
 Radial Direction: S 52° 20' 30" E
 Tangent Direction: N 37° 39' 30" E

Alignment Name: sht31 CONT.

Alignment Description: LA JOTA WAY
 Station Northing Easting

Element: Linear
 POB (144) 1+00.00 1890745.15 6251528.24
 POE (150) 3+36.94 1890963.92 6251437.24
 Tangential Direction: N 22° 35' 03" W
 Tangential Length: 236.94

Alignment Name: Proposed Air & Vacuum Valve

Element: Circular
 PC () 2+44.98 1890713.72 6251448.46
 PI () 2+72.54 1890721.01 6251475.03
 CC () 1891099.45 6251342.59
 PT (152) 3+00.00 1890731.88 6251500.35
 Radius: 400.00
 Delta: 7° 52' 50" Left
 Degree of Curvature (Arc): 14° 19' 26"
 Length: 55.02
 Tangent: 27.55
 Chord: 54.97
 Middle Ordinate: 0.95
 External: 0.95
 Tangent Direction: N 74° 39' 07" E
 Radial Direction: S 15° 20' 53" E
 Chord Direction: N 70° 42' 42" E
 Radial Direction: S 23° 13' 43" E
 Tangent Direction: N 66° 46' 17" E

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| SEWER AND WATER GROUP 809 | | | | |
|--|----------------|---|--|---------------------|
| SEWER AND WATER ALIGNMENT SHEET | | | | |
| CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 39 OF 39 SHEETS | | | WATER WBS B00102 | SEWER WBS B00416 |
|  FOR CITY ENGINEER | | 6/14/13 DATE | SUBMITTED BY AKRAM BASSYOUNI ASSOCIATE ENGINEER | |
| DCE NAME | | CHECKED BY EDWARD CASTANEDA PROJECT ENGINEER | | |
| DESCRIPTION | BY | APPROVED | DATE | FILMED |
| ORIGINAL | EC/PE | | | |
| | | | | SEE SHEETS |
| | | | | CC827 COORDINATE |
| | | | | SEE SHEETS |
| | | | | CC883 COORDINATE |
| CONTRACTOR | DATE STARTED | | 44119-39-D | |
| INSPECTOR | DATE COMPLETED | | | |



COORDINATE INDEX