



**CITY OF SAUSALITO
SPECIFICATIONS AND BID DOCUMENTS**

FOR

**PRIORITY 1 SEWER REPLACEMENT PROJECT
(Project 1B: Spinnaker/Humboldt Street Sewer and
Anchor Pump Station Rehabilitation)**

September 2012

**TODD TEACHOUT
CITY ENGINEER**

**CITY OF SAUSALITO
420 LITHO STREET
SAUSALITO, CALIFORNIA**

PRIORITY 1 SEWER REPLACEMENT PROJECT
Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

DESIGN CERTIFICATIONS

The Plans and Technical Specifications contained herein have been prepared by, or under the responsible charge of, the following registered person(s):

West Yost Associates Consulting Engineers
2020 Research Park Drive, Suite 100
Davis, CA 95618



11 September 2012

Patrick D. Fuss
Registration # C57272
Exp. Date: December 31, 2013

Date

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SECTION 00010

NOTICE INVITING BIDS

Notice is hereby given that sealed bids will be received by the City of Sausalito (City) in their office located at 420 Litho Street, Sausalito, CA 94965, at any time prior to **2:00 PM on Monday, October 15, 2012**, for furnishing all labor, materials, equipment, and services for the construction of improvements designated as:

Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

Bids will be publicly opened, examined and declared on said day and hour, and will be referred to the City Council for subsequent action.

A pre-bid conference and site visit will be held at **10:00 AM on Tuesday October 2, 2012**, at the offices of the City of Sausalito, 420 Litho Street, Sausalito, CA 94965.

All of said work is to be done in accordance with the Contract Documents, at the places and in the particular locations, of the form, sizes and dimensions and of the materials, and to the lines and grades and at the elevations as shown on the Plans and Specifications made therefore and approved by the City.

The successful Bidder will have the opportunity to enter into a teaming agreement with the City. Teaming consists of a voluntary effort by all parties to develop joint goals and establish a cooperative rather than adversarial atmosphere while executing the Contract. The objective of teaming is effective completion of the work on schedule, within budget, and in accordance with the Contract Documents. Teaming shall commence and be conducted in accordance with industry practice.

Under California Laws and Regulations, the City shall inform all prime contractors of public works, to the extent feasible of relevant public work requirements. Therefore, the City hereby advises all Bidders that the successful Bidder shall:

1. Employ the appropriate number of apprentices on the job site as set forth in California Labor Code 1777.5;
2. Provide worker's compensation coverage, as set forth in California Labor Code Sections 1860 and 1861;
3. Keep and maintain the records of work performed on the public works project, as set forth in California Labor Code Section 1812;
4. Keep and maintain the records required under California Labor Code Section 1776 which shall be subject to inspection pursuant to California Labor Code Section 1776 and California Code of Regulations, Division 1, Chapter 8, Subchapter 3, Article 6, Section 16400 (e); and

5. Be subject to other requirements imposed by law.

Bidders are hereby notified that, pursuant to the provisions of California Labor Code, Sections 1770 et. seq., the City has obtained from the Director of the Department of Industrial Relations, the general prevailing rate of per diem wages and a general prevailing rate for holidays, Saturdays and Sundays, and overtime work in the locality in which the work is to be performed for each craft, classification, or type of worker required to execute the Contract. A copy of said prevailing rate of the per diem wage is on file at the offices of the City of Sausalito, 420 Litho Street, Sausalito, CA 94965. Said prevailing rate of per diem wages will be made available to any interested party upon request, and a copy thereof shall be posted at the job site.

The City will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rates on file as aforesaid. The possibility of a wage increase is one of the elements to be considered by the Contractor in determining his/her or its Bid and will not, under any circumstances, be considered as the basis of a claim against the City on the Contract.

Bidders are hereby notified that if the Contract will be entered into or financed by or with the assistance of agencies of the United States, the City must comply with Federal prevailing wage requirements. A copy of the current prevailing rates under Federal law is included in the "Supplementary General Conditions" for this Project if so required by Federal law.

The successful Bidder and its subcontractors shall employ workers which consistently display and demonstrate proper moral, ethical and professional conduct to all fellow workers, employees and representatives of the City and other involved parties.

Pursuant to the provisions of California Labor Code Section 6707, each Bid submitted in response to this Notice to Contractors shall contain, as a Bid item, adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life and limb in trenches and open excavation, which shall conform to applicable safety orders. By listing this sum, the Bidder warrants that its action does not convey tort liability to the City, the Design Consultant, the Construction Manager, and their employees, agents, and subconsultants.

Copies of the Contract Documents are now on file and available for public inspection at the City of Sausalito, 420 Litho Street, Sausalito, CA 94965 where they may be obtained for a non-refundable \$50.00 charge. Contract Documents will be mailed for an additional charge of \$10.00 per set.

Each Bid must conform and be responsive to the invitation, the Plans and Specifications, and all documents comprising the pertinent Contract Documents. Each Bid shall be presented under sealed cover and shall be accompanied by a certified check, cashier's check, cash or bidder's bond, made payable to the City, in an amount not less than ten (10) percent of the Bid. The said check shall be given as a guarantee that the Bidder will execute the Contract in conformity with the form of agreement contained within the Contract Documents, and will furnish bonds and insurance policies as specified within ten (10) days after notification of the award of the Contract to the successful Bidder.

Addenda issued during the time of bidding shall be covered in the Contractor's Bid and shall become part of the Contract Documents.

Bidders shall develop and submit Bids at their own expense. The City will not reimburse any costs associated with the development and submittal of any and all Bids.

The City reserves the sole right to reject any and all Bids and to waive any informality in a Bid.

No Bidder may withdraw its Bid for a period of sixty (60) days after the date set for the opening thereof.

Any Bid protest must be submitted in writing to the City of Sausalito, 420 Litho Street, Sausalito, CA 94965 by 4:30 p.m. of the 5th business day following Bid opening. The initial protest document must identify the protestant and contain a complete statement of the basis for the protest with reference to any portion of the Bid documents which the protestant relies on as the basis of the protest. The above time and content requirements are mandatory, and failure to comply therewith shall constitute a waiver of any further right to pursue a Bid protest, including filing a Government Code claim or legal proceedings. Bid protests shall be acted upon by the City Council.

At the successful Contractor's option, securities may be substituted for the required retention, in accordance with the provisions of Section 22300 of the California Public Contract Code.

In accordance with the provisions of California Public Contract Code Section 3300, the City has determined that the Contractor shall possess a valid **Class A – General Engineering Contractor** license.

In accordance with the provisions of California Business and Professions Code Section 7028.15, a Bid submitted to the City by a Contractor who is not licensed in accordance with Chapter 9 of the California Business and Professions Code shall be considered non-responsive and shall be rejected by the City.

Pursuant to California Compliance Guidelines for Clean Water State Revolving Fund (CWSRF) Loan Program Disadvantaged Business Enterprise (DBE) May 2009 instructions, prior to Bid opening, Bidders must conduct a “Good Faith Effort” to insure Disadvantaged Business Enterprise (DBE) participation in the Project. See Section 3 of the **Clean Water State Revolving Fund Loan Program DBE Instructions** that follow the **Instruction to Bidders** for these and other instructions. Failure to take the five (5) affirmative steps listed under Requirements, Section 3, prior to bid opening and to submit Form 4 “Disadvantaged Business Enterprise Information” with the Bid shall cause the Bid to be rejected as a non-responsive Bid.

By: _____
Debbie Pagliaro, City Clerk
City of Sausalito, California

Date: _____

****END OF SECTION****

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SECTION 00100

INSTRUCTIONS TO BIDDERS

ARTICLE 1 – GENERAL

The work to be performed is described in the Contract Documents titled, **Priority 1 Sewer Replacement Project - Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation** dated September 2012 and prepared by **West Yost Associates** for the City of Sausalito.

All Bidders shall carefully examine the Contract Documents and satisfy themselves as to their sufficiency; and shall not at any time after the submission of the Bid dispute or complain of such Contract Documents and the directions explaining them or interpreting them, nor assert that there is any misunderstanding in regard to the location, extent, nature of amount of work to be performed. The Bidder shall notify the City of any discovered conflicts, errors or discrepancies in the Contract Documents prior to the submission of its Bid. Intended Bidders shall have visited the site of the Work and familiarized themselves with the conditions there existing as well as all other conditions relating to the construction and labor under which the work will be performed and affecting cost, progress or performance of the Work. The submittal of a Bid shall be considered an acknowledgement on the part of the Bidder of its familiarity with conditions at the site of the Work.

Bids for the Work shall be made on the forms contained in the following sections and shall include the following completed documents:

<u>SECTION</u>	<u>TITLE</u>
00300	BID FORM
00410	BID GUARANTY BOND
00420	BIDDER'S EXPERIENCE AND QUALIFICATIONS
00430	DESIGNATION OF SUBCONTRACTORS
00440	SITE VISIT AFFIDAVIT
00480	NON-COLLUSION AFFIDAVIT
00490	AFFIDAVIT OF SAFETY COMPLIANCE

A complete set of Bid forms shall be placed in an envelope, sealed, and addressed to:

City of Sausalito
Attn: Debbie Pagliaro, City Clerk
420 Litho Street, Sausalito, CA 94965
Priority 1 Sewer Replacement Project
Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

A pre-bid conference will be held at the time and place stipulated in Section 00010, **NOTICE INVITING BIDS**. The conference will be conducted by the City. Subcontractors and other interested parties are invited and encouraged to attend. A tour of the site of the Work will be conducted if so requested by any of the persons attending the conference.

The City reserves the right to postpone the date and time for receiving and/or opening of Bids at any time prior to the date and time established in the Notice Inviting Bids. Postponement notices may be faxed and will subsequently be mailed to planholders of record in the form of addenda.

Addenda may be issued to all planholders during the Bid period. Any and all addenda issued shall become a part of the Contract Documents and shall be fully considered by all Bidders during formation of Bids.

Bids shall be made on the blank bid forms prepared by the City and issued separately from these Contract Documents. Bid forms included in these Contract Documents shall be used for reference only.

Bids shall give the prices proposed in figures, shall give all other information requested herein, and shall be signed by the Bidder or an authorized representative, including address. By submission of a proposal on the separate forms provided by the City, the Bidder attests that the Bidder has purchased a complete set of these Contract Documents and is aware of its entire contents. Bidder is required to provide a complete Bid on all schedules listed in Section 00310, **BID SCHEDULE**.

Bids shall be delivered to the City at the above address before the time set for the opening of Bids as provided in Section 00010, **NOTICE INVITING BIDS**.

After the expiration of the time for submission of Bids, all Bids will be publicly opened, read, declared, and referred to the City Council for action.

ARTICLE 2 – BID PRICES

Bid prices shall include everything necessary for the completion of construction and fulfillment of the Contract. Bid prices shall include all federal, state and local taxes. Costs for developing, submitting, and presenting Bids are the sole responsibility of the Bidder and claims for reimbursement will not be accepted by the City.

If the product of a unit price and an estimated quantity does not equal the extended amount quoted, the unit price shall govern, and the correct product of the unit price and the estimate quantity shall be deemed to be the amount Bid. If the sum of two or more items in a bidding schedule does not equal the total amounts quoted, the individual item amounts shall govern and the correct total shall be deemed to be the amount Bid.

ARTICLE 3 – BIDDER’S SIGNATURE AND AUTHORITY

If the Bid is made by an individual, Bidder’s name, signature, and post office address must be shown; if made by a firm or partnership, a list of the partners, and the signature of at least one of the general partners must be shown; if made by a corporation, the Bid shall show the name of the state under the laws of which the corporation is chartered, the name and post office address of the corporation, and the title of the person who signs on behalf of the corporation. If the Bid is made by a corporation, a certified copy of the bylaws or resolution of the Board of Directors of the corporation shall be furnished showing the authority of the officer signing the Bid to execute contracts on behalf of the corporation. If the Bid is made by a joint venture, the Bid shall be signed by a representative of one of the joint venture firms. Additionally, the Bid shall include a copy of the resolution or agreement empowering the representative to execute the Bid and bind the joint venture.

ARTICLE 4 – BID IRREGULARITIES

Each Bid and the information requested shall be enclosed in a sealed envelope and labeled as specified herein. Bidders are warned against making erasures or alterations of any kind, and Bids which contain omissions, erasures, or irregularities of any kind may be rejected. No oral, telegraphic, electronic (including E-Mail), facsimile, or telephonic bids or modifications will be considered.

ARTICLE 5 – MODIFICATION OF BID

Modification of a Bid already received will be considered only if the modification is received prior to the time established for receiving Bids. Modifications shall be made in writing, executed, and submitted in the same form and manner as the original Bid.

ARTICLE 6 – SUBCONTRACTORS AND MAJOR SUPPLIERS

In accordance with California Public Contracting Code Section 4100, et. Seq., each Bid shall have listed in Section 00430, **DESIGNATION OF SUBCONTRACTORS**, the name, portion of work to be performed, and location of the place of business of each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the Work or improvement, or of any subcontractor licensed by the State of California who, under subcontract to the Bidder, will specifically fabricate and install a portion of the Work or improvement according to detailed drawings contained in the Contract Documents, in an amount in excess of one-half of one percent of the Bidder’s total bid or \$10,000, whichever is greater.

If the Contractor fails to designate in its proposal a subcontractor for any portion of the Work as required above, the Bidder shall be deemed to have agreed to perform such portion of the Work itself and shall not be permitted to subcontract said portion of the Work without the written permission of the City in accordance with applicable law.

ARTICLE 7 – BID GUARANTY BOND AND CONTRACT AWARD

Bids shall be accompanied by one of the following forms of Bidder's Security: Cash or; a certified or cashier's check payable to the City; or a Bidder's Bond (Bid Guaranty Bond) executed by an admitted surety made payable to the City. The Bidder's Security shall be in an amount not less than ten (10) percent of the aggregate of the Bid. Said Bidder's Security shall be a guarantee that the Bidder, if awarded the Work, will within ten (10) days after award: (1) enter into a Contract in specified form, (2) furnish a bond of faithful performance and a labor and material bond, and (3) furnish specified insurance policies. In case of refusal or failure to enter into said Contract or to provide said bonds and insurance policies, the Bidder's Security shall be forfeited to the City, the proceeds therefrom being hereby agreed upon as liquidated damages to the said City on account of the delay in the execution of the Contract and required bonds and the performance of the Work thereunder, and the necessity of accepting a higher or less desirable Bid resulting from such failure or refusal to execute the Contract and the bonds as required.

Upon the execution of the Contract and the approval on behalf of the City of the accompanying bonds and insurance policies, all certified checks that accompany Proposals and that have not heretofore been returned, will be returned, each to its maker.

Award of the Contract will be made within sixty (60) days after the opening of Bids to the lowest responsive, responsible bidder complying with these instructions, Section 00010, **NOTICE INVITING BIDS**, and such other pertinent provisions of the Contract Documents as may apply. The Award of the Contract may be made after the sixtieth (60th) day after the opening of the Bids if mutually agreed to by both the City and the successful Bidder in writing. If award is made, it will be based on the lowest responsive, responsible Bid whose base Bid and alternate(s) as listed in Section 00300, **BID FORM**, yields the lowest total Contract price. Selection of any or all alternates shall be at the sole discretion of the City. The City, however, reserves the right to reject any or all Bids, and to waive any informality in Bids received.

Award of contract for the project is subject to:

1. Compliance with the California Environmental Quality Act ("CEQA") and
2. Initial funding agreement by the State Water Resources Control Board.

ARTICLE 8 – CONTRACTOR'S LICENSE

Each Bidder shall be licensed in accordance with the provisions of the Contractors License Law of California as stipulated in Section 00010, **NOTICE INVITING BIDS**.

ARTICLE 9 – WORK PERCENTAGES

The Contractor shall perform with its own organization no less than fifty-one (51) percent of the work.

ARTICLE 10 – COLLUSION

If the City has reason to believe that collusion exists among Bidders, the City will reject the Bids of the known participants in such collusion and may, at its option, require that all Bidders certify under penalty of perjury, that no collusion has occurred or exists. The City also, at its option, may reject all Bids received. In accordance with Public Contract Code Section 7106, the Contractor shall complete

and file with its proposal the Non-Collusion Affidavit in Section 00480. Public Contract Code Section 7106 requires that the affidavit must be duly sworn.

ARTICLE 11 – INTERPRETATIONS

No oral representations or interpretations will be made to any Bidder as to the meaning of the Contract Documents. Requests for an interpretation shall be made in writing and delivered to the following address at least ten (10) days before the Bids are opened as provided in Section 00010, NOTICE INVITING BIDS.

Requests should be made to Todd Teachout, City Engineer, City of Sausalito, 420 Litho Street, Sausalito, CA 94965.

ARTICLE 12 – WITHDRAWAL OF BID

In accordance with Public Contract Code Sections 5101 and 5103, within five (5) days after the opening of Bids, a Bidder may withdraw its Bid providing the Bidder can establish to the City's satisfaction that a mistake was made in preparing the Bid. A Bidder desiring to withdraw shall give written notice to the City, specifying, in detail, how the mistake occurred and how the mistake made the Bid materially different than it was intended to be. Withdrawal will not be permitted for mistakes resulting from errors in judgment or carelessness in inspecting the site of the Work or in reading the Contract Documents.

ARTICLE 13 – BID PROTEST

Any Bid protest must be submitted in writing to the City Manager before 4:30 p.m. on the fifth (5th) working day following Bid opening.

- A. The initial protest document must contain a complete statement of the basis for the protest, and all supporting documentation.
- B. The party filing the protest must have actually submitted a Bid for the Work. A subcontractor of a party submitting a Bid for the Work may not submit a Bid protest. A party may not rely on the Bid protest submitted by another Bidder, but must timely pursue its own protest.
- C. The protest must refer to the specific portion of the Bid document which forms the basis for the protest.
- D. The protest must include the name, address and telephone number of the person representing the protesting party.
- E. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
- F. The City will give the protested Bidder five (5) working days after the receipt of the protest to submit a written response. The responding Bidder shall transmit the response to the protesting Bidder concurrent with delivery to the City.

- G. The procedure and time limits set forth in this paragraph are mandatory and are the Bidder’s sole and exclusive remedy in the event of Bid protest. The Bidder’s failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings
- H. If the City determines that a protest is frivolous, the protesting Bidder may be determined to be non-responsible and that Bidder may be determined to be ineligible for future contract awards.

ARTICLE 15 – BIDDERS CHECKLIST

This checklist has been prepared and furnished to aid Bidders in including all necessary supporting information with their Bid. Bidder’s submittals shall include, the following, in addition to any other materials which Bidder may wish to submit:

<u>Item</u>	<u>Checked</u>
Bid Form (Section 00300)	_____
Bid Guaranty Bond (Section 00410)	_____
Bidder’s Experience and Qualifications (Section 00420)	_____
Designation of Subcontractors (Section 00430)	_____
Site Visit Affidavit (Section 00440)	_____
Non-Collusion Affidavit (Section 00480)	_____
Affidavit of Safety Compliance (Section 00490)	_____

CLEAN WATER STATE REVOLVING FUND PROGRAM REQUIREMENTS

CLEAN WATER STATE REVOLVING FUND (CWSRF) PROGRAM
STATE WATER RESOURCES CONTROL BOARD
DIVISION OF FINANCIAL ASSISTANCE

CONSTRUCTION CONTRACT REQUIREMENTS (CCR) AND BOILERPLATE (BP)

Special Note: This document is only guidance and does not relieve Agencies with the burden of confirming that all federal, state, and local laws for contracting have been included in the Plans and Specifications for a project funded by the CWSRF Program. This document requires Agency's legal counsel review to include all current contractual requirements in Plans and Specifications.

Division of Financial Assistance
1001 I Street, Sacramento CA 95814
Phone: (916) 341-5700 Fax: (916) 341-5707
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml

ISSUED DATE: MAY 12, 2009

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INSTRUCTIONS

This guidance document contains federal and state requirements for projects funded under the Clean Water State Revolving Fund (CWSRF) Program. The *CONSTRUCTION CONTRACT REQUIREMENTS* (CCR) section calls attention to state laws that CWSRF applicants must follow. The *BOILERPLATE* (BP) includes requirements that construction contractors must meet. This document is only guidance and does not relieve Agencies with the burden of confirming that all federal, state, and local laws for contracting have been included in the Plans and Specifications for a project funded by the CWSRF Program. This document requires Agency’s legal counsel review to include all current contractual requirements.

Applicants for CWSRF funds are required to complete the CCR Checklist (page CCR-8) and return it to the Division of Financial Assistance (DFA) with the plans and specifications. The contents of the CCR and BP are to be included in the contract specifications. We recommend that the BP be inserted, unchanged and in its entirety, into the contract specifications. We will review the plans and specifications for conformity to the CCR Checklist and BP. Non-compliance with the provisions in the CCR and BP may impact eligibility and/or award of construction contract.

BOILERPLATE AND CCR FORMS TO BE COMPLETED:

All items to be submitted to DFA with Approval-to-Award package, except Item 1 that is to be submitted with the 90% Plans and Specifications.

1. Forms completed by Recipient		
<i>Item No.</i>	<i>Description</i>	<i>Page No.</i>
1	Construction Contract Requirements Checklist	(BP-12)
2	DBE Form 6, Positive Effort Certification	(BP-33)
2. Forms completed by Prime Contractor and submitted with Bid to Recipient *		
3	Escrow agreement for security deposits in lieu of retention	(BP-8)
4	Form 4 Prime Contractor Selected DBEs	(BP-30)
5	Non-Collusion Affidavit	(BP-50)
3. Forms completed by Low Bidder & submitted within 2 weeks after Bid Opening to Recipient		
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7	DBE Form 2, “Good Faith” Effort Bids Received List	(BP-29)
8	DBE Form 3, Contractor/Recipient Certification	(BP-30)
9	DBE Form 5, Summary of Bids Received from Subcontractors	(BP-32)
4. Forms submitted by winning bidder within 2 weeks of contract award to Recipient		
10	Certification of Nondiscrimination Clause	(BP-36)
11	Certification of Non-Segregated Facilities	(BP-45)
12	Drug-Free Workplace Certification	(BP-46)

NOTE: Form 4 and the **NOTARIZED Non-Collusion Affidavit** must be submitted with the bid. Without these documents, the bid shall be rejected as non-responsive. The Escrow agreement for security deposits in lieu of retention is an optional for the Prime Contractor.

The electronic versions of the CCR and BP are available by contacting your Project Manager at the State Water Board.

CONSTRUCTION CONTRACT REQUIREMENTS

1 - ELIMINATION OF SEGREGATED FACILITIES NOTICE TO APPLICANTS OF REQUIREMENT FOR CERTIFICATION OF NON-SEGREGATED FACILITIES

(a) A Certification of Non-Segregated Facilities, as required by the May 9, 1967 Order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted by the applicant prior to any agreement for Federal financial assistance where the applicant will himself perform a Federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

(b) Applicants for Federal assistance shall notify prospective Federally-assisted construction contractors of the Certification of Non-Segregated Facilities required by the May 9, 1967 Order on Elimination of Segregated Facilities by the Secretary of Labor.

2 - PUBLIC CONTRACT CODE SECTION 3300 IDENTIFICATION OF CONTRACTORS LICENSE CLASSIFICATION

(a) Any public entity, as defined in Section 1100, the University of California, and the California State University shall specify the classification of the contractor's license, which a contractor shall possess at the time a contract is awarded. The specification shall be included in any plans prepared for a public project and in any notice inviting bids required pursuant to this code.

This requirement shall apply only with respect to contractors who contract directly with the public entity.

(b) A contractor who is not awarded a public contract because of the failure of an entity, as defined in subdivision (a), to comply with that subdivision shall not receive damages for the loss of the contract.

3 - PUBLIC CONTRACT CODE SECTION 3400 COMPETITIVE BIDDING "OR EQUAL" REQUIREMENT

(a) No agency of the state nor any political subdivision, municipal corporation, or district, nor any public officer or person charged with the letting of contracts for the construction, alteration, or repair of public works shall draft or cause to be drafted specifications for bids, in connection with the construction, alteration, or repair of public works, (1) in such a manner as to limit the bidding, directly or indirectly, to any one specific concern, or (2) calling for a designated material, product, thing, or service by specific brand or trade name unless the specification lists at least two brands or trade names of comparable quality or utility and is followed by the words "or equal" so that bidders may furnish any equal material, product, thing, or service. In applying this section, the specifying agency shall, if aware of an equal product manufactured in this state, name that product in the specification. In those cases involving a unique or novel product application required to be used in the public interest, or where only one brand or trade name is known to the specifying agency, it may list only one. Specifications shall provide a period of time, prior to or after, the award of the contract for submission of data substantiating a request for a substitution of "an equal" item. If no time period is specified, data may be submitted any time within 35 days after the award of the contract. (b) Subdivision (a) is not applicable if the awarding authority, or its designee, makes a finding that is described in the invitation for bids or request for proposals that a particular material, product, thing, or service is designated by specific brand or trade name for either of the following purposes: (1) In order that a field test or experiment may be made to determine the product's suitability for future use. (2) In order to match other products in use on a particular public improvement either completed or in the course of completion.

4 - PUBLIC CONTRACT CODE SECTION 4104
LISTING OF SUBCONTRACTORS

Any officer, department, board or commission taking bids for the construction of any public work or improvement shall provide in the specifications prepared for the work or improvement or in the general conditions under which bids will be received for the doing of the work incident to the public work or improvement that any person making a bid or offer to perform the work, shall, in his or her bid or offer, set forth:

(a) (1) The name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater. (2) (A) Subject to subparagraph (B), any information requested by the officer, department, board, or commission concerning any subcontractor who the prime contractor is required to list under this subdivision, other than the subcontractor's name and location of business, may be submitted by the prime contractor up to 24 hours after the deadline established by the officer, department, board, or commission for receipt of bids by prime contractors. (B) A state or local agency may implement subparagraph (A) at its option.

(b) The portion of the work which will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

5 - PUBLIC CONTRACT CODE SECTION 7105
"ACTS OF GOD" INSURANCE EXCLUSION

7105. (a) Construction contracts of public agencies shall not require the contractor to be responsible for the cost of repairing or restoring damage to the work, which damage is determined to have been proximately caused by an act of God, in excess of 5 percent of the contracted amount, provided, that the work damaged is built in accordance with accepted and applicable building standards and the plans and specifications of the awarding authority. However, contracts may include provisions for terminating the contract. The requirements of this section shall not be mandatory as to construction contracts financed by revenue bonds. This section shall not prohibit a public agency from requiring that a contractor obtain insurance to indemnify the public agency for any damage to the work caused by an act of God if the insurance premium is a separate bid item. If insurance is required, requests for bids issued by public agencies shall set forth the amount of the work to be covered and the contract resulting from the requests for bids shall require that the contractor furnish evidence of satisfactory insurance coverage to the public agency prior to execution of the contract. (b) For the purposes of this section:

(1) "Public agency" shall include the state, the Regents of the University of California, a city, county, district, public authority, public agency, municipal utility, and any other political subdivision or public corporation of the state.

(2) "Acts of God" shall include only the following occurrences or conditions and effects: earthquakes in excess of a magnitude of 3.5 on the Richter Scale and tidal waves.

(c) Public agencies may make changes in construction contracts for public improvements in the course of construction to bring the completed improvements into compliance with environmental requirements or standards established by state and federal statutes and regulations enacted after the contract has been awarded or entered into. The contractor shall be paid for the changes in accordance with the provisions of the contract governing payment for changes in the work or, if no provisions are set forth in the contract, payment shall be as agreed to by the parties.

(d) (1) Where authority to contract is vested in any public agency, excluding the state, the authority shall include the power, by mutual consent of the contracting parties, to terminate, amend, or modify any contract within the scope of such authority. (2) Paragraph (1) shall not apply to contracts entered into pursuant to any statute expressly requiring that contracts be let or awarded on the basis of competitive bids. Contracts of public agencies, excluding the state, required to be let or awarded on the basis of competitive bids pursuant to any statute may be terminated,

amended, or modified only if the termination, amendment, or modification is so provided in the contract or is authorized under provision of law other than this subdivision. The compensation payable, if any, for amendments and modifications shall be determined as provided in the contract. The compensation payable, if any, in the event the contract is so terminated shall be determined as provided in the contract or applicable statutory provision providing for the termination.

(3) Contracts of public agencies may include provisions for termination for environmental considerations at the discretion of the public agencies.

6 - PUBLIC CONTRACT CODE SECTION 9203
USING PROGRESS PAYMENTS FOR ANY PROJECT OVER \$5,000

(a) Payment on any contract with a local agency for the creation, construction, alteration, repair, or improvement of any public structure, building, road, or other improvement, of any kind which will exceed in cost a total of five thousand dollars (\$5,000), shall be made as the legislative body prescribes upon estimates approved by the legislative body, but progress payments shall not be made in excess of 95 percent of the percentage of actual work completed plus a like percentage of the value of material delivered on the ground or stored subject to, or under the control of, the local agency, and unused. The local agency shall withhold not less than 5 percent of the contract price until final completion and acceptance of the project. However, at any time after 50 percent of the work has been completed, if the legislative body finds that satisfactory progress is being made, it may make any of the remaining progress payments in full for actual work completed.

(b) Notwithstanding the dollar limit specified in subdivision (a), a county water authority shall be subject to a twenty-five thousand dollar (\$25,000) limit for purposes of subdivision (a).

7 - PUBLIC CONTRACT CODE SECTION 22300
SECURITIES IN LIEU OR RETENTION PERMITTED AND ESCROW AGREEMENT

(a) Provisions shall be included in any invitation for bid and in any contract documents to permit the substitution of securities for any moneys withheld by a public agency to ensure performance under a contract, provided that substitution of securities provisions shall not be required in contracts in which there will be financing provided by the Farmers Home Administration of the United States Department of Agriculture pursuant to the Consolidated Farm and Rural Development Act (7 U.S.C. Sec. 1921 et seq.), and where federal regulations or policies, or both, do not allow the substitution of securities. At the request and expense of the contractor, securities equivalent to the amount withheld shall be deposited with the public agency, or with a state or federally chartered bank in this state as the escrow agent, who shall then pay those moneys to the contractor. Upon satisfactory completion of the contract, the securities shall be returned to the contractor.

(b) Alternatively, the contractor may request and the owner shall make payment of retentions earned directly to the escrow agent at the expense of the contractor. At the expense of the contractor, the contractor may direct the investment of the payments into securities and the contractor shall receive the interest earned on the investments upon the same terms provided for in this section for securities deposited by the contractor. Upon satisfactory completion of the contract, the contractor shall receive from the escrow agent all securities, interest, and payments received by the escrow agent from the owner, pursuant to the terms of this section.

(c) Securities eligible for investment under this section shall include those listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the contractor and the public agency. The contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon. Failure to include these provisions in bid and contract documents shall void any provisions for performance retentions in a public agency contract. For purposes of this section, the term "public agency" shall include, but shall not be limited to, chartered cities.

(d) (1) Any contractor who elects to receive interest on moneys withheld in retention by a public agency shall, at the request of any subcontractor, make that option available to the subcontractor regarding any moneys withheld in retention by the contractor from the subcontractor. If the contractor elects to receive interest on any moneys withheld in retention by a public agency, then the subcontractor shall receive the identical rate of interest received by the contractor on any retention moneys withheld from the subcontractor by the contractor, less any actual pro rata costs associated with administering and calculating that interest. In the event that the interest rate is a fluctuating

rate, the rate for the subcontractor shall be determined by calculating the interest rate paid during the time that retentions were withheld from the subcontractor. If the contractor elects to substitute securities in lieu of retention, then, by mutual consent of the contractor and subcontractor, the subcontractor may substitute securities in exchange for the release of moneys held in retention by the contractor. (2) This subdivision shall apply only to those subcontractors performing more than five percent of the contractor's total bid. (3) No contractor shall require any subcontractor to waive any provision of this section.

(e) The Legislature hereby declares that the provisions of this section are of statewide concern and are necessary to encourage full participation by contractors and subcontractors in public contract procedures.

(f) The escrow agreement used hereunder shall be null, void, and unenforceable unless it is substantially similar to the following form:

ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into by and between _____

whose address is _____ hereinafter called "Owner,"

_____ whose address is _____

hereinafter called "Contractor" and _____ whose address is _____

_____ hereinafter called "Escrow Agent."

For the consideration hereinafter set forth, the Owner, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for _____ in the amount of _____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the Escrow Agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of _____, and shall designate the Contractor as the beneficial owner.

(2) The Owner shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Owner makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor, and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

(8) Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (5) to (8), inclusive, of this agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner:

On behalf of Contractor:

On behalf of Escrow Agent:

Title

Title Title

Name

Name

Name

Signature

Signature

Signature

Address

Address

Address

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Owner

Contractor

Title

Title

Name

Name

Signature

Signature

8 - LABOR CODE SECTION 6500
EMPLOYMENT PERMITS

(a) For those employments or places of employment that by their nature involve a substantial risk of injury, DFA shall require the issuance of a permit prior to the initiation of any practices, work, method, operation, or process of employment. The permit requirement of this section is limited to employment or places of employment that are any of the following:

- (1) Construction of trenches or excavations which are five feet or deeper and into which a person is required to descend.
- (2) The construction of any building, structure, falsework, or scaffolding more than three stories high or the equivalent height.
- (3) The demolition of any building, structure, falsework, or scaffold more than three stories high or the equivalent height.
- (4) The underground use of diesel engines in work in mines and tunnels.

This subdivision does not apply to motion picture, television, or theater stages or sets, including, but not limited to, scenery props, backdrops, flats, greenbeds, and grids.

(b) On or after January 1, 2000, this subdivision shall apply to motion picture, television, or theater stages or sets, if there has occurred within any one prior calendar year in any combination at separate locations three serious injuries, fatalities, or serious violations related to the construction or demolition of sets more than 36 feet in height for the motion picture, television, and theatrical production industry.

An annual permit shall be required for employers who construct or dismantle motion picture, television, or theater stages or sets that are more than three stories or the equivalent height. A single permit shall be required under this subdivision for each employer, regardless of the number of locations where the stages or sets are located. An employer with a currently valid annual permit issued under this subdivision shall not be required to provide notice to DFA prior to commencement of any work activity authorized by the permit. DFA may adopt procedures to permit employers to renew by mail the permits issued under this subdivision. For purposes of this subdivision, "motion picture television or theater stages or sets" include, but are not limited to, scenery, props, backdrops, flats, greenbeds, and grids.

9 - LABOR CODE SECTION 6705
TRENCH EXCAVATION PLAN REQUIREMENT

No contract for public works involving an estimated expenditure in excess of twenty-five thousand dollars (\$25,000), for the excavation of any trench or trenches five feet or more in depth, shall be awarded unless it contains a clause requiring submission by the contractor and acceptance by the awarding body or by a registered civil or structural engineer, employed by the awarding body, to whom authority to accept has been delegated, in advance of excavation, of a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

Nothing in this section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders.

Nothing in this section shall be construed to impose tort liability on the awarding body or any of its employees.

The terms "public works" and "awarding body", as used in this section, shall have the same meaning as in Sections 1720 and 1722, respectively, of the Labor Code.

10 - LABOR CODE SECTION 6707
SEPARATE BID ITEM FOR SHEETING, SHORING, ETC.

Whenever the state, a county, city and county, or city issues a call for bids for the construction of a pipeline, sewer, sewage disposal system, boring and jacking pits, or similar trenches or open excavations, which are five feet or deeper, such call shall specify that each bid submitted in response thereto shall contain, as a bid item, adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life or limb, which shall conform to applicable safety orders. Nothing in this section shall be construed to impose tort liability on the body awarding the contract or any of its employees. This section shall not apply to contracts awarded pursuant to the provisions of Chapter 3 (commencing with Section 14250) of Part 5 of Division 3 of Title 2 of the Government Code.

11 - CONSTRUCTION CONTRACT REQUIREMENTS CHECKLIST
 CLEAN WATER STATE REVOLVING FUND PROGRAM
 STATE WATER RESOURCES CONTROL BOARD
 DIVISION OF FINANCIAL ASSISTANCE

Applicant:* _____ Project No. _____

Project Title: _____

CONSTRUCTION CONTRACT REQUIREMENTS (CCR)

Contract Page No.	Satisfy Yes/No	
_____	_____	Date, Time, and Location of the Bid Opening
_____	_____	Thirty (30) Days between Bid Advertisement and Bid Opening
_____	_____	Contract Period / Equipment Delivery Date
_____	_____	Contract Awarded to Lowest, Responsive, Responsible Bidder
_____	_____	Bid Guarantee Bond (at least 10% of bid).
_____	_____	Performance Bond (100% of bid).
_____	_____	Payment Bond (100% of bid).
_____	_____	Elimination of Segregated Facilities
_____	_____	Comply with State’s DBE guidelines (see page BP-20)
_____	_____	Identification of Contractors License Classification; Public Contract Code Section 3300.
_____	_____	Competitive Bidding “or Equal”; Public Contract Code Section 3400.
_____	_____	Listing of Subcontractors; Public Contract Code Section 4104.
_____	_____	“Acts of God” Insurance Exclusion; Public Contract Code Section 7105.
_____	_____	“Non-Collusion Affidavit”, Public Contract Code Section 7106
_____	_____	Project Progress Payments; Public Contract Code Section 9203.
_____	_____	Securities In Lieu of Retention Permitted; Public Contract Code Section 22300.
_____	_____	Employment Permits; Labor Code Section 6500.
_____	_____	Trench Excavation Plan Requirement; Labor Code Section 6705.
_____	_____	Separate Bid Item for Sheeting, Shoring, Etc.; Labor Code Section 6707.
_____	_____	BOILERPLATE DOCUMENTS (state provided if requested by applicant, and may be included in the construction specifications at the Agency’s option)

***This list is provided as guidance only and the Agency is responsible for any additional federal, state or local contracting requirements required by laws, regulations or local ordinances.**

BOILERPLATE

1 - STATE WAGE RATE CLAUSES (Facilities Plan Approval after June 18, 1998, Federal Wage Rates are not required)

Pursuant to Sections 1720 et seq., and 1770 et seq., of the California Labor Code, the successful bidder shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations for public works projects of more than one thousand dollars (\$1,000). Copies of such prevailing rate or per diem wage are on file at (loan recipient's principal office), which copies shall be made available to any interested party on request. The successful bidder shall post a copy of such determinations at each job site. A source of State Wage Rate information is <http://dir.ca.gov/DLSR>.

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.

2 - LABOR CODE SECTION 1776
COMPLETE PAYROLL RECORDS; CERTIFIED AND AVAILABLE

(a) Each contractor and subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following: (1) The information contained in the payroll record is true and correct. (2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis: (1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.

(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the contractor.

(c) The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by DFA.

(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.

(e) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated. Any copy of records made available for inspection by, or furnished to, a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) shall be marked or obliterated only to prevent disclosure of an individual's name and social security number. A joint labor management committee may maintain an action in a court of competent jurisdiction against an employer who fails to comply with Section 1774. The court may award restitution to an employee for unpaid wages and may award the joint labor management committee reasonable attorney's fee and costs incurred in maintaining the action. An action under this subdivision may not be based on the employer's misclassification of the craft of a worker on its certified payroll records. Nothing in this subdivision limits any other available remedies for a violation of this chapter.

(f) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.

(g) The contractor or subcontractor shall have 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

(h) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section.

(i) The director shall adopt rules consistent with the California Public Records Act, (Chapter 3.5 (commencing with Section 6250), Division 7, Title 1, Government Code) and the Information Practices Act of 1977, (Title 1.8 (commencing with Section 1798), Part 4, Division 3, Civil Code) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section.

3 - LABOR CODE SECTION 1777.5
 EMPLOYMENT OF PROPERLY REGISTERED APPRENTICES

(a) Nothing in this chapter shall prevent the employment of properly registered apprentices upon public works.

(b) Every apprentice employed upon public works shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

(c) Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3 are eligible to be employed at the apprentice wage rate on public works. The employment and training of each apprentice shall be in accordance with either of the following:

- (1) The apprenticeship standards and apprentice agreements under which he or she is training.
- (2) The rules and regulations of the California Apprenticeship Council.

(d) When the contractor to whom the contract is awarded by the state or any political subdivision, in performing any of the work under the contract, employs workers in any apprenticeable craft or trade, the contractor shall employ apprentices in at least the ratio set forth in this section and may apply to any apprenticeship program in the craft or trade that can provide apprentices to the site of the public work for a certificate approving the contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, the decision of the apprenticeship program to approve or deny a certificate shall be subject to review by the Administrator of Apprenticeship.

The apprenticeship program or programs, upon approving the contractor, shall arrange for the dispatch of apprentices to the contractor. A contractor covered by an apprenticeship program's standards shall not be required to submit any additional application in order to include additional public works contracts under that program.

"Apprenticeable craft or trade," as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the California Apprenticeship Council. As used in this section, "contractor" includes any subcontractor under a contractor who performs any public works not excluded by subdivision (o).

(e) Prior to commencing work on a contract for public works, every contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the site of the public work. The information submitted shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the awarding body if requested by the awarding body. Within 60 days after concluding work on the contract, each contractor and subcontractor shall submit to the awarding body, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the contract. The information under this subdivision shall be public. The apprenticeship programs shall retain this information for 12 months.

(f) The apprenticeship program that can supply apprentices to the area of the site of the public work shall ensure equal employment and affirmative action in apprenticeship for women and minorities.

(g) The ratio of work performed by apprentices to journeymen employed in a particular craft or trade on the public work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates where the contractor agrees to be bound by those standards, but, except as otherwise provided in this section, in no case shall the ratio be less than one hour of apprentice work for every five hours of journeyman work.

(h) This ratio of apprentice work to journeyman work shall apply during any day or portion of a day when any journeyman is employed at the jobsite and shall be computed on the basis of the hours worked during the day by journeymen so employed. Any work performed by a journeyman in excess of eight hours per day or 40 hours per week shall not be used to calculate the ratio. The contractor shall employ apprentices for the number of hours computed as above before the end of the contract or, in the case of a subcontractor, before the end of the subcontract. However, the contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the jobsite. Where an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Chief of the Division of Apprenticeship Standards, upon application of an apprenticeship program, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification.

(i) A contractor covered by this section that has agreed to be covered by an apprenticeship program's standards upon the issuance of the approval certificate, or that has been previously approved for an apprenticeship program in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the applicable apprenticeship standards, but in no event less than the 1-to-5 ratio required by subdivision (g).

(j) Upon proper showing by a contractor that he or she employs apprentices in a particular craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by journeymen, the Chief of the Division of Apprenticeship Standards may grant a certificate exempting the contractor from the 1-to-5 hourly ratio, as set forth in this section for that craft or trade.

(k) An apprenticeship program has the discretion to grant to a participating contractor or contractor association a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the contractor from the 1-to-5 ratio set forth in this section when it finds that any one of the following conditions is met:

- (1) Unemployment for the previous three-month period in the area exceeds an average of 15 percent.
- (2) The number of apprentices in training in the area exceeds a ratio of 1 to 5.
- (3) There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis.
- (4) Assignment of an apprentice to any work performed under a public works contract would create a condition that would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large, or the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

(l) When an exemption is granted pursuant to subdivision (k) to an organization that represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member contractors shall not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already covered by the local apprenticeship standards.

(m) (1) A contractor to whom a contract is awarded, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the director determines is the prevailing amount of apprenticeship training contributions in the area of the public works site. A contractor may take as a credit for payments to the council any amounts paid by the contractor to an approved apprenticeship program that can supply apprentices to the site of the public works project. The contractor may add the amount of the contributions in computing his or her bid for the contract.

(2) At the conclusion of the 2002-03 fiscal year and each fiscal year thereafter, the California Apprenticeship Council shall distribute training contributions received by the council under this subdivision, less the expenses of the Division of Apprenticeship Standards for administering this subdivision, by making grants to approved apprenticeship programs for the purpose of training apprentices. The funds shall be distributed as follows:

(A) If there is an approved multiemployer apprenticeship program serving the same craft or trade and geographic area for which the training contributions were made to the council, a grant to that program shall be made.

(B) If there are two or more approved multiemployer apprenticeship programs serving the same craft or trade and geographic area for which the training contributions were made to the council, the grant shall be divided among those programs based on the number of apprentices registered in each program.

(C) All training contributions not distributed under subparagraphs (A) and (B) shall be used to defray the future expenses of the Division of Apprenticeship Standards.

(3) All training contributions received pursuant to this subdivision shall be deposited in the Apprenticeship Training Contribution Fund, which is hereby created in the State Treasury. Notwithstanding Section 13340 of the Government Code, all money in the Apprenticeship Training Contribution Fund is hereby continuously appropriated for the purpose of carrying out this subdivision and to pay the expenses of the Division of Apprenticeship Standards.

(n) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

(o) This section does not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor when the contracts of general contractors or those specialty contractors involve less than thirty thousand dollars (\$30,000).

(p) All decisions of an apprenticeship program under this section are subject to Section 3081.

4 - LABOR CODE SECTION 1810
DEFINITION: A LEGAL DAY'S WORK

Eight hours labor constitutes a legal day's work in all cases where the same is performed under the authority of any law of this State, or under the direction, or control, or by the authority of any officer of this State acting in his official capacity, or under the direction, or control or by the authority of any municipal corporation, or of any officer thereof. A stipulation to that effect shall be made a part of all contracts to which the State or any municipal corporation therein is a party.

5 - LABOR CODE SECTION 1813
PENALTY FOR OVERTIME ON ANY PUBLIC WORK CONTRACT

The contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the contract by the respective contractor or subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of this article. In awarding any contract for public work, the awarding body shall cause to be inserted in the contract a stipulation to this effect. The awarding body shall take cognizance of all violations of this article committed in the course of the execution of the contract, and shall report them to the Division of Labor Standards Enforcement.

6 - LABOR CODE SECTION 1815
MINIMUM OVERTIME PAY

Notwithstanding the provisions of Sections 1810 to 1814, inclusive, of this code, and notwithstanding any stipulation inserted in any contract pursuant to the requirements of said sections, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half (1.5) times the basic rate of pay.

7 - LABOR CODE SECTION 1860
CONTRACT PROVISION

The awarding body shall cause to be inserted in every public works contract a clause providing that, in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his employees.

8 - LABOR CODE SECTION 1861
CONTRACTOR CERTIFICATION TO LABOR CODE SECTION 3700

Each contractor to whom a public works contract is awarded shall sign and file with the awarding body the following certification prior to performing the work of the contract: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract."

9 - CULTURAL RESOURCES

In accordance with the National Historic Preservation Act of 1966, (16 U.S.C. 470), and State statutes regarding the unexpected discovery of human remains, the following procedures are implemented to insure historic preservation and fair compensation to the Contractor for delays attendant to cultural resources investigations.

In the event potential Historical, Archeological, or Cultural Resources (herein after cultural resources) are discovered during subsurface excavations at the site of construction, the following procedures shall be instituted:

1) The Engineer shall issue a "Stop Work Order" directing the Contractor to cease all construction operations at the location of such potential cultural resources find. If the find includes human remains, the County Coroner must be contacted immediately.

2) Such "Stop Work Order" shall be effective until such time as a qualified archeologist can be called to evaluate the importance of these potential cultural resources and make recommendations to the State Water Resources Control Board Cultural Resources Officer (CRO). Any "Stop Work Order" shall contain the following:

- a) A clear description of the work to be suspended;
- b) Any instructions regarding issuance of further orders by the Contractor for material services;
- c) Guidance as the action to be taken on subcontracts;
- d) Any suggestions to the Contractor as to minimization of his costs;
- e) Estimated duration of the temporary suspension.

If the archeologist in consultation with the State Water Board CRO determines that the potential find is an important resource and warrants further investigation and/or mitigation, the Engineer shall extend the duration of the "Stop Work Order" in writing, and the Contractor shall suspend work at the location of the find. Equitable adjustment of the construction contract shall be made in the following manner:

1) Time Extension

If the work temporarily suspended is on the "critical path", the total number of days for which the suspension is in effect shall be added to the number of allowable contract days. If a portion of work at the time of such suspension is not on the "critical path", but subsequently becomes work on the critical path, the allowable contract time will be computed from the date such work is classified as on the critical path.

2) Additional Compensation

If, as a result of a suspension of the work, the Contractor sustains a loss which could not have been avoided by his judicious handling of forces, and equipment, or redirection of forces or equipment to perform other work on the contract, there shall be paid to the Contractor an amount as determined by the Engineer to be fair and reasonable compensation for the Contractor's actual loss in accordance with the following:

a) Idle Time of Equipment

Compensation for equipment idle time will be determined on a force account (time and materials) basis, and shall include the cost of extra moving of equipment and rental loss. The right-of-way delay factor for each classification of equipment shown in the California Department of Transportation publication entitled, Equipment Rental Rates and the General Prevailing Wage Rates, will be applied to any equipment rental rates.

b) Idle Time of Labor

Compensation for idle time of workers will be determined by the Engineer as "Labor" less any actual productivity factor of this portion of the work force.

c) Increased Costs of Labor and Materials

Increased costs of labor and materials will be compensated only to the extent such increase was in fact caused by the suspension, as determined by the Engineer.

Compensation for actual loss due to idle time of either equipment or labor shall not include markup for profit. The hours for which compensation will be paid will be the actual normal working time during which such delay condition exists, but will in no case exceed eight hours in any one day.

The days for which compensation will be paid shall be full or partial calendar days, excluding Saturdays, Sundays, and legal holidays, during the existence of such delay.

CONTRACT PROVISIONS OF THE
STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)
DIVISION OF FINANCIAL ASSISTANCE
RELATIVE TO THE UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISE (DBE)
ON CLEAN WATER STATE REVOLVING FUND PROGRAM
CONSTRUCTION CONTRACTS IN CALIFORNIA

This document and attachments shall be included by the owner as a contract provision for all construction contracts exceeding \$10,000.

Compliance with the requirements of this document and attachments satisfies the DBE requirements of the U. S. Environmental Protection Agency and the State Water Board. This document supersedes any conflicting requirements.

Failure to take the five (5) affirmative steps listed under Requirements, Section 3, prior to bid opening and to submit "Disadvantaged Business Enterprise Information" (Form 4) with the bid shall cause the bid to be rejected as a non-responsive bid.

NOTE: On March 26, 2008, the Environmental Protection Agency (EPA) Office of Small Business Programs (OSBP) published its final rule, "Participation by Disadvantaged Business Enterprises in Procurement under Environmental Protection Agency Financial Assistance Agreements (DBE Rule) in the Federal Register (40 CFR part 30-40). The final rule took effect on May 25, 2008. The EPA DBE Program encompasses many of the components of the former MBE/WBE Program and also includes changes.

Some changes are:

- Creation of the Disadvantaged Business Enterprise (DBE) Program (formerly the Minority Business Enterprise/Women's Business Enterprise (MBE/WBE) Program).
- Recipients must negotiate fair share objectives with the agency, and now the fair share objectives and supporting documentation must be submitted within 120 days after acceptance of the assistance award.
- The "Five Affirmative Steps" and "Five Positive Efforts" were combined into the "Five Good Faith Efforts."
- Recipients who reported quarterly under the old MBE/WBE program will now report semi-annually.
- MBE's and WBE's can no longer self-certify. They must be certified by EPA, Small Business Administration (SBA), Department of Transportation (DOT) or by state, local, Tribal or private entities whose certification criteria match EPA's. (MBEs and WBEs must be certified in order to be counted toward a recipient's MBE/WBE accomplishments.) The new requirements affect all financial assistance agreements entered into from the effective date of the rule (May 25, 2008). The new DBE rule does not affect those financial assistance agreements entered into before May 25, 2008, and those agreements will still operate under the old MBE/WBE program requirements.

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Section 1: APPROVAL OF AWARD (AOA) PROCESS

REQUIRED FOR CWSRF FINANCING AGREEMENTS DIVISION OF FINANCIAL ASSISTANCE (DFA)

The purpose of this document is to provide a summary of the DBE “Good Faith” effort for CWSRF Financing Agreement contractors and recipients. Section 1 provides the contractor and recipient with a brief overview of the AOA process. The DBE “Good Faith” effort is one element of the AOA process summarized below. The AOA request package submitted to DFA for approval must contain all of the following:

1. Completed AOA **Form 555-1** (original must be signed by the recipient’s authorized representative or designee);
2. A legal description of the site on which the project is to be constructed and an opinion signed by competent title counsel describing the interest the applicant has in the site, including information as to any easements and rights-of-way and certifying that the estate or interest is legal and valid;
3. Tabulation of all bids received and the engineer’s estimate;
4. A copy of the bid proposal chosen;
5. Evidence of advertising (submit a copy of newspaper advertisement for the project);
6. All DBE documentation, which includes Forms 1 through 6. Also, documentation that the local Small Business Administration and Minority Business Development Agency centers was contacted. (**See Section 3, Step 3, Paragraph 3 for solicitation time frames**);
7. A dedicated source of revenue (ordinance or resolution); and
8. Provide a cash flow projection showing the source and expected time of receipt of funds needed to meet project cash requirements.

Detailed directions for completing AOA forms 1 to 6 are provided. If you have any questions regarding the AOA process, please contact Barbara August of the DFA at (916) 341-6952 or baugust@waterboards.ca.gov

SECTION 2: PRIME CONTRACTOR & RECIPIENT RESPONSIBILITIES

PARTICIPATION RESPONSIBILITIES FOR PRIMES AND THEIR SUBCONTRACTORS

All recipients of federal funds from the U. S. Environmental Protection Agency (USEPA), as well as their prime contractors and subcontractors, must make every effort to solicit bids from eligible DBEs. This information must be documented and reported to DFA as described in this document.

The DBE responsibilities of the prime contractor are:

1. To conduct a “Good Faith” effort to ensure maximum DBE participation in the project;
2. Complete or obtain from DBE subcontractors, all of the completed forms required in these guidelines (Forms 1-5) and submit them to the recipient; and
3. Report actual DBE participation on a semi-annual basis to the recipient.

The DBE responsibilities of the Agency are:

1. To ensure that the prime contractor meets the responsibilities identified in these guidelines;
2. Submit all documentation identified in these guidelines to DFA and maintain all records in the project files for later access or auditing; and
3. Provide semi-annual reports on DBE procurements to DFA.

SECTION 3: “GOOD FAITH” EFFORT PROCESS

Any public or private entity receiving federal funds must demonstrate that efforts were made to attract DBEs on any CWSRF construction contracts. The process to attract DBEs is referred to as the “Good Faith” effort. This effort requires the recipient, prime contractor and any subcontractors to take the steps listed below to assure that DBEs are used whenever possible as sources of supplies, construction, equipment or services. Failure to take the steps outlined below and submit Form 4, Prime Contractor/Recipient Selected DBEs, prior to bid opening, shall cause the bid to be rejected as non-responsive. Use Forms **1 through 5** to document the process, and Form **6 is completed by the Agency**. If it is not practical or possible to comply with one or more of the five steps, prepare an explanation and submit it with the AOA package.

STEP 1: Divide the total requirements, when economically feasible, into small tasks or quantities to permit maximum participation. Evidence submitted must illustrate that the work was divided into small proprietary portions (e.g. paving, electrical, landscaping, revegetation).

STEP 2: Establish delivery schedules, when work requirements permit, that encourage maximum DBE participation.

STEP 3: Use the services of the U.S. Small Business Administration (SBA) and the Minority Business Development Agency (MBDA) of the U. S. Department of Commerce (DOC) in soliciting qualified DBEs. Utilization of these resources is required at no cost. These agencies offer several services, including Internet access to databases of DBEs. SBA’s database is (<http://www.ccr.gov/>). (See page 34 for instructions to access the database).

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. There are contact phone numbers listed in Step 5 that will assist you in reaching the two offices if the Internet is unavailable. **Do not write to these sources.**

The prime contractor must provide documentation that the local SBA/MBDA offices or web sites were notified of the contracting bid opportunity **fifteen working days prior to bid opening** and solicitation to DBE subcontractors at least **ten working days prior to bid opening**. Documentation must 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.

STEP 4: Include qualified DBEs on solicitation lists (Form 1) and record the information. Solicitation should be as broad as possible. The following web sites include a list of available sources for expanding the search for eligible DBEs: <http://www.sba.gov> <http://www.ccr.gov> and <http://www.mbda.gov>. If DBE sources are *not* located, explain why and describe the efforts made. See Step 5 for more detailed information.

For all construction contracts, the prime contractor must send invitations to at least three (or all, if less than three) DBE vendors for each item of work referred by sources contacted. The invitations must adequately specify the items for which bids are requested. The record of “good faith” efforts must indicate a real desire for a positive response, such as a certified mail receipt or a documented telephone conversation. **(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 work must be submitted on Form 5. A sample list is shown in Form 5, Sample Summary of Bids Received from Subcontractors on page 23. If a low bid was not accepted, an explanation must be provided.

STEP 5: DBE potential resources centers are listed in the following table. Solicit available DBEs whenever they are potential sources. The prime contractor must provide invitations to DBE sub-bidders at least **ten working days** prior to the bid opening date.

Federal Agencies (must be contacted):

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.mbda.gov
San Francisco, CA 94105	RE: Business Development Centers

State Agencies (optional contacts):

Name and Address	Telephone and Web Site
California Department of Transportation	Mailing Address: PO Box 942874
(CALTRANS) Business Enterprise Program ³	Sacramento, CA 94274-0015
1820 Alhambra Blvd.	(916) 227-9599
Sacramento, CA 95816	www.dot.ca.gov/hq/bep
CA Public Utilities Commission (CPUC)⁴	

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 Prime contractors use SUB-Net to post subcontracting opportunities. 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.

³ Based on the federal Disadvantaged Business Enterprise (DBE) program, CALTRANS maintains a database and provides directories of minority and woman-owned firms.

⁴ CPUC maintains a database of DBE-owned business enterprises and serves to inform the public.

505 Van Ness Avenue	http://www.cpuc.ca.gov/static/supplierdiversity
San Francisco, CA 94102-3298	

SECTION 4: NON-GOVERNMENTAL LOCAL CONTACTS

DISADVANTAGED BUSINESS ENTERPRISE (DBE) RESOURCES

The following organizations provide services to identify potential DBEs. Some of the organizations charge a fee or require membership fees to provide their services. Services provided, may include the entire Good Faith effort process for recipients that need comprehensive assistance.

Humboldt Builder's Exchange Inc.

2355 Myrtle Ave.
Eureka, CA 95501
Phone #: (707) 442-3708
FAX #: (707) 442-6051
www.humvx.com

California Daily Bid Advisor/Challenge News

1276 Lincoln Ave. #203
San Jose, CA 95125
Phone #: (408) 998-0241
or (800) 298-0240
FAX #: (408) 998-2534

California Procurement Training and Assistance Center at West Valley

1 West Campbell Ave., Ste J70
Campbell, CA 95008
Phone #: (408) 871-4390
FAX #: (408) 378-2034

Contractors Assistance Center

P. O. Box 7675
Redlands, CA 92375
Phone #: (800) 742-4124
FAX #: (800) 742-4125

Eldridge Bid Reporter, M/W/DVBE Assistance

P. O. Box 699
West Sacramento, CA 95691
Phone #: (916) 444-7618
FAX #: (916) 444-7731
www.ebrbids.com

Regis Communications Construction

Bid Source Interactive (CBSI)
P. O. Box 568
Burson, CA 95225-0568
Phone #: (209) 772-3670
FAX #: (800) 560-7266
www.Regis-usa.com
1-800-962-4162

Riverside Community

College District
Procurement Assistance Center
2038 Iowa Ave., Ste. 100
Riverside, CA 92507
Phone #: (909) 788-2559
FAX #: (909) 788-2515
www.resources4u.com/pac

Small Business Exchange

703 Market St., Ste. 1000
San Francisco, CA 94103
Phone #: (415) 778-6250
FAX #: (415) 778-6255
www.sbeinc.com

SECTION 5: REPORTING REQUIREMENTS

These requirements apply to the prime contractor and all subcontractors. The only exceptions to this requirement are contracts with governmental or non-profit agencies.

For the duration of the contract, all primary and subcontractors will be required to report progress made in fulfilling the “good faith” effort in their semi-annual reports. Failure to provide this information as stipulated in the contract language will be cause for contract termination. DFA staff will provide recipients with the forms and instructions to report their “good faith” efforts when the AOA and contract is issued.

16.01 ONCE A BIDDER IS SELECTED, THE PRIME CONTRACTOR SHOULD COMPILE THE INFORMATION REQUIRED BY THE “GOOD FAITH” EFFORT PROCESS. ALL INFORMATION SUPPORTING THE “GOOD FAITH” EFFORT MUST BE SUBMITTED WITHIN TEN WORKING DAYS AFTER THE BID OPENING. RECIPIENT SHALL REVIEW THE SUCCESSFUL BIDDER’S RECORDS CLOSELY TO BE SURE THAT, PRIOR TO BID OPENING, ALL REQUIRED “GOOD FAITH” EFFORTS WERE MADE. FAILURE OF EITHER THE BIDDER OR PRIME CONTRACTOR/SUBCONTRACTOR TO FOLLOW THE PROCESS AND PROVIDE THE NECESSARY INFORMATION TO DFA COULD JEOPARDIZE THE BIDDING PROCESS. THE FOLLOWING SITUATIONS AND CIRCUMSTANCES REQUIRE ACTIONS AS INDICATED:

1. If the apparent successful low bidder was rejected a complete explanation must be provided.
2. Each DBE firm utilized must complete and submit the **Form 3**. Contractors can no longer self-certify. Contractors must provide evidence that they have been certified. Contractors must be certified within ten days after the bid opening date.
3. If additional subcontracts become necessary after the award of the prime contract, provide **Form 3** to DFA within ten working days following the award of each new subcontract.
4. Any deviation from the information provided at the time of the bid shall not result in a reduction of DBE participation without prior approval of Division of Financial Assistance Project Manager.
5. Failure of the apparent low bidder to perform the five “good faith” effort steps *prior* to bid opening and submittal of **Form 4** with the bid, will result in its bid being declared non-responsive. The contract may then be awarded to the next low, responsive, responsible bidder that meets the requirements or the recipient may re-advertise the project.
6. The apparent successful low bidder must submit documentation to the recipient within ten working days following bid opening showing that, prior to the bid opening, all required “good faith” efforts were made.

SECTION 6: DEFINITIONS

A BONA FIDE DISADVANTAGED BUSINESS ENTERPRISE (DBE) IS A:

- (1) DBE THAT HAS SUBMITTED A “DISADVANTAGED BUSINESS ENTERPRISE” **FORM 3**, AND
- (2) A FIRM THAT HAS BEEN ACCEPTED AS A BONA FIDE DBE BY THE PRIME CONTRACTOR/RECIPIENT.

IN ADDITION, A BONA FIDE DBE MUST BE AN INDEPENDENT BUSINESS CONCERN THAT IS AT LEAST 51% OWNED, CONTROLLED, AND OPERATED BY MINORITY GROUP MEMBERS (SEE DEFINITION OF MINORITY GROUP MEMBER) OR WOMEN. OWNERSHIP AND CONTROL CAN BE MEASURED BY:

- CONTRACT WORK PERFORMANCE RESPONSIBILITY.
- MANAGEMENT RESPONSIBILITY.

- AT LEAST 51% SHARE OF PROFITS AND RISK.
- OTHER DATA (SUCH AS VOTING RIGHTS) THAT MAY CLARIFY OWNERSHIP OR CONTROL.

CONTROL MEANS EXERCISING THE POWER TO MAKE POLICY DECISIONS.

OPERATE MEANS BEING ACTIVELY INVOLVED IN THE DAY-TO-DAY MANAGEMENT OF THE BUSINESS.

DETERMINATION OF WHETHER A BUSINESS IS AT LEAST 51% OWNED BY A WOMAN OR WOMEN SHALL BE MADE WITHOUT REGARD TO COMMUNITY PROPERTY LAWS. AN OTHERWISE QUALIFIED DBE WHICH IS 51% OWNED BY A MARRIED WOMAN IN A COMMUNITY PROPERTY STATE WILL NOT BE DISQUALIFIED BECAUSE HER HUSBAND HAS A 50% INTEREST IN HER SHARE. SIMILARLY, A BUSINESS THAT IS 51% OWNED BY A MARRIED MAN AND 49% BY AN UNMARRIED WOMAN DOES NOT BECOME A QUALIFIED DBE BY VIRTUE OF THE WIFE'S 50% INTEREST IN THE HUSBAND'S SHARE OF THE BUSINESS.

A JOINT VENTURE IS A BUSINESS ENTERPRISE FORMED BY A COMBINATION OF FIRMS UNDER A JOINT VENTURE AGREEMENT. TO QUALIFY AS A BONA FIDE DBE, THE MINORITY-OWNED OR WOMEN-OWNED AND CONTROLLED FIRMS IN THE JOINT VENTURE MUST:

- Satisfy all requirements for bona fide DBE participation in their own rights.
- Share a clearly defined percentage of the ownership, management responsibilities, risks, and profits of the joint venture. Only this percentage of ownership will be credited towards the DBE goal.

A MINORITY GROUP MEMBER IS A CITIZEN OF THE UNITED STATES AND ONE OF THE FOLLOWING:

- ***Native American*** consists of American Indian, Eskimo, Aleut, and native Hawaiian. To qualify, the person must meet one of the following criteria:
 1. Native Americans are at least one-fourth Indian descent (as evidenced by registration with the Bureau of Indian Affairs).
 2. Characteristic Indian appearance and features.
 3. Characteristic Indian name.
 4. Recognition in the community as an Indian.
 5. Membership in a tribe, band, or group of American Indians (recognized by the Federal Government), as evidenced by a tribal enrollment number or similar indication.
- ***African-American*** consists of individuals having origins in any of the black racial groups of Africa.
- ***Asian-Pacific American*** consists of individuals having origins in any of the original peoples of the Far East, Southeast Asia, and the Indian subcontinent. This area includes, for example, China, Japan, Korea, the Philippines, Vietnam, Samoa, Guam, U.S. Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan. The Indian subcontinent takes in the countries of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Sikkim, and Bhutan.
- ***Hispanic American*** consists of individuals with origins from Puerto Rico, Mexico, Cuba, or South or Central America. Only those persons from Central and South American countries who are of Spanish origin, descent, or culture should be included in this category. Persons from Brazil, Guyana, Surinam or Trinidad, for example, would be classified according to their race and would not necessarily be included in the Hispanic category. In addition, this category does not include persons from Portugal, who should be classified according to race.

In cases where a firm is owned and controlled by a minority woman or women, the percentage may be credited towards DBE participation, or allocated, but may not be credited fully to both.

Recipient – An agency (County, City, Special District, etc.) applying for a CWSRF financing to construct a project.

Contractor – Refers to any recipient of funds who will participate in some phase of construction. The contractor receiving funds directly from the recipient for construction is the prime contractor. Contractors working for the prime contractor are subcontractors.

Project Manager – Is the DFA staff responsible for managing the project. The Project Manager is responsible for review during the planning, design and construction contract development phases.

SECTION 7: DBE FORMS

THE FOLLOWING FORMS ARE PROVIDED TO REPORT PROJECT DBE INFORMATION. THEY ARE AVAILABLE IN ELECTRONIC FORM FROM BARBARA AUGUST AT (916) 341-6952 OR BAUGUST@WATERBOARDS.CA.GOV . IF YOU HAVE ANY QUESTIONS ABOUT COMPLETING THESE FORMS OR WHEN TO TURN THEM IN, PLEASE CONTACT MS. AUGUST.

ALL FORMS, WHERE APPLICABLE, MUST HAVE ORIGINAL SIGNATURE AND DATE.

THE FOLLOWING TABLE PROVIDES INFORMATION ON WHO COMPLETES EACH FORM AND WHERE THE FORMS ARE TO BE SENT:

FORM#	DESCRIPTION	COMPLETED BY	SUBMIT TO	FORWARD TO
1	SOLICITATION	PRIME CONTRACTOR	RECIPIENT	DFA WITH AOA
2	BIDS RECEIVED LIST	PRIME CONTRACTOR	RECIPIENT	DFA WITH AOA
3 (ATT A)	CONTRACTOR CERTIFICATION	DBE SUBS	PRIME CONTRACTOR	RECIPIENT, DFA W/AOA
4 (ATT B)	SELECTED SUBCONTRACTORS	PRIME CONTRACTOR	RECIPIENT	DFA WITH AOA
5	SUMMARY & SAMPLE	PRIME CONTRACTOR	RECIPIENT	DFA WITH AOA
6	“GOOD FAITH” EFFORT CERTIFICATION	RECIPIENT	DFA W/AOA	

FORM 1

DISADVANTAGED BUSINESS ENTERPRISE (DBE) "GOOD FAITH" EFFORT LIST OF SUBCONTRACTORS SOLICITED

Contractor Name	Contractor Address	How Located	Date of Contact	Contact Method	Task Description	Response (Yes/No)

Form for information required to be submitted with the AOA package

FORM 2

DISADVANTAGED BUSINESS ENTERPRISE (DBE) “GOOD FAITH” EFFORT BIDS RECEIVED LIST

Contractor Name	Category (DBE)	Task Description	Bid Amount	Selected (Check)	Explanation for Not Selecting

Form for information required to be submitted with the AOA package.

FORM 3 (Attachment A)

DISADVANTAGED BUSINESS ENTERPRISE
(DBE)

CONTRACTOR CERTIFICATION

Firm Name: _____ Phone: _____

Address: _____

Principal Service or Product: _____ Bid Amount \$ _____

PLEASE INDICATE PERCENTAGE OF OWNERSHIP

DBE _____% Ownership

Prime Contractor

Supplier of Material/Service

Subcontractor

Broker

Sole Ownership

Corporation

Partnership

Joint Venture

Certified by: _____ Title: _____

DBE Sub (ORIGINAL SIGNATURE AND DATE REQUIRED)

Name: _____ Date: _____

Additional proof may be required upon written challenge of this certification by any person or agency. Falsification of this certification by a firm selected to perform federally funded work may result in a determination that the firm is non-responsive and ineligible for future contracts.

IMPORTANT: CONTRACTORS CAN NO LONGER SELF-CERTIFY. THEY MUST BE CERTIFIED BY EPA, SMALL BUSINESS ADMINISTRATION (SBA), DEPARTMENT OF TRANSPORTATION (DOT) OR BY STATE, LOCAL, TRIBAL OR PRIVATE ENTITIES WHOSE CERTIFICATION CRITERIA MATCH EPA'S. PROOF OF CERTIFICATION MUST BE PROVIDED. A COPY OF THE CONTRACTOR CERTIFICATION MUST BE SUBMITTED WITH THIS FORM.

This form must be submitted within 10 working days after the bid opening date.

FORM 4 (ATTACHMENT B)
PRIME CONTRACTOR/RECIPIENT
SELECTED DISADVANTAGED BUSINESS ENTERPRISES (DBE)

CONTRACT RECIPIENTS NAME	CONTRACT NO. OR SPECIFICATION NO.
PROJECT DESCRIPTION	PROJECT LOCATION
PRIME CONTRACTOR INFORMATION	
NAME AND ADDRESS (Include ZIP Code, Federal Employer Tax ID #)	
PHONE	AMOUNT OF CONTRACTS
DBE INFORMATION	
<input type="checkbox"/> NONE*	
<input type="checkbox"/> DBE	NAME AND ADDRESS (Include ZIP Code.)
<input type="checkbox"/> SUBCONTRACTOR <input type="checkbox"/> JOINT VENTURE	<input type="checkbox"/> SUPPLIER/SERVICE <input type="checkbox"/> BROKER
AMOUNT OF CONTRACT \$	PHONE
WORK TO BE PERFORMED	
<input type="checkbox"/> DBE	
NAME AND ADDRESS (Include ZIP Code.)	
<input type="checkbox"/> SUBCONTRACTOR <input type="checkbox"/> JOINT VENTURE	<input type="checkbox"/> SUPPLIER/SERVICE <input type="checkbox"/> BROKER
AMOUNT OF CONTRACT \$	PHONE
WORK TO BE PERFORMED	
<input type="checkbox"/> DBE	
NAME AND ADDRESS (Include ZIP Code.)	
<input type="checkbox"/> SUBCONTRACTOR <input type="checkbox"/> JOINT VENTURE	<input type="checkbox"/> SUPPLIER/SERVICE <input type="checkbox"/> BROKER
AMOUNT OF CONTRACT \$	PHONE
WORK TO BE PERFORMED	
<input type="checkbox"/> DBE	
NAME AND ADDRESS (Include ZIP Code.)	
<input type="checkbox"/> SUBCONTRACTOR <input type="checkbox"/> JOINT VENTURE	<input type="checkbox"/> SUPPLIER/SERVICE <input type="checkbox"/> BROKER
AMOUNT OF CONTRACT \$	PHONE
WORK TO BE PERFORMED	
<input type="checkbox"/> DBE	
NAME AND ADDRESS (Include ZIP Code.)	
<input type="checkbox"/> SUBCONTRACTOR <input type="checkbox"/> JOINT VENTURE	<input type="checkbox"/> SUPPLIER/SERVICE <input type="checkbox"/> BROKER
AMOUNT OF CONTRACT \$	PHONE
WORK TO BE PERFORMED	
TOTAL DBE AMOUNT: \$ _____	
SIGNATURE OF PERSON COMPLETING FORM: _____	
TITLE: _____ PHONE: _____ DATE: _____	

***Negative reports are required. ORIGINAL SIGNATURE AND DATE REQUIRED. Failure to complete and submit this form with the bid will cause the bid to be rejected as non-responsive.**

FORM 5

**SUMMARY OF BIDS RECEIVED FROM SUBCONTRACTORS,
SUPPLIERS, AND BROKERS (DBE & NON-DBE)**
THIS SUMMARY IS PREPARED BY THE PRIME CONTRACTOR

Type of Job	Company Name	Selected	Bid Amount	DBE	NON-DBE

List type of jobs alphabetically, from low to high in each category and selected low bidder.

FORM 6
MINORITY BUSINESS ENTERPRISE/WOMEN BUSINESS ENTERPRISE (DBE)
“GOOD FAITH” EFFORT CERTIFICATION BY APPLICANT/RECIPIENT

1. The apparent successful low bidder on DFA funded project number C-06-_____ is _____
(name of bidder)
2. Before the State Water Resources Control Board - Division of Financial Assistance can consider requests for an Approval of Award (AOA) to any bidder the applicant/recipient must certify to the following:

DISADVANTAGED BUSINESS ENTERPRISE (DBE)

The bidder has obtained _____% of DBE participation for this contract.

Also submitted are Forms 3 and 4 that contain a complete list of those DBE firms subcontracted with or with whom other types of agreements were made. The list includes the names of the firm, address, phone number and dollar amount involved.

The following affirmative steps as required by 40 CFR 35.3150 (d) have been taken:

- (1) The contractor divided total requirements when economically feasible, into small tasks or quantities to permit maximum participation of minority and women’s businesses.
- (2) The contractor established delivery schedules, where the requirements of the work permitted, which encouraged participation by minority and women’s business.
- (3) The contractor included qualified minority and women’s businesses on solicitation lists.
- (4) The contractor assures that minority and women’s businesses were solicited, whenever they were potential sources.
- (5) The contractor used the services and assistance of the Small Business Administration and/or the Office of Minority Business Development Agency of the U.S. Department of Commerce.

It must be understood that the applicant/recipient in its role as a public trustee assumes primary responsibility to achieve an acceptable level of DBE utilization. This primary responsibility is a basic condition of the award of any Clean Water State Revolving Fund financial assistance. Where an application/recipient fails to meet its obligations under these requirements the applicant/recipient may be declared non-responsive and may have funding either annulled, suspended or terminated.

In accepting these responsibilities, I hereby certify to the above.

Name of Applicant/Recipient

Signature of Authorized Representative

Date

Name and Title of Authorized Representative

This form must be submitted with the AOA package.

INSTRUCTION FOR ACCESSING [HTTP://www.ccr.gov](http://www.ccr.gov) DATA BASE OF DBE SUBCONTRACTORS

1. Go to <http://www.ccr.gov>
2. Click on the bullet **Dynamic Small Business Search**
3. Under **States**, scroll down to and click on **California**
4. Scroll down to **Other Ownership Data**
5. Click on **Minority or Woman/Women**, do separate run for each classification
6. Scroll down to **Nature of Business**, across from **Keywords**, type in classification of work to be performed by the subcontractor (electrician, piping, rebar, trucking, landscape, etc.)
7. Scroll to **General Nature of Business** and click on **Construction**
8. Scroll to the bottom of the screen and click on **Search Using These Criteria**.
9. For additional contractors, scroll to **No more matches**, click on **Refine Search** and repeat the process by changing the type of contractor you are searching for in no. 6, **Keyword**

11 - THE SUBLETTING AND SUBCONTRACTING FAIR PRACTICES ACT

Any person making a bid or offer to perform a contract shall, in his or her bid or offer, set forth the following:

1) The name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid or in the case of bids or offers for the construction of streets or highways, including bridges in excess of one-half or 1 percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.

2) The portion of work that will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion of work as is defined by the prime contractor in his or her bid or offer.

These requirements apply to the information required relating to subcontractors certified as minority or women business enterprises. For purposes of this requirement, "subcontractor" and "prime contractor" shall have the same meaning as those terms are defined in Section 4113 of the Public Contract Code.

12 - Executive Order 11246: 40 CFR 7.3 - EQUAL OPPORTUNITY CLAUSE (in relevant part)

'During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order No. 11246 of Sept. 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be cancelled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of Sept. 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rule, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of Sept. 24, 1965, so that such provisions will be binding upon each subcontractor or vendor.

The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, That in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

SEC. 203

(a) Each contractor having a contract containing the provisions prescribed in Section 202 shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.

(b) Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of this Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance Reports prior to or as an initial part of their bid or negotiation of a contract.

(c) Whenever the contractor or subcontractor has a collective bargaining agreement or other contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the Compliance Report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, That to the extent such information is within the exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the contractor, the contractor shall so certify to the contracting agency as part of its Compliance Report and shall set forth what efforts he has made to obtain such information.

(d) The contracting agency or the Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his Compliance Report, a statement in writing, signed by an authorized officer or agent on behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, creed, or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provisions of this Order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the Order. In the event that the union, or the agency shall refuse to execute such a statement, the Compliance Report shall so certify and set forth what efforts have been made to secure such a statement and such additional factual material as the contracting agency or the Secretary of Labor may require.

13 - 41 CFR 60-1.4 NONDISCRIMINATION CLAUSE

NONDISCRIMINATION CLAUSE

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) the contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(b) Federally assisted construction contracts. (1) Except as otherwise provided, each administering agency shall require the inclusion of the following language as a condition of any grant, contract, loan, insurance, or guarantee involving federally assisted construction which is not exempt from the requirements of the equal opportunity clause:

The applicant hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

(3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(5) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(6) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(7) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, That in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

(c) Subcontracts. Each nonexempt prime contractor or subcontractor shall include the equal opportunity clause in each of its nonexempt subcontracts.

(d) Incorporation by reference. The equal opportunity clause may be incorporated by reference in all Government contracts and subcontracts, including Government bills of lading, transportation requests, contracts for deposit of Government funds, and contracts for issuing and paying U.S. savings bonds and notes, and such other contracts and subcontracts as the Deputy Assistant Secretary may designate.

(e) Incorporation by operation of the order. By operation of the order, the equal opportunity clause shall be considered to be a part of every contract and subcontract required by the order and the regulations in this part to include such a clause whether or not it is physically incorporated in such contracts and whether or not the contract between the agency and the contractor is written.

(f) Adaptation of language. Such necessary changes in language may be made in the equal opportunity clause as shall be appropriate to identify properly the parties and their undertakings. [43 FR 49240, Oct. 20, 1978, as amended at 62 FR 66971, Dec. 22, 1997]

1. During the performance of this contract, contractor and its subcontractors shall not unlawfully discriminate against any employee or applicant for employment because of sex, race, religion, color, national origin, ancestry, physical disability (including HIV and AIDS), mental disability, medical condition (cancer), marital status, age (over 40) or denial of family care leave. Contractors and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment. Contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act

Government Code Section 12900 (a-f) et seq.) and the applicable regulations promulgated thereunder California Administrative Code, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12900 (a-f), set forth in Chapter 5 of Division 4 of Title 2 or the California Administrative Code are incorporated into this contract by reference and made a part hereof as if set forth in full. Contractor and its subcontractor shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

2. The contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

THE UNDERSIGNED CERTIFIES THAT THE CONTRACTOR WILL COMPLY WITH THE ABOVE REQUIREMENTS.

CONTRACTOR OR
SUBCONTRACTOR NAME: _____

CERTIFIED BY:

NAME: _____ TITLE: _____

SIGNATURE: _____ DATE: _____

14 - 41 CFR 60-4.2 CONSTRUCTION CONTRACTORS--AFFIRMATIVE ACTION REQUIREMENTS
(in relevant part)

Notice of requirement for Affirmative Action to ensure Equal Employment Opportunity (EEO) by Executive Order 11246, as amended by Executive Order 11375.

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

2. The goals 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, are as follows:

Time- tables	Goals for minority participation for each trade	Goals for female participation for each trade
(Agency to insert start and end dates of contract)	(Insert goals from Minority Participation Table page BP-26)	6.9%

The Office of Federal Contract Compliance Programs' web site for compliance issues and preaward registry is at <http://www.dol.gov/esa/welcome>.

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 construction 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 its federally involved and non-federally involved construction.

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. The hours of minority and female employment and training must 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.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (notify the applicable Regional Office found at www.dol.gov/esa) within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction 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.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county and city, if any).

§ 60-4.3 Equal opportunity clauses (in relevant part)

Standard Federal Equal Employment Opportunity Construction Contract
Specifications (Executive Order 11246)

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) African American (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the 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 action steps at least as extensive as the following:

a. 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 two 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.

b. 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.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street 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 therefore, along with whatever additional actions the Contractor may have taken.

d. 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.

e. Develop on-the-job training opportunities and/or participate in training programs for the area 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 7b above.

f. 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 agreement; 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.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction 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 disposition of the subject matter.

h. 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.

i. 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.

j. 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.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

l. 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.

m. 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.

n. 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.

o. 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.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

15 - ELIMINATION OF SEGREGATED FACILITIES
NOTICE TO PROSPECTIVE FEDERALLY-ASSISTED CONSTRUCTION CONTRACTORS

(a) A Certification of Non-Segregated Facilities, as required by the May 9, 1967 Order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a Federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

(b) Contractors receiving Federally-assisted construction contract awards exceeding \$10,000 which, are not exempt from the provisions of the Equal Opportunity Clause, will be required to provide for the forwarding of the following notice to prospective subcontractors for supply and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT
FOR CERTIFICATION OF NON-SEGREGATED FACILITIES

(a) A Certification of Non-Segregated Facilities, as required by the May 9, 1967 Order (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.

(b) Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subcontractors for supply and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

16 - CERTIFICATION OF NON-SEGREGATED FACILITIES

Environmental Protection Agency Region IX
75 Hawthorne Street
San Francisco, California 94105

CERTIFICATION OF NON-SEGREGATED FACILITIES

(Applicable to federally assisted construction contracts and related subcontracts exceeding \$10,000 which are not exempt from the Equal Opportunity Clause.)

The federally assisted construction contractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The federally assisted construction contractor agrees that (except where he has obtained identical certifications from proposed subcontractors for specified time period) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause, and that he will retain such certifications in his files.

Signature	Date
-----------	------

Name and Title of Signer (Please Type)

Note: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

17 - DRUG-FREE WORKPLACE CERTIFICATION

DRUG-FREE WORKPLACE CERTIFICATION

CONTRACTOR/APPLICANT: _____

The contractor or applicant named above hereby certifies compliance with Government Code Section 8355 in matters relating to providing a drug-free workplace. The above named contractor or applicant will:

1. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).
2. Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b), to inform employees about all of the following:
 - (a) The dangers of drug abuse in the workplace,
 - (b) The person's or organization's policy of maintaining a drug-free workplace,
 - (c) Any available counseling, rehabilitation and employee assistance programs, and
 - (d) Penalties that may be imposed upon employees for drug abuse violations.
3. Provide as required by Government Code Section 8355(c), that every employee who works on the proposed contract or loan:
 - (a) Will receive a copy of the company's drug-free policy statement, and
 - (b) Will agree to abide by the terms of the company's statement as a condition of employment on the contract or loan.

CERTIFICATION

I, the official named below, hereby swear that I am duly authorized legally to bind the contractor or loan recipient to the above described certification. I am fully aware that this certification, executed on the date and in the county below, is made under penalty of perjury under the laws of the State of California.

OFFICIAL'S NAME: _____

DATE EXECUTED: _____

EXECUTED IN COUNTY OF: _____

CONTRACTOR/APPLICANT SIGNATURE: _____

TITLE: _____

Appendix A to Part 32--Certification Regarding Debarment, Suspension, and Other Responsibility Matters--Primary Covered Transactions. The General Services Administration (GSA) provides an Excluded Parties List System at www.epls.gov for the purpose of efficiently and conveniently disseminating information on parties that are excluded from receiving Federal contracts, certain subcontracts, and certain Federal financial and non-financial assistance and benefits, pursuant to the provisions of 31 U.S.C. 6101, note, E.O. 12549, E.O. 12689, 48 CFR 9.404, and each agency's codification of the Common Rule for Nonprocurement suspension and debarment.

Instructions for Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

4. The prospective primary participant shall provide immediate written notice to the department or agency to which this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each

participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility
Matters--Primary Covered Transactions

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Appendix B to Part 32--Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions

Instructions for Certification

1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.

4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the

meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary
Exclusion--Lower Tier Covered Transactions

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

19 - RESPONSIBILITY FOR REMOVAL, RELOCATION, OR PROTECTION OF EXISTING
UTILITIES; CONTRACTS AND PROVISIONS
GOVERNMENT CODE SECTION 4215 (in relevant part)

In any contract to which a public agency as defined in Section 4401 is a party, the public agency shall assume the responsibility, between the parties to the contract, for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the site of any construction project that is a subject of the contract, if such utilities are not identified by the public agency in the plans and specifications made a part of the invitation for bids. The contract documents shall include provisions to compensate the contractor for the costs of locating, repairing damage not due to the failure of the contractor to exercise reasonable care, and removing or relocating such utility facilities not indicated in the plans and specifications with reasonable accuracy, and for equipment on the project necessarily idled during such work. The contract documents shall include provisions that the contractor shall not be assessed liquidated damages for delay in completion of the project, when such delay was caused by the failure of the public agency or the owner of the utility to provide for removal or relocation of such utility facilities.

20 - SUBMITTING OF BIDS AND AGREEING TO ASSIGN
GOVERNMENT CODE SECTION 4552 (in relevant part)

In submitting a bid to a public purchasing body, the bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S. C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder. (1978)

21 - NON-COLLUSION AFFIDAVIT
PUBLIC CONTRACT CODE SECTION 7106

NON-COLLUSION AFFIDAVIT

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

State of California

County of _____ ss

_____; being first duly sworn, deposes and says that he or she is

_____ 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.

By _____

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

Subscribed and sworn to before me on _____

(Notary Public)

Minority Participation Goals for California

Affirmative Action/Equal Employment Opportunity for Construction Contractors Aggregate Work Force
Standard Metropolitan Statistical Area (SMSA)
41 CFR §60 - 4.6

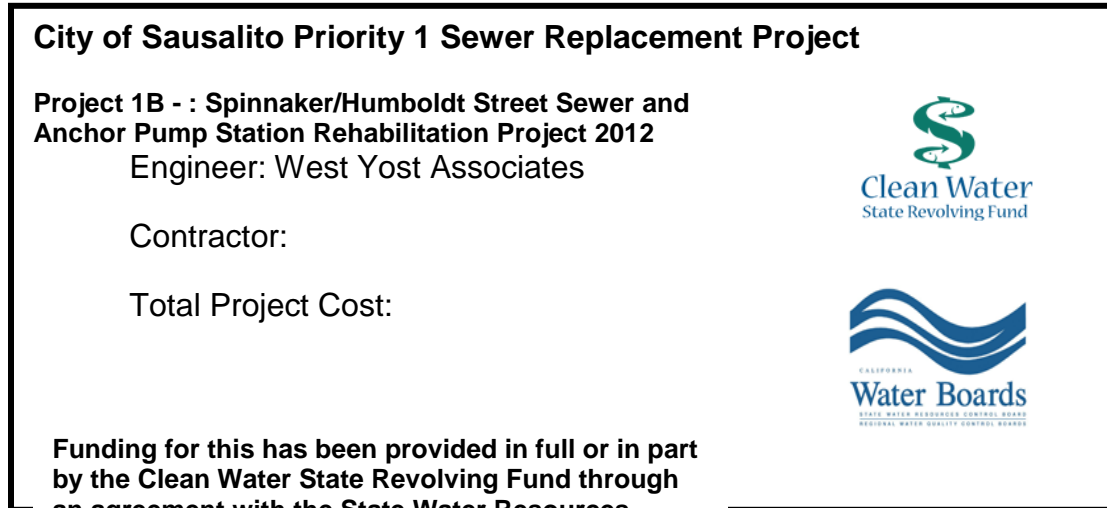
All areas/all trades **Female** participation goal **6.9%**

Area	minority participation	Goal (%)	Area	minority participation	Goal (%)
174	Redding:		179	Fresno-Bakersfield:	
Non-SMSA		6.8	SMSA Counties:		
	Lassen; Modoc; Plumas; Shasta; Siskiyou; Tehema		0680	Bakersfield	19.1
				Kern	
			2840	Fresno	26.1
				Fresno	
175	Eureka:		Non-SMSA Counties		23.6
Non-SMSA Counties		6.6		Kings; Madera; Tulare	
	Del Norte; Humboldt; Trinity				
176	San Francisco-Oakland-San Jose:		180	Los Angeles:	
SMSA Counties:			SMSA Counties:		
7120	Salinas-Seaside-Monterey	28.9	0360	Anaheim-Santa Ana-Garden Grove	11.9
	Monterey			Orange	
7360	San Francisco-Oakland	26.6	4480	Los Angeles-Long Beach	26.3
	Alameda; Contra Costa; Marin; San Francisco; San Mateo			Los Angeles	
7400	San Jose	19.6	6000	Oxnard-Simi Valley-Ventura	21.5
	Santa Clara			Ventura	
7485	Santa Cruz	14.9	6780	Riverside-San Bernardino-Ontario	19.0
	Santa Cruz			Riverside; San Bernardino	
7500	Santa Rosa	9.1	7480	Santa Barbara-Santa Maria-Lompoc	19.7
	Sonoma			Santa Barbara	
8720	Vallejo-Farfield-Napa	17.1	Non-SMSA Counties		24.6
	Napa; Solano			Inyo; Mono; San Luis Obispo	
Non-SMSA Counties		23.2	181	San Diego:	
	Lake; Mendocino; San Benito		SMSA Counties:		
177	Sacramento:		7320	San Diego	16.9
SMSA Counties:				San Diego	
6920	Sacramento	16.1	Non-SMSA Counties		16.2
	Placer; Sacramento; Yolo			Imperial	
Non-SMSA Counties		14.3			
	Butte; Colusa; El Dorado; Glenn; Nevada; Sierra; Sutter; Yuba				
178	Stockton-Modesto:				
SMSA Counties:					
5170	Modesto	12.3			
	Stanislaus				
8120	Stockton	24.3			
	San Joaquin				
Non-SMSA Counties		19.8			
	Alpine; Amador; Calaveras; Mariposa; Merced; Tuolumne				

CLEAN WATER SRF SIGN REQUIREMENTS

The Contactor shall place a Clean Water State Revolving Fund sign at a prominent location designated by the City. The sign shall be four feet tall by eight feet wide and made of ¾ inch thick marine grade sanded exterior plywood. The sign shall be supported by two 4x4 smooth wood posts painted white. State Revolving Fund and Water Board Logos are available from the California State Water Resources Control Board Division of Financial Assistance. The sign shall be prepared by an experienced professional sign-maker. Contractor shall submit sign layout to the Construction Manager for approval prior to making.

See below for the Clean Water State Revolving Fund sign template.



A

he example

This institution is an equal opportunity provider.

A

or shall be black on a white background.

Actual Graphic Size should reflect the graphic size depicted in the example

****END OF SECTION****

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SECTION 00200

INFORMATION AVAILABLE TO BIDDERS

ARTICLE 1 – SUBSURFACE CONDITIONS

Subsurface investigation has been conducted at the site of the Work. Copies of the geotechnical report with the records of borings made at the work site are included as Appendix B to the Specifications. These records pertain to conditions at the boring locations. Upon review of the Contract Documents, the geotechnical report(s) and personal site inspection, the Bidders may develop reasonable interpretation of subsurface conditions. Contractors, as Bidders, are expected to make a personal inspection of the site and otherwise satisfy themselves as to the conditions affecting the work as detailed in these Contract Documents. The subsurface investigation and geotechnical report were developed for design purposes, and as such may not include necessary information for, any or all, construction related activities including, but not limited to, excavations, sheeting, shoring, bracing and dewatering.

The City disclaims responsibility for the Bidder's interpretation of data, such as, projecting or extrapolating from the test holes to other locations on the site of the Work, soil bearing values and profiles, and soil stability, as well as the presence, level, and extent of underground water for subsurface conditions during construction operations.

ARTICLE 2 – RECORD DRAWINGS AND ADDITIONAL INFORMATION

Previous construction activities have occurred at portions of the site. Section 00800-Article 5, **RECORD DRAWINGS AND ADDITIONAL INFORMATION**, lists known available information for review by Bidders.

ARTICLE 3 – ACCESS FOR CONTRACTOR'S PRE-BID SITE INVESTIGATION

Additional access to the project site will be allowed without special permission. The Anchor Pump Station internals will not be made available for viewing outside of the pre-bid conference site visit. The site may be viewed from the boardwalk and adjacent parking lot.

Contractors/Bidders may not access the plumbing under the Spinnaker Restaurant without the prior approval of the City and the restaurant manager.

****END OF SECTION****

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SECTION 00300

BID FORM

PROJECT IDENTIFICATION: Priority 1 Sewer Replacement Project, Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

THIS BID IS SUBMITTED TO:

City of Sausalito, herein after referred to as OWNER.

1. Enter Into Agreement

The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

2. BIDDER Acknowledgements

BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the day of Bid opening. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within 10 days after the date of OWNER's Notice of Award.

3. BIDDER's Representations

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

- a. BIDDER has examined and carefully studied the Bidding Documents and the following Addenda receipt of all which is hereby acknowledged: (List Addenda by Number)

ADDENDA NO.

- b. BIDDER has visited the Site and become familiar with and is satisfied as to the general and local site conditions that may affect cost, progress, performance and furnishing of the Work.
- c. BIDDER is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.

- d. BIDDER has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions, and (2) reports and drawings of Hazardous Environmental Conditions that have been identified in the Supplementary Conditions.
- e. BIDDER accepts the determination set forth in Paragraph SC-4.02 of the Supplementary Conditions of the extent of the "technical data" contained in such reports and drawings upon which BIDDER is entitled to rely as provided in Paragraph 4.02 of the General Conditions.
- f. BIDDER acknowledges that such reports and drawings are not Contract Documents and may not be complete for BIDDER's purposes.
- g. BIDDER acknowledges that OWNER and ENGINEER do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site.

- h. BIDDER has obtained and carefully studied (or assumes responsibility for having done so) all such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site or otherwise which may affect cost progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences and procedures of construction to be employed by BIDDER and safety precautions and programs incident thereto.

BIDDER does not consider that any additional examinations, investigations, explorations, tests, studies or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the times, price and other terms and conditions of the Contract Documents.

- i. BIDDER is aware of the general nature of Work to be performed by OWNER and others at the Site that relates to Work for which this Bid is submitted as indicated in the Contract Documents.
- j. BIDDER has correlated the information known to BIDDER, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- k. BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities or discrepancies in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work for which this Bid is submitted.
- l. Where conflicts, errors, ambiguities or discrepancies have been discovered in or between Contract Documents and/or other related documents, and where said conflicts, etc., have not been resolved through the interpretations or clarifications by ENGINEER as described in the Instructions to Bidders, because of insufficient time or otherwise, BIDDER has included in the Bid the greater quantity or better quality of Work, or compliance with the more stringent requirement resulting in a greater cost.

Name of Bidder: _____

m. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other BIDDER to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other BIDDER or over OWNER.

4. Bid Prices

BID SCHEDULE

BID ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	BID PRICE
1	Mobilization and Demobilization	1	LS		
2	Bypass Pumping and Control of Sewage Floor	1	LS		
3	Dewatering	1	LS		
4	Shoring	1	LS		
5	4-inch Force Main	593	LF		
6	6-inch Sanitary Sewer	586	LF		
7	Lateral Replacement and Connection to MH or Sewer	4	EA		
8	Grease Interceptor	1	LS		
9	Manholes	2	EA		
10	Existing Manholes	3	EA		
11	Package Lift Station	1	LS		
12	Restaurant Plumbing Changes	1	LS		
13	Anchor Pump Station Rehabilitation	1	LS		
14	Relocate Mobile Bathroom	1	LS		
	TOTAL BASE BID (use figures)				
Alternate Item A	Demolition of Existing Parking Attendant Kiosk	1	LS		
Alternate Item B	Curb, gutter, sidewalk widening, driveway replacement, AC paving on Humboldt Ave.				
B.1	Curb and Gutter	400	LF		
B.2	Sidewalk and Driveway	6,200	SF		
B.3	Electrical Box	1	LS		
B.4	Install new AC paving	9,300	SF		
Alternate Item B	Total (use figures)				

TOTAL BID FOR ALL BID ITEMS (Base bid plus Alternative item A plus Alternative Item B (use figures))
 \$ _____

TOTAL BID FOR ALL BID ITEMS (Base bid plus Alternative item A plus Alternative Item B (use words))
 _____ dollars and
 _____ cents

Name of Bidder: _____

5. Completion

BIDDER agrees that the Work will be substantially completed and ready for final payment in accordance with Section 00700-6.02 of the General Conditions on or before the dates or within the number of calendar days indicated in Section 00800.

BIDDER accepts the provisions of Section 00700 as to liquidated damages in the event of failure to complete the Work within the times specified.

6. Attached Documents

The following documents are attached to and made a condition of this Bid:

- a. Bid Guaranty Bond (Section 00410)
- b. Bidder's Experience and Qualifications (Section 00420)
- c. Designation of Subcontractors (Section 00430)
- d. Site Visit Affidavit (Section 00440)
- e. Non-Collusion Affidavit (Section 00480)
- f. Affidavit of Safety Compliance (Section 00490)
- g. Copy of BIDDER'S California State Contractor's License.

7. Major Equipment Items – Not Used

8. Documents to be submitted prior to Notice to Proceed:

- a. Agreement (Section 00500)
- b. Bond of Faithful Performance (Section 00610)
- c. Payment Bond (Section 00620)
- d. Escrow Agreement (Section 00630)
- e. General Liability Endorsement (Section 00650)
- f. Auto Liability Endorsement (Section 00651)

9. Address for Communications

Communications concerning this Bid shall be addressed to the address of BIDDER indicated below:

10. Defined Terms

Terms used in this Bid which are defined in the General Conditions or Instructions will have the meanings indicated in the General Conditions or Instructions.

SUBMITTED on _____, 20____.

If BIDDER is:

Name of Bidder: _____

An Individual

By _____ (SEAL)
(Individual's name)

doing business as _____

Business address: _____

A Partnership

By _____ (SEAL)
(Firm name)

(General partner)

Business address: _____

A Corporation

By _____ (SEAL)
(Corporation name)

(State of incorporation)

By _____ (SEAL)
(Name of person authorized to sign)

(Title)

(Corporate Seal)

Attest _____
(Secretary)

Business address: _____

A Joint Venture

By _____ (SEAL)
(Name)

(Address)

Name of Bidder: _____

By _____ (SEAL)
(Name)

(Address)

NOTE: Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.

****END OF SECTION****

SECTION 00410

BID GUARANTY BOND
(To Accompany Bid)

KNOW ALL PERSONS BY THESE PRESENTS:

THAT _____, hereinafter called the principal, and _____, hereinafter called the Surety, are jointly and severally held and firmly bound unto the City of Sausalito, Sausalito, California, a public entity, hereinafter called the Obligee, each in the penal sum of ten percent of the total amount of the Base Bid Proposal of the Principal for the Work, this sum not to exceed _____ dollars of lawful money of the United States for the payment whereof unto the Obligee, the Principal and Surety jointly and severally bind themselves forever.

WHEREAS, the Principal is herewith submitting its offer for the fulfillment of Obligee's Contract for:

Priority 1 Sewer Replacement Project

Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

NOW, THEREFORE, the condition of this obligation is such that if the Principal is awarded the Contract, and if the Principal within the time specified in the proposal for such Contract enters into, executes and delivers to the Obligee an agreement in the form specified in the Contract Documents complete with evidences of insurance specified in the Contract Documents, and if the Principal within the time specified in the proposal gives to the Obligee the payment and performance bonds specified in the Contract Documents, then this obligation shall be void; otherwise, the Principal and Surety will pay unto the Obligee the difference in money between the total amount of the proposal of the Principal and the amount for which the Obligee legally contracts with another party to fulfill the Contract if the latter amount be excess of the former, but in no event shall the Surety's liability exceed the penal sum hereof.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable under this obligation as Principal, and that nothing of any kind or nature whatsoever that will not discharge the Principal shall operate as a discharge or a release of liability of the Surety.

IT IS HEREBY FURTHER DECLARED AND AGREED that this obligation shall be binding upon and inure to the benefit of the Principal, the Surety and the Obligee and their respective heirs, executors, administrators, successors and assigns.

SIGNED AND SEALED THIS _____ day of _____, 20____.

****END OF SECTION****

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SECTION 00420

**CERTIFICATION OF BIDDER'S
EXPERIENCE AND QUALIFICATIONS**

(To Accompany Bid)

The undersigned Bidder certifies that it is, at the time of bidding, and shall be, throughout the period of the Contract, licensed under the provisions of Chapter 9, Division 3, of the Business and Professions Code of the State of California, to do the type of work contemplated in the Contract Documents. Bidder shall further certify that it is skilled and regularly engaged in the general class and type of work called for in the Contract Documents.

The Bidder represents that it is competent, knowledgeable, and has special skills on the nature, extent, and inherent conditions of the work to be performed. Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the particular facilities which may create, during the construction program, unusual or peculiar unsafe conditions hazardous to persons and property. Bidder expressly acknowledges that it is aware of such peculiar risks and that it has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the construction work with respect to such hazards.

ARTICLE 1 – ESSENTIAL REQUIREMENTS FOR QUALIFICATION

If the answer to any of questions 1 through 3 is “no”, or if the answer to any of questions 4 through 7 is “yes”, the Bidder will be disqualified from being awarded the Contract.

1. Bidder possesses a valid and current California Contractor’s license for the project for which it intends to submit a Bid.
 Yes No
2. Bidder will comply with and provide all insurance as defined in Section 00800-Article 2, **INDEMNITY AND INSURANCE**.
 Yes No
3. Bidder has current Workers’ Compensation insurance policy as required by the Labor Code or is legally self-insured pursuant to Labor Code section 3700 et. seq.
 Yes No
4. Has your contractor’s license been revoked at any time in the last five (5) years?
 Yes No
5. Has a surety firm completed a contract on your behalf, or paid for completion because your firm was default terminated by the project owner within the last five (5) years?
 Yes No

Name of Bidder: _____

6. At the time of submitting this qualification form, is your firm ineligible to bid on or be awarded a public works contract, or perform as a subcontractor on a public works contract, pursuant to either Labor Code section 1777.1 or Labor Code section 1777.7?
 Yes No
7. At any time during the last five (5) years, has your firm, or any of its owners or officers been convicted of a crime involving the awarding of a contract of a government construction project, or the bidding or performance of a government contract?
 Yes No

ARTICLE 2 – PROJECT EXPERIENCE

The Bidder shall list below at least five (5) projects completed in the last five (5) years of at least \$1,000,000 in Contract Amount involving construction of sewer pipeline rehabilitation that indicate the Bidder's experience as a Contractor. If the Bid is submitted by a Joint Venture, list at least four (4) completed projects. It is acceptable to submit this information on other forms as long as the information required below is included. Failure to provide this information with the Bid may render the Bid non-responsive and may be the basis for rejection of the Bid.

1. Project Name: _____
Owner: _____
Construction Cost: \$ _____
Construction Time: _____ Calendar Days
Owner's Representative: _____
Owner's Telephone No: (____) _____
Date of Substantial Completion: _____
2. Project Name: _____
Owner: _____
Construction Cost: \$ _____
Construction Time: _____ Calendar Days
Owner's Representative: _____
Owner's Telephone No: (____) _____
Date of Substantial Completion: _____

Name of Bidder: _____

3. Project Name: _____

Owner: _____

Construction Cost: \$ _____

Construction Time: _____ Calendar Days

Owner's Representative: _____

Owner's Telephone No: (_____) _____

Date of Substantial Completion: _____

4. Project Name: _____

Owner: _____

Construction Cost: \$ _____

Construction Time: _____ Calendar Days

Owner's Representative: _____

Owner's Telephone No: (_____) _____

Date of Substantial Completion: _____

5. Project Name: _____

Owner: _____

Construction Cost: \$ _____

Construction Time: _____ Calendar Days

Owner's Representative: _____

Owner's Telephone No: (_____) _____

Date of Substantial Completion: _____

ARTICLE 3 – SAFETY QUALIFICATION CRITERIA

The following information will be used to determine if you meet the minimum safety requirements for this Project. To qualify to bid and be awarded the Project, the Contractor's three year average Workers' Compensation Experience Modification (EMR) must not be greater than 1.1 (110%). The Bidder shall list its Experience Modification Rate for the last three (3) complete years (available from your insurance carrier).

Name of Bidder: _____

<u>Year</u>	<u>EMR</u>
_____	_____
_____	_____
_____	_____

Three Year Average = _____

To verify the above information, the City will contact the Bidder's Workers' Compensation Insurance carrier. The Bidder shall authorize its carrier to release this information. Failure to release this information will result in the Bid being non-responsive and result in automatic disqualification of the Bid.

Worker's Compensation Insurance Company: _____

Contact Person for Insurance Company: _____

Telephone Number: (_____) _____

Signed this _____ day of _____, 20____.

Name of Bidder

Contractor's License No.

Expiration Date

Signature of Bidder

Title of Signatory

****END OF SECTION****

Name of Bidder: _____

SECTION 00430

DESIGNATION OF SUBCONTRACTORS

(To Accompany Bid)

In accordance with California Public Contract Code, Section 4100 et. seq., as amended, the following is submitted concerning subcontractors: Each Bidder shall set forth below (a) name and the location of the place of business of each subcontractor who will perform work or labor, fabricate a portion of the Work or improvement according to the Contract Documents, or render service to the Contractor in or about the construction of the Work in an amount in excess of one-half (1/2) of one percent (1%) of the Contractor's total bid or \$10,000, whichever is greater; and (b) the portion of the Work (type and trade) which will be done by each such subcontractor.

If a Contractor fails to specify a subcontractor or, if a Contractor specifies more than one subcontractor for the same portion of work to be performed under the Contract in excess of one-half (1/2) of one percent (1%) of the Contractor's total bid for any portion of the Work as above stated, the Contractor agrees that he/she is fully qualified to perform that portion himself/herself, and that the Contractor shall perform that portion himself/herself. Subcontractor work for which no subcontractor was designated in the original Bid and which is in excess of one-half (1/2) of one percent (1%) of the total Contract Price, will be allowed only with written consent of the City in accordance with applicable law. The Contractor shall provide to the City the license number of each listed subcontractor within ten (10) days of issuance of the Notice to Proceed.

<u>Name of Subcontractor</u>	<u>Business Location</u>	<u>Description of Work to Perform</u>

****END OF SECTION****

Name of Bidder: _____

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Name of Bidder: _____

SECTION 00440

**SITE VISIT AFFIDAVIT TO BE EXECUTED
BY BIDDER, NOTARIZED AND SUBMITTED WITH BID**

(To Accompany Bid)

State of California)
) ss.
County of _____)

_____, being first duly sworn, deposes and says that he or she
(Contractor's Authorized Representative)

is _____ of _____
(Title of Representative) (Contractor's Legal Name)

the party making the foregoing Bid, has visited the Project site as described in the Contract Documents and has examined and familiarized themselves with the existing conditions, as well as all other conditions relating to the construction which will be performed. The submittal of a Bid shall be considered an acknowledgment on the part of the Bidder of familiarity with conditions at the site of the Work and that the site examination has provided adequate and sufficient information related to existing conditions which may affect cost, progress or performance of the Work.

Signature of Authorized Representative

Type/Print Name of Bidder

Type/Print Representative's Name

Type/Print Title

Date

(Certificate of Acknowledgment to be executed by Notary on following page)

Name of Bidder: _____

State of California)
) ss.
County of _____)

On _____, before me, _____ the
(Date) (Name and Title of Officer)

undersigned, a notary public in and for said state, personally appeared

_____,
(Name(s) of person(s) signing above document)

[] personally known to me [] proved to me on the basis of satisfactory evidence
(check appropriate box)

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

WITNESS my hand and official seal.

Notary Public

****END OF SECTION****

Name of Bidder: _____

SECTION 00480

**NON-COLLUSION AFFIDAVIT TO BE EXECUTED
BY BIDDER, NOTARIZED AND SUBMITTED WITH BID
(To Accompany Bid)**

_____, being first duly sworn, deposes and says that he or she
(Contractor's Authorized Representative)

is _____ of _____ the party making the foregoing Bid;
(Title of Representative) (Contractor's Name)

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.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Signature

Date

Subscribed and sworn to before me this

_____ day of _____, 20__

Notary Public in and for the State of California

Public Contract Code Section 7106
Code of Civil Procedure Section 2015.5

****END OF SECTION****

Name of Bidder: _____

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Name of Bidder: _____

SECTION 00490

**AFFIDAVIT OF SAFETY COMPLIANCE TO BE EXECUTED
BY BIDDER, NOTARIZED AND SUBMITTED WITH BID**

(To Accompany Bid)

**Priority 1 Sewer Replacement Project, Project 1B: Spinnaker/Humboldt Street Sewer and
Anchor Pump Station Rehabilitation**

The Contractor agrees in accordance with the requirements of Section 00700-4.07, **SAFETY**, that for purposes of California Labor Code Section 6400 and related provisions of law, the Contractor, the Contractor's privities and any other entities acting pursuant to this Contract will be "employers" responsible for furnishing employment and a place of employment that is safe and healthful for the employees, if any, of such entities acting pursuant to this Contract and that the City will not be responsible for having hazards corrected and/or removed at the location where the Work under the Contract is to be performed.

The Contractor hereby acknowledges City concerns regarding safety at its facility and at the Project worksite. The Contractor shall conduct its operations to eliminate or reduce hazards and risks associated with Contractor's activities, to prevent accidents and injuries, and to prevent property damage. Therefore, the Contractor is fully responsible for and shall be in compliance with all of the most current safety, health and environmental regulations (federal, state and local). Non-compliance with these regulations may result in suspension or termination of work in progress. The Contractor's Safety Programs must accomplish the foregoing objectives. The Contractor certifies that its Safety Programs comply and will satisfy these requirements. The Contractor also certifies that each Subcontractor and Sub-subcontractors and other parties with which it has agreements to perform work on the Project worksite will also comply and will satisfy these requirements.

Parts A, B, C and D of the attached Contractor Safety Operations Requirements are not required to be completed and submitted with the Bid. The completed forms shall be submitted for the City's review with the Contractor's Safety Program prior to commencement of work on the Project as required in Section 00700-4.07B, **Safety Program**. The Contractor certifies that it can furnish satisfactory evidence of compliance with the elements identified in the attached Contractor Safety Operations Requirements and the Contractor's Safety Program. The Contractor further acknowledges that it's Subcontractors and Sub-subcontractors will provide all Safety Compliance documents to Contractor in accordance with this Section 00490, **AFFIDAVIT OF SAFETY COMPLIANCE** and Section 00700-4.07, **SAFETY**.

Name of Bidder: _____

The Contractor acknowledges it has read the City's Confined Space Entry Program included in Appendix B, understands the existing facilities identified as confined spaces therein and will comply with the safety considerations applicable to this Project.

Executed On: _____, _____

Signature

Name of Bidder

Name (Print)

Title

(Attach a Certificate of Acknowledgement for the Notary to the Affidavit)

Name of Bidder: _____

CERTIFICATE OF ACKNOWLEDGMENT

State of California)
)
County of _____)

On _____ before me, _____,
Date Name, Notary Public

personally appeared _____,
Name, Title of Officer

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

Witness my hand and official seal.

Signature of Notary

Name of Bidder: _____

CONTRACTOR SAFETY OPERATIONS REQUIREMENTS
(To be submitted with Contractor’s Safety Program prior to commencing work)

1 PART A - SAFETY PROGRAMS

Please indicate below whether your firm has the following written safety programs. If any of the programs listed do not apply to your operations or this project, please make note of this in the “Comments” column. Include any information that you think would be helpful to us in making this assessment. Those programs that are indicated as mandatory must be available for review before commencing work on this Project. Other safety programs may be requested if it is later determined that they are applicable to the Project, and as such, must be made available for review upon request, at no additional charge to the City.

Program		Written Program		Program meets Cal/OSHA Criteria		Sub will Provide	Project Employees Trained		Training Documented		Comments
Mandatory	Name	Yes	No	Yes	No		Yes	No	Yes	No	
YES	Injury and Illness Prevention										
YES	Hazard Communication										
YES	Confined Space Operations										
	Respiratory Protection										
YES	Emergency Response										
YES	Hearing Conservation										
YES	Lockout/Tagout										
YES	New Employee Orientation										
YES	Excavation Safety										
YES	Code of Safe Practices										
YES	Personal Protective Equipment (PPE)										
YES	Drugs/Alcohol										
YES	Traffic Control Safety										
YES	Fall Prevention Plan ¹										

¹ If conventional fall protection measures cannot be used.

Name of Bidder: _____

2 PART B - SAFETY EQUIPMENT

Identify what safety equipment will be available and used for this Project.

Type	Description / Comments
<input type="checkbox"/> Gas Detectors	
<input type="checkbox"/> Ventilation Equipment	
<input type="checkbox"/> Approved Harnesses and Lanyards	
<input type="checkbox"/> Mechanical Hoists	
<input type="checkbox"/> Fire Extinguishers	
<input type="checkbox"/> First Aid Kits	
<input type="checkbox"/> Respirators	
<input type="checkbox"/> Hard Hats	
<input type="checkbox"/> Hearing Protection	
<input type="checkbox"/> Safety Goggles	
<input type="checkbox"/> Steel Toed Footwear	
<input type="checkbox"/> Hand Protection	
<input type="checkbox"/> Fall Protection	
<input type="checkbox"/> Confined Space Rescue Equipment	
<input type="checkbox"/>	
<input type="checkbox"/>	
<input type="checkbox"/>	

Name of Bidder: _____

3 PART C - SPECIALIZED TRAINING AND CERTIFICATION

Identify the areas of specialized training or certification that will have been completed by employees who will be assigned to this Project. Be prepared to provide documentation as requested.

<input type="checkbox"/>	CPR / First Aid	<input type="checkbox"/>	Fork Lift Operation
<input type="checkbox"/>	Cranes / Hoists Operation	<input type="checkbox"/>	Heavy Equipment Operation
<input type="checkbox"/>	Powder-Actuated Tools Use	<input type="checkbox"/>	Confined Space Operations and Rescue
<input type="checkbox"/>	Respirators	<input type="checkbox"/>	Trenching and Shoring Competent Person
	<input type="checkbox"/> Air-Supplying	<input type="checkbox"/>	Welding
	<input type="checkbox"/> Air-Purifying	<input type="checkbox"/>	Asbestos Abatement
<input type="checkbox"/>	Scaffolding	<input type="checkbox"/>	Flagging
<input type="checkbox"/>	Traffic Control		

Name of Bidder: _____

4 PART D – JOB SITE SAFETY PRACTICES

1. Name of person who will have responsibility for job site safety?

2. Who will be responsible for conducting and documenting accident investigations?

Does your company perform near-miss investigations? _____
Please provide sample copy of investigation forms.

3. How often are job site safety audits or inspections performed, _____
and by whom? _____

4. Does the person who is responsible for job site safety have authority to take immediate action to correct unsafe conditions of work practices? _____

5. Who will be designated the competent person for excavation safety on the project?

Provide substantiation of training for the competent person.

6. How often are job site tailgate or toolbox safety meetings held? _____

7. Briefly describe how you will ensure that workers comply with safety programs and Cal/OSHA requirements? _____

8. Please list any Cal/OSHA citations and penalties you have received in the last three years.

9. Have there been any on-the-job fatalities at any job site managed by the Contractor in the last five years? _____ If yes, please explain.

10. Does your company have a safety incentive program? _____

If yes, please explain. _____

Name of Bidder: _____

5 PART E – EVALUATION WORKSHEET

(FOR USE BY THE CITY ONLY)

Item	Mandatory Program	Contractor has Written Program	Contractor States Program Meets Cal/OSHA Criteria	Comments
Part A: Safety Programs				
Part B: Safety Equipment				
Part C: Training & Certification				
Part D: Job Site Safety Practice				
Responsible Person Named				
Accident Investigations				
Worksite Safety Inspections				
Competent Person				
Safety Meetings				
Compliance w/ Safety Requirements				
Cal/OSHA Citations/Penalties				
Fatalities				
Safety Incentives				

****END OF SECTION****

SECTION 00500

**AGREEMENT FOR THE CONSTRUCTION OF
Priority 1 Sewer Replacement Project**

Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

THIS AGREEMENT, made and concluded, in triplicate, this ____ day of _____, 20____, between the CITY OF SAUSALITO (“City”) and _____ (“Contractor”).

The City and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

W I T N E S E T H:

1. That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the City, and under the conditions expressed in the two bonds, bearing even date with these presents, Contractor shall at his/her own proper cost and expense, to do all the Work and furnish all the materials necessary to construct and complete in good workmanlike and substantial manner the project entitled: Priority 1 Sewer Replacement Project in strict conformity with the Contract Documents prepared therefore, which said Contract Documents are hereby specially referred to and by said reference made a part hereof.
2. Contractor hereby agrees to complete the Work in its entirety in accordance with the Contract Documents for the sum of _____ (\$_____) (the “Contract Sum”) computed in accordance with Contractor’s accepted proposal dated _____, 20____, which accepted proposal is incorporated herein by reference thereto as if herein fully set forth. Compensation shall be based upon any lump sum bid items plus the unit prices stated in the Bid Schedule times the actual quantities or units of work and materials performed or furnished. The further terms, conditions, and covenants of this Agreement are set forth in the Contract Documents, each of which is by this reference made a part hereof. Payments are to be made to the Contractor in accordance with the provisions of the Contract Documents and the Technical Specifications in legally executed and regularly issued warrants of the City, drawn on the appropriate fund or funds as required by law and order of the City.

City hereby promises and agrees with the Contractor to employ, and does hereby employ, the Contractor to provide the materials and to do the Work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner and upon the conditions above set forth; and the parties for themselves, their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of the covenants herein contained.

4. The Contractor and any subcontractor performing or contracting any work shall comply with all applicable provisions of the California Labor Code for all workers, laborers and mechanics of all crafts, classifications or types, including, but necessarily limited to the following:
- (a) The Contractor shall comply with all applicable provisions of Sections 1810 to 1815, inclusive, of the California Labor Code relating to working hours. The Contractor shall, as a penalty to the City, forfeit the sum of twenty-five dollars (\$25) for each worker employed in the execution of the Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one calendar week, unless such worker receives compensation for all hours worked in excess of eight (8) hours at not less than 1-1/2 times the basic rate of pay.
 - (b) Pursuant to the provision of California Labor Code, Section 1770 et seq., the Contractor and any subcontractor under him shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Pursuant to the provisions of California Labor Code Section 1773.2, the Contractor is hereby advised that copies of the prevailing rate of per diem wages and a general prevailing rate for holidays, Saturdays and Sundays and overtime work in the locality in which the work is to be performed for each craft, classification, or type of worker required to execute the Contract, are on file in the office of the City, which copies shall be made available to any interested party on request. The Contractor shall post a copy of said prevailing rate of per diem wages at each job site.
 - (c) As required by Section 1773.1 of the California Labor Code, the Contractor shall pay travel and subsistence payments to each worker needed to execute the Work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with this Section.
 - (d) To establish such travel and subsistence payments, the representative of any craft, classification, or type of workman needed to execute the contracts shall file with the Department of Industrial Relations fully executed copies of collective bargaining agreements for the particular craft, classification or type of work involved. Such agreements shall be filed within ten (10) days after their execution and thereafter shall establish such travel and subsistence payments whenever filed thirty (30) days prior to the call for bids.
 - (e) The Contractor shall comply with the provisions of Section 1775 of the California Labor Code and shall, as a penalty to the City, forfeit up to fifty dollars (\$50) for each calendar day, or portion thereof, for each worker paid less than the prevailing rate of per diem wages for each craft, classification, or type of worker needed to execute the Contract. The Contractor shall pay each worker an amount equal to the difference between the prevailing wage rates and the amount paid worker for each calendar day or portion thereof for which a worker was paid less than the prevailing wage rate. Contractor is required to pay all applicable penalties and back wages in

the event of violation of prevailing wage law, and Contractor and any subcontractor shall fully comply with California Labor Code Section 1775, which is incorporated by this reference as though fully set forth herein.

- (f) As required under the provisions of Section 1776 of the California Labor Code, Contractor and each subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, and straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Said payroll shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:
- (1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.
 - (2) A certified copy of all payroll records enumerated in Paragraph 4(f), herein, shall be made available for inspection or furnished upon request to the City, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.
 - (3) A certified copy of all payroll records enumerated in Paragraph 4(f), herein, shall be made available upon request by the public for inspection or for copies thereof; provided, however, that a request by the public shall be made through the City, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to Paragraph 4(e) herein, the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the Contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal offices of the Contractor.

The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division.

Each Contractor shall file a certified copy of the records, enumerated in Paragraph 4(f) with the entity that requested the records within ten (10) days after receipt of a written request. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the City, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address, and social security number. The name and address of the Contractor awarded the Contract or performing the Contract shall not be marked or obliterated. The Contractor shall inform the City of the location of the records enumerated under Paragraph 4(f) including the street address, city and county, and shall,

within five (5) working days, provide a notice of change of location and address. The Contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this Paragraph 4(f). In the event that the Contractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or the City, forfeit \$25.00 dollars for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. Responsibility for compliance with Paragraph 4(f) lies with the Contractor.

- (g) The Contractor and any subcontractors shall, when they employ any person in any apprenticeable craft or trade, apply to the joint apprenticeship committee administering the apprenticeship standards of the craft or trade in the area of the construction site for a certificate approving the Contractor or subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected; and shall comply with all other requirements of Section 1777.5 of the California Labor Code. The responsibility of compliance with California Labor Code Section 1777.5 during the performance of this Contract rests with the Contractor. Pursuant to California Labor Code Section 1777.7, in the event the Contractor willfully fails to comply with the provisions of California Labor Code Section 1777.5, the Contractor shall be denied the right to bid on any public works contract for up to three (3) years from the date noncompliance is determined and be assessed civil penalties.
- (h) In accordance with the provisions of Article 5, Chapter 1, Part 7, Division 2 (commencing with Section 1860), and Chapter 4, Part 1, Division 4 (commencing with Section 3700) of the California Labor Code, the Contractor is required to secure the payment of compensation to its employees and for that purpose obtain and keep in effect adequate Workers' Compensation Insurance. If the Contractor, in the sole discretion of the City satisfies the City of the responsibility and capacity under the applicable Workers' Compensation Laws, if any, to act as self-insurer, the Contractor may so act, and in such case, the insurance required by this paragraph need not be provided.

The Contractor is advised of the provisions of Section 3700 of the California Labor Code, which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code and shall comply with such provisions and have Employer's Liability limits of \$1,000,000 per accident before commencing the performance of the Work of this Contract. Contractor and its subcontractors shall comply with the provisions of Section 3700 of the Labor Code, including Longshoremen's and Harbor Workers' Compensation and Jones Act coverages, if applicable, before commencing the performance of the work of this contract.

Contractor shall not commence work until the Contractor submits written evidence that it has obtained full Workers' Compensation Insurance coverage for all persons

whom it employs or may employ in carrying out the Work under this Contract. This insurance shall be in accordance with the requirements of the most current and applicable state Workers' Compensation Insurance Laws. In accordance with the provisions of Section 1861 of the California Labor Code, the Contractor in signing this agreement certifies to the City as true the following statement: "I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the Work of this Contract."

A subcontractor is not allowed to commence work on the project until verification of Workers' Compensation Insurance coverage has been obtained and verified by the Contractor and submitted to the Construction Manager for the City's review and records.

- (i) In accordance with the provisions of Section 1727 of the California Labor Code, the City, before making payment to the Contractor of money due under a contract for public works, shall withhold and retain therefrom all wages and penalties which have been forfeited pursuant to any stipulation in the Contract, and the terms of Chapter 1, Part 7, Division 2 of the California Labor Code (commencing with Section 1720). But no sum shall be withheld, retained or forfeited, except from the final payment, without a full investigation by either the Division of Labor Standards Enforcement or by the City.

5. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this Agreement and the bid proposal of Contractor, then this Agreement shall control, and nothing herein contained shall be considered as an acceptance of the terms of Contractor's proposal conflicting herewith.
6. The Contractor agrees to provide and maintain insurance coverage, and to indemnify and save harmless the parties named and in the manner set forth in Section 00800-Article 2, **INDEMNITY AND INSURANCE**, of the Supplementary General Conditions of the Specifications.

The duty of Contractor to indemnify and save harmless, as set forth herein, shall include a duty to defend as set forth in Section 2778 of the California Civil Code; provided, however, that nothing herein shall be construed to require Contractor to indemnify against any responsibility or liability in contravention of Section 2782 of the California Civil Code.

7. The Contractor shall diligently prosecute the Work so that it shall be substantially completed within the time specified in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**.
8. Except as otherwise may be provided herein, Contractor hereby expressly guarantees for one (1) full year from the date of the Substantial Completion of the Work under this Agreement and acceptance thereof by the City, to repair or replace any part of the Work performed hereunder which constitutes a defect resulting from the use of inferior or

defective materials, equipment or workmanship. If, within said period, any repairs or replacements in connection with the Work are, in the opinion of the City, rendered necessary as the result of the use of inferior or defective materials, equipment or workmanship, Contractor agrees, upon receipt of notice from the City, and without expense to the City, to promptly, and in no event more than ten (10) days, after receipt of written notice from City repair or replace such material or workmanship and/or correct any and all defects therein. If Contractor, after such notice, fails to proceed promptly to comply with the terms of this guarantee, the City may perform the work necessary to effectuate such correction and recover the cost thereof from the Contractor or its sureties.

In special circumstances where a particular item of work or equipment is placed in continuous service before substantial completion of the Work, the correction period for that item may start to run from an earlier date. This date shall be agreed upon by the Contractor and the City on or before the item is placed in continuous service.

Any and all other special guarantees which may be applicable to definite parts of the Work under this Agreement shall be considered as an additional guarantee and shall not reduce or limit the guarantee as provided by Contractor pursuant to this paragraph during the first year of the life of such guarantee.

9. The Contractor shall provide, on the execution of this Agreement, a good and sufficient corporate surety bond in the penal sum of one hundred percent (100%) of amount bid, which bond shall be on the form provided by the City in Section 00610, **BOND OF FAITHFUL PERFORMANCE**, and be conditioned upon the faithful performance of all Work required to be performed by the Contractor under this Agreement. Said bond shall be liable for any and all penalties and obligations which may be incurred by Contractor under this Agreement. The surety bond shall be issued by a corporate surety authorized to conduct business in California. At its discretion, the City may request that a certified copy of the certificate of authority of the insurer issued by the Insurance Commissioner of the State of California be submitted by the surety to the City. At its discretion, the City may also require the insurer to provide copies of its most recent annual statement and quarterly statement filed with the Department of Insurance pursuant to Article 10 (commencing with Section 900) of Chapter 1 of Part 2 of Division 1 of the Insurance Code.
10. In addition to the bond required under Paragraph 9, hereof, Contractor shall furnish a good and sufficient corporate surety bond in the penal sum of one hundred percent (100%) of amount of bid, which bond shall be on the form provided by the City in Section 00620, **PAYMENT BOND**, and conform strictly with the provisions of Chapter 7, Title 15, Part 4, Division 3, of the Civil Code of the State of California, and all amendments thereto. The corporate surety bond shall be issued by a corporate surety authorized to conduct business in California. At its discretion, the City may request that a certified copy of the certificate of authority of the insurer issued by the Insurance Commissioner of the State of California be submitted by the surety to the City. At its discretion, the City may also require the insurer to provide copies of its most recent annual statement and quarterly statement filed with the Department of Insurance pursuant to Article 10 (commencing with Section 900) of Chapter 1 of Part 2 of Division 1 of the Insurance Code.

11. The Contractor may substitute securities for the amounts retained by the City to ensure performance of the Work in accordance with the provisions of Section 22300 of the Public Contract Code.
12. The Contractor shall be provided the time period specified in Section 01300-1.03, **MATERIAL AND EQUIPMENT SUBSTITUTIONS**, for submission of data substantiating a request for a substitution of an "or equal" item.
13. As required by Section 6705 of the California Labor Code and in addition thereto, whenever work under the Contract involves the excavation of any trench or trenches five feet or more in depth, the Contractor shall submit in advance of excavations, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety in Title 8, Subchapter 4, Article 6, California Code of Regulations, the plan shall be prepared by a registered civil or structural engineer employed by the Contractor, and all costs therefore shall be included in the price named in the Contract for completion of the Work as set forth in the Contract Documents. Nothing in this Section shall be deemed to allow the use of a shoring, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this Section shall be construed to impose tort liability on the City, the Design Consultant, Construction Manager nor any of their agents, consultants, or employees. The City's review of the Contractor's excavation plan is only for general conformance to the California Construction Safety Orders.

Prior to commencing any excavation, the Contractor shall designate in writing to the Construction Manager the competent person(s) with the authority and responsibilities designated in the Construction Safety Orders.

14. In accordance with Section 7104 of the Public Contract Code, whenever any work involves digging trenches or other excavations that extend deeper than four feet below the surface, the provisions of Section 00700-7.02, **DIFFERING SITE CONDITIONS**, shall apply.
15. In accordance with Section 7103.5 of the Public Contract Code, the Contractor and subcontractors shall conform to the following requirements. In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act [Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code], arising from purchases of goods, materials or services pursuant to this Contract or the subcontract. Such assignment shall be made and become effective at the time the City tenders final payment to the Contractor, without further acknowledgment by the parties.
16. In accordance with Section 4552 of the Government Code, the Contractor shall conform to the following requirements. In submitting a Bid to the City, the Contractor offers and agrees that if the Bid is accepted, it will assign to the City all rights, title, and interest in

and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act [Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code], arising from purchase of goods, materials, or services by the Contractor for sale to the City pursuant to the Bid. Such assignment shall be made and become effective at the time the City tenders final payment to the Contractor.

17. Pursuant to Public Contract Code Section 7100, the acceptance by the Contractor of an undisputed payment made under the terms of the Contract shall operate as, and shall be, a release to the City, and their duly authorized agents, from all claim of and/or liability to the Contractor arising by virtue of the Contract related to those amounts. Disputed contract claims in stated amounts may be specifically excluded by the Contractor from the operation of the release.
18. In accordance with California Business and Professions Code Section 7030, the Contractor is required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within 10 years of the date of the alleged violation. Any questions concerning the Contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.
19. The acceptance of each payment made to Contractor under this Agreement shall constitute a warranty that all subcontractors, laborers and material suppliers on the Project have been paid for all work, material, labor provisions, provender, equipment, or other supplies and efforts made toward the construction of improvements.
20. **INDEMNIFICATION.** Contractor shall indemnify, defend with counsel acceptable to Owner, and hold harmless to the full extent permitted by law, the City and its officers, officials, employees, agents and volunteers, Sausalito Yacht Harbor, the Spinnaker Restaurant, Sausalito Marin City Sanitation District, Construction Manager, Design Consultant and all of their respective agents and employees; (collectively "the Indemnified Parties") in accordance with the requirements of Section 00800-2.01E, **Indemnification.**
21. **SEVERABILITY.** If any term or portion of this Agreement is held to be invalid, illegal, or otherwise enforceable by a court of competent jurisdiction, the remaining provisions of this Agreement shall continue in full force and effect.
22. **LICENSE.** Contractor's attention is directed to Business and Professions Code Sections 7000 et seq. concerning the licensing of contractors. At the time Contractor enters into this Contract and all times Contractor is performing the Work, Contractor shall have a valid license issued by the Contractors State License Board in the classification stated in the Special Provisions. All bidders and subcontractors shall be licensed in accordance with the laws of this State and any contractor or subcontractor not so licensed is subject to penalties imposed by such laws.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS IF A COMPLAINT REGARDING A PATENT ACT OR OMISSION IS FILED WITHIN FOUR YEARS OF THE DATE OF THE ALLEGED VIOLATION. A COMPLAINT REGARDING A LATENT ACT OR OMISSION PERTAINING TO STRUCTURAL DEFECTS MUST BE FILED WITHIN 10 YEARS OF THE DATE OF THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement this _____ day of _____, 20_____.

CONTRACTOR

By: _____

Title: _____

THE CITY OF SAUSALITO

By: _____

Debbie Pagliaro, City Clerk
City of Sausalito, California

ATTEST:

By: _____

City Counsel

****END OF SECTION****

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SECTION 00610

BOND OF FAITHFUL PERFORMANCE

BOND NO. _____

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City Council of the City of Sausalito (hereinafter referred to as "City") has awarded to _____, (hereinafter referred to as the "Contractor") an agreement (the "Contract") for construction of the **Priority 1 Sewer Replacement Project, Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation Project** (hereinafter referred to as the "Project").

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as "Contract Documents"), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by the Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of the Contract Documents.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the City in the sum of _____ DOLLARS, (\$_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions, and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one-year guarantee of all materials and workmanship; and shall indemnify, defend and save harmless the City, its officers and agents, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorneys' fees and expert fees, incurred by City in enforcing such obligation.

As a condition precedent to the satisfactory completion of the Project, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one

(1) year after the acceptance of the work by City, during which time Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the City from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the City's rights or the Contractor or Surety's obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure section 337.15.

Whenever Contractor shall be, and is declared by the City to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the City's option:

- (1) Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or
- (2) Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the City, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.
- (3) Permit the City to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the City may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the City, when declaring the Contractor in default, notifies Surety of the City's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract Documents or to the Project.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____

Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

SIGNATURES OF THOSE SIGNING FOR SURETY MUST BE NOTARIZED, AND EVIDENCE OF CORPORATE AUTHORITY ATTACHED.

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, \$ _____.

(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

(Name and Address of Agent or Representative for service of _____

process in California, if different
from

above)

(Telephone number of Surety and
Agent or
of process in California

Representative

for

service

****END OF SECTION****

BOND NO. _____

SECTION 00620

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City Council of the City of Sausalito (hereinafter referred to as “City”) has awarded to _____, (hereinafter referred to as the “Contractor”) an agreement (the “Contract”) for construction of:

Priority 1 Sewer Replacement Project, Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation (hereinafter referred to as the “Project”).

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as “Contract Documents”), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by the Contract Documents to furnish a bond to secure payment for all work, labor, materials, equipment or services furnished in connection with the Construction Contract;

NOW, THEREFORE, CONTRACTOR, as principal, and _____ (hereinafter referred to as “Surety”), as surety, are held and firmly bound unto City, as defined herein, in the penal sum of _____ Dollars (\$_____), lawful money of the United States, for the payment of which sum well and truly to be made as provided in this Payment Bond.

1. CONTRACTOR and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to CITY to pay for work, labor, materials, equipment, services, or other items furnished for use and actually used in the performance of the Construction Contract, which is incorporated herein by reference.

2. With respect to CITY, this obligation shall be null and void if CONTRACTOR:

2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

2.2 Defends, indemnifies and holds CITY harmless from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for work, labor, materials, equipment, services or other items furnished for use in the performance of the Construction Contract, provided CITY has promptly notified CONTRACTOR and Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to CONTRACTOR and Surety.

3. With respect to Claimants, this obligation shall be null and void if CONTRACTOR promptly makes payment, directly or indirectly, for all sums due.

4. Surety shall have no obligation to Claimants under this Bond until:

4.1 Claimants who are employed by or have a direct contract with CONTRACTOR have given notice to Surety (at the address described below) and sent a copy, or notice thereof, to CITY, stating that a claim is being made under this Payment Bond and, with substantial accuracy, the amount of the claim.

4.2 Claimants who do not have a direct contract with the CONTRACTOR:

4.3. Have furnished written notice to CONTRACTOR and sent a copy, or notice thereof, to CITY, as required by and conforming with Civil Code sections 3252 and 3091; and

4.4. Not having been paid within 30 days of sending the required notice, have sent a written notice to Surety (at the address described below) and sent a copy to the CITY, stating that a claim is being made under this Payment Bond and enclosing a copy of the previous written notice furnished to CONTRACTOR.

5. When the Claimant has satisfied the conditions of Paragraph 4, Surety shall promptly and at Surety's expense take the following actions:

5.1 Send an answer to the Claimant, with a copy to CITY, within 20 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

5.2 Pay or arrange for payment of any undisputed amounts.

6. Surety's total obligation shall not exceed the amount of this Payment Bond, and the amount of this Payment Bond shall be credited for any payments made in good faith by Surety.

7. Amounts owed by CITY to CONTRACTOR under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under the Performance Bond. By CONTRACTOR furnishing and CITY accepting this Payment Bond, they agree that all funds earned by CONTRACTOR in the performance of the Construction Contract are dedicated to satisfy obligations of CONTRACTOR and Surety under this Bond, subject to the CITY'S priority to use the funds for the completion of the work or the satisfaction of CITY'S claims, including liquidated damages, under the Construction Contract.

8. Surety shall not be liable to CITY, Claimants or others for obligations of the CONTRACTOR that are unrelated to the Construction Contract. CITY shall not be liable for payment of any costs or expenses of any Claimants under this Payment Bond, and shall have under this Payment Bond no obligation to make payments to, give notices on behalf of, or otherwise have any obligation to Claimants under this Payment Bond.

9. Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

10. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction. The prevailing party in any such action shall be entitled to recover its attorneys' fees, to be taxed as costs.

11. Notice to Surety, City or Contractor shall be mailed or delivered to the address shown on the signature page.

12. This Payment Bond has been furnished to comply with Civil Code sections 3247 through 3252. Any provision in this Payment Bond conflicting with those statutory requirements shall be deemed deleted and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Payment Bond shall be construed as a statutory bond and not as a common law bond.

13. Upon request by any person or entity appearing to be a potential beneficiary of this Payment Bond, the Contractor shall promptly furnish a copy of this Payment Bond or shall permit a copy to be made.

14. DEFINITIONS

14.1 Claimant: An individual or entity identified in California Civil Code sections 3181 or 3248.

14.2 Construction Contract: The agreement between CITY and CONTRACTOR identified above, including all Contract Documents and changes thereto.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their seals this ___ day of _____ 2004, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to the authority of its governing body.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

SIGNATURES OF THOSE SIGNING FOR SURETY MUST BE NOTARIZED, AND EVIDENCE OF CORPORATE AUTHORITY ATTACHED.

The rate of premium on this bond is _____ per thousand. The total amount of premium charges, \$ _____.

(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

(Name and Address of Agent or Representative for service of process in California, if different from _____ above)

(Telephone number of Surety and Agent _____ or Representative for service of process in California)

****END OF SECTION****

SECTION 00630

**ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION
Priority 1 Sewer Replacement Project, Project 1B: Spinnaker/Humboldt Street Sewer and
Anchor Pump Station Rehabilitation**

This Escrow Agreement is made and entered into by and between; the City of Sausalito, whose address is 420 Litho Street, Sausalito, CA 94965; hereinafter called "City", and _____
(Contractor)

whose address is _____

hereinafter called "Contractor", and _____
(Escrow Agent)

whose address is _____

hereinafter called "Escrow Agent."

For the consideration hereinafter set forth, the City, Contractor, and Escrow Agent agree as follows:

1. Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities which meet the requirements set forth in said Section 22300, with Escrow Agent, as a substitute for retention earnings required to be withheld by the City pursuant to the Construction Contract entered into between the City and Contractor for _____ in the amount of _____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the City shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the City within ten (10) days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the City and Contractor. Securities shall be held in the name of the City, and shall designate the Contractor as the beneficial Owner.
2. The City shall make progress payments to Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.
3. When the City makes payment of retentions earned directly to the Escrow Agent the Escrow Agent shall hold them for the benefit of the Contractor until such time as the escrow created under this Contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the City pays the Escrow Agent directly.

4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account, and all expenses of the City. These expenses and payment terms shall be determined by the City, Contractor, and Escrow Agent.
5. The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the City.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the City to the Escrow Agent that the City consents to the withdrawal of the amount sought to be withdrawn by Contractor.
7. The City shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven (7) days' written notice to the Escrow Agent from the City of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the City.
8. Upon receipt of written notification from the City certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.
9. Escrow Agent shall rely on the written notifications from the City and the Contractor pursuant to Sections (5) to (8), inclusive, of this Agreement, and the City and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.
10. The names of the persons who are authorized to give written notice or to receive written notice on behalf of the City and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On Behalf of the City:

On Behalf of Contractor:

Title

Title

Name

Name

Signature

Signature

Address

Address

On Behalf of Escrow Agent:

Title

Name

Signature

Address

At the time the Escrow Account is opened, the City and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

City:

Contractor:

Title

Title

Name

Name

Signature

Signature

****END OF SECTION****

SECTION 00650

GENERAL LIABILITY ENDORSEMENT (FORM A-1)

THE CITY OF SAUSALITO (City)
420 Litho Street
Sausalito, CA 94965

Priority 1 Sewer Replacement Project, Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

1 ARTICLE 1 – POLICY INFORMATION

- 1. Insurance Company: _
Policy Number: _____
- 2. Policy Term (From) __ (To) __
Endorsement Effective Date: _____
- 3. Named Insured: _____
- 4. Address of Named Insured: _____
- 5. Limit of Liability Any One Occurrence / Aggregate
\$ _____
- 6. Deductible or Self-Insured Retention (Nil unless otherwise specified)
\$ _____

2 ARTICLE 2 – POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto it is agreed as follows:

- 1. **INSURED.** The City, the Design Consultant, the Construction Manager, City Engineer, and each of their officers, partners, employees, and agents are included as additional insureds with regard to damages and defense of claims arising from: (a) activities performed by or on behalf of the Named Insured, (b) products and completed operations of the Named Insured, or (c) premises owned, leased or used by the Named Insured.

- 2. **CONTRIBUTION NOT REQUIRED.** As respects: (a) work performed by the Named Insured for or on behalf of the City; or (b) products sold by the Named Insured to the City; or (c) premises leased by the Named Insured from the City, the insurance afforded by this policy shall be primary insurance as respects the City, the Design Consultant and the Construction Manager, and each of their officers, employees, and agents; or stand in an unbroken chain of coverage excess of the Named Insured's scheduled underlying primary coverage. In either event, any other insurance maintained by the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents shall be excess of this insurance and shall not contribute with it.
- 3. **SCOPE OF COVERAGE.** The policy: (1) if primary, affords coverage at least as broad as Insurance Services Office Commercial General Liability Coverage (occurrence form CG 0001, Edition 1987); or (2) if excess, affords coverage which is at least as broad as the primary insurance forms referenced in the preceding Section (1).
- 4. **SEVERABILITY OF INTEREST.** The insurance afforded by this policy applies separately to each insured who is seeking coverage or against whom a claim is made or a suit is brought, except with respect to the Company's limit of liability.
- 5. **PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS.** Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents.
- 6. **CANCELLATION NOTICE.** The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior notice by certified mail return receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this endorsement.

3 ARTICLE 3 – INCIDENT AND CLAIM REPORTING PROCEDURE

Incidents and claims are to be reported to the insurer at:

Attn: _____

(Title) *(Department)*

(Company)

(Street Address)

(Agency) *(State)* *(Zip Code)*

(Telephone Number)

4 ARTICLE 4 – SIGNATURE OF INSURER OR UNDERWRITER

I, _____ (print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company. By signature below, the surety warrants that if requested by the City, it will furnish a certified copy of the certificate of authority issued by the Insurance Commissioner of the State of California.

Signature of: _____
Insurer or Underwriter

(original signature required on endorsement furnished to the City)

ORGANIZATION: _____ TITLE: _____
ADDRESS: _____ TELEPHONE: (____) _____

****END OF SECTION****

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SECTION 00651

AUTO LIABILITY ENDORSEMENT (FORM B-1)

CITY OF SAUSALITO ("City")
420 Litho Street
Sausalito, CA 94965

Priority 1 Sewer Replacement Project

Project 1B: Spinnaker/Humboldt Street Sewer and Anchor Pump Station Rehabilitation

1 ARTICLE 1 – POLICY INFORMATION

1. Insurance Company: _____

Policy Number: _____

2. Policy Term (From) _____ (To) _____

Endorsement Effective Date:

3. Named Insured: _____

4. Address of Named Insured: _____

5. Limit of Liability Any One Occurrence / Aggregate

\$ _____

6. Deductible or Self-Insured Retention (Nil unless otherwise specified)

\$ _____

2 ARTICLE 2 – POLICY AMENDMENTS

This endorsement is issued in consideration of the policy premium. Notwithstanding any inconsistent statement in the policy to which this endorsement is attached or any other endorsement attached thereto it is agreed as follows:

- INSURED.** The City, the Design Consultant, the Construction Manager, City Engineer, and each of their officers, partners, employees, and agents are included as additional insureds with regard to damages and defense of claims arising from ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired, or borrowed by the Named Insured, regardless of whether liability is attributable to the Named Insured or a combination of the Named Insured and the City, the Design Consultant and the Construction Manager and each of its officers, employees, and agents.

- 2. **CONTRIBUTION NOT REQUIRED.** As respects work performed by the Named Insured for or on behalf of the City, the insurance afforded by this policy shall: (a) be primary insurance as respects the City, the Design Consultant, and the Construction Manager and each of their officers, employees, and agents; or (b) stand in an unbroken chain of coverage excess of the Named Insured’s primary coverage. In either event, any other insurance maintained by the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents shall be excess of this insurance and shall not contribute with it.
- 3. **SCOPE OF COVERAGE.** The policy affords coverage to the Named Insured, which is at least as broad as Insurance Services Office form number CA 0001 (Ed. 1/87) covering automobile liability, Code 1 (“any auto”).
- 4. **SEVERABILITY OF INTEREST.** The insurance afforded by this policy applies separately to each insured who is seeking coverage or against whom a claim is made or a suit is brought, except with respect to the Company's limit of liability.
- 5. **PROVISIONS REGARDING THE INSURED'S DUTIES AFTER ACCIDENT OR LOSS.** Any failure to comply with reporting provisions of the policy shall not affect coverage provided to the City, the Design Consultant and the Construction Manager and each of their officers, employees, and agents.
- 6. **CANCELLATION NOTICE.** The insurance afforded by this policy shall not be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior notice by Certified Mail Return Receipt requested has been given to the City. Such notice shall be addressed as shown in the heading of this endorsement.

3 ARTICLE 3 – INCIDENT AND CLAIM REPORTING PROCEDURE

Incidents and claims are to be reported to the insurer at:

Attn: _____

(Title) *(Department)*

(Company)

(Street Address)

(Agency) *(State)* *(Zip Code)*

(Telephone Number)

4 ARTICLE 4 – SIGNATURE OF INSURER OR UNDERWRITER

I, _____ (print/type name), warrant that I have authority to bind the below listed insurance company and by my signature hereon do so bind this company. By signature below, the surety warrants that if requested by the City, it will furnish a certified copy of the certificate of authority issued by the Insurance Commissioner of the State of California.

Signature of: _____
Insurer or Underwriter

(original signature required on endorsement furnished to the City)

ORGANIZATION: _____ TITLE: _____

ADDRESS: _____ TELEPHONE: (____) _____

****END OF SECTION****

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SECTION 00700

GENERAL CONDITIONS

1 ARTICLE 1 - GENERAL

1.01 CONTRACT AGREEMENT

A Bidder to whom award is made shall execute a written Agreement and required supplementary documents and submit them to the City within ten (10) days after the Notice of Award has been received by the Bidder at the address given in Section 00300, **BID FORM**. The Agreement shall be made in the form adopted by the City and incorporated in Section 00500, **AGREEMENT**.

If the lowest responsive, responsible Bidder to whom award is made fails to enter into the Contract, as herein provided, the Bidder's Security will become the property of the City, and an award may be made to the next lowest responsive, responsible Bidder, and such Bidder shall fulfill every stipulation embraced herein as if it were the party to whom the first award was made. A corporation, partnership, or joint venture to which an award is made will be required, before the Agreement is finally executed, to furnish evidence of its corporate existence and evidence that the officer signing the Agreement and bonds for the corporation is duly authorized to do so in the form as stated in Section 00100-Article 3, **BIDDER'S SIGNATURE AND AUTHORITY**.

In the event the Contractor is a joint venture of two or more contractors, the grants, covenants, provisos and claims, rights, power, privileges and liabilities of the Contract shall be construed and held to be several as well as joint. Any notice, order, direct request or any communication required to be or that may be given by the City or the Construction Manager to the Contractor under this Contract, shall be well and sufficiently given to all persons being the Contractor if given to any one or more of such persons. Any notice, request or other communication given by any one of such persons to the City or the Construction Manager under this Contract shall be deemed to have been given by and shall bind all persons being the Contractor.

If any part of the Work to be done under this Contract is subcontracted, the subcontract shall be in writing and shall provide that all work to be performed thereunder shall be performed in accordance with the terms of the Agreement. The subcontracting of any or all of the work to be done will in no way relieve the Contractor of any part of its responsibility under the Contract. Certified copies of subcontract agreements will be provided by the Contractor to the City upon request.

Equipment supplied under this Contract shall be furnished in accordance with a written agreement, and such agreement shall provide that any equipment supply shall be performed in accordance with the terms of the Contract Documents. Certified copies of agreements for equipment supply will be provided by the Contractor to the City upon request.

The Contractor shall not assign, transfer, convey, or otherwise dispose of the Contract, or its right, title, or interest therein, or its power to execute such Contract, to any other person, firm, or corporation without previous consent in writing of the City.

1.02 WRITTEN NOTICE AND SERVICE THEREOF

Any notice to any party relative to any part of this Contract shall be in writing and considered delivered and the service thereof completed as follows:

when said notice is posted deposited in the U.S. Mail, postage prepaid, to said party at its last given address, notice will be effective two business days after mailing;

or if delivered in person to the said party or its authorized representative of the Work, notice will be effective upon delivery;

or if sent by facsimile to the said party or its authorized representative at a fax number provided in connection with the Project, notice will be effective upon receipt.

1.03 RIGHTS OF ACTION

No right of action shall accrue upon or by reason of this Agreement to or for the use or benefit of anyone other than the parties to this Agreement. The parties to this Agreement are the Contractor and the City.

1.04 PLANS AND SPECIFICATIONS

The Contract Documents are complementary; what is called for by one is as binding as if called for by all. It is the intent of the Drawings and Specifications to describe a functionally complete and operable Project (and all parts thereof) to be constructed in accordance with the requirements of the Contract Documents. Any work, materials or equipment that may reasonably be inferred from the requirements of the Contract Documents or from prevailing custom or trade usage as being required to produce this intended result will be furnished and performed whether or not specifically called for. When words or phrases that have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. The intent of the Drawings specifically includes the intent to depict construction that complies with all applicable laws, codes and standards. Subject to applicable law, including but not limited to California Public Contract Code Section 4100 *et seq.*, and the terms of this Contract governing subcontracting, the Divisions and Sections of the Specifications and identifications of any Drawings shall not control Contractor in dividing the Work among subcontractors or suppliers or delineating the work to be performed by any specific trade.

Reasonably implied parts of the Work shall be performed as “incidental work” even though absent from the Drawings and Specifications. “Incidental” work shall be performed by Contractor without extra cost to the City. Incidental work includes any

work not shown on Drawings nor described in the Specifications, which is necessary or required to make each installation satisfactory, legally operable, functional, consistent with the intent of the Drawings and Specifications or the requirements of the Contract Documents. Incidental work shall be treated as if fully described in Specifications and shown on Drawings, and expense thereof shall be included in the Bid Price. Incidental work includes, but is not limited to, tasks required to be performed under Division 1 **GENERAL REQUIREMENTS** of the Specifications.

Upon Notice to Proceed, the Contractor may obtain from the City, free of charge, two (2) copies of the conformed Plans (half-size) and Specifications. The Contractor may also obtain from the City, free of charge, two (2) sets of full-size prints of the Plans. Additional sets of the Plans and Specifications may be procured at the cost of printing and binding. The Owner will also provide one electronic copy of the conformed Plans and Specifications upon receipt of an executed release from the Contractor. The Owner will furnish the release form at the Contractor's request.

Both the Plans and Specifications will be conformed by incorporating all addenda which may have been issued during the bid period to the original bid documents. These "Issued for Construction" documents will be provided no later than the date of the Notice to Proceed. The "Issued for Construction" documents will be produced for the convenience and efficiency of all parties involved with construction. In the event of a discrepancy or failure to include a specific item of any addendum, the addendum as issued during the bid period shall take precedence over the "Issued for Construction" documents.

The Contractor shall keep on the work site a copy of the Plans and Specifications and shall at all times give the Construction Manager access thereto. Any Drawings included in the Specifications shall be regarded as part thereof and of the Contract. Anything mentioned in these Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in these Specifications, shall be of like effect as though shown or mentioned in both. The Construction Manager will furnish from time to time such drawings, plans, profiles, and information, as it may consider appropriate for the Contractor's guidance. Unless otherwise provided in the Contract Documents, it shall be the duty of the Contractor to see that all provisions are complied with in detail irrespective of the inspections given the work during its progress by the authorized official or its representatives. Any failure on the part of the Contractor to observe the Contract Documents will be sufficient cause for the rejection of the work at any time before its acceptance.

Wherever reference specifications are referred to in these Specifications without designation of year, the reference is to the current or revised specification effective at the time of the City receiving bids, unless otherwise referenced in Section 01060, **REGULATORY REQUIREMENTS AND PERMITS**.

1.05 APPLICABILITY OF ALL PARAGRAPHS OF SPECIFICATIONS

The Technical Specifications are presented in paragraphs for convenience. However, this presentation does not necessarily delineate trades or limits of responsibility. All

paragraphs of the Plans and Specifications are interdependent and applicable to the Project as a whole.

The Specifications and all notes on the Drawings are directed to the Contractor and all Work shall be performed by the Contractor even though phrases such as "the Contractor shall" or "shall be done by the Contractor" are omitted. Where terms such as "approved," "acceptable," "favorably reviewed," "review," "selected," "directed," "equivalent," "equal," or "satisfactory" are used, it shall mean by or to the Construction Manager and/or Design Consultant.

1.06 CONTRACT INTERPRETATION BY THE CONSTRUCTION MANAGER

Any discrepancies found between the Contract Documents and site conditions or any inconsistencies or ambiguities in the Contract Documents shall be immediately reported, in writing, to the Construction Manager. Questions regarding the meaning and intent of the Contract Documents shall be referred in writing by the Contractor to the Construction Manager with a Request for Information. The Construction Manager shall respond to the Contractor in writing with a decision within fifteen (15) days of receipt of the request, or if it is necessary to extend this period, the Construction Manager shall notify the Contractor in writing as to when a decision will be provided.

Work done by the Contractor after its discovery of such discrepancies, inconsistencies or ambiguities without such notice and prior to response from the Construction Manager shall be done at the Contractor's risk.

1.07 ORDER OF PRECEDENCE

In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

1. Addenda, Supplemental Agreements and Change Orders, the one dated more recently having precedence over another dated earlier.
2. Agreement (Section 00500)
3. Permits
4. General Requirements (Sections 01000-01999)
5. Supplementary General Conditions (Section 00800)
6. Instructions to Bidders (Section 00100)
7. General Conditions (Section 00700)
8. Project Plans
9. Technical Specifications (Section 02000 and all others following)
10. Typical Details
11. Reference/Standard Specifications
12. Reference/Standard Plans

Figure dimensions on Drawings shall govern over scaled dimensions, and detailed Drawings shall govern over general or standard Drawings.

1.08 BONDS

The successful Bidder shall, at the time of signing the Agreement, furnish the Bond of Faithful Performance (Section 00610) and the Payment Bond (Section 00620) executed by an admitted surety authorized to conduct business in California and be made payable to the "City of Sausalito."

The Payment Bond shall be in amount equal to one hundred percent (100%) of the Contract Price and shall be for payment of just claims for materials, equipment, labor and subcontractors employed by the Contractor thereon.

The Bond of Faithful Performance shall be in an amount equal to one hundred (100) percent of the Contract Price and shall be for the faithful performance of the Contract, and for the fulfillment of such other requirements as may be provided by Law. The performance bond shall remain in effect to guarantee the repair and replacement of defective equipment, materials, and workmanship, and payment of damages sustained by the City on account of such defects, discovered within one (1) year after final acceptance by the City, for the Work performed under the Contract which, shall remain in effect for a period of one (1) year, to guarantee the repair and replacement, and payments for damages.

Attorneys-in-fact, who sign bid bonds or contract bonds, must file with each bond a notarized and effectively dated copy of their power of attorney as required on bond forms supplied by the City for Contractor use in Sections 00610 and 00620.

The surety company shall familiarize itself with all of the conditions and provisions of this Contract, and it waives the right of special notification of any change or modification of this Contract or of extension of time, or of decreased or increased work, or of the cancellation of the Contract, or of any other act or acts by the City or its authorized agents under the terms of this Contract; and failure to so notify the aforesaid surety companies of changes shall not relieve the surety companies of their obligations under this Contract.

1.09 PENALTY FOR COLLUSION

If, at any time, it is found that the person, firm, or corporation to whom the Contract has been awarded has, in presenting any Bid or Bids, colluded with any other party or parties, then the Contract may at the City's sole election be declared null and void, and the Contractor and its sureties shall be liable for loss or damage which the City may suffer thereby, and the City may advertise for new Bids.

1.10 RIGHTS AND REMEDIES

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to, and not a limitation of, any duties, obligations, rights, and remedies otherwise imposed or available by law.

No action or failure to act by the City, the Design Consultant, or the Construction Manager shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

2 ARTICLE 2 - CONTRACT ADMINISTRATION

2.01 ADMINISTRATION OF THE CONTRACT

The City's Representative, the Construction Manager, and the Design Consultant will provide administration of the Contract as hereinafter described. These parties are designated in Section 00800-1.05, **CONTRACT ADMINISTRATION**. If the status of any of the above parties should change, the City will provide written notice to the Contractor of such change.

In case of the termination of the employment of the Design Consultant or the Construction Manager, the City shall appoint a Design Consultant or a Construction Manager whose status under the Contract Documents shall be that of the former Design Consultant or Construction Manager, respectively.

2.02 CITY'S REPRESENTATIVE

- A. General - The City's Representative has the authority to act on behalf of the City on change orders, progress payments, Contract decisions, acceptability of the Contractor's work, and early possession.
- B. Change Orders - The City's Representative has the authority to accept or reject Change Orders and cost proposals submitted by the Contractor or as recommended by the Construction Manager to the extent that budget for such costs has been approved by the City Council. Any Change Order or cost proposal that, taking into account the total of the Contract Price and the cost of all approved Change Orders and other costs, will exceed the budget approved by the City Council, shall require subsequent City Council approval before it can be authorized.
- C. Progress Payments - The City's Representative has the authority to accept or reject requests for progress payments which have been submitted by the Contractor and recommended by the Construction Manager.
- D. Contract Decisions - Should the Contractor disagree with the Construction Manager's decision with respect to the Contract, the Contractor may appeal to the City's Representative in accordance with the provisions of the Contract.

- E. Acceptability of Work - The City's Representative has the authority to make the final determination of the acceptability of the Work. The City's Representative also has the authority to accept or reject the Design Consultant's recommendations regarding retention of defective work as provided.

2.03 CONSTRUCTION MANAGER

- A. General - The Construction Manager is a representative of the City employed to act as advisor and consultant to the City in construction matters related to the Contract. The term Construction Manager may include more than one individual to perform Contract administration and construction observation. Hereinafter, the term Construction Manager includes any and all designated representatives working under the direction of the Construction Manager.

All instructions to the Contractor and all communications from the Contractor to the City or the Design Consultant shall be forwarded through the Construction Manager. The Construction Manager will have authority to act on behalf of the City only to the extent provided in the Contract Documents. The City has delegated its authority to the Construction Manager to make initial decisions regarding questions which may arise as to the quality or acceptability of materials furnished and work performed, and as to the manner of performance and rate of progress of the work under the Contract. The Construction Manager shall interpret the intent and meaning of the Contract and shall make initial decisions with respect to the Contractor's fulfillment of the Contract and the Contractor's entitlement to compensation. The Contractor shall look initially to the Construction Manager in matters relating to the Contract.

The Construction Manager's authority to act under Section 00700-2.01, **ADMINISTRATION OF THE CONTRACT**, and any decision made by it in good faith either to exercise or not to exercise such authority, shall not be interpreted or construed as control or responsibility of any of the work performed under this Contract.

- B. Representative - The Construction Manager will observe the progress, quality, and quantity of the Work to determine, in general, if the Work is proceeding in accordance with the provisions of the Contract Documents. The Construction Manager shall not be responsible for construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work.

In accordance with the provisions detailed elsewhere in these General Conditions, the Construction Manager will make decisions relative to all matters of interpretation or execution of the Contract Documents.

- C. Observation and Inspections of Construction - The Construction Manager shall observe the construction and shall have the authority to reject work and materials which do not conform to the Contract Documents, and to require special inspection or testing.

Observation and inspection by an inspector is not an authorization to revoke, alter, or waive any requirements of the Specifications. Observation and inspection is the authorization to call the attention of the Contractor to any failure of the Work, materials or workmanship to conform to the Contract Documents. The inspector shall have this authority including the ability to reject materials or, in any emergency, suspend the Work. The Contractor may appeal any such issue which it disagrees with to the Construction Manager for decision. If the decision of the Construction Manager is not satisfactory to the Contractor, the Contractor may appeal such decision to the City's Representative.

- D. Acceptability of the Work - The Construction Manager has the authority to make a recommendation as to the acceptability of the Work.
- E. Change Orders - The Construction Manager has the authority to initiate Change Orders; to reject Change Orders proposed by the Contractor or Design Consultant; to negotiate and recommend acceptance of Change Orders; or to order minor changes in the Work at no cost to the City that do not affect the schedule or quality of the Work..
- F. Construction Schedule - The Construction Manager has the authority to review and recommend acceptance of the Progress Schedule submitted by the Contractor at the start of the Work and subsequent significant revisions for conformance to the specified sequence of work and logic.
- G. Progress Payments - The Construction Manager has the authority to recommend acceptance or rejection of requests for progress payments which have been submitted by the Contractor.
- H. Final Payment - The Construction Manager, with the assistance of the Design Consultant, will conduct inspections to determine the dates of Substantial Completion of the Work and final completion of the Work, and will receive and forward to the City, for the City's review, written warranties, and related documents required by the Contract and assembled by the Contractor.

2.04 DESIGN CONSULTANT

- A. General - The Design Consultant will have the authority to act on behalf of the City only to the extent provided in the Contract Documents.
- B. Interpretations - The Design Consultant has the authority to be the initial interpreter of the technical requirements of the Contract Documents. Either party to the Contract may make written request to the Construction Manager for interpretations necessary for the proper execution or progress of the Work. The Construction Manager shall refer such written requests to the Design Consultant, who will render such interpretations. Where the Contractor has requested an interpretation from the Construction Manager, or been notified by the Construction Manager that such interpretation has been requested by the City, any work done before receipt of such interpretations, if not in accordance with same, shall be removed and replaced or adjusted as directed by the Construction Manager without additional expense to the City.

- C. Acceptability of the Work - The Design Consultant has the authority to make a recommendation as to the acceptability of the Work. The Design Consultant has the authority to recommend acceptance of defective work.
- D. Submittal - The Design Consultant shall receive, through the Construction Manager, shop drawings, product data and samples for review in accordance with Section 01300, **SUBMITTALS**.

The Design Consultant has the authority to review and take other appropriate action upon the Contractor's submittal such as shop drawings, product data and samples, but only for conformance with the design concept of the Work and the information given in the Contract Documents.

3 ARTICLE 3 - CITY

3.01 GENERAL

The City, acting through the City's Representative or the Construction Manager, shall have the authority to act as the sole judge of the Work and materials with respect to both quantity and quality as set forth in the Contract.

3.02 ATTENTION TO WORK

The City's, Construction Manager's and Design Consultant's representatives are designated in Section 00800-1.05, **CONTRACT ADMINISTRATION**. The Construction Manager's designated representative will normally be available at the site of the Work. An alternate representative will be designated when the designated Construction Manager's representative is not available at the site of the Work.

3.03 OBSERVATION AND INSPECTION

In addition to the Construction Manager's designated representative, the City may provide one or more inspectors to the Construction Manager to observe the work and with the same authority as provided for in Section 00700-2.03C, **Observation and Inspections of Construction**.

Separate and independent from the observations and inspections above, the project may be inspected by Building Officials for code compliance. Such inspectors shall have the authority provided to them by local jurisdiction.

3.04 CITY'S RIGHT TO USE OR OCCUPY

The City reserves the right, prior to Substantial Completion, to occupy, or use, any completed part or parts of the Work, providing these areas have been approved for occupancy by the City. The exercise of this right shall in no way constitute an acceptance of such parts, or any part of the Work, nor shall it in anyway affect the dates and times when progress payments shall become due from the City to the Contractor or in any way prejudice the City's rights in the Contract, or any bonds guaranteeing the same. The

Contract shall be deemed completed only when all the Work contracted has been duly and properly performed and accepted by the City.

Prior to such occupancy or use, the City and Contractor shall agree in writing regarding the responsibilities assigned to each of them for payments, security, maintenance, heat, utilities, damage to the Work, insurance, the period for correction of the Work, and the commencement of warranties required by the Contract Documents.

In exercising the right to occupy or use completed parts of the Work prior to the Substantial Completion thereof, the City shall not make any use which will materially increase the cost to the Contractor, without increasing the Contract Price, nor materially delay the completion of the Contract, without extending the time for completion.

The part or parts of the Work, if any, which the City anticipates the use or occupancy of prior to Substantial Completion are listed below:

- None

Failure to include a part of the Work in the above referenced section, shall not limit the City's right to use or occupy parts of the Work not listed.

3.05 CITY'S RIGHT TO CARRY OUT THE WORK

If the Contractor should neglect to prosecute the Work properly or fail to perform any provision of the Contract, and fails within five days after receipt of written notice from the City to commence and continue correction of such neglect or deficiency with diligence and promptness, the City may, and without prejudice to any other remedy, make good such default, neglect or failure.

The City also reserves the right to perform any portion of the Work due to an emergency threatening the safety of the Work, public, City, and any property or equipment.

In either case, a Change Order shall be issued unilaterally deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies and/or for performing such work, including compensation for the Design Consultant's, the Construction Manager's, and the City's additional services made necessary by such default, neglect, failure, or emergency.

3.06 CITY'S RIGHT TO PERFORM WORK AND TO AWARD SEPARATE CONTRACTS

The City reserves the right to perform work related to the Project with the City's own forces, and to award separate Contracts in connection with the Project or other work on the Site. If the Contractor claims that delay, damage, or additional cost is involved because of such action by the City, the Contractor shall make such claim as provided elsewhere in the Contract Documents.

When separate Contracts are awarded for different portions of the Project or other work on the Site, the term “Contractor” in the Contract Documents in each case shall mean the Contractor who executes each separate Agreement.

The City will provide for the coordination of the work of the City’s own forces and of each separate contractor with the Work of the Contractor, who shall cooperate therewith as provided in Section 00700-4.10, **COOPERATION WITH OTHER CONTRACTORS**.

3.07 RESPONSIBILITY OF THE CITY

The City shall not be held responsible for the care or protection of any material or parts of the Work prior to the final Acceptance, except as expressly provided in these Specifications.

4 ARTICLE 4 - CONTRACTOR

4.01 STATUS OF CONTRACTOR AND SUBCONTRACTORS

- A. It is stipulated and agreed that the Contractor shall be an independent contractor in the performance of this Contract and shall have complete charge of all persons engaged in performance of the Work. The Contractor shall perform the Work in accordance with its own methods, subject to compliance with the requirements of the Contract.
- B. Subcontractors will not be recognized as having a direct relationship with the City. The persons engaged in the Work, including employees of subcontractors and suppliers, will be considered employees of the Contractor and their work shall be subject to the provisions of the Contract. References in these Contract Documents to actions required of subcontractors, manufacturers, suppliers, or any person other than the Contractor, the City or the Construction Manager shall be interpreted as requiring that the Contractor shall require such subcontractor, manufacturer, supplier or person to perform the specified action.

The Contractor shall not employ any subcontractors that are not properly licensed in accordance with State law. Prior to commencement of any work by a subcontractor, the Contractor shall submit verification to the Construction Manager that the subcontractor is properly licensed for the work it will perform.

Contractor shall be fully responsible to City for the performance, acts and omissions of its subcontractors, and of persons directly or indirectly employed by them. Each subcontract shall expressly incorporate by reference the terms of this Contract, including the following provisions:

- Each subcontractor shall carry insurance as required by this Contract, and provide evidence of such insurance, as provided in Section 00800-2.01, **INSURANCE**.

- Each subcontractor shall be obligated to defend, indemnify, and hold the City harmless from all claims arising from the subcontractor's portion of the Work in the same manner as Contractor.
- Each subcontractor shall grant the City a license to use its drawings and design materials as provided in the Agreement.
- Each subcontract shall acknowledge the City's right to suspend or terminate the Contract, and waive any right to anticipated profits in the event of such termination.

The removal and/or substitution of any subcontractor listed in Section 00430, **DESIGNATION OF SUBCONTRACTORS**, shall be made by the Contractor and the City only as provided for in Public Contract Code Section 4100 *et seq.*

4.02 CONTRACTOR'S REPRESENTATIVE

The Contractor shall designate in writing, before starting work, an authorized representative who shall have complete authority to represent and to act for the Contractor. Said authorized representative, or designated alternate, that has the authority to act in matters relating to the Contract, shall be personally present at the work site at all times while work is actually in progress on the Contract. During periods when work is suspended, arrangements acceptable to the Construction Manager shall be made for any emergency work that may be required. The Contractor's authorized representative, or designated alternate(s) shall be fluent and proficient in the English language in order to understand, receive, and carry out oral and written communications or instructions relating to all job functions and responsibilities.

When the Contractor consists of two or more persons, firms, partnerships, or corporations functioning on a joint venture basis, said Contractor shall designate in writing to the Construction Manager, the name of their authorized representative who shall have supreme authority to direct the Work and to whom orders will be given by the Construction Manager, to be received and obeyed by the Contractor.

Information shall include the representative's name, street address, town, and telephone number, and the mailing address if different from the street address.

The Contractor shall give its personal attention to and shall supervise the Work to the end that it shall at all reasonable times be prosecuted faithfully; and when the authorized representative or designated alternate is not personally present on the Work, the representative shall at all reasonable times be represented by a competent superintendent or foreman who shall receive and obey all instructions or orders given under this Contract, and who shall have full authority to supply materials, tools, and labor without delay, and who shall be the legally appointed representative of the Contractor. The Contractor shall be liable for the faithful observation of any instructions delivered to the Contractor or to its authorized representative.

4.03 LANDS AND RIGHTS OF WAY

With the approval of the Construction Manager, the Contractor may use portions of the City's site for storage of construction equipment, materials and field offices. The City will not accept any responsibility for damage or loss of the Contractor's equipment or materials stored on any project related site caused by vandalism, nature, or otherwise, suffered by the Contractor. Protection of all construction equipment, stores, and supplies shall be the sole responsibility of the Contractor. Where additional work space is desired by the Contractor, it shall be the Contractor's sole responsibility and expense to obtain such a space for its use.

4.04 FEES AND PERMITS

The requirements for fees and permits are specified in Section 01060-1.02, **FEES AND PERMITS**.

4.05 COMPLIANCE WITH LAWS

The Contractor shall keep itself and its subcontractors fully informed of all existing and future legislated State and Federal Laws and City and County ordinances and regulations which in any manner affect those engaged or employed in the Work, or the materials and equipment used in the Work, or which in any way affect the conduct of the Work, and all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. If any discrepancy or inconsistency is discovered in the Drawings, Specifications, or in any other part of this Contract, in relation to any such law, ordinance, regulation, order or decree, the Contractor shall forthwith report of the same to the Construction Manager in writing. The Contractor shall at all times observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees; and shall protect and indemnify the City, the Construction Manager, the Design Consultant, and all of their officers, agents, employees and servants against any claim or liability arising from or based upon the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor itself or by its employees.

A. Particular attention is called to the following:

1. The Contractor shall abide by and shall include in its contracts and agreements with subcontractor(s) for the performance of Work on the City's Project a copy of the provisions the California Labor Code Sections 1771, 1775, 1776, 1777.5, 1813, and 1815.
2. Eight Hour Day Limitation – In accordance with the provisions of Division 2, Part 7, Chapter 1, Article 3 of the Labor Code, State of California, and in particular Sections 1810 to 1815 inclusive, thereof, eight (8) hours labor shall constitute a day's work and no laborer, worker, or mechanic in the employ of said Contractor, or any subcontractor doing or contracting to do any part of the Work contemplated by this Contract, shall be required or permitted to work more than eight (8) hours in any one calendar day, and forty (40) hours in any one calendar week unless

compensated at not less than time and a half as set forth in California Labor Code Section 1815. However, if the prevailing wage determination requires a higher rate of pay for overtime than is required under said Section 1815, then the overtime rate must be paid, as specified in California Code of Regulations Title 8, Group 3, Section 16200(a)(3)(F). The Contractor and each subcontractor shall also keep an accurate record showing the names and actual hours worked of all workers employed by them in connection with the work contemplated by this Contract, which record shall be open at all reasonable hours for the inspection of the City or its officers or agents and by the Division of Labor Standards Enforcement of the Department of Industrial Relations, their deputies or agents; and it is hereby further agreed that said Contractor shall forfeit as a penalty to the Authority, the sum of twenty-five and No/100 Dollars (\$25.00) for each laborer, worker or mechanic employed in the execution of this Contract by the Contractor or by any subcontractor for each calendar day during which such laborer, worker or mechanic is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in one calendar week in violation of this stipulation.

- B. Prior to commencing the Work, Contractor shall comply with the provisions of Labor Code 1777.5, including but not limited to the submission of contract award information to an applicable apprenticeship program that can supply apprentices to the site of the Work. Such information shall include an estimate of journeyman hours to be performed under this Contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall be submitted to the City if requested by the City.

A determination by the Chief of the Division of Apprenticeship Standard's that Contractor or its subcontractors have knowingly violated Labor Code 1777.5 shall forfeit as a civil penalty an amount not exceeding one hundred dollars (\$100) for each full calendar day of noncompliance. Contractor or its subcontractor, who knowingly commits a second or subsequent violation of Labor Code 1777.5 within a three-year period, where the noncompliance results in apprenticeship training not being provided as required, shall forfeit as a civil penalty the sum of not more than three hundred dollars (\$300) for each full calendar day of noncompliance. Upon the receipt of a determination that a civil penalty has been imposed by the Chief of the Division of Apprenticeship Standards, the City shall withhold the amount of the civil penalty from the next progress payment then due or to become due Contractor.

- C. Receipt of Workers' Wages, Fee for Registering or Placing Persons In Public Works - Attention is directed to the provisions of Sections 1778 and 1779 of the California Labor Code, which read as follows:

Section 1778. "Every person, who individually or as a representative of an awarding or public body or officer, or as a contractor or subcontractor doing public work, or agent or officer thereof, who takes, receives or conspires with another to take or receive, for its own use or the use of any other person any

portion of the wages of any workman or working subcontractor, in connection with services rendered upon any public work is guilty of a felony."

Section 1779. "Any person or agent or officer thereof who charges, collects, or attempts to charge or collect, directly or indirectly, a fee or valuable consideration for registering any person for public work, or for giving information as to where such employment may be procured, or for placing, assisting in placing, or attempting to place, any person in public work, whether the person is to work directly for the state, or any political subdivision or for a contractor or subcontractor doing public work is guilty of a misdemeanor."

- D. Labor Discrimination. Attention is directed to Section 1735 of the Labor Code, which reads as follows:

"No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for violation of this chapter."

- E. Worker's Compensation Insurance - The provisions of Section 00800-2.01B, Worker's Compensation Insurance, shall be considered as repeated herein.
- F. Lateral and Subjacent Supports - Attention is directed to Section 832 of the Civil Code of the State of California relating to lateral and subjacent supports, and wherever structures or improvements adjacent to the excavation may be damaged by such excavation, the Contractor shall comply with this law. As provided in Labor Code Section 6707, a separate bid item is provided for costs of shoring and bracing of excavations five feet or more in depth.
- G. Safety Standards - The Contractor shall comply with all applicable provisions of the Safety and Health Regulations of Construction, promulgated by the Secretary of Labor under Section 107 of the Contract Work Hours and Safety Standards Act (40 USC 327 et. seq.) as set forth in Title 29, C.F.R., CAL/OSHA, and the regulations issued thereunder. Compliance shall be the Contractor's sole responsibility, and neither the City, the Construction Manager nor the Design Consultant shall have any liability for non-compliance. See Section 00700-4.07, **SAFETY**, for additional safety requirements.

4.06 COMPLIANCE WITH ENVIRONMENTAL LAWS

During construction, including any suspension of the Work, the Contractor shall comply with all pertinent requirements of Federal, State, and local environmental laws and regulations, including, but not limited to, the Federal Clean Air Act, State and local air pollution and noise ordinances, construction site erosion control regulations. Specific requirements are further specified in Section 01060, **REGULATORY REQUIREMENTS AND PERMITS**, and Section 01560, **TEMPORARY CONTROLS**.

4.07 SAFETY

- A. Contractor's Safety Responsibility - The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the Work. This requirement shall apply continuously and not be limited to normal working hours. Safety provisions shall conform to U.S. Department of Labor (OSHA), the California Occupational Safety and Health Act, and all other applicable Federal, State, County, and local laws, ordinances, codes, the requirements set forth below, and any regulations that may be detailed in other parts of these Contract Documents. In the event of conflicting requirements, the most stringent requirement as it pertains to the Contractor's safety responsibility, shall apply and shall be followed by the Contractor.

No provision of the Contract Documents shall act to make the City, the Construction Manager, Design Consultant or any other party than the Contractor responsible for safety. The Contractor agrees that for purposes of California Labor Code Section 6400 and related provisions of law the Contractor, the Contractor's privities and any other entities acting pursuant to this Contract will be "employers" responsible for furnishing employment and a place of employment that is safe and healthful for the employees, if any, of such entities acting pursuant to this Contract and that neither the City nor the Construction Manager, Design Consultant or their respective officers, officials, employees, agents or volunteers or other authorized representatives will be responsible for having hazards corrected and /or removed at the location(s) where the Work is to be performed. The Contractor agrees that neither the City nor the Construction Manager, Design Consultant or their respective officers, officials, employees, agents or volunteers or other authorized representatives will be responsible for taking steps to protect the Contractor's employees from such hazards, or for instructing the Contractor's employees to recognize such hazards or to avoid the associated dangers. The Contractor agrees that with respect to the Work to be performed under this Contract and the location(s) where such Work is to be performed, the Contractor will be responsible for not creating hazards, and for having hazards corrected and/or removed. The Contractor agrees that through the safety obligations contained in this Contract and the Contractor's own inspection of the site(s) where the Contract Work is to be performed, the Contractor is aware and has been notified of the hazards to which the Contractor's employees may be exposed in the performance of Contract Work. The Contractor has taken and/or will take appropriate, feasible steps to protect the Contractor's employees from such hazards, and has instructed and/or will instruct its employees to recognize such hazards and how to avoid the associated dangers. The Contractor agrees that neither the City nor the Construction Manager, Design Consultant or their respective officers, officials, employees, agents or volunteers or other authorized representatives will be "employers" pursuant to California Labor Code Section 6400 and related provisions of law with respect to the Contractor, the Contractor's privities or other entities acting pursuant to this Contract.

The Contractor shall indemnify, defend and hold Owner and Construction Manager, Design Consultant and their respective officers, officials, employees, agents and volunteers or other authorized representatives harmless to the full extent permitted by law concerning liability related to the Contractor's safety obligations in accordance with Section 00800-2.01E, **Indemnification**.

If death or serious injuries or serious damages occur, the accident shall be reported immediately by telephone or messenger to both the Construction Manager and the City. In addition, the Contractor shall furnish the Construction Manager with a copy of the Employer's Report of Injury immediately following any incident requiring the filing of said report during the prosecution of the Work under this Contract. The Contractor shall also furnish the Construction Manager with a copy of the Employer's Report of Injury involving any subcontractors on this project. The Contractor shall make all reports as are, or may be, required by any authority having jurisdiction, and permit all safety inspections of the Work being performed under this Contract.

If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Construction Manager, giving full details of the claim.

- B. Safety Program - The Contractor shall establish, implement, and maintain a written injury prevention program as required by Labor Code Section 6401.7. Before beginning the Work the Contractor shall prepare and submit to the Construction Manager a Contractor Safety Program that provides for the implementation of all of the Contractor's safety responsibilities in connection with the Work at the site and the coordination of that program and its associated procedures and precautions with safety programs, precautions and procedures of each of its subcontractors and other prime Contractors performing work at the site. The Contractor shall be solely responsible for initiating, maintaining, monitoring, coordinating, and supervising all safety programs, precautions, and procedures in connection with the Work and for coordinating its programs, precautions, and procedures of the other prime contractors and subcontractors performing the Work at the site. The Safety Program should contain all the necessary elements for the Contractor to administer its program on site. At a minimum, this written Safety Program shall address the elements required by Labor Code Section 6401.7.

The Contractor's compliance with requirements for safety and/or the Construction Manager's review of the Contractor's Safety Program shall not relieve or decrease the liability of the Contractor for safety. The Construction Manager's review of the Contractor's Safety Program is only to determine if the above listed elements are included in the program.

- C. Safety Supervisor - The Contractor shall appoint an employee as safety supervisor who is qualified and authorized to supervise and enforce compliance with the Safety Program. The Contractor shall notify the Construction Manager in writing prior to the commencement of work of the name of the person who will act as the

Contractor's safety supervisor and furnish the safety supervisor's resume to the Construction Manager.

The Contractor will, through and with its Safety Supervisor, ensure that all of its employees and its subcontractors of any tier fully comply with the Project Safety Policies. The Safety Supervisor shall be a full-time employee of the Contractor whose responsibility shall be for supervising compliance with applicable safety requirements on the work site and for developing and implementing safety training classes for all job personnel. The City shall have the authority to require removal of the Contractor's Safety Supervisor if the representative is judged to be improperly or inadequately performing the duties; however, this authority shall not in any way affect the Contractor's sole responsibility for performing this work safely, nor shall it impose any obligation upon the City to ensure the Contractor performs its work safely.

D. Safety and Protection - The Contractor shall take all necessary protection to prevent damage, injury, and loss to:

- All employees on the Project, employees of all subcontractors, and other persons and organizations who may be affected thereby;
- All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
- Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.

The Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and of underground facilities and utility agencies when prosecution of the Work may affect them and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor, supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the Contractor.

E. Excavation Safety - In accordance with the provisions of Section 6705 of the Labor Code, the Contractor shall submit, in advance of excavation of any trench or trenches five feet or more in depth, a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plans vary from the shoring system standards set forth in the Construction Safety

Orders of the Division of Industrial Safety in Title 8, Subchapter 4, Article 6, California Code of Regulations, the plans shall be prepared and signed by a registered civil or structural engineer employed by the Contractor, and all costs therefore shall be included in the price named in the Contract for completion of the Work as set forth in the Contract Documents. Nothing in this section shall be deemed to allow the use of a shoring, bracing, sloping, or other protective system less effective than that required by the Construction Safety Orders. Nothing in this section shall be construed to impose a tort liability on the City, the Design Consultant, the Construction Manager, nor any of their agents, consultants, or employees. The City's review of the Contractor's excavation plan is only for general conformance to the Construction Safety Orders.

Prior to commencing any excavation, the Contractor shall designate in writing to the Construction Manager the "competent person(s)" with the authority and responsibilities designated in the Construction Safety Orders.

- F. Safety Emergencies - In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, the Contractor, without special instruction or authorization from the Construction Manager, is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Construction Manager prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby.
- G. Safety Violations - Should the Contractor fail to correct a condition, the City shall have the right to notify the Contractor through the Construction Manager that an unsafe condition may exist and must be corrected or the work in question can be stopped in accordance with Section 00700-6.06, **SUSPENSION OF WORK**, until the condition is corrected to the satisfaction of the City. No extension of time or additional compensation will be granted as a result of any stop order so issued. The notification and suspension of such work or the failure to provide such notification and suspension by the City shall not relieve the Contractor of its sole responsibility and liability for safety.

The City shall have the authority to require the removal from the project of the foreman and/or superintendent in responsible charge of the work where safety violations occur.

- H. Equipment Safety Provisions - The completed Work shall include all necessary permanent safety devices, such as machinery guards and similar ordinary safety items, required by the State and Federal (OSHA) industrial authorities and applicable local and national codes. Further, any features of the Work, including City-selected equipment, subject to such safety regulations shall be fabricated, furnished, and installed in compliance with these requirements. All equipment furnished shall be electrically grounded and provided guards and protection as required by safety codes. Where vapor-tight or explosion-proof electrical installation is required by safety codes, this shall be provided. Contractors and manufacturers of equipment shall be held responsible for compliance with the

requirements included herein. The Contractor shall notify all equipment suppliers and subcontractors of the provisions of this paragraph.

- I. Confined Spaces – The Work requires work in confined spaces and requires compliance with CAL/OSHA and Federal OSHA requirements. Confined spaces for the purposes of this section shall be as defined by the Division of Industrial Safety. Notwithstanding any classifications relative to the Tunnel Safety Orders, work within confined spaces of this project is subject to the definitions and applicable provisions of Section 5156 et. seq., Title 8, Division 1, Chapter 4, Subchapter 7, Group 16, Article 108 of California Code of Regulations. Including exposure to hydrogen sulfide, methane, carbon dioxide and other gases and vapors commonly found in municipal sewers which could have, or has the potential of having Immediate Danger to Life or Health Conditions (IDLH).
- J. Public Safety and Convenience - The Contractor shall conduct his work so as to ensure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work and to ensure the protection of persons and property. No road or street shall be closed to the public except with the permission of the Construction Manager and the proper governmental authority. Fire hydrants on or adjacent to the work shall be accessible to fire fighting equipment. Temporary provisions shall be made by the Contractor to ensure the use of sidewalks, private and public driveways and proper functioning of gutters, sewer inlets, drainage ditches and culverts, irrigation ditches and natural water courses.

4.08 PROVISIONS FOR HANDLING EMERGENCIES

It is possible that emergencies may arise during the progress of the Work that may require special treatment or make advisable extra shifts of labor forces to continue the Work for twenty-four (24) hours per day. These emergencies may be caused by damage or possible damage to nearby existing structures or property by reason of the Work under construction, or by storm, accidents, or leakage. The Contractor shall be prepared in case of such emergencies to make all necessary repairs and shall promptly execute such work when required by the Construction Manager. The determinations made by the Construction Manager for handling emergencies shall be final and conclusive upon the parties.

Upon start of the Work, Contractor shall provide means for immediate emergency notification of Contractor's designated representative and designated emergency alternates.

4.09 NONSTANDARD WORKING HOURS

The Contractor may be required to prosecute the Work at night or outside of the normal working hours defined in Section 01560-1.07, **WORKING HOURS**. Such work may be required due to project and/or operational constraints as defined in Section 01010, **SUMMARY OF WORK**, or if emergencies arise as provided for in Section 00700-4.08, **PROVISIONS FOR HANDLING EMERGENCIES**. When required, ordered, or permitted to work at night, the Contractor shall provide sufficient and satisfactory

lighting and other facilities therefore. For work outside of the normal working hours, the Contractor shall receive no extra payment, but compensation shall be considered as having been included in the price stipulated for the Work, except for authorized work performed outside of the Contract requirements.

4.10 COOPERATION WITH OTHER CONTRACTORS

This Paragraph shall serve as notice to the Contractor that the City may let other contracts for other work at or near the site of this Work. The Contractor shall afford other contractors reasonable opportunity for the delivery and storage of their materials and the execution of their work, and shall properly connect and coordinate its work with theirs.

Should construction be under way by other forces or by other contractors within or adjacent to the limits of the work or in the vicinity of the Work to be done under this Contract, the Contractor shall so conduct its operations as to interfere to the least possible extent with the Work of such other forces or contractors.

Any difference or conflicts which may arise between the Contractor and any other forces or contractors, creating delays or hindrance to each other, shall be adjusted as determined by the Construction Manager.

Section 01010, **SUMMARY OF WORK**, indicates anticipated other potential construction activities within or adjacent to Work to performed in this Contract.

5 ARTICLE 5 - CONTROL OF WORK AND MATERIAL

5.01 MEANS, METHODS AND APPLIANCES

The means, methods and appliances adopted by the Contractor shall be planned and executed to, in the opinion of the Construction Manager, produce the highest grade quality of work and will enable the Contractor to complete the Work in the time agreed upon. The City and Construction Manager shall not supervise, direct, or have control over, or be responsible for, Contractor's means, methods and appliances of construction or for the safety precautions and programs incident thereto, or for any failure of Contractor to comply with laws and regulations applicable to the furnishing or performance of Work. However, if at any time the means, methods and appliances appear inadequate or of inferior quality, the Construction Manager may order the Contractor to improve their character or efficiency, and the Contractor shall conform to such order; failure of the Construction Manager to order such improvement of methods of efficiency will not relieve the Contractor from its obligation to perform satisfactory work and to finish it in the time agreed upon.

5.02 CHARACTER OF WORKERS

None but competent forepersons and workers shall be employed on work requiring special qualifications; and, when required by the Construction Manager, the Contractor shall remove from the work any person who commits trespass, or is, in the opinion of the Construction Manager, disorderly, dangerous, insubordinate, incompetent, or otherwise

objectionable. Such discharge shall not be the basis of any claim for compensation or damages against the Construction Manager, the City, or any of its officers or representatives.

5.03 MATERIALS AND WORKMANSHIP

Unless otherwise indicated in these Specifications, materials and equipment for the construction work shall be the best grade in quality of a manufacturer regularly engaged in the production of such materials and equipment or materials and equipment of comparable character. All materials must be of the specified quality and equal to approved samples, if samples have been submitted. All work shall be done and completed in the best workmanlike manner, obtainable in the local market. All permanent materials and equipment shall be new unless otherwise specified.

Notwithstanding any omission from these Specification or the Drawings it shall be the duty of the Contractor to call the Construction Manager's attention to apparent errors or omissions and request instructions before proceeding with the Work. The Construction Manager may, by appropriate instructions correct errors and supply omitted information. Such instructions shall be as binding upon the Contractor as though contained in the original Specifications or Drawings.

All defective work or materials shall be promptly removed from the premises by the Contractor, whether in place or not, and shall be replaced or renewed in such manner as the Construction Manager may direct. All materials and workmanship of whatever description shall be subjected to the inspection of, and rejection by, the Construction Manager if not in conformance with the Contract Documents.

Any defective material or workmanship, or any unsatisfactory or imperfect work which may be discovered before the final Acceptance of the Work or within one (1) year thereafter, shall be corrected immediately on the requirement of the Construction Manager, without extra charge, notwithstanding that it may have been overlooked in previous inspections and estimates. Failure to inspect work shall not relieve the Contractor from any obligation to perform sound and reliable work as herein described.

5.04 EXISTING UTILITIES

A. General - The location of known existing utilities and pipelines are shown on the Plans in their approximate locations. However, nothing herein shall be deemed to require the City to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the site of the Project can be inferred from the presence of other visible facilities, such as buildings, cleanouts, meter and junction boxes, on or adjacent to the site of the construction.

The City will assume the responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the construction site if such utilities are not identified by the City in the Contract Documents or which can reasonably be inferred from the presence of other visible facilities.

- B. Utility Location - It shall be the Contractor's responsibility to determine the exact location and depth of all utilities, including service connections, which have been marked by the respective utility owners and which the Contractor believes may affect or be affected by the Contractor's operations. The Contractor shall not be entitled to additional compensation nor time extensions for work necessary to avoid interferences nor for repair to damaged utilities if the Contractor does not expose all such existing utilities as required by this section.

Pursuant to Government Code Section 4216.2 the Contractor shall contact the appropriate regional notification center at least two (2) working days before, but not more than 14 calendar days prior to commencing any excavation. The Contractor shall request that the utility owners conduct a utility survey and mark or otherwise indicate the location of their service.

After the utility survey is completed, the Contractor shall commence "potholing" or hand digging to determine the actual location of the pipe, duct, or conduit. The Construction Manager shall be given notice prior to commencing potholing operations. The Contractor shall uncover all piping and conduits, to a point one (1) foot below the pipe, where crossings, interferences, or connections are shown in the Contract Documents, prior to trenching or excavating for any pipe or structures, to determine actual elevations. New pipelines shall be laid to such grade as to clear all existing facilities which are to remain in service for any period subsequent to the construction of the run of pipe involved.

- C. Utility Relocation and Repair - If interferences occur at locations other than those indicated in the Contract Documents with reasonable accuracy, the Contractor shall notify the Construction Manager in writing. The Construction Manager will supply a method for correcting said interferences in accordance with the responsibilities of this section and Government Code Section 4215.

The City shall compensate the Contractor for the costs of locating and repairing damage not due to the failure of the Contractor to exercise reasonable care, and for removing or relocating such main or trunk-line utility facilities not indicated in the Contract Documents with reasonable accuracy, and for the cost of equipment on the Project necessarily idled during such work. The payment for such costs will be made as provided in Section 00700-7.01, **CHANGE ORDERS**. The Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay is caused by the failure of the City or utility company to provide for removal or relocation of such utility facilities. Requests for extensions of time arising out of utility relocation or repair delays shall be filed in accordance with Section 01310-1.06, **TIME IMPACT ANALYSES**.

The public utility, where they are the owner of the affected utility, shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a reasonable price. The right is reserved to the City and the owners of utilities or their authorized agents to enter upon the Work area for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to

their properties. The Contractor shall cooperate with forces engaged in such work and shall conduct its operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such forces and shall allow the respective utilities time to relocate their facility.

When the Contract indicates that a utility is to be relocated, altered or constructed by others, the City will conduct all negotiations with the utility company and the work will be done at no cost to the Contractor, unless otherwise stipulated in the Contract.

Temporary or permanent relocation or alteration of utilities desired by the Contractor for its own convenience shall be the Contractor's responsibility and it shall make arrangements and bear all costs for such work.

6 ARTICLE 6 - PROGRESS OF THE WORK

6.01 COMMENCEMENT OF WORK

Within thirty (30) calendar days after receipt of the required bonds and evidences of insurance and the executed Agreement from the Contractor, written Notice to Proceed will be given by the City to Contractor. Notwithstanding other provisions of the Contract, the Contractor shall not be obligated to perform work, and the City shall not be obligated to accept or pay for work performed by the Contractor, prior to Notice to Proceed. The Contractor shall provide the required Contract bonds and evidences of insurance prior to Notice to Proceed and commencing work at the Site.

The Contractor shall commence the Work covered by this Contract within ten (10) days after the date established in the Notice to Proceed for the commencement of Contract Time.

The Contractor shall give the Construction Manager written notice not less than two (2) working days in advance of the actual date on which the work will be started. The Contractor shall be entirely responsible for any delay in the Work which may be caused by its failure to give such notice.

6.02 CONTRACT TIME

Time shall be of the essence of the Contract. The Contractor shall prosecute the Work so that the various portions of the project shall be Substantially Complete and ready for use within the time specified in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**. It is expressly understood and agreed by and between the Contractor and the City that the Contract time for completion of the Work described herein is a reasonable time taking into consideration the average climatic and economic conditions and other factors prevailing in the locality and the nature of the Work. The Contractor is hereby advised that the Contractor's Bid is to be based on the entire Contract Time and the Contractor shall include its field and home office overhead costs in the Bid for the entire Contract Time.

6.03 DELAYS

- A. Notice of Delays - When the Contractor foresees a delay in the prosecution of the Work and, in any event, immediately upon the occurrence of a delay, and in any event no later than five days from the event giving rise to the delay, the Contractor shall notify the Construction Manager in writing of the probability of the occurrence and the estimated extent of the delay, and its cause. The Contractor shall take immediate steps to prevent, if possible the occurrence or continuance of the delay. The Contractor agrees that no claim shall be made for delays, which are not called, to the attention of the Construction Manager at the time of their occurrence.
- B. Non-Excusable Delays - Non-excusable delays in the prosecution of the Work shall include delays which could have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its subcontractors at any tier level, or suppliers. The Contractor shall receive no compensation for such delay.
- C. Excusable Delays - Excusable delays in the prosecution or completion of the Work shall include delays which result from causes beyond the control of the Contractor and City and which could not have been avoided by the exercise of care, prudence, foresight, and diligence on the part of the Contractor or its subcontractors, at any tier level, or suppliers. The Contractor shall receive no compensation for such delay, but the Contract Time may be extended as provided in Section 6.04. Excusable delays are as further defined below.
 - 1. Abnormal Delays - Delays caused by acts of god, fire, unusual storms, floods, tidal waves, earthquakes, strikes, labor disputes, freight embargoes, and shortages of materials shall be considered as excusable delays insofar as they prevent the Contractor from proceeding with at least seventy-five (75) percent of the normal labor and equipment force for at least five (5) hours per day toward completion of the current critical activity item(s) on the latest Favorably Reviewed Progress Schedule.
 - 2. Weather Delays - Should unusual inclement weather conditions or the conditions resulting from weather prevent the Contractor from proceeding with seventy-five (75) percent of the normal labor and equipment force engaged in the current critical activity item on the latest Favorably Reviewed Progress Schedule for a period of at least five (5) hours per day toward completion of such operation or operations, and the crew is dismissed as a result thereof, it shall be a weather delay day.
 - 3. Material Shortages - Upon the submission of satisfactory proof to the Construction Manager by the Contractor, shortages of material may be acceptable as grounds for granting a time extension. In order that such proof may be satisfactory and acceptable to the Construction Manager, it must be demonstrated by the Contractor that the Contractor has made every effort to obtain such materials from all known sources within reasonable reach of the proposed Work. Only the physical shortage of material, caused by unusual circumstances, will be considered under these provisions as a cause for extension of time, and no consideration will be given to any claim that material could not be obtained at a reasonable,

practical, or economical cost or price, unless it is shown to the satisfaction of the Construction Manager that such material could have been obtained only at exorbitant prices entirely out of line with current rates, taking into account the quantities involved and usual practices in obtaining such quantities. A time extension for shortage of material will not be considered for material ordered or delivered late or whose availability is affected by virtue of the mishandling of procurement. The above provisions apply equally to equipment to be installed in the Work.

- D. **Compensable Delays** - Compensable delays in the prosecution or completion of the Work shall include delays that occur through no fault of the Contractor and prevent the Contractor from proceeding with at least seventy-five (75) percent of the normal labor and equipment force for at least five (5) hours per day toward completion of the current critical activity item(s) on the latest Favorably Reviewed Progress Schedule due to the following cause(s):
1. Delays due solely to the actions and/or inactions of the City.
 2. Delays due to differing site conditions as defined in Section 00700-7.02, **DIFFERING SITE CONDITIONS**.
 3. Delays due to other contractors employed by the City who interfere with the Contractor's prosecution of the Work as defined above.

Concurrent Delays - Concurrent delays are those delay periods when the prosecution of the Work is delayed during the same period of time due to causes from a combination of the delays defined in Sections 00700-6.03B, **Non-Excusable Delays**, 00700-6.03C, **Excusable Delays**, or 00700-6.03D, **Compensable Delays**. During such concurrent delay periods, time extensions will be granted in accordance with Section 00700-6.04, **TIME EXTENSIONS**; however, the Contractor shall not be compensated for its overhead costs as defined in Section 00700-6.04C, **Indirect Overhead**, and the City shall not assess its actual costs as defined in Section 00700-6.04A, **Non- Excusable Delays**.

6.04 TIME EXTENSIONS

- A. **Non-Excusable Delays** - The City, at its sole option, may grant an extension to milestone or completion dates for non-excusable delays. If the City grants an extension of time for non-excusable delays, the Contractor agrees to pay the City's actual costs, including charges for engineering, inspection and administration incurred during the extension.
- B. **Excusable or Compensable Delays** - If the Contractor is delayed in the performance of its Work as defined in Sections 00700-6.03C, **Excusable Delays**, or 00700-6.03D, **Compensable Delays**, then milestone and Contract completion dates may be extended by the City for such time that, in the City's and Construction Manager's determination, the Contractor's completion dates will be delayed, provided that the Contractor strictly fulfills the following:
1. The Contractor shall provide notification, in accordance with Section 00700-6.03A, **Notice of Delays**, and submit in writing a request for an

extension of time to the Construction Manager stating at a minimum the probable cause of the delay and the number of days being requested. The time extension request shall be submitted in accordance with the requirements of Section 01310-1.06, **TIME IMPACT ANALYSES**.

2. If requested by the Construction Manager, the Contractor shall promptly provide sufficient information to the Construction Manager to assess the cause or effect of the alleged delay, or to determine if other concurrent delays affected the Work.
3. Weather Delays - The Contractor will be granted a non-compensable time extension for weather caused delays, pursuant to Section 00700-6.03 C2, **Weather Delays**, over and above an allowance as provided for in Section 00800-1.03, **WEATHER DAYS**. No compensable time extensions for weather delays will be granted until the total number of weather days exceeds this allowance.

Should the Contractor fail to fulfill any of the foregoing, which are conditions precedent to the right to receive a time extension, the Contractor waives the right to receive a time extension.

During such extension of time, neither extra compensation for engineering, inspection, and administration nor damages for delay will be charged to the Contractor. It is understood and agreed by the Contractor and City that time extensions due to excusable or compensable delays will be granted only if such delays involve the current critical activity item(s) on the latest Favorably Reviewed Progress Schedule.

Should the Contractor fail to complete the Work within the time specified in the Contract, as extended in accordance with this clause if appropriate, the Contractor shall pay to the City liquidated damages in accordance with Section 00700-6.05, **LIQUIDATED DAMAGES**.

- C. Indirect Overhead - The Contractor may be entitled to reimbursement of indirect overhead expenses for periods of time when the Work is delayed as defined in Section 00700-6.03D, **Compensable Delays**. Reimbursement for indirect overhead shall not be made for concurrent delays as defined in Section 00700-6.03E, **Concurrent Delays**.

The compensation described in Section 01035-1.05, **MARK-UP ALLOWANCES**, includes provisions for reimbursement of indirect overhead expenses for Change Order work. Compensation as described in this section shall reasonably consider the indirect overhead included in the Mark-Up Allowance, as follows:

1. If City and Contractor agree that the Mark-Up Allowance does not provide sufficient compensation for a compensable delay associated with changed work, this section shall apply.
2. Upon application of this section, an amount equal to the entire Mark-Up Allowance for all Change Order work shall be deducted from the indirect

overhead compensation as calculated based on Sections 00700 6.04 C3 (Indirect Field Overhead) and 6.04 C4 (Indirect Home Office Overhead) below.

As a condition precedent to any reimbursement of indirect overhead expense, the Contractor must fulfill all conditions as provided in Section 00700-6.04B, **Excusable or Compensable Delays**. No additional markup for overhead or profit shall be provided for such reimbursable indirect overhead expenses.

Payment to the Contractor for indirect overhead expenses will be made only for the extended Contract Time granted for Compensable Delay(s) that run following the expiration of the original Contract Time plus any time extensions granted for delays other than Compensable Time extensions.

3. Indirect Field Overhead - For those allowable delay periods as defined in Section 00700-6.04C, **Indirect Overhead**, the Contractor shall be reimbursed for its indirect field overhead based on:
 - a. Actual invoice costs for on-site field offices and temporary utilities as described in Section 01560, **TEMPORARY CONTROLS**, and Section 01510, **TEMPORARY UTILITIES**.
 - b. Actual indirect labor costs, as determined consistent with Section 01035-1.03, **FORCE ACCOUNT PAYMENT**, for field office staff.
 - c. Fair rental values acceptable to the Construction Manager as described in Section 01035-1.03, **FORCE ACCOUNT PAYMENT**, for construction equipment idled due to the delay.
4. Indirect Home Office Overhead - For those allowable delay periods as defined in Section 00700-6.04C, **Indirect Overhead**, the Contractor shall be reimbursed for its unabsorbed home office overhead based on the following formula:

$$\frac{\text{ContractAwardAmount}(\$)}{\text{OriginalContractTime}(\text{Days})} * 0.03 = \text{DailyHomeOfficeOverhead}(\$ / \text{day})$$

The Contract Award Amount is the total amount in the executed Agreement (Section 00500). The Contract Time is as provided in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**.

As it is impractical to determine the actual home office overhead, such reimbursement shall constitute full payment for any and all home office overhead expenses for such periods of time for the Contractor and all subcontractors, whether greater or less than actual. Distribution of the markup amount among the Contractor and all subcontractors and suppliers is the responsibility of the Contractor.

6.05 LIQUIDATED DAMAGES

- A. Owner and the Contractor recognize that time is of the essence of this Agreement and that the Owner will suffer financial loss if the Work is not completed within the time specified in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**, and required milestone work in Section 00800-1.02 herein, plus any extensions thereof allowed in accordance with Section 00700-6.04 of the General Conditions. It is hereby understood and agreed that it is and will be difficult and/or impossible to ascertain and determine the actual damage which the Owner will sustain in the event of and by reason of the Contractor's failure to fully perform the Work or to fully perform all of its Contract obligations that have accrued by the time for completion as specified in Section 00800-1.01 herein and/or as specified for completion of any scheduled operations or works described in Section 00800-1.02. It is, therefore, agreed in accordance with California Government Code Section 53069.85 that the Contractor will forfeit and pay to the Owner liquidated damages in the amount set forth in Section 00800-1.02, **DAMAGES FOR DELAYS**, per day for each and every calendar day that expires after the time for completion specified in Section 00800-1.01 herein and/or as specified for completion of any scheduled operations or works described in Section 00800-1.02 except as otherwise provided by extension of time pursuant to Section 00700-6.04 of the General Conditions. It is further understood and agreed in accordance with California Government Code Section 53069.85 that the liquidated damages sum specified in this provision is not manifestly unreasonable under the circumstances existing at the time this Contract was made, and that the Owner may deduct liquidated damages sums in accordance with this provision from any payments due or that may become due the Contractor.
- B. Liquidated damages will continue to accrue at the stated rate until Substantial Completion of the Work. Accrued liquidated damages may be deducted by the Owner from amounts due or that become due to the Contractor for performance of the Work. Liquidated damages may not be waived or reduced by the Owner unless expressly waived or reduced in writing by the Construction Manager.

6.06 SUSPENSION OF WORK

- A. If the Contractor fails to correct defective work as required by Section 00700-5.03, **MATERIALS AND WORKMANSHIP**, or fails to carry out the Work in accordance with the Contract Documents or any other applicable rules and regulations, the City, by a written order of the City's representative or signed personally by an agent specifically so empowered by the City, in writing, may order the Contractor to stop the Work, or any portion thereof. The suspension of Work shall remain in effect until the cause for such order has been eliminated. This right of the City to stop the Work shall not give rise to any duty on the part of the City to exercise this right for the benefit of the Contractor or any other person or entity. All delays in the Work occasioned by such stoppage shall not relieve the Contractor of any duty to perform the Work or serve to extend the time for its completion. Any and all necessary corrective work done in order to comply with the Contract

Documents shall be performed at no cost to the City. The City's concurrence that the condition or cause has been eliminated will be provided in writing to the Contractor.

- B. In the event that a suspension of Work is ordered, as provided in this paragraph, the Contractor, at its expense, shall perform all work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public, pedestrian, and vehicular traffic, during the period of such use by suspension. Should the Contractor fail to perform the Work as specified, the City may perform such work and the cost thereof may be deducted from monies due the Contractor under the Contract.
- C. The City shall also have authority to suspend the Work wholly or in part, for such period as the City may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the Work, or for the City's own convenience. Such temporary suspension of the Work will be considered justification for time extensions to the Contract in an amount equal to the period of such suspension if such suspended work includes the current critical activity on the latest Favorably Reviewed Progress Schedule. The Contractor as directed by the City shall provide the provisions as stipulated in Section 00700-6.06, **SUSPENSION OF WORK**, above. Such additional work shall be compensated as provided for in Section 00700-Article 7, **CHANGES IN THE WORK**.

6.07 RIGHT TO TERMINATE CONTRACT

- A. Termination for Default
 - 1. In the event of default by the Contractor, the City may give 10 Days written notice to the Contractor of City's intent to terminate the Agreement and provide the Contractor an opportunity to remedy the conditions constituting the default. It will be considered a default by the Contractor whenever Contractor shall:
 - a. Declare bankruptcy, become insolvent, or assign its assets for the benefit of its creditors;
 - b. Fail to provide materials or workmanship meeting the requirements of the Contract Documents;
 - c. Disregard or violate provisions of the Contract Documents or Construction Manager's instructions;
 - d. Fail to prosecute the Work according to the accepted progress schedule; or
 - e. Fail to provide a qualified superintendent, competent workmen, or materials or equipment meeting the requirements of the Contract Documents; or
 - f. Fail to provide a consistently safe work place and follow the Contractor's approved safety plan.
 - 2. If the Contractor fails to remedy the conditions constituting default within the time allowed, the CITY may then issue the Notice of Termination.

3. In the event the Agreement is terminated in accordance with the above provisions of Paragraph 6.07, the City may take possession of the Work and may complete the Work by whatever method or means the City may select. The cost of completing the Work will be deducted from the balance which would have been due the Contractor had the Agreement not been terminated and the WORK completed in accordance with the Contract Documents. If such cost exceeds the balance which would have been due, the Contractor shall pay the excess amount to the City. If such cost is less than the balance which would have been due, the Contractor shall have no claim to the difference.

B. Termination of Agreement by City (For Convenience)

1. The City may, without cause and without prejudice to any other right or remedy of the City, terminate the Agreement at any time by providing Contractor a written Notice of Termination. In such a case, the Contractor shall have no Request for Change Orders or claims against the City except for (i) the value of Work performed up to the date the Agreement is terminated and (ii) the cost of materials and equipment on hand, in transit, or on definite commitment, as of the date the Agreement is terminated, which would be needed in the Work and which meet the requirements of the Contract Documents.
2. The value of Work performed and the cost of materials and equipment delivered to the site, as mentioned above, will be determined by the City in accordance with the procedure prescribed for the making of the final Application for Payment under Article 8 below.
3. If a Notice of Termination issued by City for default under the provision of Paragraph 15.2 is found by a court (or other tribunal having jurisdiction) to be in violation of said provisions, the termination shall be deemed to be a termination for the City's convenience under the provisions of this Paragraph 15.3, and all of the provisions of this Article relating to a Notice of Termination issued under Paragraph 15.3 shall apply.
4. After receipt of Notice of Termination, and except as directed by the City, the Contractor shall, regardless of any delay in determining or adjusting any amounts due under this termination for convenience clause, immediately proceed with the following obligations:
 - a. Stop Work as specified in the Notice of Termination.

- b. Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality and safety called for under the Contract Documents.
- c. Leave the property upon which the Contractor was working and upon which the facility (or facilities) forming the basis of the Contract Documents is situated in a safe and sanitary manner such that it does not pose any threat to the public health or safety of the public (including the occupants of any adjoining properties).
- d. Terminate all subcontracts to the extent that they relate the portions of the Work terminated.
- e. Place no further subcontracts or orders, except as necessary to complete any Work specified in the Notice of Termination.

6.08 SUSPENSION, TERMINATION, OR CHANGES IN WORK DUE TO LITIGATION

- 1. If all Work is suspended, delayed, or interrupted by an order of a court of competent jurisdiction, such suspension, delay or interruption will be considered to be for the convenience and benefit of the City under the provisions of Paragraph 15.1, except where the order is determined by the City to have resulted from a failure or refusal of the Contractor to comply with this Agreement or any statute, rule, regulation, or decision directly applicable to performance of the Work in effect at the time of contract award, in which case the suspension, delay or interruption will be considered to be a suspension for failure of the Contractor to carry orders under the provisions of Paragraph 15.1.
- 2. If pursuant to court order, the City is temporarily or permanently prohibited from requiring the Contractor to perform any portion of the Work, the City Representative or Construction Manager may eliminate the enjoined Work pursuant to Paragraph 10.1.

7 ARTICLE 7 - CHANGES IN THE WORK

7.01 CHANGE ORDERS

- A. Without invalidating the Contract and without notice to sureties or insurers, the City through the Construction Manager, may at any time or from time to time, order additions, deletions, or revisions in the Work; these will be authorized by Field Directive, Field Order, or Change Order. A Change Order will not be issued for a Field Directive unless the Construction Manager concurs with an appeal by the Contractor that such Field Directive is a change in the scope of the Contract. The

Contractor shall comply promptly with the requirements for all Change Orders, Field Orders, or Field Directives. The work involved in Change Orders shall be executed under the applicable conditions and requirements of the Contract Documents. If any Field Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made by issuing a Change Order. By the acceptance of a Change Order, the Contractor waives any claim for additional time, not included in the Change Order, for the work covered by that Change Order. Additional or extra work performed by the Contractor without written authorization of a Field Order or Change Order will not entitle the Contractor to an increase in the Contract Price or an extension of the Contract Time.

- B. Compensable extra work shall be that work required for the completed project, but not shown or detailed on the Contract Drawings, and not called for in the Contract Documents, and not constituting “incidental work” as defined in Section 00700-1.04, **PLANS AND SPECIFICATIONS**. Such work shall be governed by all applicable provisions of the Contract Documents. In giving instructions, the Construction Manager shall have authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the purposes of the Work; but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the City through the Construction Manager, and no claim for an addition to the total amount of the Contract shall be valid unless so ordered.
- C. In case any change increases or decreases the work shown, the Contractor shall be paid for the work actually done at a mutually agreed upon adjustment to the Contract price, based upon the provisions of Section 01035, **MODIFICATION PROCEDURES**.
- D. If the Contractor refuses to accept a Change Order, the City may issue it unilaterally. The Contractor shall comply with the requirements of the Change Order. The City shall provide for an equitable adjustment to the Contract, and compensate the Contractor accordingly. If the Contractor does not agree that the adjustment is equitable, it may submit a claim in accordance with Section 00700-7.03, **RESOLUTION OF DISPUTES**.

7.02 DIFFERING SITE CONDITIONS

Pursuant to Public Contract Code Section 7104, the Contractor shall promptly, and before such conditions are disturbed, notify the Construction Manager in writing, of any:

- A. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I disposal site in accordance with provisions of existing law.
- B. Subsurface or latent physical conditions at the site differing from those indicated in the Contract documents.

- C. Unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract.

The City shall promptly investigate the conditions, and if it finds that the conditions do materially differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work the City shall cause to be issued a Change Order under the procedures provided in Section 00700-7.01, **CHANGE ORDERS**.

In the event that a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties, Section 00700-7.03, **RESOLUTION OF DISPUTES**.

No claim of the Contractor under this clause shall be allowed unless the Contractor has promptly given the notice required.

7.03 **RESOLUTION OF DISPUTES**

It is the intent of this Contract that disputes regarding the Contract be resolved promptly and fairly between the Construction Manager and Contractor. However, it is recognized that some disputes will require detailed investigation and review by one or both parties before a determination and resolution can be reached. For the protection of the rights of both the Contractor and the City the following provisions are provided for the resolution of disputes which cannot be resolved by the Contractor and Construction Manager within two days after either party should bring verbal notice of dispute or potential dispute to the other's attention and prior to the commencement of such work.

- A. Notice - If the Contractor disagrees with the Construction Manager's decision in Section 00700-1.06, **CONTRACT INTERPRETATION BY THE CONSTRUCTION MANAGER**, or in any case where the Contractor deems additional compensation or a time extension to the Contract Time is due the Contractor for work or materials not covered in the Contract or which the Construction Manager has not recognized as extra work, the Contractor shall notify the Construction Manager, in writing, of its intention to make claim. Notice pertaining to decisions provided in Section 00700-1.06, **CONTRACT INTERPRETATION BY THE CONSTRUCTION MANAGER**, or such other determinations by the Construction Manager shall be delivered in writing to the Construction Manager within no more than ten (10) days of receipt of such decision and prior to the commencement of such work. All other notices for extra work shall be filed in writing to the Construction Manager prior to the commencement of such work. Written notice shall include the words "Notice of Potential Claim" in the

subject line. Such Notice of Potential Claim shall state the circumstances and the reasons for the claim, but need not state the amount.

Additionally, no claim for additional compensation or extension of time for a delay will be considered unless the provisions of Sections 00700-6.03, **DELAYS**, and 6.04, **TIME EXTENSIONS**, are complied with. No claim filed after the date of final payment will be considered.

Unless notice is properly given, the Contractor shall not recover costs incurred by it as a result of the alleged extra work, changed work or other situation which had proper notice been given would have given rise to a right for additional compensation. The Contractor should understand that timely notice of potential claim is of great importance to the Construction Manager and the City, and is not merely a formality. Such notice allows the City to consider preventative action, to monitor the Contractor's increased costs resulting from the situation, to marshal facts, and to plan its affairs. Such notice by the Contractor, and the fact that the Construction Manager has kept account of the work in question, shall not in any way be construed as proving the validity of the claim.

- B. Response by Construction Manager - The Construction Manager shall review the "Notice of Potential Claim" and within ten (10) days of receipt of the notice shall respond to the Contractor in writing with its determination, or if it is necessary to extend this period, the Construction Manager shall notify the Contractor in writing as to when a decision will be provided.
- C. Appeals to the City's Representative - In the event the Contractor disagrees with any determination of the Construction Manager provided in accordance with Section 00700-7.03B, **Response by Construction Manager**, the Contractor may, within ten (10) days of receipt of such determination, appeal the determination to the City's Representative for review. The City's Representative shall review the appeal and transmit the decision in writing to the Contractor within thirty (30) days from the date of receipt of the appeal. Failure of the Contractor to appeal the determination of the Construction Manager within said ten (10) day period shall constitute a waiver of the Contractor's right to thereafter assert claim resulting from such determination or decision.

In the event the Contractor disagrees with the determination of the City's Representative, the Contractor shall notify the Construction Manager, in writing within ten (10) days of receipt of such determination, of its intention to make claim in accordance with Section 00700-7.03G, **Resolution of Claims**.

- D. Records of Disputed Work - In proceeding with a disputed portion of the Work, the Contractor shall keep accurate records of its costs, separate from costs incurred performing contract work, and shall make available to the Construction Manager, a daily summary of the hours and classification of equipment and labor utilized on the disputed work, as well as a summary of any materials or any specialized services which are used. Such information shall be submitted to the Construction Manager on a monthly basis, receipt of which shall not be construed as an authorization for or acceptance of the disputed work.

- E. Submission of Claim Costs - Within thirty (30) days after the last cost of work for which the Contractor contends it is due additional compensation is incurred, but if costs are incurred over a span of more than thirty (30) days, then within fifteen (15) days after the thirtieth (30th) day and every month thereafter, the Contractor shall submit to the Construction Manager its costs incurred for the claimed matter. Claims shall be made in itemized detail and should the Construction Manager be dissatisfied with the format or detail of presentation, upon request for more or different information, the Contractor will promptly comply, to the satisfaction of the Construction Manager. If the additional costs are in any respect not knowable with certainty, they shall be estimated as best can be done. The Construction Manager shall have the right as provided in Section 01035-1.07, **COST PRICING DATA AND ACCESS TO RECORDS**, to review the Contractor's records pertaining to a submitted claim. In case the claim is found to be just, it shall be allowed and paid for as provided in Section 01035, **MODIFICATION PROCEDURES**.
- F. Claim Meetings - From time to time the Contractor may request or the Construction Manager may call a special meeting to discuss outstanding claims should it deem this a means of possible help in the resolution of the claim. The Contractor shall cooperate and attend prepared to discuss its claims, making available the personnel, subcontractors and suppliers necessary for resolution, and all documents which may reasonably be requested by the Construction Manager.
- G. Resolution of Claims - Claims pertaining to this Agreement for three hundred and seventy-five thousand dollars (\$375,000) or less which cannot be resolved between the parties shall be resolved pursuant to the provisions of Public Contract Code commencing at Section 20104.
1. Claims Not Exceeding \$375,000 - Said Code sections provide in part that: Under the law (starting at Public Contract Code Section 20104.2) construction claims of \$375,000.00 or less on local public agency construction contracts must be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment.
- The City must respond in writing to any written claim of three hundred seventy-five thousand dollars (\$375,000) or less within sixty (60) days [or, in the case of claims of less than fifty thousand dollars (\$50,000), within forty-five (45) days] of receipt of claim, or may request, in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the City may have against the claimant.
- If additional information is thereafter required, it shall be requested and provided, pursuant to Public Contract Code Section 20104.2, upon mutual agreement of the City and the claimant.
- The City's written response to the claim, as further documented, shall be submitted to the claimant within thirty (30) days [or, for claims of less

than \$50,000, within fifteen (15) days] after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.

If the claimant disputes the City's written response (or if the City fails to respond within the time periods prescribed above) the claimant may notify the City, in writing, within fifteen (15) days of receipt of the City's response or within fifteen (15) days of the City's failure to respond within the times prescribed, respectively, and demand an informal settlement conference. The City must then schedule a settlement conference within thirty (30) days.

Following the settlement conference, if the claim or any portion remains in dispute, the claimant may file a claim as required by the claims statute commencing at California Government Code Section 910. The time within which a Government Code claim must be filed is tolled from the time the claimant submits the Public Contract Code claim until the time when the claim is denied.

2. Claims Exceeding \$375,000 - Unless this Contract provides otherwise, all claims between the City and the Contractor that are not resolved between the parties and are not governed by Public Contract Code Section 20104 shall be resolved according to the procedures established in Public Contract Code Section 20104 with the following exceptions:
 - a. The City must respond in writing to any written claim greater than three hundred seventy-five thousand dollars (\$375,000) within sixty (60) days of receipt of the claim, or may request in writing, within thirty (30) days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the City may have against the claimant, or may advise the Contractor in writing within thirty (30) days of receipt of the claim when the review and response to the claim will be furnished.
 - b. The arbitration proceedings established in Public Contract Code Section 20104.4(b) and specified in Section 00700-7.03 G3, **Civil Action Proceedings**, shall only apply if both the City and Contractor mutually agree to arbitration.
3. Civil Action Proceedings - If a civil action is filed to resolve the claim, then between thirty (30) and sixty (60) days after the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by the parties. The parties are given fifteen (15) days to select a disinterested third person as mediator. Mediation must commence within thirty (30) days of submittal and conclude within fifteen (15) days of commencement unless the time is extended for good cause by the court.

4. Mediation of Disputes - All disputes among the parties arising under this Agreement shall be mediated before resorting to arbitration or Court action. Mediation is a process in which parties attempt to resolve a dispute by submitting it to an impartial neutral mediator who is authorized to facilitate the resolution of the dispute but who is not empowered to impose a settlement on the parties. The mediation fee, if any, shall be divided equally among the parties. Before the mediation begins, the parties agree to sign a document limiting the admissibility and arbitration or any civil action of anything said, any admission made, and any documents prepared in the course of the mediation, consistent with Evidence Code Section 1152.5 or any successor statute. The filing of a judicial action to enable the imposition of a receivership, injunction or other provisional remedy shall not constitute a waiver of the right to mediate under this provision. The mediation shall take place in Marin County, California. The mediator shall be experienced in construction law. At least 30 days before mediation, the parties will exchange those documents that are reasonably necessary to evaluate the issues and arrive at an informed resolution of the issues.
5. If the matter remains in dispute, the case must be submitted to judicial arbitration pursuant to procedures set forth in the Code of Civil Procedure commencing at Section 1141.10. Discovery is permitted consistent with the rules pertaining to judicial arbitration.
6. Should either party to this Contract bring legal action against the other, the case shall be handled by a court of competent jurisdiction in Marin County, California.

8 ARTICLE 8 - PAYMENT

8.01 BASIS OF PAYMENT

- A. General - The Contractor shall accept the compensation, as herein provided, as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed Work and for performing all work contemplated and embraced under the Contract; also for loss or damage arising from the nature of the Work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the Work, also for all expenses incurred in consequence of the suspension or discontinuance of the Work as herein specified; and for completing the Work according to the Contract Documents. Neither the payment of any estimate nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material.

No compensation will be made in any case of loss of anticipated profits. This includes the event of the termination of the Contract, and therefore no compensation will be made to the Contractor for the loss of anticipated profits associated with the terminated work. Increased or decreased work involving supplemental agreements will be paid for as provided in such agreements.

Full compensation for conforming to all of the provisions of the Contract Documents shall be considered as included in the prices paid for the various Contract items of work and no additional compensation will be allowed therefore.

- B. Payment for Patents and Patent Infringement - All fees or claims for any patented invention, article, or arrangement that may be used upon, or in, any manner connected with the performance of the Work or any part thereof shall be included in the price bid for doing the work, and the Contractor and its sureties shall defend, protect, and hold the City, the Construction Manager, and Design Consultants, together with all their officers, agents, and employees harmless against liability of any nature or kind for any and all costs, legal expenses, and damages made for such fees or claims and against any and all suits and claims brought or made by the holder of any invention or patent, or on account of any patented or unpatented invention, process, article, or appliance manufactured for or used in the performance of the Contract, including its use by the City, unless otherwise specifically stipulated in the Contract. Before final payment is made on the Contract, the Contractor shall furnish an affidavit to the City regarding patent rights for the project. The affidavit shall state that all fees and payments due as a result of the work incorporated into the project or methods utilized during construction have been paid in full. The Contractor shall certify in the affidavit that no other fees or claims exist for work in this project.
- C. Payment of Taxes - The Contractor shall pay and shall assume exclusive liability for all taxes levied or assessed on or in connection with its performance of this Contract, whether before or after acceptance of the Work, including, but not limited to, State and local sales and use taxes, Federal and State payroll taxes or assessments, and excise taxes, including any taxes or assessments levied or increased during the performance period of the Work. No separate allowance will be made therefore, and all costs in connection therewith shall be included in the total amount of the Contract price.

8.02 PARTIAL PAYMENTS

- A. General - In consideration of the faithful performance of the Work prosecuted in accordance with the provisions of these Specifications and the Contract, the City will pay the Contractor for all such work installed on the basis of unit prices and/or percentage completion of lump sum Bid Items. Amounts earned for lump sum work will be based on accepted Cost Breakdown (Section 01025, **MEASUREMENT AND PAYMENT**).

Payments will be made by the City to the Contractor on estimates duly certified and approved by the Construction Manager, based on the Lump Sum or unit price value of equipment installed and tested, labor and materials incorporated into said permanent work by the Contractor during the preceding month. Payments will not be made for temporary construction unless specifically provided for in the Contract Documents.

Partial payments will be made monthly based on work accomplished as of a day mutually agreed to by the City and the Contractor. Additionally, the Contractor shall submit a detailed statement of the Contractor's request for payment of acceptable materials and equipment on hand in compliance with Section 00700-8.02B, **Partial Payments: Inclusion of Materials on Hand**. Each payment request shall list each Change Order executed prior to date of submission, including the Change Order Number.

Upon receipt of Contractor's requests for payment, the City shall act in accordance with the following:

1. The Construction Manager shall review the submitted estimates, as soon as practicable after receipt for the purpose of determining that the estimates are a proper request for payment, and shall prepare a certified estimate of the total amount of work done.

Any request for payment determined not to be a proper payment request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) days after receipt. A request for payment returned pursuant to this paragraph shall be accompanied by a document setting forth in writing the reasons why the request for payment is not proper.

3. The number of days available to the City to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the City exceeds the seven (7) day return requirement set forth in Section 00700-8.02 A2 above.

If requested, the Contractor shall provide such additional data as may be reasonably required to support the partial payment request. The Construction Manager will be available to meet to discuss the partial payment request prior to its resubmittal(s). When the Contractor's estimate of amount earned conforms to the Construction Manager's evaluation, the Contractor shall submit to the Construction Manager a properly completed and signed progress payment request. The Construction Manager will submit the recommended progress payment request for the City's approval and processing. Payment will be made by the City to the Contractor in accordance with the City's normal accounts payable procedures; the City shall retain amounts in accordance with Section 00700-8.03, **RIGHT TO WITHHOLD AMOUNTS**.

No such estimate or payment shall be required to be made, when in the judgment of the Construction Manager, the Work is not proceeding in accordance with the provisions of the Contract, or when in the Construction Manager's judgment the total value of the Work done since the last estimate amounts to less than one thousand dollars (\$1,000).

Subject to the provisions of this section, the City shall pay the Contractor within thirty (30) days after receipt of undisputed and properly submitted requests for payment from the Contractor. In accordance with Public Contract Code Section

20104.50, if the City fails to pay an undisputed request for payment within the allotted thirty (30) days, the City shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

- B. Partial Payments: Inclusion of Materials on Hand - Materials, as used herein, shall be considered to be those items which are fabricated and manufactured material and equipment. Only those materials for which the Contractor can transfer clear title to the Owner will be qualified for partial payment. The Contractor may request payment of seventy-five (75) percent of the actual net cost of these materials. The request for partial payment will be subject to retention as provided elsewhere in the Contract Documents.

To receive partial payment for materials and equipment not incorporated in the Work, it shall be necessary for the Contractor to submit to the Construction Manager a list of such materials, at least seven (7) days prior to submitting the monthly estimate of amount earned for work completed. At the Construction Manager's sole discretion, it will approve items for which partial payment is to be made subject to the following:

1. Equipment and materials will only be eligible if given conditional or final acceptance by the Design Consultant and are in apparent compliance with Favorably Reviewed Shop Drawings.
2. Only materials which have received Favorable Review of shop drawings will qualify.
3. Eligible equipment or materials must be delivered and properly stored, protected, and maintained in a manner Favorably Reviewed by the Construction Manager, at the job site or an offsite location acceptable to the Construction Manager.
4. The Contractor's actual net cost for the materials must be supported by paid invoices of suppliers, or other documentation requested by the Construction Manager.
5. At the City's request, Contractor shall obtain an executed security agreement and all necessary UCC-1's as a condition of payment by City.
6. Materials or equipment delivered to the Site less than thirty (30) days prior to their scheduled incorporation in the Work shall not qualify.
7. Final payment shall be made only for materials actually incorporated in the Work and, upon acceptance of the Work, all materials remaining for which advance payments had been made shall revert to the Contractor, unless otherwise agreed, and partial payments made for these items shall be deducted from the final payment for the Work.
8. Partial payments for materials and equipment on hand shall not be deemed to be final payment for the material nor relieve the Contractor of its obligations under the Contract.

- C. Effect of Payment – Payment will be made by Owner based on the Construction Manager’s observations at the Site and the data comprising the progress payment request. Payment will not be a representation that the City has:
1. Made exhaustive or continuous on-site inspections to check the quality or quantity of Work;
 2. Reviewed construction means, methods, techniques, sequences or procedures;
 3. Reviewed copies of requisitions received from subcontractors and material suppliers and other data requested by Owner to substantiate Contractor’s right to payment;
 4. Made examination to ascertain how or for what purpose Contractor has used money previously paid on account of the Contract Sum; or
 5. Accepted all or part of the Work.

8.03 RIGHT TO WITHHOLD AMOUNTS

- A. Retention - The City will withhold from each of the partial payments and retain as part security, ten (10) percent of the amount earned until the final payment.
- B. Other Withholds - In addition to the amount which the City may otherwise retain under the Contract, the City may withhold a sufficient amount or amounts of any payment or payments otherwise due the Contractor, as in its judgment may be necessary to cover:
1. For defective work not remedied.
 2. A reasonable doubt that the Contract can be completed for the balance then unpaid.
 3. Damage to another contractor or third party, or to property.
 4. Failure of the Contractor to maintain Record Documents current as required in Section 01720, **PROJECT RECORD DOCUMENTS**.
 5. Cost of insurance arranged by the City due to cancellation or reduction of the Contractor's insurance.
 6. Failure to submit, revise, resubmit or otherwise conform to the requirements herein for preparing and maintaining a construction schedule as required in Section 01310, **PROGRESS SCHEDULES**.
 7. Failure to make proper submissions, as specified herein.
 8. Amounts due the City from the Contractor.
 9. The Contractor's neglect or unsatisfactory prosecution of the Work including additional engineering and administrative costs related to construction and/or shop drawing errors and the failure to clean up.
 10. Provisions of law that enable or require the City to withhold such payments in whole or in part.

11. Stop Notice claims filed by Contractor's subcontractors, of any tier, or its material suppliers.

When the above reasons for withhold amounts are removed, payment will be made to the Contractor for amount withheld because of them.

8.04 SECURITY SUBSTITUTION FOR WITHHOLDS

For any retention of amount earned by the Contractor under Sections 00700-8.02, **PARTIAL PAYMENTS**, or 00700-8.07, **FINAL INSPECTION AND PAYMENT**, the Contractor may substitute securities as provided in Section 22300 of the Public Contract Code, as amended, which state in part as follows:

"Provisions shall be included in any invitation for bid and in any Contract Documents to permit the substitution of securities for any moneys withheld by a public agency to ensure performance under a Contract; however, substitution of securities provisions shall not be required where federal regulations or policies, or both, do not allow the substitution of securities. At the request and expense of the contractor, securities equivalent to the amount withheld shall be deposited with the public agency, or with a state or federally chartered bank in the State of California as the escrow agent, who shall then pay those monies to the contractor. Upon satisfactory completion of the Contract, the securities shall be returned to the contractor."

"Alternatively, the contractor may request and the City shall make payment of retentions earned directly to the escrow agent at the expense of the contractor. At the expense of the contractor, the contractor may direct the investment of the payments into securities and the contractor shall receive the interest earned on the investments upon the same terms provided for in this section for securities deposited by the contractor. Upon satisfactory completion of the Contract, the contractor shall receive from the escrow agent all securities, interest and payments received by the escrow agent from the City, pursuant to the terms of this section."

"The contractor shall be the beneficial owner of any securities substituted for moneys withheld and shall receive any interest thereon."

The escrow agreement used hereunder shall be substantially similar to the form in Section 00630, **ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION**.

8.05 WARRANTY OF TITLE

No material, supplies, or equipment for the Work under this Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by the seller or supplier. The Contractor warrants good title to all material, supplies, and equipment installed or incorporated in the Work and agrees upon completion of all Work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by the Contractor, to the City free from any claim, liens, security interest, or

charges. The Contractor further agrees that neither the Contractor nor any person, firm, or corporation furnishing any materials or labor for any work covered by this Contract shall have any right to a lien upon the premises or any improvement or appurtenances thereon, provided that this shall not preclude the Contractor from installing metering devices and other equipment of utility companies or of municipalities, the title of which is commonly retained by the utility company or the municipality. In the event of the installation of any such metering device or equipment, the Contractor shall advise the Owner as to the legal City thereof.

Nothing contained in this paragraph, however, shall defeat or impair the right of such persons furnishing materials or labor under any bond given by the Contractor for their protection or any rights under any law permitting such persons to look to funds due the Contractor in the hands of the City. The provisions of this Paragraph shall be inserted in all subcontracts and material contracts, and notice of its provisions shall be given to all persons furnishing materials for the Work when no formal Contract is entered into for such materials.

8.06 SUBSTANTIAL COMPLETION

When the Contractor considers that the Work is Substantially Complete, the Contractor shall notify the Construction Manager in writing. Upon receipt of the notification, the Construction Manager, the City and/or their authorized representatives will make inspection, to determine if the Work and administrative requirements are sufficiently complete in accordance with the Contract Documents so the City can occupy or utilize the Work for its intended use. If items are found which prevent such use or occupancy, the Construction Manager shall notify the Contractor in writing of such items by issuing a Corrective Work Item List.

Upon the completion of such corrective work, the Contractor shall so notify the Construction Manager in writing. The Construction Manager shall inspect the Work to determine its acceptability for Substantial Completion and for determination of the status of any other items which are required to meet the terms of Substantial Completion as listed in the Contract Documents. Upon verification that the project is Substantially Complete, the Construction Manager shall prepare a Certificate of Substantial Completion and the Punch List. The Certificate shall establish the date of Substantial Completion and the responsibilities of the City and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, commencement of warranties required by the Contract Documents, and shall fix the time, not to exceed sixty (60) days, within which the Contractor shall finish all items on the Punch List or remaining work or administrative requirements accompanying the Certificate. When the preceding provisions have been approved by both the City and the Contractor, they shall sign the Certificate to acknowledge their written acceptance of the responsibilities assigned to them in such Certificate. By such acknowledgment, the Contractor agrees to pay the City's actual costs including, but not limited to, charges for engineering, inspection and administration incurred due to the failure to complete the Punch List within the time period provided in the Certificate of Substantial Completion.

8.07 FINAL INSPECTION AND PAYMENT

Upon completion of the Work, including all items on the Punch List, and upon completion of final cleaning, the Contractor shall so notify the Construction Manager in writing. Upon receipt of the notification, the Construction Manager, the City and/or their authorized representatives will make the final inspection, to determine the actual status of the Work in accordance with the terms of the Contract. If materials, equipment, workmanship or administrative requirements are found which do not meet the terms of the Contract, the Construction Manager shall prepare a Final Inspection List of such items and submit it to the Contractor. Following completion of the work to correct all items in the Final Inspection List the Contractor shall notify the Construction Manager. The Construction Manager shall, in turn, notify the City that the Work has been completed in accordance with the Contract. Final determination of the acceptability of the Work shall be made by the City. After completion of the Work, but prior to its Acceptance by the City, the last partial payment will be made to the Contractor in accordance with Section 00700-8.02, **PARTIAL PAYMENTS**.

After receipt of the last partial payment, but prior to Acceptance of the Work by the City, the Contractor shall send a letter to the Construction Manager. The letter, pursuant to California Public Contract Code Section 7100, shall state that acceptance of the final payment described below shall operate as and shall be, a release to the City, the Construction Manager, the Design Consultant, and their duly authorized agents, from all claim of and/or liability to the Contractor arising by virtue of the Contract related to those amounts. Disputed Contract claims in stated amounts previously filed as provided in Section 00700-7.03, **RESOLUTION OF DISPUTES**, may be specifically excluded by the Contractor from the operation of the release.

Following receipt of all required submittals and the Construction Manager's written statement that construction is complete and recommendation that the City accept the project, the City will take formal action on Acceptance.

Within ten (10) days of the Acceptance by the City of the completed Work embraced in the Contract, the City will cause to be recorded in the office of the County Recorder a Notice of Completion.

Thirty-five (35) days after recording the Notice of Completion of the work involved in the Contract, the City will pay the Contractor in lawful money such sums of money as may be due the Contractor including all sums retained but excluding such sums as have previously been paid the Contractor or as may be needed to cover outstanding stop notice claims or disputes. This payment will constitute the final payment to the Contractor under this Contract except for outstanding stop notice claims and disputed amounts.

In the event of a dispute between the City and the Contractor, the City may in accordance with Public Contract Code Section 7107 withhold from the final payment an amount of one hundred fifty (150) percent of the disputed amount.

****END OF SECTION****

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SECTION 00800

SUPPLEMENTARY GENERAL CONDITIONS

1 ARTICLE 1 - MODIFICATIONS TO THE GENERAL CONDITIONS

1.01 TIME ALLOWED FOR COMPLETION

In accordance with the provisions of Section 00700-6.02, **CONTRACT TIME**, Substantial Completion of this Project shall be completed within one hundred eighty-two (182) consecutive calendar days from the date established in the Notice to Proceed for the commencement of Contract Time.

1.02 DAMAGES FOR DELAYS

A. General

In accordance with the provisions of Section 00700-6.05, **LIQUIDATED DAMAGES**, for the period of time that any portion of the Work remains unfinished after the time fixed for Substantial Completion in Section 00800-1.01, **TIME ALLOWED FOR COMPLETION**, as modified by extensions of time granted by the City, it is understood and agreed by the Contractor and the City that the Contractor shall pay the City the damages listed below for direct costs the City incurs.

<u>Item</u>	<u>Dollars Per Day Liquidated Damages</u>
Substantial Completion	\$2,500

1.03 WEATHER DAYS

In accordance with the provisions of Section 00700-6.04 B3, **Weather Delays**, an allowance of seven (7) working days of weather caused delay have been included in the time allowed for completion. This allowance represents a reasonable assessment of anticipated lost working days based on historical weather patterns. These weather days shall be included in the Contractor's schedule as specified in Section 01310-1.04, **WEATHER CONDITIONS**.

1.04 NOT USED

1.05 CONTRACT ADMINISTRATION

The following project representatives are hereby designated by the City:

- A. Name of City Representative
Todd Teachout, City Engineer

415-289-4111

Email: tteachout@ci.sausalito.ca.us

B. Name of Construction Manager

To be determined.

C. Name of Design Consultant Representative

Patrick Fuss

530-792-3262

1.06 NOT USED

2 ARTICLE 2 - INDEMNITY AND INSURANCE

2.01 INSURANCE

Within ten (10) days after award of the Contract, the Contractor shall promptly obtain, at its own expense, all the insurance required by Section 00800-Article 2, **INDEMNITY AND INSURANCE**, and submit coverage verification for review and approval by the City prior to the City's execution of the Contract.

The Contractor shall not commence work until such insurance has been approved by the City. Such insurance shall remain in full force and effect at all times during the prosecution of the Work and until the final completion and Acceptance thereof. In addition, the Commercial General Liability Insurance shall be maintained for a minimum of five (5) years after final completion and acceptance of the Work (the "Guarantee Period"). The Notice to Proceed does not relieve the Contractor of the duty to obtain such insurance as required herein.

The Contractor shall not allow any subcontractor to commence work on its subcontract until all insurance required of the subcontractor has been obtained and verified by the Contractor and submitted to the Construction Manager for the City's review and records. Subcontractors shall furnish original certificates and endorsements as verification of insurance coverage. The insurance liability limits specified in Section 00800-Article 2, **INDEMNITY AND INSURANCE**, shall apply for all subcontractors listed in Section 00430, **DESIGNATION OF SUBCONTRACTORS**. The Contractor shall designate the insurance liability limits for all other subcontractors.

Companies writing the insurance under this article shall be admitted to do business in the State of California or, if unavailable from an admitted carrier, the insurance may be acquired from otherwise eligible non-admitted company(s) admitted to do business under the Surplus Line Law of the State of California. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

None of the policies of insurance required herein shall be suspended, voided, canceled, reduced in coverage or in limits except after thirty (30) days' prior notice by certified mail return receipt requested has been given to the City.

All costs for all insurance shall be included in the Bid.

Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from its operations under this Contract. For any claims related to this Project, the Contractor's insurance coverage shall be primary insurance as respects the City, Sausalito Marin City Sanitary District, the Spinnaker Restaurant, the Design Consultant, the Construction Manager, and all of their officers, officials, employees, agents and volunteers (the "Additional Insureds"). Any insurance or self-insurance maintained by an Additional Insured shall be in excess of the Contractor's insurance and shall not contribute with it.

Any failure of the Contractor to comply with reporting or other provisions of the policies including breaches of warranties shall not affect coverage provided to the Additional Insureds.

The Contractor shall take out, pay for, and maintain throughout the duration of this Contract and for such additional periods as more specifically required herein the following insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, the Contractor's agents, representatives, employees or subcontractors.

- A. Commercial General (including Pollution), Protection and Indemnity (marine equipment and vessels) and Automobile Liability Insurance - These coverages shall protect the Contractor from claims for bodily injury and property damage which may arise because of the nature of the Work or from operations, products or completed operations under this Contract.
 1. Additional Insureds – The Commercial General Liability, Protection and Indemnity and Automobile Liability policies of insurance shall be endorsed to name as additional insureds the City of Sausalito, Sausalito Marin City Sanitary District, the Spinnaker Restaurant and each of their officers, employees, and agents; the Design Consultant, the Construction Manager and each of their partners, officers, employees, and agents and coverage provided to such additional insureds. These policies shall provide coverage to each of the insureds with respect to the Work. Both bodily injury and property damage insurance must be on an occurrence basis. These policies shall be endorsed to provide primary coverage to the full limit of liability stated in the declarations, and if there is any other insurance against the loss covered by said policy, that other insurance shall be excess insurance and not contribute with Contractor's policy.
 2. Amount of Coverage - The bodily injury and property damage liability of the Commercial General Liability insurance shall provide coverage in the following limits of liability: \$10,000,000 on account of any one occurrence with an annual general aggregate limit of not less than \$10,000,000, and \$10,000,000 products and completed operations

aggregate, combined single limit. The limits of coverage for Protection and Indemnity (for marine equipment and vessels) shall be not less than \$10,000,000 on account of any one accident arising out of the ownership, maintenance, or use of any owned or non-owned vessels. The Automobile Liability insurance policy shall provide minimum limits of \$5,000,000 per accident arising out of the ownership, maintenance, or use of any owned or non-owned vehicles. These limits shall apply separately to the Project; if the limits are not project specific, Contractor shall provide insurance with limits double the amounts set forth above.

3. Subcontractors - The bodily injury and property damage liability insurance shall not be deemed to require the Contractor to have its subcontractors named as insureds in the Contractor's policy, but the policy shall protect the Contractor from contingent liability which may arise from operations of its subcontractors.
4. Included Coverage - The above Commercial General Liability insurance shall also include the following coverage:
 - a. Premises - Operations
 - b. Owner's / Independent Contractor's and Contractor's Protective
 - c. Products - Completed Operations
 - d. Personal Injury - (False Arrest, Libel, Wrongful Eviction, etc.)
 - e. Broad Form Property Damage – including to the Maximum Extent Possible, coverage for the Assumption of Liability Pursuant to Completed Operations
 - f. Separation of Insureds / Cross-Liability Provisions
 - g. Duty to Defend all Insureds
 - h. Deletion of any Limitation on Coverage for Bodily Injury or Property Damage Arising out of Subsidence or Soil or Earth Movement.
 - i. A provision that the annual general aggregate and the products and completed operations annual aggregate shall apply separately to each Project for which Contractor provides services away from premises owned by or rented to Contractor.
 - j. Pollution Legal Liability Endorsement
 - k. XCU - (Explosion, Collapse, Underground Damage) XCU may be deleted when not applicable to operations performed by the Contractor or its sub-contractors.
 - l. Blanket Contractual Liability including the Indemnification Agreement as herein stated.
5. Umbrella Policy - At the option of the Contractor, primary limits may be less than required, with an Umbrella Policy providing the additional limits needed. This form of insurance will be acceptable provided that the Primary and Umbrella Policies both provide the insurance coverages herein required, including all additional insured requirements. The umbrella policy shall provide coverage at least as

broad as provided on the underlying commercial General Liability insurance.

- B. Workers' Compensation Insurance - In accordance with the provisions of Article 5, Chapter 1, Part 7, Division 2 (commencing with Section 1860) and Chapter 4, Part 1, Division 4 (commencing with Section 3700) of the Labor Code of the State of California, the Contractor is required to secure the payment of compensation to its employees and for that purpose obtain and keep in effect adequate Workers' Compensation Insurance.

The Contractor is advised of the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that code, and shall comply with such provisions and have Employers' Liability limits of \$1,000,000 per accident before commencing the performance of the Work of this Contract.

Contractor and its subcontractors shall comply with the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Worker's Compensation, including Longshoremen's and Harbor Workers' Compensation and Jones Act coverages, if applicable, before commencing the performance of the Work.

Before begins performance of the Work, the Contractor shall submit written evidence that the Contractor has obtained Workers' Compensation Insurance coverage for all persons whom it employs or may employ in carrying out the Work under this Contract. This insurance shall be in accordance with the requirements of the most current and applicable State Workers' Compensation Insurance Laws.

- C. Builder's Risk Insurance - "All Risk or Special Form" Builder's Risk Insurance on the replacement cost basis, in an amount equal to the full replacement cost on a completed value basis. Such insurance shall be obtained, paid for, and maintained by the Contractor and shall cover, but shall not be limited to, fire, lightning, windstorm, hail, explosion, riot, riot attending a strike, civil commotion, smoke damage, damage by aircraft, watercraft or vehicles, vandalism and malicious mischief, theft, collapse, flood and earthquake. This insurance shall name the City, the Design Consultant, the Construction Manager and the Contractor as insureds, as their interests may appear and shall include coverage including, but not by way of limitation, for all damages of loss to the Work and to appurtenances, to materials and equipment to be incorporated into the Project while the same are in transit, stored on or off the Project site, to construction plant and temporary structures.

Pursuant to Section 7105 of the Public Contract Code, the City requires Contractor to obtain insurance providing full replacement value coverage for any damage to the Work caused by an Act of God, as defined by Section

7105(b)(2) of that Code. Builder's Risk Insurance policies shall contain the following provisions:

- (1) The City shall be named as loss payee.
- (2) The Insurer shall waive all rights of subrogation against the City.

Builder's Risk Insurance may have a deductible clause not to exceed the following limits:

- (1) The deductible for coverage for any damage to the Work caused by an Act of God, as defined by Section 7105(b) of the Public Contract Code shall not exceed five percent of the value at risk at the time of the loss. The City shall be named as an insured.
- (2) All Other Perils: \$5,000

The Contractor shall be responsible for paying any and all deductible costs. The policy shall provide the City the right to occupy the premises without termination of the policy until acceptance of the Project.

- D. Proof of Coverage - Contractor shall furnish the City with certificate(s) evidencing issuance of all insurance mentioned herein, copies of the policy declaration or information page(s) and endorsements. The certificate(s) and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on Forms A-1 and B-1 as included in Section 00650, **GENERAL LIABILITY ENDORSEMENT**, Section 00651, **AUTO LIABILITY ENDORSEMENT**, or equivalent endorsement forms acceptable to the City. The certificate(s), policy declaration or information page(s), and endorsements are to be received and approved by the City before work commences. Endorsements are not required for Workers' Compensation or Builder's Risk Insurances. Such policies of insurance shall be endorsed to provide that the insurance policy shall not be cancelable, be subject to non-renewal, or otherwise be subject to material modification, except with thirty (30) days prior written notice to the City and Contractor shall also provide certificate(s) evidencing renewals of all insurance required herein, at least ten (10) days prior to the expiration date of any such insurance.

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, Sausalito Marin City Sanitary District the Spinnaker Restaurant, the Design Consultant, the Construction Manager, and all of their officers, officials, employees and agents; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

In the event of the breach of any provision of this paragraph, or in the event of any notices received which indicate any required insurance coverage will be diminished or canceled, the City, at its option, may, notwithstanding any other provisions of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work pursuant to this Agreement.

- E. Hold Harmless - The City of Sausalito and all officers and employees thereof connected with the Work, including but not limited to the City Council, shall not be answerable or accountable in any manner: for any loss or damage that may happen to the Work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the Work; for injury to or death of any person; or for damage to property from any cause except losses due to sole or active negligence of the City of Sausalito's officers or employees.
- F. Indemnification - To the fullest extent allowed by law, Contractor shall defend, indemnify and hold harmless the City of Sausalito, its elected and appointed officials, the Design Consultant, Construction Manager, Sausalito Marin City Sanitary District The Spinnaker Restaurant, their employees and agents (collectively, the "Indemnified Parties"), from all liability, penalties, costs, losses, damages, expenses, causes of action, claims or judgments, including attorney's fees and other defense costs, resulting from injury to or death sustained by any person (including Contractor's employees), or damage to property of any kind, or any other injury or damage whatsoever, which injury, death or damage arises out of or is in any way connected with the performance of the Work, regardless of the Contractor's fault or negligence, including any of the same resulting from the alleged or actual negligent act or omission, of an Indemnified Party; except that said indemnity shall not be applicable to injury, death or damage to property arising from the sole or active negligence or willful misconduct of City, its officers, agents, or servants who are directly responsible to City. This indemnification shall extend to claims asserted after termination of this Contract for whatever reason. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist.
- G. In addition to any remedy authorized by law, so much of the money due the Contractor under and by virtue of the contract as shall be considered necessary by the City, may be retained by the City until disposition has been made of such suits or claims for damage.

2.02 INSURANCE DURING GUARANTEE PERIOD

Contractor shall maintain the above-described worker's compensation, commercial general liability, and property damage insurance in force during the entire period of the Guarantee Period as defined above.

2.03 INJURY OR ILLNESS REPORTS

The Contractor shall furnish the Construction Manager with a copy of the Employer's Report of Injury as required by CAL/OSHA immediately following any incident requiring the filing of said report during the prosecution of the Work under this Contract. The Contractor shall also furnish the Construction Manager with a copy of the Employer's Report of injury involving any subcontractor on this Project.

2.04 NOTIFICATION OF INSURANCE COMPANIES

The Contractor shall advise all insurance companies to familiarize themselves with all of the conditions and provisions of this Contract, and they shall waive the right of special

notification of any change or modification of this Contract or of extension of time, or of decreased or increased work, or of the cancellation of the Contract, or of any other act or acts by the City or its authorized employees and agents, under the terms of this Contract, and failure to so notify the aforesaid insurance companies of changes shall in no way relieve the insurance companies of their obligation under this Contract.

3 ARTICLE 3 - TERMINATION

3.01 TERMINATION FOR DEFAULT

A. Add this language to the end of Section 00700-6.07A

4. Payments Withheld. If the District terminates the Contract for one of the reasons stated in paragraph 6.07A.1, the Contractor shall not be entitled to receive further payment until the Work is complete.

5. Payments Upon Completion. If the unpaid balance of the Contract Sum, including contract retentions, exceeds costs of completing the Work, including compensation for professional services and expenses made necessary thereby, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the District within thirty days of the City's written demand. This payment obligation shall survive termination or completion of the Contract.

3.02 TERMINATION FOR CONVENIENCE

NOTE: THIS PROVISION REPLACES 00700-6.07.B IN ITS ENTIRETY.

A. The City may, without cause, order the Contractor in writing to suspend, interrupt or terminate performance of the Work in whole or in part for such period of time as the City may determine. An adjustment may be made for an increase in the cost of performance of the Contract including profit on the increased cost of performance, if any, caused by any such suspension or interruption or termination. An equitable adjustment may be made of the price or prices specified in the Contract relating to the portion of the Work not suspended, interrupted, or terminated by notice of suspension, interruption, or termination. No adjustment shall be made to the extent:

1. That performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible; or
2. An equitable adjustment is made or denied under another provision of this Contract.

B. Any such suspension, interruption, or termination shall be effected by delivery to the Contractor of a written notice of suspension, interruption or termination specifying the extent to which performance of work under the Contract is suspended, interrupted, or terminated and the date upon which such suspension, interruption, or termination becomes effective. The effective date shall be not less than three (3) days after delivery of the written notice. After receipt of the notice of suspension, interruption, or termination, and except as otherwise directed by the City, the Contractor shall:

1. Stop work under the Contract on the date and to the extent specified in the notice of suspension, interruption, or termination;
2. Place no further orders or subcontracts for materials, services or facilities except as necessary to complete the portion of the Work under the Contract which is not suspended, interrupted or terminated;
3. Terminate all orders or subcontracts to the extent they relate to the performance of work suspended, interrupted or terminated by notice of suspension, interruption or termination;
4. Assign to the City in the manner, at the times, and to the extent directed by the City, all the right, title and interest of the Contractor under the orders and subcontracts so suspended, interrupted or terminated. The City shall have the right, in its discretion, to settle or pay any or all claims arising out of the suspension, interruption, or termination of such orders and subcontracts;
5. Settle all outstanding liabilities and all claims arising out of such suspension, interruption, or termination of orders and subcontractors, with the approval or ratification of the City to the extent the City may so require. The City's approval or ratification shall be final for all purposes of his clause;
6. Transfer title to the City, and deliver in the manner, at the times, and to the extent, if directed by the City, the fabricated or unfabricated parts, work in process, completed work, supplies, and other materials produced as a part of, or acquired in connection with the performance of the work terminated by the notice of suspension, interruption, or termination, and the completed or partially completed plans, drawings, information, and other property, which, if the contract had been completed, would have been required to be furnished to the City;
7. Use its best efforts to sell, in the manner, at the times, and to the extent, and at the price or prices that the City directs or authorizes, any property of the types previously referred to herein, but the Contractor shall not be required to extend credit to any purchaser and may acquire any such property under the conditions prescribed and at a price or prices approved by the City. The proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the City to the Contractor under this Contract or shall otherwise be credited to the price or cost of the work covered by this Contract or paid in such other manner as the City may direct;

8. Complete performance of such part of the Work as shall not have been suspended, interrupted, or terminated by the notice of suspension, interruption, or termination; and
 9. Take such action as may be necessary, or as the City may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the City has or may acquire an interest.
- C. After receipt of the notice of suspension, interruption, or termination, the Contractor shall submit to the City a certified suspension, interruption, or termination claim. Such claim shall be submitted promptly but in no event later than sixty (60) days from the effective date of the notice of suspension, interruption, or termination. If the Contractor fails to submit a suspension, interruption, or termination claim within such sixty (60) day period, the City may determine, on the basis of information available to it, the amount, if any, due to the Contractor. The City shall then pay to the Contractor the amount so determined, and that payment shall constitute full compensation for all work performed and costs incurred in connection with the Project.
- D. After receipt of a certified claim, the City and the Contractor may agree upon the whole or any part of the amount or amounts to be paid to the Contractor because of the total or partial suspension, interruption, or termination of the Contract. The amount may include a reasonable allowance for profit on work performed. However, such agreed amount or amounts, exclusive of costs solely attributable to the suspension, interruption or termination, shall not exceed the total Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the Contract Sum of work not suspended, interrupted, or terminated and any claims the City may have against the Contractor. Nothing in paragraph E of this section, shall be deemed to limit, restrict, or otherwise determine or effect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this paragraph.
- E. After receipt of a certified claim, if the Contractor and City fail to agree on the amounts to be paid to the Contractor, the City shall determine, on the basis of the information available to it the amount, if any due, the Contractor by reason of the suspension, interruption, or termination and shall pay the Contractor the amounts determined as follows:
1. For all work specified in the Contract which is performed before the effective date of the notice of suspension, interruption, or termination, the total of:
 - a. The reasonable cost to the Contractor, without profit, for all contract Work performed prior to the notice of suspension, interruption, or termination, including the work done to secure the project. In determining the reasonable cost, the City may utilize the schedule of values, contract unit prices, or lump sums, the percentage of Work completed and any other method available to it. For purposes of determining reasonable cost, deductions will be

made for the cost of materials to be retained by the Contractor, amounts realized by the sale of materials, and for other appropriate credits against the cost of the Work. When in the opinion of the City the cost of an item of Work is unreasonably high, the reasonable cost to be allowed will be the estimated reasonable cost of performing such work in compliance with the requirements of the plans and specifications and excessive actual cost shall be disallowed.

- b. Reasonable cost will include a reasonable allowance for project overhead and general administrative overhead not to exceed a total of ten percent (10%) of direct costs of such work.
- c. A reasonable allowance for profit on the cost of the work performed as determined under subsection (1) provided the Contractor established to the satisfaction of the City that it would have made a profit had the Contract been completed and provided further, that the profit allowed shall in no event exceed five percent (5%) of the cost of the Work completed.
- d. The reasonable cost to the Contractor of handling material returned to the vendor, delivered to the City or otherwise disposed of as directed by the City.

4 ARTICLE 4 - TEAMING

The successful Bidder will have the opportunity to enter into a teaming agreement with the City. Teaming consists of a voluntary effort by all parties having a major role in the Project to develop joint goals and establish a cooperative rather than an adversarial atmosphere while executing the construction project. The objective of teaming is the effective completion of the work on schedule, within budget and in accordance with the Contract Documents.

Although teaming is strongly encouraged, it is not a requirement of the Contract. The establishment of a teaming agreement will not change the legal relationship of the parties to the Contract nor relieve either party of any of the terms of the Contract.

To initiate the teaming process, the City and Contractor will meet after the Notice of Award to confirm if both parties agree that teaming will be utilized on the Project.

If agreement is reached that teaming will be utilized, the parties will conduct a Teaming workshop prior to the preconstruction conference. Follow-up workshop(s) may also be held throughout the Project. All workshops may be conducted by an outside facilitator. It is expected that, at the conclusion of the initial workshop, the parties will express a consensus regarding, among other things, the respective goals in completing the Contract.

A successful partnership will require the participation of the following project personnel:

Contractor: Company Executive, Project Manager,
 Superintendent, Foreman, Key suppliers
 Subcontractor's supervisory personnel

City: Director of Public Works, Project Manager, Inspector, Key staff
Design Consultant: Principal-in-Charge, Project Manager, Project Engineer
Construction Manager: Principal-in-Charge, Project Manager, Inspectors(s)

The City will make all the necessary arrangements for the workshop(s). The Contractor's costs associated with effectuating this teaming agreement will include attendance of appropriate personnel at the workshops. The City will pay for the actual site and facilitator costs for the teaming workshop.

5 ARTICLE 5 - RECORD DRAWINGS AND ADDITIONAL INFORMATION

Any record or other information available at the City's offices regarding existing conditions at the Job Site may be reviewed by the Contractor upon request. The City makes no warranty as to the accuracy of the information available.

6 ARTICLE 6 - SUBSTANTIAL COMPLETION

Substantial completion of the Project as required by Section 00700-8.06, **SUBSTANTIAL COMPLETION**, requires that the following portions of the Work must be completed in accordance with the requirements of the Contract Documents:

- Completion of the Work as required by the Contract Documents so the City, the public, and Sausalito Marin City Sanitary District can occupy and utilize the Project and any areas to which access has been restricted on account of the Work for their intended purpose.
- Completion of the Corrective Work Item List as described in Section 00700-8.06, **SUBSTANTIAL COMPLETION**
- All testing required by the Contract and the City's General Provisions and Specifications has been successfully completed.
- All items related to health and safety of Owner operations and maintenance staff, including warning signs, guardrails, and safety equipment shall be complete.
- All record drawings have been submitted, updated, reviewed and approved.

Portions of the Work not essential to sewer operation, that can be completed without interruption of public access or system operations, may be completed after the Work is substantially complete, and may include the following items:

- Final Site Clean-Up
- Restriping of roadways

- Completion of the Punch List prepared by the Construction Manager in accordance with Section 00700-8.06, **SUBSTANTIAL COMPLETION**.

****END OF SECTION****

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APPENDIX A

Change Order (Sample)

CONTRACT CHANGE ORDER

CONTRACT CHANGE ORDER NO. ____

PROJECT: _____

CITY PROJECT NO: _____

TO: _____

You are hereby directed to make the herein described changes from the plans and standard specifications or do the following described work not included in the plans and specifications on this contract.

NOTE: This change order is not effective until approved by the City Engineer.

Description of work to be done, estimate of quantities, and prices to be paid. Segregate between additional work and at contract price, agreed price and force account. Unless otherwise stated, rates for rental equipment cover only such time as equipment is actually used and no allowance will be made for idle time.

CHANGE REQUESTED BY:

DRAFT

Estimated Cost Decrease \$0 or Increase

By reason of this order, the time of completion will be adjusted as follows: _____ <u>Calendar Days</u>

Approved by: _____ Date: _____ <div style="display: flex; justify-content: space-around; width: 100%;"> Name City Engineer </div>
--

We, the undersigned contractor, have given careful consideration to the change proposed and hereby agree, if this proposal is approved, that we will provide all equipment, furnish all materials, except as may be otherwise noted above, and perform all services necessary for the work above specified, and will accept as full payment therefore the prices shown above.

Accepted by: _____ Date: _____

Title: _____ Contractor: _____

If the Contractor does not sign acceptance of this order, his attention is directed to the requirements of the specifications as to proceeding with the ordered work and filing a written protest within the time herein specified.

--

CONTRACT CHANGE ORDER

CONTRACT CHANGE ORDER MEMORANDUM

TO: Contingency Balance \$_____ (incl.this change)

FROM:

CCO NO: _____

PROJECT: _____

CONTRACT NO: _____

THIS CHANGE ORDER PROVIDES FOR:

The Contract Time of completion shall not be adjusted with this change.

CCO DISCUSSED WITH AND CONCURRED BY:	ESTIMATE OF COST	
1.	This CCO	Contract Total to Date
2.	Items	\$0
	Force Acct.	
	Agreed Price	\$
	Adjustments	
	Total	\$

PROJECT REPRESENTATIVE

Name: _____

APPENDIX B
Geotechnical Report

Prepared for: West Yost Associates

**Geotechnical Engineering
Investigation Report**

**City of Sausalito
Priority 1 Sewer
Replacement Project**

Sausalito, California

September 2009

September 8, 2009
File: 18337-001-00

Mr. Patrick Fuss
West Yost Associates
2020 Research Park Drive, #100
Davis, CA 95618

**Subject: Geotechnical Engineering Investigation Report
City of Sausalito
Priority 1 Sewer Replacement Project
Sausalito, California**

Dear Mr. Fuss:

We are pleased to submit our geotechnical engineering investigation report for the City of Sausalito's Priority 1 Sewer Replacement Project in Sausalito, California.

This report is divided into two sections. Section I (Geotechnical Data) contains all the technical data generated by the geotechnical investigation. Section II (Geotechnical Design Summary) contains our interpretation of the technical data, including specific conclusions and recommendations for design and construction of the project.

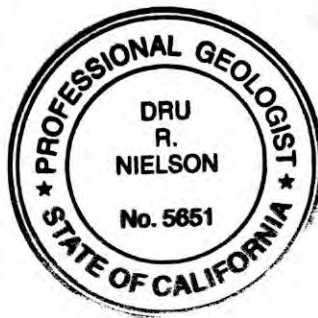
We appreciate the opportunity to be of service to the City and West Yost Associates on this project. If you have any questions regarding this report, please contact us.

Respectfully submitted,

DCM | GeoEngineers



Dru R. Nielson
Senior Geologist
P.G. 5651
C.E.G. 1854



David C. Mathy
Principal Engineer
C.E. 28082
G.E. 569



Enclosures

**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT
CITY OF SAUSALITO
PRIORITY 1 SEWER REPLACEMENT PROJECT
SAUSALITO, CALIFORNIA**

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**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT
CITY OF SAUSALITO
PRIORITY 1 SEWER REPLACEMENT PROJECT
SAUSALITO, CALIFORNIA**

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**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT
CITY OF SAUSALITO
PRIORITY 1 SEWER REPLACEMENT PROJECT
SAUSALITO, CALIFORNIA**

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**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT
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PRIORITY 1 SEWER REPLACEMENT PROJECT
SAUSALITO, CALIFORNIA**

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- Plate II-10 - Trench Dam
- Plate II-11 - Vertical Soil Pressure Due to Live Loads
- Plate II-12 - Marston's Load Coefficients Trench Conditions
- Plate II-13 - Composite Modulus of Soil Reaction - $E'c$
- Plate II-14 - Uplift Resistance

APPENDIX E

Report Limitations and Guidelines for Use

SECTION I

GEOTECHNICAL

DATA

**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT
CITY OF SAUSALITO
PRIORITY 1 SEWER REPLACEMENT PROJECT
SAUSALITO, CALIFORNIA**

SECTION I - GEOTECHNICAL DATA

1.0 INTRODUCTION

This geotechnical engineering investigation report is for the City of Sausalito’s Priority 1 Sewer Replacement Project. The project is located in the Gate 5 Road and Spinnaker Areas of Sausalito, California. The locations of these project areas are illustrated on Plate I-1. The project consists of replacing existing small diameter (6- to 8-inch) gravity-flow sanitary sewer pipelines with a new 8-inch diameter gravity-flow pipeline and a new 4-inch diameter force main pipeline. A description of segments in each project area is summarized in Tables I-1 and I-2.

Table I-1 – Sanitary Sewer Replacement - Gate 5 Road Area (see Plate I-2)

Segment Location	Length (ft)	Invert Depth (ft)	Existing Gravity Pipeline		New Replacement Pipeline Size and Construction ¹
			Material	Condition	
Gate 5 Road & southeast extension	1,638	6 to 14	8" VCP lined with HDPE	contains sags	8" by open-cut trenching same alignment and depth as existing
Coloma Street	316	9 to 13	VCP lined with HDPE ²		
Harbor Drive	417	6 to 9	8" VCP and/or ACP		

¹The material type of the new pipeline is not known to us at this time.

²The diameter of the existing VCP is not known to us at this time.

Table I-2 – Sanitary Sewer Replacement - Spinnaker Area (see Plate I-3)

Segment Location	Length (ft)	Invert Depth (ft)	Existing Gravity Pipeline		New Replacement Pipeline Size and Construction ¹
			Material	Condition	
Humboldt Avenue	282	9 to 12	6" Cast Iron	contains sags and is severely corroded	8" by open-cut trenching same alignment and depth as existing
Bay Road and parking lot	593	5 to 9			slip 4" force main into existing 6" ²
Bay Road parking lot to Spinnaker Restaurant	208	4 to 5			8" by open-cut trenching same alignment and depth as existing ³

¹The material type of the new pipeline is not known to us at this time.

²Includes a new sanitary sewer pump station at the east end of the force main. We have no plan or profile information pertaining to the pump station at this time.

³Includes a new, 6- to 8-foot deep grease interceptor at the east end of the segment for the Spinnaker Restaurant.

The new sanitary sewer replacement pipelines will be routed through existing sanitary sewer manholes. Groundwater is infiltrating into the existing sanitary sewer pipeline through some of these manholes. Leaky manholes will be rehabilitated as part of this project (e.g., possibly by manhole lining, chemical grouting, etc. to prevent groundwater infiltration). As illustrated on Plates I-2 and I-3, the existing gravity sanitary sewer pipelines to be replaced by this project, slope to City pump stations.

This report contains a description of geotechnical conditions along the alignment of planned new sanitary sewer replacement pipelines in the project areas described in Table I-1. All descriptions provided in this report pertaining to existing and new sanitary sewer replacement pipelines and related project structures (e.g., location, depth, size, length, material type, condition, and construction methods, etc.) are based on in-progress design plans by West Yost Associates dated August 21, 2009 (West Yost Associates, 2009).

2.0 GEOTECHNICAL DATA

Geotechnical data for design and construction of the project is provided in Section I.2. An interpreted summary of the geotechnical data is provided in Section II.2.

2.1 Test Borings

Seven (7) project test borings (Borings B-1, B-2, B-3A, B-3B, B-4, B-5 and B-6) and nine (9) reference test borings (Reference Borings RB-1 through RB-9) were completed in the Gate 5 Road and Spinnaker Areas of the project. Selected data from these test borings is provided in Table I-3.

Table I-3 – Selected Data from Test Borings

Test Borings ^a									Project Pipe ^b	
Boring No.	Date (m-d-y)	Top EL. (ft) ^b	Total Depth (ft)	Projected Station ^b (ft)	Ground water Depth (ft) ^c	Fill Depth (ft)	Pavement Section		Invert EL. (ft.)	Invert Depth (ft)
							AC (in)	AB (in)		
Gate 5 Road Area										
B-1	7-6-09	10	19	15+95	6½	>19	10 ^d	20 ^d	2	8
RB-1	1-6-77	7	32	-	2	18	-	-	-	-
RB-2	1-5-77	8½	22	-	2	15	-	-	-	-
B-2	7-6-09	8	18½	21+00	4	>18½	6 ^d	24 ^d	-5	13
RB-3	9-26-79	6	33	-	-	28	-	-	-	-
RB-4	9-25-79	6	117	-	8	15	-	-	-	-
RB-5	9-25-79	4	17	-	6	13	-	-	-	-
B-3A	7-6-09	7½	20	46+60	7	>20	6 ^d	18 ^d	1	6½
B-3B	7-9-09	7½	3½	46+60	>3½	>3½	6 ^d	16 ^d	1	6½
B-4	7-6-09	11	20	42+60	6	>20	4 ^d	22 ^d	1½	9½
RB-6	1959	4½	133 ^e	-	-	13½	-	-	-	-
RB-7	1959	5½	122 ^e	-	-	13½	-	-	-	-
RB-8	1-12-84	-	26	-	1½	-	-	-	-	-
Spinnaker Area										
B-5	7-9-09	8	21	20+75	7	11½+	9 ^d	5 ^d	4	4
B-6	7-9-09	12½	21½	12+65	10½	17	6 ^d	11 ^d	2½	10
RB-9	2-3-95	7	130 ^e	-	2	8	-	-	-	-

^a See complete logs of project test borings in Appendix B and reference test borings in Appendix D.

^b Planned new sanitary sewer replacement pipeline projected and rounded from in-progress design plans (West Yost Associates, 2009).

^c Depth to free groundwater measured in the boring at the time of drilling.

^d B-1 & B-2 = Gate 5 Rd; B-3A, B-3B & B-4 = Harbor Dr; B-5 = Humboldt Ave; B-6 = Spinnaker Rest. Parking.

^e The bottom of Bay Mud was encountered at a bgs depth of < 117' (RB-4), 130' (RB-6), 110' (RB-7) and 105' (RB-8).

2.1.1 Project Test Borings

Seven (7) test borings (Borings B-1, B-2, B-3A, B-3B, B-4, B-5 and B-6) were drilled and logged for the project at the locations illustrated on Plates I-2 and I-3. All the project test borings, except Boring B-3B, were drilled off the alignment of the existing sanitary sewer pipeline. Boring B-3B was intentionally drilled into the trench backfill located above the existing sanitary sewer pipeline. The logs of project borings are provided in Appendix B. Project test borings were drilled with a truck-mounted Mobile B-24 drill using 5-inch diameter continuous flight solid-stem augers. Soil and groundwater conditions were logged and representative soil samples were obtained from each boring. Relatively undisturbed soil samples

were obtained by pushing a 3.0-inch outside diameter, 2.9-inch inside diameter Shelby Tube Sampler (STS) or by driving a 2.5-inch inside diameter, 3.0-inch outside diameter Modified California Sampler (MCS) containing brass liners, into the bottom of the boring at the depths indicated on the logs. Disturbed soil samples were obtained by driving a 1.4-inch inside diameter, 2.0-inch outside diameter Standard Penetration Test (SPT) sampler (ASTM D1586) or a 2.0-inch inside diameter, 2.5-inch outside diameter Split Spoon Sampler (SSS) into the bottom of the boring.

All STS samplers were pushed into the bottom of the borehole using the weight of the drill rig. A 140-pound hammer falling 30 inches per blow was used to drive all other samplers. The number of blows required to drive samplers the last 12 inches of an 18-inch drive are recorded on the boring logs as penetration resistance (blows/ft). The penetration resistance values (blows/ft) recorded for SPT sampler drives on the boring logs are actual American Society for Testing and Materials (ASTM) D1586 N-values. The penetration resistance values recorded on boring logs for MCS sampler drives are actual field blow counts for the MCS sampler and have not been reduced to approximate SPT N-values. Samples retrieved from the borings were examined for field classification and logging, and sealed to preserve their natural moisture content for laboratory testing. Classification systems used to log soil samples are provided in Appendix A. Descriptions of soils provided on the boring logs are based on observations during drilling and sampling and on the results of laboratory tests.

At the end of drilling each boring, the depth to which groundwater had accumulated in the boring was measured and the boring was backfilled with cement grout. The static equilibrium groundwater level may be higher or lower than the depth of accumulated groundwater measured in the test borings at the time of drilling.

2.1.2 Reference Test Borings

Nine (9) test borings (Reference Borings RB-1 through RB-9) were drilled by others for other nearby past projects at the locations illustrated on Plates I-2 and I-3. The logs of these borings are provided in Appendix D for reference only. The methods used to drill and sample the

reference borings are not known to us at this time except as specifically indicated on the reference logs.

2.2 Laboratory Testing

Moisture content, unit weight, Atterberg limits (plasticity index), grain size analysis, unconfined compressive strength, direct shear strength, and soil corrosivity laboratory tests were performed on soil samples retrieved from project test borings to evaluate their physical characteristics and engineering properties. The results of the tests are included on the logs of project borings in Appendix B and/or on laboratory test result plates in Appendix C.

2.3 Geologic Mapping

A geologic map of the project areas, by the U.S. Geological Survey (Blake, 2002), is provided on Plate I-4. This map shows that the ground surface of project areas is made of artificial fill over Bay Mud (Qmf). A soil map by the U.S. Soil Conservation Service (Kashiwagi, 1985) shows the project areas as tidelands or bay areas covered with artificial fill. Artificial fill is a man-made accumulation of various materials including soil (e.g., clay, silt, sand, and gravel) and rock fragments (e.g., cobbles and boulders), organic material (e.g., peat), concrete, asphalt, debris and rubbish (e.g., steel, rubber tires, etc.). Bay Muds are typically very soft, lightweight, organic-rich, highly compressible and weak silty clay estuarine deposits (with occasional sand lenses and stringers) that are corrosive to concrete and steel and which have been accumulating within the limits of the San Francisco Bay (including Richardson Bay) for several thousands of years.

The fill and native soils encountered in test borings for the project (see the logs of project test borings provided in Appendix B and the logs of reference test borings in Appendix D) are consistent with these mapped descriptions. A contour map of the base of Bay Mud by the California Division of Mines and Geology (Goldman, 1969; now known as the California Geological Survey) is provided on Plate I-5. This map is consistent with reference borings that show the base of Bay Mud in the project areas (see Reference Borings RB-6, RB-7 and RB-9) to be on the order of at least 100 feet below ground surface.

2.4 Historic Topographic Maps and Aerial Photos

Historic topographic maps and aerial photos of the project areas are provided on Plates I-6 (Gate 5 Area) and I-7 (Spinnaker Area). These maps and photos document that prior to the 1900s the project areas were below sea level in Richardson Bay. Urban development in the project areas since the early 1900s include (1) artificial infilling to raise the project areas above sea level (Hitchcock, 2008), (2) construction of piers, ferry depots, wharfs, warehouses, railways and spur lines (e.g., see the Northwestern Pacific Railroad shown partially overwater on the 1897 maps on Plates I-6 and I-7) and other structures, and (3) drainageway modifications, including concentration of storm drainage in a culvert beneath Gate 5 Road near Coloma Street.

Infilling of the project areas occurred in 1942 when Bechtel Corporation began developing the Marinship Shipyard. Additionally, approximately 30,000 wooden piles were reportedly driven into the ground to provide foundations for shipyard structures. The locations of these piles, relative to the planned new sanitary sewer replacement pipelines and related project structures, are not known to us at this time. The shipyard was eventually turned over to the U.S. Army Corps of Engineers (USACE) in the late 1940s. The USACE removed many of the shipyard structures and the area has since been redeveloped with marinas, boat yards, commercial/office properties, light industrial warehouses and other structures. The date of construction of the existing sanitary sewer pipeline to be replaced by this project is not known to us at this time but probably coincided with this area-wide redevelopment about 60 years ago.

2.4.1 Gate 5 Road Area

As part of the Marinship Shipyard activities, the area of Gate 5 Road southeast of Harbor Drive was used as a staging and parking area and may have been covered with concrete paving. During demolition of the Marinship Shipyard, the area appears to have been used to store salvageable materials (e.g., steel beams, lumber, etc.). Approximately 4 feet of fill was placed over Gate 5 Road southeast of Harbor Drive for flood protection improvement purposes within the last few years. As part of Marinship Shipyard activities, a portion of Gate 5 Road northwest of Harbor Drive contained a railroad spur (see 1942 photo on Plate I-6). It appears that portions

of Gate 5 Road northwest of Harbor Drive were last raised with fill in the 1970s, and that some of these areas still become flooded during periods of rainfall and high tide.

2.4.2 Spinnaker Area

The original structure, now occupied by the Spinnaker Restaurant, was built in the 1960s (the footprint of the original structure is visible at the east end of the Spinnaker Area alignment in the 1970 photo on Plate I-7). An addition onto the north side of the original Spinnaker Restaurant structure was constructed in the 1990s (compare the 1970 photo with the 2009 photo on Plate I-7). A geotechnical evaluation by Geoengineering (1995) for this addition indicates the following:

- The Spinnaker Restaurant overlies pre-1960s fill.
- In order to contain this fill, a steel barge about 100 feet long and 25 feet wide was sunk into Richardson Bay at a location immediately north of the footprint of the original Spinnaker Restaurant.
- The Spinnaker Restaurant addition was constructed over a portion of this sunken barge.
- A yacht harbor is located north of the Spinnaker Restaurant and the sunken barge. This yacht harbor is sustained by a timber bulkhead that was reportedly anchored to the sunken barge by underground cables. The locations of these anchors were not known to Geoengineering (1995) and are not known to us at this time.

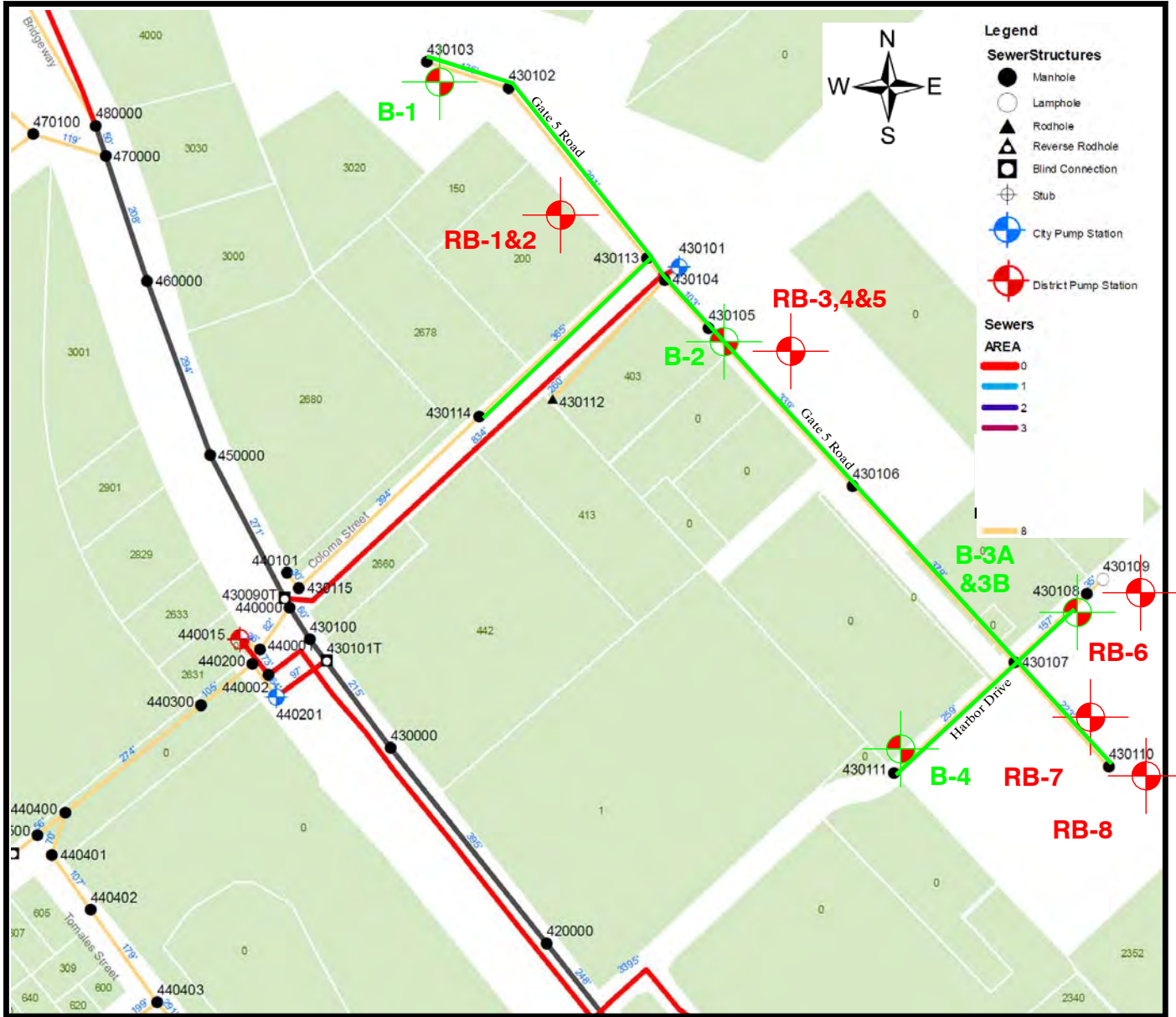
The project alignment in the Spinnaker Area is west of the Spinnaker Restaurant. Based on Geoengineering (1995) descriptions, it appears that the east end of the project alignment in the Spinnaker Area is located at least several tens of feet west of the sunken barge. Therefore, there is a low likelihood that the project alignment encroaches across underground cables used to anchor the sunken barge to the yacht harbor's timber bulkheads. It appears that a railroad spur formerly occupied a portion of Humboldt Avenue in the Spinnaker Area (see the 1942 photo on Plate I-7).

PRIORITY 1 SEWER REPLACEMENT

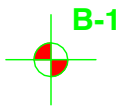



Base image from Google.

See Plate I-1



Modified from 2007 City drawings and in-progress project design plans (West Yost Associates, 2009).

- - Planned New Gravity Sanitary Sewer Pipeline (shown offset from existing pipeline for illustration purposes only)
-  **B-1** Project Test Boring
-  **RB-1** Reference Test Boring



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 Priority 1 Sewer Replacement
 Sausalito, California
**BORING LOCATION MAP -
 GATE 5 ROAD AREA**

PLATE NO.

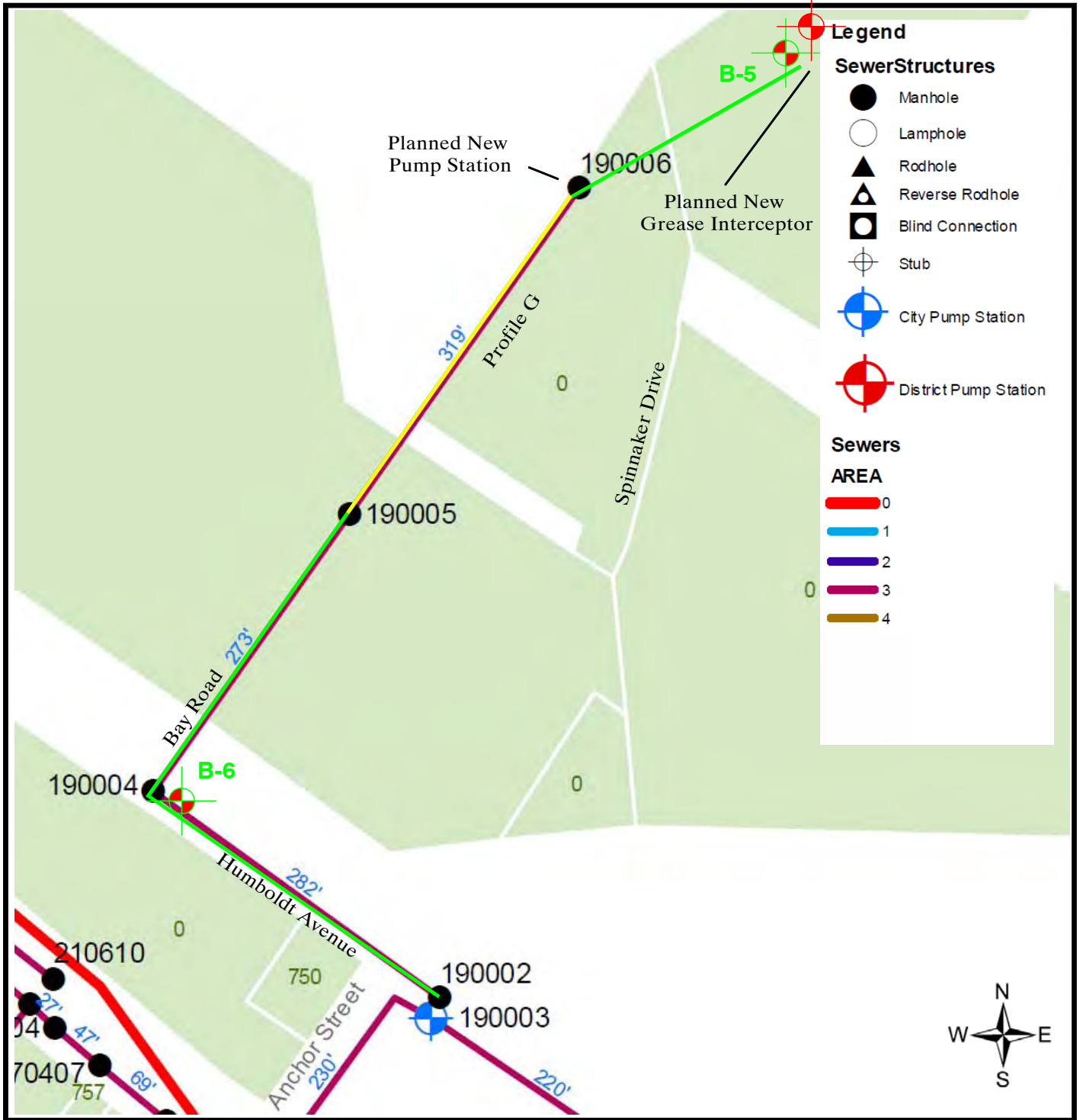
I-2

(COLOR PLATE)

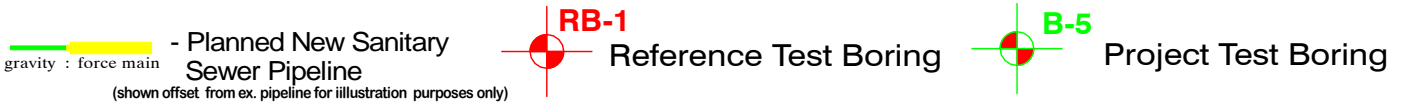
FILE NO. 18337-001-00

AUGUST 2009

See Plate I-1



Modified from 2007 City drawings and in-progress project design plans (West Yost Associates, 2009).



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 Sausalito, California
BORING LOCATION MAP -
SPINNAKER AREA

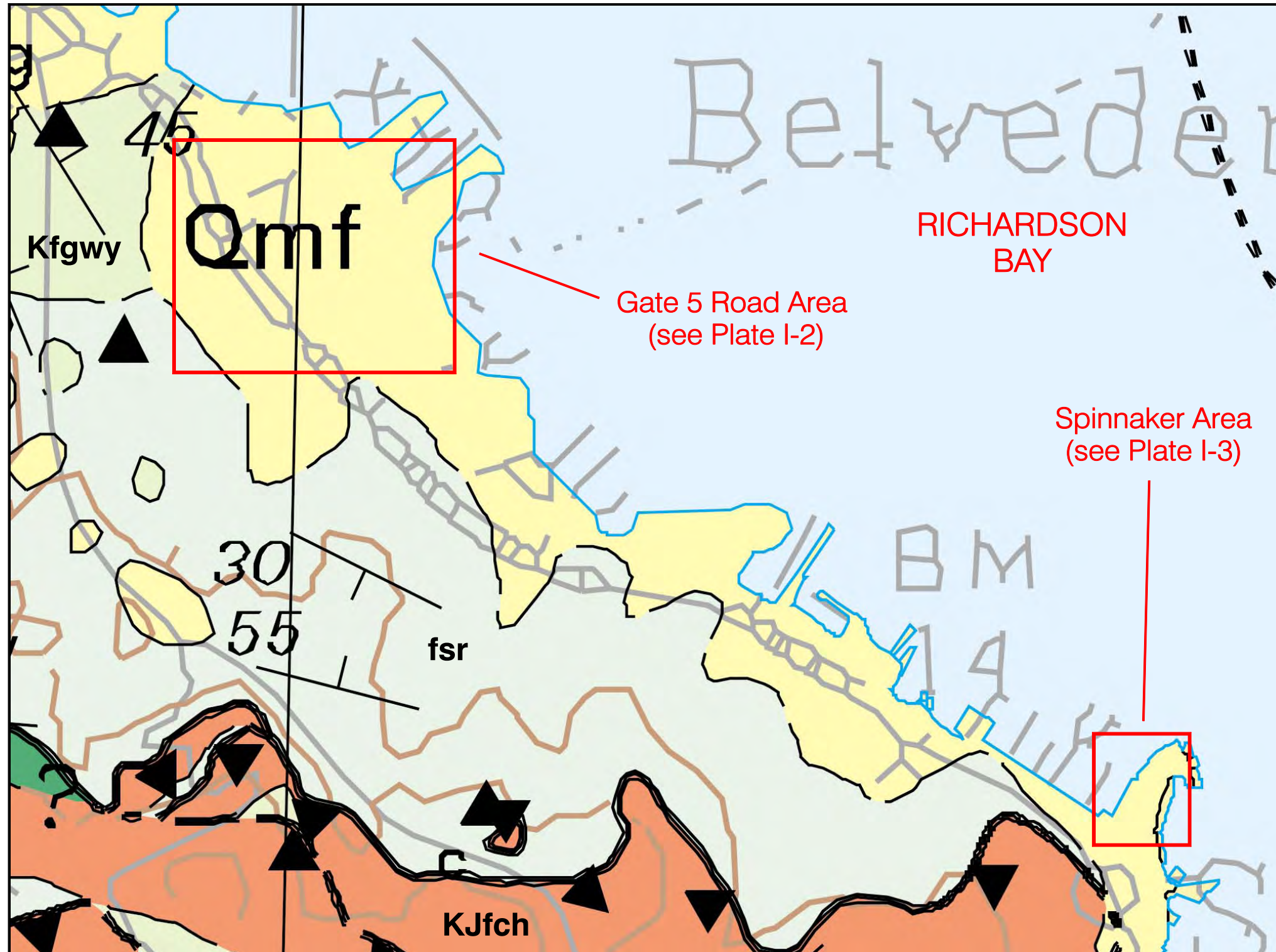
PLATE NO.

I-3

(COLOR PLATE)

FILE NO. 18337-001-00

AUGUST 2009



Modified from Blake (2002)

TYPICAL DESCRIPTION:

Fill and Native Soils

Qmf **Artificial fill over marine and marsh deposits (Quaternary)** - Bay Mud overlain by artificial fill of varying character, consisting of clay, silty sand, rock fragments, organic material and man-made debris.

Franciscan Bedrock

Kfgwy **Graywacke (Cretaceous)** - Moderately hard to hard graywacke sandstone, shale, and some metagraywacke.

fsr **Melange** - A tectonic mixture of variably sheared shale and sandstone containing hard tectonic inclusions and resistant masses of greenstone, chert, graywacke, and their metamorphosed equivalents plus serpentinite and minor discrete masses of limestone too small to be shown on map. Blocks and resistant masses have survived the extensive shearing evident in the melange matrix, and range in abundance from less than 1 to 50 percent or more of the rock mass.

Jfgs **Greenstone (Jurassic)** - Moderately hard to hard well-bedded lava and minor intrusive diabase. Smaller masses are hard and relatively unfractured, but larger masses are closely fractured or sheared, softened by weathering, and bear distinctive red soil.

KJfch **Chert (Cretaceous and Jurassic)** - Chert with shale interbeds. Chert is hard, thin bedded, closely fractured, parts along bedding planes, and crops out as irregularly-shaped bodies.

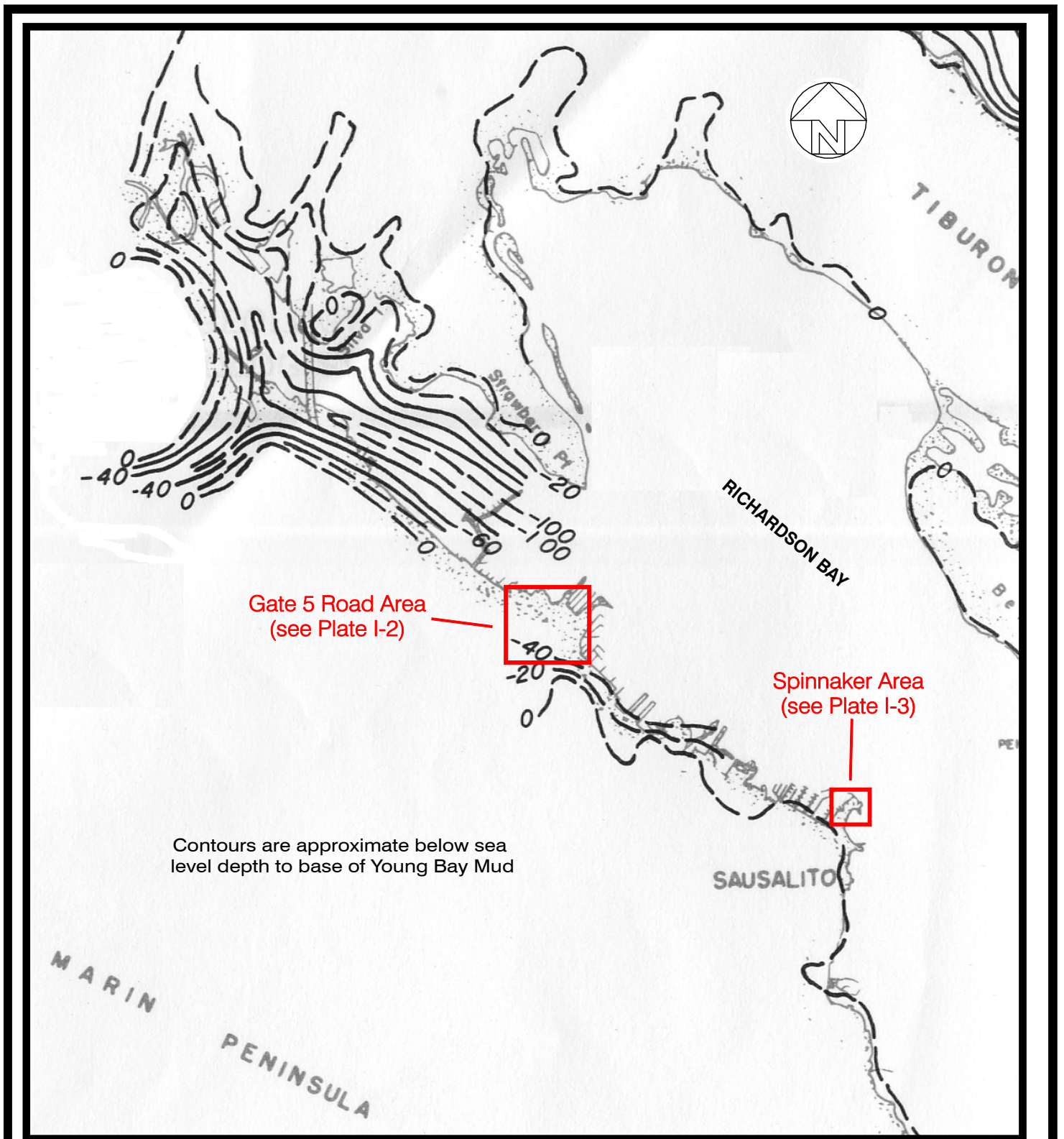
DCM | GEOENGINEERS

FILE NO. 18337-001-00 | AUGUST 2009

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GEOLOGIC MAP

PLATE NO.
I-4
 (COLOR PLATE)



Modified from CDMG (1969).



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 Sausalito, California

PLATE NO.

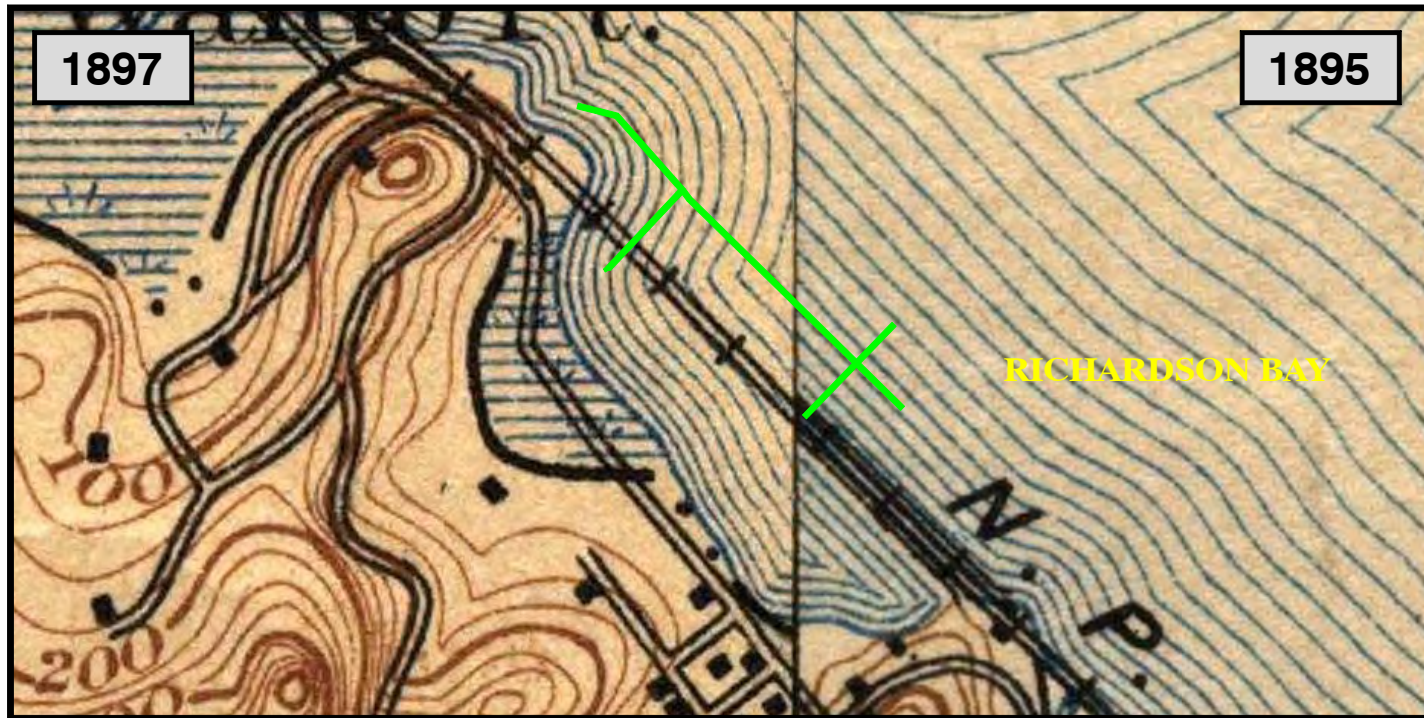
I-5

(COLOR PLATE)

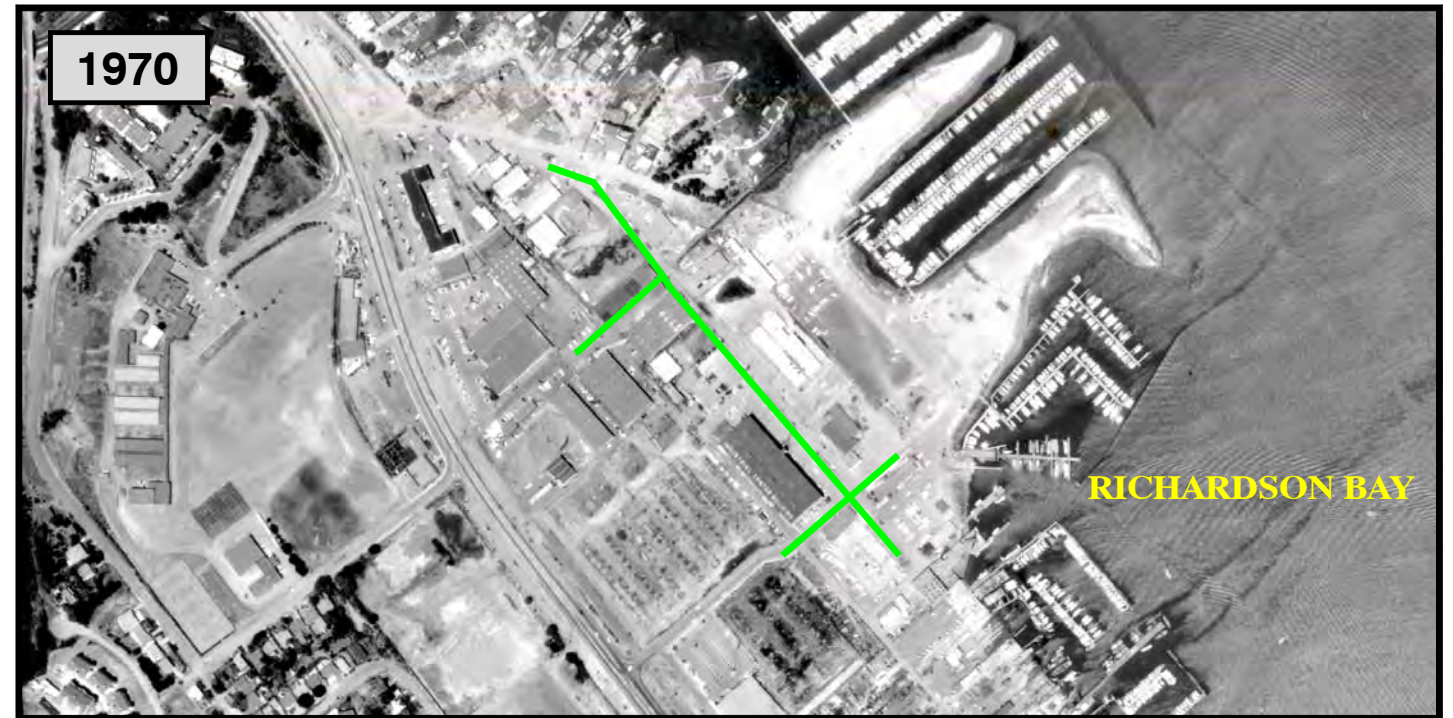
FILE NO. 18337-001-00

AUGUST 2009

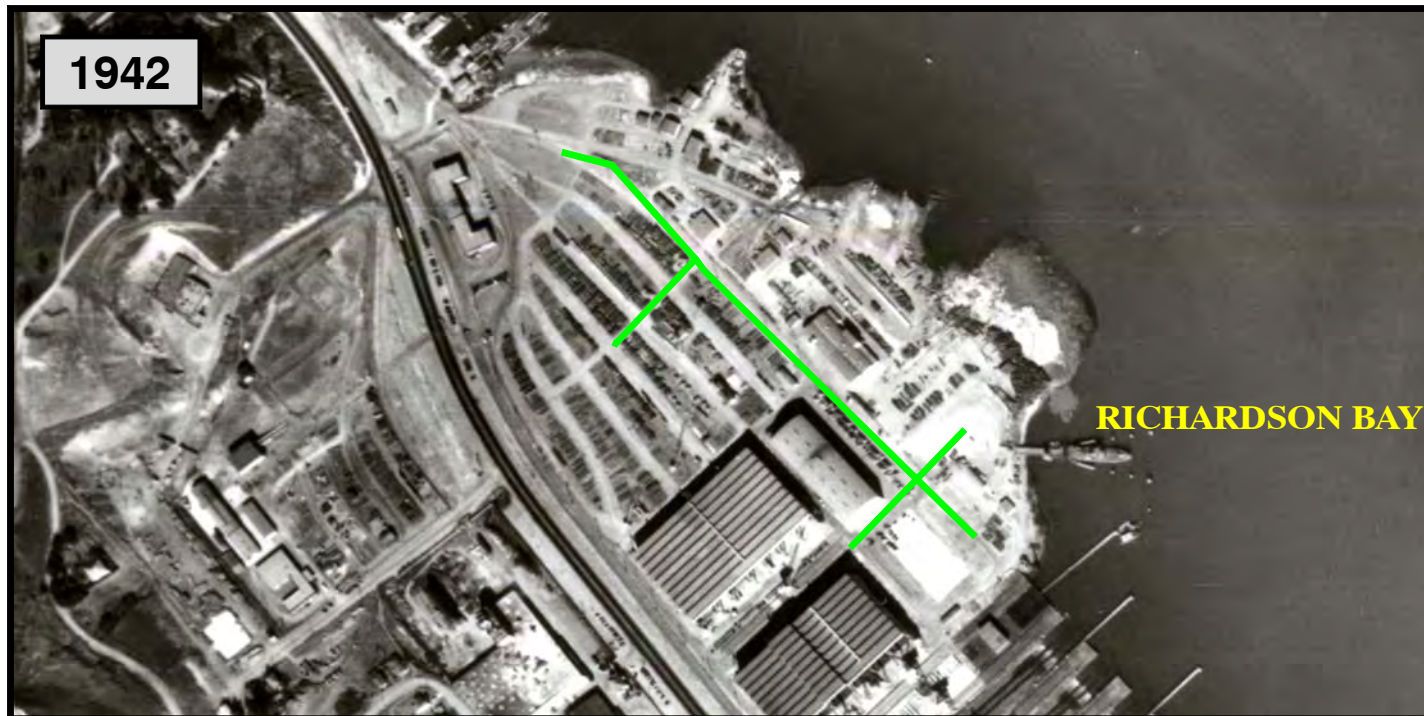
BAY MUD MAP



U.S.G.S. Tamalpais (1897) & San Francisco (1895) 15 Min. Quadrangles.



Pacific Aerial Surveys, AV-957-07-25, flown 6-12-70.



Pacific Aerial Surveys, AV 9-5-3, flown 10-28-46.



 - Project Alignment

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Sausalito, California

HISTORIC TOPO MAPS & AERIAL
PHOTOS - GATE 5 ROAD AREA

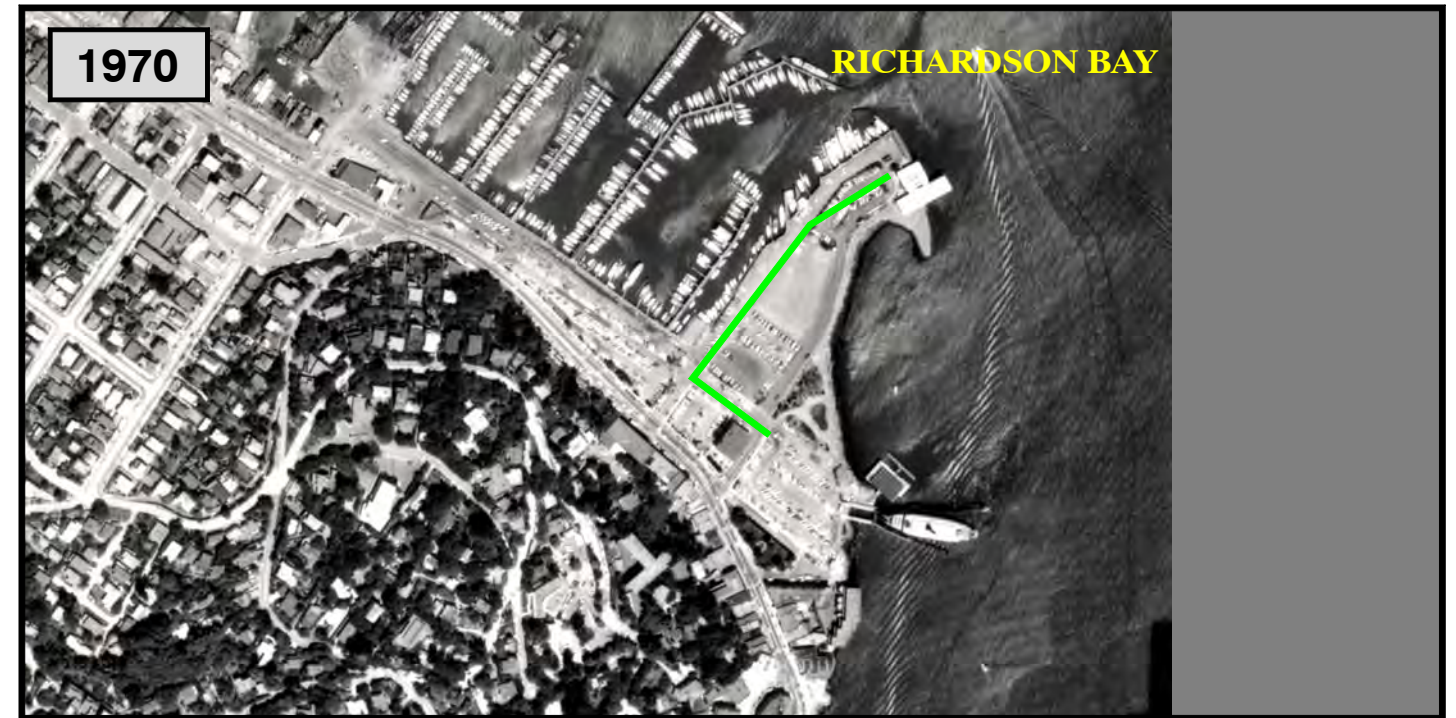
PLATE NO.

I-6

(COLOR PLATE)



U.S.G.S. San Francisco (1895) 15 Min. Quadrangle.



Pacific Aerial Surveys, AV-957-07-25, flown 6-12-70.



Pacific Aerial Surveys, AV 9-5-3, flown 10-28-46.



 - Project Alignment

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Priority 1 Sewer Replacement
Sausalito, California

HISTORIC TOPO MAPS & AERIAL
PHOTOS - SPINNAKER AREA







PLATE NO.

I-7

(COLOR PLATE)

APPENDIX A

KEY TO PROJECT BORING LOGS IN APPENDIX B

-  Grab sample
-  1.4" I.D./2" O.D. Standard Penetration Test (ASTM D1586) sampler (SPT)
-  2.5" I.D./3" O.D. Modified California sampler (MCS) with brass liners
-  2.9" I.D./3" O.D. Shelby tube sample
-  Water level measured at end of drilling
-  Projected project pipeline

RELATIVE DENSITY		CONSISTENCY		
SANDS AND GRAVELS	SPT, N	SILTS AND CLAYS	SPT, N	UNCONFINED COMPRESSIVE STRENGTH, tsf
VERY LOOSE	0-4	VERY SOFT	0-2	0-0.25
LOOSE	4-10	SOFT	2-4	0.25-0.50
MEDIUM DENSE	10-30	MEDIUM STIFF	4-8	0.50-1.00
DENSE	30-50	STIFF	8-15	1.00-2.00
VERY DENSE	50+	VERY STIFF	15-30	2.00-4.00
		HARD	30+	>4.00

Reference: Terzaghi, K. and Peck, R., SOIL MECHANICS IN ENGINEERING PRACTICE, 2nd ed., John Wiley and Sons, New York, 1967. Page 341 Table 45.1 and pp. 347 Table 45.2.

CONSTITUENT DESCRIPTIONS	
DESCRIPTION	CRITERIA
TRACE	less than 5%
FEW	5% to 10%
LITTLE	15% to 25%
SOME	30% to 45%
MOSTLY	50% to 100%

Reference: ASTM D2488, Note 15

MOISTURE CONDITION	
DESCRIPTION	CRITERIA
DRY	Absence of moisture, dusty, dry to the touch
MOIST	Damp but no visible water
WET	Visible free water, usually soil is below water table

Reference: ASTM D2488, Table 3 - Criteria for Describing Moisture Condition

GROUND BEHAVIOR	CLASSIFICATION
Ground that can be excavated without initial support and where shoring can be installed before the ground starts to move. For example, unfissured hard clay when not highly overstressed.	Firm
Ground of which chunks or flakes begin to fall off excavation walls. If raveling starts within a few minutes of excavation then it is "fast" raveling; otherwise, it is "slow" raveling. Silts and sands with clay binder may be fast raveling. Stiff fissured clays may be slow or fast raveling depending upon the degree of overstress.	Raveling
Ground that squeezes or plastically extrudes into excavations without visible fracturing. Can occur at shallow to medium depth in very soft to medium stiff clay, and can occur in stiff to hard clay under high overstress.	Squeezing
Ground consisting of clean dry granular material (e.g., sand and gravel) that moves by gravity to its angle of repose.	Running
Ground in a fluid-like condition (e.g., a disturbed mixture of predominantly silt, sand and/or gravel with water), that flows across pressure gradients.	Flowing
Ground that expands in volume due to the absorption of water (e.g., clays).	Swelling

Reference: Modified from Heuer, R.E., 1974, Important ground parameters in soft ground tunneling, Subsurface exploration for underground excavation and heavy construction, New England College, Henniker, New Hampshire, American Society of Civil Engineers, New York, P. 41-55.

NOTES:

1. Lines separating strata in the logs represent approximate boundaries and are dashed where strata change depth is less certain. Strata change may be gradual.
2. Penetration Resistance (blows/ft.) are the last 12" of an 18" drive using a 140-pound cathead hammer falling 30 inches per blow unless noted otherwise. The Penetration Resistance values noted on the logs are actual blows per foot of penetration for the respective sampler type (i.e., MCS sampler penetration resistance blow counts have not been reduced to approximate SPT sampler "N" values).
3. All borings were made with a Mobile B-24 drill rig using 5-inch diameter continuous flight solid stem augers.
4. See plates in Appendix C for grain size definitions and nomenclature.



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PLATE NO.

A-1

FILE NO. 18337-001-00

AUGUST 2009

BORING LOG LEGEND

(1 of 2)

KEY TO PROJECT BORING LOGS IN APPENDIX B (Cont'd)

UNIFIED SOIL CLASSIFICATION SYSTEM

SOIL CLASSIFICATION

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES ^A

GROUP SYMBOL GROUP NAME ^B

COARSE-GRAINED SOILS More than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels < 5% fines ^C	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$ $Cu < 4$ and/or $1 > Cc > 3^E$	GW	Well-graded gravel ^F	
		Gravels with Fines > 12% fines ^C	Fines classify as ML or MH Fines classify as CL or CH	GP	Poorly graded gravel ^F	
		SANDS 50% or more of coarse fraction passes No. 4 sieve	Clean Sands < 5% fines ^D	$Cu \geq 6$ and $1 \leq Cc \leq 3^E$ $Cu < 6$ and/or $1 > Cc > 3^E$	SW	Well-graded sand ^I
	SANDS WITH FINES > 12% fines ^D	Fines classify as ML or MH Fines classify as CL or CH	SP	Poorly graded sand ^I		
	FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	SILTS AND CLAYS Liquid limit ≤ 50	Inorganic	$PI > 7$ plots on or above "A" line ^J $PI < 4$ plots below "A" line ^J	CL	Lean clay ^{K,L,M}
			Organic	$\frac{\text{Liquid limit-oven dried}}{\text{Liquid limit-not dried}} < 0.75$	OL	Organic Clay ^{K,L,M,N} Organic Silt ^{K,L,M,O}
Inorganic			PI plots on or above "A" line PI plots below "A" line	CH	Fat clay ^{K,L,M}	
SILTS AND CLAYS Liquid limit > 50		Organic	$\frac{\text{Liquid limit-oven dried}}{\text{Liquid limit-not dried}} < 0.75$	MH	Elastic silt ^{K,L,M}	
		Inorganic	PI plots on or above "A" line PI plots below "A" line	OH	Organic Clay ^{K,L,M,P} Organic Silt ^{K,L,M,Q}	
		Organic	$\frac{\text{Liquid limit-oven dried}}{\text{Liquid limit-not dried}} < 0.75$	PT	Peat	
HIGHLY ORGANIC SOILS		Primarily organic matter, dark color and organic odor		PT	Peat	

NOTES:

- A** Based on the material passing the 3-in. (75mm) sieve.
- B** If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.
- C** Gravels with 5% to 12% fines require dual symbols:
 GW-GM well-graded gravel with silt
 GW-GC well-graded gravel with clay
 GP-GM poorly graded gravel with silt
 GP-GC poorly graded gravel with clay
- D** Sands with 5% to 12% fines require dual symbols:
 SW-SM well-graded sand with silt
 SW-SC well-graded sand with clay
 SP-SM poorly graded sand with silt
 SP-SC poorly graded sand with clay
- E** $Cu = \frac{D_{60}}{D_{10}}$ $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
- F** If soil contains $\geq 15\%$ sand, add "with sand" to group name.
- G** If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.
- H** If fines are organic, add "with organic fines" to group name.
- I** If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.
- J** If Atterberg limits plot in hatched area, soil is a CL-ML (silty clay).
- K** If soil contains 15% to 29% plus No. 200, add "with sand" or "with gravel", whichever is predominant.
- L** If soil contains $\geq 30\%$ plus No. 200, predominantly sand, add "sandy" to group name.
- M** If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.
- N** $PI \geq 4$ and plots on or above "A" line.
- O** $PI < 4$ or plots below "A" line.
- P** PI plots on or above "A" line.
- Q** PI plots below "A" line.



WEST YOST ASSOCIATES

City of Sausalito
 Priority 1 Sewer Replacement
 Sausalito, California

PLATE NO.

A-1

FILE NO. 18337-001-00

AUGUST 2009

BORING LOG LEGEND

(2 of 2)


APPENDIX B

DEPTH feet	SAMPLE NO.	TYPE	PENETRATION RESISTANCE blows/ft.	GROUNDWATER ③	LOG OF BORING B-1 ①	% MOISTURE	DRY DENSITY lbs./ft. ³	LIQUID LIMIT	PLASTICITY INDEX	GRAIN SIZE			UNCONFINED COMPRESSIVE STRENGTH kips/ft. ²	DIRECT SHEAR						
					LOCATION: See Plate I-1 BORING SURFACE ELEVATION: 10' PROJECTED STATION: 15 + 95 PLANNED PIPELINE INVERT ELEVATION: 2'					% Gravel (> #4 sieve)	% Sand (#4 to #200 sieve)	% Fines (< #200 sieve)		Cohesion p.s.f.	Internal Friction Angle					
DESCRIPTION ②																				
					GATE 5 ROAD: 10 inches asphalt concrete over 20 inches aggregate base - base layer contains few to some coarse gravel															
1		X			CLAYEY SAND WITH GRAVEL (SC) - FILL - dark yellowish brown - fine sand - coarse-grained angular - silty gravel - dry															
5					CLAYEY GRAVEL WITH SAND (GC) - FILL - dark gray - few to little medium and coarse sand - very loose to loose grading to medium dense - wet - Sandy Lean Clay (CL) from 8 - 8½'															
2			6			10	129			45	39	16								
3			4																	
10					CLAYEY SAND WITH GRAVEL (SC) - FILL - dark gray - medium to coarse sand - loose - wet															
4			7																	
5			10																	
15					CLAYEY SAND WITH GRAVEL (SC) - FILL - dark gray - medium to coarse sand - loose - wet															
6			8			12														
20					BOTTOM OF BORING AT 19 FEET															
					SLOUGH DEPTHS ON SAMPLING <table border="1"> <thead> <tr> <th>Sample No.</th> <th>Slough Depth*</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>8'</td> </tr> </tbody> </table> <p>*Slough depth measured up from intended sample depth.</p>	Sample No.	Slough Depth*	6	8'											
Sample No.	Slough Depth*																			
6	8'																			
25																				

Borehole sloughing below ~5'
(see table below)

⑤

- NOTES
- ① Drilled 7/6/09 using a Mobile B-24, 5" diameter solid stem augers, and a 30" drop by 140 lb. cathead sampling hammer.
 - ② See report text in Section I and plates in Appendices A and C for definitions, lab test results, and additional soil descriptions.
 - ③ Free groundwater level measured in boring at depth of 6½ feet after drilling. Static equilibrium groundwater depth is unknown.
 - ④ Rounded from in-progress design plans (West Yost Associates, 2009).
 - ⑤ Projected planned 8" ID pipeline.

	WEST YOST ASSOCIATES City of Sausalito Priority 1 Sewer Replacement Sausalito, California	PLATE NO. <h1 style="font-size: 2em;">B-1</h1>
	FILE NO. 18337-001-00 AUGUST 2009	BORING LOG B-1

DEPTH feet	SAMPLE NO.	TYPE	PENETRATION RESISTANCE blows/ft.	GROUNDWATER ③	LOG OF BORING B-2 ①	% MOISTURE	DRY DENSITY lbs./ft. ³	LIQUID LIMIT	PLASTICITY INDEX	GRAIN SIZE			UNCONFINED COMPRESSIVE STRENGTH kip/s.ft. ²	DIRECT SHEAR								
					LOCATION: See Plate I-1 BORING SURFACE ELEVATION: 8' PROJECTED STATION: 21 + 00 PLANNED PIPELINE INVERT ELEVATION: -5'					Gravel (> #4 sieve) %	Sand (#4 to #200 sieve) %	Fines (< #200 sieve) %		Cohesion p.s.f.	Internal Friction Angle							
DESCRIPTION ②																						
1					GATE 5 ROAD: 6 inches asphalt concrete over 24 inches aggregate base																	
2			12		GRAVELLY LEAN CLAY WITH SAND (CL) - FILL - brownish yellow to dark - fine sand - brownish yellow, becoming - medium to low plasticity - reddish with depth - stiff - angular gravel - dry to moist			40	18													
3			8		POORLY GRADED GRAVEL (GP) - FILL - dark brown - angular gravel - very loose to loose - wet					86	10	4										
4			4																			
5			2		POORLY GRADED SAND (SP) - FILL - brown - loose - trace gravel - wet - fine to medium sand	20																
6			5		CLAYEY GRAVEL WITH SAND (GC) - FILL - dark grayish brown - subangular coarse gravel - loose - wet	14																
18.5					BOTTOM OF BORING AT 18½ FEET																	
					SLOUGH DEPTHS ON SAMPLING <table border="1"> <thead> <tr> <th>Sample No.</th> <th>Slough Depth*</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>1½'</td> </tr> <tr> <td>4</td> <td>3'</td> </tr> <tr> <td>5</td> <td>6½'</td> </tr> </tbody> </table> <p>*Slough depth measured up from intended sample depth.</p>	Sample No.	Slough Depth*	3	1½'	4	3'	5	6½'									
Sample No.	Slough Depth*																					
3	1½'																					
4	3'																					
5	6½'																					

Borehole sloughing below 5½' (see table below)

NOTES

- ① Drilled 7/6/09 using a Mobile B-24, 5" diameter solid stem augers, and a 30" drop by 140 lb. cathead sampling hammer.
- ② See report text in Section I and plates in Appendices A and C for definitions, lab test results, and additional soil descriptions.
- ③ Free groundwater level measured in boring at depth of 4 feet after drilling. Static equilibrium groundwater depth is unknown.
- ④ Rounded from in-progress design plans (West Yost Associates, 2009).
- ⑤ Projected planned 8" ID pipeline.



WEST YOST ASSOCIATES
City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.
B-2

FILE NO. 18337-001-00

AUGUST 2009

BORING LOG B-2

DEPTH feet	SAMPLE NO.	TYPE	PENETRATION RESISTANCE blows/ft.	GROUNDWATER ③	LOG OF BORING B-3A ^①		MOISTURE %	DRY DENSITY lbs./ft. ³	LIQUID LIMIT	PLASTICITY INDEX	GRAIN SIZE			UNCONFINED COMPRESSIVE STRENGTH kips/ft. ²	DIRECT SHEAR	
					LOCATION: See Plate I-1 BORING SURFACE ELEVATION: 7½' PROJECTED STATION: 46 + 60 PLANNED PIPELINE INVERT ELEVATION: 1'						Gravel (> #4 sieve) %	Sand (#4 to #200 sieve) %	Fines (< #200 sieve) %		Cohesion p.s.f.	Internal Friction Angle
					DESCRIPTION ②											
					HARBOR DR: 6 inches asphalt concrete over 18 inches aggregate base											
					LEAN CLAY WITH SAND (CL) - FILL - yellowish brown - medium plasticity - trace gravel - moist - medium grained sand											
5					LEAN CLAY WITH SAND (CL) - FILL - dark yellowish brown and dark gray - few to some jumbled pockets of sand and gravel - dry to moist											
1	9				LEAN CLAY (CL) - FILL - light olive brown - few fine sand - trace medium sand-sized - medium plasticity pieces of gravel-sized - medium stiff pieces of brick - moist		21	105							480	16°
2	5				LEAN CLAY (CL) TO FAT CLAY (CH) - FILL - dark gray to dark greenish - fine to medium sand; content gray and few dark yellowish varies throughout from trace brown to little - trace organics - medium to high plasticity - trace shells - soft to medium stiff - trace gravel - moist to wet											
3	6						21	109					1.40			
4	6								82	49						
15					ORGANIC CLAY (OH) - FILL - black - medium stiff - organic odor - moist to wet - high plasticity											
5			pushed													
6	8				LEAN CLAY (CL) - FILL - dark grayish brown - medium plasticity - trace to few fine gravel - medium stiff - trace to few fine sand - wet											
20					SANDY LEAN CLAY WITH GRAVEL (CL) - FILL - dark greenish gray to dark - low to medium plasticity bluish gray - medium stiff - coarse sand - wet - angular gravel											
					BOTTOM OF BORING AT 20 FEET											

CORROSION TEST
Samples 1 & 2
See Plate C-5

LL RATIO
O.D. = 0.67
N.D.

NOTES

- ① Drilled 7/6/09 using a Mobile B-24, 5" diameter solid stem augers, and a 30" drop by 140 lb. cathead sampling hammer.
- ② See report text in Section I and plates in Appendices A and C for definitions, lab test results, and additional soil descriptions.
- ③ Free groundwater level measured in boring at depth of 7 feet after drilling. Static equilibrium groundwater depth is unknown.
- ④ Rounded from in-progress design plans (West Yost Associates, 2009).
- ⑤ Projected planned 8" ID pipeline.



WEST YOST ASSOCIATES
City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.
B-3A

FILE NO. 18337-001-00

AUGUST 2009

BORING LOG B-3A

DEPTH feet	SAMPLE NO.	TYPE	PENETRATION RESISTANCE blows/ft.	GROUNDWATER ③	LOG OF BORING B-3B ①	% MOISTURE	DRY DENSITY lbs./ft. ³	LIQUID LIMIT	PLASTICITY INDEX	GRAIN SIZE			UNCONFINED COMPRESSIVE STRENGTH kip/s.ft. ²	DIRECT SHEAR	
					LOCATION: See Plate I-1 BORING SURFACE ELEVATION: 7½' PROJECTED STATION: 46 + 60 PLANNED PIPELINE INVERT ELEVATION: 1'					Gravel (> #4 sieve) %	Sand (#4 to #200 sieve) %	Fines (< #200 sieve) %		Cohesion p.s.f.	Internal Friction Angle
DESCRIPTION ②															
					HARBOR DR: 6 inches asphalt concrete over 16 inches aggregate base										
1		X			LEAN CLAY WITH SAND (CL) - TRENCH BACKFILL - yellowish brown - medium plasticity - trace gravel - moist - medium grained sand	21		47	21						
5					BOTTOM OF BORING AT 3½ FEET										
10															
15															
20															
25															

NOTES

- ① Drilled 7/9/09 using a Mobile B-24, 5" diameter solid stem augers, and a 30" drop by 140 lb. cathead sampling hammer.
- ② See report text in Section I and plates in Appendices A and C for definitions, lab test results, and additional soil descriptions.
- ③ Free groundwater level was not encountered during drilling. Static equilibrium groundwater depth is unknown.
- ④ Rounded from in-progress design plans (West Yost Associates, 2009).
- ⑤ Existing Priority pipeline to be replaced with planned 8" ID pipeline.



WEST YOST ASSOCIATES

City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.

B-3B

FILE NO. 18337-001-00

AUGUST 2009

BORING LOG B-3B

DEPTH feet	SAMPLE NO.	TYPE	PENETRATION RESISTANCE blows/ft.	GROUNDWATER ③	LOG OF BORING B-4 ① LOCATION: See Plate I-1 BORING SURFACE ELEVATION: 11' PROJECTED STATION: 42 + 60 PLANNED PROFILE D INVERT ELEVATION: 1 1/2'	MOISTURE %	DRY DENSITY lbs./ft.³	LIQUID LIMIT	PLASTICITY INDEX	GRAIN SIZE			UNCONFINED COMPRESSIVE STRENGTH kips/ft.²	DIRECT SHEAR							
										Gravel (> #4 sieve) %	Sand (#4 to #200 sieve) %	Fines (< #200 sieve) %		Cohesion p.s.f.	Internal Friction Angle						
DESCRIPTION ②																					
1		X			HARBOR DR: 4 inches asphalt concrete over 22 inches aggregate base																
2			25		LEAN CLAY (CL) - FILL - very dark brown - medium plasticity - trace sand and fine gravel - dry																
5	3		10		LEAN CLAY WITH SAND (CL) - FILL - dark gray - medium plasticity - angular gravel - moist - fine gravel to cobble at 3 1/2'; - very stiff broken by sampler					38	44	18									
10	4		10		CLAYEY SAND WITH GRAVEL (SC) - FILL - brown with yellowish brown - very loose to loose splotches - moist - all sizes sand and gravel	12	124			54	28	18									
10	5		4		CLAYEY GRAVEL WITH SAND (GC) - FILL - brown - very loose to loose - angular to subrounded gravel - wet - ~2 1/2" gravel near 9'					47	32	21									
15	6		7		SILTY SAND (SM) - FILL - very dark gray - trace fine angular gravel - coarse sand - loose - wet																
20	7		4		SILTY SAND WITH GRAVEL (SM) - FILL - brown - fine angular gravel - coarse sand - very loose to loose - wet																
BOTTOM OF BORING AT 20 FEET																					
SLOUGH DEPTHS ON SAMPLING																					
<table border="1"> <thead> <tr> <th>Sample No.</th> <th>Slough Depth*</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>3/4'</td> </tr> <tr> <td>6</td> <td>6'</td> </tr> </tbody> </table>						Sample No.	Slough Depth*	4	3/4'	6	6'										
Sample No.	Slough Depth*																				
4	3/4'																				
6	6'																				
*Slough depth measured up from intended sample depth.																					

Borehole sloughing below 7' (see table below)

NOTES

- ① Drilled 7/6/09 using a Mobile B-24, 5" diameter solid stem augers, and a 30" drop by 140 lb. cathead sampling hammer.
- ② See report text in Section I and plates in Appendices A and C for definitions, lab test results, and additional soil descriptions.
- ③ Free groundwater level measured in boring at depth of 6 feet after drilling. Static equilibrium groundwater depth is unknown.
- ④ Rounded from in-progress design plans (West Yost Associates, 2009).
- ⑤ Projected planned 8" ID pipeline.



WEST YOST ASSOCIATES
City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.
B-4

FILE NO. 18337-001-00

AUGUST 2009

BORING LOG B-4

DEPTH feet	SAMPLE NO.	TYPE	PENETRATION RESISTANCE blows/ft.	GROUNDWATER ③	LOG OF BORING B-5 ①		% MOISTURE	DRY DENSITY lbs./ft. ³	LIQUID LIMIT	PLASTICITY INDEX	GRAIN SIZE			UNCONFINED COMPRESSIVE STRENGTH kip/s.ft. ²	DIRECT SHEAR	
					LOCATION: See Plate I-1 BORING SURFACE ELEVATION: 8' PROJECTED STATION: 20 + 75 PLANNED PIPELINE INVERT ELEVATION: 4'	DESCRIPTION ②					Gravel (> #4 sieve) %	Sand (#4 to #200 sieve) %	Fines (< #200 sieve) %		Cohesion p.s.f.	Internal Friction Angle
						SPINNAKER DR: 9 inches asphalt concrete over 5 inches aggregate base										
1			30			LEAN CLAY (CL) - FILL - grayish brown - cemented from 3-3½' - broken fine gravel to cobble - medium plasticity broken at 3¾' - very stiff - trace fine sand and gravel - moist	12	118	43	18						
5			5			LEAN CLAY (CL) - FILL - dark brown with yellowish - trace to few fine gravel brown and grayish green - low plasticity mottles - medium stiff - trace to few coarse sand - moist					48	34	18			
3			6			CLAYEY GRAVEL WITH SAND (GC) - FILL - very dark gray - all grades sand - angular to subangular gravel - loose	21	105						1.24		
10			7			LEAN TO FAT CLAY WITH SAND (CL/CH) - FILL - mostly dark greenish gray, little very dark gray and little green - soil colors layered at arbitrary angles - green layer has trace to few fines - trace broken shells at 9' - mostly grayish green below 9' with trace coarse sand and trace coarse gravel - medium to low plasticity - soft to medium stiff - wet - wood found at 10½'	48	73								
15			11			ORGANIC CLAY (OH) - FILL & POSSIBLY BAY MUD - dark greenish gray - Sample 6 stopped by wood - trace shells found from 14½ to 16' in - trace fine sand Sample 7 - high plasticity - Sample 8 contains some to - very soft mostly clam shell fragments - wet										
20			pushed													
			pushed													
						BOTTOM OF BORING AT 21 FEET										
25																

CORROSION TEST
Samples 3 & 4
See Plate C-5

NOTES

- ① Drilled 7/9/09 using a Mobile B-24, 5" diameter solid stem augers, and a 30" drop by 140 lb. cathead sampling hammer.
- ② See report text in Section I and plates in Appendices A and C for definitions, lab test results, and additional soil descriptions.
- ③ Free groundwater level measured in boring at depth of 7 feet after drilling. Static equilibrium groundwater depth is unknown.
- ④ Rounded from in-progress design plans (West Yost Associates, 2009).
- ⑤ Projected planned 8" ID pipeline.



WEST YOST ASSOCIATES
City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.
B-5

FILE NO. 18337-001-00


AUGUST 2009

BORING LOG B-5

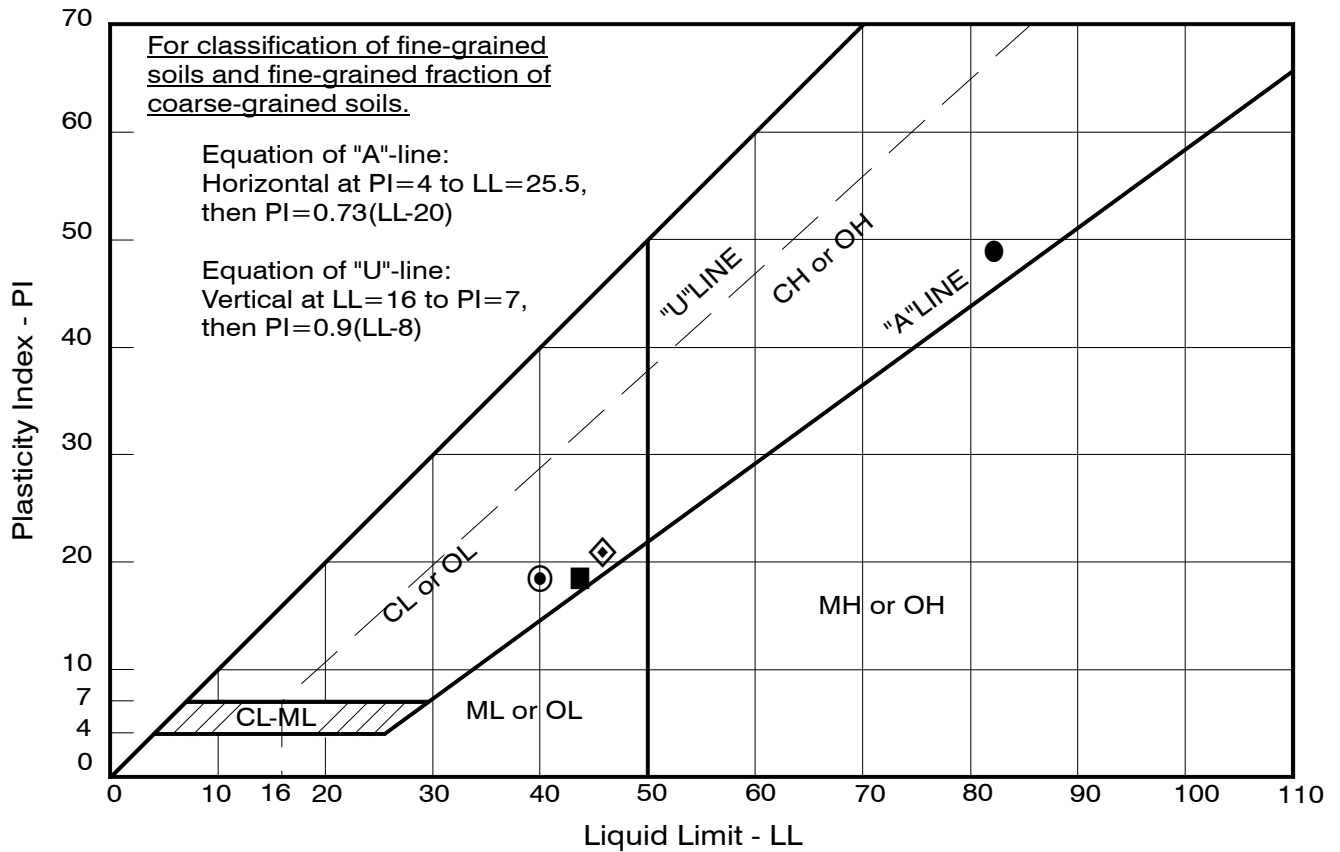
DEPTH feet	SAMPLE NO.	TYPE	PENETRATION RESISTANCE blows/ft.	GROUNDWATER ③	LOG OF BORING B-6 ①	% MOISTURE	DRY DENSITY lbs./ft. ³	LIQUID LIMIT	PLASTICITY INDEX	GRAIN SIZE			UNCONFINED COMPRESSIVE STRENGTH kips/ft. ²	DIRECT SHEAR							
					LOCATION: See Plate I-1 BORING SURFACE ELEVATION: 12½' PROJECTED STATION: 12 + 65 PLANNED PROFILE G INVERT ELEVATION: 2½'					Gravel (> #4 sieve) %	Sand (#4 to #200 sieve) %	Fines (< #200 sieve) %		Cohesion p.s.f.	Internal Friction Angle						
DESCRIPTION ②																					
					HUMBOLDT AVE: 6 inches asphalt concrete over 11 inches aggregate base																
					CLAYEY SAND (SC) - FILL - brown - few gravel - dry																
1			31		WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) - FILL - brownish yellow - localized pockets of angular gravel	6	120				57	36	7								
5	2		8		WELL-GRADED GRAVEL WITH SILT AND SAND (GW-GM) - FILL - brownish yellow - gravels mostly rounded - loose - moist	8	113				58	34	8	0.63							
10	4		8		WELL-GRADED GRAVEL WITH SAND (GW) - FILL - yellowish brown - angular to rounded grains - loose - wet - few to little fines at 14½'						77	19	4								
15	6		5		FAT CLAY (CH) - BAY MUD - very dark brown - trace fine angular gravel - trace sand - medium to high plasticity	44															
20	7		2																		
					BOTTOM OF BORING AT 21.5 FEET																
					SLOUGH DEPTHS ON SAMPLING <table border="1"> <thead> <tr> <th>Sample No.</th> <th>Slough Depth*</th> </tr> </thead> <tbody> <tr> <td>6-5</td> <td>1'</td> </tr> <tr> <td>6-6</td> <td>2½'</td> </tr> </tbody> </table> *Slough depth measured up from intended sample depth.	Sample No.	Slough Depth*	6-5	1'	6-6	2½'										
Sample No.	Slough Depth*																				
6-5	1'																				
6-6	2½'																				

Borehole sloughing below 12'
(see table below)

- NOTES
- ① Drilled 7/9/09 using a Mobile B-24, 5" diameter solid stem augers, and a 30" drop by 140 lb. cathead sampling hammer.
 - ② See report text in Section I and plates in Appendices A and C for definitions, lab test results, and additional soil descriptions.
 - ③ Free groundwater level measured in boring at depth of 10½ feet after drilling. Static equilibrium groundwater depth is unknown.
 - ④ Rounded from in-progress design plans (West Yost Associates, 2009).
 - ⑤ Projected planned 8" ID pipeline.

	WEST YOST ASSOCIATES	PLATE NO.
	City of Sausalito Priority 1 Sewer Replacement Sausalito, California	B-6
FILE NO. 18337-001-00	AUGUST 2009	BORING LOG B-6

APPENDIX C

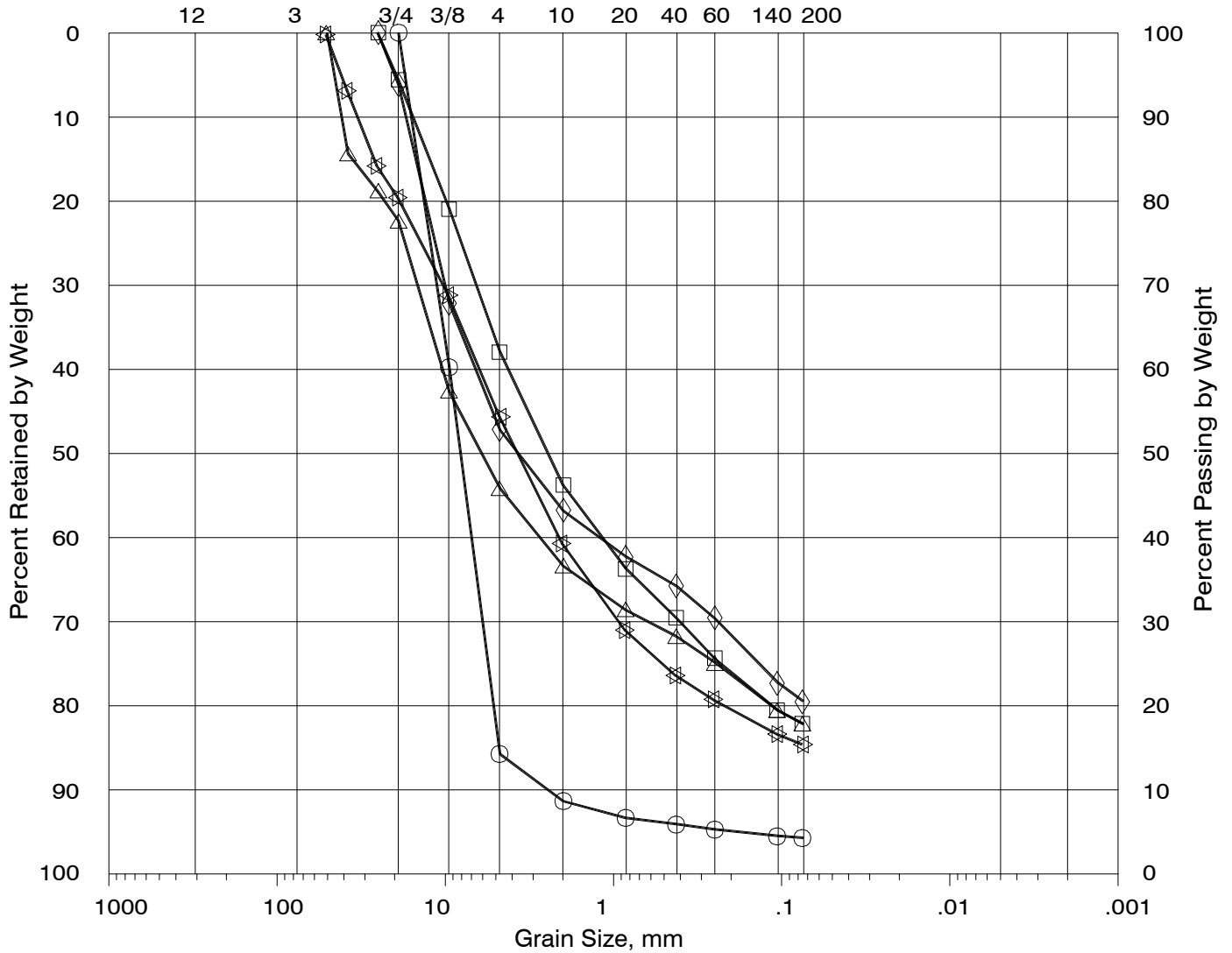


TEST SYMBOL	BORING SAMPLE NO.	DEPTH (ft)	LIQUID LIMIT - LL (not dried)	PLASTICITY INDEX - PI	RATIO*	GROUP SYMBOL**
⊙	B-2-2	2-4	40	18	NA	CL
●	B-3A-4	13¾-14½	82	49	0.67	OH
◇	B-3B-1	2½-3½	47	21	NA	CL
■	B-5-1	3½-4	43	18	NA	CL

* LL oven dried to LL not dried. Where ratio is <0.75 then sample is organic.

** Classification of fines < 0.425mm

BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
U.S. SIEVE SIZE IN INCHES				U.S. STANDARD SIEVE No.			HYDROMETER	



TEST SYMBOL	BORING SAMPLE NO.	DEPTH (feet)	GROUP SYMBOL	DESCRIPTION (based on grain size)
⊠	B-1-2	6½-7	GC	clayey gravel with sand
○	B-2-3	7½-8½	GP	poorly graded gravel
□	B-4-3	4½-6	SC	clayey sand with gravel
△	B-4-4	9-9½	GC	clayey gravel with sand
◇	B-4-5	9½-11	GC	clayey gravel with sand

NOTE: The largest particle (grain) size that could have been sampled is a function of the inside diameter of the sample barrel used (see Plate A-1). Therefore, there may be larger particles (e.g., cobbles) in the soils sampled than reflected on the boring logs and grain size distribution curves provided in this report.



WEST YOST ASSOCIATES

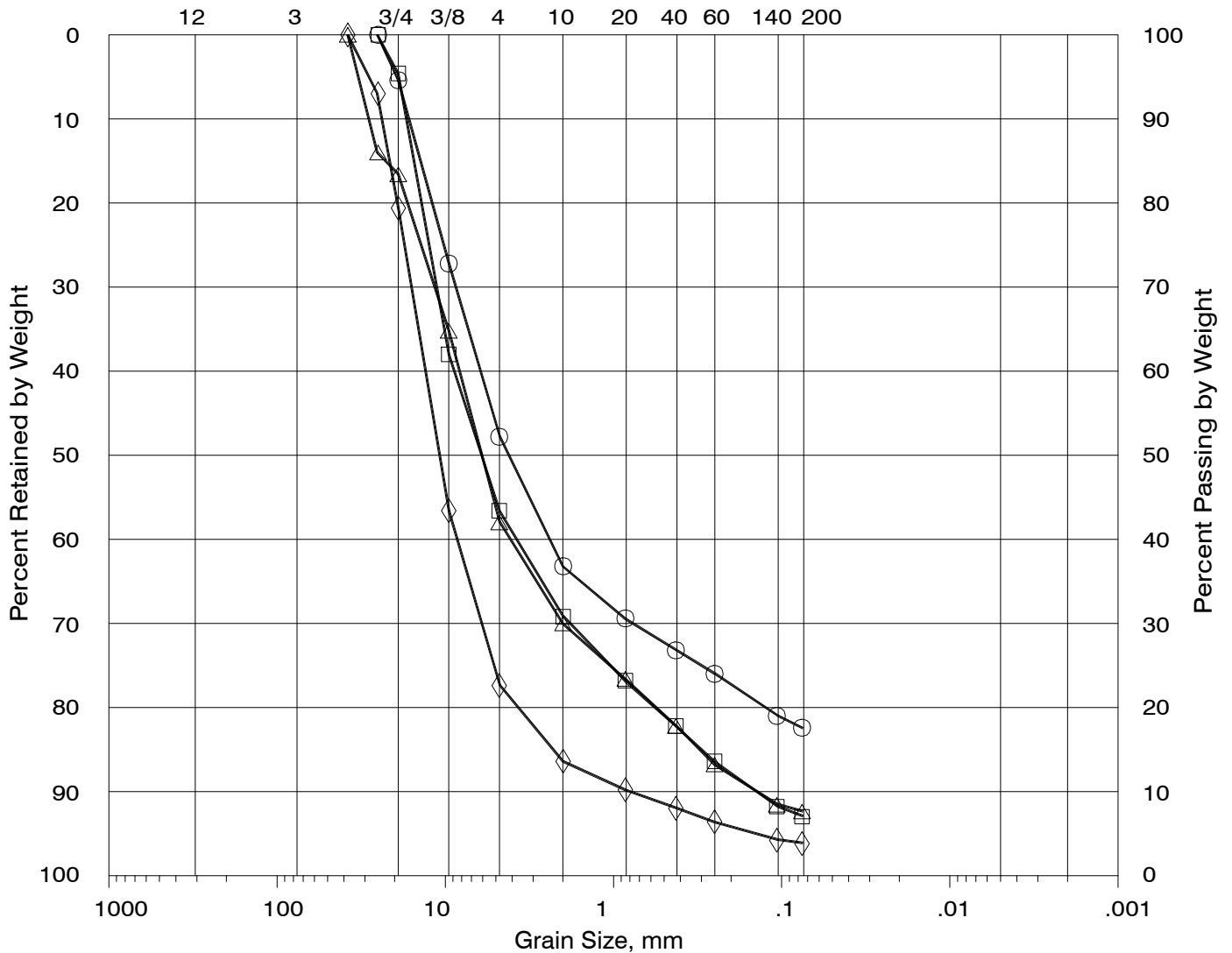
City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.

C-2

(1 of 2)

BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
U.S. SIEVE SIZE IN INCHES				U.S. STANDARD SIEVE No.			HYDROMETER	



TEST SYMBOL	BORING SAMPLE NO.	DEPTH (feet)	GROUP SYMBOL	DESCRIPTION (based on grain size)
○	B-5-2	5¼-5½	GC	clayey gravel with sand
□	B-6-2	4½-6	GW-GM	well-graded gravel with silt and sand
△	B-6-4	9½-11	GW-GM	well-graded gravel with silt and sand
◇	B-6-5	13½-14½	GW	well-graded gravel with sand

NOTE: The largest particle (grain) size that could have been sampled is a function of the inside diameter of the sample barrel used (see Plate A-1). Therefore, there may be larger particles (e.g., cobbles) in the soils sampled than reflected on the boring logs and grain size distribution curves provided in this report.



WEST YOST ASSOCIATES

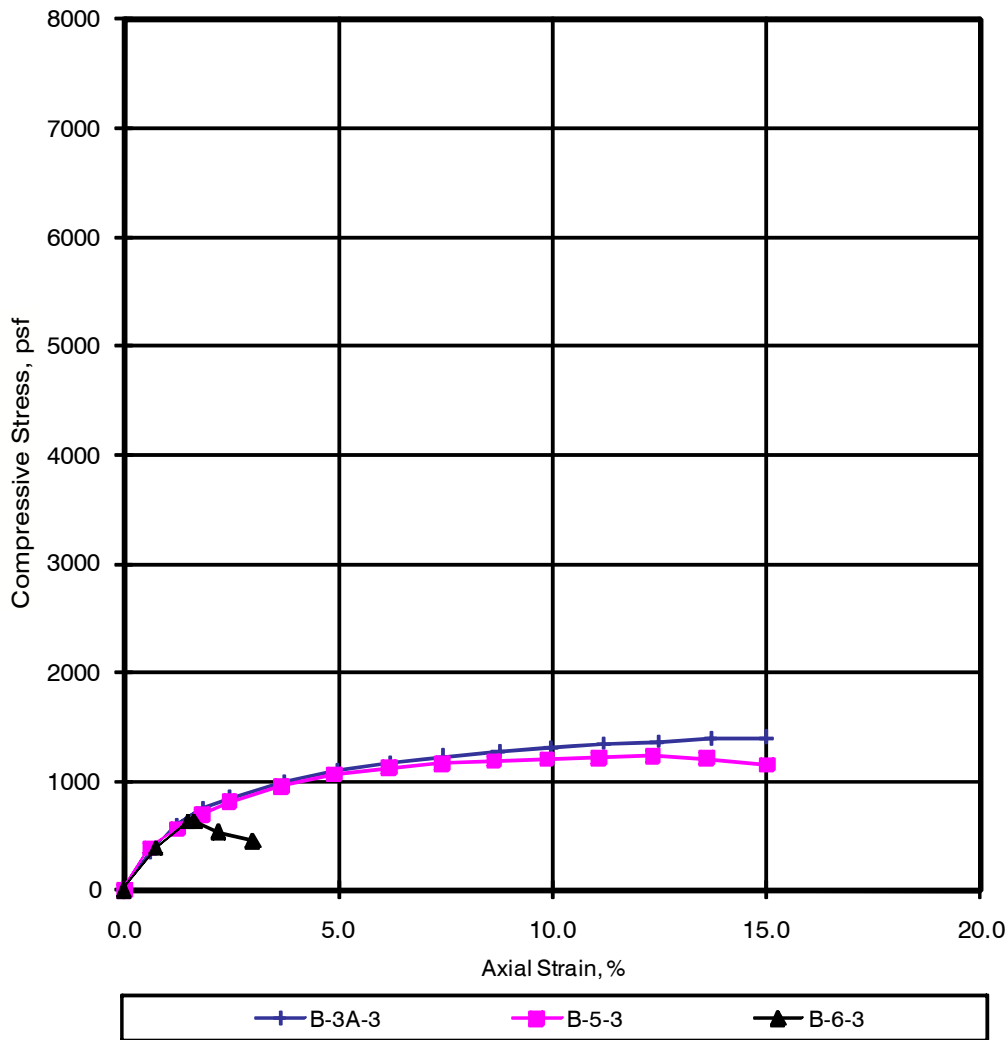
City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.

C-2

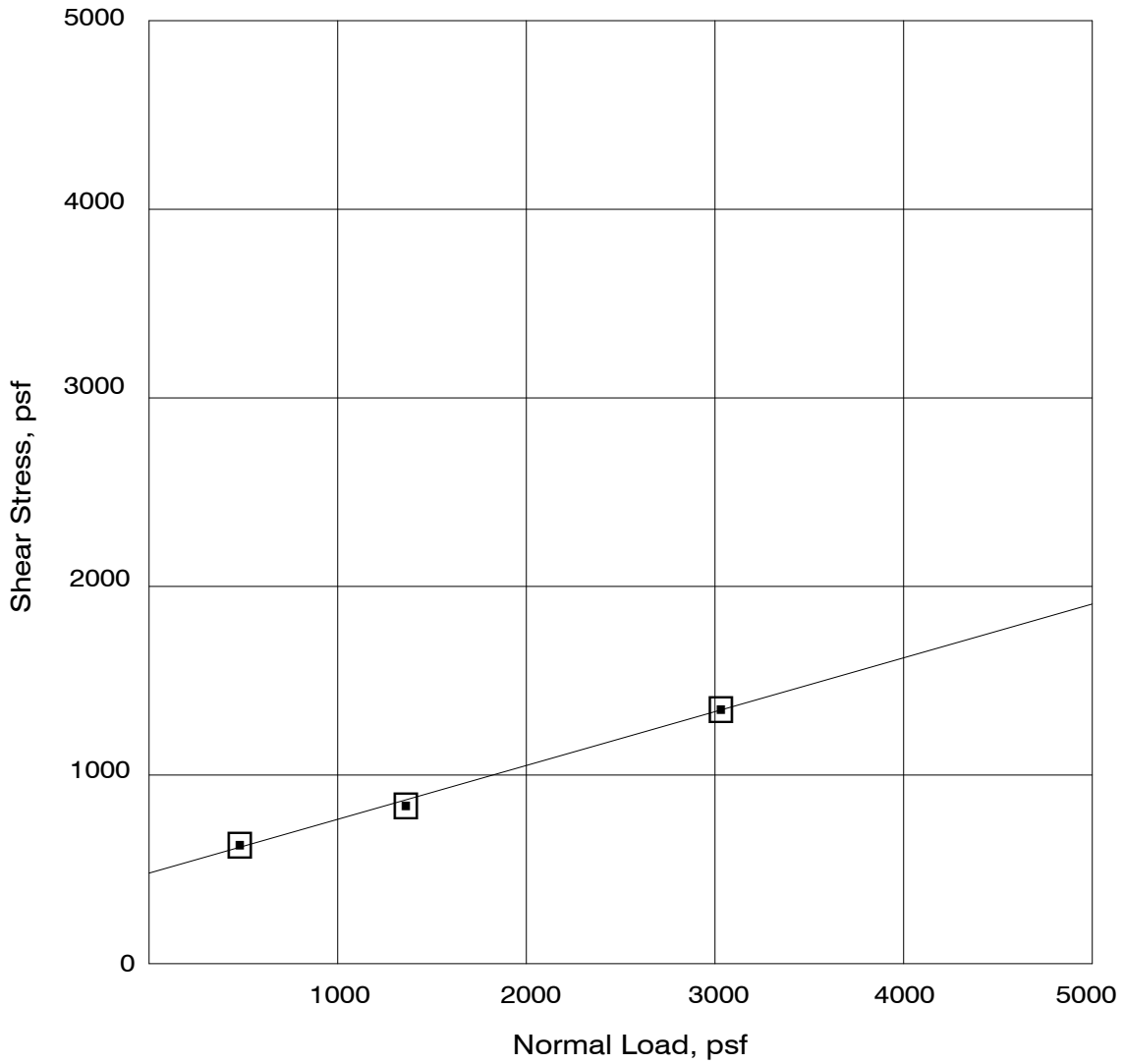
(2 of 2)

UNCONFINED COMPRESSION TEST



BORING SAMPLE NO.	B-3A-3	B-5-3	B-6-3
MAXIMUM UNCONFINED STRESS, psf	1,402	1,235	634
% STRAIN @ PEAK STRESS	15.0	12.3	1.7
DEPTH, ft.	13-13½	8½-9	8½-9
WATER CONTENT, %	21	21	8
DRY DENSITY, pcf	109	105	113
SATURATION, %	107	95	45

Maximum Unconfined Stress cut-off = 15% strain
 Average Strain Rate = 0.07 in/min.



TEST SYMBOL	GRAPH LINE	BORING SAMPLE NO.	DEPTH (ft)	COHESION (p.s.f.)	INTERNAL FRICTION ANGLE (degrees)	AVE. DRY DENSITY (pcf)/ MOISTURE CONTENT (%)	
						BEFORE TEST	AFTER TEST
□	—	B-3A-1	7½-8	480	16	105/21	105/23



WEST YOST ASSOCIATES

City of Sausalito
 Priority 1 Sewer Replacement
 Sausalito, California

PLATE NO.

C-4

FILE NO. 18337-001-00

AUGUST 2009

DIRECT SHEAR

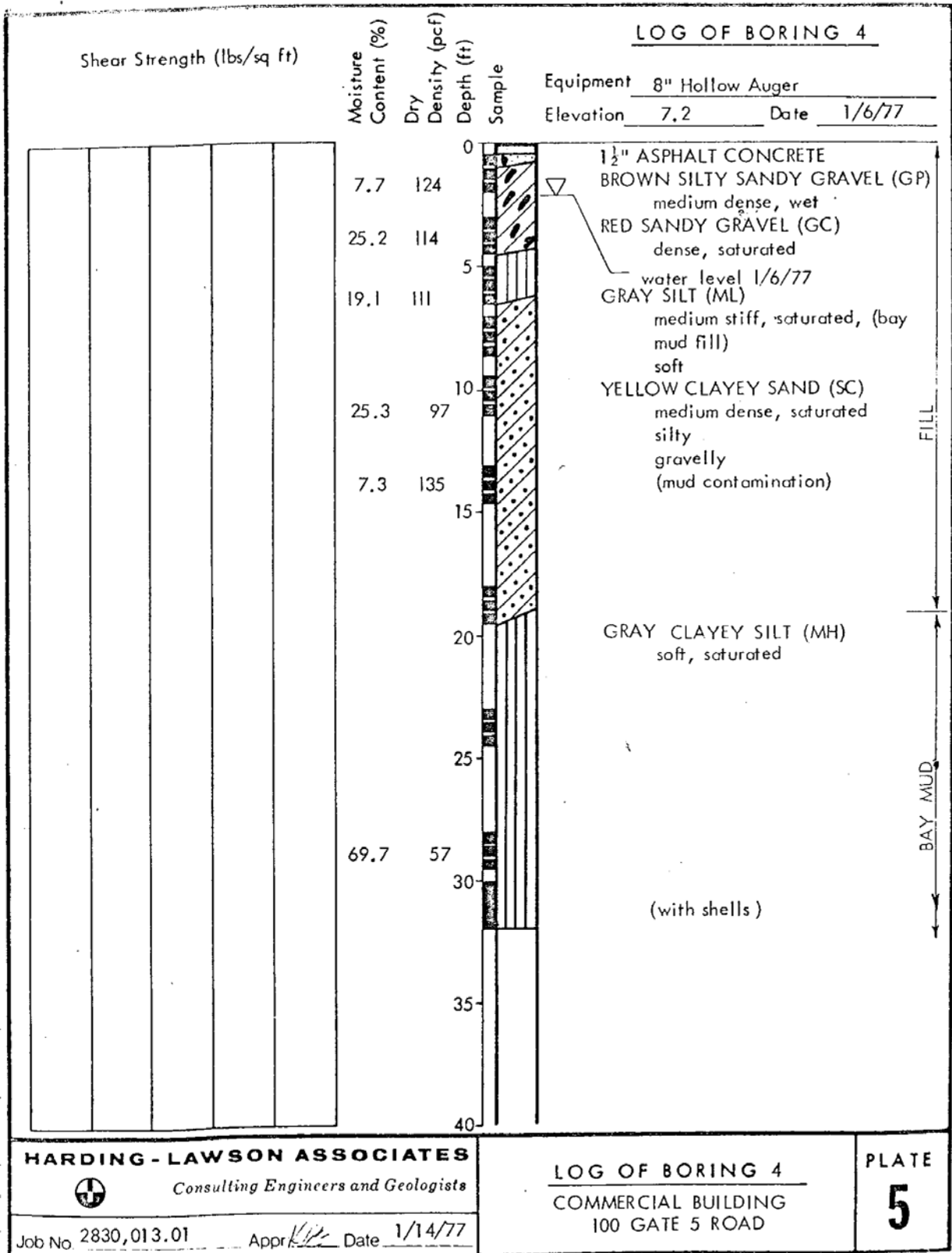
CORROSION TESTS and RESULTS

SAMPLE NO.	RESISTIVITY saturated (ohm-cm)	REDOX (mv)	pH	SULFATE (mg/kg)	CHLORIDE (mg/kg)
B-3A (8-10.5')	140	450	7.6	520	2,100*
B-5 (7-9.5')	320	450	7.5	N.D.	670
Test Method	ASTM G57	ASTM D1498	ASTM D4972	ASTM D4327	ASTM D4327
Detection Limit	-	-	-	15	15


Test Notes:

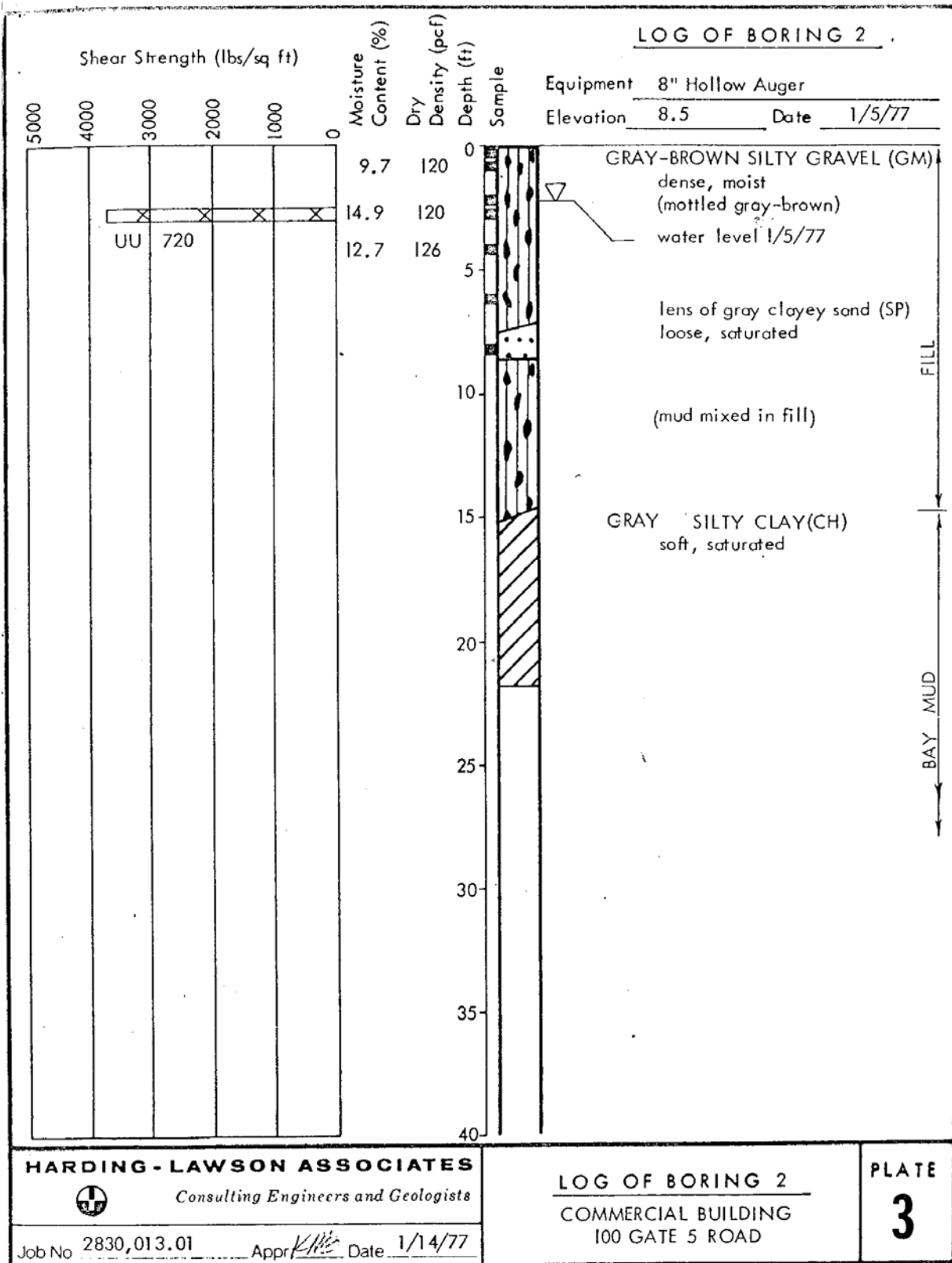
1. The above tests (excluding redox and sulfides) were performed in accordance with the following ASTM Methods:
 - a. ASTM G57: STANDARD TEST METHOD FOR FIELD MEASUREMENT OF SOIL RESISTIVITY USING THE WENNER FOUR-ELECTRODE METHOD
 - b. ASTM D1498: STANDARD TEST METHOD FOR OXIDATION-REDUCTION POTENTIAL OF WATER
 - c. ASTM D4972: TEST METHOD FOR pH OF SOILS
 - d. ASTM D4327: STANDARD TEST METHOD FOR ANIONS IN WATER BY CHEMICALLY SUPPRESSED ION CHROMATOGRAPHY
 2. Testing provided by Cerco Analytical.
 3. N.D. = Not Detected
- * Detection limit elevated to 75 mg/kg due to dilution.

APPENDIX D



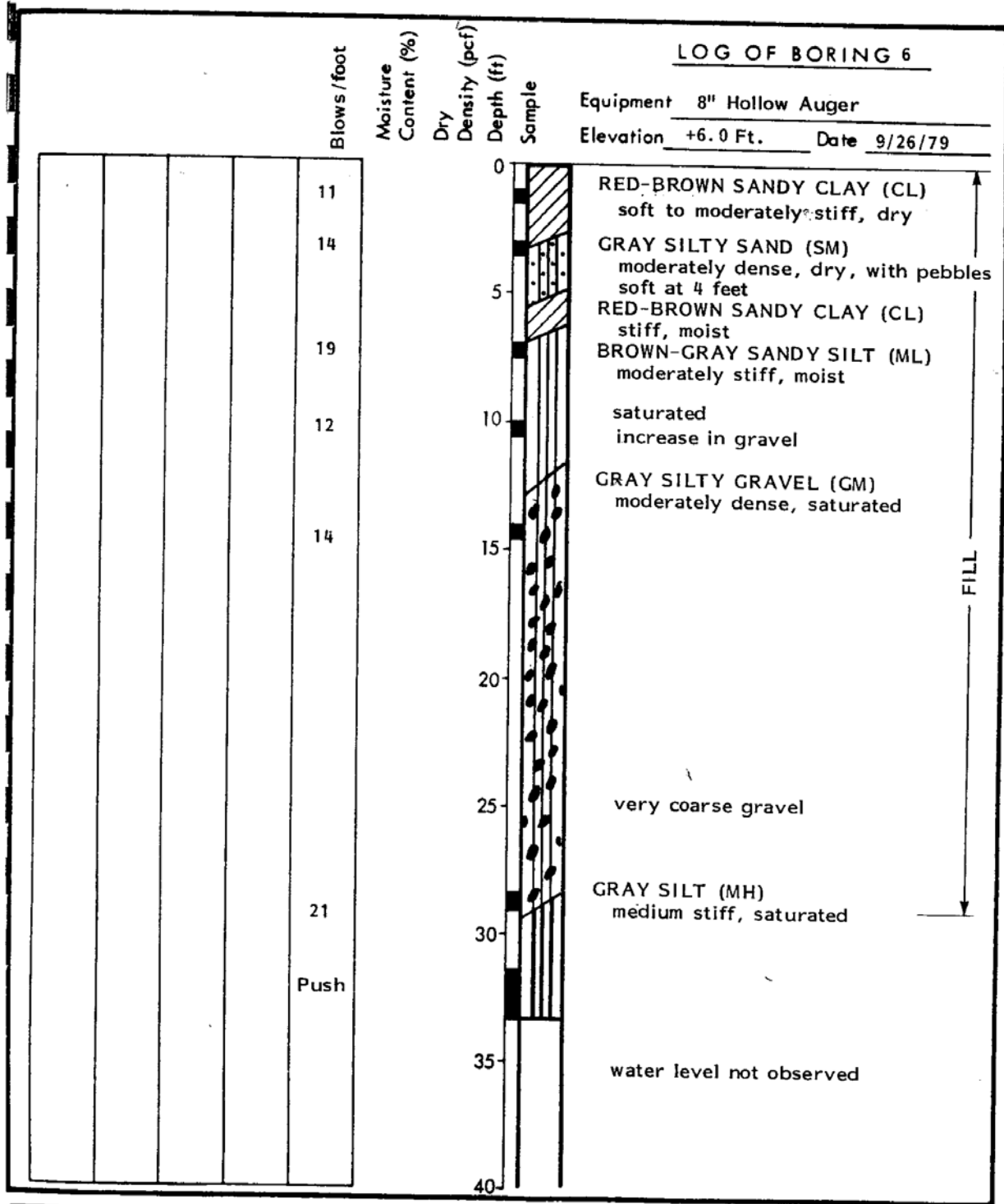
Modified from Harding Lawson and Associates (1977)

	<p>WEST YOST ASSOCIATES City of Sausalito Priority 1 Sewer Replacement Sausalito, California</p>	<p>PLATE NO. D-1</p>
<p>FILE NO. 18337-001-00</p>	<p>AUGUST 2009</p>	<p>REFERENCE BORING RB-1</p>



Modified from Harding Lawson and Associates (1977)

	<p>WEST YOST ASSOCIATES City of Sausalito Priority 1 Sewer Replacement Sausalito, California</p>	<p>PLATE NO. D-2</p>
<p>FILE NO. 18337-001-00 AUGUST 2009</p>	<p>REFERENCE BORING RB-2</p>	



Harding Lawson Associates
Engineers, Geologists
& Geophysicists

LOG OF BORING 6
Federal Ornamental Building
Sausalito, California

PLATE

8

DRAWN
P. Anderson

JOB NUMBER
2830,017.01

APPROVED
KAB

DATE
12/3/81

RE. SEC.

DATE

Modified from Harding Lawson and Associates (1981)

DCM | GEOENGINEERS

WEST YOST ASSOCIATES

City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

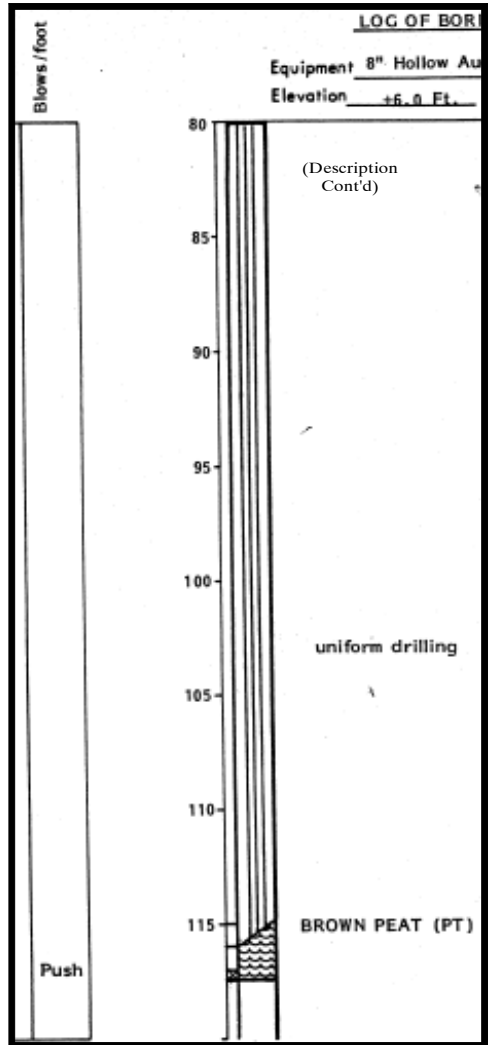
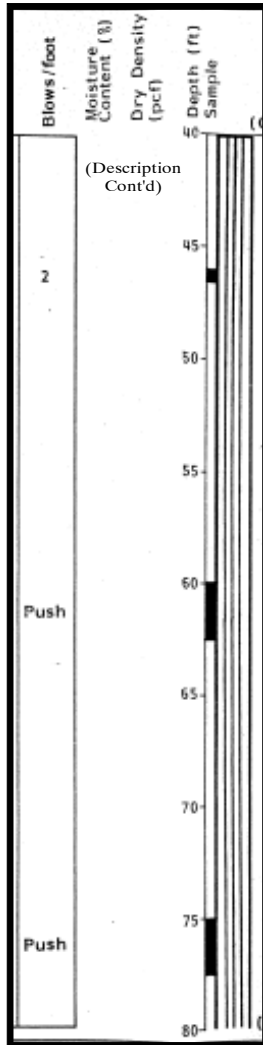
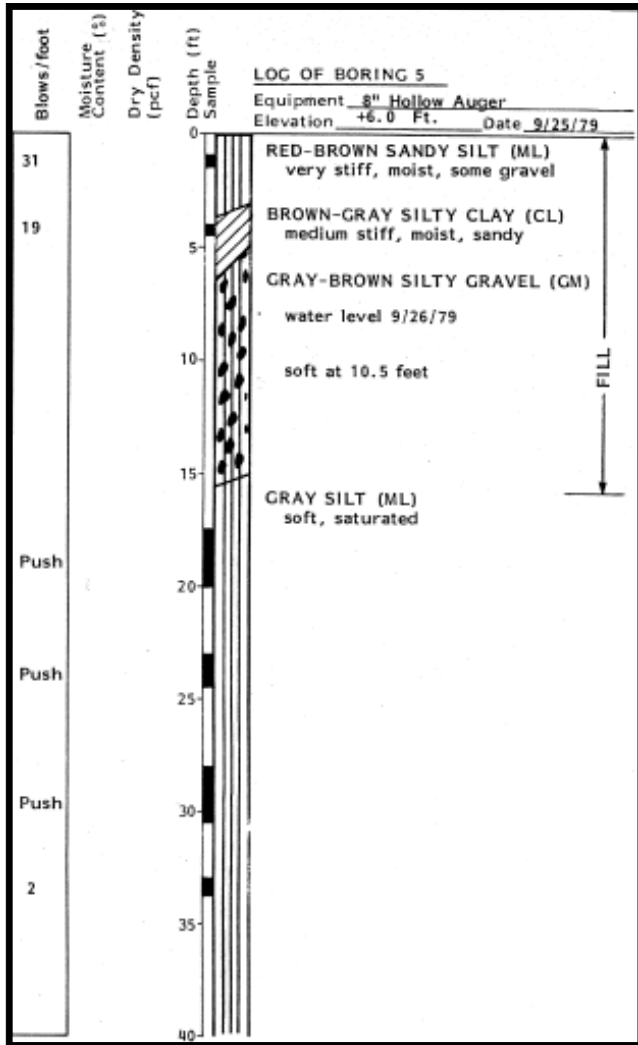
PLATE NO.

D-3

FILE NO. 18337-001-00

AUGUST 2009

REFERENCE BORING RB-3



Modified from Harding Lawson and Associates (1981)



WEST YOST ASSOCIATES

City of Sausalito
 Priority 1 Sewer Replacement
 Sausalito, California

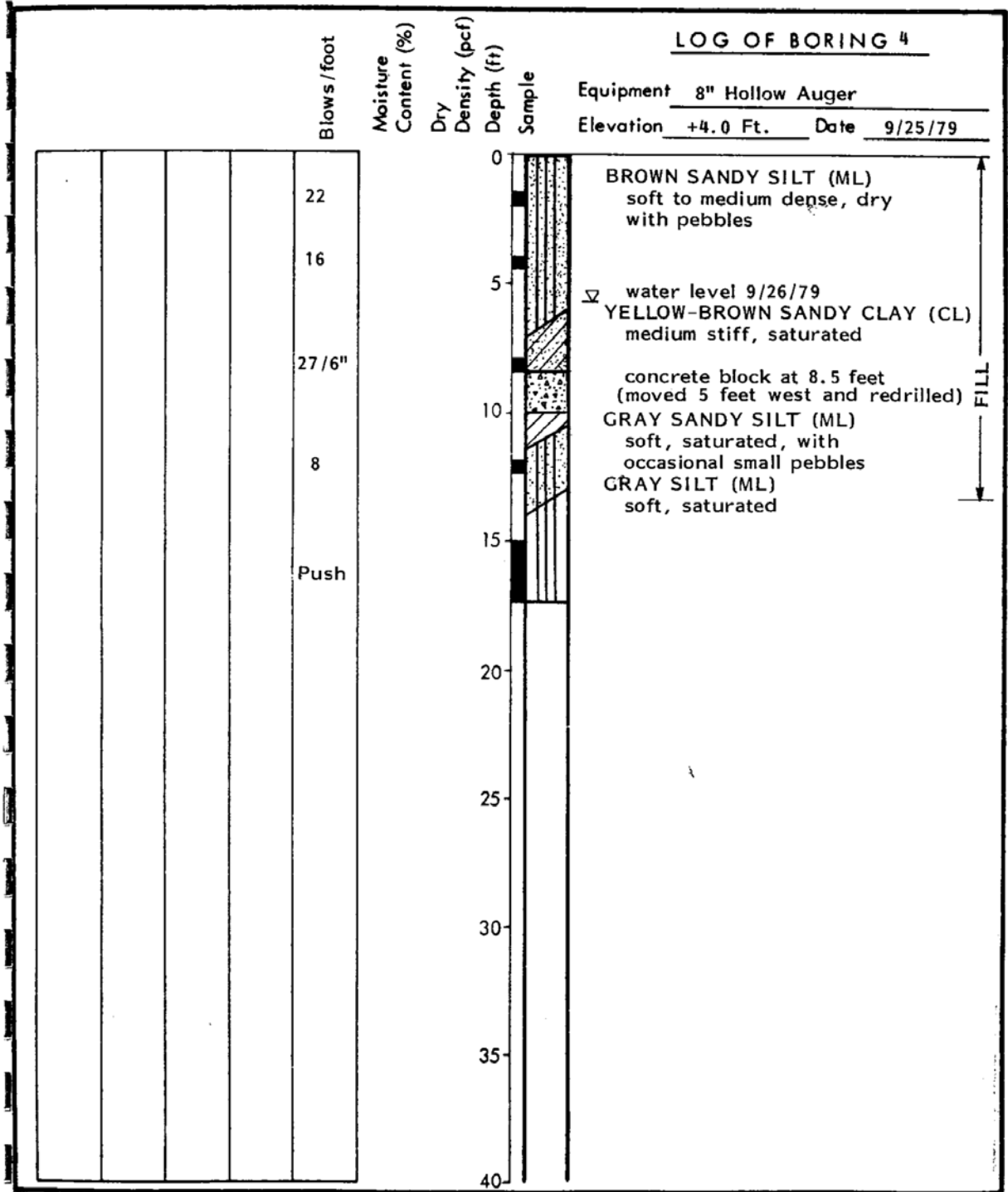
PLATE NO.

D-4

FILE NO. 18337-001-00

AUGUST 2009

REFERENCE BORING RB-4



HLA **Harding Lawson Associates**
 Engineers Geologists & Geophysicists

LOG OF BORING 4
 Federal Ornamental Building
 Sausalito, California

PLATE
5

DRAWN: P. Anderson JOB NUMBER: 2830,017.01 APPROVED: *KAB* DATE: 12/3/81 REVISED: DATE:

Modified from Harding Lawson and Associates (1981)



WEST YOST ASSOCIATES
 City of Sausalito
 Priority 1 Sewer Replacement
 Sausalito, California

PLATE NO.
D-5

FILE NO. 18337-001-00

AUGUST 2009

REFERENCE BORING RB-5

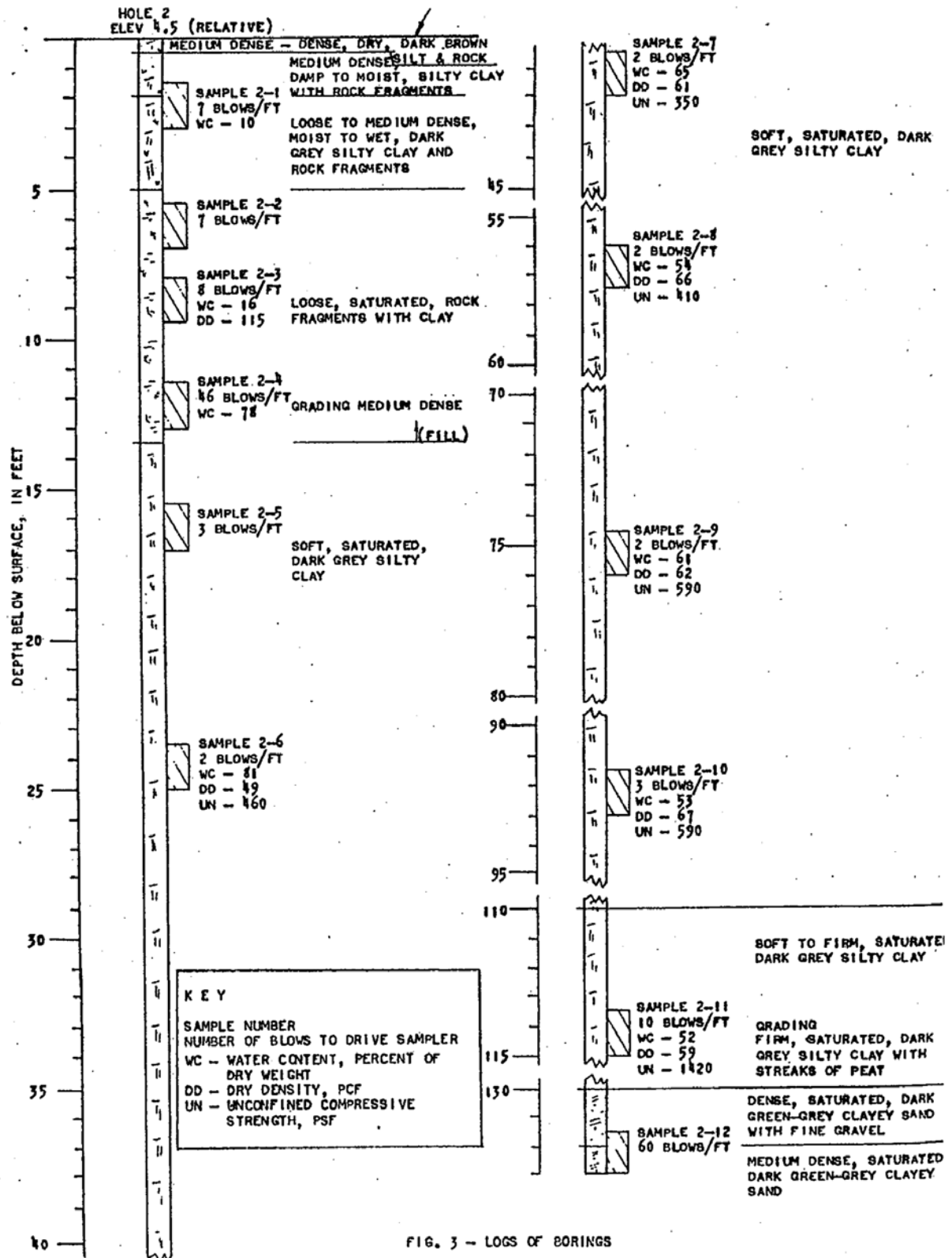


FIG. 3 - LOGS OF BORINGS

Modified from Woodward-Clyde-Sherard & Associates (1959)

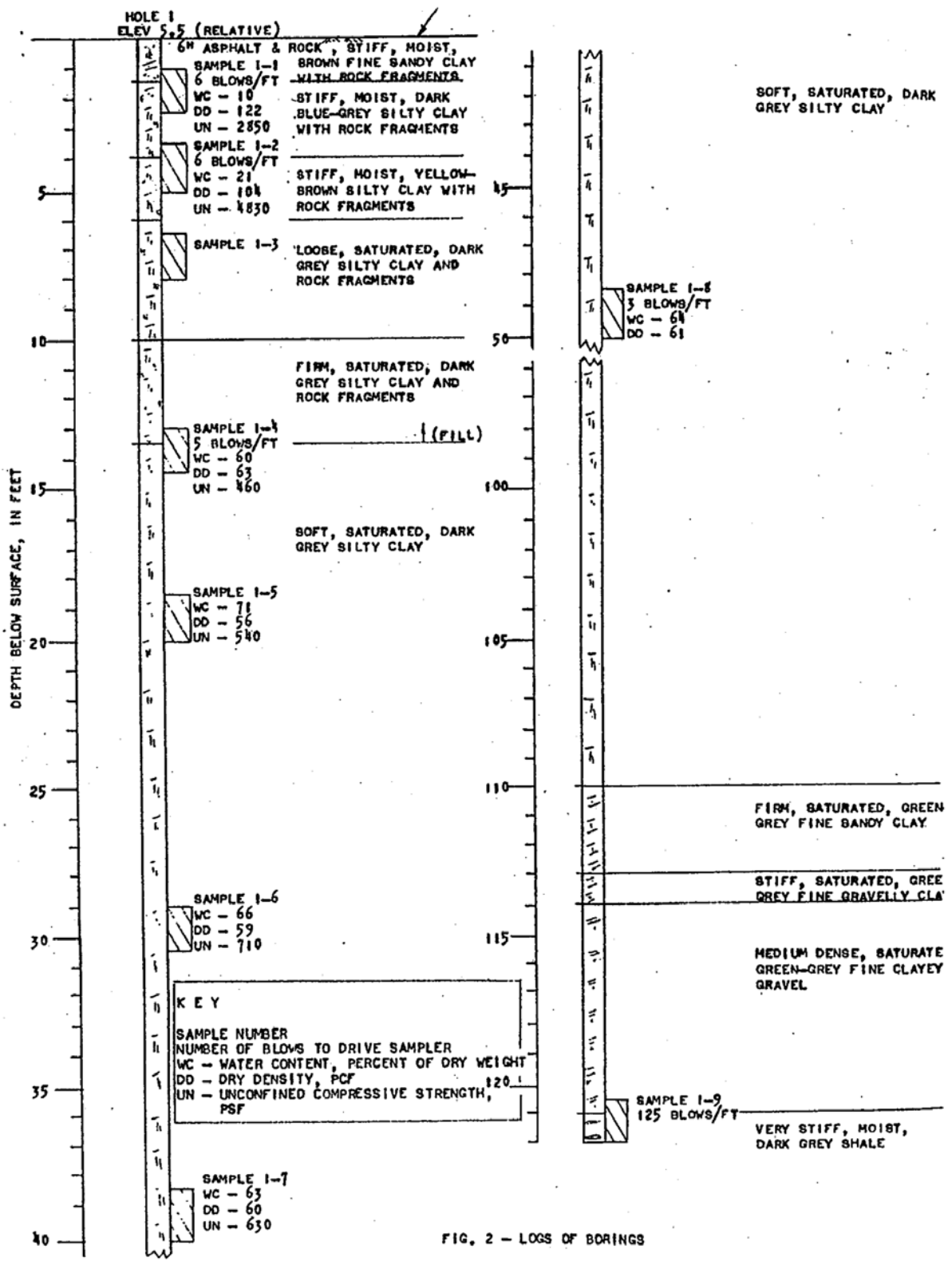
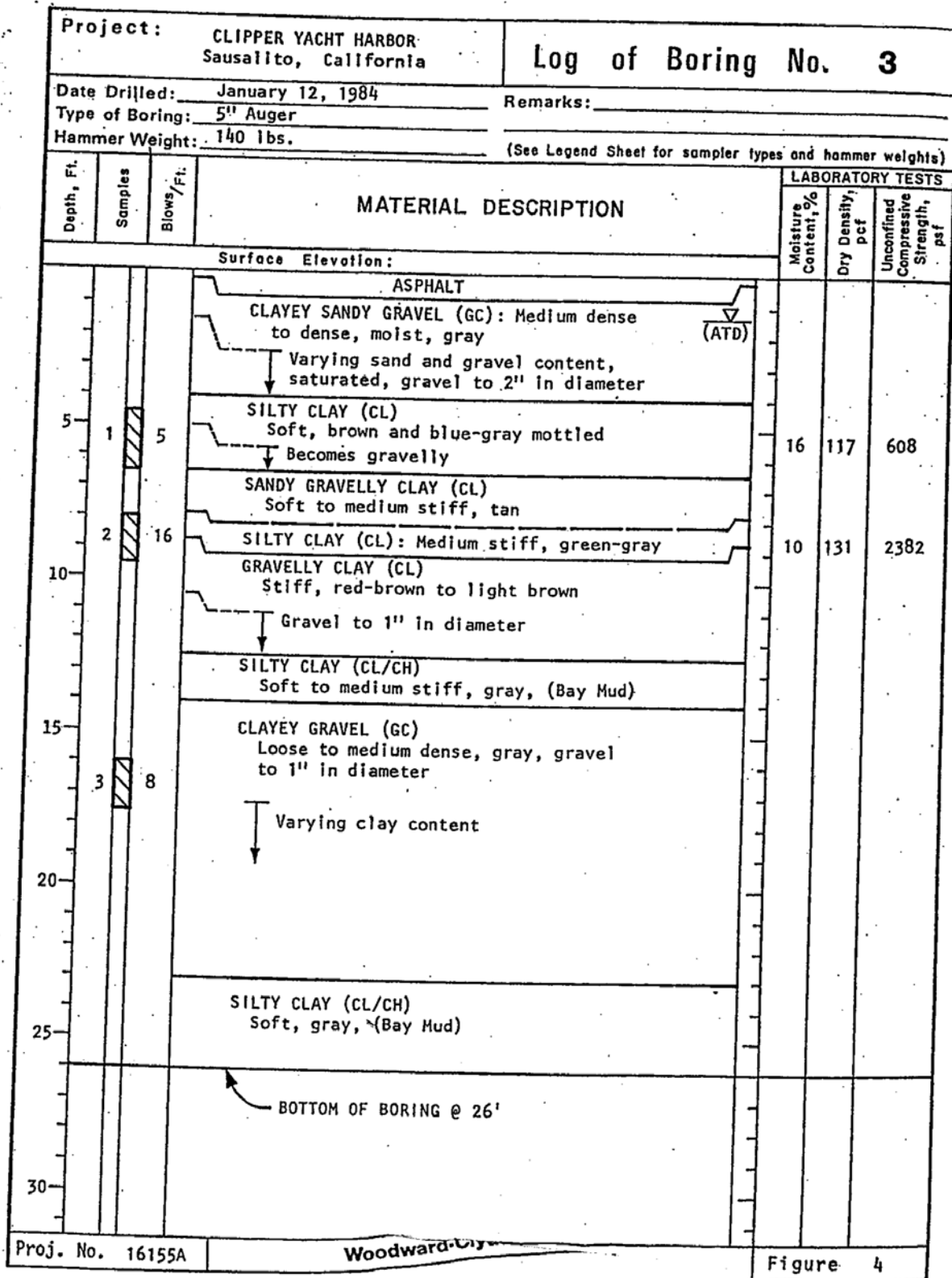


FIG. 2 - LOGS OF BORINGS

Modified from Woodward-Clyde Consultants (1959)



Modified from Woodward-Clyde Consultants (1984)



WEST YOST ASSOCIATES

City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.

D-8

FILE NO. 18337-001-00

AUGUST 2009

REFERENCE BORING RB-8

GEOENGINEERING, INC.

BORING No. A
 Date Drilled 2/3/95
 Station _____
 Approx Elev. +7.2 mllw

5-52-WM

OTHER TEST DATA	PERCENT SILT CLAY	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	BLOW COUNTS (PER FOOT)	SAMPLE INTERVAL	CLASSIFICATION	(DEPTH FEET)
	(2:30)			4		SP	0
MEASURED GROUNDWATER	(9:30)			1		SM	1
.19 TXUU P1=1.0 P3=1.64	93%	67 73	55 47	SHELBY TUBE PUSH	2		10
.24/.20 DSUU N=1.8 S=0.34	80%	76 63 67	44 64 55		3		20
.22/.27		77	70		0	CH	30
DSSU N=2.7 S=0.41		58 64	72 59		1		40
.22/.27							50
.29/.27		67	64		0		60

2 1/2" OF AC

BRN & GRY FN-CL SAND & GRAVEL

RED-BRN FN-MED SAND, LOOSE

GRN GRY CLAY W/S SHELLS & SLIGHT ODOR, SOFT

SMALL QUANTITIES OF CREOSOTED WOOD (APPARENT OLD PILE)

NUMEROUS SHELLS

(THIN LENSES OF VY FN SA SILT)

FILL

BAY MUD

Hand Penetrometer/TORVANE READINGS

NOTES:
 1. To be interpreted according to Figure A and description in Appendix A & Text.

ABBREVIATION KEY:
 SI—Silty VY—Very GRY—Gray
 SA—Sandy MED—Medium GRN—Green
 CL—Clayey STF—Stiff BRN—Brown
 FN—Fine DNS—Dense DK—Dark
 W—With LOS—Loose LT—Light

LOG OF TEST BORING No.

FIG A1

CONTINUED ON FIGURE A2

Modified from Geoengineering (1995)



WEST YOST ASSOCIATES

City of Sausalito
 Priority 1 Sewer Replacement
 Sausalito, California

PLATE NO.

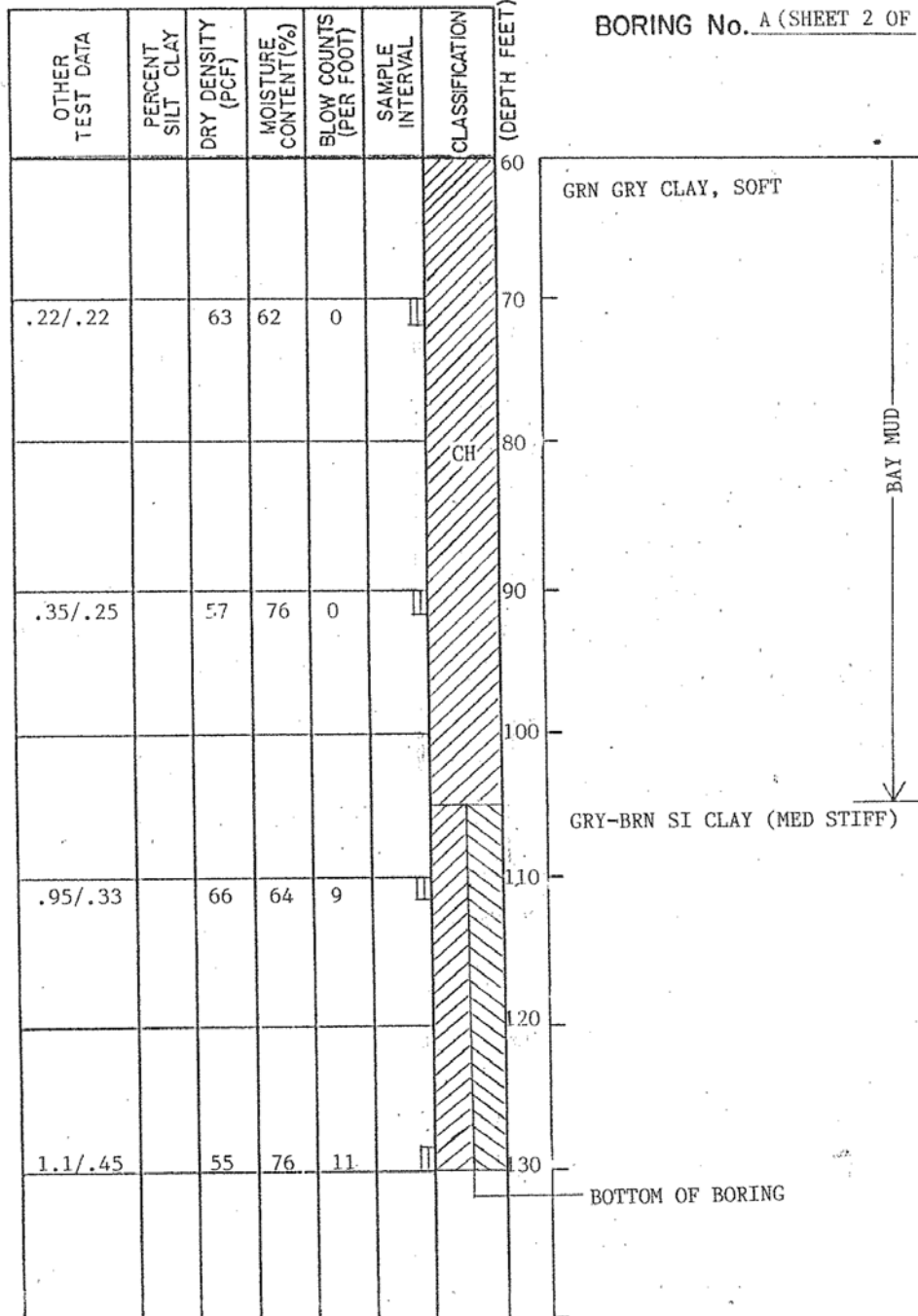
D-9

(1 of 2)

FILE NO. 18337-001-00

AUGUST 2009

REFERENCE BORING RB-9



Hand Penetrometer Readings / TORVANE READINGS

SEE NOTES ON FIGURE A1)

FIG A2

Modified from Geoengineering (1995)

SECTION II

**GEOTECHNICAL
DESIGN SUMMARY**

**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT
CITY OF SAUSALITO
PRIORITY 1 SEWER REPLACEMENT PROJECT
SAUSALITO, CALIFORNIA**

SECTION II - GEOTECHNICAL DESIGN SUMMARY

1.0 INTRODUCTION

This geotechnical engineering investigation report is for the City of Sausalito’s Priority 1 Sewer Replacement Project. The project is located in the Gate 5 Road and Spinnaker Areas of Sausalito, California. The locations of these project areas are illustrated on Plate I-1 Section I. The project consists of replacing existing small-diameter (6- to 8-inch) gravity-flow sanitary sewer pipelines with a new 8-inch diameter gravity-flow pipeline and a new 4-inch diameter force main pipeline. A description of segments in each project area is summarized in Tables II-1 and II-2.

Table II-1 - Sanitary Sewer Replacement - Gate 5 Road Area (see Plate I-2)

Segment Location	Length (ft)	Invert Depth (ft)	Existing Gravity Pipeline		New Replacement Pipeline Size and Construction ¹
			Material	Condition	
Gate 5 Road & southeast extension	1,638	6 to 14	8" VCP lined with HDPE	contains sags	8" by open-cut trenching same alignment and depth as existing
Coloma Street	316	9 to 13	VCP lined with HDPE ²		
Harbor Drive	417	6 to 9	8" VCP and/or ACP		

¹The material type of the new pipeline is not known to us at this time.

²The diameter of the existing VCP is not known to us at this time.

Table II-2 - Sanitary Sewer Replacement - Spinnaker Area (see Plate I-3)

Segment Location	Length (ft)	Invert Depth (ft)	Existing Gravity Pipeline		New Replacement Pipeline Size and Construction ¹
			Material	Condition	
Humboldt Avenue	282	9 to 12	6" Cast Iron	contains sags and is severely corroded	8" by open-cut trenching same alignment and depth as existing
Bay Road and parking lot	593	5 to 9			slip 4" force main into existing 6" ²
Bay Road parking lot to Spinnaker Restaurant	208	4 to 5			8" by open-cut trenching same alignment and depth as existing ³

¹The material type of the new pipeline is not known to us at this time.

²Includes a new sanitary sewer pump station at the east end of the force main. We have no plan or profile information pertaining to the pump station at this time.

³Includes a new, 6- to 8-foot deep grease interceptor at the east end of the segment for the Spinnaker Restaurant.

The new gravity sanitary sewer replacement pipelines will be routed through existing sanitary sewer manholes. Groundwater is infiltrating into the existing sanitary sewer pipeline through some of these manholes. Leaky manholes will be rehabilitated as part of this project (e.g., possibly by manhole lining, chemical grouting, etc. to prevent groundwater infiltration). As illustrated on Plates I-2 and I-3 Section I, the existing gravity sanitary sewer pipelines to be replaced by this project, slope to City pump stations.

This report contains a description of geotechnical conditions along the alignment of planned new sanitary sewer replacement pipelines in the project areas (Section I) and geotechnical conclusions and recommendations for design, construction, and useful long-term performance of the new replacement pipelines and related project structures as described herein (Section II). All descriptions provided in this report pertaining to existing and new sanitary sewer replacement pipelines and related project structures (e.g., location, depth, size, length, material type, condition, and construction methods, etc.) are based on in-progress design plans by West Yost Associates dated August 21, 2009 (West Yost Associates, 2009).

2.0 GEOTECHNICAL DATA SUMMARY

Section II.2 is an interpreted summary of the geotechnical data provided in Section I.

2.1 Roadway Pavements, Fills and Bay Mud

Materials encountered in test borings in the project areas (boring logs are provided in Appendices B and D) consisted of roadway pavements, fills and native soils. Summary descriptions of these materials are provided in the following sections.

2.1.1 Roadway Pavements

Roadway pavements encountered in project test borings are described on the respective logs in Appendix B. A summary of pavement section types and thicknesses encountered in project test borings is provided in Table I-3, Section I. Pavement sections consisting of asphalt concrete over aggregate base rock were encountered in project test borings. Pavement sections

encountered in test borings may not be the same type and thickness of pavement sections located in other portions of roadways in the project areas. Composite pavements (i.e., original pavement plus subsequent pavement overlays) are generally thickest in the center of roadways and generally thin laterally to the edges of roadways. Roadways in the Gate 5 and Spinnaker Areas have existed since the 1940s or earlier and may have been repaved multiple times with differing materials. For example, the area of Gate 5 Road south of Harbor Drive was used as a staging and parking area during the 1940s Marinship Shipyard activities (see Section I.2.4) and may have been paved with concrete.

2.1.2 Utility Trench Backfill

Boring B-3B was intentionally drilled into trench backfill above the existing project sanitary sewer pipeline. Boring B-3B encountered lean clay with sand trench backfill. The new sanitary sewer replacement pipeline alignment parallels and crosses other backfilled trench excavations made for the installation of existing utilities. The geometry of these utility excavations (i.e., vertical or side-sloped), and the type of bedding and backfill materials used (i.e., granular vs. cohesive), are not known to us at this time. However, backfill specified by agencies with utilities in the project area (e.g., PG&E, City of Sausalito, Marin County, etc.) is often granular (i.e., sand and gravel), pervious, non-cohesive and with little to no clay content.

2.1.3 Areal Fills

Areal fills were encountered in each of the seven (7) project test borings, except Boring B-3B, to the depths of the invert of the planned new sanitary sewer replacement pipelines in both the Gate 5 Road and Spinnaker Areas of the project. Boring B-3B was intentionally drilled in trench backfill above the existing sanitary sewer pipeline to be replaced. Areal fills encountered in project test borings are described on the respective logs in Appendix B. Areal fills encountered in project test borings included organic clay (OH), lean clay with sand (CL), lean clay (CL), fat clay (CH), gravelly lean clay with sand (CL), clayey sand with gravel (SC), silty sand (SM), silty sand with gravel (SM), poorly graded sand (SP), clayey gravel with sand (GC), well-graded gravel with silt and sand (GW-GM), well-graded gravel with sand (GW), and poorly graded

gravel (GP). Similar areal fills were encountered in each of the nine (9) reference test borings. Areal fills encountered in reference test borings are described on the respective logs in Appendix D. A summary of the thicknesses of areal fills encountered in test borings is provided in Table I-3, Section I.

Most of the areal fills in the project areas date back to the early 1900s and were placed to fill in portions of Richardson Bay for the 1940s development of the Marinship Shipyard (see Section I.2.4). Much of the fill material is crushed rock derived from quarries and excavations in the hills along the west side of Sausalito. As illustrated on Plate I-4, these hills are formed by a variety of resistant bedrock types of the Franciscan Bedrock.

Areal fills placed before the 1960s were typically not engineered and consisted solely of end-dump placement (i.e., not compacted). Fills of this type may contain debris and rubbish (see Section I.2.3). Selected parameters and typical engineering properties of areal fills encountered in project test borings (does not include data from reference test borings) and tested in the laboratory are as follows:

- Thickness = 11½ to >20 feet
- Moisture Content = 10 to 21% (12 tests)
- Dry Unit Weight = 105 to 129 pcf (8 tests)
- Average In-Situ Total Unit Weight = 131 pcf (8 tests)
- Standard Penetration Blow Count (N) = 2 to 12 (average = 6 for 18 tests)
- Liquid Limit = 40 to 82* (clayey samples, 3 tests)
- Plasticity Index = 18 to 49* (clayey samples, 3 tests)
- Unconfined Compressive Strength = 0.63 to 1.4 ksf (3 tests)
- Direct Shear Cohesion = 480 psf (clayey sample, 1 test)
- Direct Shear Phi Angle = 16 degrees (clayey sample, 1 test)

- % Passing No. 200 Sieve = 4 to 18 (9 project tests)
- % Passing Retained on No. 4 Sieve = 0 to 77 (9 project tests)

*Sand and gravel areal fill encountered in project test borings were nonplastic.

As noted by references to borehole sloughing in the logs of project test borings (see Borings B-1, B-2, B-4 and B-5 in Appendix B, Section I), much of the granular, non-cohesive areal fill in the project areas demonstrates flowing or fast-raveling behavior where below groundwater and vertically cut in an unshored condition, even within a 5-inch diameter borehole. The tendency for areal fill to flow will be even greater when and where exposed in vertical excavations for the project.

2.1.4 Bay Mud

Bay Mud was encountered in project test Borings B-5 and B-6 below the depth of the invert for the planned sanitary sewer replacement in the Spinnaker Area of the project. Project test borings in the Gate 5 Road Area of the project were drilled to depths of 18½ to 20 feet below ground surface and did not penetrate through the entire thickness of areal fill and into the underlying Bay Mud. Bay Mud encountered in project test borings (see Borings B-5 and B-6) is described on the respective logs in Appendix B and included organic clay (OH) and fat clay (CH). Bay Mud is widely known for being very corrosive to steel and concrete.

Bay Mud was encountered in each of the nine (9) reference test borings that were drilled in the project areas (including Reference Borings RB-1 through RB-8 in the Gate 5 Road Area and Reference Boring RB-9 in the Spinnaker Road Area). Bay Mud encountered in the reference test borings is described on the respective logs in Appendix D. Reference Borings RB-6, RB-7, and RB-9 were the only borings to penetrate through the entire Bay Mud thickness and into underlying alluvial soils and/or bedrock. The thickness of Bay Mud as logged in Reference Borings RB-4, RB-6, RB-7 and RB-9 is approximately 100 feet.

Selected parameters and typical engineering properties of Bay Mud encountered in project test borings and reference borings and tested in the laboratory are as follows:

- Thickness = approximately 100 feet
- Moisture Content = 33 to 81% (26 tests)
- Dry Unit Weight = 49 to 89 pcf (26 tests)
- Average In-Situ Total Unit Weight = 103 pcf (26 tests)
- Standard Penetration Blow Count (N) = 2 (1 test)
- Unconfined Compressive Strength = 0.35 to 0.71 ksf (reference tests)

Reference borings indicate that Bay Mud contains horizons of peat.

Loads on compressible Bay Mud cause the Bay Mud to consolidate (settle). In a steady state, the rate of Bay Mud settlement will slowly decrease over time. For a Bay Mud thickness of 100 feet, it will take hundreds of years to reach “ultimate” consolidation (see Plate II-1).

Studies of Bay Mud in or near the project areas by others have concluded the following:

- Settlement from consolidation of the Bay Mud due to new fills or from lateral movement of the bulkhead or barge in the Spinnaker Area is still possible (Geoengineering, 1995).
- The 15-year settlement estimate of Bay Mud consolidation in the Gate 5 Road Area near Harbor Drive, assuming no additional loading, would be approximately ½ foot between 1999 and 2014 (BAGG, 1999).
- The 15-year settlement estimate of Bay Mud consolidation in the Gate 5 Road Area near Harbor Drive, assuming three to four feet of new areal fill, would be approximately 1 foot between 1999 and 2014 (BAGG, 1999).
- Terrain elevation difference analysis of the Sausalito area by Towill (2009) shows that portions of the project areas in 2007 were generally 3 to 4 feet lower in elevation than in 1968. Towill (2009) reported that areas with large settlements are typically on unimproved land near the present shoreline and areas with large fills where additional fill and improvements have been added since 1968.

2.2 Groundwater

The measured depth to which groundwater accumulated in project test borings on completion of drilling is recorded on the individual boring logs in Appendix B and summarized in Section I, Table I-3. The project test borings were backfilled with grout immediately upon drill completion to minimize traffic disruption; therefore, the groundwater levels measured on completion of drilling do not represent static (i.e., equilibrium) groundwater levels. Equilibrium groundwater levels can take several hours to days to be established in an open borehole. Equilibrium groundwater levels will likely be higher (i.e., closer to the ground surface) than the groundwater levels measured on completion of drilling. In addition, groundwater levels in the project areas will fluctuate based on factors such as tides, seasonal rainfall, water levels in nearby drainages, and possibly other factors not evident at the time of writing this report. Portions of the both the Gate 5 Road and Spinnaker Areas of the project are shown within FEMA's 100-year flood hazard areas (ABAG, 2009).

2.3 Faulting

No active fault (where active fault is defined by the State of California as one with known surface displacement within the last 10,000 years, see Hart and Bryant, 1997) is known to cross the project areas. The nearest active fault to the project areas is the San Andreas Fault, located between 6 and 7 miles to the southwest. The location of the San Andreas Fault, and other seismogenic faults relative to the project areas are shown on Plate II-2.

2.4 Ground Shaking

The project areas will be subject to strong ground shaking during earthquakes on nearby faults, including those identified on Plate II-2. It is estimated that the peak firm rock ground acceleration in the project areas, based on 10% probability of exceedance in 50 years (equivalent to a seismic recurrence interval of one event every 475 years), is 0.5g (see Plate II-3). The actual ground shaking that will occur in the project areas during an earthquake will be dependent upon the earthquake magnitude, its distance, surrounding topography, and the geometric relationships

and seismic response of the underlying soil and bedrock. Earthquake shaking in the Bay Area has been amplified in areas underlain by Bay Muds during historic earthquakes (e.g., the 1989 Loma Prieta earthquake). Bolt (1993) indicates that average peak ground accelerations greater than 0.5g results in ground cracks and breakage of underground pipes (see Plate II-4).

2.5 Liquefaction

Liquefaction is a phenomenon in which soils lose internal strength as a result of increased pore pressure generated by cyclic loading. This behavior is commonly induced by ground shaking during earthquakes. Soils prone to liquefaction are saturated (below groundwater), non-cohesive silts and sands of low to medium density. Liquefaction-prone soils encountered in project test borings include the loose, poorly graded sand fill at depths of 12½ to 15½ feet below ground surface in Boring B-2, and the loose, silty sand fill at depths of 12 to 20 feet below ground surface in Boring B-4. The Association of Bay Area Governments has identified all areas of Sausalito having old fills over Bay Mud (i.e., both project areas) as very highly susceptible to liquefaction (ABAG, 2009). Historically, we are aware of only one instance of earthquake-caused liquefaction occurring in the Sausalito area (Youd and Hoose, 1978). This instance occurred during the 1906 San Francisco earthquake near the Sausalito Ferry Building (the Ferry Building was located at that time part-way between the Gate 5 Road and Spinnaker Areas). We are not aware of any reports of liquefaction occurring in the Sausalito area during the 1989 Loma Prieta earthquake (Knudsen, 2000).

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the findings of our geotechnical investigation and our understanding of the project, it appears that the planned new sanitary sewer replacement pipeline and related project structures will be entirely within old areal fills placed over Bay Mud. Approximately 30,000 wooden piles were driven into the ground in the area to provide foundations for construction of the 1940s Marinship Shipyard (see Section I.2.4). Uneven consolidation settlement of the underlying Bay Mud (and possibly the effects of the old driven piles) has resulted in the development of sags (and possibly hogs) in the existing sanitary sewer pipeline in the project areas. As described in

Section II.2.1.4, the Bay Mud in the project areas will continue to consolidate for hundreds of years. This consolidation settlement of the Bay Mud will be uneven over the lengths of the pipelines as a result of variations in composition, consistency and thickness of the Bay Mud, variations in fill thickness and possibly underlying remnant pile foundations. These factors will lead to differential settlement of the new pipelines. Therefore, unless founded at depth (e.g., on piles), the new sanitary sewer replacement pipeline will develop sags in the future as a consequence of continued ongoing Bay Mud consolidation settlement. Supporting the new sanitary sewer replacement pipeline at depth is economically unfeasible for small-diameter sanitary sewer pipelines. Pipeline design and long-term expectations for the pipeline must therefore include continuing, on-going consolidation and settlement of the thick underlying Bay Mud.

Assuming no significant new loading on the Bay Mud in the project areas (i.e., no new fills), the rate of future total and differential settlement in the new replacement sanitary sewer pipeline will be less than that which has developed in the existing pipeline. As described in Section I.2.4.1, portions of the Gate 5 Road Area south of Harbor Drive have been raised with about 4 feet of fill within the last few years. The resulting rise in ground surface elevation due to this new fill is visible in Towill's 1968 to 2007 terrain elevation difference analysis of Sausalito (2009). We anticipate that the rate and amount of future total and differential settlement in the new sanitary sewer replacement pipeline in the Gate 5 Road Area south of Harbor Drive will be significantly greater than in other areas of the project due to this relatively new areal fill loading. Based on an underlying Bay Mud thickness on the order of 100 feet beneath all project pipelines, we estimate that between 2 and 3 feet of total Bay Mud consolidation settlement will occur in the next 50 years in the newly fill-raised area of the project (i.e., Gate 5 Road Area south of Harbor Drive). Elsewhere in the project areas, we estimate that between 1 and 2 feet of total Bay Mud consolidation settlement will occur in the next 50 years given the existing long-term loading conditions that date back to the 1970s and earlier (see Section I.2.4).

Over the long-term, the new pipelines will most likely develop sags from differential settlement in the same locations as the existing pipeline. To the greatest extent possible and practical, the new pipeline design should incorporate past performance into new design. For example,

increase pipe slopes where possible to off-set on-going settlement. In addition, a jointless pipe such as HDPE or fusible PVC will eliminate problems with settlement-induced joint spreading and inflow and infiltration (these pipe materials will also eliminate problems associated with soil corrosivity).

Notwithstanding the effects of ongoing, long-term consolidation settlement of the underlying Bay Mud (i.e., the same conditions that have affected the existing sanitary sewer pipeline since its construction), we conclude that the geotechnical conditions in the project areas are suitable for construction of the replacement project (i.e., there are no fatal flaws). In addition to ongoing, long-term consolidation settlement of the underlying Bay Mud, our geotechnical investigation identified a variety of other conditions in the project areas that will require attention by designers and contractors in order to successfully design and construct the project in a safe and economic manner and to ensure its useful long-term performance. A summary of some of the critical geotechnical conditions described in this report include the following:

- High groundwater and proximity to tidally-influenced sea level in Richardson Bay;
- Old uncompacted areal fills of variable composition and consistency that include highly-porous and permeable non-cohesive granular crushed bedrock materials (i.e., materials subject to flowing behavior where unsupported below groundwater) that will have little to no stand-up time and are capable of storing and transmitting large amounts of groundwater;
- Existing and/or abandoned sanitary sewers and utilities with variable bedding and backfill geometries (vertical or side-sloped), types, and consistencies. Some of the bedding and backfill may be porous, non-cohesive and granular (i.e., materials subject to flowing behavior where unsupported below groundwater) with little to no stand-up time and capable of storing and transmitting large amounts of groundwater;
- Thick (approximately 100 feet) native, soft and compressible Bay Mud that is and will continue to consolidate and cause total and differential settlement (sags) in overlying fills, utilities (including the new sanitary sewer replacement pipeline), pavements and structures;

- The unknown location of old (1940s), wooden, driven piles relative to the planned new sanitary sewer replacement pipeline and related structures;
- Former railroads, pavements and structures dating back to the 1800s;
- Corrosive soils;
- Construction vibrations; and
- Seismic shaking.

Soil and groundwater contamination is a potentially critical condition for the project; however, its study is outside the scope of our work for this geotechnical investigation.

The following sections contain our specific geotechnical conclusions and recommendations for the design, construction and useful long-term performance of the project with respect to these and other geotechnically-related conditions.

3.1 Existing Pipeline Abandonment

All existing pipeline to be replaced and/or abandoned should be completely removed or completely filled with CLSM (see Section II.3.4.4) to prevent open conduits from collecting and/or conducting drainage waters and/or collapsing in the future. Accurate and complete as-built documentation of abandonment work should be kept. Removal and/or in-place abandonment of AC pipe, if any is encountered in the project areas, requires special procedures and handling in accordance with regulations of the Environmental Protection Agency and Bay Area Air Quality Management District.

3.2 Design Groundwater Levels

The depth to groundwater encountered in test borings is summarized in Table I-3, Section I. The shallowest depth to groundwater recorded in project test borings drilled in July 2009 (summertime) was in Boring B-2 where groundwater was measured at a depth of 4 feet below ground surface immediately after drilling and before the boring was grouted. The shallowest depth to groundwater recorded in reference test borings was in Reference Boring RB-8 where groundwater was measured at a depth of 1½ feet in January 1984 (wintertime). Groundwater was also encountered at a depth of 2 feet below ground surface on January 5 and 6, 1977, in

reference test borings RB-1, RB-2, and on February 3, 1995, in RB-9. Portions of both the Gate 5 Road and Spinnaker Areas of the project are mapped within FEMA's 100-year flood hazard areas (ABAG, 2009).

3.2.1 Temporary Construction

Assuming a summertime construction period, the contractor should use a design groundwater depth of 4 feet below ground surface for preliminary design of temporary shoring and dewatering systems. However, the project specifications should require that the contractor's final shoring system design and implementation, and the contractor's final dewatering system design and implementation, be based on the actual groundwater depth at the time of construction, including from any perched groundwater encountered above static equilibrium groundwater depths.

3.2.2 Permanent Project Elements

A long-term groundwater level equivalent to the ground surface in the project areas should be used for the design of permanent subsurface project structures (for example, with respect to lateral pressures and buoyancy of the pump station and grease interceptor).

3.3 Temporary Excavations

Temporary excavations consisting of vertical-walled trench excavations for open-cut installation will be required for (1) new sanitary sewer replacement pipeline with invert depths on the order of 4 to 13 feet below ground surface, (2) a grease interceptor with an invert depth on the order of 6 to 8 feet below ground surface, and (3) a new sanitary sewer pump station at an unknown invert depth (see Table I-3, Section I). Based on our test borings and research, project excavations will extend below the groundwater level and will be entirely within trench backfill of the existing sanitary sewer to be replaced and areal fills over Bay Mud as described in Section II.2.1. All excavations will require shoring and dewatering and/or ground improvement. The project specifications should make the contractor solely responsible for the design, installation,

performance and removal of all shoring and related items (e.g., dewatering and ground improvement systems where used). The contractor should be required to submit his proposed shoring, dewatering and ground improvement systems to the owner for review prior to their implementation. The submittal should contain alternative and contingent systems that the contractor will be prepared to implement should the initial systems not achieve the minimum performance requirements described herein.

3.3.1 Excavatibility

Project excavations in trench backfill and areal fills as encountered in project test borings (see logs in Appendix B) can generally be made with appropriately-sized conventional excavators. Project excavations through (1) pavements of varying age, thickness and materials (Section II.2.1.1), (2) old abandoned and currently concealed railroads or driven wood piles (Section I.2.4) or (3) where hard debris or rubbish are encountered in areal fill (e.g., see concrete block encountered at a depth of 8½ feet in Reference Test Boring RB-5), if any, may require special excavation equipment and methods (e.g., hoe-rams, jack hammers). Contractors must independently evaluate the excavatibility of the subsurface materials to be encountered during project construction and choose appropriate excavation equipment and methods.

3.3.2 Dewatering

All construction in project excavations should be performed in the dry. Dewatering and/or “water-tight” shoring will be a critical component to successful construction of the project. The groundwater level within open bore holes is above the invert of the planned new sanitary sewer replacement pipeline at 4 of the 6 project test boring locations (i.e., at locations of Borings B-1, B-2, B-4 and B-6). Based on our groundwater findings and the anticipated project excavation depths (summarized at the test boring locations in Table I-3, Section I), dewatering or water-tight shoring should be planned for all excavations greater than 4 feet in depth. The contractor should be made solely responsible for the design, construction, and effects of temporary dewatering systems, and the contractor should be required to submit dewatering plans to the owner for review prior to implementation.

The design of the dewatering systems should be based on the actual groundwater inflow into excavations at the time of construction and the type of shoring used (e.g., interlocking driven sheet piles with adequate toe embedment can reduce or eliminate external dewatering requirements). For short-term excavations (i.e., trench excavations open less than 24 hours) and where the groundwater level is at or below the invert of the planned new sanitary sewer replacement pipeline, a stable trench bottom may be maintained by an internal dewatering system consisting of regularly-spaced, rock-filled sumps excavated below the trench bottom. Submersible pumps within the rock-filled sumps will remove collected groundwater. The spacing and depth of these sumps and the foundation rock between sumps should be such that the trench bottom is relatively dry and stable, and capable of supporting compaction of pipe bedding material.

Where the invert of the planned new sanitary sewer replacement pipeline is below the groundwater level, external dewatering efforts such as dewatering wells, well points, trench drains, or the installation of a water-tight shoring system will be required. Water-tight shoring typically consists of continuous, pre-driven interlocking sheet piles which have been driven with sufficient toe embedment to prevent groundwater flow to and boiling (i.e., piping) in the excavation bottom. The depth of shoring toe embedment will be dependent upon the difference in elevation between the trench bottom and groundwater level (that is, unbalanced hydraulic head).

Even where water-tight shoring is used, we anticipate that limited internal dewatering (i.e., pumping from rock-filled sumps inside the excavation) will be required to remove nuisance water and minor seeps.

Dewatering methods will need to vary within the project areas to account for variations in subsurface conditions, proximity to drainageways, groundwater depth, required excavation depths, and dewatering method limitations related to the grain size of the soils being dewatered. The limitations of various methods of dewatering relative to the particle (grain) size of the water-bearing soils are illustrated on Plate II-5. Grain size distributions for project soils to be

dewatered are plotted on Plate C-2 in Section I, Appendix C. Based on a comparison of these plots with Plate II-5, there is a potential for high rates of groundwater inflow into project excavations through the granular areal fills in the project areas.

Collectively, the contractor's project dewatering system(s), together with his project shoring and/or ground improvement systems, are to preserve the undisturbed bearing capacity of the existing subgrade soils at the bottom of excavations and meet all of the following minimum performance requirements:

- Provide stable excavation walls and bottom;
- Provide a reasonably dry base of excavation;
- Filter native soil and prevent loss of ground from dispersion and erosion;
- Prevent piping (boiling) of the excavation bottom;
- Draw down the groundwater level to 3 feet below and beyond the excavation bottom and sidewalls where shoring is not designed to resist hydrostatic pressures;
- Prevent damaging settlement to nearby structures, utilities and/or pipelines;
- Be installed and removed in accordance with governing (e.g., County and State) requirements; and
- Allow for controlled release of groundwater to its static level in a manner that prevents disturbance of the bottom soils and prevents flotation or movement of structure or pipelines.

The project specifications should require that the contractor's dewatering, shoring and ground improvement submittals contain alternative contingent systems, and that the contractor be prepared to implement alternative systems should the initial systems not achieve these minimum performance requirements. Uncontrolled seepage of groundwater through excavation sidewalls or bottom will cause the excavations to be unstable and unsuitable for pipeline and related structural support. Consequently, the contractor should be prepared to locally dewater or modify (e.g., by ground improvement) construction excavations, if and where needed, to provide stable and reasonably dry excavations.

Prolonged dewatering will cause an increase in effective stress on the underlying Bay Mud which will lead to consolidation and area subsidence. Settlement monitoring points should be provided between the locations of dewatering wells and on nearby critical structures, utilities, and pipelines. These settlement monitoring points should be regularly monitored during active dewatering to measure related ground settlement, if any. Modifications to the contractor shoring and dewatering systems should be required if settlements are measured, or if damaging settlements are likely to occur, given anticipated future rates of dewatering and the location of dewatering relative to the existing critical structures, utilities, and pipelines.

3.3.3 Shoring

The contractor should be required to shore all project excavations in accordance with Cal/OSHA regulations. The contractor should be made solely responsible for the selection, design, construction, removal and effects of shoring noting the following:

- Project excavations will be located (1) within backfill of the existing pipeline to be replaced, (2) parallel to and/or across backfill for other existing utilities, and (3) within areal fills all of which will be over soft compressible Bay Mud (see Sections II.2.1.2 and II.2.1.3). Project excavations will therefore encounter various types of fill including granular, non-cohesive materials that will tend to run or ravel when dry or flow when saturated with groundwater (i.e. have little to no stand-up time in unshored vertical excavations). Unsupported vertical excavations in flowing, running or raveling ground will most likely experience excavation wall loss and related undermining of adjacent pavements, utilities, and structures. Therefore, excavations into these types of materials must (1) have water-tight shoring (i.e., continuous interlocked steel sheet piles with toe embedment), (2) be externally dewatered and fully shored (e.g., full excavation face coverage with plywood or steel plate backing of trench boxes or speed shores), and/or (3) improve the ground (e.g., permeation grouting) prior to excavation.

- Active shoring systems (e.g., braced driven sheet piles with toe embedment) are preferred to minimize surface settlement and roadway and adjacent utility damage. Aluminum hydraulic speed shores with full solid sheet backing may only be used for excavations where the external groundwater level has been drawn down to at least 3 feet below the depth of excavation base and where the soils have sufficient stand-up time for its safe and complete installation (i.e., not in running, flowing or fast-raveling soils).
- Passive shoring systems such as trench boxes should only be used for excavations where (1) the external groundwater level has been drawn down to at least 3 feet below the depth of excavation base, (2) excavation occurs from within the box as it is lowered incrementally into place and in step with the deepening excavation (i.e., so as to provide continuous full-face excavation side-wall support), and (3) any gaps between the outside face of the trench box and vertical soil cut is immediately filled with sand or gravel. Driving steel backer plates alongside and below the trench box excavation should be performed to provide additional base stability. Excavation below and prior to trench box shoring installation should not be permitted where soils have insufficient strength and stand-up time (e.g., in flowing, running or fast-raveling ground conditions) to safely and completely install the trench box.
- Where shoring systems are not used in conjunction with external dewatering systems designed to draw down the groundwater level a minimum of 3 feet below the excavation bottom and beyond the excavation sidewalls, the shoring systems must be designed to resist hydrostatic pressures and to extend below the base of the excavation to sufficient depths to (1) provide lateral stability at the base of the shoring system and (2) to prevent heave and/or piping (boiling) through the base of the excavation. The shoring designer should determine the minimum required toe embedment based on the depth of the excavation, the specific shoring and dewatering systems used, and the soil and groundwater conditions encountered in the field at the time of construction. For the purposes of sheet pile design, the average buoyant unit weight of area fill and Bay Mud soils in the project areas, to depths of the invert of

the planned new sanitary sewer replacement pipeline, can be taken as 70 pcf and 40 pcf, respectively, with a critical hydraulic gradient of 1.0 and 0.8, respectively. We recommend that a minimum safety factor of 2.0 be used for design of project shoring and dewatering systems against base failure.

- Shoring systems that do not provide positive support to excavation walls (i.e., passive shoring like trench boxes that allow inward movement of the trench wall) may cause surface settlement and related damage to nearby roadways, utilities and structures. A summary of the potential surface settlement of passively-shored excavations is provided in Table II-3. Unrestricted flowing, running, or raveling ground conditions will result in surface settlements significantly greater than that indicated in Table II-3.

Table II-3 - Potential Surface Settlement of Passively-Shored Excavations

Soil Type	Surface Settlement (% of Excavation Depth)	Lateral Zone of Disturbance (Multiples of Excavation Depth)
Sand	0.5%H	H
Soft to Medium Stiff Clay	1-2%H	3-4H
Stiff Clay	<1%H	2H

¹From Suprenant and Basham (1993).

- Preliminary design of braced and cantilever shoring may be based on the preliminary lateral earth shoring pressure diagrams provided on Plates II-6 and II-7, respectively. These diagrams represent soil conditions encountered in project test borings. Final earth pressures and pressure diagrams for the contractor’s design and implementation of individual shoring systems will be dependent on (1) the actual soil and groundwater conditions encountered during construction, (2) the contractor’s shoring type, design, and installation method, and (3) surcharge pressures, including those from stockpiling, construction equipment, vehicle traffic, and existing structures within a 1.5H:1V plane projected upward from the excavation bottom (see Plate II-8 for minimum surcharge pressures).

A professional Structural or Civil Engineer licensed in the State of California and with experience in the design of shoring systems should design, sign, and stamp the contractor’s proposed shoring plans. The plans should be required to be submitted to the owner for review

prior to construction. The shoring plans should indicate interrelationships with dewatering and ground improvement systems. The shoring plans should contain alternative contingent systems, and the contractor should be prepared to implement these alternative systems should the initial plans not achieve the following minimum performance requirements:

- Protect personnel that enter the excavation.
- Comply with all governing regulations pertaining to excavation safety (e.g., the most current edition of Cal/OSHA Construction Safety Orders, Article 6).
- Be compatible with the surface and subsurface soil and groundwater conditions encountered in project test borings, and/or mapped in the project areas, and resist lateral earth pressures and hydrostatic pressures.
- Protect existing utilities, pavements, and structures.
- Excavation and installation of shoring must occur in a manner and sequence that does not damage existing structures, pavements, and utilities including through settlement, heave, or vibrations.
- Prevent caving (i.e., raveling, running, or flowing) or lateral movement of excavation walls and associated loss of adjacent ground and adjacent ground surface settlement, even when subjected to construction vibrations.
- Provide stable excavation walls and bottom (e.g., prevent bottom heave).
- Allow for removal or abandonment of shoring in a manner and sequence that (1) is in step with the backfilling sequence (i.e., shoring should not be removed ahead of backfilling), (2) does not cause disturbance (i.e., loosening) of pipe bedding and pipe embedment material, and (3) does not damage the existing pipeline or structures, pavements, and utilities including through settlement, heave, or vibrations (contractor to address removal/abandonment concerns specific to the type of shoring proposed in the shoring submittal). Any void space created by shoring removal should be completely filled with CLSM (see Section II.3.4.4) or approved equivalent.
- Resist lateral earth pressures including those from lateral loads from vehicular traffic, construction equipment and spoils, and hydrostatic pressures, if and where applicable.

Soil conditions can vary widely over short lateral and vertical distances in the project areas; therefore, project excavations should be continually monitored and documented by the contractor's Cal/OSHA approved "competent person", and the contractor should be prepared to make changes and modifications to shoring requirements in response to these changes and consistent with governing regulations (e.g., the most current edition of Cal/OSHA Construction Safety Orders) pertaining to excavation safety. Cal/OSHA soil classifications include the following:

Stable Rock: Natural solid mineral matter that can be excavated with vertical sides and remain intact when exposed.

Type A Soil: Excludes material that is part of a sloped or layered system dipping into the excavation at a slope $\geq 4H:1V$, but includes cohesive soil with an unconfined compressive strength of ≥ 1.5 tsf that is:

- Not fissured,
- Not subject to vibration from heavy traffic, pile driving, or similar effects, and
- Not been previously disturbed.

Type B Soil: Excludes material that is part of a sloped or layered system dipping into the excavation at a slope $\geq 4H:1V$, but includes the following:

- Cohesive soil with unconfined compressive strength between 0.5 and 1.5 tsf,
- Angular gravel and silt,
- Previously disturbed soil, except that is otherwise classified as Type C,
- Soil fissured or subject to vibration and not otherwise Type C soil, or
- Dry rock that is not stable.

Type C Soil: Excludes material that is part of a sloped or layered system dipping into the excavation at a slope $\geq 4H:1V$, but includes the following:

- Cohesive or disturbed soils with unconfined compressive strength ≤ 0.5 tsf,

- Sand and non-angular gravel,
- Submerged soil or soil from which water is freely seeping, or
- Submerged rock that is not stable.

The subsurface soils encountered in test borings and mapped in the project areas were consistent with a Cal/OSHA soil classification Type C.

The contractor should be required to provide special shoring design for owner review in cases where excavations will be in close proximity (below an imaginary plane projected downward at an inclination of 1.5H:1V from the nearest foundation or utility edge) to critical structures or utilities in order to minimize potential excavation-related damage. Special shoring should account for surcharge pressures and should be designed to maintain positive lateral support for adjacent structures and utilities. Areas requiring special shoring should also receive preconstruction condition surveys to establish a baseline against which any claimed third-party damages can be compared.

3.3.4 Ground Improvement

Granular, non-cohesive areal fills and trench backfill soils capable of raveling, running, or flowing ground behavior (see definitions on Plate A-1, Appendix A) will be encountered in project excavations. These types of soils will have little to no stand-up time in unshored vertical excavations and may need to be stabilized by ground improvement (e.g., grouting) where not completely and continuously shored and/or dewatered. Inadequately stabilized and/or shored excavations will allow existing nearby utilities, structures and roadways to be damaged by loss of support, undermining, or vibration-induced settlement. Stabilization of these types of soils can be accomplished through grout stabilization (e.g., displacement, permeation or jet grouting) by a specialized and experienced grouting contractor. The contractor should be made solely responsible for design and implementation of grout stabilization systems, and should require that the proposed systems be submitted to the owner for review prior to implementation.

3.4 Foundation, Pipe Embedment and Trench Backfill Materials

Foundation, Pipe Embedment and Trench Backfill Materials should conform to the requirements of this section where not exceeded by the City or governing agency or pipe manufacturer requirements, and so long as they will not cause damage or deformation to the pipeline or its coatings, if any. Refer to Plate II-9 for trench backfill details.

The recommendations provided in the following sections will need to be modified if and where the planned new sanitary sewer replacement pipeline or related project structures are found to be over old driven wood piles described in Section I.2.4. Whether or not portions of the planned new sanitary sewer replacement pipeline or related project structures are over old driven wood piles may not be known unless encountered in excavations during project construction. Modifications to the recommendations provided in the following sections will need to be addressed on a case by case basis at that time depending on the number, spacing and location of the piles encountered. If and where driven wood piles are encountered, we anticipate that the modifications to the construction of the planned new sanitary sewer replacement will include the following:

- Removing the top of the wood pile to a depth of at least 5 feet below the invert of the planned new sanitary sewer replacement pipeline, and
- Backfilling the removed pile space, up to the bottom of planned Foundation Material, with lightly-compacted trench excavation material so as to not create a hard point below the pipeline (such a hard point could eventually result in a hog in the overlying pipeline).

3.4.1 Foundation Material

Where the trench bottom at the planned excavated grade is soft, loose, or disturbed by construction activity, or otherwise unstable (e.g., pumping subgrade under foot load, boiling, etc.), overexcavation should be required until either (1) a firm material is reached or (2) a firm base can be created by the placement of a layer of Foundation Material. Based on the loose condition of areal fills encountered at the invert depth of the planned new sanitary sewer

replacement pipelines in project test borings (see boring logs in Appendix B), we anticipate that a layer of Foundation Material will be required for all excavations. The Foundation Material layer should consist of clean, natural, durable 1½-inch crushed (i.e., angular) rock that is graded within the requirements provided in Table II-4 and wrapped with a 12-inch minimum overlap of geotextile filter fabric. The thickness of the Foundation Material layer should not be less than 12 inches thick.

Table II-4 - 1½-inch Crushed Rock

Sieve Size	Percent Passing
2"	100
1½"	90 – 100
¾"	5 – 30
⅜"	5 – 20
No. 200	0 – 4

The geotextile fabric should be a non-woven material consisting of polyester, nylon or polypropylene filaments formed into a stable network and conforming to properties in Table II-5. The fabric should be permeable, inert to commonly encountered chemicals, rot-proof, resistant to ultra-violet light, and not act as a wicking agent. Mirafi 160N, Amoco Propex 4506, or similar geotextile filter fabrics which meet the criteria given in Table II-5 are acceptable.

Table II-5 - Geotextile Fabric

Property	Test Value	ASTM Test Method
Weight	5.4 oz./yd. ² (min.)	D5261
Grab tensile strength	150 lb. (min.)	D4632
Elongation at break	50% (max.)	D4632
Puncture strength	80 lb. (min.)	D4833
Burst strength	300 psi (min.)	D3786
Apparent Opening Size	#70 (max.)	D4751
Permittivity	1.0 sec ⁻¹ (min.)	D4491
UV Resistance	70% (min.)	D4355

3.4.2 Pipe Embedment Material

Pipe Embedment Material should envelop the pipeline to the dimensions illustrated on Plate II-9. Pipe Embedment Material should consist of either (1) clean, durable, natural, crushed (i.e., angular) rock meeting the gradational and quality requirements for Caltrans Class 2 Aggregate Base (Class 2AB) provided in Table II-6 and compacted as recommended in Section II.3.4.6, or

(2) CLSM as specified in Section II.3.4.4, particularly where compaction is not possible due to working space constraints.

Table II-6 - Class 2AB

Sieve Size	Percent Passing	
1"	100	
3/4"	90-100	
No. 4	35-60	
No. 30	10-30	
No. 200	2-9	
Test	California Method No.	Requirement
Resistance (R-Value)	301	78 min.
Sand Equivalent	217	22 min.

3.4.3 Trench Backfill Material

In paved areas, or areas to receive improvements, trench excavations should be backfilled above the pipe embedment zone with (1) Class 2AB (see Table II-6) and compacted as recommended in Section II.3.4.6, or (2) CLSM as specified in Section II.3.4.4.

3.4.4 Controlled Low Strength Material (CLSM)

Controlled low strength material (CLSM) should consist of the following:

- A hand-excavatable mixture of cement, pozzolan, coarse and fine aggregate, and water that has been mixed in accordance with ASTM C94 and is in a flowable state during placement;
- A maximum in-place density of 150 pcf;
- A minimum 28-day compressive strength of no less than 50 psi and a maximum 28-day compressive strength of no more than 150 psi;
- A minimum 12-hour compressive strength of no less than 20 psi;
- Physiochemical properties that do not damage the pipeline; and
- Placed in appropriate lifts or with methods to prevent movement of the pipe, including by flotation.

Placement of backfill on top of CLSM should not be allowed until the CLSM passes the ball drop test of ASTM D6024.

Where CLSM is used as pipeline embedment material, the pipeline should be elevated off of the trench bottom or foundation material using cradles, sandbags, or other approved supports prior to CLSM placement. Spacing of these supports is dependent on the pipeline material, diameter and structural properties, as well as the permissible amount of sagging which can be allowed between supports.

Pipelines backfilled using CLSM have a tendency to float. This tendency can be mitigated by the use of pipe anchors/weights and/or sequential backfilling (where the CLSM is poured in stages, and allowed to set in between stages). For sequential backfilling, the height to which the CLSM can be initially poured is a function of the buoyant forces imposed on the pipeline, and the amount of resistance provided by the pipeline anchoring/weighting system (if used). Sequential backfilling will require the trench excavation to remain open for a longer period of time, which may not be practical where the project alignment is within the traveled portion of a roadway.

3.4.5 Compaction

The project specifications should make the contractor solely responsible for excavation backfill compaction, and solely responsible to protect the new sanitary sewer replacement pipeline from damage at all times, including during placement and compaction of Pipeline Embedment and Trench Backfill Materials. Project excavations should be shored so that vibrations from construction activities (e.g., compaction equipment) will not cause raveling or running from the excavation sidewalls. Additionally, all water that accumulates in the bottom of the excavation should be removed so that project work can be done in the dry. No jetting of backfill should be allowed. The following recommendations assume that the planned pipeline can support mechanical compaction of Pipe Embedment Material and/or Trench Backfill Material as recommended herein. Where this is not the case, then the Pipe Embedment Material and/or Trench Backfill Material should consist of CLSM (see Section II.3.4.4). All references to

relative compaction are in accordance with laboratory maximum density/optimum moisture content by ASTM D1557.

Foundation Material should be densified in place (using a Vibra-plate compactor or equal) to provide a stable trench bottom capable of supporting mechanical compaction of the Pipe Embedment Material. Pipe Embedment Material should be compacted to a minimum of 90% relative compaction at a moisture content at or above optimum. The Pipe Embedment Material at the bottom of the pipe (i.e., pipe subgrade) should be compacted to a smooth, uniform plane to match the desired pipe slope. Where applicable, flange or bell holes should be excavated out at each pipe joint to ensure uniform pipe support to proper line and grade over the full length of each pipe segment.

After the pipe is laid in the trench, Pipe Embedment Material should be uniformly placed in maximum 8-inch thick lifts on each side of the pipe and hand-shovel sliced around the pipe haunches to support the sides of the pipe and to prevent pipe displacement, and then compacted to 90% relative compaction at or above optimum moisture condition. Compacting and testing Class 2AB below the pipe springline will be dependent on the trench width selected for installation of the pipeline, shoring and dewatering systems. It may not be practical to test the Class 2AB below the springline with less than 12 inches of side clearance between the pipe and trench/shoring wall. Above the springline of the pipe, the Pipe Embedment Material should be placed in maximum 8-inch thick loose lifts and compacted to a minimum of 90% relative compaction at or above optimum moisture content. Removal of shoring must not cause disturbance (i.e., loosening) of the compacted pipe embedment material.

Trench Backfill Material should be placed in maximum loose lifts of 8 inches above the Pipe Embedment Material. Trench Backfill Material should be compacted to a minimum of 90% relative compaction to within 3 feet of the pavement subgrade and to a minimum of 95% relative compaction within the upper 3 feet of backfill.

Inadequate compaction of utility trench backfill (i.e., less than that recommended herein) may cause excessive settlements resulting in damage to the pavement and other surface improvements.

3.4.6 Trench Dams

Trench dams, like that illustrated on Plate II-10, can be incorporated into the project design to minimize lateral subsurface flow of groundwater within permeable Foundation Material, Pipe Embedment Material, and Trench Backfill (e.g., to isolate any areas of known groundwater contamination). Trench dams will also minimize the amount of dewatering that would otherwise be required to access the pipeline during future maintenance and point repair excavations.

3.5 External Pipeline Loads

The type of pipe to be used for the planned new sanitary sewer replacement pipeline is not known to us at this time. Dead loads from soil on rigid and flexible pipeline are described below. Additionally, design criteria for live loads on the pipeline from vehicular traffic (H20 loading) are provided on Plate II-11. The total unit weight of CLSM (see Section II.3.4.4) or compacted Class 2AB (see Table II-6) may be taken as 150 pcf.

3.5.1 Rigid Pipe

Design criteria for dead loads on rigid pipe under trench conditions are presented on Plate II-12.

3.5.2 Flexible Pipe

Dead loads due to backfill soil overburden on a flexible pipeline assuming trench conditions can be estimated using the following Prism Method based formula (Moser, 2001):

$$W = D \gamma H$$

- where: W = vertical soil load on a flexible pipeline due to trench backfill/overlying soil (pounds/linear foot),
 D = pipe outside diameter (feet),
 γ = unit weight of trench backfill (pcf), and
 H = height of trench backfill above the pipeline (feet).

3.6 Composite Modulus of Soil Reaction

The composite modulus of soil reaction (E'_c) is useful for estimating the passive soil resistance that will develop upon vertical loading of flexible pipelines. E'_c is a function of the soil modulus of the pipe zone material (E'_{pz}), the soil modulus of the trench wall material (E'_{tw}), trench width, pipeline depth of cover, and pipeline diameter (see Plate II-13). E'_{pz} and E'_{tw} are in turn functions of the strength of each material. Where the new sanitary sewer replacement pipeline is bedded in well-compacted Class 2AB as recommended in Section II.3.4.2, E'_{pz} will be constant at approximately 1,500 psi. It is imperative that properly-compacted pipe zone material not be disturbed or loosened by shoring removal in order to maintain this 1,500 psi E'_{pz} value.

E'_{tw} varies in proportion to the consistency/density of the soils forming the trench walls. The soils encountered in project test borings in the project areas at the invert depth of the new sanitary sewer replacement pipeline were loose to medium stiff (average SPT blow count of N = 5, for 8 project tests). Typical (1) E'_{tw} values for a range of soil consistency/density, and (2) corresponding $E'_{tw}:E'_{pz}$ ratios are provided in Table II-7.

Table II-7 - E'_c Input Values

E'_{tw} Value ¹		$E'_{tw} : E'_{pz}$ Ratio ($E'_{pz} = 1,500$ psi)
Soft soil (N=2)	125 psi	0.08
Medium stiff or loose soil (N<8)	250 psi	0.17

¹N = standard penetration blow count.

Using the chart provided on Plate II-13 and based on an appropriate $E'_{tw} : E'_{pz}$ ratio, the soil support combining factor Sc can be determined for the actual trench width to pipeline diameter ratio used in design. The Sc factor can then be used to calculate E'_c based on the formula

$E'c = ScE'pz$. For example, assuming $E'pz = 1,500$ psi and $E'tw = 250$ psi, then $E'tw:E'pz = 0.17$. From Plate II-13, and assuming a B:D ratio of 1.5 (the actual B:D ratio to be used is not known to us at this time), then a $E'tw :E'pz = 0.17$ corresponds to a $Sc = 0.25$. Completing the equation for $E'c = ScE'pz$ gives $E'c = 0.25(1,500) = 375$ psi.

3.7 Thrust Blocks

Thrust forces from internal pressure within the 4-inch force main portion of new sanitary sewer replacement pipeline may be resisted by thrust blocks. Project plans (West Yost Associates, 2009) show the force main to be an approximately 593-foot long straight segment between existing manholes that will connect to gravity portions of the new sanitary sewer replacement pipeline. Thrust block capacity is a function of soil type, depth below ground surface, allowable deflection and direction of force application (e.g., upward vs. downward vertical component of thrust). Thrust block design should occur in the following three steps:

- Preliminary design based on minimum depths, anticipated soil and bedrock type and presumptive allowable horizontal soil and bedrock bearing capacity;
- Plan design based on the geotechnical engineer's review of depth of embedment and direction of thrust application; and
- Final design with field adjustments during construction based on actual in-field subsurface conditions (e.g., adjustment for the presence of adjacent utility trenches, perched groundwater, localized changes in soil or bedrock condition, etc.).

For purposes of preliminary design, thrust blocks may be sized using a presumptive allowable soil bearing capacity of 400 psf for pipeline thrust blocks in loose areal fill as encountered in the project test borings near the force main (see logs of Borings B-5 and B-6 in Appendix B, Section I). This presumptive allowable soil thrust block bearing capacity is based on horizontal or downward thrusting only (do not use for upward thrust) using a thrust block having a minimum width of 12 inches and a minimum height of 24 inches. The maximum height of the thrust block must be less than one-half the depth from the ground surface to the base of the thrust block. Based on this presumptive thrust block design, the thrust block deflection will be limited to less

than ½ inch. Final thrust block capacity should be evaluated in the field during construction prior to pouring concrete and should be based on final thrust block depth, configuration, and the strength and safe bearing capacity of the exposed soils.

3.8 Permanent Subsurface Structures

Permanent subsurface structures planned for the project consist of a new manhole at Station 20+77, a new grease interceptor adjacent to this new manhole, and a new pump station at Station 18+89 (at an existing manhole); all near the east end of the Spinnaker Area of the project. Except at Station 20+77, the project plans (West Yost Associates, 2009) show the new sanitary sewer replacement pipeline to flow through existing manholes. The planned invert of the new manhole is about El. 4 (about 4 feet deep) and the planned invert of the new grease interceptor is about El. 0 (between 6 to 8 feet deep). Details of the new sanitary sewer pump station at Station 18+89 (plan and profile dimensions) are not known to us at this time. The invert depth of the new manhole and new grease interceptor corresponds in nearby project test Boring B-5 to loose to soft to medium stiff areal fill overlying soft compressible Bay Mud.

3.8.1 Foundations

Foundations for the planned new permanent subsurface structures that are underlain by areal fill over soft Bay Mud may be designed based on load compensation (i.e., applied structural loading equal to or less than the weight of the soil removed to accommodate the structure) using an the allowable bearing capacity for mats of 500 psf for an 8-foot deep structure.

This loading can be increased by one-third where needed to resist transient loading on the structures (e.g., seismic forces). The new structures contribution to total long-term underlying Bay Mud consolidation settlement of the area will be negligible since their load compensation design constitutes no new loads. However, compensated structure excavations in Bay Muds will be subject to immediate recompression settlements of as much as 1 inch, which should occur quickly upon load application. The maximum differential undisturbed soil recompression across the base of the structures should be less than ½ inch.

These foundation recommendations are based upon an undisturbed base of excavation on which the structures will bear (i.e., dependent upon the performance of the contractor). For example, excavations that are not fully dewatered ahead of time or where groundwater has not been completely cut off (e.g., interlocking sheet pile with sufficient toe embedment) prior to excavating, will be subject to piping and boiling of the base of excavation and to consequent amounts of structure settlement significantly greater than that anticipated by solely undisturbed soil recompression effects.

Where the subgrade for permanent subsurface structures is found to be soft, loose, disturbed by construction activity, or otherwise unstable (e.g., pumping subgrade under foot load, boiling, etc.), we recommend that the subgrade be overexcavated to such a depth that a firm, stable base can be created by the placement of a layer of Foundation Material (see Section II.3.4.1). The thickness of the Foundation Material should not be less than 12 inches.

Subsurface structures including pre-cast elements or cast-in-place elements should be placed on a 6-inch layer of compacted Class 2AB (see Table II-6) overlying the geotextile-fabric-wrapped pipeline foundation material or undisturbed subgrade soils. This layer of Class 2AB should be compacted to a minimum of 90% relative compaction at a moisture content at or above optimum. The structure foundation concrete can then be poured directly on top of the compacted Class 2AB layer.

3.8.2 Structure Backfill Material and Compaction

Structure backfill material should consist of Class 2AB (see Table II-6) or CLSM (see Section II.3.4.4). Class 2AB structure backfill should be placed in maximum 8-inch thick loose lifts and compacted to a minimum of 90% relative compaction (ASTM D1557) at a moisture content at or near optimum to within 30 inches of the pavement subgrade. Within the upper 30 inches of backfill, Class 2AB structure backfill material should be compacted to a minimum of 95% relative compaction (ASTM D1557) at a moisture content at or near optimum. The project specifications should clearly state that at all times during the construction of project structures

and placement/compaction of structure backfill material, it is the contractor's responsibility to protect the project structures from damage (e.g., overstressing the structures with heavy equipment, etc.).

3.8.3 Resistance to Hydrostatic Forces

All permanent subsurface structures should be designed to resist buoyant uplift and lateral hydrostatic forces assuming a long-term groundwater level at the ground surface. Buoyant uplift can be resisted by the dead weight of the structure, friction between the exterior structure walls and the backfill soils, and/or by the weight of backfill soils above an exterior perimeter lip added to the foundation mat. In all cases, a minimum factor of safety of 1.5 should be used for design against hydrostatic uplift. Frictional forces that will resist buoyant uplift of subsurface structures may be calculated using the at-rest earth pressures in Table II-8.

A sketch illustrating design parameters for hydrostatic uplift resistance is presented on Plate II-14. Friction between subsurface structure walls and Class 2AB structure backfill may be calculated using the at-rest earth pressures on Table II-8 and an ultimate friction factor of 0.35. If an exterior perimeter lip is added to the foundation mat, hydrostatic uplift can be resisted by the weight of backfill soils within the prism shown on Plate II-14. A buoyant unit weight of 80 pcf can be used for Class 2AB.

3.9 Lateral Earth Pressures

Lateral earth pressures will be imposed on all subsurface structures for the project. Subsurface structures for the project are not free to deflect and therefore should be designed to resist at-rest earth pressures. Lateral earth pressures provided in Table II-8, expressed as equivalent fluid densities, are for permanent below-ground structures based on the composition and consistency of planned structural backfill, and the soils encountered in project test borings (see logs in Appendix B).

Table II-8 - Lateral Earth Pressures¹

Ultimate Static Lateral Earth Pressures¹ in Project Areas Expressed as Equivalent Fluid Density (psf/ft in a triangular distribution)		
Soil Type & Condition	At-Rest²	Passive³
Areal Fill	50	125
Bay Mud	35	60
Class 2AB Structure Backfill (Table II-6)	35	300

¹All values are based on buoyant unit weights with design groundwater at the ground surface. Appropriate safety factors should be applied. Assumes structures less than 15 feet deep. See text for additional applicable pressures.

²Add hydrostatic component (+62.4 pcf).

³For passive pressures, a safety factor of at least 2.0 should be applied to avoid the lateral movement of the structure that would be necessary in order to reach full ultimate passive soil strength mobilization.

The following modifications to design lateral earth pressures should be made to the static lateral earth pressures provided in Table No. II-8, where applicable:

- Lateral surcharge from vehicles (Plate II-8),
- Lateral surcharge from adjacent fills or structures where an imaginary 1.5H:1V plane projected downward from an existing or planned new structure projects above or intersects the side of the planned new adjacent structure,
- Dynamic pressures (Pe) from seismic shaking. A dynamic earth pressure of $P_e = 14 \times H$, expressed as pounds per square foot, should be applied as a rectangular distribution over a depth of H (where H = depth of wall embedment below grade in feet) assuming peak ground accelerations of 0.5g from Plate II-3 and a buoyant unit weight of 90 pcf (buoyant unit weight of Class 2AB used as structural backfill). The resultant should be applied at a distance of 0.6H from the bottom of the structure. The design ground surface acceleration has been factored for an acceleration taken as 80% of the peak (i.e., $0.5g \times 0.80 = 0.4g$).

Overcompaction of structure backfill is to be avoided because increasing the compactive effort can result in damaging lateral pressures that are higher than those provided in Table II-8. In addition to lateral earth pressures, an ultimate coefficient of sliding friction value of 0.35 between concrete structures and compacted Class 2AB (see Table II-6) can be used in calculations for lateral force resistance.

3.10 Settlement

From a practical viewpoint, and with the exception of ongoing, long-term, area-wide Bay Mud consolidation settlement (see Section II.2.1.4), the amount of settlement caused by the new sanitary sewer replacement pipelines and related project structures (e.g., the grease interceptor) will be minimal since no new loads will be applied. Localized settlement of the pipelines and project structures will depend mostly on the condition of the excavation bottom (i.e., mostly determined by the contractor's performance in achieving the minimum recommendations for trench bottom stability provided in this report). Therefore, it is imperative that stable excavation bottoms are maintained at all times and that loose, disturbed or otherwise softened soils are not allowed in excavation bottoms. Backfill loading upon such soils can produce random settlements creating pipeline sags greater than 1 inch that can be abrupt and localized over short sections of pipeline.

3.10.1 Recompression Settlement

Project excavations will be backfilled to their original grade and compacted backfill will exert no significant additional loads onto the underlying undisturbed soil deposits. Therefore, elastic deformation (i.e., recompression) of the native materials induced by backfill placement and compaction should occur quickly upon load application. For example, the maximum recompression of undisturbed trench bottoms on the order of 10 to 15 feet deep in loose or medium stiff soils should be less than ½ inch and should occur upon backfilling. The maximum differential recompression between differing soil consistencies/densities along the pipeline should also be less than ½ inch.

3.10.2 Backfill Compression

Excavation backfill placed within excavations will compress (settle) by self-weight even when well compacted. We estimate settlement of Foundation Material, Pipeline Embedment Material, Trench Backfill Material and Structure Backfill Material compacted as recommended in this

report, to be less than 0.2 to 0.4 percent of their vertical thickness. Pavement sections overlying the sewer pipeline will reflect this long-term backfill settlement.

3.10.3 Vibration-Induced Settlement

Settlements damaging to the sanitary sewer replacement pipeline, related project structures and to adjacent improvements (e.g., existing underground utilities and street pavement) can occur as a result of soil densification upon vibration. Vibration-induced settlements occur as a result of localized liquefaction and densification of saturated, uniformly-graded, non-cohesive soils (e.g., nonplastic silts and sands). The loose granular areal fills, as encountered in project test borings, are particularly sensitive to vibration-induced settlements. Case histories cited by Lacy & Gould (1985) indicate several inches of pipeline settlement upon vibratory sheet pile extraction in these soil types. Therefore, all shoring extending into granular, non-cohesive areal fills should be installed and extracted with caution relative to the generation of vibrations; noting that static or “vibration less” shoring installation and removal may be required. The project specifications should require that shoring removal be performed in a manner that does not cause settlement of the new sanitary sewer replacement pipeline or any nearby surface or subsurface structure. The new sanitary sewer replacement pipeline and related project structures (grease interceptor, force main pump station, etc.) should be monitored for settlement when shoring is installed and removed. If settlement is observed during shoring installation or extraction, the contractor should be required to immediately stop and revise his methods of installation or extraction

3.11 Construction Vibrations

The planned project will be constructed in areal fills and existing utility and pipeline trench backfill over Bay Mud that will transmit construction vibrations to existing nearby surface (e.g., existing residential and commercial buildings) and subsurface structures (including utilities and pipelines). Therefore, the type and operation of equipment to be used during project construction should be selected by the contractor to limit construction vibrations (a function of frequency and peak particle velocity) to levels that will not damage existing surface structures and improvements, or existing subsurface structures including utilities and pipelines.

A commonly-accepted damage threshold criteria for high frequency peak particle velocity vibrations at existing surface structures and improvements is on the order of 1.0 to 2.0 inches per second (USBM RI-8507). High frequency peak particle velocities above these values can cause cosmetic damage to structures (e.g., cracking of plaster and drywall). Typical attenuation curves for vibratory pile driving indicate peak particle velocities are generally less than 1.0 inch per second at distances greater than 20 feet. Pile driving into obstructions or through coarse granular materials (e.g., gravelly fills, granular pipe embedment material and utility trench backfill) may generate higher than typical peak particle velocity vibrations with greater attenuation distances.

Construction vibrations should be monitored and documented by qualified technicians with approved vibration measuring equipment (seismographs) located at the residential and/or commercial structure nearest the site of actual ongoing construction. Vibration levels during construction should not exceed a 1.0 inch per second peak particle velocity. Vibration levels exceeding this value within 25 feet of the source or at nearby surface structures, whichever is closer, will require modification of the contractor's construction procedures to reduce vibration levels. Photographic precondition surveys of the residential and commercial structures located adjacent to the planned pipeline alignment should be performed to establish baseline conditions prior to project construction and to aid assessing construction damage claims, if any.

3.12 Roadway Pavements

Roadway pavements in, and which provide access to, the project areas will most likely be damaged by heavy construction traffic loads that are typically required for construction of this type of project. Therefore, repair of pavement damaged by construction traffic should be included as a bid item for contractors in the project documents. Pre- and post-construction pavement condition surveys should be performed prior to the start of construction in order to document baseline conditions. Pavement section replacement or repair should at least match the existing section. Additionally, pavement section replacement or repair should be designed for appropriate traffic indices and meet the requirements of local jurisdictions.

3.13 Seismic Design

The hazard of fault rupture in the project areas is extremely low to nil based on the absence of active faults (see Section II.2.3). The hazard of ground shaking in the project areas is high (see Section II.2.4). The effects of ground shaking on the project may be mitigated by design and construction detailing in accordance with the foundation and seismic provisions of the 2006 International Building Code (IBC)/2007 California Building Code (CBC) including the parameters provided in Table II-9.

Table II-9 - 2006 IBC/2007 CBC Seismic Site Categorization and Design Coefficients

Categorization/Coefficient	Design Values
0.2s Spectral Response Accel. (S_s) for Site Class B (Figure 1613.5(3))	1.5g
1.0s Spectral Response Accel. (S_1) for Site Class B (Figure 1613.5(4))	0.68g
Site Class (Table 1613.5.2)	F
Long-period Transition Period, T_L (Figure 22-6) ¹	12

¹ From ASCE/SEI 7-05 (2006).

The hazard of liquefaction in the project areas is high based on the shallow depth to groundwater and the presence of silts and loose sands in the areal fills located over soft compressible Bay Mud (see Section II.2.5). If liquefaction were to occur in the project areas, the manifestation of liquefaction would be settlement of the ground surface and localized settlement or buoyant floatation of pipeline and subsurface structures. Liquefaction in the project areas could also cause lateral spreading of the ground down gentle slopes into Richardson Bay. Liquefaction in the project areas could also cause lateral spreading of the ground down gentle slopes into Richardson Bay. For critical life-line facilities, mitigation should be undertaken to address the potential for soil liquefaction. However, the most common approach for small-diameter sanitary sewer pipelines and related subsurface structures is to repair any damage caused by liquefaction after the fact, if they occur.

3.14 Corrosion Design

The results of corrosion tests (i.e., resistivity, redox, pH, sulfates and chlorides) on samples of areal fill soil taken from the project areas at depths of 8 to 10½ and 7 to 9½ feet below ground

surface in Borings B-3 and B-5, respectively, are presented on Plate C-5 in Section I, Appendix C. These results should be incorporated into design of project elements (e.g., new structures, pipelines, valves, etc.), noting that portions of the existing sanitary sewer pipeline to be replaced by this project is severely corroded and that Bay Mud is widely known to be highly corrosive to concrete and steel.

4.0 ADDITIONAL SERVICES AND LIMITATIONS

We recommend that DCM/GeoEngineers be given the opportunity to provide the following additional services through the completion of project construction:

- Review of final plans and specifications prior to bid for conformance with geotechnical conditions and recommendations;
- Review of contractor submittals (e.g., shoring, dewatering, ground improvement, etc.) for conformance with geotechnical findings described herein;
- Review and response to contractor requests for information that relate to geotechnical issues; and
- Periodic construction observations during excavations to verify conformance of exposed surface conditions with the findings of this report.

We have prepared this report for the exclusive use of the City of Sausalito, West Yost Associates, and their authorized agents for the Sausalito Priority 1 Sewer Replacement Project in Sausalito, California. Field work for this geotechnical engineering investigation report was planned and completed based on project information provided to us at the time of our subsurface investigation. This geotechnical engineering investigation report was formulated based on findings from our field work and the project information provided to us by the time this report was prepared.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of geotechnical engineering in this area at the time this report was prepared. The conclusions, recommendations, and opinions presented

in this report are based on our professional knowledge, judgment and experience. No warranty or other conditions, expressed or implied, should be understood. During the course of our investigation, we reported limited information regarding soil corrosivity and soil and groundwater contamination in the project areas. Studies of, and design recommendations related to soil corrosivity and soil and groundwater contamination in the project areas, and the mitigation thereof, is not part of our scope of services for this geotechnical investigation.

Any electronic form, facsimile or hard copy of the original document (email, text, table and/or figure), if provided, and any attachments should be considered a copy of the original document. The original document is stored by DCM/GeoEngineers, Inc. and will serve as the official document of record.

Please refer to the appendix titled “Report Limitations and Guidelines for Use” (Appendix E) for additional information pertaining to use of this report.

5.0 REFERENCES

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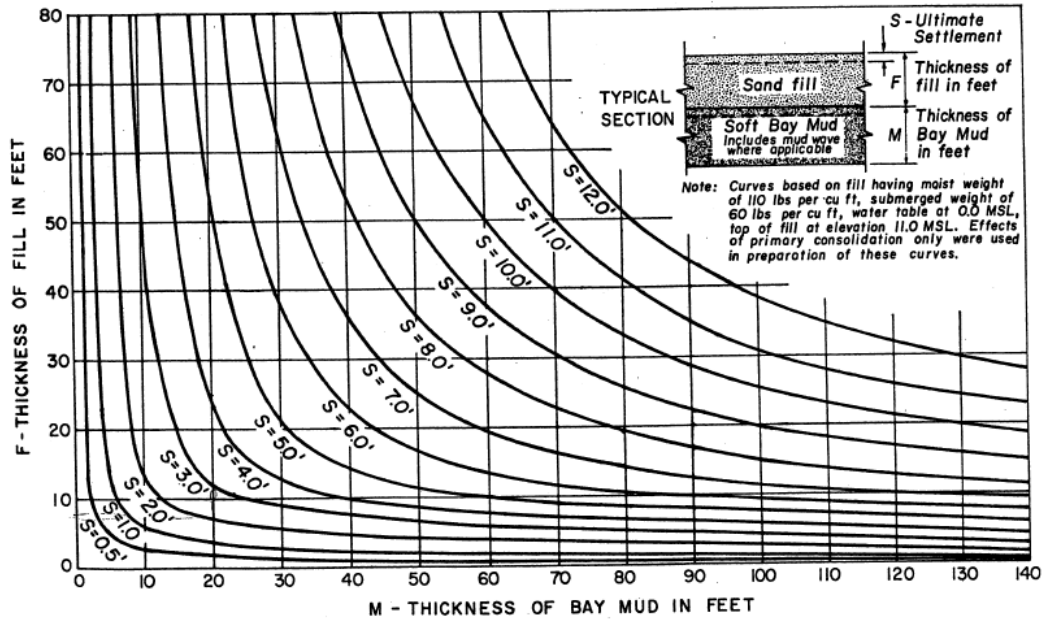
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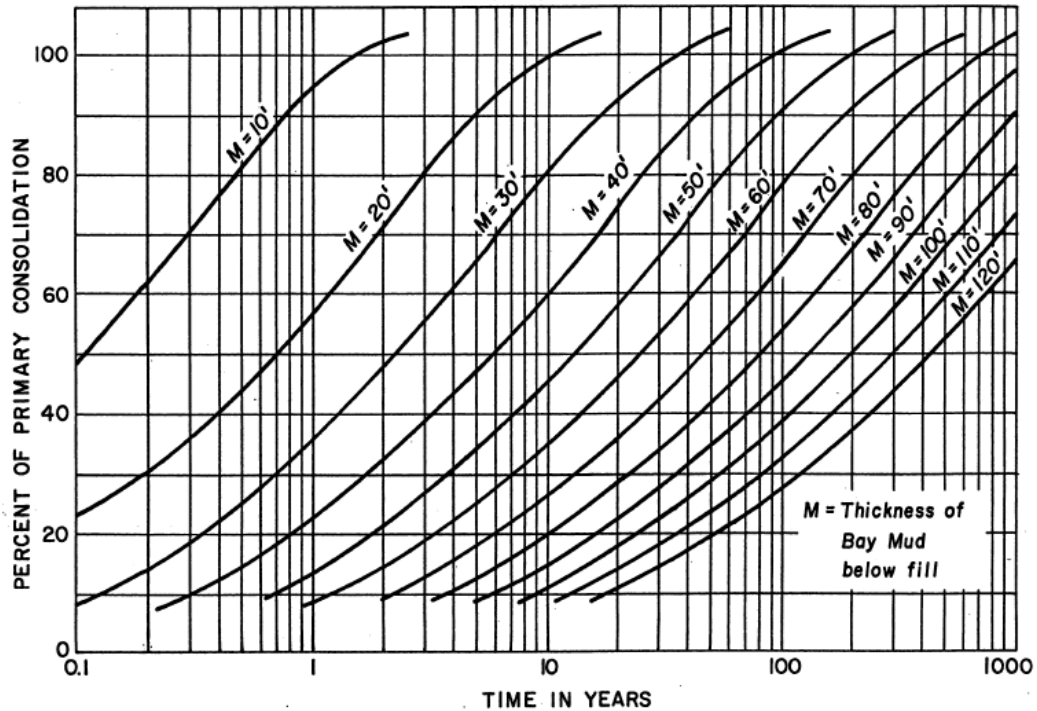
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ULTIMATE AMOUNT OF SETTLEMENT OF FILLS ACCORDING TO THICKNESS OF FILL AND THICKNESS OF UNDERLYING BAY MUD.

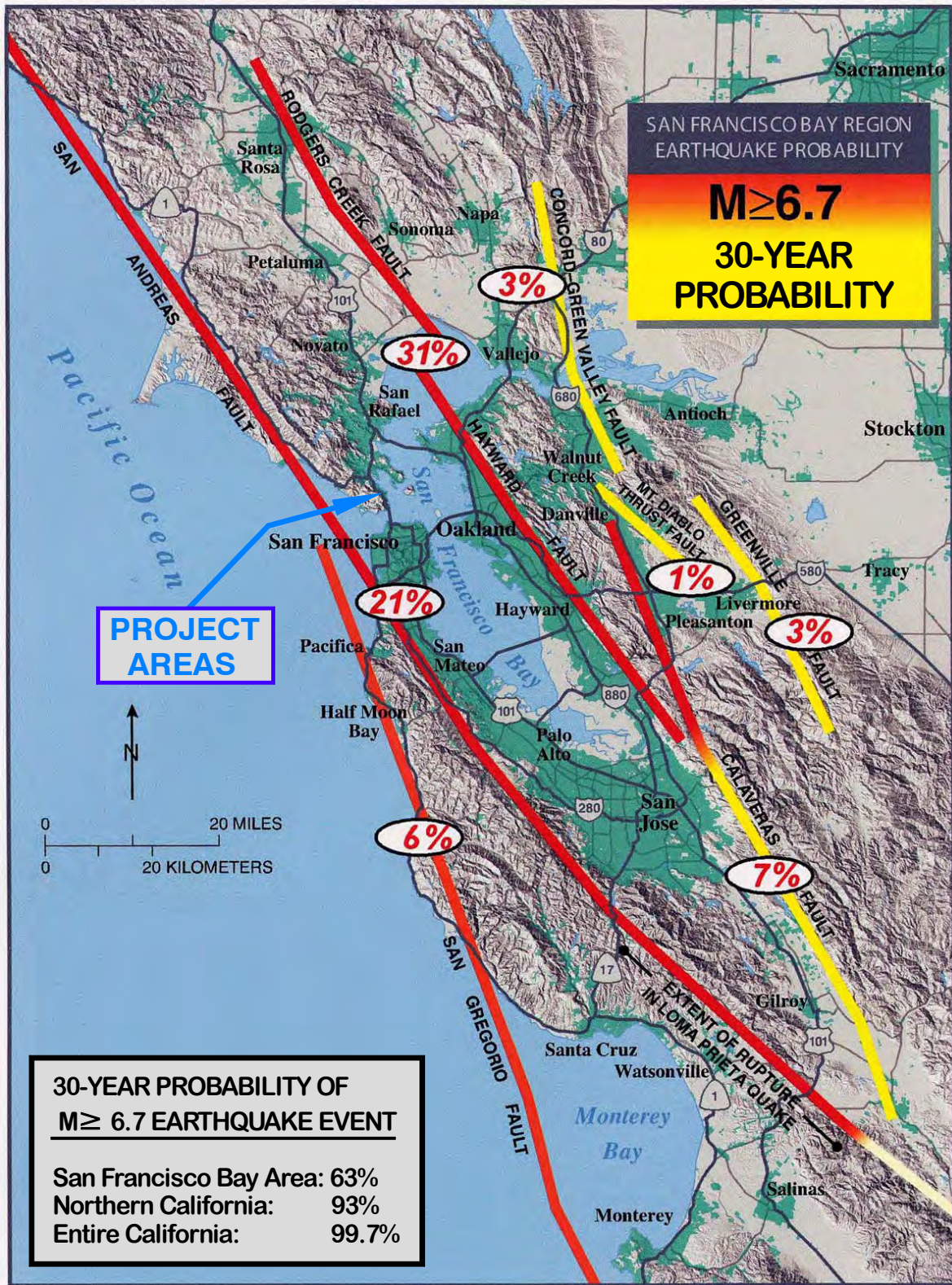


Modified from CDMG (1969)

PERCENT SETTLEMENT OF FILLS OVER TIME ACCORDING TO THICKNESS OF MUD.



Modified from CDMG (1969)

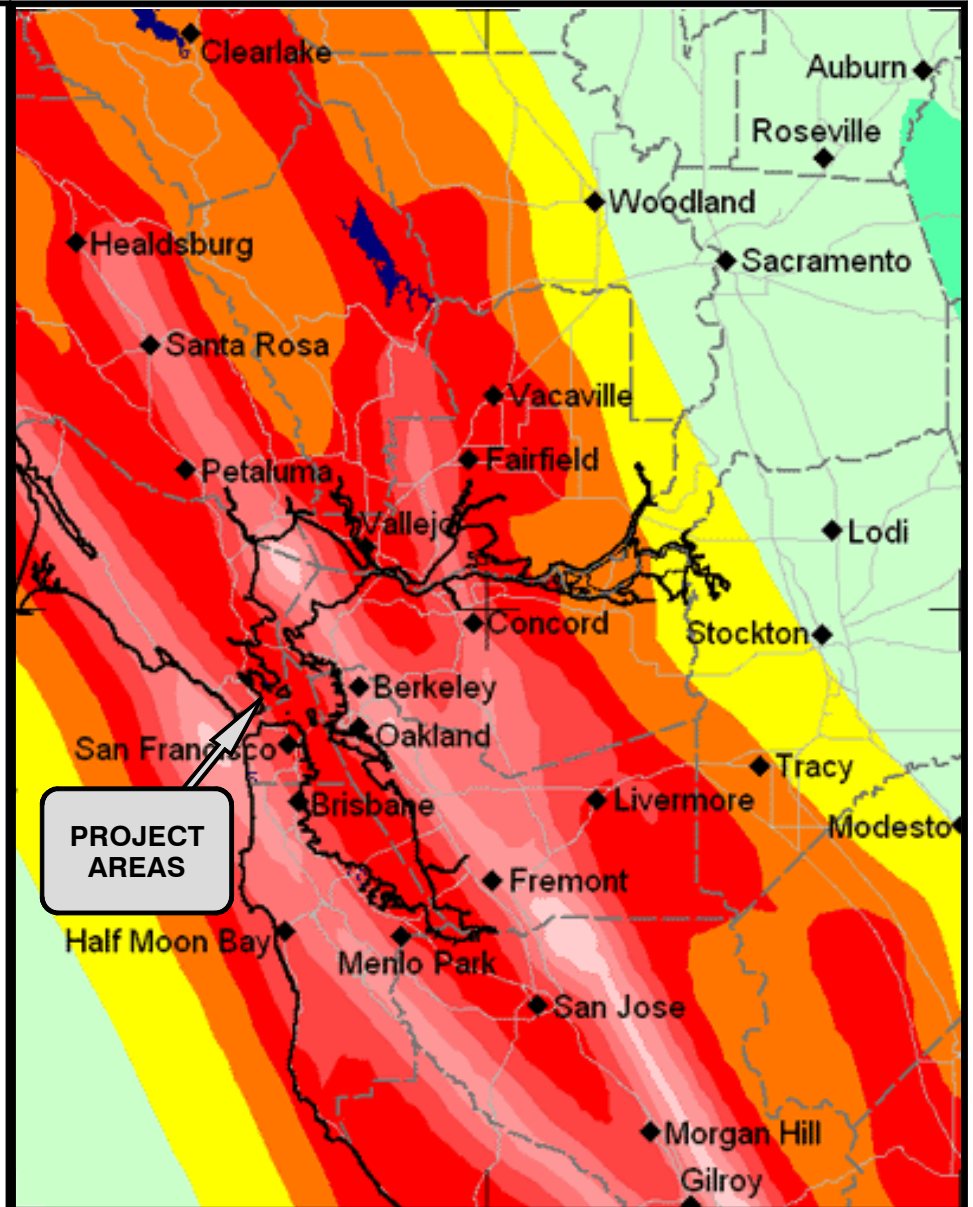


Modified from WGCEP (2003 and 2007)

Peak Ground Acceleration Shaking with 10% probability exceedance in 50 years (firm rock condition)



("g" is gravity)



Modified from USGS/CGS 2002 Probabilistic Seismic Hazards Assessment Model (Cao and others 2003).

Latitude/Longitude:	N37.8685°/W122.4985°
Peak Ground Acceleration:	0.5g

AVERAGE PEAK VELOCITY (CENTIMETERS PER SECOND)

MODIFIED MERCALLI INTENSITY VALUE AND DESCRIPTION

AVERAGE PEAK ACCELERATION ("g" is gravity - 9.80 metres per second squared)

	I. Not felt except by a very few under especially favorable circumstances.	
	II. Felt only by a few persons at rest, especially on upper floors of buildings. Delicately suspended objects may swing.	
	III. Felt quite noticeable indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing vehicles may rock slightly. Vibration like passing of a truck. Duration estimated.	
1-2	IV. During the day felt indoors by many, outdoors by few. At night some awakened. Rattling of dishes, windows, and doors; walls make creaking sounds. Hanging objects swing. Sensation like a heavy truck passing. Standing vehicles rocked noticeably.	0.015g-.02g
2-5	V. Felt by nearly everyone, many awakened. Some dishes, windows and so on broken; cracked plaster in a few places; unstable objects overturned. Disturbances of trees, poles and other tall objects sometimes noticeable. Pendulum clocks may stop. Buildings trembled throughout.	0.03g-0.04g
5-8	VI. Felt by all, many frightened and run outdoors. Some moderately heavy furniture moved; a few instances of fallen plaster and damaged chimneys. Trees, bushes, shaken slightly to moderately. Damage slight in poorly constructed buildings. Broken dishes, glassware and some windows. Moved furnishings and overturned furniture.	0.06g-0.07g
8-12	VII. Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; chimneys cracked to considerable extent. Noticed by persons driving vehicles. Waves on ponds, lakes, running water. Broke numerous windows, heavy furniture overturned. Dislodged bricks and stones.	0.10g-0.15g
20-30	VIII. Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving vehicles disturbed.	0.25g-0.30g
45-55	IX. Damage considerable in specially designed structures; well-designed frame structures thrown out-of-plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken. Reservoirs threatened.	0.50g-0.55g
More than 60	X. Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Railroad rails bent. Landslides considerable from river banks and steep slopes. Shifted sand and mud. Water splashed, slopped over banks. Reservoirs greatly damaged. Open cracks in cement pavements and asphalt road surfaces.	More than 0.60g
	XI. Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly. Dams, dikes, embankments severely damaged. Destroyed large well-built bridges.	
	XII. Damage total. Practically all works of construction damaged greatly or destroyed. Landslides, falls of rock, slumping of river banks extensive. Fault slips in firm rock, with notable horizontal vertical off-set displacements. Water channels, surface and underground disturbed and modified greatly. Waves seen on ground surfaces.	

REFERENCE ; Compiled from "Earthquakes & Volcanoes," Volume 21, Number 1, 1989, and "Earthquakes A Primer," Bruce A. Bolt, W.H. Freeman and Company, San Francisco, Copyright 1993.



WEST YOST ASSOCIATES

City of Sausalito
Priority 1 Sewer Replacement
Sausalito, California

PLATE NO.

II-4

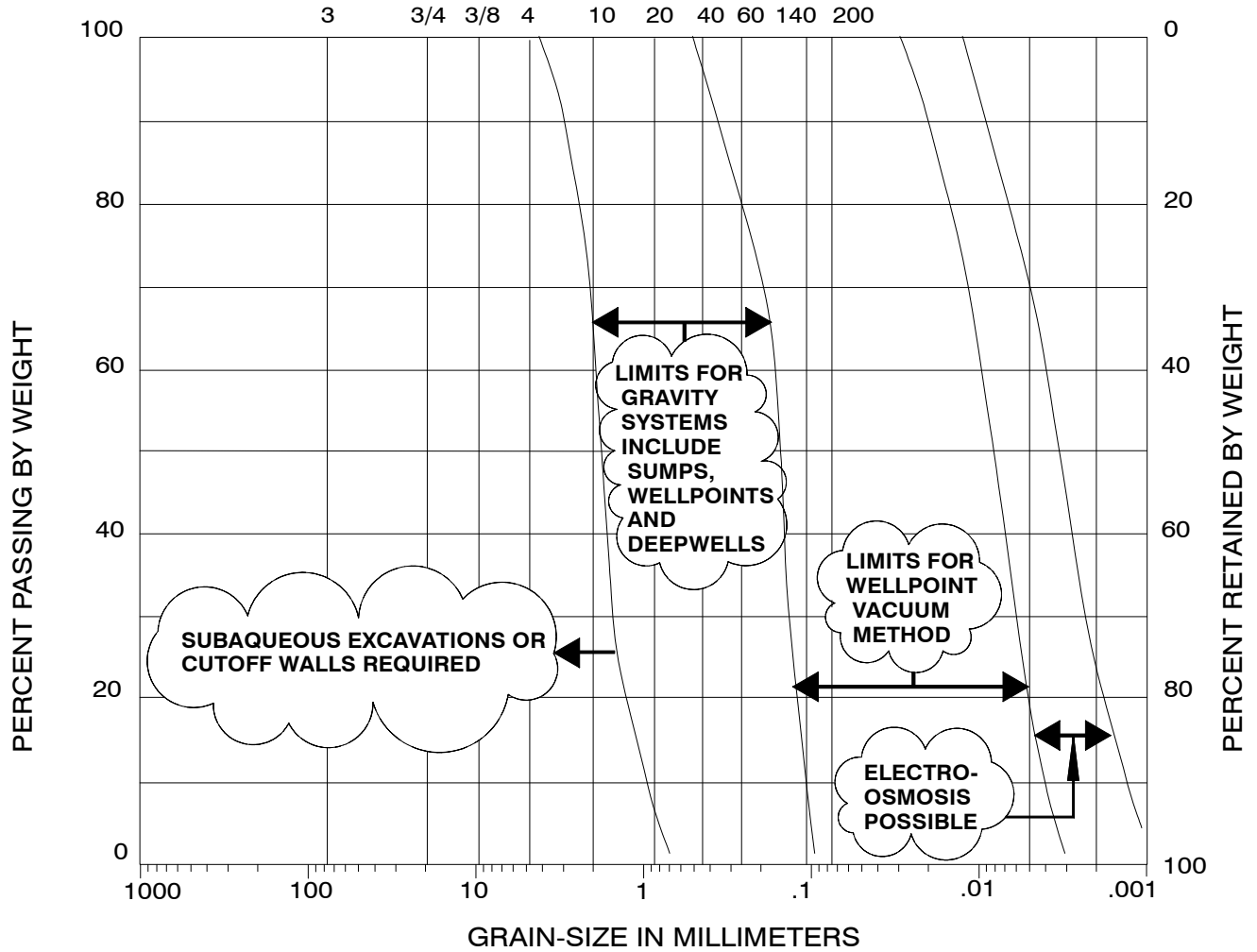
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AUGUST 2009

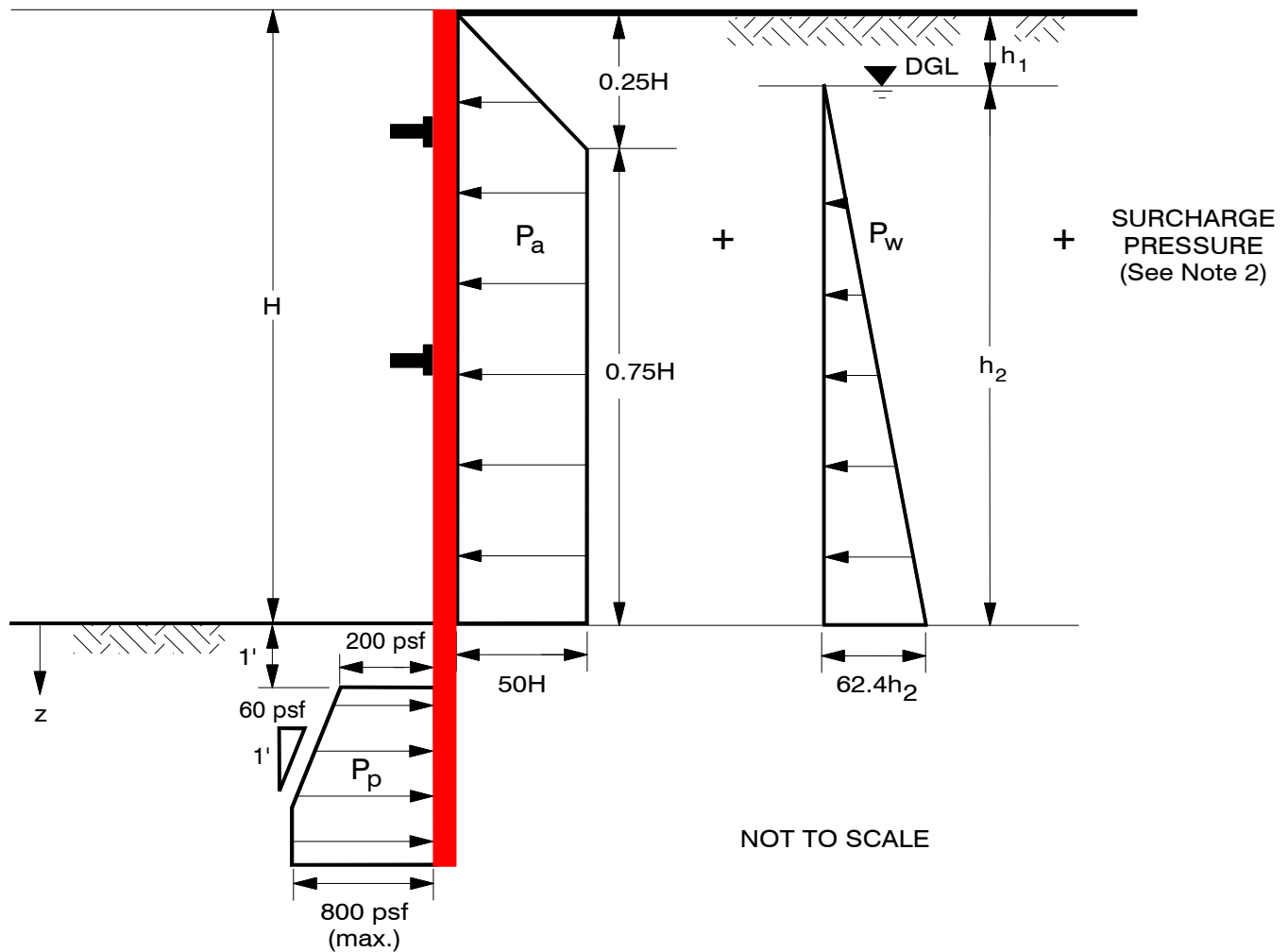
MODIFIED MERCALLI SCALE

GRAIN SIZE SCALE

BOULDERS	COBBLES	GRAVEL		SAND			FINES	
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY
U.S. SIEVE SIZE IN INCHES				U.S. STANDARD SIEVE No.			HYDROMETER	



From: Naval Facilities Engineering Command, 1986, Design Manual 7.02
 Foundations and Earth Structures, Figure 14.



LEGEND:

H = Total Excavation Height

h_1 = Height of shoring above design groundwater level (DGL)

h_2 = Height of shoring below design groundwater level (DGL)

z = depth below bottom of excavation

DGL = Design Groundwater Level (for Shoring Design)

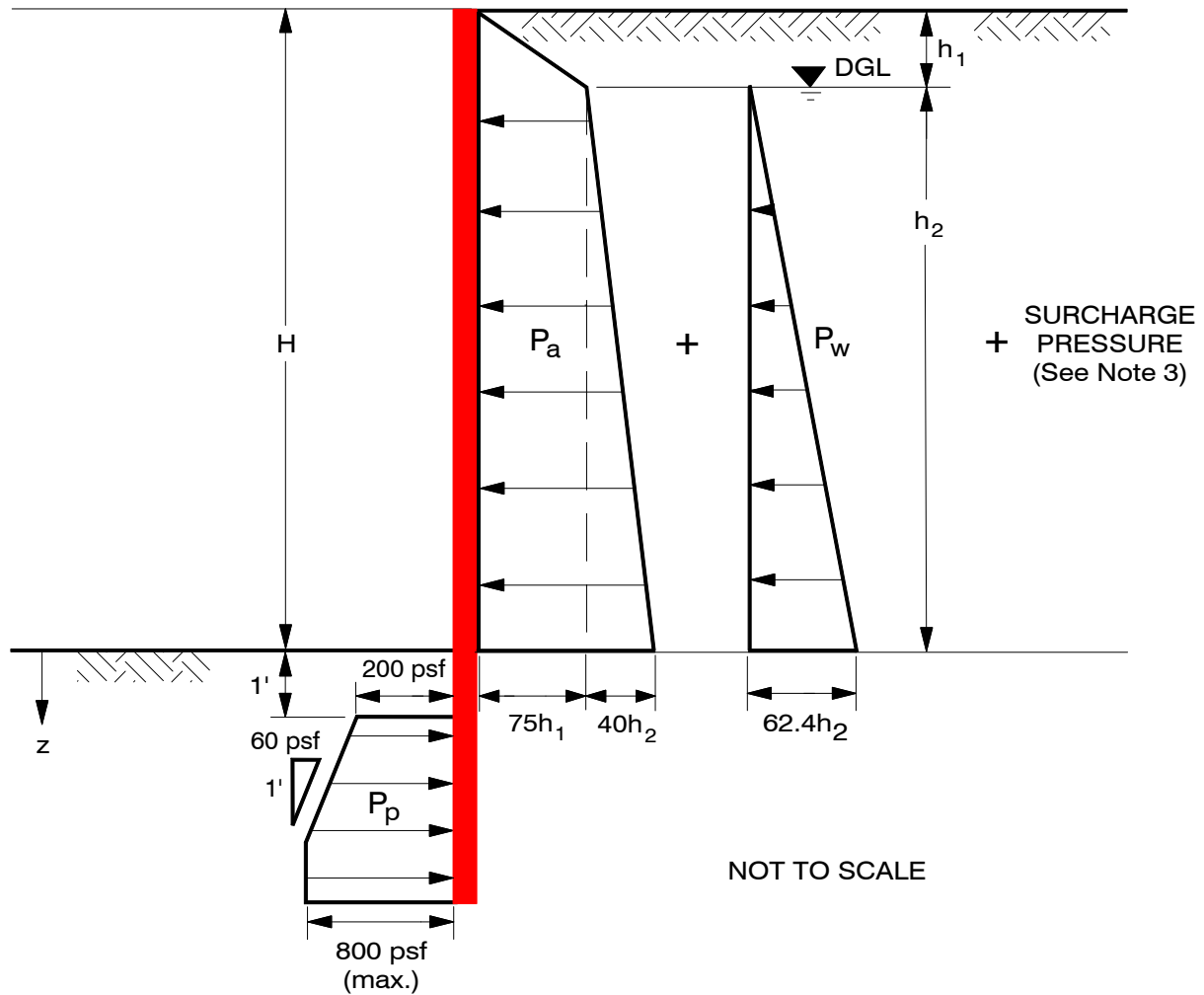
P_a = Active Braced Earth Pressure (psf): equals $50H$

P_p = Passive Earth Pressure (psf): equals 200 psf + 60 psf/ft of depth to a maximum of 800 psf

P_w = Hydrostatic Pressure (psf): equals $62.4h_2$

NOTES:

1. Passive earth pressures are ultimate values and an appropriate factor of safety of at least 2 should be used in calculation of embedment depth.
2. This preliminary pressure diagram has been constructed without consideration for surcharge loads such as stockpiled soil, traffic, structural loads, etc. Surcharge loads must be added to this pressure diagram where applicable. Minimum shoring pressures for traffic and equipment surcharge are provided on Plate II-8.



LEGEND:

H = Total Excavation Height

h_1 = Height of shoring above design groundwater level (DGL)

h_2 = Height of shoring below design groundwater level (DGL)

z = depth below bottom of excavation

DGL = Design Groundwater Level (for Shoring Design)

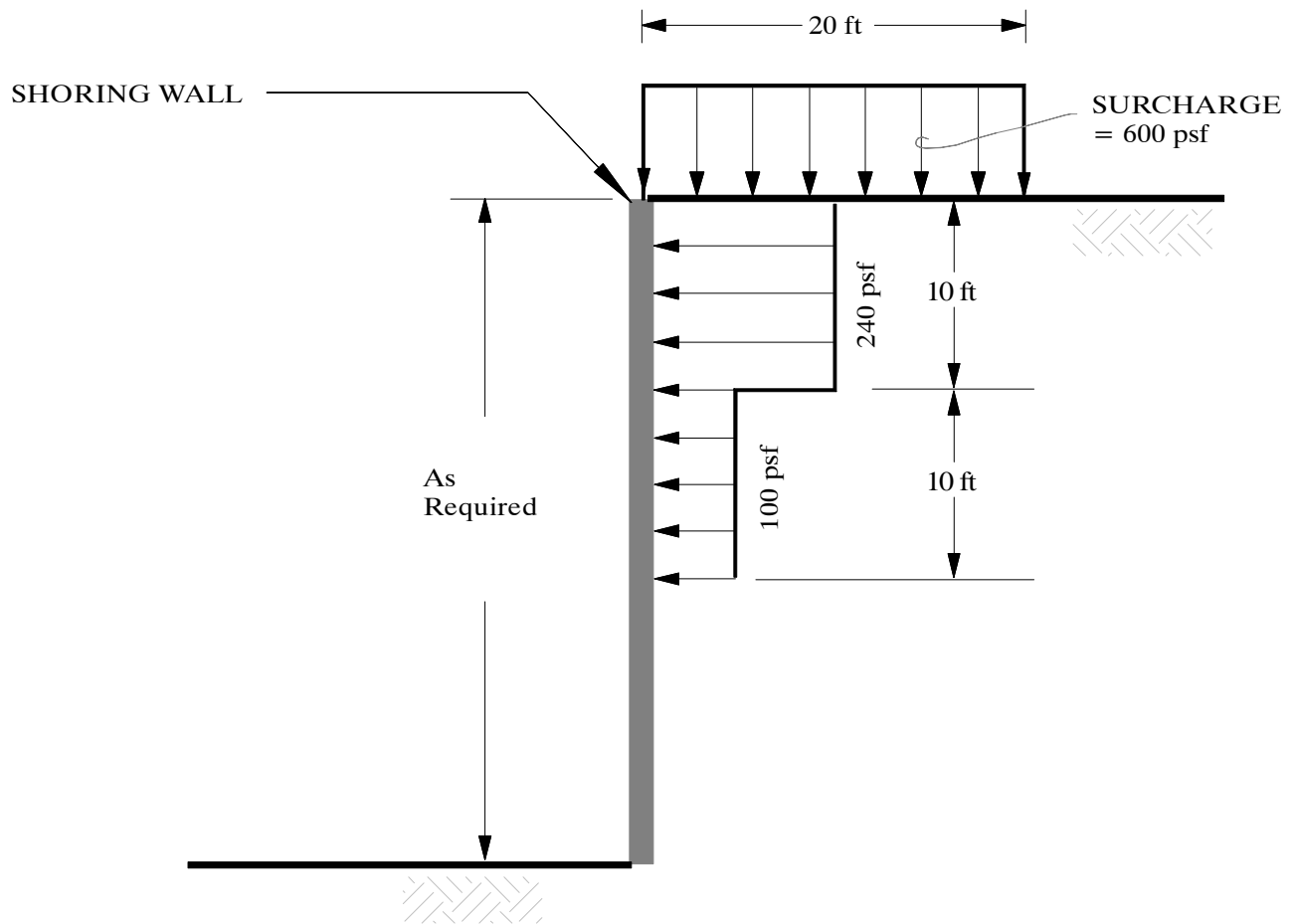
P_a = Active Earth Pressure (psf): equals $75h_1$ above DGL, $75h_1 + 40h_2$ below DGL

P_p = Passive Earth Pressure (psf): equals 200 psf + 60 psf/ft of depth to a maximum of 800 psf

P_w = Hydrostatic Pressure (psf): equals $62.4h_2$

NOTES:

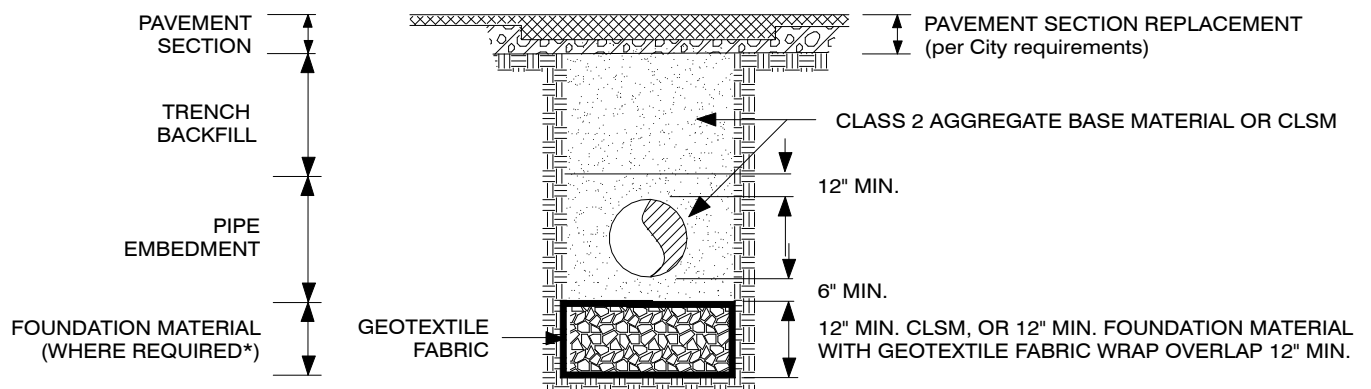
1. Passive earth pressures are ultimate values and an appropriate factor of safety of at least 2 should be used in the calculation of embedment depth.
2. Deflection of cantilevered shoring should be calculated on a case by case basis and limited as necessary to avoid damage to existing structures and utilities.
3. This preliminary pressure diagram has been constructed without consideration for surcharge loads such as stockpiled soil, traffic, structural loads, etc. Surcharge loads must be added to this pressure diagram where applicable. Minimum shoring pressures for traffic and equipment surcharge are provided on Plate II-8.



Notes:

These are minimum shoring pressures to be used for traffic and equipment surcharges. Shoring pressures from existing structures, construction activities or equipment that produce larger or different surcharge loading patterns than that shown should be determined by the shoring designer using geotechnical computational methods.

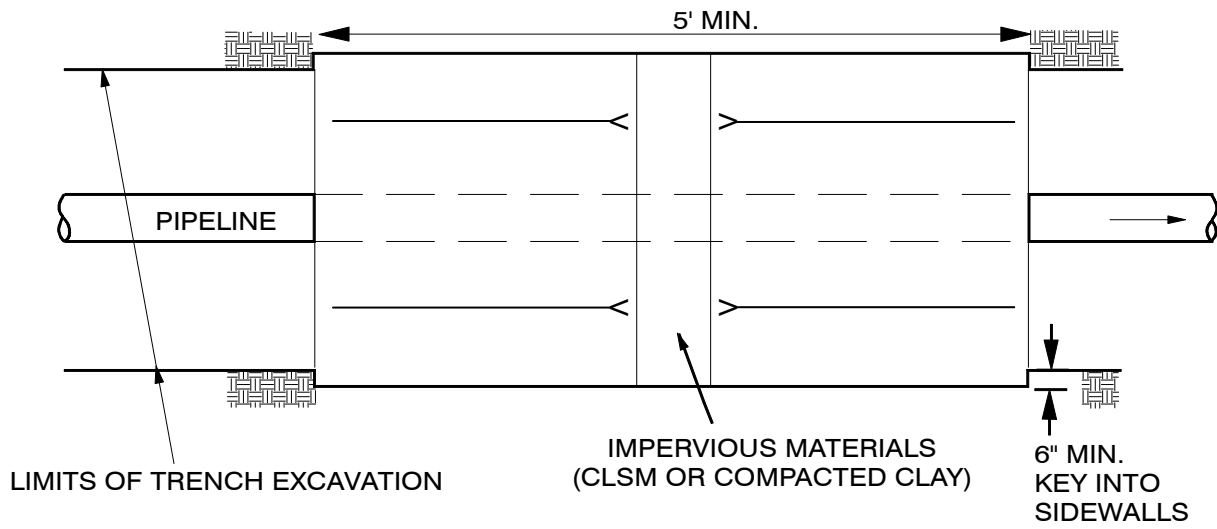
TRENCH BACKFILL



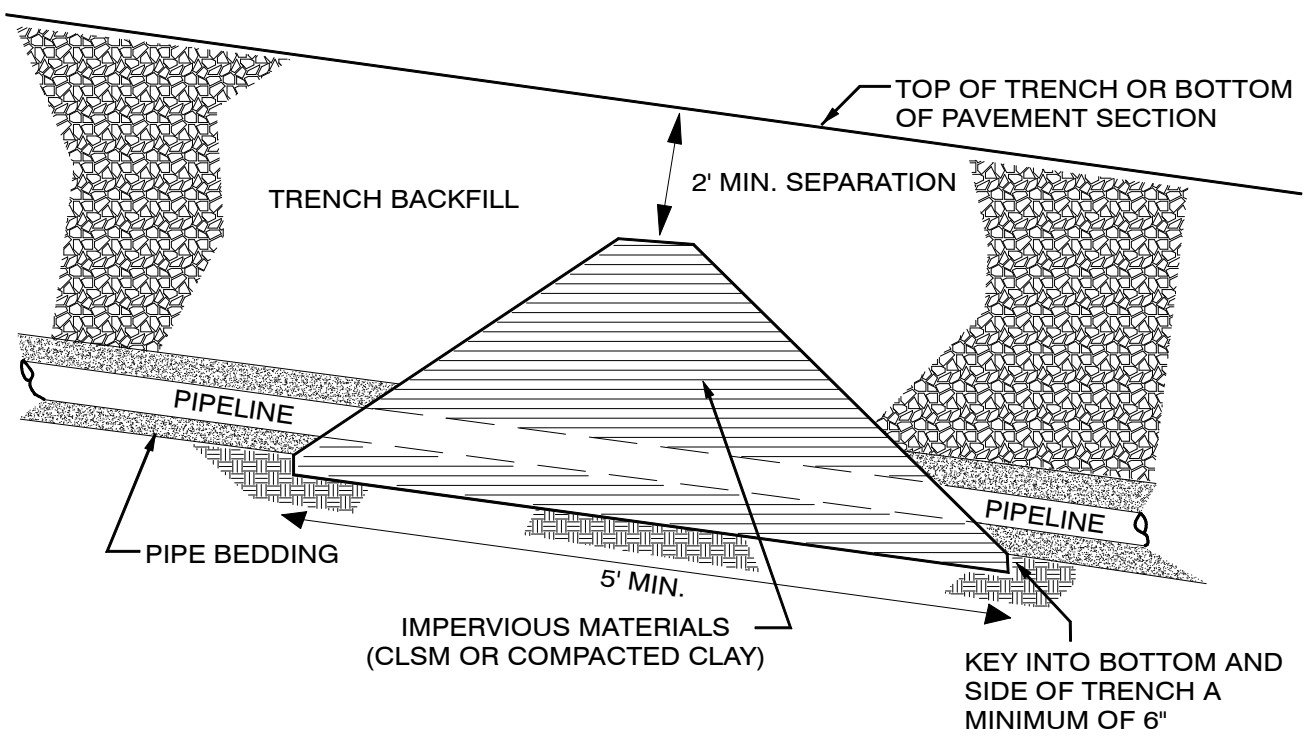
*Foundation Material should be required where trench bottoms are unstable (e.g., pumping subgrade under foot load, groundwater seepage, boiling, etc.)

NOTES:

1. Not to scale.
2. See report text for related material recommendations and compaction requirements.



PLAN VIEW

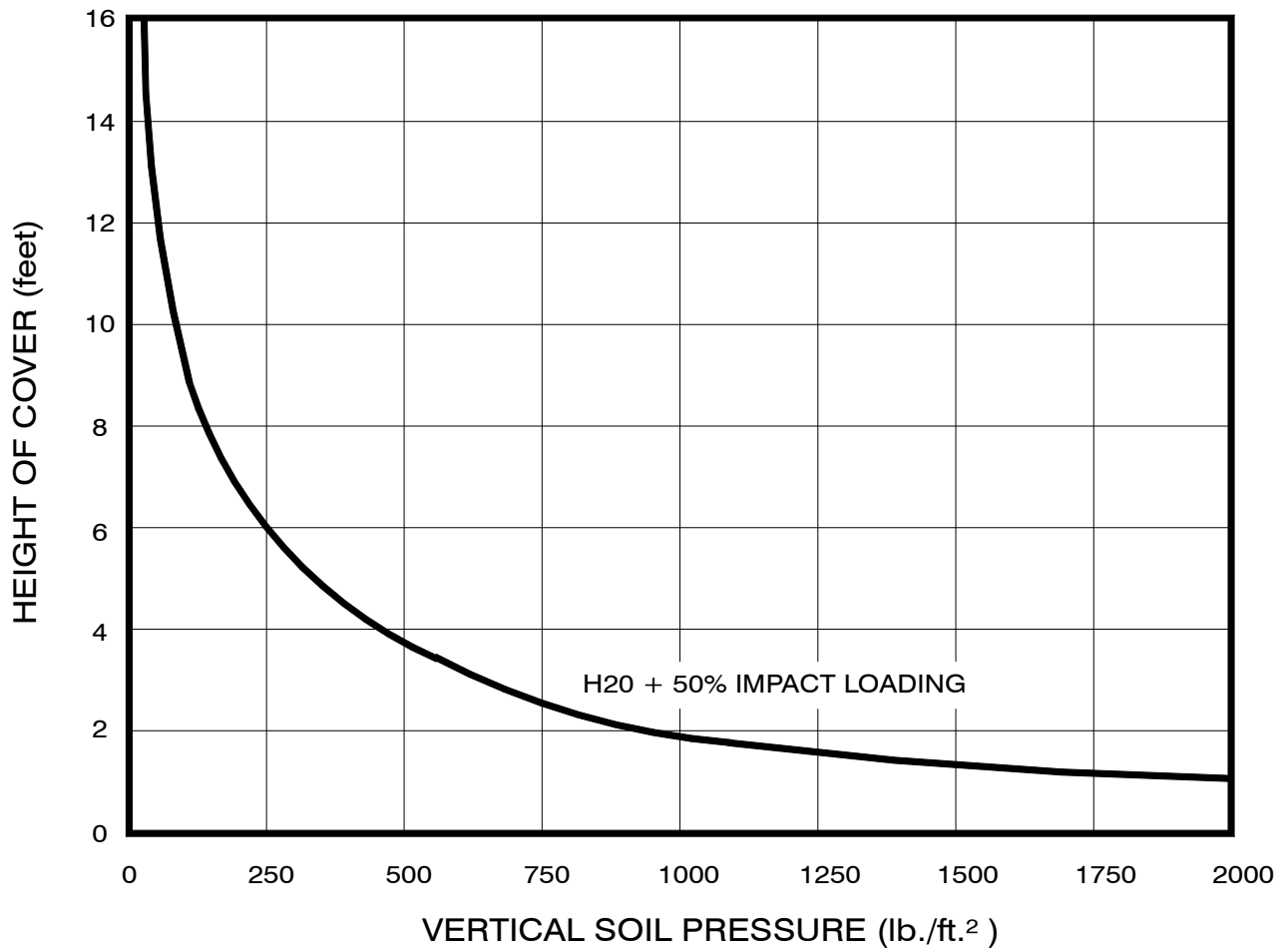


SECTION VIEW

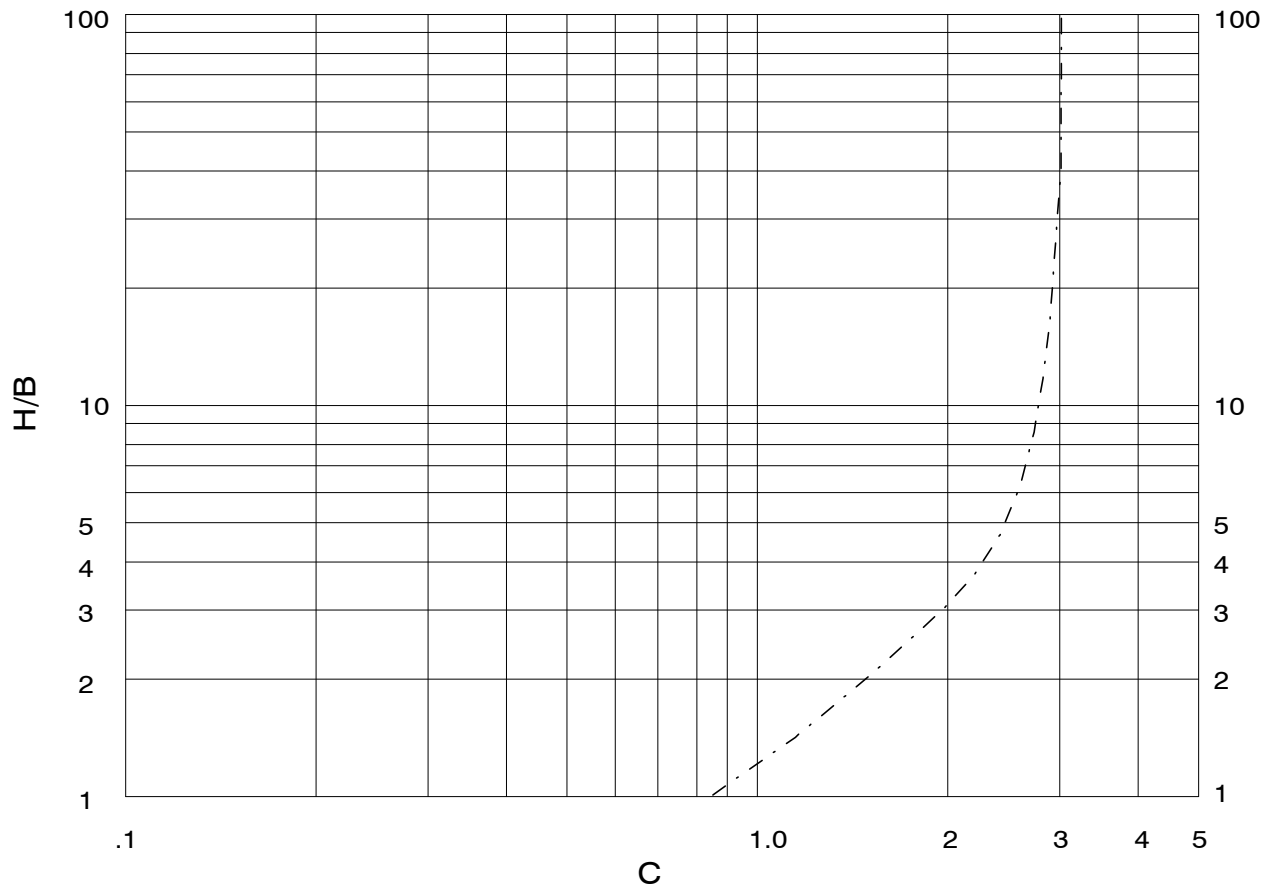
NOTE:

1. See text of report for material descriptions and for compaction requirements.
2. Trench dams to be constructed as shown on the plans a minimum of 3 feet from any pipe joint.

	<p>WEST YOST ASSOCIATES City of Sausalito Priority 1 Sewer Replacement Sausalito, California</p>	<p>PLATE NO. II-10</p>
<p>FILE NO. 18337-001-00</p>	<p>AUGUST 2009</p>	<p>TRENCH DAM</p>



NOTE: Apply vertical soil pressure to diameter of pipeline (horizontal projection) to calculate vertical pipe load (Moser, 2001).



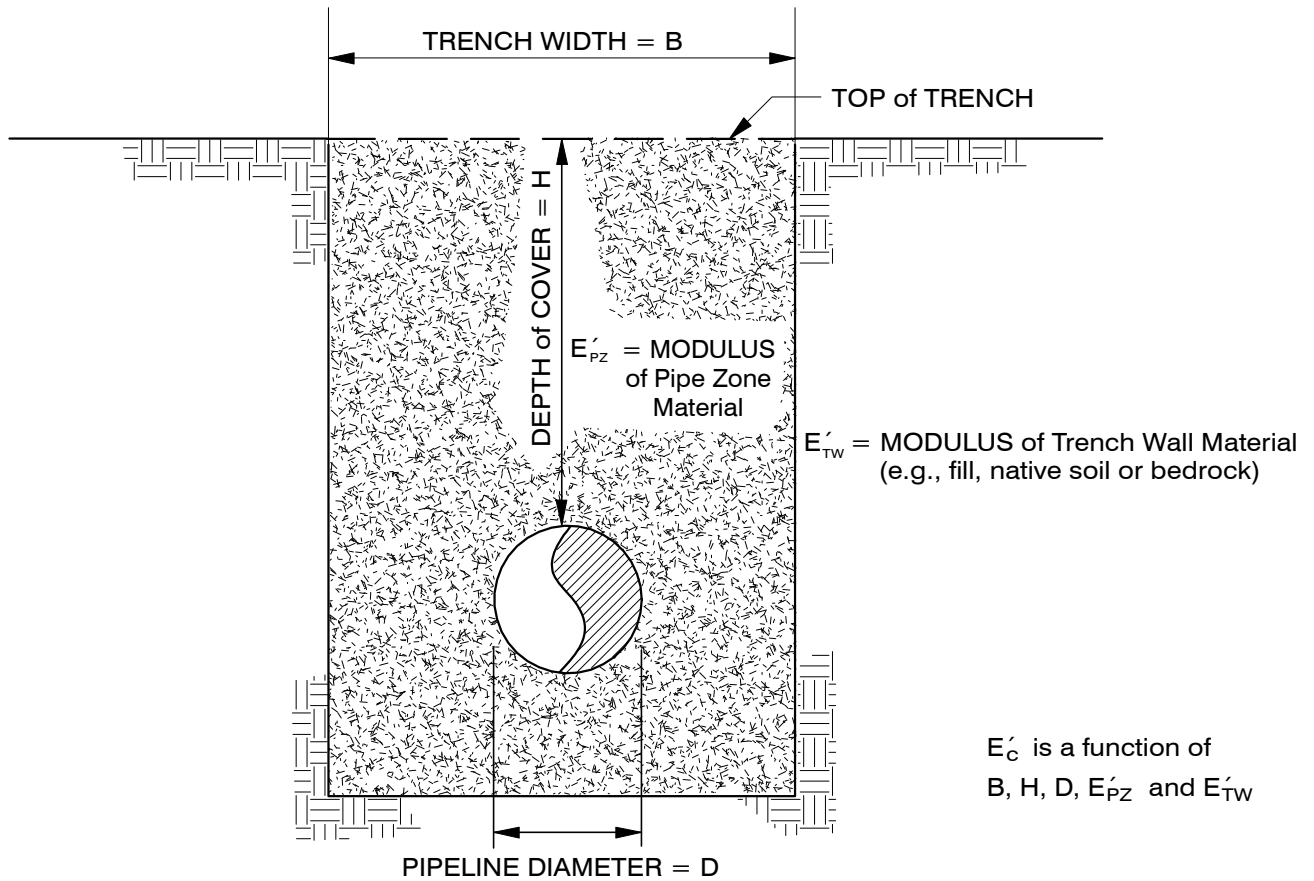
LEGEND:

----- = Compacted Granular Backfill (Class 2AB)

$$W = C \gamma B^2$$

- where:
- W = Vertical soil load on rigid pipe due to overburden (pounds/foot)
 - γ = Unit weight of overlying materials (pounds/cubic foot)
 - H = Height/depth of overlying materials (feet)
 - B = Trench width
 - C = Load coefficient

NOTE: Marston's load coefficients are used to calculate vertical soil loads on rigid pipes installed by open cut trenching (Moser, 2001).

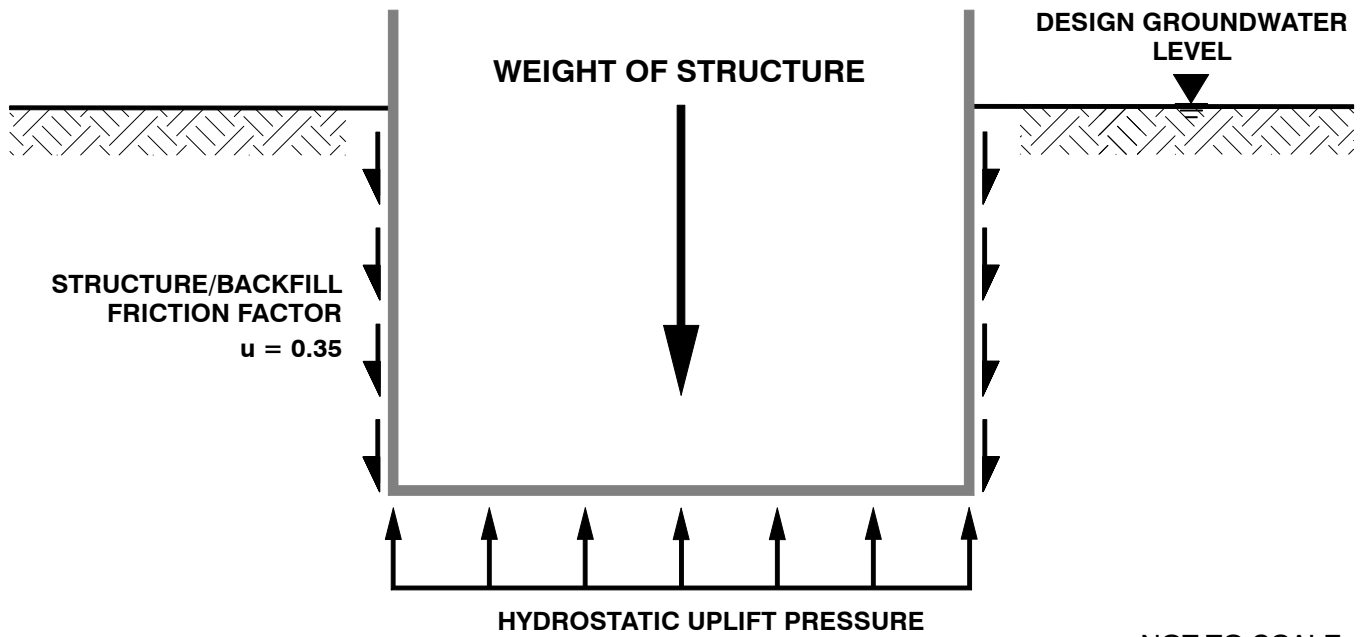


$\frac{E'_{TW}}{E'_{PZ}}$	S_c for various B:D ratios					
	1.5	2.0	2.5	3.0	4.0	5.0
0.1	0.15	0.30	0.60	0.80	0.90	1.00
0.2	0.30	0.45	0.70	0.85	0.92	1.00
0.4	0.50	0.60	0.80	0.90	0.95	1.00
0.6	0.70	0.80	0.90	0.95	1.00	1.00
0.8	0.85	0.90	0.95	0.98	1.00	1.00
1.0	1.00	1.00	1.00	1.00	1.00	1.00
1.5	1.30	1.15	1.10	1.05	1.00	1.00
2.0	1.50	1.30	1.15	1.10	1.05	1.00
3.0	1.75	1.45	1.30	1.20	1.08	1.00
≥ 5.0	2.00	1.60	1.40	1.25	1.10	1.00

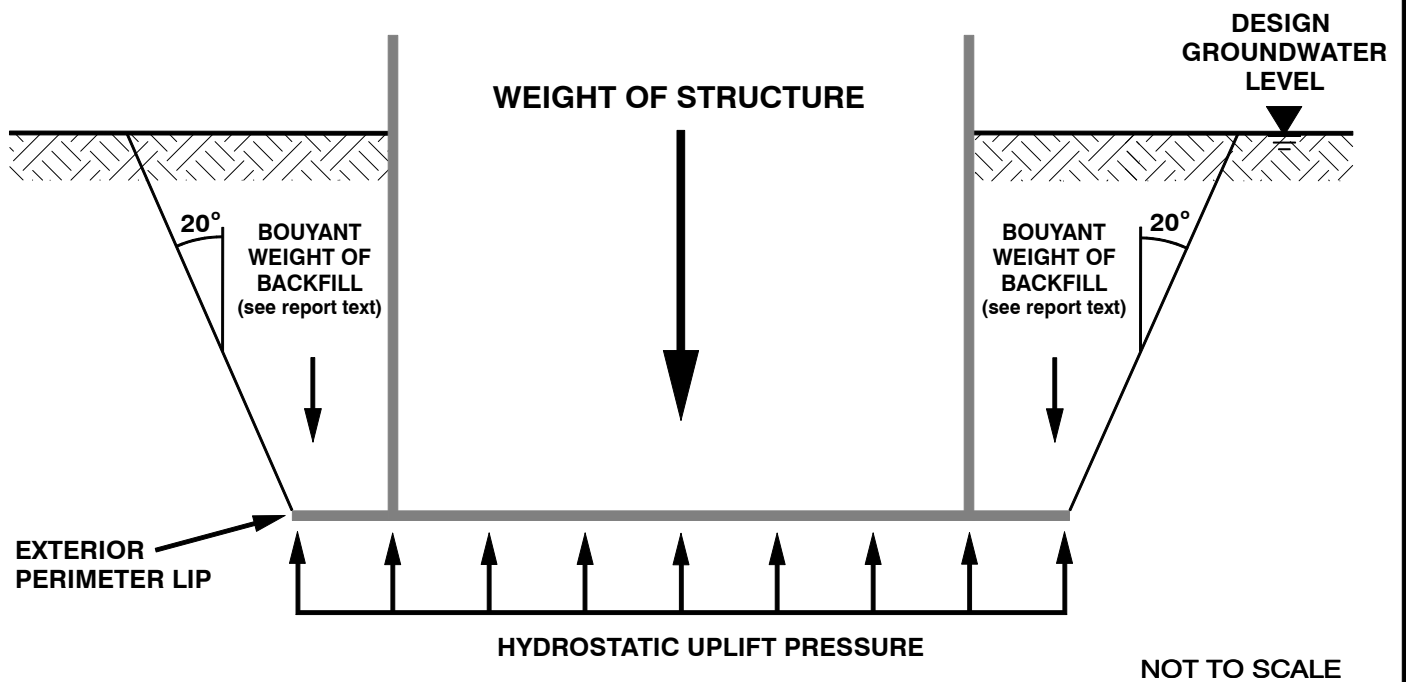
Modified from Jeyapalan (2001)

$$E'_c = S_c E'_{PZ}$$

STRUCTURE WITHOUT EXTERIOR PERIMETER LIP



STRUCTURE WITH EXTERIOR PERIMETER LIP



APPENDIX E

APPENDIX E REPORT LIMITATIONS AND GUIDELINES FOR USE¹

This appendix provides information to help you manage your risks with respect to the use of this report.

GEOTECHNICAL SERVICES ARE PERFORMED FOR SPECIFIC PURPOSES, PERSONS AND PROJECTS

This report has been prepared for the exclusive use of West Yost Associates and City of Sausalito and their authorized agents. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, a geotechnical or geologic study conducted for a civil engineer or architect may not fulfill the needs of a construction contractor or even another civil engineer or architect involved in the same project. Because each geotechnical or geologic study is unique, each geotechnical engineering or geologic report is unique, prepared solely for the specific client and project site. Our report is prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree to such reliance in advance and in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and the generally accepted geotechnical practices in this area at the time this report was prepared. Use of this report is not recommended for any purpose or project except the one originally contemplated.

A GEOTECHNICAL ENGINEERING OR GEOLOGIC REPORT IS BASED ON A UNIQUE SET OF PROJECT-SPECIFIC FACTORS

This report has been prepared for City of Sausalito's Priority 1 Sewer Replacement Project. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

For example, changes that can affect the applicability of this report include those that affect:

- the function of the proposed pipelines;
- elevation, configuration, location, orientation or size of the proposed pipelines;
- composition of the design team; or
- project ownership.

If important changes are made after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

¹ Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

SUBSURFACE CONDITIONS CAN CHANGE

This geotechnical or geologic report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the site, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Please contact GeoEngineers before applying a report for its intended purpose so that we can evaluate whether changed conditions affect the continued reliability of the report.

MOST GEOTECHNICAL AND GEOLOGIC FINDINGS ARE PROFESSIONAL OPINIONS

Our interpretations of subsurface conditions are based on field observations from widely spaced sampling locations at the site. Site exploration identifies the specific subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an informed opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

GEOTECHNICAL ENGINEERING REPORT RECOMMENDATIONS ARE NOT FINAL

The construction recommendations included in this report are preliminary and should not be considered final. GeoEngineers' recommendations can be finalized only by observing actual subsurface conditions revealed during construction. GeoEngineers is unable to assume responsibility for the recommendations in this report without performing construction observation.

We recommend that you allow sufficient monitoring, testing and consultation during construction by GeoEngineers to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes if the conditions revealed during the work differ from those anticipated, and to evaluate whether earthwork activities are completed in accordance with our recommendations. Retaining GeoEngineers for construction observation for this project is the most effective method of managing the risks associated with unanticipated conditions.

A GEOTECHNICAL ENGINEERING OR GEOLOGIC REPORT COULD BE SUBJECT TO MISINTERPRETATION

Misinterpretation of this report by members of the design team or by contractors can result in costly problems. GeoEngineers can help reduce the risks of misinterpretation by conferring with appropriate members of the design team after submitting the report, reviewing pertinent elements of the design team's plans and specifications, participating in pre-bid and preconstruction conferences, and providing construction observation. Please contact GeoEngineers if you want us to provide these additional services.

DO NOT REDRAW THE EXPLORATION LOGS

Geotechnical engineers and geologists prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering or geologic report should never be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, but separating logs from the report can create a risk of misinterpretation.

GIVE CONTRACTORS A COMPLETE REPORT AND GUIDANCE

To help prevent costly problems associated with unanticipated subsurface conditions, we recommend giving contractors the complete geotechnical engineering or geologic report, but preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited. In addition, encourage them to confer with GeoEngineers and/or to conduct additional study to obtain the specific types of information they need or prefer.

CONTRACTORS ARE RESPONSIBLE FOR SITE SAFETY ON THEIR OWN CONSTRUCTION PROJECTS

Our geotechnical recommendations are not intended to direct the contractor's procedures, methods, schedule or management of the work site. The contractor is solely responsible for job site safety and for managing construction operations to minimize risks to on-site personnel and adjacent properties.

READ THESE PROVISIONS CLOSELY

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are less exact than other engineering and natural science disciplines. Without this understanding, there may be expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory "limitations" provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you need to know more how these "Report Limitations and Guidelines for Use" apply to your project or site.

BIOLOGICAL POLLUTANTS

GeoEngineers' Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants, and no conclusions or inferences should be drawn regarding Biological Pollutants as they may relate to this project. The term "Biological Pollutants" includes, but is not limited to, molds, fungi, spores, bacteria and viruses, and/or any of their byproducts.

A Client that desires these specialized services is advised to obtain them from a consultant who offers services in this specialized field.

APPENDIX C
BCDC Permit

CITY TO PROVIDE BCDC PERMIT

