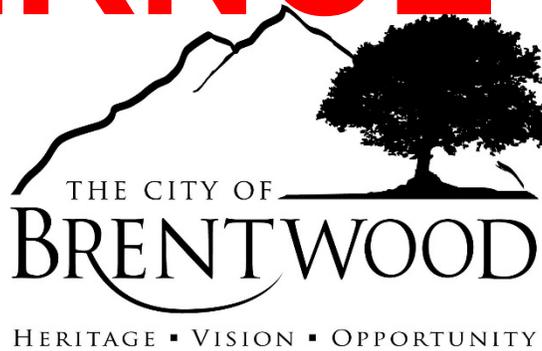


REFERENCE ONLY



CONTRACT DOCUMENTS FOR

**Citywide Wastewater Rehabilitation - 2016
(Sycamore Avenue and Griffith Lane)
CIP Project No. 592-59080**

Bid Opening:

Tuesday, November 29, 2016 at 2:00 p.m.

**Location of Bid Submittal: City Clerk
Brentwood City Hall
Third Floor
150 City Park Way
Brentwood, CA 94513**

**Approved by: Miki Tsubota
Public Works Director/City Engineer**



Signature

10/20/16

Date

CITY OF BRENTWOOD
CONTRA COSTA COUNTY
STATE OF CALIFORNIA

CONTRACT DOCUMENTS FOR THE
CONSTRUCTION OF

Citywide Wastewater Rehabilitation - 2016
(Sycamore Avenue and Griffith Lane)
CIP Project No. 592-59080

Prepared Under the Supervision of:

City of Brentwood
James Campero, P.E.
License # C76459
Expires 12/31/16



Stamp Seal

A handwritten signature in blue ink, appearing to read "James Campero", written over a horizontal line.

Signature

10/20/16
Date

**Citywide Wastewater Rehabilitation - 2016
(Sycamore Avenue and Griffith Lane)
CIP Project No. 592-59080**

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NOTICE INVITING BIDS

1. **Bid Acceptance.** The City of Brentwood (“City”), will accept sealed bids for its Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane), CIP Project No. 592-59080 (“Project”), by or before Tuesday, November 29, 2016, at 2:00 p.m., at its City Clerk’s office, located at Brentwood City Hall, Third Floor, 150 City Park Way, Brentwood, California 94513. The bids will be publicly opened and read aloud in the First Floor Vista Conference Room at Brentwood City Hall, 150 City Park Way, Brentwood, CA 94513.
2. **Project Information.**
 - 2.1 **Location and Description.** The Project is located at Sycamore Avenue, Griffith Lane, and various locations and is described as follows: the work to be done consists of, but not limited to, replacing sewer main lines on Sycamore Avenue and Griffith Lane, installing new sewer laterals with cleanouts, installing new sewer manholes, and repairing sewer main line segments at various locations citywide, and all other work necessary to construct the project complete and in satisfactory condition, all as shown in the Contract Documents and/or as specified herein.
 - 2.2 **Construction Time.** The planned timeframe for beginning and completion of construction of the Project is: 40 working days
 - 2.3 **Engineer’s Estimate.** The City Engineer’s estimate for the cost of construction is: \$240,000.
3. **License and Registration Requirements.**
 - 3.1 **License.** This Project requires a valid California contractor’s license for the following classification(s): Class "A" or combination of Class "C" Specialty Contractor’s License(s).
 - 3.2 **DIR Registration.** City will not accept a *Bid Proposal* from or enter into a contract with a bidder without proof that the bidder and its subcontractors are registered with the California Department of Industrial Relations (“DIR”) to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.
4. **Contract Documents.** Bidders must obtain an electronic copy of the Contract Documents directly from the City of Brentwood. The Contract Documents may be obtained at no charge by sending an email to: engineering@brentwoodca.gov or by calling 925-516-5420. The City may reject a bid submitted by a bidder that did not obtain the Contract Documents from the City as required.
5. **Bid Proposal and Security.**
 - 5.1 **Bid Proposal Form.** Each Bid must be submitted using the *Bid Proposal* form provided with the Contract Documents.
 - 5.2 **Bid Security.** The *Bid Proposal* must be accompanied by bid security of ten percent of the maximum bid amount, in the form of a cashier’s or certified check made payable to the City of Brentwood, or a bid bond executed by a surety licensed to do business in the State of California on the *Bid Bond* form included with the Contract Documents. The bid

security must guarantee that upon award of the bid, the bidder will execute the *Contract* and submit payment and performance bonds and insurance certificates as required by the Contract Documents within ten days after issuance of the notice of award.

6. Prevailing Wage Requirements.

6.1 General. This Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes.

6.2 Rates. These prevailing rates are available online at <http://www.dir.ca.gov/DLSR>. Each Contractor and Subcontractor must pay no less than the specified rates to all workers employed to work on the Project. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work must be at least time and one-half.

6.3 Compliance. This Contract is subject to compliance monitoring and enforcement by the DIR, under Labor Code Section 1771.4.

7. Performance and Payment Bonds. The successful bidder will be required to provide performance and payment bonds for 100% of the Contract Price.

8. Substitution of Securities. Substitution of appropriate securities in lieu of retention amounts from progress payments is permitted under Public Contract Code Section 22300.

9. Subcontractor List. Each bidder must submit the name, location of the place of business, and California contractor license number, DIR registration number, and percentage of the Work to be performed for each Subcontractor who will perform Work or service or fabricate or install Work for the prime contractor in excess of one-half of 1% of the bid price, using the *Subcontractor List* form included with the Contract Documents. No more than 50% of the Work may be performed by Subcontractors.

10. Instructions to Bidders. Additional information is provided in the *Instructions to Bidders*, which should be carefully reviewed before submitting a *Bid Proposal*.

By: 
Margaret Wimberly MMC, City Clerk

10/20/16
Date

INSTRUCTIONS TO BIDDERS

Each *Bid Proposal* submitted to the City of Brentwood ("City") for its Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) ("Project") must be submitted in accordance with the following instructions and requirements:

1. Bid Submission.

1.1 General. Each bid must be signed, sealed and submitted to the City, using the form provided in the Contract Documents ("*Bid Proposal*"), by or before the date and time set forth in the *Notice Inviting Bids*, or as amended by subsequent addendum. Faxed or emailed *Bid Proposals* will not be accepted, unless otherwise specified. Late submissions will be returned unopened. City reserves the right to postpone the date and time for receiving or opening bids. Each bidder is solely responsible for all of its costs to prepare and submit its bid and by submitting a bid waives any right to recover those costs from City. The bid price(s) must include all costs to perform the Work as specified, including all indirect costs such as applicable taxes, insurance and field offices.

1.2 Bid Envelope. The envelope containing the sealed *Bid Proposal* and required attachments must be clearly labeled and addressed as follows:

Bid Proposal

Citywide Wastewater Rehabilitation - 2016

(Sycamore Avenue and Griffith Lane)

CIP Project No. 592-59080

Bid Date: _____

City of Brentwood

150 City Park Way

Brentwood, California 94513

Attn: City Clerk

The envelope must also be clearly labeled as follows with the bidder's name, address, and its registration number as required by the California Department of Industrial Relations ("DIR") for public works contracts:

[Contractor company name]

[street address]

[city, state, zip code]

DIR Registration No: _____

Please note: If the City is unable to confirm that the bidder's DIR registration is current, the City must disqualify the bidder and return its bid unopened. (Labor Code section 1725.5.)

2. Examination of Contract Documents and Project Site. Bidder's Responsibilities.

Each bidder is solely responsible for diligent and thorough review of the Contract Documents (as defined in the *General Conditions*), examination of Project site, and reasonable and prudent inquiry concerning known and potential site conditions prior to submitting a *Bid Proposal*. However, bidders should not enter onto the Project site without prior written authorization from City. Bidders are responsible for reporting any errors or omissions in the Contract Documents to City prior to submitting a *Bid Proposal*, subject to

the limitations of Public Contract Code Section 1104. City expressly disclaims responsibility for assumptions the bidder might draw from the presence or absence of information provided by City.

3. **Requests for Information.** Questions regarding the Project, the bid procedures or any of the Contract Documents must be submitted in writing using the *Bidder's Request for Information* form provided, at least five working days before the date specified for submission of Bids, to: James Campero at engineering@brentwoodca.gov.
4. **Addenda.** Any addenda issued prior to the bid opening will constitute part of the Contract Documents. Subject to the limitations of Public Contract Code section 4104.5, City reserves the right to issue addenda prior to bid time.
5. **Brand Designations and "Or Equal" Substitutions.** Any specification designating a material, product, thing, or service by specific brand or trade name, followed by the words "or equal," is intended only to indicate quality and type of item desired, and bidders may request use of any equal material, product, thing, or service. All data substantiating the proposed substitute as an "equal" item must be submitted with the written request for substitution. All data substantiating the proposed substitute as an "equal item" must be submitted with the written request for substitution. The City Engineer has the sole discretion to determine whether a proposed substitute is an "equal" item, and the City Engineer's decision is final. This provision does not apply to materials, products, things, or services that may lawfully be designated by a specific brand or trade name under Public Contract Code Section 3400(c). Any request for substitution must be submitted to the City Engineer at least five Working Days before the opening of bids so that all interested bidders may be notified of any approved alternative.
6. **Bidders Interested in More Than One Bid.** No person, firm, or corporation may submit or be a party to more than one *Bid Proposal* unless alternate bids are specifically called for. However, a person, firm, or corporation that has submitted a subcontract proposal or quote to a bidder may submit subcontract proposals or quotes to other bidders, and may also submit a *Bid Proposal* as a prime contractor.
7. **Bid Proposal Form and Enclosures.**
 - 7.1 **Bid Proposal Form.** Each *Bid Proposal* must be completed in ink using the *Bid Proposal* form included in the Contract Documents. The *Bid Proposal* form should be fully completed without interlineations, alterations, or erasures. Any necessary corrections must be clear and legible, and must be initialed by the bidder's authorized representative. A *Bid Proposal* submitted with terms such as "negotiable," "will negotiate," or similar, will be considered non-responsive.
 - 7.2 **Enclosures.** Each *Bid Proposal* must be accompanied by bid security, as set forth in Section 9 below, and by the completed *Bid Schedule*, *Subcontractor List*, *Non-Collusion Declaration*, and any other required enclosures, using the forms included in the Contract Documents.
 - 7.3 **Bidder's Questionnaire.** After the bids have been opened, the City may request a completed, signed *Bidder's Questionnaire* from one or more of the apparent low bidders. The *Bidder's Questionnaire* must be submitted within 48 hours of the City's request, using the form provided by City. If a bidder fails to fully comply with this

requirement following the City's request, its *Bid Proposal* may be rejected as nonresponsive. A bidder who submits a *Bidder's Questionnaire* which is subsequently determined to contain false or misleading information, or material omissions, may be disqualified as non-responsible.

8. **Signature Requirements.** Each *Bid Proposal* must be signed by the bidder's authorized representative. A *Bid Proposal* submitted by a partnership must be signed in the partnership name by a general partner with authority to bind the partnership. A *Bid Proposal* submitted by a corporation must be signed with the legal name of the corporation, followed by the signature and title of two officers of the corporation with full authority to bind the corporation to the terms of the *Bid Proposal*, under California Corporation Code section 313. Alternatively, the *Bid Proposal* may attach a resolution of the corporation, certified by the secretary or assistant secretary under corporate seal, empowering the officer(s) signing the *Bid Proposal* to bind the corporation. A *Bid Proposal* submitted by a limited liability company must be signed with the legal name of the company followed by the signature or signatures required by the company's Articles of Organization.
9. **Bid Security.** Each *Bid Proposal* must be accompanied by bid security of ten percent of the maximum bid amount, in the form of a cashier's check, a certified check, or a bid bond, using the form included in the Contract Documents, executed by a surety licensed to do business in the State of California, made payable to the City of Brentwood. The bid security must guarantee that upon award of the bid, the bidder will execute and submit the *Contract* on the form included in the Contract Documents, will submit payment and performance bonds for 100% of the maximum Contract Price, and will submit the insurance certificates and endorsements as required by the Contract Documents within ten days after issuance of the notice of award.
10. **Withdrawal of Bid Proposals.** A *Bid Proposal* may not be withdrawn for a period of 90 days after the bid opening without forfeiture of the bid security, except as authorized for material error under Public Contract Code Section 5100 et seq.
11. **Bid Protest.** Any bid protest must be in writing and received by City Clerk's Office at 150 City Park Way, Brentwood, CA 94513 before 5:00 p.m. no later than two Working Days following bid opening (the "Bid Protest Deadline") and must comply with the following requirements:
 - 11.1 **General.** Only a bidder who has actually submitted a *Bid Proposal* is eligible to submit a bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest. If required by City, the protesting bidder must submit a non-refundable fee in the amount specified by City, based upon City's reasonable costs to administer the bid protest. Any such fee must be submitted to City no later than the Bid Protest Deadline, unless otherwise specified.
 - 11.2 **Protest Contents.** The bid protest must contain a complete statement of the basis for the protest and all supporting documentation. Material submitted after the Bid Protest Deadline will not be considered. The protest must refer to the specific portion or portions of the Contract Documents upon which the protest is based. The protest must include the name, address, email address, and telephone number of the person representing the protesting bidder if different from the protesting bidder.

- 11.3 Copy to Protested Bidder.** A copy of the protest and all supporting documents must be concurrently transmitted by fax or by email, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
- 11.4 Response to Protest.** The protested bidder may submit a written response to the protest, provided the response is received by City before 5:00 p.m., within two Working Days after the Bid Protest Deadline or after actual receipt of the bid protest, whichever is sooner (the "Response Deadline"). The response must include all supporting documentation. Material submitted after the Response Deadline will not be considered. The response must include the name, address, email address, and telephone number of the person representing the protested bidder if different from the protested bidder.
- 11.5 Copy to Protesting Bidder.** A copy of the response and all supporting documents must be concurrently transmitted by fax or by email, by or before the Response Deadline, to the protesting bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
- 11.6 Exclusive Remedy.** The procedure and time limits set forth in this section are mandatory and are the bidder's sole and exclusive remedy in the event of bid protest. A bidder's failure to comply with these procedures will constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.
- 11.7 Right to Award.** City reserves the right to award the Contract to the bidder it has determined to be the responsible bidder submitting the lowest responsive bid, and to issue a notice to proceed with the Work notwithstanding any pending or continuing challenge to its determination.
- 12. Rejection of Bids; Award of Contract.** City reserves the right, acting in its sole discretion, to waive immaterial bid irregularities, the right to accept or reject any and all bids, or to abandon the Project entirely. The Contract will be awarded, if at all, within 90 calendar days after opening of bids or as otherwise specified in the Special Conditions, to the responsible bidder that submitted the lowest responsive bid.
- 13. Bonds.** The successful bidder is required to submit payment and performance bonds as specified in the Contract Documents using the bond forms included in the Contract Documents. All required bonds must be calculated on the maximum total Contract price as awarded, including additive alternates, if applicable.
- 14. Evidence of Responsibility.** Within 24 hours following a request by City, a bidder must submit to the City satisfactory evidence showing the bidder's financial resources, the bidder's experience in the type of work being required by the City, the bidder's organization available for the performance of the Contract and any other required evidence of the bidder's qualifications to perform the proposed Contract. The City may consider such evidence before making its decision awarding the proposed Contract.
- 15. License(s).** The successful bidder and its Subcontractor(s) must possess the California contractor's license(s) in the classification(s) required by law to perform the Work, and

must also obtain a City of Brentwood business license before performing any Work on the Project. These licenses must remain in effect at all times while Work is being performed on the Project.

16. **Ineligible Subcontractor.** Any subcontractor who is ineligible to perform work on a public works project under Labor Code Sections 1777.1 or 1777.7 is prohibited from performing Work on this Project.
17. **DIR Registration.** City will not accept a *Bid Proposal* from or enter into a contract with a bidder without proof that the bidder and its subcontractors are registered with the DIR to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.
18. **Bid Schedule.** Each bidder must fully complete the *Bid Schedule* form accompanying the *Bid Proposal* form with unit prices as indicated, and must submit the completed *Bid Schedule* with its *Bid Proposal*.
 - 18.1 **Incorrect Totals.** In the event of a discrepancy between the actual total of the itemized or unit prices shown on the *Bid Schedule* for the base bid, and the amount entered as the base bid on the *Bid Proposal* form, the actual total of the itemized or unit prices shown on the *Bid Schedule* for the base bid will be deemed the base bid price. Likewise, in the event of a discrepancy between the actual total of the itemized or unit prices shown on the *Bid Schedule* for any bid alternate, and the amount entered for the alternate on the *Bid Proposal* form, the actual total of the itemized prices shown on the *Bid Schedule* for that alternate will be deemed the alternate price. Nothing in this provision is intended to prevent a bidder from requesting to withdraw its bid for material error under Public Contract Code Section 5100 et seq.
 - 18.2 **Estimated Quantities.** The quantities shown on the *Bid Schedule* are estimated and the actual quantities required to perform the Work may be greater or less than the estimated amount. The Contract Price will be adjusted to reflect the actual quantities required for the Work based on the itemized or unit prices provided in the *Bid Schedule*, with no allowance for anticipated profit for quantities that are deleted or decreased.
19. **Post-Award Requests for Information.** After the Contract is awarded, the Contractor must submit written requests for information to:

James Campero, Construction Manager
City of Brentwood
Public Works – Engineering Division
Phone: (925) 516-5420 Fax: (925) 516-5421
150 City Park Way
Brentwood, CA 94513
engineering@brentwoodca.gov

BIDDER'S REQUEST FOR INFORMATION FORM

**Citywide Wastewater Rehabilitation - 2016
(Sycamore Avenue and Griffith Lane)
CIP Project No. 592-59080**

All requests for information from bidders must be submitted in writing using this form. Fax or email the completed form to: City of Brentwood
Fax: (925) 516-5421
Email: engineering@brentwoodca.gov

COMPANY NAME: _____

CONTACT: _____

COMPANY ADDRESS: _____

Question/Information Requests:

Please use the spaces below to clearly set forth each separate question or request for information, providing specific references to the subject document and provision. Attach additional sheets as necessary, continuing with sequential numbering for each request.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

BID PROPOSAL

_____ (“Bidder”) hereby submits this *Bid Proposal* to the City of Brentwood (“City”) for its Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) (“Project”) in response to the *Notice Inviting Bids*

1. **Base Bid.** Bidder proposes to perform and fully complete the Work for the Project as specified in the Contract Documents, within the time required for full completion of the Work, for the following price (“Base Bid”):

\$ _____. [Note: The amount entered should be identical to the amount provided as “Total Base Bid” on the final page of the Bid Schedule.]

2. **Addenda.** Bidder acknowledges receipt of the following addenda:

Addendum:	Date Received:	Addendum:	Date Received:
#01	_____	#05	_____
#02	_____	#06	_____
#03	_____	#07	_____
#04	_____	#08	_____

3. **Bidder’s Warranties.** By signing and submitting this *Bid Proposal*, Bidder warrants the following:

3.1 **Examination of Contract Documents.** Bidder has thoroughly examined the Contract Documents, and represents that, to the best of Bidder’s knowledge there are no errors, omissions, or discrepancies in the Contract Documents subject to the limitations of Public Contract Code Section 1104.

3.2 **Examination of Worksite.** Bidder has had the opportunity to examine the Worksite and local conditions at the Project location.

3.3 **Bidder is Qualified.** Bidder is fully qualified to perform the Work.

3.4 **Responsibility for Bid.** Bidder has carefully reviewed this *Bid Proposal* and is solely responsible for any errors or omissions contained in its completed Bid.

4. **Award of Contract.** By signing and submitting this *Bid Proposal*, Bidder agrees that if Bidder is awarded the Contract for the Project, that within ten days following issuance of the Notice of Award to Bidder, Bidder will do all of the following:

4.1 **Execute Contract.** Enter into the Contract with City in accordance with the terms of this *Bid Proposal*, by signing and submitting to City the *Contract* prepared by City using the form included with the Contract Documents;

4.2 **Submit Required Bonds.** Submit to City the *Payment Bond* and the *Performance Bond*, each for 100% of the Contract Price, using the bond forms provided and in accordance with the requirements of the Contract Documents; and

4.3 Insurance Requirements. Submit to City the insurance certificate(s) and endorsement(s) as required by the Contract Documents.

5. Bid Security. As a guarantee that if awarded the Contract, it will perform its obligations under Section 4, above, Bidder is enclosing bid security in the amount of ten percent of its maximum bid amount in the following form:

_____ A cashier's check or certified check payable to City and issued by _____ Bank in the amount of \$_____.

_____ A bid bond, using the *Bid Bond* form included with the Contract Documents, payable to City and executed by a surety licensed to do business in the State of California.

This *Bid Proposal* is hereby submitted on _____, 20____:

s/ _____ *
Name and Title [print]

s/ _____ **
Name and Title [print]

Company Name Calif. License # and Classification

Address Phone

City, State, Zip Fax

If required by City, a notarized acknowledgment of execution by Bidder must be attached to the *Bid Proposal*. If a Bidder is a corporation, the *Bid Proposal* must be signed by one corporate officer from each of the following two groups.

***Group A.**
Chairman,
President, **or**
Vice-President

****Group B.**
Secretary,
Assistant Secretary,
CFO **or** Assistant Treasurer

Otherwise, the corporation **must** attach a resolution certified by the secretary or assistant secretary under corporate seal empowering the officer(s) signing to bind the corporation.

BID SCHEDULE

**Citywide Wastewater Rehabilitation - 2016
(Sycamore Avenue and Griffith Lane)
CIP Project No. 592-59080**

This *Bid Schedule* must be completed in ink and must be included with the sealed *Bid Proposal*. The unit cost for each item must be inclusive of all costs, whether direct or indirect, including profit and overhead. The sum of all amounts entered in the "Extended Total Amount" column must be identical to the Base Bid price entered in Section 1 of the *Bid Proposal Form*. See Section 18 of the *Instructions to Bidders*.

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
1	Mobilization	1	LS	\$	\$
2	Traffic Control	1	LS	\$	\$
3	Storm Water Pollution Control Plan	1	LS	\$	\$
4	Clearing and Grubbing	1	LS	\$	\$
5	Site Restoration	1	LS	\$	\$
6	Sewer Manhole	7	EA	\$	\$
7	8 Inch PVC Sewer Main	570	LF	\$	\$
8	8 Inch PVC Sewer Main Repair	26	LF	\$	\$
9	Remove and Replace 4 Inch Sewer Lateral including New Cleanout	4	EA	\$	\$
10	Existing Sewer Lateral Reconnection	7	EA	\$	\$
11	Sheeting and Shoring	1	LS	\$	\$
12	Traffic Signal Detector Loops	12	EA	\$	\$
13	Thermoplastic Striping and Pavement Markers	1	LS	\$	\$

TOTAL BASE BID: Items 1 through 13 inclusive: \$ _____
 [Note: The amount entered as the "Total Base Bid" should be identical to the Base Bid amount entered in Section 1 of the Bid Proposal form.]

BIDDER NAME: _____

NONCOLLUSION DECLARATION

**Citywide Wastewater Rehabilitation - 2016
(Sycamore Avenue and Griffith Lane)
CIP Project No. 592-59080**

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. 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. All statements contained in the bid are true. 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, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid and will not pay, any person or entity for such purpose.

This declaration is intended to comply with California Public Contract Code Section 7106 and Title 23 U.S.C Section 112.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

s/ _____

Name and Title [print]

BID BOND

_____ (“Bidder”) has submitted a bid, dated _____, 20____ (“Bid”), to the City of Brentwood (“City”) for work on the Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) (“Project”). Under this duly executed bid bond (“Bid Bond”), Bidder as Principal and _____, its surety (“Surety”), are bound to City as obligee in the penal sum of ten percent of the maximum amount of the Bid (the “Bond Sum”). Bidder and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, as follows:

1. **General.** If Bidder is awarded the Contract for the Project, Bidder will enter into the Contract with the City in accordance with the terms of the Bid.
2. **Submittals.** Within ten days following issuance of the notice of award to Bidder, Bidder must submit to City the following:
 - 2.1 **Contract.** The executed *Contract*, using the form provided by City in the Project Contract Documents (“Contract Documents”);
 - 2.2 **Payment Bond.** A payment bond for 100% of the maximum Contract Price, executed by a surety licensed to do business in the State of California using the *Payment Bond* form included with the Contract Documents;
 - 2.3 **Performance Bond.** A performance bond for 100% of the maximum Contract Price, executed by a surety licensed to do business in the State of California using the *Performance Bond* form included with the Contract Documents; and
 - 2.4 **Insurance.** The insurance certificate(s) and endorsement(s) required by the Contract Documents, and any other documents required under the *Instructions for Bidders*.
3. **Enforcement.** If Bidder fails to execute the *Contract* and to submit the bonds and insurance certificates as required by the Contract Documents, Surety guarantees that Bidder forfeits the Bond Sum to City. Any notice to Surety may be given in the manner specified in the *Contract* and delivered or transmitted to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____

4. **Duration; Waiver.** If Bidder fulfills its obligations under Section 2, above, then this obligation will be null and void; otherwise it will remain in full force and effect for 90 days following award of the Contract or until this *Bid Bond* is returned to Bidder, whichever occurs first. Surety waives the provisions of Civil Code Sections 2819 and 2845.

This Bid Bond is entered into and effective on _____, 20_____.

SURETY:

s/ _____

Name: _____

Title: _____

(Attach Acknowledgement, Notary Seal, and Attorney-In-Fact Certificate)

CONTRACTOR:

s/ _____

Name: _____

Title: _____

BIDDER'S QUESTIONNAIRE

**Citywide Wastewater Rehabilitation - 2016
(Sycamore Avenue and Griffith Lane)
CIP Project No. 592-59080**

After the bids have been opened, the City may request a completed, signed *Bidder's Questionnaire* from one or more of the apparent low bidders. The *Bidder's Questionnaire* must be submitted within 48 hours of the City's request, using this form and attaching additional pages as required. City may use the completed Questionnaire to evaluate the Bidder's qualifications for this Project. The Questionnaire must be filled out completely, accurately, and legibly. Any delay, errors, omissions, or misrepresentations in completion of the Questionnaire may be grounds for rejection of the bid or termination of the Contract.

Part 1: General Information

Bidder Name: _____ ("Bidder")

Check One: Corporation
 Partnership
 Sole Proprietorship
 Joint Venture of: _____
 Other: _____

Contact Person: _____ E-mail: _____

Part 2: Bidder Experience

1. How many years has Bidder been in business under its present business name?

2. Has Bidder completed projects similar in type and size to this Project as a general contractor?

3. Has Bidder ever been disqualified on grounds that it is not responsible?

Yes _____ No _____

If yes, provide additional information on a separate sheet of paper regarding the disqualification, including the name and address of the agency or City of the subject project, the type and size of the project, the reasons that Bidder was disqualified as not responsible, and the month and year in which the disqualification occurred.

4. Has Bidder ever been terminated from a construction project, either as a general contractor or as a subcontractor? Yes _____ No _____

If yes, provide additional information on a separate sheet of paper regarding the termination, including the name and address of the agency or City of the subject project, the type and size of the project, whether Bidder was under contract as a prime contractor or a subcontractor, the reasons that Bidder was terminated, and the month and year in which the termination occurred.

5. Provide information about Bidder's past projects performed as general contractor as follows:
 - 5.1 Six most recently completed public works projects within the last three years;
 - 5.2 Three largest completed projects within the last three years; and
 - 5.3 Any project which is similar to this Project.

6. Using separate sheets of paper attached to this Questionnaire, provide all of the following information for each project identified in response to the above three categories:
 - 6.1. Project Name
 - 6.2. Location
 - 6.3. City
 - 6.4. City Contact (name and current phone number)
 - 6.5. Architect or Engineer Name
 - 6.6. Architect or Engineer Contact (name and current phone number)
 - 6.7. Construction Manager (name and current phone number)
 - 6.8. Description of Project, Scope of Work Performed
 - 6.9. Initial Contract Value (at time of bid award)
 - 6.10. Final Cost of Construction (including change orders)
 - 6.11. Original Scheduled Completion Date
 - 6.12. Time Extensions Granted (number of days)
 - 6.13. Actual Date of Completion
 - 6.14. Number and amount of Stop Notices or Mechanic's Liens filed
 - 6.15. Amount of liquidated damages assessed against Bidder
 - 6.16. Nature and resolution of any claim, lawsuit, and/or arbitration between Bidder and the City

Part 3: Verification

In signing this document, I, the undersigned, declare that I am duly authorized to sign and submit this *Bidder's Questionnaire* on behalf of the named Bidder, and that all responses and information set forth in this *Bidder's Questionnaire* and accompanying attachments are, to the best of my knowledge, true, accurate and complete as of the date of submission. **I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.**

Signature: _____ Date: _____

By [name, title]: _____

For [name of Bidder]: _____

CONTRACT

Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) CIP Project No. 592-59080

This public works contract ("Contract") is entered into by and between the City of Brentwood ("City") and _____ ("Contractor") for work on the Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) ("Project").

The parties agree as follows:

1. **Award of Contract.** In response to the *Notice Inviting Bids*, Contractor has submitted a *Bid Proposal* to perform work on the Project, and on _____, 20____, the Brentwood City Council authorized award of this Contract to Contractor for the amount of Contractor's bid.
2. **Contract Documents.** The Contract Documents incorporated into this Contract include and are comprised of all of the following:
 - 2.1 Notice Inviting Bids;
 - 2.2 Instructions for Bidders;
 - 2.3 Addenda, if any;
 - 2.4 Bid Proposal and required attachments;
 - 2.5 Contract;
 - 2.6 Payment and Performance Bonds;
 - 2.7 General Conditions;
 - 2.8 Special Conditions;
 - 2.9 Project Drawings and Specifications;
 - 2.10 Change Orders, if any;
 - 2.11 Notice of Award;
 - 2.12 Notice to Proceed;
 - 2.13 Brentwood Standard Plans and Specifications;
 - 2.14 And the following: No other documents.
3. **Contractor's Obligations.** Contractor agrees to perform all of the Work required for the Project, as specified in the Contract Documents. Contractor must provide, furnish, and supply all things necessary and incidental for the timely performance and completion of the Work, including all necessary labor, materials, equipment, transportation, and utilities, unless otherwise specified in the Contract Documents. Contractor must use its best efforts to complete the Work in a professional and expeditious manner and to meet or exceed the performance standards required by the Contract Documents.
4. **Payment.** As full and complete compensation for Contractor's timely performance and completion of the Work in strict accordance with the terms and conditions of the Contract Documents, City will pay Contractor _____ Dollars (\$_____) (the "Contract Price"), in accordance with the payment provisions in the *General Conditions*.

5. **Time for Completion.** Contractor will fully complete the Work for the Project within 40 Working days from the commencement date given in the Notice to Proceed (“Contract Time”). By signing below, Contractor expressly waives any claim for delayed early completion.

6. **Liquidated Damages.** If Contractor fails to complete the Work within the Contract Time, City will assess liquidated damages in the amount of \$1,000 Dollars (One Thousand Dollars) for each day of unexcused delay in completion, and the Contract Price will be reduced accordingly.

7. **Labor Code Compliance.**
 - 7.1 **General.** This Contract is subject to all applicable requirements of Chapter 1 of Part 7 of Division 2 of the Labor Code, including requirements pertaining to wages, working hours and workers’ compensation insurance.

 - 7.2 **Prevailing Wages.** This Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. Copies of these prevailing rates are available online at <http://www.dir.ca.gov/DLSR>.

 - 7.3 **DIR Registration.** City will not accept a *Bid Proposal* from or enter into a contract with a bidder without proof that the bidder and its Subcontractors are registered with the California Department of Industrial Relations (“DIR”) to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.

8. **Workers’ Compensation Certification.** Under Labor Code Section 1861, by signing this *Contract*, Contractor certifies as follows: “I am aware of the provisions of Labor Code Section 3700 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 on this Contract.”

9. **Notice.** Any notice, billing, or payment required by the Contract Documents must be made in writing, and sent to the other party by personal delivery, U.S. Mail, a reliable overnight delivery service, facsimile, or by email as a PDF (or comparable) file. Notice is deemed effective upon delivery unless otherwise specified. Notice for each party must be given as follows:

	City of Brentwood	Contractor
Name/Title	James Campero, Construction Manager	
Address	150 City Park Way	
City/state/zip	Brentwood/CA 94513	
Phone	925-516-5420	
Fax	925-516-5421	
Email	engineering@brentwoodca.gov	

10. General Provisions.

- 10.1 Assignment and Successors.** Contractor may not assign its rights or obligations under this Contract, in part or in whole, without City's written consent. This Contract is binding on Contractor's successors and permitted assigns.
- 10.2 Third Party Beneficiaries.** There are no intended third party beneficiaries to this Contract except as expressly provided in the *General Conditions* or *Special Conditions*.
- 10.3 Governing Law and Venue.** This Contract will be governed by California law and venue will be in the California Superior Court in Contra Costa County, and no other place.
- 10.4 Amendment.** No amendment or modification of this Contract will be binding unless it is in a writing duly authorized and signed by the parties to this *Contract*.
- 10.5 Integration; Severability.** This Contract and the Contract Documents incorporated herein, including authorized amendments or Change Orders thereto, constitute the final, complete, and exclusive terms of the agreement between City and Contractor. If any provision of the Contract Documents, or portion of a provision, is determined to be illegal, invalid, or unenforceable, the remaining provisions of the Contract Documents will remain in full force and effect.
- 10.6 Authorization.** Each individual signing below warrants that he or she is authorized to do so by the party that he or she represents, and that this Contract is legally binding on that party. If Contractor is a corporation, signatures from two officers of the corporation are required pursuant to California Corporation Code Section 313. Alternatively, the Contractor may attach a resolution of the corporation, certified by the secretary or assistant secretary under corporate seal, empowering the officer(s) signing the Contract to bind the corporation.

[Signatures are on the following page.]

The parties agree to this Contract as witnessed by the signatures below:

CONTRACTOR:

CITY OF BRENTWOOD:

* By: _____

By: _____

Gustavo "Gus" Vina, City Manager

Printed Name: _____

ATTEST:

Title: _____

By: _____

Margaret Wimberly, MMC, City Clerk

** By: _____

Printed Name: _____

APPROVED AS TO FORM:

Title: _____

By: _____

Damien Brower, City Attorney

If required by City, a notarized acknowledgment of execution by Contractor must be attached. If a Contractor is a corporation, Contract must be signed by one corporate officer from each of the following two groups.

***Group A.**
Chairman,
President, **or**
Vice-President

****Group B.**
Secretary,
Assistant Secretary,
CFO **or** Assistant Treasurer

Otherwise, the corporation **must** attach a resolution certified by the secretary or assistant secretary under corporate seal empowering the officer(s) signing to bind the corporation.

Date: _____

Contractor's Calif. License Number(s)

Seal:

Expiration Date(s)

PAYMENT BOND

The City of Brentwood ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20__ ("Contract") for work on the Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) ("Project"). The Contract is incorporated by reference into this *Payment Bond* ("Bond").

1. **General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee in an amount not less than (\$ _____) ("Bond Sum"), under California Civil Code Sections 9550, et seq.
2. **Surety's Obligation.** If Contractor or any of its Subcontractors fails to pay any of the persons named in California Civil Code Section 9100 amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and its Subcontractors, under California Unemployment Insurance Code Section 13020, with respect to the work and labor, then Surety will pay for the same.
3. **Beneficiaries.** This Bond inures to the benefit of any of the persons named in California Civil Code Section 9100, so as to give a right of action to those persons or their assigns in any suit brought upon this Bond. Contractor must promptly provide a copy of this Bond upon request by any person with legal rights under this Bond.
4. **Duration.** If Contractor promptly makes payment of all sums for all labor, materials, and equipment furnished for use in the performance of the Work required by the Contract, in conformance with the time requirements set forth in the Contract and as required by California law, Surety's obligations under this Bond will be null and void. Otherwise, Surety's obligations will remain in full force and effect.
5. **Waivers.** Surety waives any requirement to be notified of alterations to the *Contract* or extensions of time for performance of the Work under the Contract. Surety waives the provisions of Civil Code Sections 2819 and 2845. City waives requirement of a new bond for any supplemental contract under Civil Code Section 9550. Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____

6. **Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court of the County in which the Project is

located, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.

7. **Effective Date; Execution.** This Bond is entered into and is effective on _____, 20_____.

SURETY:

s/ _____

Name: _____

Title: _____

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

s/ _____

Name: _____

Title: _____

APPROVED BY CITY:

_____ City of Brentwood

s/ _____

Name: Gustavo "Gus" Vina

Title: City Manager

PERFORMANCE BOND

The City of Brentwood ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20____ ("Contract") for work on the Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) ("Project"). The Contract is incorporated by reference into this *Performance Bond* ("Bond").

1. **General.** Under this Bond, the Contractor as Principal and _____, its surety ("Surety"), are bound to City as obligee for an amount not less than Dollars (\$_____) (the "Bond Sum"). By executing this Bond, Contractor and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, to the provisions of this Bond.
2. **Surety's Obligations; Waiver.** If Contractor fully performs its obligations under the Contract, including its warranty obligations under the Contract. Surety's obligations under this Bond will become null and void upon recordation of the notice of completion, provided Contractor has timely provided a warranty bond as required under the Contract. Otherwise Surety's obligations will remain in full force and effect until expiration of the one year warranty period under the Contract. Surety waives any requirement to be notified of and further consents to any alterations to the Contract made under the applicable provisions of the Contract Documents, including changes to the scope of Work or extensions of time for performance of Work under the Contract. Surety waives the provisions of Civil Code Sections 2819 and 2845.
3. **Application of Contract Balance.** Upon making a demand on this Bond, City will make the Contract Balance available to Surety for completion of the Work under the Contract. For purposes of this provision, the "Contract Balance" is defined as the total amount payable by City to the Contractor as the Contract Price minus amounts already paid to Contractor, and minus any liquidated damages, credits, or backcharges to which City is entitled under the terms of the Contract.
4. **Contractor Default.** Upon written notification from City that Contractor is in default under Article 13 of the Contract *General Conditions*, time being of the essence, Surety must act within the time specified in Article 13 to remedy the default through one of the following courses of action:
 - 4.1 Arrange for completion of the Work under the Contract by Contractor, with the City's consent, but only if Contractor is in default solely due to its financial inability to complete the Work;
 - 4.2 Arrange for completion of the Work under the Contract by a qualified contractor acceptable to City, and secured by performance and payment bonds issued by an admitted surety as required by the Contract Documents, at Surety's expense, or
 - 4.3 Waive its right to complete the Work under the Contract and reimburse City the amount of City's costs to have the remaining Work completed.
5. **Surety Default.** If Surety defaults on its obligations under the Bond, City will be entitled to recover all costs it incurs due to Surety's default, including legal, design professional, or delay costs.

6. **Notice.** Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____

Address: _____

City/State/Zip: _____

Phone: _____

Fax: _____

Email: _____

7. **Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court for the County in which the Project is located, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.

8. **Effective Date; Execution.** This Bond is entered into and effective on _____, 20____.

SURETY:

s/ _____

Name: _____

Title: _____

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

s/ _____

Name: _____

Title: _____

WARRANTY BOND

The City of Brentwood ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20__ ("Contract") for work on the Citywide Wastewater Rehabilitation - 2016 (Sycamore Avenue and Griffith Lane) ("Project"). The Contract is incorporated by reference into this *Warranty Bond* ("Bond").

1. **General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee in the amount of 15 % of the final Contract Price, ("Bond Sum").
2. **Warranty Period.** The Contract requires Contractor to guarantee its work and that of its Subcontractors on the Project, against defects in materials or workmanship which are discovered during the one year period commencing with recordation of the Notice of Completion (the "Warranty Period").
3. **Surety's Obligations.** If Contractor faithfully carries out and performs its guarantee under the Contract, and, on due notice from City, repairs and make good at its sole expense any and all defects in materials and workmanship in the Project which are discovered during the Warranty Period, or if Contractor promptly reimburses City for all loss and damage that City sustains because of Contractor's failure to makes such repairs in accordance with the Contract requirements, then Surety's obligations under this Bond will be null and void. Otherwise, Surety's obligations will remain in full force and effect.
4. **Waiver.** Surety waives the provisions of Civil Code Sections 2819 and 2845.
5. **Notice.** Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____
Phone: _____
Fax: _____
Email: _____
6. **Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court in which the Project is located, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.
7. **Effective Date; Execution.** This Bond is entered into and is effective on _____, 20_____.

[Signatures are on the following page.]

SURETY:

s/ _____

Name: _____

Title: _____

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

s/ _____

Name: _____

Title: _____

GENERAL CONDITIONS

Article 1 - Definitions

- 1.1 **Definitions.** The following definitions apply to all of the Contract Documents unless otherwise indicated. Defined terms and titles of documents are capitalized in the Contract Documents, with the exception of the words “day,” “furnish,” “including,” “install,” and “working day” or “work day.”

Allowance means an amount included in the *Bid Proposal* for Work that may or may not be included in the Project, depending on conditions that will not become known until after bids are opened. If the Contract Price includes an Allowance and the cost of performing the Work covered by that Allowance is greater or less than the Allowance, the Contract Price will be increased or decreased accordingly.

Article, as used in these *General Conditions*, means a numbered Article of the *General Conditions*, unless otherwise indicated by the context.

Brentwood Standard Plans and Specifications means the most current version, at bid time, of the City’s Standard Plans and Specifications.

Caltrans Standard Plans means the most current version at bid time of the Standard Plans of the California Department of Transportation.

Caltrans Standard Specifications means the version of the Standard Specifications of the California Department of Transportation specified in Section 2 of the *Contract* form, subject to the terms and limitations in Section 3.3 of the *General Conditions*.

Change Order means a written document duly approved and executed by City, which changes the scope of Work, the Contract Price, or the Contract Time.

City means the City of Brentwood, acting through its City Council, officers, employees, and authorized representatives.

City Engineer means the City Engineer and Director of Public Works for the City of Brentwood acting directly or through a duly authorized agent, which may be an employee of the City or an outside consultant.

Claim means a separate demand by Contractor for change in the Contract Time or Contract Price, that has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been rejected by City, in whole or in part; or a written demand by Contractor objecting to the amount of Final Payment.

Contract means the signed agreement between City and Contractor.

Contract Documents means, collectively, all of the documents listed as such in Section 2 of the *Contract*, including the *Notice Inviting Bids*; the *Instructions for Bidders*; addenda, if any; the *Bid Proposal*, and attachments thereto; the *Contract*; the notice of award and notice to proceed; the payment and performance bonds; the *General*

Conditions; the *Special Conditions*; the Project Drawings and Specifications; any Change Orders; and any other documents expressly made part of the Contract Documents.

Contract Price means the total compensation to be paid to the Contractor for performance of the Work, as set forth in the *Contract* and as amended by Change Order or adjusted for an Allowance. The Contract Price is not subject to adjustment due to inflation or due to the increased cost of labor, material, or equipment following submission of the *Bid Proposal*.

Contract Time means the number of Working Days for performance of the Work, as set forth in the *Contract* and as amended by Change Order.

Contractor means the individual, partnership, corporation, or joint-venture who has signed the *Contract* with City to perform the Work.

Day means a calendar day unless otherwise specified.

Design Professional means the licensed individual(s) or firm(s) retained by City to design the Project and to provide architectural or engineering services to ensure the Project is constructed as intended. If no Design Professional has been retained for this Project, any reference to Design Professional is deemed to refer to the City Engineer.

Drawings means the City-provided plans and graphical depictions of the Project requirements, and does not include Shop Drawings.

Final Completion means the Contractor has fully completed all of the Work required by the Contract Documents, including all punch list items, any required commissioning, and has provided all required submittals, including the *Warranty Bond*, instructions and manuals, and as-built drawings to the City's satisfaction.

Final Payment means payment to Contractor of the unpaid Contract Price, including release of undisputed retention, less amounts withheld pursuant to the Contract Documents, including liquidated damages, up to 125% of the amount of any unreleased stop notice, amounts subject to setoff, up to 150% of any unresolved third-party claim for which Contractor is required to indemnify City, and up to 150% of any amount in dispute as authorized by Public Contract Code Section 7107.

Furnish means to purchase and deliver to the Worksite designated for installation.

Hazardous Materials means any substance or material identified now or in the future as hazardous under any federal, state, or local law or regulation, or any other substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirements governing handling, disposal, or cleanup.

Including means "including, but not limited to," unless the context requires otherwise.

Inspector means the individual(s) or firm(s) retained by City to inspect the workmanship, materials, and manner of construction of the Project and its components to ensure compliance with the Contract Documents and all applicable codes, regulations, and permits.

Install means to fix in place for materials, and to fix in place and connect for equipment.

Project means the public works project referenced in the *Contract*.

Project Manager means the individual designated by City to oversee and manage the Project on City's behalf and may include his or her authorized delegee(s) when the Project Manager is unavailable.

Section as used in these *General Conditions*, means a numbered Section of the *General Conditions*, unless otherwise indicated by the context.

Shop Drawings means drawings, plan details or other graphical depictions prepared by or on behalf of Contractor, and subject to City approval, which are intended to provide details for fabrication, installation, and the like, of items required by or shown in the Drawings and Specifications.

Specifications means the technical, text specifications describing the Project requirements, which are prepared for and incorporated into this Project by or on behalf of City, and does not include the *Contract*, *General Conditions* or *Special Conditions*.

Subcontractor means an individual, partnership, corporation, or joint-venture retained by Contractor directly or indirectly through a subcontract to perform a specific portion of the Work. The term Subcontractor applies to subcontractors, suppliers, fabricators, and equipment lessors of all tiers, unless otherwise indicated by the context.

Technical Specifications means Specifications.

Work means all of the construction and services necessary or incidental to completing the Project in conformance with the requirements of the Contract Documents.

Working Day or Work Day means a day that City is open for normal business, excluding weekends and excluding holidays observed by City.

Worksite means the place or places where the Work is performed.

Article 2 - Roles and Responsibilities

2.1 Design Professional.

- (A) **General.** Design Professional, as the City's representative, is responsible for the overall design of the Project, and to the extent authorized by City, may act on City's behalf to ensure performance of the Work in compliance with the Contract Documents.
- (B) **Interpretation.** Design Professional will decide all questions pertaining to interpretation of the Drawings or Specifications. The Design Professional's decision regarding interpretation of the Drawings or Specifications is final and conclusive.

2.2 Contractor.

- (A) **General.** Contractor must provide all labor, materials, equipment and services necessary to perform and timely complete the Work in strict accordance with the Contract Documents, and in an economic and efficient manner in the best interests of City. Contractor is solely responsible for all costs to perform the Work as specified in the Contract Documents, including any Work performed outside the Worksite.
- (B) **Responsibility for the Work.** Contractor is solely responsible for supervising and directing all aspects of the Work to facilitate the efficient and timely completion of the Work. Contractor is solely responsible for, and required to exercise full control over, construction means, methods, techniques, sequences, procedures, and coordination of all portions of the Work with that of all other Contractors and Subcontractors, except to the extent that the Contract Documents provide other specific instructions.
- (C) **Project Administration.** Contractor must provide sufficient and competent administration, staff, and skilled workforce necessary to perform and timely complete the Work in accordance with the Contract Documents. Before starting the Work, Contractor must designate in writing and provide complete contact information, including phone numbers and email address, for the officer or employee in Contractor's organization who is to serve as Contractor's primary representative for the Project, and who has authority to act on Contractor's behalf. A Subcontractor may not serve as Contractor's primary representative.
- (D) **On-Site Superintendent.** Contractor must, at all times during performance of the Work, provide a qualified and competent full-time superintendent, acceptable to City, and assistants, as necessary, who must be physically present at the Project site while any aspect of the Work is being performed. Failure to comply may result in temporary suspension of the Work, at Contractor's sole expense and with no extension of Contract Time, until the superintendent is physically present to supervise the Work. Contractor must provide written notice to City, as soon as practicable, before replacing the superintendent.
- (E) **Standards; Compliance.** Contractor must, at all times, ensure that the Work is performed in a good workmanlike manner following best practices and in full compliance with the Contract Documents and all applicable laws, regulations, codes, standards, and permits.
- (F) **Responsible Party.** Contractor is solely responsible to City for the acts or omissions of any party or parties performing portions of the Work or providing equipment, materials or services for or on behalf of Contractor or its Subcontractors.
- (G) **Correction of Defects.** Contractor must promptly correct, at Contractor's sole expense, any Work that is determined by City, Project Manager, or the Inspector to be deficient or defective in workmanship, materials, and equipment.

- (H) **Contractor's Records.** Contractor must maintain all of its records relating to the Project in any form, including paper documents, photos, videos and electronic records. Project records subject to this provision include, but are not limited to, Project cost records and records relating to preparation of Contractor's bid.
- (1) Contractor's cost records must include all supporting documentation, including original receipts, invoices, and payroll records, evidencing its direct costs to perform the Work, including, but not limited to, costs for labor, materials and equipment. Each cost record should include, at a minimum, a description of the expenditure with references to the applicable requirements of the Contract Documents, the amount actually paid, the date of payment, and whether the expenditure is part of the original Contract Price, related to an executed Change Order, or otherwise categorized by Contractor as extra work. Contractor's failure to comply with this provision as to any claimed cost operates as a waiver of any rights to recover the claimed cost.
 - (2) Contractor must continue to maintain its Project records in an organized manner for a period of four years after City's acceptance of the Project or following termination, whichever occurs first. Subject to prior notice to Contractor, City is entitled to inspect or audit any of Contractor's Project records relating to the Project or to investigate Contractor's plant or equipment during Contractor's normal business hours.

2.3 Subcontractors.

- (A) **General.** Contractor must perform at least 50% of the Work with its own forces, as measured by the Contract Price. All Work which is not performed by Contractor with its own forces must be performed by qualified Subcontractors. City reserves the right to approve or reject any and all Subcontractors proposed to perform the Work.
- (B) **Contractual Obligations.** Contractor must require every Subcontractor to be bound to the provisions of the Contract Documents as they apply to the Subcontractor's portion(s) of the Work, and to likewise bind their subcontractors or suppliers. Nothing in these Contract Documents creates a contractual relationship between a Subcontractor and City, but City is deemed to be a third-party beneficiary of the contract between Contractor and each Subcontractor.
- (C) **Termination of Contract.** If the Contract is terminated, each Subcontractor's agreement must be assigned by Contractor to City, subject to the prior rights of any surety, provided that the City accepts the assignment by written notification, and assumes all rights and obligations of Contractor pursuant to each such subcontract agreement.
- (D) **Substitution of Subcontractor.** If Contractor requests substitution of a listed Subcontractor under Public Contract Code Section 4107, Contractor is solely responsible for all costs City incurs in responding to the request, including legal fees and costs to conduct a hearing.

- (E) **Rejection of Subcontractor.** If the City Engineer determines that a Subcontractor is unqualified to perform its Work, is failing to satisfactorily perform its Work, or is otherwise impeding the progress of the Work, at the request of the City Engineer, that Subcontractor must be permanently removed from the Project and its Work performed by Contractor's own forces or by a duly authorized, qualified Subcontractor. Contractor will be solely responsible for any costs or delays resulting from removal of a Subcontractor under this Section.

2.4 Coordination of Work.

- (A) **Concurrent Work.** City reserves the right to perform or to have performed other work on or adjacent to the Project site while the Work is being performed. Contractor is responsible for coordinating its Work with other work being performed on or adjacent to the Project site, and must avoid hindering, delaying, or interfering with the work of other contractors and subcontractors. To the full extent permitted by law, Contractor must hold harmless and indemnify City, Design Professional, and Project Manager against any and all claims arising from or related to Contractor's avoidable, negligent, or willful hindrance of, delay to, or interference with the work of another contractor or subcontractor.
- (B) **Defects.** Before proceeding with any portion of the Work affected by the construction or operations of others, Contractor must give the Project Manager prompt written notification of any defects Contractor discovers which will prevent the proper execution of the Work. Failure to give notice of any such known defects will be deemed acknowledgement by Contractor that the work of others is not defective and will not prevent the proper execution of the Work.

2.5 Submittals.

Unless otherwise specified, Contractor must submit to Project Manager for review and approval, all schedules, Shop Drawings, samples, product data and similar submittals required by the Contract Documents, or upon request by the Project Manager. All submittals, including requests for information (RFIs) are subject to the provisions of this Section.

- (A) **General.** Contractor is responsible for ensuring that its submittals are accurate and conform to the Contract Documents.
- (B) **Time and Manner of Submission.** Contractor must ensure that its submittals are prepared and delivered in a manner consistent with the current approved schedule for the Work and within the applicable time specified elsewhere in the Contract Documents, or if no time is specified, in such time and sequence so as not to delay the performance of the Work or completion of the Project.
- (C) **Required Contents.** Each submittal must include the Project name and contract number, Contractor's name and address, the name and address of any Subcontractor or supplier involved with the submittal, the date, and references to applicable Specification section(s) and/or drawing and detail number(s).
- (D) **Required Corrections.** If corrections are required, Contractor must promptly make and submit any required corrections in full conformance with the requirements of this Section.

- (E) **Effect of Review and Approval.** Review and approval of a submittal by the Design Professional will not relieve Contractor from complying with the requirements of the Contract Documents.
- (F) **Enforcement.** Any Work performed or material used without prior approval of a required submittal will be performed at Contractor's risk, and Contractor may be required to bear the costs incident thereto, including the cost of removing and replacing such Work, repairs to other affected portions of the Work, and the cost of additional time or services required of the Design Professional, Project Manager, or Inspector.
- (G) **Excessive RFIs.** RFIs will be considered excessive or unnecessary if the City Engineer determines that the explanation or response to the RFI is clearly and unambiguously discernable in the Contract Documents. The City's costs to review and respond to excessive or unnecessary RFIs may be deducted from payments otherwise due to the Contractor.

2.6 Material Samples.

- (A) **Engineer Approval.** Before a material is delivered or incorporated into the Work, Contractor must obtain the City Engineer's approval of the material or source for the material, by submitting a sample a representative sample of the material. Samples must be submitted in the manner specified in Section 2.5, above, or as otherwise specified in the Contract Documents. Contractor is solely responsible for the cost to remove and replace materials that were used or installed without the City Engineer's prior written approval.
- (B) **Testing.** If Contractor is required to provide material testing, the test results must be submitted to the City Engineer within five days of the testing at no charge to the City. The testing must be performed as specified in the Contract Documents, or if not specified, in accordance with nationally recognized trade standards.

Article 3 - Contract Documents

3.1 Interpretation of Contract Documents.

- (A) **Drawings and Specifications.** The Drawings and Specifications included in the Contract Documents are complementary. If Work is shown on one but not on the other, Contractor must perform the Work as though fully described on both, consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. The Drawings and Specifications are deemed to include and require everything necessary and reasonably incidental to completion of the Work, whether or not particularly mentioned or shown. Contractor must perform all work and services and supply all things reasonably related to and inferable from the Contract Documents. In the event of a conflict between the Drawings and Specifications, the Specifications will control.

- (B) **Duty to Notify.** If Contractor becomes aware of any ambiguity, discrepancy, omission, or error in the Drawings or Specifications, Contractor must immediately notify the Design Professional and request clarification of such, by submitting a written request for information (RFI) in the manner specified by City. The Design Professional's clarifications or interpretations will be final and binding.
- (C) **Figures and Dimensions.** Figures control over scaled dimensions.
- (D) **Technical or Trade Terms.** Any terms that have well-known technical or trade meanings will be interpreted in accordance with those meanings, unless otherwise specifically defined in the Contract Documents.
- (E) **Measurements.** Contractor must verify all relevant measurements at the Worksite before ordering any material or performing any Work, and will be responsible for the correctness of those measurements.

3.2 Order of Precedence. Information included in one Contract Document but not in another will not be considered a conflict or inconsistency. Unless otherwise specified in the *Special Conditions*, in case of any conflict or inconsistency among the Contract Documents, the following order of precedence will apply, beginning from highest to lowest:

- (A) Change Orders;
- (B) Addenda;
- (C) Contract;
- (D) Notice to Proceed;
- (E) Notice of Award;
- (F) Special Conditions;
- (G) General Conditions;
- (H) Payment and Performance Bonds;
- (I) Specifications;
- (J) Drawings;
- (K) Contractor's Bid Proposal and attachments;
- (L) Notice Inviting Bids;
- (M) Instructions for Bidders;
- (N) Brentwood Standard Plans and Specifications; and
- (O) Any documents prepared by and on behalf of a third party, that were not prepared specifically for this Project, e.g., Caltrans Standard Specifications or Caltrans Special Provisions.

3.3 Caltrans Standard Specifications. Any reference to or incorporation of the Standard Specifications of the State of California, Department of Transportation ("Caltrans"), including "Standard Specifications," "Caltrans Specifications," "State Specifications," or "CSS" means the most current edition of Caltrans' Standard Specifications, unless otherwise specified ("Standard Specifications"), including the most current amendments as of the date that Contractor's bid was submitted for this Project. The following provisions apply to use of or reference to the Standard Specifications:

- (A) **Limitations.** None of the “General Provisions” of the Standard Specifications, i.e., Sections 1 through 9, applies to these Contract Documents with the exception of any specific provisions, if any, which are expressly stated to apply to these Contract Documents.
- (B) **Conflicts or Inconsistencies.** If there is a conflict or inconsistency between any provision in the Standard Specifications and a provision of these Contract Documents, as determined by the City Engineer, the provision in the Contract Documents will govern.
- (C) **Meanings.** Terms used in the Standard Specifications are to be interpreted as follows:
 - (1) Any reference to the “Engineer” is deemed to mean the City Engineer.
 - (2) Any reference to the “Special Provisions” is deemed to mean the *Special Conditions*.
 - (3) Any reference to the “State” is deemed to mean the City.

3.4 For Reference Only. Contractor is responsible for the careful review of any document, study, or report appended to the Contract Documents solely for informational purposes and identified as “For Reference Only.” Nothing in any document, study, or report so appended and identified is intended to supplement, alter, or void any provision of the Contract Documents. However, Contractor is advised that City or its representatives may be guided by information or recommendations included in such reference documents, particularly when making determinations as to the acceptability of proposed materials, methods, or changes in the Work. Contractor must promptly notify the City Engineer of any perceived or actual conflict between the Contract Documents and any document provided For Reference Only.

Article 4 - Bonds, Indemnity, and Insurance

4.1 Payment and Performance Bonds. Within ten days following issuance of the notice of award, Contractor is required to provide a payment bond and a performance bond, each in the penal sum of not less than 100% of the Contract Price, using the bond forms included with the Contract Documents.

- (A) **Surety.** Each bond must be issued by a surety admitted in California. If an issuing surety cancels the bond or becomes insolvent, within seven days following written notice from City, Contractor must substitute a surety acceptable to City. If Contractor fails to substitute an acceptable surety within the specified time, City may, at its sole discretion, withhold payment from Contractor until the surety is replaced to City’s satisfaction, or terminate the Contract for default.

4.2 Indemnity and Liability.

- (A) **Contractor’s Indemnity Obligation.** To the fullest extent permitted by law, Contractor must indemnify, defend, and hold harmless City, its agents and consultants, and Design Professional (individually, an “Indemnitee,” and

collectively the “Indemnitees”) from and against any and all liability, loss, damage, claims, expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, “Liability”) of every nature arising out of or in connection with the operations of Contractor, its employees, Subcontractors, representatives, or agents, in bidding or performing the Work or its failure to comply with any of its obligations under the Contract, except such Liability caused by the active negligence, sole negligence, or willful misconduct of an Indemnitee. This indemnity requirement applies to any Liability arising from alleged defects in the content or manner of submission of the Contractor’s bid for the Contract. Contractor’s failure or refusal to timely accept a tender of defense pursuant to this provision will be deemed a material breach of this Contract.

- (B) **Third Party Claims.** City will timely notify Contractor upon receipt of any third-party claim relating to the Contract, as required by Public Contract Code Section 9201.
- (C) **No Personal Liability.** No member of the City Council or any individual officer, employee or authorized agent of the City will be personally liable to Contractor or to any Subcontractor for any liability arising under this Contract.

4.3 Insurance. No later than ten days following issuance of the notice of award, Contractor is required to procure and provide proof of the insurance coverage required by this section in the form of certificates and endorsements. The required insurance must cover the activities of Contractor and its Subcontractors relating to or arising from the performance of the Work, and must remain in full force and effect at all times during the period covered by the Contract until the date of recordation of the notice of completion. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best’s financial strength rating of “A” or better and a financial size rating of “VIII” or better. If Contractor fails to provide any of the required coverage in full compliance with the requirements of the Contract Documents, City may, at its sole discretion, purchase such coverage at Contractor’s expense and deduct the cost from payments due to Contractor, or terminate the Contract for default.

- (A) **Policies and Limits.** The following insurance policies and limits are required for this Contract unless otherwise specified in the *Special Conditions*:
 - (1) **Commercial General Liability Insurance (“CGL”):** The CGL policy must be issued on an occurrence basis, written on a comprehensive general liability form, and must include coverage for liability arising from Contractor’s or its Subcontractor’s operations in the performance of the Work, including contractor’s protected coverage, blanket contractual, completed operations, vehicle coverage and employer’s non-ownership liability coverage, with limits of at least \$5,000,000.00 per occurrence, and \$10,000,000.00 aggregate. The CGL policy must name City as an additional insured for all liability arising out of the operations by or on behalf of the named insured, and must protect City, its officers, employees, and agents against any and all liability for personal injury, death, or property damage or destruction arising directly or indirectly in the performance of the Contract. The additional insured endorsement must be provided using ISO form CG 20 10 11 85 alone, or

both forms CG 20 10 10 01 and CG 20 37 10 01 or CG 20 10 04 13 and CG 20 37 04 13. The CGL coverage may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by excess or umbrella policies, provided each such policy complies with the requirements set forth herein.

- (2) **Builder's Risk Insurance:** The Builder's Risk Insurance policy must be issued on occurrence basis, for all-risk coverage on a 100% completed value basis on the insurable portion of the Project for the benefit of City.
 - (3) **Workers' Compensation Insurance and Employer's Liability:** The policy must comply with the requirements of the California Workers' Compensation Insurance and Safety Act, with of at least \$1,000,000.00. If Contractor is self-insured, Contractor must provide its Certificate of Permission to Self-Insure, duly authorized by the Department of Industrial Relations.
 - (4) **Automobile Liability.** The automobile liability policy must provide coverage of at least \$1,000,000 combined single-limit per accident for bodily injury, death or property damage.
- (B) **Notice.** Each certificate of insurance must state that the coverage afforded by the policy or policies will not be reduced, cancelled or allowed to expire without at least 30 days written notice to City, unless due to non-payment of premiums, in which case ten days written notice must be made to City.
- (C) **Waiver of Subrogation.** Each required policy must include an endorsement providing that the carrier agrees to waive any right of subrogation it may have against City.
- (D) **Required Endorsements.** The CGL Policy and the Builder's Risk Policy must include the following specific endorsements:
- (1) The inclusion of more than one insured will not operate to impair the rights of one insured against another, and the coverages afforded will apply as though separate policies have been issued to each insured.
 - (2) The insurance provided by Contractor is primary and no insurance or self-insurance held or owned by City, its officers, officials, employees or volunteers may be called upon to contribute to a loss. Any insurance or self-insurance held or owned by City, its officers, officials, employees and volunteers is excess to Contractor's insurance and may not be called on to cover or contribute to any loss covered by Contractor's insurance.
 - (3) This policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.
- (E) **Subcontractors.** Contractor must ensure that each Subcontractor is required to maintain the same insurance coverage required under this Section 4.3, with respect to its performance of Work on the Project, including those requirements related to the additional insureds and waiver of subrogation. Contractor must confirm that each Subcontractor has complied with these insurance requirements

before the Subcontractor is permitted to begin Work on the Project. Upon request by the City, Contractor must provide certificates and endorsements submitted by each Subcontractor to prove compliance with this requirement. The insurance requirements for Subcontractors do not replace or limit the Contractor's insurance obligations.

- (F) **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions that apply to the required insurance (collectively, "deductibles") are subject to approval by City, acting in its sole discretion, and must be declared by Contractor when it submits its certificates of insurance and endorsements pursuant to this Section 4.3. If City determines that the deductibles are unacceptably high, at City's option, Contractor must either reduce or eliminate the deductibles as they apply to City and all required additional insured, as stated in subsection 4.3(A)(1), above; or must provide a financial guarantee, to City's satisfaction, guaranteeing payment of losses and related investigation, claim administration and legal expenses.

- 4.4 Warranty Bond.** As a condition precedent to Final Completion, Contractor must submit a warranty bond, using the form provided by City, to guarantee its Work as specified in Article 11, Completion and Warranty Procedures. The warranty bond must be issued by a surety admitted in California for 15% of the final Contract Price or as otherwise specified in the Contract Documents. If an issuing surety cancels the bond or becomes insolvent, within seven days following written notice from City, Contractor must substitute a surety acceptable to City.

Article 5 - Contract Time

- 5.1 Time is of the Essence.** Time is of the essence in Contractor's performance and completion of the Work, and Contractor must diligently prosecute the Work and complete it within the Contract Time.

- (A) **General.** Contractor must commence the Work on the date indicated in the notice to proceed, and must fully complete the Work, in strict compliance with all requirements of the Contract Documents, and within the Contract Time.
- (B) **Rate of Progress.** Contractor and its Subcontractors must, at all times, provide workers, materials, and equipment sufficient to maintain the rate of progress necessary to ensure full completion of the Work within the Contract Time. If City determines that Contractor is failing to prosecute the Work at a sufficient rate of progress, City may, in its sole discretion, direct Contractor to provide additional workers, materials, or equipment, or to work additional hours or days without additional cost to City, in order to achieve a rate of progress satisfactory to City. If Contractor fails to comply with City's directive in this regard, City may, at Contractor's expense, separately contract for additional workers, materials, or equipment or use City's own forces to achieve the necessary rate of progress. Alternatively, City may terminate the Contract based on Contractor's default.

- 5.2 Schedule Requirements.** All schedules must be prepared using standard scheduling software acceptable to Design Professional, and must provide schedules in electronic and paper form as requested.

- (A) **As-Planned (Baseline) Schedule.** Within 15 calendar days following issuance of the notice of award (or as otherwise specified in the *Special Conditions*), Contractor must submit to City for review and approval an as-planned (baseline) schedule showing in detail how Contractor plans to perform and fully complete the Work within the Contract Time using critical path methodology. The as-planned schedule must include the work of all trades required for the Work, and must be sufficiently comprehensive and detailed to enable progress to be monitored on a day-by-day basis. For each activity, the as-planned schedule must be dated, provided in the format specified in the Contract Documents or as required by the City Engineer, and must include, at a minimum, a description of the activity, the start and completion dates, and the duration.
- (B) **Progress Schedules.** Contractor must submit an updated progress schedule and three-week look-ahead schedule, in the format specified by the City Engineer, for review and approval with each application for a progress payment. The progress schedule must show how the actual progress of the Work to date compared to the as-planned schedule, and must identify any actual or potential impacts to the critical path.
- (C) **Recovery Schedule.** If City determines that the Work is more than one week behind schedule, within seven days following written notice of such determination, Contractor must submit a recovery schedule, showing how the Contractor intends to perform and complete the Work within the Contract Time, based on actual progress to date.
- (D) **Effect of Approval.** Contractor and its Subcontractors must perform the Work in accordance with the most current approved schedule unless otherwise directed by City. City's approval of a schedule does not operate to extend the time for completion of the Work or any component of the Work, and will not affect City's right to assess liquidated damages for Contractor's unexcused delay in completing the Work within the Contract Time.
- (E) **Posting.** Contractor must at all times maintain a copy of the most current approved progress or recovery schedule posted prominently in its on-site office.
- (F) **Reservation of Rights.** City reserves the right to direct the sequence in which the Work must be performed or to make changes in the sequence of the Work in order to facilitate the performance of work by City or others, or to facilitate City's use of its property. The Contract Time or Contract Price may be adjusted to the extent such changes in sequence actually increase or decrease Contractor's time or cost to perform the Work.
- (G) **Authorized Working Days and Times.** Contractor is limited to working Monday through Friday, excluding holidays observed by the City, starting no earlier than 7:00 a.m., and ending no later than 3:30 p.m., except as expressly provided in the *Special Conditions*, or as authorized in writing by City. City reserves the right to charge Contractor for additional costs incurred by City due to Work performed on days or during hours not expressly authorized in these Contract Documents, including reimbursement of costs incurred for inspection, testing, and construction management services. Contractor may not perform Work outside of the authorized Working Days and times without the prior written consent of the City Engineer. A

request to perform Work outside of the authorized Working Days and times must be submitted in writing to the City Engineer at least two Working Days in advance. Contractor will be solely responsible for any resulting costs, including overtime inspection, testing or staking.

5.3 Delay and Extensions of Contract Time.

- (A) **Excusable Delay.** The Contract Time may be extended if Contractor encounters an unavoidable delay in completing the Work within the Contract Time due to causes completely beyond Contractor's control, and which Contractor could not have avoided or mitigated through planning, foresight, and diligence ("Excusable Delay"). Grounds for Excusable Delay may include fire, earthquake, acts of terror or vandalism, epidemic, unforeseeable adverse government actions, unforeseeable actions of third parties, encountering unforeseeable hazardous materials, unforeseeable site conditions, suspension for convenience under Article 13, or unusually severe weather.
- (B) **Non-Excusable Delay.** Excusable Delay does not include delay that is concurrent with non-Excusable Delay, and does not include delay caused by:
- (1) Weather conditions which are normal for the location of the Project, as determined by reliable records, including monthly rainfall averages, for the preceding ten years;
 - (2) Contractor's failure to order equipment and materials sufficiently in advance of the time needed for timely completion of the Work;
 - (1) Contractor's failure to provide adequate notification to utility companies for connections or services necessary for the timely performance and completion of the Work;
 - (2) Foreseeable conditions Contractor could have ascertained from reasonably diligent inspection of the Worksite or review of the Contract Documents; or
 - (3) Contractor's financial inability to perform the Work, including insufficient funds to pay its Subcontractors or suppliers.
- (C) **Request for Extension of Contract Time.** A request for an extension of time and associated delay costs must be submitted in writing to the Project Manager within ten calendar days of the date the delay is first encountered, even if the duration of the delay is not yet known at that time, or will be deemed waived. In addition to complying with the requirements of this Article 5, the request must be submitted in compliance with the Change Order request procedures in Article 6, below. Strict compliance with these requirements is necessary to ensure that any delay or delay costs may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project and timely performance of the Work. Any request for an extension of time or delay costs that does not strictly comply with the requirements of Article 5 and Article 6 will be deemed waived.
- (1) **Required Contents.** The request must include a detailed description of the cause(s) of the delay, and must also describe the measures that Contractor

has taken to mitigate the delay and/or its effects, including efforts to mitigate the cost impact of the delay, e.g., by workforce management, change in sequencing, etc. If the delay is still ongoing at the time the request is submitted, the request should also include Contractor's plan for continued mitigation of the delay or its effects.

- (2) *Delay Days and Costs.* The request must specify the number of days of Excusable Delay claimed, or provide a realistic estimate if the duration of the delay is not yet known. The request must specify the amount of any delay-related costs that are claimed, or provide a realistic estimate if the amount is not yet known. Any estimate of delay duration or cost must be updated in writing and submitted with all required supporting documentation as soon as the actual time and cost is known.
- (3) *Supporting Documentation.* The request must also include any and all supporting documentation necessary to evidence the delay and its actual impacts, including schedule and cost impacts, including a time impact analysis using critical path methodology, and demonstrating unavoidable delay to Final Completion. The time impact analysis must be submitted in a form or format acceptable to City.
- (4) *Burden of Proof.* Contractor has the burden of proving 1) that the delay was an Excusable Delay, as defined above, 2) that Contractor has made reasonable efforts to mitigate the delay and its schedule and cost impacts, 3) that the delay will unavoidably result in delaying Final Completion, and 4) that any delay costs claimed by Contractor were actually incurred and were reasonable under the circumstances.
- (5) *Recoverable Costs.* If Contractor is granted an extension of time for Excusable Delay, recompense for delay costs shall be limited to actual, direct, reasonable, and substantiated costs, and will not include home office overhead, or markup for overhead and profit.
- (6) *Legal Compliance.* Nothing in this provision is intended to require the waiver, alteration, or limitation of the applicability of Public Contract Code Section 7102.
- (7) *No Waiver.* Any grant of an extension of time or delay costs due to an Excusable Delay will not operate as a waiver of City's right to assess liquidated damages for unexcused delay.
- (8) *Dispute Resolution.* In the event of a dispute over entitlement to an extension of time or delay costs, Contractor may not stop working pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work. Contractor's sole recourse for an unresolved dispute based on City's rejection of a Change Order request for an extension of time or delay costs is to comply with the Dispute Resolution provisions set forth in Article 12, below.

5.4 Liquidated Damages. It is expressly understood that if Final Completion is not achieved within the Contract Time, City will suffer damages which are difficult to determine and accurately specify. Pursuant to Public Contract Code section 7203, if Contractor fails to achieve Final Completion within the Contract Time, City will charge Contractor in the amount specified in the Contract for each day that Final Completion is delayed beyond the Contract Time, as liquidated damages and not as a penalty.

- (A) **Liquidated Damages.** Liquidated damages will not be assessed for any Excusable Delay, as set forth above.
- (B) **Milestones.** Liquidated damages will also be separately assessed for failure to meet milestones specified elsewhere in the Contract Documents.
- (C) **Setoff.** City is entitled to set off the amount of liquidated damages assessed against any payments otherwise due to Contractor, including setoff against release of retention. If there are insufficient Contract funds remaining to cover the full amount of liquidated damages assessed, City is entitled to recover the balance from Contractor or its Performance Bond surety.
- (D) **Occupancy or Use.** Occupancy or use of the Project in whole or in part prior to Final Completion does not constitute City's acceptance of the Project and will not operate as a waiver of City's right to assess liquidated damages for Contractor's unexcused delay in achieving Final Completion.

Article 6 - Contract Modification

6.1 Changes in Work. City reserves the right to make changes in the Work without invalidating the Contract. City may direct or Contractor may request changes in the Work, and any such changes will be formalized in a Change Order, which may include commensurate changes in the Contract Price or Contract Time as applicable. Contractor must promptly comply with City-directed changes in the Work in accordance with the intent of the original Contract Documents, even if Contractor and City have not yet reached agreement as to adjustments to the Contract Price or Contract Time.

- (A) **City-Directed Change.** In the event of a dispute over entitlement to or the amount of a change in Contract Time or a change in Contract Price related to an City-directed change, Contractor must perform the Work as directed and may not delay its work or cease work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute.
- (B) **Contractor's Obligations.** In the event that City and Contractor dispute whether a portion or portions of the Work are already required by the Contract Documents as opposed to changed or extra Work, Contractor must perform the Work as directed and may not delay its Work or cease Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute.
- (C) **Remedy for Non-Compliance.** Contractor's failure to promptly comply with a City-directed change is deemed a material breach of the Contract, and in addition to all other remedies available to it, City may, at its sole discretion, hire another

contractor or use its own forces to complete the disputed Work at Contractor's sole expense, and may deduct the cost from the Contract Price.

- (D) **Dispute Resolution.** Contractor's sole recourse for an unresolved dispute related to changes in the Work is to comply with the dispute resolution provisions set forth in Article 12, below.

6.2 Contractor Change Order Requests. Contractor must submit a request or proposal for a change in the Work or a change in the Contract Price or Contract Time as a written Change Order request or proposal.

- (A) **Time for Submission.** Any request for a change in the Contract Price must be submitted in writing to the Project Manager within ten calendar days of the date that Contractor first encounters the circumstances, information or conditions giving rise to the Change Order request, even if the total amount of the requested change in the Contract Price or impact on the Contract Time is not yet known at that time.
- (B) **Required Contents.** Any Change Order request or proposal submitted by Contractor must include a complete breakdown of actual or estimated costs and credits, and must itemize labor, materials, equipment, taxes, insurance, and subcontract amounts. Any estimated cost must be updated in writing as soon as the actual amount is known.
- (C) **Required Documentation.** All claimed costs must be fully documented, and any related request for an extension of time or delay-related costs must be included at that time and in compliance with the requirements of Article 5 of the *General Conditions*.
- (D) **Required Form.** Contractor must use City's form(s) for submitting all Change Order requests or proposals, unless otherwise specified by City.
- (E) **Certification.** All Change Order requests must be signed by Contractor and must include the following certification:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Change Order request are true and correct. Contractor warrants that this Change Order request is comprehensive and complete, and agrees that any costs, expenses, or time extension request not included herein will be deemed waived. Contractor understands that submission of claims which have no basis in fact or which Contractor knows to be false may violate the False Claims Act, as set forth in Government Code Sections 12650 et seq."

- (F) **Effective.** A Change Order is not effective until it is approved by the City Council or the City Council's authorized delegee.

6.3 Adjustments to Contract Price. The amount of any increase or decrease to the Contract Price will be determined based on one of the following methods in the order provided:

- (A) **Unit Pricing.** Amounts previously provided by Contractor in the form of unit prices, either in a bid schedule or schedule of values, will apply first if unit pricing has previously been provided in Contractor's accepted bid schedule or schedule of values for the affected Work.
- (B) **Lump Sum.** A mutually agreed upon lump sum.
- (C) **Time and Materials.** On a time and materials basis, which may include a not-to-exceed limit, calculated as the total of the following sums:
 - (1) All direct labor costs plus 15% for overhead and profit;
 - (2) All direct material costs, including sales tax, plus 15% for overhead and profit;
 - (3) All direct plant and equipment rental costs, plus 15% for overhead and profit;
 - (4) All direct subcontract costs plus 10% for overhead and profit; and
 - (5) Increased bond or insurance premium costs computed at 1.5% of total of the previous four sums.

6.4 Unilateral Change Order. If City disagrees with the amount of compensation or extension of time that Contractor has requested, City may elect to issue a unilateral Change Order, directing performance of the Work, and authorizing a change in the Contract Price or Contract Time in the amount City believes is merited. Contractor's sole recourse to dispute the terms of a unilateral Change Order is to submit a timely Claim pursuant to Article 12, below.

6.5 Non-Compliance Deemed Waiver. Contractor waives its entitlement to any increase in the Contract Price or Contract Time if Contractor fails to fully comply with the provisions of this Article. Contractor will not be paid for unauthorized extra work.

Article 7 - General Construction Provisions

7.1 Permits and Taxes.

- (A) **General.** Contractor must obtain and pay for any and all permits, fees, or licenses required to perform the Work, unless otherwise indicated in the Contract Documents. Contractor must cooperate with and provide notifications to government agencies with jurisdiction over the Project, as may be required. Contractor must provide City with copies of all notices, permits, licenses, and renewals required for the Work.
- (B) **Federal Excise Tax.** Contractor must pay for all taxes on labor, material and equipment, except Federal Excise Tax to the extent that City is exempt from Federal Excise Tax.

7.2 Temporary Facilities. Contractor must provide, at Contractor's sole expense, any and all temporary facilities, including onsite office, sanitary facilities, storage, scaffolds, barricades, walkways, and any other temporary structure required to safely perform the Work along with any utility services incidental thereto.

- (A) **Standards.** Such structures must be safe and adequate for the intended use, and installed and maintained in accordance with all applicable federal, state, and local laws, codes, and regulations.
- (B) **Removal and Repair.** Contractor must promptly remove all such temporary facilities when they are no longer needed or upon completion of the Work, whichever comes first. Contractor must promptly repair any damage to City's property caused by the installation, use, or removal of the temporary facilities, and must promptly restore the property to its original or intended condition.
- (C) **Additional Requirements.** Additional provisions pertaining to temporary facilities may be included in the Specifications or *Special Conditions*.

7.3 Signs. Contractor must furnish and install all signs required by the Contract Documents or required by the City Engineer at Contractor's sole expense. No signs may be displayed on or about City's property, except signage which is required by law, by the City Engineer or by the Contract Documents, without City's prior written approval as to content, size, design, and location.

7.4 Protection of Work and Property.

- (A) **General.** Contractor is responsible at all times for protecting the Work and materials and equipment to be incorporated into the Work from damage until the Notice of Completion has been recorded. Except as specifically authorized by City, Contractor must confine its operations to the area of the Project site indicated in the Drawings. Contractor is liable for any damage caused to City's real or personal property, the real or personal property of adjacent property owners, or the work or personal property of other contractors working for City.
- (B) **Unforeseen Conditions.** If Contractor encounters facilities, utilities, or other unknown conditions not shown on or reasonably inferable from the Drawings or apparent from inspection of the Project site, Contractor must promptly notify the Project Manager, and must avoid taking any action which could cause damage to the facilities or utilities pending further direction from the Project Manager. If the Project Manager's subsequent direction to Contractor affects Contractor's cost or time to perform the Work, Contractor may submit a Change Order request as set forth in Article 6, above.
- (C) **Support; Adjacent Properties.** Contractor must provide, install, and maintain all shoring, bracing, underpinning, etc., necessary to provide support to City's property and adjacent properties and improvements thereon. Contractor must provide notifications to adjacent property owners as may be required by law.

7.5 Noninterference. Contractor must take reasonable measures to avoid interfering with City's use of its property at or adjacent to the Project site, including use of roadways, entrances, parking areas, walkways, and structures. Contractor must provide written notification to the City Engineer and to the City's Fire and Police Departments at least two Working Days before closing any lane or otherwise obstructing access by emergency vehicles to any area.

7.6 Materials and Equipment.

- (A) **General.** Unless otherwise specified, all materials and equipment required for the Work must be new and of the best grade for the intended purpose, and furnished in sufficient quantities to ensure the proper and expeditious performance of the Work. Unless otherwise specified, all materials and equipment required for the Work are deemed to include all components required for complete installation and intended operation, and must be installed in accordance with the manufacturer's recommendation. Contractor is responsible for all shipping, handling, and storage costs associated with the materials and equipment required for the Work, and is responsible for protecting the Work and all of the required materials, supplies, tools and equipment at Contractor's sole cost until City accepts the Project.
- (B) **City-Provided.** If the Work includes installation of materials or equipment to be provided by City, Contractor is solely responsible for the proper examination, handling, storage, and installation of such items in accordance with the Contract Documents. Contractor must promptly notify City of any defects discovered in City-provided materials or equipment. Contractor is solely responsible for any loss of or damage to such items which occurs while the items are in Contractor's custody and control, the cost of which may be offset from the Contract Price and deducted from any payment(s) due to Contractor.
- (C) **Intellectual Property Rights.** Contractor must, at its sole expense, obtain any authorization required for use of patented or copyright protected materials, equipment, devices or processes that are incorporated into the Work. Contractor's indemnity obligation in Article 4, applies to any claimed violation of intellectual property rights in violation of this provision.

7.7 Substitutions.

- (A) **"Or Equal."** Any specification designating a material, product, thing, or service by specific brand or trade name, followed by the words "or equal," is intended only to indicate quality and type of item desired, and Contractor may request use of any equal material, product, thing, or service.
- (B) **Request for Substitution.** A request for substitution must be submitted to the Project Manager for approval within the applicable time period provided in the Contract Documents. If no time period is specified, the substitution request may be submitted any time within 35 days after the date of award of the Contract, or sufficiently in advance of the time needed to avoid delay of the Work, whichever is earlier.
- (C) **Substantiation.** All data substantiating the proposed substitute as an "equal" item must be submitted with the written request for substitution. Contractor's failure to timely provide necessary substantiation is ground for rejection of the proposed substitution, without further review.
- (D) **Burden of Proving Equality.** Contractor has the burden of proving the equality of the proposed substitution. The City Engineer has sole discretion to determine whether a proposed substitution is "equal," and the City Engineer's determination is final.

- (E) **Approval or Rejection.** If the proposed substitution is approved, Contractor is solely responsible for any additional costs associated with the substituted item(s). If the proposed substitution is rejected, Contractor must, without delay, install the item specified.
- (F) **Contractor's Obligations.** The City Engineer's review of a proposed substitution will not relieve Contractor from any of its obligations under the Contract Documents. In the event Contractor makes an unauthorized substitution, Contractor will be solely responsible for all resulting cost impacts, including the cost of removal and replacement and the impact to other design elements.

7.8 Testing and Inspection.

- (A) **General.** All materials, equipment, and workmanship used in the Work are subject to inspection by Inspector at all times and locations during construction and/or fabrication. All manufacturers' application or installation instructions must be provided to the Inspector at least ten days prior to the first such application or installation. Contractor must, at all times, make the Work available for inspection.
- (B) **Scheduling and Notification.** Contractor must schedule all tests required by the Contract Documents in time to avoid any delay to the progress of the Work. Contractor must provide timely notice to all necessary parties as specified in the Contract Documents.
- (C) **Responsibility for Costs.** City will bear the initial cost of testing to be performed by independent testing consultants retained by City, subject to the following exceptions:
 - (1) Contractor will be responsible for the costs of any subsequent tests which are required to substantiate compliance with the Contract Documents, and any associated remediation costs.
 - (2) Contractor will be responsible for inspection costs, at City's established rates, for inspection time lost because the Work is not ready or Contractor fails to appear for a scheduled inspection.
 - (3) In addition, if any portion of the Work which is subject to testing is covered or concealed by Contractor prior to testing, Contractor will bear the cost of making that portion of the Work available for the testing required by the Contract Documents, and any associated repair or remediation costs.
- (D) **Contractor's Obligations.** Any Work that fails to comply with the requirements of the Contract Documents must be promptly repaired, replaced, or corrected by Contractor, at Contractor's sole expense, even if that Work was previously inspected or included in a progress payment. Contractor is solely responsible for any delay occasioned by remediation of noncompliant Work. Inspection of the Work does not in any way relieve Contractor of its obligations to perform the Work as specified.

- (E) ***Distant Locations.*** If required off-site testing or inspection must be conducted at a location more than 100 miles from the Project site, Contractor is solely responsible for the additional travel costs required for testing and/or inspection at such locations.
- (F) ***Final Inspection.*** The provisions of this Section 7.8 apply to final inspection under Article 11, Completion and Warranty Provisions.

7.9 Clean up. Contractor must regularly remove debris and waste materials and maintain the Worksite in clean and neat condition.

- (A) ***General.*** Prior to discontinuing work in an area, Contractor must clean the area and remove all rubbish along with its construction equipment, tools, machinery, waste and surplus materials. Contractor must, at all times, minimize and confine dust and debris resulting from construction activities.
- (B) ***Completion.*** At the completion of the Work, Contractor must remove from the Worksite all of its equipment, tools, surplus materials, waste materials and debris. Before demobilizing from the Worksite, Contractor must ensure that all surfaces are cleaned, sealed, waxed, or finished as applicable, and that all marks, stains, paint splatters, and the like have been properly removed from the completed Work and the surrounding areas.
- (C) ***Non-Compliance.*** If Contractor fails to commence compliance with its cleanup obligations within two business days following written notification from City or its representative, City may undertake appropriate cleanup measures without further notice and the cost will be deducted from any amounts due or to become due the Contractor.

7.10 Instructions and Manuals. Contractor must provide three copies each of all instructions and manuals required by the Contract Documents, unless otherwise specified. These must be complete as to drawings, details, parts lists, performance data, and other information that may be required for City to easily maintain and service the materials and equipment installed for this Project.

- (A) ***Submittal Requirements.*** All manufacturers' application or installation instructions must be provided to the Inspector at least ten days prior to the first such application. The instructions and manuals, along with any required guarantees, must be delivered to the Design Professional for review.
- (B) ***Instruction of Personnel.*** Contractor or its Subcontractors must instruct City's personnel in the operation and maintenance of any complex equipment as a condition precedent to Final Completion, if required in the Contract Documents.

7.11 As-built Drawings. Contractor and its Subcontractors must maintain on the Worksite a separate complete set of the Drawings which will be used solely for the purpose of recording changes made in any portion of the Work in order to create accurate record drawings at the end of the Project.

- (A) **Duty to Update.** The as-built drawings must be updated as changes occur, on a daily basis if necessary. Progress payments may be delayed, in whole or in part, until the as-built drawings are brought up to date to the satisfaction of the City Engineer. Actual locations to scale must be identified on the as-built drawings for all runs of mechanical and electrical work, including all site utilities, etc., installed underground, in walls, floors, or otherwise concealed. Deviations from the original Drawings must be shown in detail. The location of all main runs, whether piping, conduit, ductwork, drain lines, etc., must be shown by dimension and elevation.
- (B) **Final Completion.** Contractor must verify that all changes in the Work are depicted in the as-built drawings and must deliver the complete set of as-built drawings to the City Engineer and Design Professional for review and approval as a condition precedent to Final Completion.

7.12 Existing Utilities. As required by Government Code Section 4215, if, during the performance of the Work, Contractor discovers utility facilities not identified by City in the Contract Documents, Contractor must immediately provide written notice to City and the utility. City assumes responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Project site, if those utilities are not identified in the Contract Documents. Contractor will be compensated in accordance with the provisions of the Contract Documents for the costs of locating, repairing damage not due to Contractor's failure to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Drawings or Specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such work. Contractor will not be assessed liquidated damages for delay in completion of the Work, to the extent such delay was caused by City's failure to provide for removal or relocation of the utility facilities.

7.13 Notice of Excavation. Government Code Section 4216.2, requires that except in an emergency, Contractor must contact the appropriate regional notification center, or Underground Services Alert at 800-642-2444 (for Northern California), at least two Working Days, but not more than 14 calendar days before starting any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations, and if practical, Contractor must delineate with white paint or other suitable markings the area to be excavated.

7.14 Trenching and Excavations.

- (A) **Duty to Notify.** Contractor must promptly, and before the following conditions are disturbed, provide written notice to City if the Contractor finds any of the following conditions:
 - (1) Material that Contractor believes may be a hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing law;
 - (2) Subsurface or latent physical conditions at the Worksite differing from those indicated by information about the Worksite made available to bidders prior to the deadline for submitting bids; or

- (3) Unknown physical conditions at the Worksite of any unusual nature, materially different from those ordinarily encountered and generally recognized as inherent in work of the character required by the Contract Documents.
- (B) **City Investigation.** City will promptly investigate the conditions and if City finds that the conditions do materially differ or do involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of the Work, City will issue a Change Order.
- (C) **Disputes.** In the event that a dispute arises between the City and the Contractor regarding any of the conditions specified in subsection (A) above, Contractor will not be excused from any scheduled completion date provided for in the Contract Documents, but must proceed with all Work to be performed under the Contract. Contractor will retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes between Contractor and City.

7.15 Trenching of Five Feet or More. As required by Labor Code Section 6705, if the Contract Price exceeds \$25,000 and the Work includes the excavation of any trench or trenches of five feet or more in depth, a detailed plan must be submitted to City or its civil or structural engineer, for acceptance in advance of the excavation. The detailed plan must show the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation. If the plan varies from the shoring system standards, it must be prepared by a registered civil or structural engineer. Use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders is prohibited.

7.16 New Utility Connections. City will pay connection charges and meter costs for new permanent utilities required by the Contract Documents, if any. Contractor must notify City sufficiently in advance of the time needed to request service from each utility provider so that connections and services are initiated in accordance with the Project schedule.

7.17 Lines and Grades. Contractor is required to use any benchmark provided by City Engineer. Unless otherwise specified in the Contract Documents, Contractor must provide all lines and grades required to execute the Work based on the benchmark(s) provided by the City Engineer.

(A) **Benchmarks.** If Contractor needs to have a benchmark staked or marked, it must submit written request to the City Engineer at least three Working Days in advance or sooner if necessary to avoid delay in performing the Work. In order to avoid inefficiencies created by requesting multiple Site visits by the City Engineer for this purpose, the request must be based upon a minimum of four hours of time for the City Engineer to provide the requested staking and marking. If Contractor submits a request for less than the minimum four hours, based on inefficient planning, Contractor will be billed the difference in cost between the four hour minimum and the City Engineer's actual time to stake or mark.

(B) **Clear Area.** Contractor is responsible for having the area(s) to be staked or marked by the City Engineer cleared in advance of any obstructions. If an area to be staked or marked is not adequately cleared by the time the City Engineer arrives,

Contractor will be responsible for City Engineer's standby time, or for any ensuing delay if the City Engineer needs to reschedule the staking or marking to allow Contractor time to clear remaining obstructions.

- (C) **Duty to Protect.** Contractor is responsible for protecting stakes and marks set by the City Engineer against damage or displacement. If the stakes or marks are damaged or displaced, Contractor must request that the City Engineer reset the stakes or marks, providing at least three Working Days' notice. Contractor may be backcharged for the City's cost to reset the stakes or marks if the resetting is required because of Contractor's failure to take appropriate measures to protect the stakes or marks.

7.18 Historic or Archeological Items.

- (A) **Contractor's Obligations.** Contractor must ensure that all persons performing Work at the Project site are required to immediately notify the Inspector or Project Manager, upon discovery of any potential historic or archeological items, including historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints or other archeological, paleontological or historical feature on the Project site (collectively, "Historic or Archeological Items").
- (B) **Discovery; Cessation of Work.** Upon discovery of any potential Historic or Archeological Items, Work must be stopped within an 85-foot radius of the find and may not resume until authorized in writing by the City Engineer. If required by City, Contractor must assist in protecting or recovering the Historic or Archeological Items, any such assistance to be compensated as extra work on a time and materials basis under Article 6, Contract Modification. Any suspension of Work required due to discovery of Historic or Archeological Items will be treated as a suspension for convenience under Article 13.

7.19 Environmental Control.

Contractor must not pollute any drainage course or its tributary inlets with fuels, oils, bitumens, acids, insecticides, herbicides or other harmful materials. Contractor and its Subcontractors shall at all times in the performance of the Work comply with all applicable federal, state, and local laws and regulations concerning pollution of waterways.

- (A) **Stormwater Permit.** Contractor must comply with all applicable conditions of the State Water Resources Control Board national Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activity ("Stormwater Permit").
- (B) **Contractor's Obligations.** If required for the Work, a copy of the Stormwater Permit is on file in City's principal administrative offices, and the Contractor must comply with the same without adjustment of the Contract Price or the Contract Time. The Contractor must timely and completely submit required reports and monitoring information required by the conditions of the Stormwater Permit, the Contractor must comply with all other applicable state, municipal or regional laws, ordinances, rules or regulations governing discharge of stormwater, including applicable municipal stormwater management programs.

7.20 Photographic Documentation. Contractor is responsible for digital photographic and video documentation of the Project, beginning with photographs of the entire Worksite in its pre-construction condition before starting Work on the Project, and continuing to document the progress of the Work on a daily basis, or as otherwise directed by the City Engineer. Contractor must provide photographic and video documentation to the City on disc(s) with its payment requests, showing Work performed during the period covered by the payment request, or upon request by the City Engineer.

Article 8 - Payment

8.1 Schedule of Values. Prior to submitting its first application for payment, Contractor must prepare and submit to the Project Manager a schedule of values apportioned to the various divisions and phases of the Work. Each line item contained in the schedule of values must be assigned a value such that the total of all items equals the Contract Price. The items must be sufficiently detailed to enable accurate evaluation of the percentage of completion claimed in each application for payment, and the assigned value consistent with any itemized or unit pricing submitted with Contractor's bid.

8.2 Progress Payments. Following the last day of each month, or as otherwise required by the *Special Conditions* or *Specifications*, Contractor will submit to the Project Manager for approval, a monthly application for payment for Work performed during the preceding month based on the estimated value of the Work performed during that preceding month.

(A) Application for Payment.

- (1) Each application for payment must be itemized to include labor, materials, and equipment incorporated into the Work, and materials and equipment delivered to the Worksite, as well as authorized and approved Change Orders. Each pay application must be supported by the Contractor's schedule of values and any other substantiating data required by the Contract Documents.
- (2) Each application for payment must be accompanied by an executed Conditional Waiver And Release Upon Progress Payment, using the form specified in Civil Code Section 8132 for each Subcontractor that performed Work during the period covered by that application.

(B) Payment of Undisputed Amounts.

- (1) City will pay the undisputed amount due, as certified by the Design Professional, within thirty (30) days after Contractor has submitted a complete and accurate payment application, subject to Public Contract Code Section 20104.50. City will deduct a percentage from each progress payment as retention, as set forth in Section 8.5, below, and may deduct additional amounts as set forth in Section 8.3, below.
- (2) Within 45 days after receipt of each payment from the City, Contractor must submit an executed Unconditional Waiver And Release Upon Progress Payment, using the form specified in Civil Code Section 8134, from each

Subcontractor that has received a progress payment from Contractor following Contractor's receipt of payment from the City.

8.3 Adjustment of Payment Application. City may adjust or reject a payment application, including application for Final Payment, in whole or in part, based upon any of the circumstances listed below. Contractor will be notified in writing of the basis for the adjustment, and will be promptly paid once the basis for that adjustment has been remedied and no longer exists.

- (A) Contractor's unexcused failure to perform the Work as required by the Contract Documents, including correction or completion of punch list items;
- (B) Loss or damage caused by Contractor or its Subcontractor(s) arising out of or relating to performance of the Work;
- (C) Contractor's failure to pay its Subcontractors and suppliers when payment is due;
- (D) Failure to timely correct rejected, nonconforming, or defective Work;
- (E) Unexcused delay in performance of the Work;
- (F) Any unreleased stop notice, retained as 125% of the amount claimed;
- (G) Failure to submit any required schedule or schedule update in the manner and within the time specified in the Contract Documents;
- (H) Failure to maintain or submit as-built documents in the manner and within the time specified in the Contract Documents;
- (I) Work performed without approved Shop Drawings, when approved Shop Drawings are required before proceeding with the Work;
- (J) Contractor's payroll records are delinquent or inadequate; and
- (K) Any other costs or charges that may be offset against payments due, as provided in the Contract Documents, including liquidated damages.

8.4 Acceptance of Work. Neither City's payment of progress payments nor its partial or full use or occupancy of the Project constitutes acceptance of any part of the Work.

8.5 Retention. City will retain five percent of the amount due on each progress payment, or the percentage stated in the *Notice Inviting Bids*, whichever is greater, as retention to ensure full and satisfactory performance of the Work.

- (A) **Substitution of Securities.** As provided by Public Contract Code Section 22300, Contractor may request in writing that it be allowed, at its sole expense, to substitute securities for the retention withheld by City. Any escrow agreement entered into pursuant to this provision will fully comply with Public Contract Code Section 22300, and will be subject to approval as to form by City's legal counsel.

- (B) **Release of Undisputed Retention.** All undisputed retention, less any amounts that may be assessed as liquidated damages, retained for stop notices, or otherwise withheld under Section 8.3 or 8.6 will be released as Final Payment to Contractor no sooner than 35 days following recordation of the notice of completion, and no later than 60 days following acceptance of the Project by the City Council or authorized designee, or, if the Project has not been accepted, no later than 60 days after the Project is otherwise considered complete under Public Contract Code Section 7107(c).
- 8.6 Setoff.** City is entitled to set off any amounts due from Contractor against any payments due to Contractor. City's entitlement to setoff includes progress payments as well as Final Payment and release of retention.
- 8.7 Payment to Subcontractors and Suppliers.** Each month, Contractor must promptly pay each Subcontractor and supplier the value of the portion of labor, materials, and equipment incorporated into the Work or delivered to the Worksite by the Subcontractor or supplier during the preceding month. Such payments must be made in accordance with the requirements of the law, and those of the Contract Documents and applicable subcontract or supplier contract.
- (A) **Withholding for Stop Notice.** City will withhold 125% of the amount claimed by an unreleased stop notice, a portion of which may be retained by City for the costs incurred in handling the stop notice claim, including attorneys' fees and costs, as authorized by law.
- (B) **Joint Checks.** City reserves the right to issue joint checks made payable to the Contractor and its Subcontractors or suppliers. As a condition to release of payment by a joint check, the joint check payees may be required to execute a joint check agreement in a form provided or approved by City. The joint check payees will be jointly and severally responsible for the allocation and disbursement of funds paid by joint check. Payment by joint check will not be construed to create a contractual relationship between City and a Subcontractor or supplier of any tier beyond the scope of the joint check agreement.
- 8.8 Final Payment.** Contractor's application for Final Payment must comply with the requirements for submitting an application for a progress payment as stated in Section 8.2, above. Corrections to previous progress payments, including adjustments to estimated quantities for unit priced items, may be included in the Final Payment. The date of Final Payment is deemed to be effective on the date that City acts to release retention as final payment to Contractor, or otherwise provides written notice to Contractor of Final Payment. If the amount due from Contractor to City exceeds the amount of Final Payment, City retains the right to recover the balance from Contractor or its sureties.
- 8.9 Release of Claims.** City may, at any time, require that payment of the undisputed portion of any progress payment or Final Payment be contingent upon Contractor furnishing City with a written release of all claims against City arising from or related to the portion of Work covered by those undisputed amounts. Any disputed amounts may be specifically excluded from the release.

- 8.10 Warranty of Title.** Contractor warrants that title to all work, materials, or equipment incorporated into the Work and included in a request for payment will pass over to City free of any claims, liens, or encumbrances upon payment to Contractor.

Article 9 - Labor Provisions

- 9.1 Discrimination Prohibited.** Discrimination against any prospective or present employee engaged in the Work on grounds of race, color, ancestry, national origin, ethnicity, religion, sex, sexual orientation, age, disability, or marital status is strictly prohibited. Contractor and its Subcontractors are required to comply with all applicable Federal and California laws including the California Fair Employment and Housing Act (Government Code Sections 12900 et seq.), Government Code Section 11135, and Labor Code Sections 1735, 1777.5, 1777.6, and 3077.5.

9.2 Labor Code Requirements.

- (A) **Eight Hour Day.** Under Labor Code Section 1810, eight hours of labor constitute a legal day's work under this Contract.
- (B) **Penalty.** Under Labor Code Section 1813, Contractor will forfeit to City as a penalty, the sum of \$25.00 for each day during which a worker employed by Contractor or any Subcontractor is required or permitted to work more than eight hours in any one calendar day or more than 40 hours per calendar week, except if such workers are paid overtime under Labor Code Section 1815.
- (C) **Apprentices.** Contractor is responsible for compliance with the requirements governing employment and payment of apprentices, as set forth in Labor Code Section 1777.5, which is fully incorporated by reference.
- (D) **Notices.** Under Labor Code Section 1771.4, Contractor is required to post all job site notices prescribed by law or regulation.

- 9.3 Prevailing Wages.** Each worker performing Work under this Contract that is covered under Labor Code Section 1720 or 1720.9, including cleanup at the Project site, must be paid at a rate not less than the prevailing wage as defined in Sections 1771 and 1774 of the Labor Code. The prevailing wage rates are available online at <http://www.dir.ca.gov/dlsr>. Contractor must post a copy of the applicable prevailing rates at the Worksite.

- (A) **Penalties.** Under Labor Code Section 1775, Contractor and any Subcontractor will forfeit to City as a penalty up to \$200.00 for each calendar day, or portion a day, for each worker paid less than the applicable prevailing wage rate. Contractor must also pay each worker the difference between the applicable prevailing wage rate and the amount actually paid to that worker.
- (B) **Federal Requirements.** If this Project is subject to Federal prevailing wage requirements in addition to California prevailing wage requirements, Contractor and its Subcontractors are required to pay the higher of the current applicable prevailing wage rates under federal law.

9.4 Payroll Records. Contractor must comply with the provisions of Labor Code Sections 1776 and 1812 and all implementing regulations, which are fully incorporated by this reference, including requirements for electronic submission of payroll records.

(A) **Contractor and Subcontractor Obligations.** Contractor and each Subcontractor must 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 in connection with the Work. Each payroll record must 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 Contractor or Subcontractor has complied with the requirements of Labor Code Sections 1771, 1811, and 1815 for any Work performed by its employees on the Project.

(B) **Certified Record.** A certified copy of an employee's payroll record must be made available for inspection or furnished to the employee or his or her authorized representative on request, to City, or to the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations, and as further provided by the Labor Code.

(C) **Enforcement.** Upon notice of noncompliance with Labor Code Section 1776, Contractor or Subcontractor has ten days in which to comply with requirements of this section. If Contractor or Subcontractor fails to do so within the ten day period, Contractor or Subcontractor will forfeit a penalty of \$100.00 per day, or portion a day, for each worker for whom compliance is required, until strict compliance is achieved. Upon request by the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement, these penalties will be withheld from progress payments then due.

9.5 Labor Compliance. Under Labor Code section 1771.4, the Contract for this Project, if awarded on or after January 15, 2015, is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

Article 10 - Safety Provisions

10.1 Safety Precautions and Programs. Contractor and its Subcontractors are fully responsible for safety precautions and programs, and for the safety of persons and property in the performance of the Work. Contractor and its Subcontractors must comply with all applicable safety laws, rules and regulations and seek to avoid injury, loss, or damage to persons or property by taking reasonable steps to protect its employees and other persons at the Worksite, materials and equipment stored on or off site, and property at or adjacent to the Worksite.

(A) **Reporting Requirements.** Contractor must immediately provide a written report to City of all recordable accidents and injuries occurring at the Worksite. If Contractor is required to file an accident report with a government agency, Contractor will provide a copy of the report to City.

- (B) **Legal Compliance.** Contractor's safety program must comply with the applicable legal and regulatory requirements. Contractor must provide City with copies of all notices required by law or regulation.
- (C) **Contractor's Obligations.** Any damage or loss caused by Contractor arising from the Work which is not insured under property insurance must be promptly remedied by Contractor.
- (D) **Remedies.** If City determines, in its sole discretion, that any part of the Work or Worksite is unsafe, City may, without assuming responsibility for Contractor's safety program, require Contractor or its Subcontractor to cease performance of the Work or to take corrective measures to the City's satisfaction. If Contractor fails to promptly take the required corrective measures, City may perform them and deduct the cost from the Contract Price. Contractor agrees it is not entitled to submit a Claim for damages, for an increase in Contract Price, or for a change in Contract Time based on Contractor's compliance with the City's request for corrective measures pursuant to this provision.

10.2 Hazardous Materials. Unless otherwise specified, this Contract does not include the removal, handling, or disturbance of any asbestos or other Hazardous Materials. If Contractor encounters materials on the Worksite that Contractor reasonably believes to be asbestos or other Hazardous Materials, and the asbestos or other Hazardous Materials have not been rendered harmless, Contractor may continue Work in unaffected areas reasonably believed to be safe, but must immediately cease work on the area affected and report the condition to the City. No asbestos, asbestos-containing products or other Hazardous Materials may be used in performance of the Work.

10.3 Material Safety. Contractor must maintain Material Safety Data Sheets ("MSDS") at the Worksite, as required by law, for materials or substances used or consumed in the performance of the Work. The MSDS will be accessible and available to Contractor's employees, Subcontractors, and City.

- (A) **Contractor Obligations.** Contractor is solely responsible for the proper delivery, handling, use, storage, removal, and disposal of all materials brought to the Worksite and/or used in the performance of the Work.
- (B) **Labeling.** Contractor must ensure proper labeling on any material brought onto the Worksite so that any persons working with or in the vicinity of the material may be informed as to the identity of the material, any potential hazards, and requirements for proper handling, protections, and disposal.

Article 11 - Completion and Warranty Provisions

11.1 Final Completion.

- (A) **Final Inspection.** When the Work required by this Contract is fully performed, Contractor must provide written notification to the Project Manager requesting final inspection. Based on this inspection, the Design Professional will prepare a punch list of items that are incomplete, incorrectly installed, or not operating as required

by the Contract Documents. The omission of any such item from this punch list will not relieve the Contractor from fulfilling all requirements of the Contract Documents.

- (B) **Punch List.** City will deliver the punch list to Contractor and will specify the time by which all of the punch list items must be completed or corrected. The punch list may include City's estimated cost to complete each punch list item if Contractor fails to do so within the specified time.
- (C) **Requirements for Final Completion.** Final Completion will be achieved upon completion or correction of all punch list items, as verified by inspection, and upon satisfaction of all other Contract requirements, including any commissioning required under the Contract Documents, and submission of all final submittals, including a warranty bond as required under Section 4.4, instructions and manuals as required under Section 7.10, and as-built drawings as required under Section 7.11, all to City's satisfaction. Once Final Completion is achieved, and the Project has been formally accepted by City, City will file a notice of completion with the County Recorder.
- (D) **Final Payment.** Final Payment and release of retention, less any sums withheld pursuant to the provisions of the Contract Documents, will not be made sooner than 35 days after recordation of the notice of completion. If Contractor fails to complete all of the punch list items within the specified time, City may elect to accept the Project and record the notice of completion, and withhold up to 150% of City's estimated cost to complete the remaining items from Final Payment.

11.2 Warranty.

- (A) **General.** Contractor warrants that all materials and equipment will be new unless otherwise specified, of good quality, in conformance with the Contract Documents, and free from defective workmanship and materials. Contractor further warrants that the Work will be free from material defects not intrinsic in the design or materials required in the Contract Documents. At City's request, Contractor must furnish satisfactory evidence of the quality and type of materials and equipment furnished. Contractor's warranty does not extend to damage caused by normal wear and tear, or improper use or maintenance.
- (B) **Warranty Period.** Contractor's warranty must guarantee its Work for a period of one year from the date of recordation of the notice of completion (the "Warranty Period"), except when a longer guarantee is provided by a supplier or manufacturer or is required by the *Specifications* or *Special Conditions*. Contractor must obtain from its Subcontractors, suppliers and manufacturers any special or extended warranties required by the Contract Documents.
- (C) **Warranty Documents.** As a condition precedent to acceptance, Contractor must supply City with all warranty and guarantee documents relevant to equipment and materials incorporated into the Work and guaranteed by their suppliers or manufacturers.

- (D) **Subcontractors.** The warranty obligations in the Contract Documents apply to Work performed by Contractor and its Subcontractors, and Contractor expressly agrees to act as co-guarantor of such Work.
- (E) **Contractor's Obligations.** Upon written notice from City to Contractor of any defect in the Work discovered during the Warranty Period, Contractor or its responsible Subcontractor must promptly correct the defective Work at its own cost. Contractor's obligation to correct defects discovered during the Warranty Period will continue past the expiration of the Warranty Period as to any defects in Work for which Contractor was notified prior to expiration of the Warranty Period.
- (F) **City's Remedies.** If Contractor and/or its responsible Subcontractor fails to correct defective Work within ten days following notice by City, or sooner, if required by the circumstances, Contractor expressly agrees that City may correct the defects to conform with Contract Documents at Contractor's sole expense, and Contractor agrees to reimburse City for its direct costs, plus an additional 25% as compensation for the City's administrative costs, within 30 days following City's submission of a demand for payment pursuant to this provision. If City is required to initiate legal action to compel Contractor's compliance with this provision, and City is the prevailing party in such action, Contractor is solely responsible for all of City's attorney's fees and legal costs expended to enforce Contractor's warranty obligations herein in addition to any and all costs incurred by City to correct the defective Work.

11.3 Use Prior to Final Completion. City reserves the right to occupy or make use of the Project, or any portions of the Project, prior to Final Completion if City has determined that the Project or portion of it is in a condition suitable for the proposed occupation or use, and that it is in its best interest to occupy or make use of the Project, or any portions of it, prior to Final Completion. City will notify Contractor in writing of its intent to occupy or make use of the Project or any portions of the Project, pursuant to this provision.

- (A) **Non-Waiver.** Occupation or use prior to Final Completion will not operate as acceptance of the Work or any portion of it, nor will it operate as a waiver of any of City's rights or Contractor's duties pursuant to these Contract Documents, and will not affect nor bear on the determination of the time of substantial completion with respect to any statute of repose pertaining to the time for filing an action for construction defect.
- (B) **City's Responsibility.** City will be responsible for the cost of maintenance and repairs due to normal wear and tear with respect to those portions of the Project that are being occupied or used before final completion. The Contract Price or the Contract Time may be adjusted pursuant to the applicable provisions of these Contract Documents if, and only to the extent that, any occupation or use under this Section actually adds to Contractor's cost or time to perform the Work.

11.4 Substantial Completion. For purposes of determining "substantial completion" with respect to any statute of repose pertaining to the time for filing an action for construction defect, "substantial completion" is deemed to mean the last date that Contractor or any Subcontractor performs Work on the Project prior to recordation of the Notice of Completion, except for warranty work performed under this Article.

Article 12 - Dispute Resolution

12.1 Claims. This Article applies to and provides the exclusive procedures for any Claim arising from or related to the Contract or performance of the Work.

- (A) **Definition.** "Claim" means a separate demand by Contractor, submitted in writing, for change in the Contract Time or Contract Price that has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been rejected by City, in whole or in part.
- (B) **Limitations.** A Claim may only include the portion of a previously rejected demand that remains in dispute between Contractor and City. With the exception of any dispute regarding the amount of money actually paid to Contractor as Final Payment, Contractor is not entitled to submit a Claim demanding a change in the Contract Time or the Contract Price, which has not previously been submitted to City in full compliance with Article 5 and Article 6, and subsequently rejected in whole or in part by City.
- (C) **Scope of Article.** This Article is intended to provide the exclusive procedures for submission and resolution of Claims of any amount, and applies in addition to the provisions of Public Contract Code Sections 20104, et seq.

12.2 Claims Submission. The following requirements apply to any Claim subject to this Article:

- (A) **Substantiation.** The Claim must be submitted to City in writing and must include all of the documents necessary to substantiate the Claim including the change order request that was rejected in whole or in part, and City's rejection. Any Claim for additional payment must include a complete, itemized breakdown of all labor, materials, taxes, insurance, and subcontract, or other costs. Substantiating documentation such as payroll records, receipts, invoices, or the like, must be submitted in support of each claimed cost. Any Claim for an extension of time or delay costs must be substantiated with schedule analysis and narrative depicting and explaining claimed time impacts.

- (B) **Certification.** Each Claim must include the following certification, and must be executed by Contractor's authorized representative:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Claim are true and correct. Contractor warrants that this Claim is comprehensive and complete as to the matters in dispute, and agrees that any costs, expenses, or delay claim not included herein is deemed waived. Contractor understands that submission of a Claim which has no basis in fact or which Contractor knows to be false may violate the False Claims Act (Government Code Sections 12650 et seq.)."

- (C) **Submission Deadlines.**

- (1) A Claim must be submitted within 15 days following the date that City notified Contractor in writing that a request for a change in the Contract

Time or Contract Price, duly submitted in compliance with Article 5 and Article 6, has been rejected in whole or in part.

- (2) With the exception of any dispute regarding the amount of Final Payment, any Claim must be filed on or before the date of Final Payment, or will be deemed waived.
- (3) A Claim disputing the amount of Final Payment must be submitted within 15 days of the effective date of Final Payment, under Section 8.8, above.
- (4) Strict compliance with these Claim submission deadlines is necessary to ensure that any dispute may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project. Any Claim that is not submitted within the specified deadlines will be deemed waived by Contractor.

12.3 Claims Under \$50,000. For any Claim of less than \$50,000.00, City will respond in writing within 45 days of receipt of the Claim, or may first request, in writing, within 30 days of receipt of the Claim, any additional documentation supporting the Claim or relating to defenses to the Claim that City may have against Contractor. If Contractor fails to submit the additional documentation to City within 15 days of receipt of City's request, the claim will be deemed waived.

- (A) **Additional Information.** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor.
- (B) **City's Response.** City's written response to the Claim, as further documented, will be submitted to Contractor within 15 days after receipt of the further documentation or within a period of time no greater than that taken by Contractor in producing the additional information, whichever is greater.
- (C) **Non-Waiver.** Any failure by City to respond within the times specified above may not be construed as acceptance of the Claim in whole or in part, or as a waiver of any provision of these Contract Documents.

12.4 Claims From \$50,000 to \$375,000. For any Claim of over \$50,000.00, and less than or equal to \$375,000.00, City will respond in writing within 60 days of receipt of the Claim, or may request, in writing, within 30 days of receipt of the Claim, any additional documentation supporting the Claim or relating to the defenses to the Claim that City may have against Contractor. If Contractor fails to submit the additional documentation to City within 30 days of receipt of City's request, the claim will be deemed waived.

- (A) **Additional Information.** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor.
- (B) **City's Response.** City's written response to the Claim, as further documented, will be submitted to Contractor within 30 days of receipt of the further documentation, or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

- (C) **Non-Waiver.** Any failure by City to respond within the times specified above may not be construed as acceptance of the Claim in whole or in part, or as a waiver of any provision of these Contract Documents.

12.5 Claims Over \$375,000. For any Claim of over \$375,000.00, City will respond in writing within 90 days of receipt of the Claim. City may request, in writing, within 45 days of receipt of the Claim, any additional documentation supporting the Claim relating to defenses to the Claim that City may have against the Contractor. If Contractor fails to submit the additional documentation to City within 45 days of receipt of City's request, the claim will be deemed waived.

- (A) **Additional Information.** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor.
- (B) **City's Response.** City's response to the Claim, as further documented, will be submitted to Contractor within 45 days after receipt of the further documentation, or within a period of time no greater than that taken by Contractor in producing the additional information or requested documentation, whichever is greater.
- (C) **Non-Waiver.** Any failure by City to respond within the times specified above may not be construed as acceptance of the Claim in whole or in part, or as a waiver of any provision of these Contract Documents.

12.6 Meet and Confer.

(A) **Claims up to \$375,000.** For Claims less than or equal to \$375,000.00, if Contractor disputes the City's written response, or City fails to respond within the specified time, Contractor must notify City in writing, either within 15 days of receipt of City's response, or within 15 days of City's failure to respond within the specified time, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. If Contractor fails to dispute City's response, in writing, within the specified times, Contractor's Claim will be deemed waived.

- (1) Upon receipt of the demand to meet and confer, City will schedule the meet and confer conference to be held within 30 days, or later if needed to ensure the mutual availability of all of the individuals that each party requires to represent its interests at the meet and confer conference.
- (2) The meet and confer conference will be scheduled at a location at or near City's principal office.
- (3) If the Claim or any portion remains in dispute following the meet and confer conference, the parties may agree to mediation, as set forth in Section 12.7, below, or if unable to agree, Contractor may file a claim as provided in Government Code Section 900 et seq. (a "Government Code Claim").

(B) **Claims over \$375,000.** For any Claim greater than \$375,000.00, if Contractor disputes the City's written response, or City fails to respond within the specified time, Contractor must notify City in writing, either within 30 days of receipt of City's response, or within 30 days of City's failure to respond within the specified time, respectively, and demand an informal conference to meet and confer for settlement

of the issues in dispute. If Contractor fails to dispute City's response, in writing, within the specified times, Contractor's Claim will be deemed waived.

- (1) Upon receipt of the demand to meet and confer, City will schedule the meet and confer conference to be held within 60 days, or later if needed to ensure the mutual availability of all of the individuals that each party requires to represent its interests at the meet and confer conference.
- (2) The meet and confer conference will be scheduled at a location at or near City's principal office.
- (3) For any Claim or any portion(s) of a Claim that remains in dispute following the meet and confer conference, the parties agree to make a good faith effort to resolve the dispute through mediation as a condition precedent to filing a Government Code Claim and initiating litigation.

12.7 Mediation and Government Code Claims.

(A) **Mediation.** Mediation under this Article will be scheduled within 60 days following conclusion of the meet and confer process, with a mediator that the parties mutually agreed upon. The mediation itself may take place more than 60 days following conclusion of the meet and confer process to ensure the mutual availability of the selected mediator and all of the individuals that each party requires to represent its interests. The parties must share the costs of mediation equally, except costs incurred by each party for representation by legal counsel or any other consultant.

(B) **Government Code Claims.**

- (1) Timely presentment of a Government Code Claim is a condition precedent to filing any legal action based on or arising from the Contract.
- (2) The time for filing a Government Code Claim will be tolled from the time the Contractor submits its written Claim pursuant to Section 12.2, above, until the time that Claim is denied as a result of the meet and confer process, including any period of time used by the meet and confer process. If the parties agree to mediation pursuant to Section 12.7, below, the time for filing a Government Code Claim will be tolled until conclusion of the mediation by impasse.

12.8 Tort Claims. This Article does not apply to tort claims and nothing in this Article is intended nor shall be construed to change the time periods for filing tort-based Government Code Claims.

12.9 Arbitration. It is expressly agreed, under California Code of Civil Procedure Section 1296, that in any arbitration to resolve a dispute relating to this Contract, the arbitrator's award must be supported by law and substantial evidence.

12.10 Damages. Contractor bears the burden of proving entitlement to and the amount of any claimed damages. Contractor is not entitled to damages calculated on a total cost basis, but must prove actual damages. Contractor is not entitled to recovery of any alleged

home office overhead. The Eichleay Formula may not be used for any recovery under the Contract. Contractor is not entitled to consequential damages, including home office overhead or any form of overhead not directly incurred at the Worksite; lost profits; loss of productivity; lost opportunity to work on other projects; diminished bonding capacity; increased cost of financing for the Project; extended capital costs; non-availability of labor, material or equipment due to delays; or any other indirect loss arising from the Contract.

- 12.11 Multiple Claims.** In the interest of efficiency, City, acting in its sole discretion, may elect to process multiple Claims concurrently, in which case the applicable procedures above will be based on the total amount of such Claims rather than the amount of each individual Claim. Any such election will not operate to change or waive any other requirements of this Article.
- 12.12 Other Disputes.** The procedures in this Article 12 will apply to any and all disputes or legal actions, in addition to Claims, arising from or related to this Contract, unless and only to the extent that compliance with a procedural requirement is expressly and specifically waived by City. Nothing in this Article is intended to delay suspension or termination under Article 13.

Article 13 - Suspension and Termination

- 13.1 Suspension for Cause.** In addition to all other remedies available to City, if Contractor fails to perform or correct work in accordance with the Contract Documents, City may immediately order the Work, or any portion of it, suspended until the cause for the suspension has been eliminated to City's satisfaction.
- (A) **Failure to Comply.** Contractor will not be entitled to an increase in Contract Time or Contract Price for a suspension occasioned by Contractor's failure to comply with the Contract Documents.
- (B) **No Duty to Suspend.** City's right to suspend the Work will not give rise to a duty to suspend the Work, and City's failure to suspend the Work will not constitute a defense to Contractor's failure to comply with the requirements of the Contract Documents.
- 13.2 Suspension for Convenience.** City reserves the right to suspend, delay, or interrupt the performance of the Work in whole or in part, for a period of time determined to be appropriate for City's convenience, and not due to any act or omission by Contractor or its Subcontractors. Upon notice by City pursuant to this provision, Contractor must immediately suspend, delay, or interrupt the Work as directed by City. The Contract Price and the Contract Time will be equitably adjusted by Change Order to reflect the cost and delay impact occasioned by such suspension for convenience.
- 13.3 Termination for Default.** Contractor may be deemed in default for a material breach of or inability to perform the Contract, including Contractor's refusal or failure to supply sufficient skilled workers, proper materials, or equipment to perform the Work within the Contract Time; refusal or failure to make prompt payment to its employees, Subcontractors, or suppliers or to correct rejected work; disregard of laws, regulations, ordinances, rules, or orders of any public agency with jurisdiction over the Project; or if

Contractor lacks financial capacity to complete the Work within the Contract Time; or is otherwise responsible for a material breach of the Contract requirements.

- (A) **Notice.** Upon City's determination that Contractor is in default, City may provide Contractor and its surety written notice of default and intent to terminate the Contract.
- (B) **Termination.** Within seven calendar days after notice of intent to terminate for default has been given, unless the default is cured or arrangements to cure the default have been made and memorialized in writing, to City's satisfaction, City may terminate the Contract by written notice to Contractor with a copy to Contractor's surety.
- (C) **Waiver.** Time being of the essence in the performance of the Work, if Contractor's surety fails to arrange for completion of the Work in accordance with the *Performance Bond*, within seven calendar days from the date of the notice of termination, Contractor's surety will be deemed to have waived its right to complete the Work under the Contract, and City may immediately make arrangements for the completion of the Work through use of its own forces, by hiring a replacement contractor, or by any other means that City determines advisable under the circumstances. Contractor and its surety will be jointly and severally liable for any additional cost incurred by City to complete the Work following termination. In addition, City will have the right to use any materials, supplies, and equipment belonging to Contractor and located at the Worksite for the purposes of completing the remaining Work.
- (D) **Wrongful Termination.** If a court of competent jurisdiction or an arbitrator later determines that the termination for default was wrongful, the termination will be deemed to be a termination for convenience, and Contractor's damages will be strictly limited to the compensation provided for termination for convenience, in Section 13.4, below. Contractor waives any claim for any other damages for wrongful termination including consequential damages, lost opportunity costs or lost profits.

13.4 Termination for Convenience. City reserves the right to terminate all or part of the Contract for convenience upon written notice to Contractor. Upon receipt of such notice, Contractor must immediately stop the Work, comply with City's instructions to protect the completed Work and materials, and use its best efforts to minimize further costs. In the event of termination for convenience, the parties agree that the following will constitute full and fair compensation to Contractor, and that Contractor will not be entitled to any additional compensation:

- (A) **Completed Work.** The value of its Work satisfactorily performed to date, including Project overhead and profit based on Contractor's schedule of values;
- (B) **Demobilization.** Actual and substantiated demobilization costs; and
- (C) **Markup.** Five percent of the total value of the Work performed as of the date of notice of termination or five percent of the value of the Work yet to be completed, whichever is less.

- 13.5 Provisions Remaining in Effect.** Upon termination pursuant to this Article, the provisions of the Contract Documents remain in effect as to any claim, indemnity obligation, warranties, guarantees, submittals of as-built drawings, instructions, or manuals, or other such rights and obligations arising prior to the termination date.

Article 14 - Miscellaneous Provisions

- 14.1 Assignment of Unfair Business Practice Claims.** Under Public Contract Code Section 7103.5, Contractor and its Subcontractors agree to assign to 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, services, or materials pursuant to the Contract or subcontract. This assignment will be effective at the time City tenders Final Payment to Contractor, without further acknowledgement by the parties.
- 14.2 Provisions Deemed Inserted.** Every provision of law required to be inserted in the Contract Documents is deemed to be inserted, and the Contract Documents will be construed and enforced as though such provision has been included. If it is discovered that through mistake or otherwise that any required provision was not inserted, or not correctly inserted, the Contract Documents will be amended accordingly.
- 14.3 Waiver.** No waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of the Contract Documents will be effective unless it is in writing and signed by the party waiving the breach, failure, right, or remedy. No waiver of any breach, failure, right, or remedy will be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor will any waiver constitute a continuing waiver unless specified in writing by the waiving party.
- 14.4 Titles, Headings, and Groupings.** The titles and headings used and the groupings of provisions in the Contract Documents are for convenience only and may not be used in the construction or interpretation of the Contract Documents or relied upon for any other purpose.
- 14.5 Statutory and Regulatory References.** With respect to any amendments to any statutes or regulations referenced in these Contract Documents, the reference is deemed to be the version in effect on the date that that bids were due.

SPECIAL CONDITIONS

1. **Insurance Requirements.** The insurance requirements of Section 4.3 are modified for this Contract only as set forth below. Except as expressly stated below, all other provisions in Section 4.3 are unchanged and remain in full force and effect.
 - 1.1 **Commercial General Liability (“CGL”) Insurance.** The CGL limits set forth in subsection 4.3(A)(1) of the *General Conditions* are modified for this Contract to require at least \$2,000,000 per occurrence, and at least \$5,000,000 aggregate.

FEDERAL REQUIREMENTS – (Not Applicable)

TECHNICAL SPECIFICATIONS

SECTION TS-1 GENERAL

A. SCOPE OF WORK

The work to be done consists of construction of Citywide Wastewater Rehabilitation Project improvements including, but not limited to, replacing sewer main lines on Sycamore Avenue and Griffith Lane, installing new sewer laterals with cleanouts, installing manholes and repairing sewer main line segments at various locations citywide, and all other work necessary to construct the project complete and in satisfactory condition, all as shown in the Contract Documents and/or as specified herein.

B. SUBMITTALS

After the notice to proceed is issued, but prior to the start of construction, the Contractor shall submit to the City, for approval, all required permits and verification of the location and depth of all existing utilities and underground facilities within the project limits. The Contractor shall notify the Engineer of any discrepancies between the conditions in the field and the project plans. In addition, the Contractor shall submit to the City for approval, prior to the start of construction, the following:

1. Traffic Control Plan – Section TS-6
2. Storm Water Pollution Control Plan TS-7
3. Construction Schedule – GC Section 5.2
4. Designation of Traffic Control Supervisor – Section TS-6
5. Trenching Plan – Section TS-14
6. Dewatering Plan – Section TS-14
7. Haul Route Proposal – Section TS-1
8. Emergency Phone Number List
9. Sheeting and Shoring – Section TS-15

The Contractor shall submit to the City for approval, prior to beginning any work associated with these submittals, the following:

1. Class 2 Aggregate Base– Section TS-10
2. Asphalt Concrete Mix Design – Section TS-11
3. Concrete Mix Design – TS-9 and TS-12

Additionally, the Contractor shall submit to the City for approval, prior to the start of construction, the Manufacturer's Cut Sheets and Specifications for the following:

1. Sanitary Sewer Manholes – Section TS-13
2. Sanitary Sewer Pipe and Laterals – Section TS-13
3. Sanitary Sewer Pipeline Abandonment Plan – Section TS-8

All submittals requiring review, including working drawings required by these Specifications, shall be made to the Construction Manager at 150 City Park Way, Brentwood, CA 94513, Telephone (925) 516-5420, Fax (925) 516-5421.

The City Engineer will have a minimum of ten (10) working days to review each submittal except were specified differently in these contract documents. It is the responsibility of the Contractor to organize submittals in order of importance and need. The Contractor shall submit electronic copies of all submittals, however the City may request hard copies as needed.

C. ORDER OF WORK

1. The Contractor must control operations such that the following conditions can be met:
 - a. All work shall be coordinated with the Traffic Control Plan, Project Schedule, Submittals and other requirements of the Contract Documents.
 - b. Any modification to the traffic control shall be approved in writing in advance by the City Engineer.
 - c. Reconstructed handicap ramps, sidewalks, and/or curbs shall be poured within two (2) working days of demolishing the existing handicap ramp and/or curbs.
 - d. Asphalt concrete pavement removed in connection with handicap ramp and/or curb construction shall be completely replaced within five (5) working days of pouring new concrete handicap ramps and/or curbs.
 - e. Asphalt concrete pavement removed in connection with raising utilities to grade and/or new manhole installation shall be completely replaced within five (5) working days of raising utilities to grade or installing new manholes.

D. ADJACENT PROPERTY OWNERS

The Contractor shall give written notice seven (7) calendar days in advance of construction to notify all property owners and their tenants indicating the date(s) of construction within or adjacent to their property. Property owners shall also be notified of fences, mailboxes, etc., that will be temporarily removed for construction or relocated. The Contractor shall submit to the City Engineer a sample letter of notification for approval two (2) working days prior to distribution to property owners. The Contractor may obtain a list of property owners and their addresses from the City of Brentwood.

The Contractor shall provide for continuous vehicular and pedestrian ingress and egress to private properties and residential/commercial driveways adjacent to work through the period of construction. The Contractor's attention is directed to Section TS-3, "Obstructions and Other Utility's Work", of these Contract Documents pertaining to preservation of property and Contractor's responsibility for damage.

E. CONSTRUCTION FENCING

Temporary fencing shall be provided in areas where existing fences are removed temporarily for construction and around all excavations deeper than five (5) feet. However, at the end of each work day, trenches that remain open overnight shall be covered with trench plates.

F. SOUND CONTROL REQUIREMENTS

Sound control shall conform to the provisions in City Municipal Code, Section 9.32.030 "Designated Noise Zones".

The noise level from the Contractor's operations, between the hours of 7:00 a.m. to 10:00 p.m. (if this time period is approved by the City Engineer), shall not exceed 60 dBa exterior noise level. From 10:00 p.m. to 7:00 a.m. (if this time period is approved by the City Engineer), shall not exceed 45 dBa exterior noise level.

The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

G. LIMITS OF WORK

The street right of way shall be used only for purposes that are necessary to perform the required work. The Contractor shall not occupy the right of way, or allow others to occupy the right of way, for purposes which are not necessary to perform the required work.

Areas available for the use of the Contractor are designated on the plans by easement or right of way lines. Use of the Contractor's work areas and other City-owned property shall be at the Contractor's own risk, and the City shall not be held liable for any damage to or loss of materials or equipment located within such areas.

The Contractor shall remove all equipment, materials, and rubbish from the work areas and other City-owned property which he occupies and shall leave the areas in a presentable condition, in accordance with the provisions in Section 4-1.13, "Cleanup," of the Caltrans Standard Specifications.

The Contractor shall secure at his own expense any area required for plant sites, storage of equipment or materials, or for other purposes if sufficient area is not available to him within the contract limits, or at the sites designated on the plans outside the contract limits.

In the areas of City right of way not designated for the exclusive use by the Contractor, the Contractor shall coordinate with adjacent project and property owners to ensure that storage of materials will not restrict access for those projects or properties. If stored materials must be relocated to provide access, the Contractor shall relocate the stored material at his own expense and no claim for costs to relocate the stored materials will be allowed.

The Contractor shall limit his operations to the areas within the existing City right-of-way or in areas the City has acquired a temporary construction easement. Where the specific limits of work are not designated on the plans or specified in these Specifications, the Contractor shall limit his operation to the existing road rights of way.

All existing structures, residences, operating utilities, power poles, and other devices within the work area shall be maintained at all times during construction.

H. PERMITS

The Contractor shall ensure that all necessary permits and licenses have been granted prior to commencing work. The Contractor shall not proceed to work in areas requiring permits or licenses until such are obtained. Contractor shall provide for all inspections and permits required by Federal, State, and local authorities and utility agencies in purchasing, transporting and installing materials.

The Contractor shall not hold the City liable for any delays in obtaining any and all permits, licenses or permissions to construct as long as the Contractor has items of work that could be accomplished besides those items that require permits. Additional working days may be allowed due to permit delays at the discretion of the City Engineer. Payment for any work and/or coordination related to obtaining permits and for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed. However, the City of Brentwood shall pay all permit fees.

The Contractor shall notify the City Engineer in writing of pending permit delays five (5) working days before the delay will affect progress of work. If the City Engineer approves the request for permit delays, additional working day calculations will only be allowed to start five (5) days after Contractor notifies the City Engineer in writing of pending permit delays.

I. HAUL ROUTE APPROVAL

The Contractor shall familiarize himself/herself with the condition of the local streets and roads that may be used for hauling material and equipment to and from the job site. Some existing roads may have inadequate pavement sections to support fully loaded trucks or other heavy equipment.

The proposed haul route shall be submitted prior to the start of construction for review and approval by the City Traffic Engineer.

J. WATERING

Watering shall conform to the Provisions in Section 10-6, "Watering," of the Caltrans Standard Specifications and these Specifications.

Water for construction purposes (with the exception of water to be used for the waterline testing, as specified in the Standard Specifications), shall be non-potable water and shall be the responsibility of the Contractor. The Contractor shall make arrangements for obtaining and purchasing water for construction of the project. The City cannot guarantee the availability of construction water for this project. The Contractor will be required to obtain water through his/her own means if water is not available through the City, at his/her own expense at no additional cost to the City.

K. DUST CONTROL

Dust control shall conform to the provisions in Section 10-5 and 14-11.04, "Dust Control," of the Caltrans Standard Specifications and these Specifications.

Attention is directed to "Dust Palliative" of these Specifications regarding the use of a dust palliative to control dust.

The Contractor will be responsible for preventing airborne dust nuisance from the construction site by watering and/or treating the site in such a manner to confine dust particles to the immediate surface of work.

L. DUST PALLIATIVE

Furnishing and applying dust palliative shall conform to the provisions in Section 18, "Dust Palliatives," of the Caltrans Standard Specifications.

M. ELECTRIC POWER

The Contractor shall furnish electric power required to perform the work.

The Contractor shall be responsible to coordinate with PG&E to energize all electrical systems for the project. The Contractor shall be responsible for payment of electricity costs until all electrical facilities are accepted by the City. The Contractor is responsible for maintenance of the electrical systems until acceptance of the entire project by the City.

N. MEASUREMENT AND PAYMENT

Full compensation for work, other features, and conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed.

SECTION TS-2 LINES AND GRADES

Lines and Grades shall conform to the provisions, Section 7.17 "Lines and Grades" of the General Conditions, and these Specifications.

Contractor shall request in writing to the City Engineer the particular scheduling of staking operations desired at least three (3) working days in advance of the time stakes are to be set. In no event, shall a notice of less than three (3) working days be considered a reasonable length of time. The request shall be on a Caltrans staking request form to be provided. The Contractor shall coordinate his work to provide a minimum of four (4) hours work for the field crew.

The Contractor shall ensure that the area to receive stakes shall be free of all obstructions, equipment, stockpiles, etc. If the area to receive stakes is not ready for staking when the City Engineer arrives on the site, the original (3) working day advance time will become void and the City Engineer will have (3) working days from the time the area is then ready for stakes to place the stakes and prepare cut sheets.

One complete set of stakes for each of the following items will be set by the City Engineer after notification has been given to the City Engineer by the Contractor as specified in this Section and Section 7.17 of the General Conditions.

A. LIMITS OF WORK

One set of stakes for line only, every 100' along the right-of-way or easement boundary and at angle points. No additional stakes will be set for limits of grading or limits of clearing and grubbing.

B. CURB AND PAVEMENT

One set of curb stakes or pavement stakes to be used for final alignment and grade control. The items included in this description are curb and gutter, edge of pavement, and paths.

Stakes are to be set every 50 feet o.c. on tangents, 33 feet o.c. on curves, BC, EC, angle points, and grade breaks. Stakes are to be set at radius points for curves with radii less than 50 feet. Stakes will show cut/fill to the 0.01 foot.

No additional stakes or marks for alignment or grade control will be set by the Engineer. The Contractor shall provide separate grade controls for the subbase, base and surfacing as are necessary to secure conformance with the plans and final stakes.

C. SANITARY SEWER

Stakes for line and grade every 50' on tangents, 33 feet o.c. on curves, at angle points and grade breaks. Two stakes for grade and location at structures. Additional stake also to be provided for each lateral and/or stub required.

D. EXCLUSIONS TO STAKING

No staking will be provided for striping, pavement markings, or limit of saw cutting.

The City Engineer shall be the sole judge of the adequacy and sufficiency of the stakes and marks for the purpose for which they are set. If the Contractor requests additional stakes, hubs, grades, or marks other than those set by the City Engineer, the cost of labor, equipment, and materials required to comply with the Contractor's request shall be deducted from any monies due or to become due the Contractor.

The cost of labor, equipment, and materials involved in resetting stakes destroyed or displaced because of the following reasons, will be deducted from any monies due or to become due the Contractor:

1. Negligence or carelessness in use of construction equipment.
2. Stakes ordered by the Contractor that are not used for a long period of time (as determined by the City Engineer) and are lost in the interim.
3. Poor planning of sequence of operations by the Contractor.

A minimum of four (4) hours of 2-man survey crew time will be charged for all re-staking.

SECTION TS-3 OBSTRUCTIONS AND OTHER UTILITY'S WORK

A. GENERAL

Attention is directed to Section 7.12 "Existing Utilities" of the General Conditions, Section 5-1.36, " Property and Facility Preservation", and Section 15, "Existing Facilities," of the Caltrans Standard Specifications.

Due care shall be exercised to avoid injury to existing improvements, adjacent property, and roadside trees, shrubs, and other plants that are not shown on the plans to be removed.

Trees, shrubs, and other plants that are not to be removed, power poles, pole lines, fences, traffic signs, markers, monuments, and all structures above and below ground shall be protected from injury or damage, and if ordered by the City Engineer, the Contractor shall provide and install suitable safeguards, approved by the City Engineer, to protect such objects from injury or damage. If such objects are injured, damaged, or removed by reason of the Contractor's operations, they shall be immediately replaced or restored at the Contractor's expense.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public. Facilities requiring special precautions include, but are not limited to: conductors of petroleum products, oxygen, chlorine, and toxic or flammable gases; natural gas in pipelines greater than 6 inches in diameter or pipelines operating at pressures greater than 60 psi gauge; underground electric supply system conductors or cables, with potential to ground of more than 300 volts, either directly buried or in duct or conduit which do not have concentric grounded conductors or other effectively grounded metal shields or sheaths.

The Contractor shall notify the City Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

Notification Center	Telephone Number
Underground Service Alert	1-800-642-2444
Northern California (USA)	1-800-227-2600

If such facilities are not located on the plans in both alignment and elevation, no work shall be performed in the vicinity of said facilities until the owner, or his representative, has located the facility by potholing, probing, or other means that will locate and identify the facility.

The Contractor shall take care to avoid working in any area of the project which may conflict with the work under way by the utility companies. City water, storm drain, sanitary sewer, Pacific Gas and Electric, Pacific Bell, and Cable TV facilities exist within the project area. The Contractor shall exercise extreme caution when excavating or performing any work in the vicinity of these facilities and will adequately shore and

protect all facilities to prevent any horizontal or vertical movement. The Contractor shall be responsible for the repair and replacement of these or any other facilities damaged during construction. A minimum of two (2) working days prior to beginning of construction, the Contractor shall notify Underground Service Alert (USA), telephone 800-642-2444 to have existing facilities marked in the field. The Contractor shall record the USA order number and furnish the order number to the Engineer prior to performing any excavations.

The Contractor shall cooperate completely with all utility companies having facilities within the project area.

Any delay caused by the utility companies in completion of their work will not entitle the Contractor to additional compensation or working days.

B. OTHER EXISTING UTILITIES

The following utilities may have facilities within the Project area:

1. Pacific Gas and Electric
Contact: Mr. Rex Meneses (925) 779-7783
Delta District
2111 Hillcrest Avenue
Antioch, CA 94509
2. AT&T (Telephone) - Construction
Contact: Mr. Gregory Greenwood (925) 548-4658
2600 Camino Ramon
San Ramon, CA 94583
3. Comcast (Cable)
Contact: Mr. Ryan Lawrie (925) 349-3481
Alt. Contact: Mr. Chad Clark (Sefnco) (925) 280-4386
2500 Bates Ave.
Concord, CA 94520
4. Sonic
Contact: Mr. Brian Botteri (707) 522-1000 ext 2369
2260 Apollo Way
Santa Rosa, CA 95407
5. Cablecom, Inc
Contact: Mr. Roderick Ford (Sefnco) (925) 337-2704
825 Chadbourne Road
Fairfield, CA 94534
6. Contra Costa County – City of Brentwood Traffic Signal and Detector Loops
Contact: County Traffic Signal Maintenance Division (925) 313-7054
2467 Waterbird Way
Martinez, CA 94553

7. City of Brentwood – Water, Drainage, Sewer, Solid Waste, Fiber Optic, Traffic Signal, Loops, Signal Interconnect and Irrigation.
Contact: Public Works Department (925) 516-6000
2201 Elkins Way
Brentwood, CA 94513

C. MEASUREMENT AND PAYMENT

Full compensation for work, coordination, other features, and conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed.

SECTION TS-4 EXISTING FACILITIES

The work performed in connection with various existing roadway facilities shall conform to the provisions in Section 15, "Existing Facilities," of the Caltrans Standard Specifications and these Specifications, except that full compensation for conforming to the requirements of this Section for which payment is not otherwise provided shall be considered included in the prices paid for the contract items of work and no separate payment will be made.

Nothing in these Specifications shall relieve the Contractor from his/her responsibility in conformance with the provisions in Section 7-1.04, "Public Safety," of the Caltrans Standard Specifications.

Removed materials to be disposed of shall be disposed of in conformance with the provisions in Section 5-1.20B(4), "Contractor – Property Owner Agreement," of the Caltrans Standard Specifications.

All items of work under this Section, "Existing Facilities", and for which specific bid items are not provided, shall be considered as included in the contract items paid for clearing and grubbing of the type in which the facilities are located, and no additional compensation will be allowed.

A. EXISTING TREES

Attention is directed to Section 5-1.36, "Property and Facility Preservation" of the Caltrans Standard Specifications.

This project includes work on streets with mature trees adjacent to the roadway. In some locations, the tree canopy may extend over the roadway. It is the responsibility of the Contractor to conduct construction operations around said tree canopy such that the work is accomplished without damaging or injuring tree or tree limbs in any way. If existing trees or shrubs encroach into the public right-of-way and threaten to obstruct the Contractor's operations, the Contractor shall request permission to trim existing trees or shrubs, at least five (5) working days prior to the date of scheduled tree trimming. All tree and shrub trimming must have prior approval of the City Engineer and shall be performed by a Contractor possessing a C-27 or C-61 license.

A special notice pertaining to the tree trimming shall be delivered to the adjacent home or business least two working days before the tree is trimmed. The notice shall be reviewed and approved by the City Engineer before delivery.

When permitted by the City Engineer, tree pruning shall be performed by a Certified Arborist and in accordance with "Pruning Standards," published by the Western Chapter of the International Society of Arboriculture. The Arborist can be a person in the employment of the Contractor as long as the person has been certified by the Western Chapter of the International Society of Arboriculture. The Certified Arborist shall be approved in advance by the City Engineer, and all pruning shall be done in the presence of the City Engineer.

B. EXISTING UTILITIES

This project includes work on streets with overhead utility and service lines. In some locations, these utility and service lines may have minimal vertical clear distance or clearance above the existing elevations within the limits of work. It is the Contractor's responsibility to conduct operations around the facilities such that the work is accomplished without damage to these facilities. The Contractor shall notify each utility owner at least two (2) working days prior to the planned work operation around these overhead facilities, and shall satisfy all requirements and safety standards for working in close proximity to these utility and service lines, as required.

The fact that any underground facility is not shown upon the plans shall not relieve the Contractor of his responsibility under Section 5-1.36D, "Non-Highway Facilities" of the Caltrans Standard Specifications. It shall be the Contractor's responsibility, pursuant thereto, to ascertain the location of such underground improvements or facilities which may be subject to damage by reason of his operations.

C. EXISTING DETECTOR LOOPS

The work performed in connection with Existing Detector Loops shall conform to Section 15, "Existing Facilities" of the Caltrans Standard Specifications and these Technical Provisions. At least two (2) working days prior to any planned work operation involving any roadway surface damage or removal, including cold planing, wedge grinding, or any other destructive work in the vicinity of any signalized intersection, the Contractor shall notify Underground Service Alert (USA).

1. Existing loops to remain in place.

The Contractor shall make every effort to protect the existing traffic signal inductive loop conductors that are to remain in place. If these detector loops are damaged or become inoperative, the Contractor shall notify the City Engineer immediately and the Contractor must replace the loops before the end of the working period, unless otherwise directed by the City Engineer.

If any part of the loop conductor, including the portion leading to the adjacent pull box, is damaged by the Contractor's operations, the entire detector loop shall be replaced at the Contractor's expense. If any adjacent loop is damaged during replacement, that loop shall also be replaced at the Contractor's expense and in conformance with City Standards.

2. Existing loops to be removed and/or replaced.

At locations where detector loops are to be removed and/or replaced the Contractor shall notify the City Engineer at least two (2) working days in advance of the detector loop removal operation. The loops to be replaced as indicated on the Plans and in these Technical Specifications shall be done in conformance with City Standards and the provisions of the Technical Specification Section, "Traffic Signal Detector Loops." The detector loops shall be replaced within 48 hours of being disturbed, damaged, removed, or becoming inoperative.

D. EXISTING TRAFFIC STRIPING, MARKINGS, AND MARKERS

The Contractors' attention is directed to Section 5-1.36, "Property and Facility Preservation" of the Caltrans Standard Specifications. Existing traffic stripes, pavement markings and pavement markers that are outside the areas of the asphalt concrete pavement overlay and/or slurry seal that are to remain in place shall be protected from wheel marks and other damage by the Contractor. Damaged traffic stripes, pavement markings and pavement markers shall be cleaned or replaced as approved by the City Engineer. The restoration of such objects will be at the Contractor's expense and in conformance with City Standards and the provisions of the Technical Section, "Thermoplastic Striping and Pavement Markers".

E. EXISTING SIGNS TO BE RELOCATED

Signs may require resetting or reconstruction as a result of curb ramp reconstruction or other project improvements as indicated on the plans and as directed by the City Engineer.

F. MEASUREMENT AND PAYMENT

Full compensation for work, other features, and conforming to the requirements of this section, including but not limited to tree trimming and trimming notifications, and protecting existing facilities, shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed.

SECTION TS-5 MOBILIZATION

A. GENERAL

Mobilization shall conform to the applicable provisions in Section 9-1.16D, "Mobilization", of the Caltrans Standard Specifications. Separate facilities for the Contractor's use shall be as determined by the Contractor.

B. MEASUREMENT AND PAYMENT

Payment for "Mobilization" shall be at the contract unit price per lump sum listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in mobilization, including obtaining bonds, insurance and financing, movement of equipment, materials

and personnel, supervision, field office, certificates, permits, submittals, utilities, site maintenance, cleanup, dust control, and all other work incidental to the contract not specifically identified under the remaining items or costs incurred prior to the beginning of the work and after completion of the work as shown on the plans, as specified herein, and as directed by the City Engineer. The cost for mobilization shall not exceed five (5) percent of the total bid for this project without documented justification.

A 25% payment of the lump sum total will be paid with the first progress payment, 65% will be paid incrementally over the life of the Contract based on the percentage of the contract time completed to date, and the final 10% will be paid with the last progress payment. No additional compensation for mobilization will be provided for change order work and/or delays.

SECTION TS-6 TRAFFIC CONTROL

Attention is directed to Part 6 of the California Manual on Uniform Traffic Control Devices (CA MUTCD), to Sections 7-1.03 "Public Convenience," 7-1.04 "Public Safety," and Section 12 "Temporary Traffic Control" of the Caltrans Standard Specifications, and to the provisions in "Public Safety" of these Technical Specifications. Nothing in these Technical Specifications shall be construed as relieving the Contractor from the responsibilities specified in Caltrans Standard Specifications Section 7-1.04 "Public Safety".

A. TRAFFIC CONTROL

Traffic control must be coordinated to minimize inconvenience and maximize safety of the public during the construction period. Traffic control must be installed and maintained in accordance with the CA MUTCD, Section 7-1.04 "Public Safety" of the Caltrans Standard Specifications and the Contract Documents. Traffic includes vehicles, bicycles, pedestrians and other modes of transportation.

Traffic control for all work that allows for one (1) lane of traffic in each direction and does not impact traffic movements at the intersection shall be allowed from 7:00 a.m. to 3:30 p.m. Monday through Friday. One lane used for multi-directional traffic shall be restricted from 9:00 a.m. to 3:00 p.m. Monday through Friday, unless specifically indicated in the approved traffic control plans or upon written approval from the City Engineer. Traffic control that impacts traffic movements at the intersection shall be restricted from 9:00 a.m. to 3:00 p.m. Monday through Friday, unless specifically indicated in the approved traffic control plans or upon written approval from the City Engineer. All movements at intersections must be maintained at all times.

Flashing arrow signs are to conform to the requirements of Section 12-3.30, "Flashing Arrow Signs" of the Caltrans Standard Specifications. Flashing arrow signs shall be Type II.

A minimum of five (5) working days prior to the pre-construction meeting, the Contractor shall submit for the City Engineer's approval, a traffic control plan prepared and stamped by a Professional Engineer registered in the State of California for the routing of traffic during construction, including the location of advance warning signs. These detailed plans shall also include the location of public convenience and advance warning signs to be used during the construction. The Contractor's attention is directed to the most recent

edition of the CA MUTCD for a guide to sign placement, taper lengths, etc. The plan shall be submitted for discussion at the pre-construction meeting. Minor or unexpected traffic control changes shall be submitted in writing to the City Engineer no less than two (2) working days before the change for approval. In no case shall changes be made without submittal to and approval of the City Engineer. The traffic control plans must be approved prior to beginning work.

B. TRAFFIC CONTROL SUPERVISOR

The Traffic Control System shall be placed, maintained, and removed under the direct supervision of a person who is certified by either the Institute of Transportation Studies (ITS), the American Traffic Safety Services Association (ATSSA), the International Municipal Signal Association, the State of California Department of Transportation (Caltrans) or other agency as approved by the City Engineer as having successfully completed training in the design and operation of work zone traffic control.

The Contractor shall designate in writing the person who shall have the responsibility for supervising the activities associated with the Traffic Control System. This designation, along with proof of certification, shall be provided to the City Engineer for approval, two (2) working days in advance of any planned activity that requires traffic control. The person designated shall have the authority to stop the work if necessary.

Failure of the designated person to be present at the job site when any part of the Traffic Control System is in place shall be considered as failure on the part of the Contractor to perform a provision of the contract, and as such, the City Engineer may, in accordance with Section 8-1.06 "Suspensions" of the Caltrans Standard Specifications suspend all work until such time satisfactory arrangements have been made to have a certified person on the job site at all times when the Traffic Control System is in place. No additional compensation or additional working days will be allowed by reason of such suspension. The days on which the suspension is in effect shall be considered working days if such days are considered working days within the meaning of the definition set forth in Section 1-1.07 "Definitions" of the Caltrans Standard Specifications.

No existing pavement shall be removed until all necessary traffic control devices have been installed to route traffic onto other paved portions of the roadway and such removal has been approved by the City Engineer.

When leaving a work area and entering a roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic. The Contractor's trucks or other mobile equipment which leave a traveled lane, that is open to public traffic, to enter the construction area, shall slow down gradually in advance of the location of the turnoff to give following public traffic an opportunity to slow down. The Contractor shall not use any private driveways or property to turn around or for temporary stockpile of material or staging areas unless written permission is obtained from the property owner by the Contractor. Copies of such permission shall be provided to the Engineer prior to the use of the private property.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said

component and shall restore the component to its original location. All traffic control items required by the City Engineer to maintain traffic shall be furnished and installed by the Contractor.

If the Contractor does not furnish and maintain all signs, traffic control devices, or surfacing in accordance with these Specifications, the City shall temporarily suspend the work in accordance with the Caltrans Standard Specifications until deficiencies are corrected or shall perform the required operations and bill the Contractor at double the rate of all City expenses.

Section 12-1 "Temporary Traffic Control - General" of the Caltrans Standard Specifications is amended as follows: The Contractor shall pay fully the cost of furnishing all flagmen, including transporting flagmen, to provide for passage of public traffic through the work site.

The adjustment provisions in Section 4-1.05B, "Work-Character Changes" of the Caltrans Standard Specifications shall not apply to the item of traffic control system. Any adjustment in compensation for traffic control system due to an increase or decrease in the amount of traffic control system required by changes ordered by the City Engineer, or by increase or decreases in quantities in the Engineer's Estimate greater than 25%, will be made on the basis of the cost of the increased or decreased traffic control necessary. Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account," of the Caltrans Standard Specifications for increased traffic control system required by work which is classed as extra work, as provided in Section 4-1.05, "Changes and Extra Work" of the Caltrans Standard Specifications, will be paid for as part of said extra work.

C. TRAFFIC CONTROL SYSTEM FOR LANE CLOSURE

A traffic control system shall consist of closing traffic lanes in conformance with the provisions in Section 12, "Temporary Traffic Control," of the Caltrans Standard Specifications, the provisions of these Technical Specifications.

The provisions in this section will not relieve the Contractor from the responsibility to provide additional devices or take measures as may be necessary to comply with the provisions in Section 7-1.04, "Public Safety," of the Caltrans Standard Specifications.

If components in the traffic control system are displaced or cease to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair the components to the original condition or replace the components and shall restore the components to the original location.

When lane closures are made for work periods only, at the end of each work period, components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the Contractor so elects, the components may be stored at selected central locations designated by the City Engineer within the limits of the highway right of way.

D. TEMPORARY PAVEMENT DELINEATION

Temporary pavement delineation shall be furnished, placed, maintained, and removed in conformance with the provisions in Section 12-3.01, "General," of the Caltrans Standard Specifications and these Technical Specifications. Nothing in these Technical Specifications shall be construed as reducing the minimum standards specified in the California Manual on Uniform Traffic Control Devices (CA MUTCD), or as relieving the Contractor from the responsibilities specified in Section 7-1.04, "Public Safety," of the Caltrans Standard Specifications.

1. GENERAL

Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled way to public traffic. Lane line or centerline pavement delineation shall be provided at all times for traveled ways open to public traffic.

The Contractor shall perform the work necessary to establish the alignment of temporary pavement delineation, including required lines or marks. Surfaces to receive temporary pavement delineation shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation.

Temporary pavement markers, including underlying adhesive, and removable traffic tape which are applied to the final layer of surfacing or existing pavement to remain in place or which conflicts with a subsequent or new traffic pattern for the area shall be removed when no longer required for the direction of public traffic, as determined by the City Engineer.

E. LATE REOPENING OF LANE CLOSURES

If a closure is not reopened to public traffic by the specified time, work shall be suspended in conformance with the provisions in Section 8-1.06, "Suspensions," of the Caltrans Standard Specifications. The Contractor shall not make any further lane closures until the City Engineer has accepted a work plan, submitted by the Contractor, that will insure that future lane closures will be reopened to public traffic at the specified time. The City Engineer will have two (2) working days to accept or reject the Contractor's proposed work plan. The Contractor will not be entitled to any compensation for the suspension of work resulting from the late reopening of closures.

For each 5-minute interval, or fraction thereof past the time specified to reopen the closure, \$100 per interval will be deducted from monies due or that may become due to the Contractor under the contract.

F. MEASUREMENT AND PAYMENT

Payment for "Traffic Control" shall be at the contract unit price per lump sum listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials,

tools, equipment, and incidentals for doing all work involved in preparing traffic control plans for City approval, installing and maintaining traffic control, maintaining contact with and providing construction notification to City and other agencies, and for furnishing and placing barricades, warning devices, signage, flaggers as may be required by the Contract Documents, as shown on the plans, as specified herein, and as directed by the City Engineer.

All flagging costs associated with the project are to be paid by the Contractor.

SECTION TS-7 STORM WATER POLLUTION CONTROL PLAN

A. GENERAL

The intent of these requirements is to enforce federal, state and local laws, ordinances, codes and regulations that pertain to storm water pollution attributable to construction projects. Storm drains discharge directly to creeks without treatment. Therefore, discharge of pollutants (i.e. any substance, material or waste other than uncontaminated storm water) into the storm drain system is strictly prohibited.

For the purpose of eliminating storm water pollution, the Contractor shall implement effective control measures over the entire project. There are several publications which provide guidance on selecting and implementing effective control measures known as Best Management Practices (BMPs). BMPs include, but are not limited to, schedules of activities, prohibition of practices, general good housekeeping practices, operational practices, pollution prevention practices, maintenance procedures and other management procedures designed to prevent the discharge of pollutants directly or indirectly to the storm drain system. BMPs also include the construction of some facilities which may be required to prevent, control and abate storm water pollution. The reference publications are as follows:

- California Storm Water Best Management Practices Handbook-Industrial/Commercial
- California Storm Water Best Management Practices Handbook - Construction Activity

These handbooks may be purchased from Blue Print Services (BPS), 1700 Jefferson Street, Oakland, California 94612, (510) 287-5485.

The Contractor must comply with the State of California's General Permit for Stormwater Discharges associated with construction activities (order no. 2009-0009-DWQ).

B. MATERIAL STORAGE

Storage and exposure of raw materials, by-products, finished products, and containers shall be controlled as described below:

All construction materials shall be stored at least ten (10) feet away from inlets, catch basins, and curb returns. The Contractor shall not allow any material to enter the storm drain system. At the end of each working day, the Contractor shall collect and dispose of all scrap, debris, and waste material.

During wet weather or when rain is forecast, the Contractor shall store materials that can contaminate rainwater or be transported by storm water or other runoff to the storm drain system inside a building or cover them with a tarp or other waterproof material secured with weighted tires or sandbags to prevent contact with rain.

The Contractor is reminded that storage and disposal of all hazardous materials such as paints, thinners, solvents, and fuels; and all hazardous wastes such as waste oil must meet all federal, state and local standards and requirements.

C. DE-WATERING OPERATIONS

All groundwater removed from the trench or excavations must be removed and disposed of off-site in accordance with the local and state requirements and through methods and procedures described in the California Storm Water Best Management Practice Handbook - Construction Activity (latest edition). A sampling and analysis program for non-visible storm water pollutants must be implemented if required. Sampling & analysis guidance can be found in the Fact Sheet of the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharge of Storm Water associated with construction activities Order No. 99-08-DWQ (8/27/04) from the following link: http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/finalconstpermit.pdf. If there is suspicion of soil amendments (such as lime, fly ash, etc.) are being used and they will be exposed to storm water, a sampling and analysis program must be implemented.

D. PAVEMENT SAW-CUTTING OPERATIONS.

The Contractor shall prevent any saw-cutting debris from entering the storm drain system. The Contractor, preferably, shall use dry cutting techniques and sweep up residue. If wet methods are used, the Contractor shall vacuum slurry as cutting proceeds or collect all wastewater by constructing a sand bag sediment barrier. The bermed area shall be of adequate size to collect all wastewater and solids. The Contractor shall allow collected water to evaporate if the wastewater volume is minimal and if maintaining the ponding area does not interfere with public use of the street area or create a safety hazard. If approved by the City Engineer, the Contractor may direct or pump saw-cutting wastewater to a dirt area and allow to infiltrate. The dirt area shall be adequate to contain all the wastewater. After wastewater has infiltrated, all remaining saw-cutting residue must be removed and disposed of properly. Remaining silt and debris from the ponding or bermed area shall be removed or vacuumed and disposed of properly.

If a suitable dirt area is not available or discharge to the sanitary sewer is not feasible, with the approval of the City Engineer and Contra Costa County Flood Control (CCCFC) & Water Conservation District (WCD), the Contractor shall filter the saw-cutting wastewater through filtering materials and methods meeting ABAG Standards for Erosion and Sedimentation Control Measures (latest edition) before discharging to the storm drain.

E. PAVEMENT OPERATIONS

The Contractor shall prevent the discharge of pollutants from paving operations by using measures to prevent run-on and run-off pollution, disposing of wastes properly, and by implementing the procedures in the Best Management Practices Handbook. In addition, the Contractor shall observe the following guidelines:

1. Paving during wet weather:
 - a. No paving while it is raining.
 - b. No paving of the top lift of asphalt concrete (AC) on any day that experiences $\frac{1}{4}$ " of rain in a twenty-four (24) hour period.
 - c. No paving of bottom lift if previous seventy-two (72) hour period experienced more than $\frac{1}{2}$ " rain, unless directed by the Engineer or his designee.
2. Store materials as required under this section.
3. Cover inlets and manholes when applying asphalt, seal coat, tack coat, slurry seal, fog seal, etc.
4. Place drip pans or absorbent materials under paving equipment when not in use. During wet weather, store contaminated paving equipment indoors, or cover with tarp or other waterproof covering.
5. Sweep site daily using mechanical methods to prevent sand, gravel or excess asphalt from entering or being transported by rain into the storm drain system.
6. Keep ample supplies of drip pans or absorbent materials on-site.
7. If paving involves Portland cement concrete, refer to section F below.
8. All of the above is at the discretion of the City Engineer or his designee.

F. CONCRETE OPERATIONS

Do not wash out concrete trucks into storm drains, open ditches, streets, streams, etc. The Contractor shall prevent the discharge of pollutants from concrete operations by using measures to prevent run-on and run-off pollution, properly disposing of wastes, and by implementing the following BMPs:

1. Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.
2. Avoid mixing excess amounts of Portland cement materials. Dispose of any excess materials properly.
3. Whenever possible, perform washout of concrete trucks off-site where discharge is controlled and not permitted to discharge to the storm drain system. For on-site washout:

4. Locate washout area at least fifty (50) feet from storm drains, open ditches or other water bodies, preferably in a dirt area. Confine run-off from this area by constructing a temporary pit or bermed area large enough for the liquid and solid waste.
5. Wash out concrete wastes into the temporary pit where the concrete can set, be broken up and then disposed of properly. If the volume of water is greater than what will allow concrete to set, allow the wash water to infiltrate and/or evaporate, if possible. Remove or vacuum the remaining silt and debris from the ponding or bermed area and dispose of it properly.
6. Dispose of wastewater from washing of exposed aggregate to dirt area. The dirt area shall be adequate to contain all the wastewater and once the wastewater has infiltrated, any remaining residue must be removed.
7. Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in trash container.

G. GRADING AND EXCAVATION OPERATIONS

The erosion and sedimentation control materials and methods shall be in accordance with ABAG Standards For Erosion And Sediment Control Measures and/or the procedures and methods described in the California Storm Water Best Management Practice Handbook - Construction Activity (latest edition) and the City of Brentwood's grading ordinance.

Sedimentation and erosion control/filter materials shall be placed in a manner that will retain any debris or sediment from flowing into the storm drain system. The Contractor shall have labor, tools, equipment and materials needed, at the job site, to provide the erosion control measures necessary as a result of earthwork or trenching before beginning or continuing these construction activities. Sand bags and straw wattle shall be stockpiled adjacent to the locations of activity and ready to be installed when the rainfall forecast for 48 hours is 40% or greater or when directed by the City Engineer.

The Contractor shall install siltation control devices around catch basins prior to starting construction. These devices shall be maintained at all times during the construction period, and shall be removed when construction is complete.

The Contractor shall not be allowed to block existing drainage flowing onto the work area. The Contractor shall install temporary drainage facilities, if necessary. There shall be no extra compensation to the Contractor for keeping existing drainage open. The Contractor is responsible for any damage to property or existing improvements resulting from blocking existing drainage.

The Contractor shall inspect the sites of work at the beginning and once every 24-hour period through the duration of each storm to assure that inlets and pipes are not blocked with silt or debris and shall be prepared to make repairs to the erosion control devices and take any other remedial measures as directed by the City Engineer. At the end of a storm event all depressions with ponded water, the water in catch basins, and the check

dam ponds shall be pumped dry and all silt and debris removed. This work shall be completed within twenty-four (24) hours after the end of each storm.

H. SPILL PREVENTION AND CONTROL

The Contractor shall take any and all precautions to prevent accidental spills during the work under this contract. However, in the event of a spill:

1. The Contractor shall immediately contain and prevent leaks and spills from entering the storm drain system, and properly clean-up and dispose of the waste and clean-up materials. If waste is hazardous, the Contractor shall comply with all federal, state and local hazardous waste requirements. All work vehicles should be equipped with spill response kits.
2. The Contractor shall not wash any spilled material into the streets, gutters, storm drains, or creeks.
3. The Contractor shall report any hazardous material spills immediately to the City Engineer and the City of Brentwood Police Department, as per hazardous material response protocol.

I. VEHICLE/EQUIPMENT CLEANING

The Contractor shall not perform vehicle or equipment cleaning or maintenance on-site or in the street using soaps, solvents, de-greasers, steam cleaning equipment or equivalent methods. The Contractor shall perform vehicle or equipment cleaning with water only in a designated, bermed area that will not allow rinse water to run off-site or into the storm drain system. The rinse-water shall be permitted to infiltrate in dirt area or shall be discharged to the sanitary sewer with the approval of the City Engineer.

The Contractor shall dispose of wash water from the cleaning of water base paint equipment and tools to the sanitary sewer.

If using oil based paint, to the maximum extent practicable, the Contractor shall filter the paint thinner and solvents for reuse and dispose of the waste thinner and solvent, and sludge from cleaning of equipment and tools as hazardous waste. No disposal of oil base materials is allowed into the City sewer system.

J. CONTRACTOR TRAINING AND AWARENESS

The Contractor shall train all employees on the water pollution prevention requirements contained in these specifications. The Contractor shall inform all subcontractors of the water pollution prevention contract requirements and include appropriate subcontract provisions to ensure that these requirements are met.

K. GOOD HOUSEKEEPING PRACTICES

In addition to the practices and procedures discussed above, the Contractor shall implement the following applicable good housekeeping practices.

1. Store materials that have the potential to be transported to the storm drain system by storm run-off or by a spill under cover in a contained area or in sealed waterproof containers.
2. Use tarps on the ground to collect fallen debris or splatters that could contribute to storm water pollution.
3. Secure opened bags of cement, and other light or powdered materials which can be transported by wind.
4. Pick up litter, construction debris and other wastes daily from outside areas including the sidewalk area, gutter, street pavement and storm drains impacted by the project. All wastes shall be stored in covered containers or disposed of or recycled immediately.
5. Dispose of wash water to the sanitary sewer with the approval of City Engineer or recycle wash water (refer to Section I).
6. Inspect vehicles and equipment arriving on-site for leaking fluids and promptly repair leaking vehicles and equipment. Vehicles leaking fluids will not be allowed on the construction site and if not repaired, must be removed.
7. Avoid spills by handling materials carefully. Keep a stockpile of spill control materials, such as rags or absorbents, readily accessible on-site. Clean up all spills immediately to prevent any material from being discharged to the storm drain (refer to Section H).
8. Train employees regularly on good housekeeping practices and BMPs. Assign responsibility to specific employees on BMPs, good housekeeping practices, and what to do in the event of a spill (refer to Section J).
9. Maintain and replace all sediment and water pollution control devices as necessary to ensure that said controls are working effectively (e.g. inspect all sediment ponds or sandbag sedimentation/filtering systems after each rain. Remove accumulated sediment and debris and replace or repair damaged sandbags immediately).

L. MEASUREMENT AND PAYMENT

Payment for “Storm Water Pollution Control Plan” shall be at the contract unit price per lump sum listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in implementing, inspecting, monitoring, reporting maintaining measures, and complying with the requirements as specified in this section, as described in the Contract Documents, as shown on the plans, as specified herein, and as directed by the City Engineer.

A 25% payment of the lump sum total will be paid with the first progress payment, 65% will be paid incrementally over the life of the Contract based on the percentage of the contract time completed to date, and the final 10% will be paid with the last progress payment.

SECTION TS-8 CLEARING AND GRUBBING

A. GENERAL

Clearing and Grubbing shall conform to the provisions in Section 17-2, "Clearing and Grubbing," of the Caltrans Standard Specifications and these specifications.

Existing improvements, adjacent property, and other facilities, trees and plants that are not to be removed shall be protected from damage.

The Contractor shall maintain the site in a safe condition at all times. Barricades, lighting and railings shall be provided as required to protect the general public, workers and patrons of the existing roadway.

Excavated material unsuitable for embankment construction, as determined by the City Engineer, shall become the property of the Contractor and shall be disposed of outside the road right-of-way in accordance with the provisions in Section 5-1.20B(4) "Contractor-Property Owner Agreement," of the Caltrans Standard Specifications.

B. REMOVE EXISTING SEWER FACILITIES

Contractor shall remove existing sewer facilities in conflict with the project improvements including, but not limited to, sewer main lines, sewer laterals, and sewer manholes.

C. ABANDON EXISTING SEWER MAIN

Contractor shall abandon existing sewer main as shown on the plans and per these specifications. The Contractor shall abandon the existing sewer main by pumping and filling the abandoned sewer main with two (2) sack slurry at the various exposed ends of the sewer main as shown on the plans. The Contractor shall plug the various ends with concrete with a minimum strength of 2500 psi. The Contractor shall submit a sewer abandonment plan detailing the method and material that will be used to abandon the existing sewer main.

D. MEASUREMENT AND PAYMENT

Payment for "Clearing and Grubbing" shall be at the contract unit price per lump sum listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in clearing and grubbing, including but not limited to the removal and disposal of all existing materials within the work site, removing and disposing of existing sewer main lines, laterals, and manholes, abandoning existing sewer main in place, submitting a sewer abandonment plan, sawcutting, demolition of existing asphalt and concrete improvements, and removal and disposal of all existing materials within the work site, as may be required by the Contract Documents, as shown on the plans, as specified herein, and as directed by the City Engineer.

SECTION TS-9 SITE RESTORATION

A. GENERAL

Contractor shall restore the site to original, or better, conditions including replacing any concrete curb, gutter, or sidewalks, driveways, curb ramps, fencing, gates, grading to original contours, and additional improvements disturbed or removed during construction.

Concrete driveways, sidewalks, curbs, gutters, and curb ramps shall be constructed in conformance with City Standards and Section 73, "Concrete Curbs and Sidewalk," of the Caltrans Standard Specifications, and these specifications. Concrete shall have a minimum strength of 2500 psi. Aggregate base for concrete improvements shall conform to the requirements of Section TS-10, "Aggregate Base" of these specifications and shall be included in the unit price for "Site Restoration".

B. MEASUREMENT AND PAYMENT

Payment for "Site Restoration" shall be at the contract unit price per lump sum listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved for site restoration including but not limited to replacing existing improvements removed during construction, including concrete curb, gutter, sidewalks, driveways, fencing, gates, and grading as required to construct project improvements, as may be required by the Contract Documents, as shown on the plans, as specified herein, and as directed by the City Engineer.

SECTION TS-10 AGGREGATE BASE

A. GENERAL

Aggregate base shall be Class 2 and shall conform to the provisions in Section 26, "Aggregate Bases", of the Caltrans Standard Specifications and these Specifications.

The coarse aggregate (material retained on the No. 4 sieve) shall consist of material of which at least 25% by weight shall be crushed particles as determined by California Test 205.

Aggregate shall conform to the grading and quality requirements as shown in Section 26, "Aggregate Bases", of the Caltrans Standard Specifications.

Aggregate base shall not consist of any recycled material or products such as "Sierra-Crete" by Dupont, or the like.

No recycled Aggregate Base material will be allowed.

B. MEASUREMENT AND PAYMENT

Full compensation for work, other features, and conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items

of work involved and no additional compensation will be allowed. Aggregate base placed as part of bedding or backfill material will be considered as included in the contract unit price paid per linear foot for various types and sizes of pipe installed and no additional compensation will be allowed.

SECTION TS-11 ASPHALT CONCRETE PAVEMENT

A. GENERAL

Asphalt concrete shall be Type A (1/2" Max., Medium) and shall conform to the provisions in Section 39, "Hot Mix Asphalt," of the Caltrans Standard Specifications and these Technical Specifications.

Asphalt shall not exceed more than 15% Reclaimed Asphalt Pavement (RAP)

The following is added in addition to City of Brentwood Standards Section 39 "Hot Mix Asphalt" – Asphalt binder shall be Performance Graded (PG) not the old system Aged Residue (AR) binder. Asphalt binder shall be PG grade 64-10.

Tack coat shall be applied per Section 39-1.09C "Tack Coat" of the Caltrans Standard Specifications.

The application of tack coat shall be considered to be included in the contract price paid for various contract items and no additional compensation will be made therefor.

B. MEASUREMENT AND PAYMENT

Full compensation for work, other features, and conforming to the requirements of this section shall be considered as included in the contract unit price paid per linear foot for various types and sizes of pipe installed, and other items of work, and will not be measured or paid as separate items.

SECTION TS-12 CONCRETE ENCASEMENT

A. GENERAL

Concrete encasement shall be provided as shown the plans and as specified in these specifications. The concrete encasement shall be 4" thick with concrete with a minimum strength of 2500 psi concrete. Concrete encasement shall be constructed of concrete conforming to Section 90-1 "General" of the Caltrans Standard Specifications, Type II cement.

B. MEASUREMENT AND PAYMENT

Full compensation for work, other features, and conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed.

SECTION TS-13 SANITARY SEWER IMPROVEMENTS

A. SANITARY SEWER MANHOLES

Sanitary sewer structures shall be constructed or modified at locations and grades as shown on the plans in accordance with City of Brentwood Standard Plans and Specifications, Section 120, "Sewer Facilities," and Section 51, "Concrete Structures," of the Caltrans Standard Specifications, these Specifications, and as specified on the plans.

Structure excavation and backfill for sanitary sewer manholes shall conform to the requirements of Section 19-3, "Structure Excavation and Backfill," of the Caltrans Standard Specifications as well as applicable sections of the City of Brentwood Standard Plans and Specifications.

All materials used in cast-in-place concrete shall conform to Section 90, " Concrete," of the Caltrans Standard Specifications. Concrete shall be Class A, Type II cement. Reinforcing steel will be required only where shown on the plans and in the detail drawings and shall conform to the provisions of Section 52, "Reinforcement," of the Caltrans Standard Specifications.

The Contractor shall notify the City inspector for final inspection of forms and reinforcement a minimum of two working days prior to placing the concrete. Contractor may not backfill around structure until after the City has reviewed and approved the results of the seven-day concrete test breaks.

Mortar shall consist of one (1) part Portland cement to two (2) parts clean, well-graded sand which will pass a 1/8 inch, screen. Admixtures may be used not exceeding the following percentage of weight of cement; hydrated lime, 10%, diatomaceous earth or other inert material, 5%. Consistency of mortar shall be such that it will readily adhere to the surfaces. Mortar mixed longer than 30 minutes shall not be used.

The inverts of all sewer manholes shall be shaped with concrete fillets to provide for smooth flow, and to prevent the buildup of sand, gravel, or debris in the corners of the structure. Reference City of Brentwood Standard Plan SS-2 "Sanitary Sewer Manhole" for additional details.

Frame and cover assemblies for sanitary sewer manholes shall be of materials and specifications as shown in the City of Brentwood Standard Plans and Specifications. Reference City of Brentwood Standard Plan SS-2 "Sanitary Sewer Manhole" for additional information.

B. SANITARY SEWER PIPE

Sanitary sewer pipe shall be installed at locations shown on the plans according to Section 120, "Sewer Facilities" of the City of Brentwood Standard Plans and Specifications.

Unless noted otherwise on the plans, sewer pipe shall be Polyvinylchloride (PVC) sewer pipe with an SDR value of 35 (SDR-35) with rubber gasket bell and spigot pipes as specified in Section 120-1.02D, "Polyvinylchloride (PVC) Sewer Pipe," of the City of Brentwood Standard Plans and Specifications.

All PVC pipe entering or leaving a manhole shall have a rubber sealing gasket, as supplied by the pipe manufacturer, firmly seated perpendicular to the pipe axis, around the pipe exterior and cast into the structure base or near the structure wall center as a water stop. Said water stop may also consist of a manhole coupling with rubber sealing rings cast into the structure base.

Where pipes enter or emerge from a manhole, the opening in the pre-cast ring shall not be greater than two (2) inches larger than the outside diameter of the pipe. Care shall be exercised in cutting these openings to prevent cracking or breaking of said pre-cast ring. Indiscriminate breaking of such openings shall not be permitted. Pre-cast rings broken in a ragged and unworkmanlike manner at pipe openings shall be rejected.

The inside diameter of an installed section of PVC pipe shall not be allowed to deflect more than five percent (5%).

All sanitary sewer pipes shall be cleaned, tested, and televised according to Section 120-1.11 "Testing" of the City of Brentwood Standard Plans and Specifications. Costs for all pipe cleaning, testing, and televising shall be included in the unit price bid per linear foot for sewer pipes.

C. HANDLING/STORAGE

The pipe shall be handled carefully with nylon slings. The pipe can be unloaded/transported with construction equipment rigged with an "extra long fork" attachment.

All pipe and accessories shall be stored on flat, level ground with no rocks or other objects under the pipe.

Stacking of pipe for storage shall be according to manufacturer's recommendations.

D. PIPE INSTALLATION

Before sewer pipe is placed in position in the trench, the bottom and sides of the trench shall be carefully prepared, the required bedding placed, and bracing and sheeting installed where required. The trench shall be excavated to the dimensions shown on the drawings. Each pipe shall be accurately placed to the line and grade called for on the Plans.

All pipe and fittings shall be inspected before it is placed in the trench.

Pipe laying shall proceed upgrade, starting at the lower end of the grade and with the bells uphill.

Trench bottoms found to be unsuitable for foundations after pipe laying operations have started shall be corrected and brought to grade with approved compacted materials.

Pipe trenches shall be kept free from water during pipe laying, joining or before sufficient backfill has been placed to prevent flotation of the pipe. The Contractor may use sump pumps, or any other approved devices to remove water from the trench bottom. The Contractor shall provide ample means and devices to promptly remove and dispose of all water from any source entering the trench. The contractor shall provide a written plan to the engineer for disposal of any water encountered a minimum of 48 hours before any dewatering operations take place.

The Contractor shall comply with all the National Pollutant Discharge Elimination System (NPDES) regulations. No connection shall be made where joint surfaces and joint materials have been soiled by earth or embedment in handling until such surfaces are thoroughly cleaned.

As the work progresses, the interior of all pipes shall be kept clean. After each line of pipe has been laid, it shall be carefully inspected and all earth, trash, rags, and other foreign matter removed from the interior.

Backfilling of trenches shall be started immediately after the pipe is placed in the trench, but not before the installation has been thoroughly inspected by the City. Aggregate Base backfill material placed under the haunches shall be shovel sliced and/or compacted.

At end of each day the Contractor shall plate end of the installed pipe.

E. SEWAGE BYPASSING

The Contractor shall be responsible for maintaining all flows within the system and shall bypass the flows around those sections of pipe to be replaced.

The bypass shall be made by plugging an existing upstream manhole if necessary and pumping the sewage into a downstream manhole or adjacent system. The pump and bypass lines shall be of adequate capacity and size to handle the flow. The City Engineer shall approve all bypassing systems proposed to be used by the Contractor. Approval of the bypass system by the City Engineer shall in no way be construed as relieving the Contractor of any responsibility under this contract as related to protection of the interests of the City and the general public.

At the end of each working day, a temporary tie-in shall be made between the replaced section and the existing system. The bypass plug will either be removed or the pumps will be manned on a 24-hour basis.

Under no circumstances will the dumping of raw sewage on private property, in the public right-of-way, storm drains or any location other than an approved sanitary sewer main, be allowed.

F. INSTALLATION AND CONNECTION OF SEWER LATERALS

Sewer lateral connections to new sewer pipe shall be as a wye connection per City of Brentwood Standard Plan SS-1 "Standard Sewer Service" and manufacturer's recommendation. No tee installation will be allowed.

Sewer laterals that will not be connected to service shall be removed to the cleanout or the City right-of-way and plugged and capped. This must be watertight, and must be inspected and approved by the City Engineer.

G. MEASUREMENT AND PAYMENT

Full compensation for "Sewer Manhole" will be measured by number of each type installed. The contract unit price paid for each sewer manhole installed shall include all labor and materials to construct a complete structure, in place, as shown on the plans. This includes, but is not limited to, full compensation for excavation and backfill (including any dewatering if necessary), reinforcing steel, concrete, aggregate base, joint sealing compound, mortar, frames and covers, manhole bases, manhole coatings, manhole testing (as required by City of Brentwood), connections to new or existing pipes, welding, pipe plugging (where applicable), materials, tools, equipment and incidentals.

The contract unit price paid per linear foot for "8 Inch PVC Sewer Main" and "8 Inch PVC Sewer Main Repair" shall include full compensation for furnishing and installing PVC Sewer Main, site dewatering, bypassing or diversion of sewage flows, excavation, backfill, bedding material, trench patch, grading, AC paving, and furnishing all labor, material, tools, equipment and incidentals, and for doing all work necessary to install sanitary sewer pipe. No additional compensation shall be paid for connecting to existing pipes, plugging stubs, cleaning pipes, testing pipes, televising pipes, removal and disposal of existing sewer pipe, dewatering, bypassing or diversion of sewage flows, or replacing any pipes that do not pass tests or meet requirements specified by City of Brentwood. The quantity for new sewer main will be measured by the linear foot from the inside diameter of the sewer manhole to manhole or from connection point to connection point for sewer repair work.

The contract unit price per each for "Remove and Replace 4 Inch Sewer lateral Including new Cleanout" shall include full compensation for furnishing all labor, material, tools, equipment and doing all the work involving pipeline excavation and backfill, including removal and disposal of the existing sewer lateral, installation of new 4" sewer lateral, installation of new cleanout, bedding material, backfill, AC paving, grading, and disposal of surplus or unsuitable earth and pavement, dewatering, cleaning and pipe testing, pipe with joints and all required fittings, and surface restoration complete in place.

The contract unit price per each for "Existing Sewer Lateral Reconnection" shall include full compensation for furnishing all labor, material, tools, equipment and doing all the work involving reconnecting existing sewer laterals to replaced sewer main, excavation and backfill, grading, AC paving, and disposal of surplus or unsuitable earth and pavement, dewatering, and all required fittings, and surface restoration complete in place.

SECTION TS-14 TRENCH EXCAVATION AND BACKFILL

A. GENERAL

Earthwork shall conform to the provisions of Section 19, "Earthwork," of the Caltrans Standard Specifications, and the City of Brentwood Standard Plans and Specifications. Trenches shall be excavated and backfilled as shown on the plans, as specified in these Technical Specifications, and as directed by the Engineer or designee. The City will retain an independent laboratory to sample and test each potential source of pipe bedding and backfill materials. The corrosive properties of the potential pipe bedding and backfill material shall be assessed. All fill materials shall have a minimum electrical resistivity greater than 3,000 ohm-centimeters, chlorides and sulfates less than 100 parts per million (ppm) each, and pH within a range of 5.5 to 8.5. For concrete structures, the minimum electrical conductivity should exceed 1,000 ohm-centimeters, the chloride should be less than 500 ppm, and the pH should be between 6.0 and 8.5. Approval by the Engineer is required of the trench and bedding material before trench backfill operations start.

Trenches in existing pavement shall be constructed in accordance with the details provided in the civil improvement plans and the City of Brentwood Standard Plans and Specifications.

B. WATER CONTROL AND DEWATERING

Water control shall conform to the provisions of Section 19-3.03B(5) "Water Control and Foundation Treatment" of the Caltrans Standard Specifications and these Technical Specifications. The Contractor shall submit a plan to the City Engineer for the proposed method of dewatering (if required) five (5) days prior to the pre-construction meeting requiring dewatering. The plan shall include all information regarding excavation phasing; pump and pipe location; desilting method; discharge location; and any other applicable information.

All water encountered in the excavation shall be disposed of by the Contractor in such manner as will not damage public or private property or create a nuisance or health menace.

The Contractor shall furnish, install, and operate pumps, pipes, appliances and equipment of sufficient capacity to keep all excavations and accesses free from all water including, but not limited to, storm water, groundwater, and/or sewage until the excavations are backfilled, unless otherwise authorized by the City Engineer. Once water in the trench are encountered, no further trenching will be allowed until suitable dewatering procedures are in operation. Every effort shall be made to keep the trench dry at all times.

The Contractor shall provide all facilities necessary to conduct water to the pumps. Water, if odorless, may be discharged into an existing sewer system in a manner per NPDES requirements and as approved by the City Engineer. A means shall be provided for desilting the water before discharging.

Dewatering system shall remain functional between shifts, on holidays, on weekends, or during work stoppages until all the backfill is placed to avoid movement of the pipe.

The cost of water control and dewatering shall be considered as included in the unit costs for the associated items of work and no additional compensation will be made.

C. EXCAVATION

The Contractor shall do all excavation of whatever substance is encountered to the lines and grades shown on the plans. During trench excavation, any organic material or particles, lumps, or rocks larger than 2½ inches in maximum dimension removed from the excavation shall be disposed off-site. Where it becomes necessary to excavate beyond the limits of normal excavation lines in order to remove boulders or other interfering objects, the void remaining after the removal of the boulders shall be backfilled with suitable material and densified, as approved by the City Engineer. When the work limits allow, material suitable for trench backfill may be stockpiled along the side of the trench. All such material shall be piled in an orderly manner a sufficient distance from the side of the trench to avoid overloading and to prevent sliding into the trench. Stockpiling of excavated material and all vehicles shall be kept at a minimum lateral distance from the crest of the slope equal to no less than one half the slope height. The Contractor shall do such grading as is necessary to prevent surface water from entering the excavation. The Contractor shall remove and dispose of all water entering the excavation. Disposal of water shall be done in a manner to prevent damage or nuisance to adjacent properties and per the National Pollution Discharge Elimination System (NPDES) requirements.

Shoring of all trench excavations shall conform to the Sheeting and Shoring Section of these Specifications.

All lanes shall be restored to traffic at the end of each workday. The Contractor shall furnish and install non-skid steel plates to span trench sections which have not been backfilled. Non-skid trench plates shall have a manufactured surface with a coefficient of friction that equals or exceeds 0.35.

Approach and ending plates shall be attached to the roadway by a minimum of two (2) dowels predrilled into the corner of the plate and drilled a minimum of two (2) inches. into the pavement. Interior plates are to be butted together. Fine graded asphalt concrete shall be compacted to form ramps with a maximum slope of 8.5% with a minimum twelve (12) inches. taper to cover all exterior edges of the plates. When the plates are removed, the dowel holes in the pavement shall be backfilled with graded fines of asphalt concrete mix. A concrete slurry or equivalent slurry mix may be substituted with the approval of the City Engineer.

All operations shall be carried out in an orderly fashion. Backfilling, compacting and clean-up work shall be accomplished as sections of the pipe installation are approved and traffic through the work shall be impeded or obstructed as little as possible.

Trench width shall be per City of Brentwood Standard Plan ST-25a "Open Trench, Backfill, and Repair of Existing Streets" and ST-25b "Notes for Open Trench, Backfill,

and Repair of Existing Streets". The trench bottom shall be free of bumps or hollows, and graded to provide uniform support along the length of pipe.

Excess excavated material and material unsuitable for backfill shall become the property of the Contractor and shall be removed and disposed of away from the job site at the Contractor's expense. The cost of removal and disposal of excess or unsuitable material shall be considered as included in the unit costs for the pipe installation and no additional compensation will be made therefor.

D. TRENCH STABILIZATION

Whenever the bottom of the trench is soft, rocky, or, in the opinion of the Engineer, otherwise unsuitable as a foundation for the pipe, the unsuitable material shall be removed to a depth such that when replaced with trench stabilization material the trench is stable and in conformance with these Technical Specifications. Trench stabilization material for backfilling the trench below the pipe shall conform to the requirements for pipe bedding material so that it will provide a stable and satisfactory foundation. Alternate backfill materials and methods may be used with the approval of the Engineer.

The costs associated with trench stabilization shall be considered as included in the unit costs for the associated items of work and no additional compensation will be allowed.

E. PIPE BEDDING

Pipe bedding shall be placed above and below the pipe to the lines and grades shown on the plans.

Bedding material shall be placed to approximately the same elevation on both sides of pipe to prevent unequal loading and displacement of the pipe. The difference in elevation of the bedding backfill on either side of pipe shall not exceed six (6) inches at any time.

Bedding material shall consist of Class 2 Aggregate Base, $\frac{3}{4}$ inch maximum – $\frac{3}{4}$ clean (not crushed) conforming to Section 26, "Aggregate Bases," of the Caltrans Standard Specifications and of these Technical Specifications. Controlled Low Strength Material (CLSM) may be used for backfill in the pipe zone above the invert of the pipe. CLSM shall consist of Portland cement, aggregate, water, and approved admixtures conforming to the following:

1. **Portland Cement:** ASTM C150, Type II.
2. **Aggregate:** Concrete sand, selected material from the excavation, imported material, or a combination thereof as approved by the Engineer. Maximum aggregate size shall be $\frac{3}{4}$ to 1 inch. The soluble sulfate content shall not exceed 0.3% by dry weight.
3. **Water:** Potable quality.

Proportion the CLSM to be a flowable, nonsegregation, self-consolidating low shrink slurry. The Contractor shall determine the materials and proportions used to meet the requirements of these Technical Specifications.

The unconfined compressive strength at seven (7) days shall be a minimum of 100 psi and a maximum of 300 psi.

The temperature of the CLSM discharged into the excavation shall be below 90 degrees Fahrenheit.

Contractor shall develop mix design using samples from actual stockpiles to be used. Submit mix design to Engineer at least fourteen (14) working days prior to use of the material in the Work. Obtain approval of the mix design and strength results from Engineer.

Bedding material, excluding CLSM, shall be moisture conditioned to 3 percentage points above optimum moisture content, and recompacted to not less than 90% relative compaction as determined by ASTM D1557.

F. TRENCH BACKFILL

Trench backfill shall conform to PlanST-25a "Open Trench, Backfill and Repair of Existing Streets" of City of Brentwood Plans and Specifications. City will permit Class II Aggregate Base trench backfill in-lieu of the 2-sack cement slurry backfill, however the Contractor shall pay for all material testing costs and Class II Aggregate Base shall meet the requirements of these specifications and City Standards.

Trench backfill shall consist of the trench area from the top of the pipe bedding to the ground surface, or if within a roadway, to the bottom of the roadway subgrade.

Native excavated material shall be free of all organic material, rubbish, debris, rocks exceed 2½ inches in any one dimension and other objectionable material.

Backfill shall be compacted by impact, vibration, or by a combination of these methods, as approved by the City Engineer. However, impact type compactors shall not be used around over PVC pipe until backfill over the top of the pipe exceeds four (4) feet in the number of "lifts" specified in the City of Brentwood Standards. Not jetting will be permitted.

All backfill shall be placed in maximum eight (8) inch uncompacted lifts.

Compaction shall be moisture conditioned to 3 percentage points above optimum moisture content, and recompacted to not less than 95% relative compaction, as determined by ASTM D1557.

To minimize excessive live loads on pipe, a minimum of four (4) feet of compacted fill shall be placed over the pipe before impact type compactors are used or power-operated hauling or rolling equipment travels over the pipe.

The Contractor shall excavate test pits and provide access to all depths in all trenches by maintaining shoring system components as needed to allow the technician to enter the trench and perform compaction tests at various depths. Costs for retesting and reinspection due to failure of the tested material to meet the compaction requirements will be borne by the Contractor.

Excavating test pits and maintaining the trench shoring system for compaction testing shall be included in the unit price per lineal foot paid for pipe installation and no additional compensation shall be made therefor.

G. TEMPORARY PAVING

The Contractor shall place temporary surfacing promptly after backfilling and shall maintain such surfacing until permanent paving work can be installed.

Temporary paving shall consist of asphalt cutback rolled to provide a smooth surface. Use of a backhoe or other equipment with grooved tires to roll cutback shall be prohibited. All edges shall be contoured to provide a smooth transition between the existing grade and the cutback surface. The Contractor shall maintain the surface free of depressions, bumps, loose pieces, and other defects at all times.

Temporary pavement shall be replaced with permanent pavement as soon as is practical after the trench is backfilled and as allowed by the Engineer.

Until the permanent pavement is placed, the base rock and temporary asphaltic plant mix at the surface of the trench shall be maintained at all times. Continuous inspection and maintenance of the trench area will be required.

H. MEASUREMENT AND PAYMENT

Trench excavation, water control and dewatering, bedding and backfilling, pavement sawcutting, and placement of temporary paving and placement of permanent pavement will be considered as included in the contract unit price paid per linear foot for various types and sizes of pipe installed, and other items of work, and will not be measured as separate items.

SECTION TS-15 SHEETING AND SHORING

A. GENERAL

Excavations shall be adequately shored and braced so that the earth will not slide, move, or settle and so that all existing improvements of any kind will be fully protected from damage.

Attention is called to Article 6 of "Construction Safety Orders" of the California Division of Industrial Safety which applies to all open excavations made in the earth's surface, including trenches.

Trenches over five (5) feet in depth shall be evaluated for stability prior to personnel entering the trench. Where trenches are deeper than five (5) feet, the Contractor shall comply with the current California Occupational Safety and Health Administration (CAL OSHA) requirements pertaining to trench safety.

At least seven (7) days prior to excavation for any trench five (5) feet or more in depth trenching shall not begin until the Contractor has submitted to the City Engineer a copy

of the Contractor's detailed plan for worker protection from the hazards of caving ground during the excavation of such trench.

The Contractor shall be aware that in no case should slope height, inclination, and excavation depths exceed those specified in local, state, or federal safety regulations. Specifically, the Contractor shall be aware of the current OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926.

The Contractor's "responsible person", as defined in 29 CFR Part 1926, shall evaluate the soil exposed in the excavations as part of the Contractor's safety procedures.

In areas where slope trenching will be used, the Contractor shall design temporary construction slopes to conform to OSHA's "Guidelines for Excavation and Temporary Sloping." The temporary slope inclination shall be determined by the Contractor, or responsible subcontractor, based on the subsurface conditions exposed at the time of construction.

The Contractor shall furnish, install and maintain such sheeting, timbering, lagging and bracing as indicated on the Contractor's detailed plans or any additional precautions not specifically set forth necessary to support the sides of the trench. The protection of adjacent structures from movement of the ground and the elimination of the element of danger of life, property, or to existing improvements is the intent of this requirement and shall be the sole responsibility of the Contractor.

Additional supports requested by the City Engineer shall in no way relieve the Contractor of the Contractor's responsibility for the sufficiency of the Contractor's precautions.

All such sheeting, timbering, lagging and bracing shall, unless otherwise required by the City Engineer, be removed during backfilling in such a manner as to prevent any movement of the ground or damage to the piping or other structures.

The Contractor shall submit a copy of the sheeting and shoring plan to the City Engineer prior to beginning excavation.

The Contractor shall assess the adjacent utilities tolerance for settlement and lateral movement in communication with the utility's owners. The Contractor's shoring system shall limit movement to less than the tolerable amount.

Damages resulting from the Contractor's operations shall be repaired or replaced to the satisfaction of the respective utility owner at the Contractor's expense.

B. MEASUREMENT AND PAYMENT

Payment for "Sheeting and Shoring" shall be at the contract unit price per lump sum listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in sheeting and shoring as may be required by the Contract Documents, as shown on the plans, as specified herein, and as directed by the City Engineer.

SECTION TS-16 TRAFFIC SIGNAL DETECTOR LOOPS

A. GENERAL

Signal detector loops shall be removed and/or replaced as shown on the plans and as directed by the City Engineer. Loop type is indicated on the plans. Traffic signal detector loops shall be replaced within 48 hours of being removed, damaged, disconnected, or disturbed.

Contractor must contact Contra Costa County Traffic Signal Maintenance at (925) 313-7054, prior to removal of any loops.

Detectors shall conform to Section 86, "Electrical Work - General", and Section 87, "Electrical Systems", of the Caltrans Revised Standard Specifications and these Technical Specifications. Loop wire shall be Type 2 #12 stranded THWN conductor inside polyethylene tube. Loop lead-in cable shall be Type B. The loop conductor connection shall be soldered. The number of lead-in cables required to achieve the specified detection shall be installed.

Residue resulting from slot cutting operation shall not be permitted to flow across shoulders or lanes occupied by public traffic and shall be removed from the pavement surface.

Each cable shall be identified in the pull-box nearest the loop and in the controller cabinet as to its "phase and loop number." Detector lead-in cables shall be tagged at the terminal board in the controller cabinet and shall conform to Section 86, "Electrical Work - General", and Section 87, "Electrical Systems", of the Caltrans Revised Standard Specifications.

Conductors to be buried in the pavement shall be installed only in the presence of the City Engineer. All loops in a single lane shall be of the same type per location, unless otherwise noted on the plans where the loop is closest to the crosswalk. Where one traffic signal detector consists of a sequence of 4 loops in a single lane, the front loop closest to the limit line or crosswalk shall be located 0.3 m from the line. All loops shall be connected in series.

Loop detector lead in cable shall be run continuously without splice from the detector termination pullbox to the field terminals in the controller cabinet.

Hot melt asphaltic loop filler shall be used to install all loops in existing pavement, and in the final lift in new asphalt when not installed in the next to last lift. The Asphaltic Emulsion Sealant shall be "Overcoat Loop Filler," or approved equivalent, shall be used to install the detector loops prior to installing the final lift of asphalt. Epoxy shall be used in concrete surfaces. Asphalt concrete shall be used to fill all curb termination points.

The Contractor shall test the detectors with a motor driven cycle, as defined in the California Vehicle Code, that is licensed for street use by the DMV of the State of California. The Contractor shall provide a detection area of the detector at not less than three miles per hour, or not more than seven miles per hour with an operator driven

motor vehicle. The vehicle shall not exceed 220 pounds and the engine displacement shall not exceed 100 cubic centimeters.

B. MATERIALS

Sensor units shall be Detector Systems Digital Loop Model 10, or City-approved equal. The Contractor shall identify loop wires by lane number, loop number, and start/finish using tie wraps and permanent marker.

Loops shall be installed as per Caltrans Standard Plan ES – 5B and shall conform to the following:

1. Conduit

Conduit which is installed underground shall be Type 3, rigid, nonmetallic type, Schedule 40. All conduits shall enter a pullbox with a 90-degree elbow, unless permitted otherwise by the City Engineer.

All conduits shall have a 1/4 inch pullrope installed in them.

After conductors have been installed, the ends of the conduits terminating in pull boxes and controller cabinets shall be sealed with a sealing compound approved by the City Engineer.

When a standard coupling cannot be used for coupling metal type conduit, a UL listed threaded union coupling, as specified in Section 86 "Electrical Work - General", and Section 87, "Electrical Systems", of the Caltrans Revised Standard Specifications, or a concrete tight split coupling or concrete tight set screw coupling shall be used.

2. Loop Detectors:

The depth of loop sealant above the top of the uppermost loop wire in the sawed slots shall be 2 inch, minimum.

3. Bike Loops:

Type D detector loop is designated for bike loops.

C. PAYMENT AND MEASUREMENT

Payment for "Traffic Signal Detector Loops" shall be measured per each detector loop installed as measured in field, regardless of the quantity of detector loops removed at the contract unit price per each listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing and replacement of detector loops in compliance with the Contract Drawings and these technical specifications and no additional compensation will be allowed. Any damage to existing detector loops outside the limits of work due to the failure of any Contractor to protect these facilities shall be repaired by the Contractor at no additional cost.

SECTION TS-17 THERMOPLASTIC STRIPING AND PAVEMENT MARKERS

A. GENERAL

Traffic stripes, pavement markers, and pavement legends, including crosswalks, disrupted by the Contractor during construction shall be restored to the existing or better condition, as specified in Section 84, "Traffic Stripes and Pavement Markings" and Section 85, "Pavement Markers" of the Caltrans Standard Specifications as modified herein, and as directed by the City Engineer. Traffic stripes and pavement legends shall be thermoplastic.

Configuration of traffic stripes, pavement markings and crosswalks shall conform to the detail and methods as set forth in the latest issue of the CA MUTCD unless specifically modified on the plans.

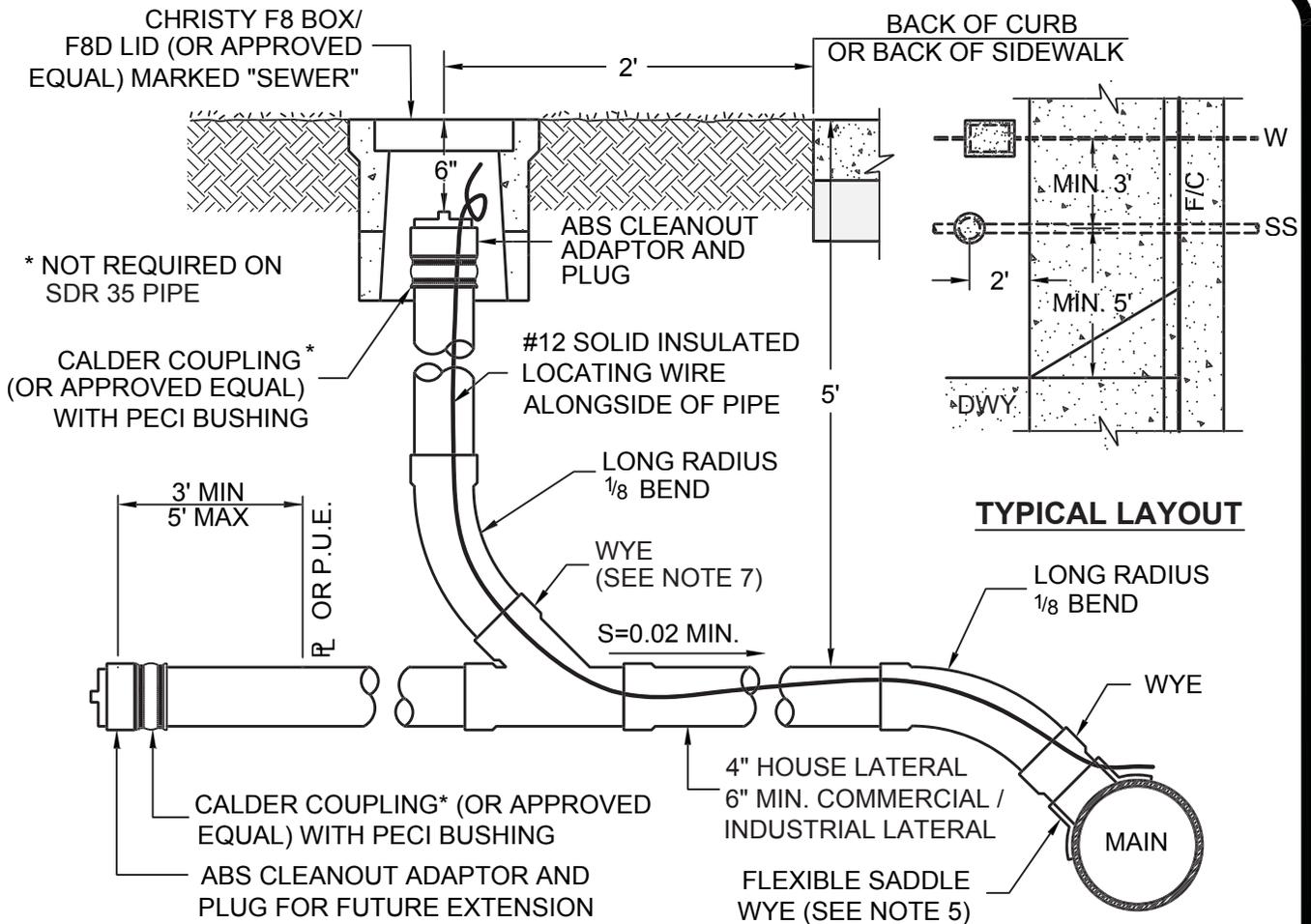
B. MEASUREMENT AND PAYMENT

Payment for "Striping and Pavement Markers" shall be at the contract unit price per lump sum listed in the bid schedule. This work shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in installation of the traffic striping, pavement legends, and pavement markers according to existing conditions or as shown on the plans, as specified herein, and as directed by the City Engineer and no additional compensation will be allowed.

APPENDIX

City Standard Plans and Specifications

SS-1	Standard Sewer Service
SS-2	Sanitary Sewer Manhole
ST-7a	Residential Driveway with Adjacent Sidewalk
ST-7b	Residential Driveway with Separated Sidewalk
ST-23	Sidewalk, Curb and Gutter
ST-25	Trench and Backfill Requirements
ST-25a	Open Trench, Backfill and Repair of Existing Streets
ST-25b	Notes for Open Trench, Backfill and Repair of Existing Streets



NOTES:

1. SEWER SERVICE SHALL BE SDR 35, VITRIFIED CLAY PIPE, OR DUCTILE IRON PIPE.
2. ALL CLEANOUT PIPES AND FITTINGS SHALL BE THE SAME SIZE AND MATERIAL AS THE LATERAL SEWER TO WHICH THEY CONNECT.
3. SEWER SERVICE EXTENSION TO BUILDING SHALL HAVE THE SAME BEDDING AND BACKFILL MATERIAL AS SEWER SERVICE.
4. SEWER LATERALS SHALL CLEAR UNDERGROUND UTILITIES OR OBSTRUCTIONS A MINIMUM OF 6" AND SHALL BE INSTALLED 12" MIN. BELOW UTILITY WATER LINES.
5. WHEN TAPPING TO MAIN, USE DFW PLASTICS, INC. 5Y/C FLEXIBLE SADDLE WYE WITH STAINLESS STEEL CLAMPS OR APPROVED EQUAL.
6. COMPACTION AROUND THE CLEANOUT SHALL BE 95%.
7. A 4"x 4"x 4" WYE SHALL BE USED ON RESIDENTIAL AND A 6"x 6"x 6" MIN. SHALL BE USED FOR COMMERCIAL/INDUSTRIAL SERVICES.

(Not To Scale)



**PUBLIC WORKS
DEPARTMENT**

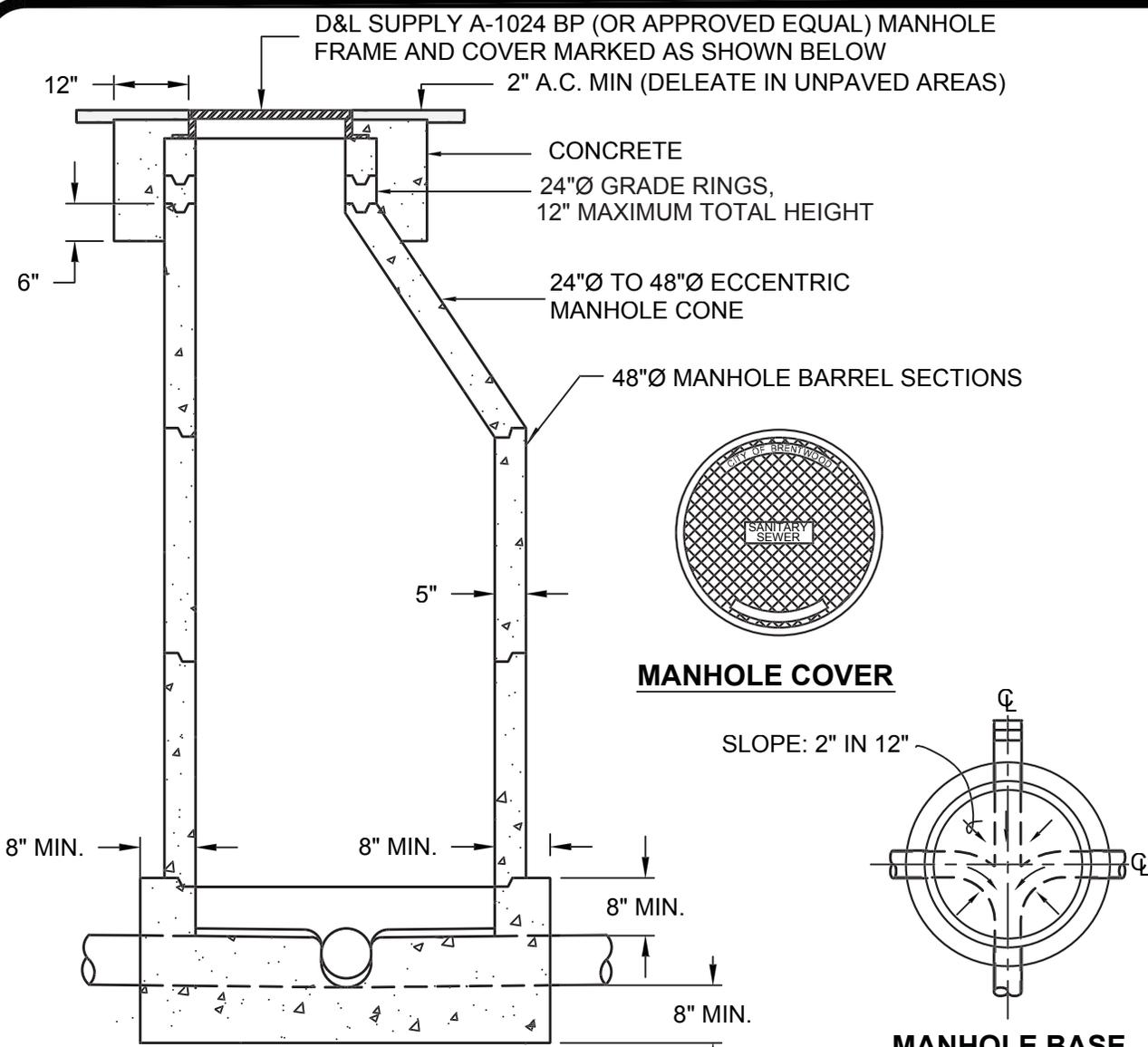


STANDARD SEWER SERVICE

BALWINDER S. GREWAL CITY ENGINEER

DATE: JULY 31, 2003
REVISED: DEC. 31, 2013

SHEET No.
SS-1



NOTES:

1. FOR PIPES UP TO 21" IN DIAMETER; SEE SS-3 FOR SEWER LINE 20' OR DEEPER.
2. FORM BASE TO PROVIDE A SMOOTH FLOW CHANNEL.
3. ALL CONCRETE TO BE CLASS A, 3000 P.S.I. MIN.
4. 1:3 GROUT MIX OR 3" RAM-NEK JOINT COMPOUND (OR APPROVED EQUAL) IN ALL JOINTS INSIDE AND OUT.
5. ALL MANHOLES SHALL BE VACUUM TESTED PER CITY SPECIFICATIONS.
6. MANHOLE BASE SHALL EXTEND 18" OUTSIDE BARREL WHEN CONSTRUCTED IN SAND.
7. BACKFILL AROUND MANHOLE SHALL BE CLASS II A.B. COMPACTED TO 95%.
8. NEW MANHOLE WITH SEWER MAIN ≥ 10" DIA. SHALL BE EPOXY COATED WITH MADEWELL MAINSTAY DS-5 OR APPROVED EQUAL.
9. INTERCEPTOR MANHOLES ON EXISTING SEWER MAINS OR TRUNK LINES SHALL BE EPOXY COATED IRRESPECTIVE OF SEWER MAIN SIZE.

(Not To Scale)



PUBLIC WORKS DEPARTMENT

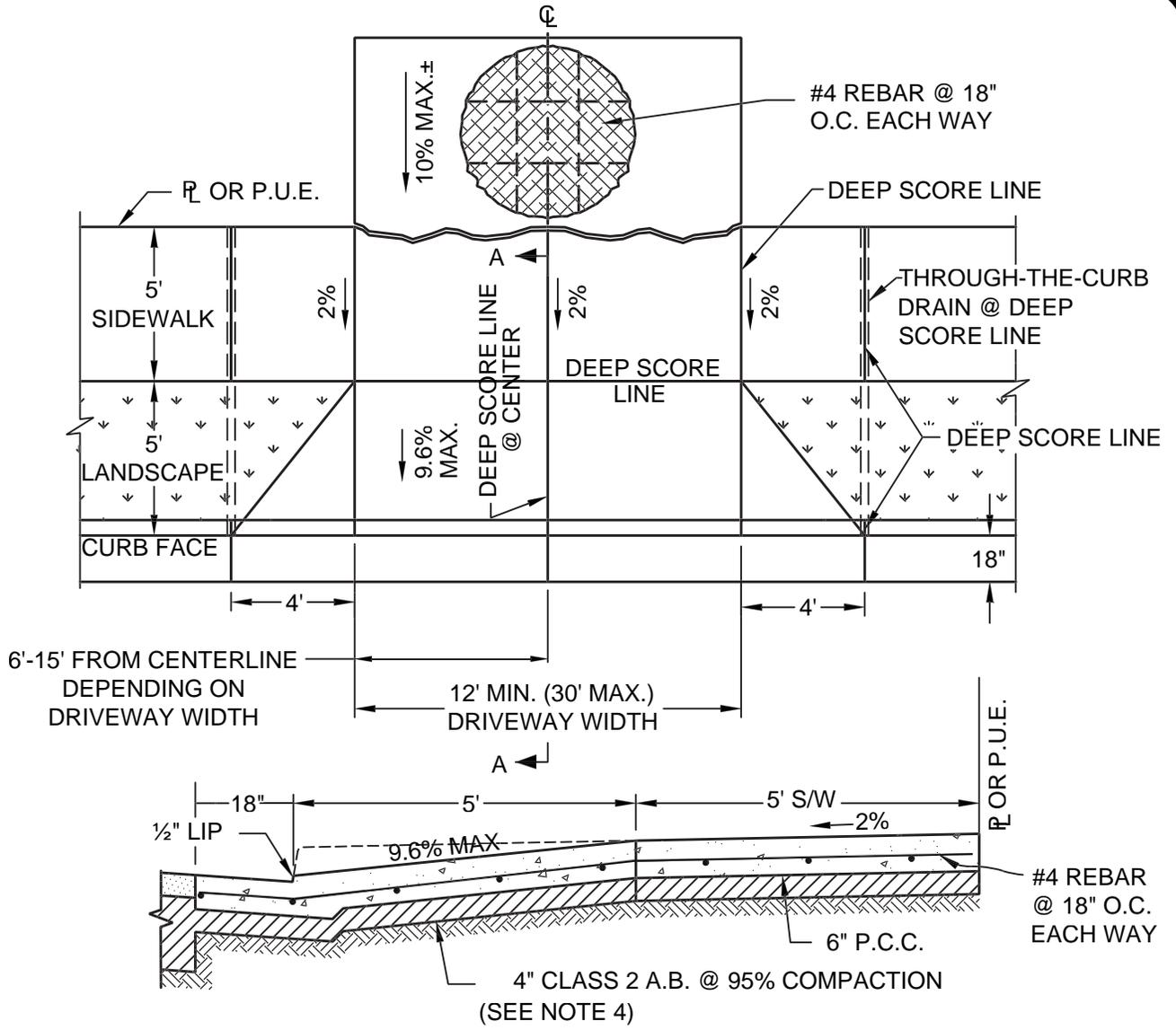


SANITARY SEWER MANHOLE

B. Grewal
BALWINDER S. GREWAL CITY ENGINEER

DATE: OCT. 31, 2000
REVISED: DEC. 31, 2013

SHEET No.
SS-2



SEPARATED SIDEWALK SECTION A-A

NOTES:

1. ALL CONCRETE SHALL BE CLASS B, 2500 P.S.I. MINIMUM; WITH 1 1/2 LBS. FIBRILLATED POLYPROPYLENE FIBERS PER CUBIC YARD.
2. BROOM FINISH WALK AT RIGHT ANGLES TO CURB; CURB AND GUTTER TO STREET.
3. ALL CONCRETE SHALL HAVE A MINIMUM 4" CUSHION OF CLASS 2 A.B. @ 95% RELATIVE COMPACTION (D1557-78) ON SUB-GRADE @ 95% RELATIVE COMPACTION. THE USE OF RECYCLED A.B. SHALL NOT BE ALLOWED.
4. ON EXPANSIVE NATIVE SOIL, 90% RELATIVE COMPACTION IS ACCEPTABLE ON SUBGRADE.

(Not To Scale)



**PUBLIC WORKS
DEPARTMENT**

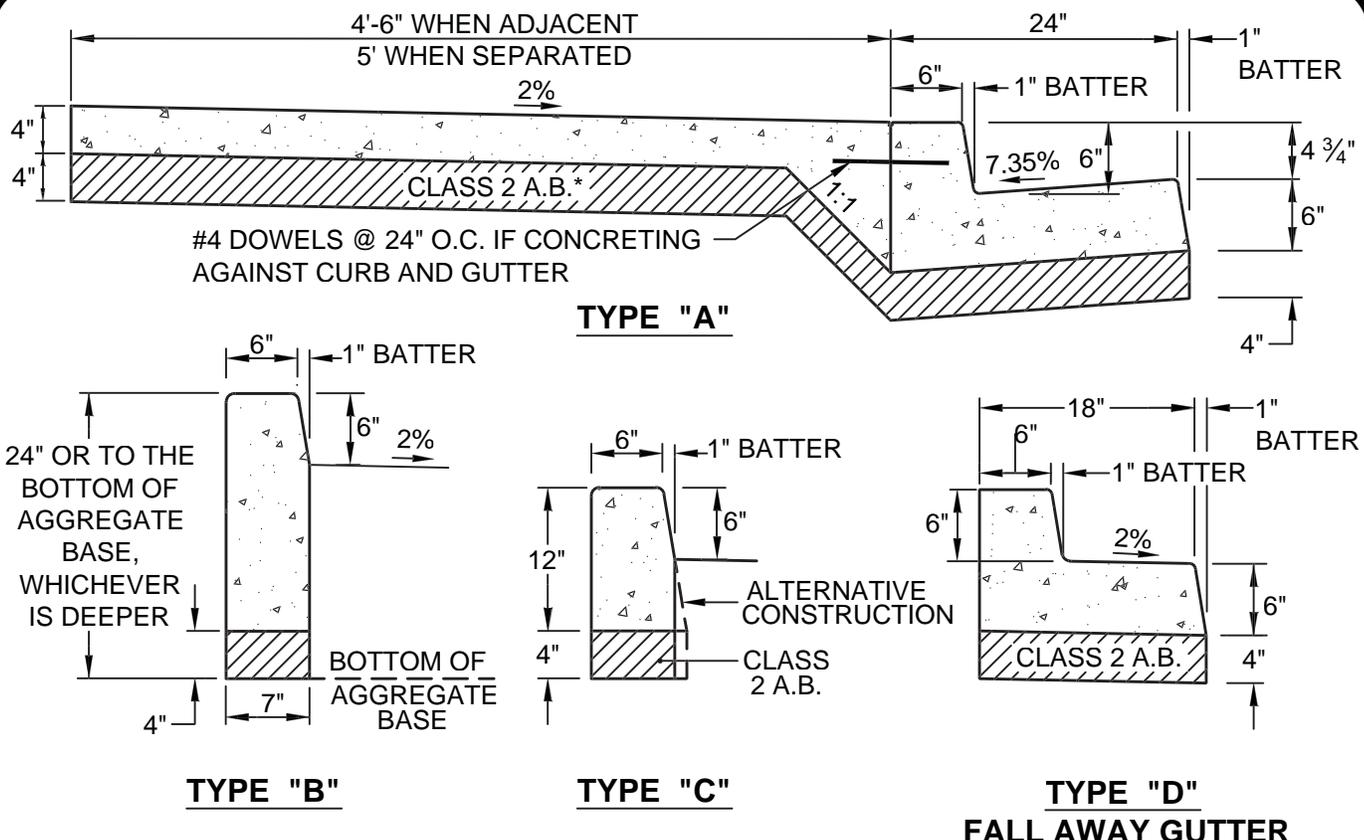


**RESIDENTIAL DRIVEWAY
WITH SEPARATED SIDEWALK**

B. Grewal
BALWINDER S. GREWAL
CITY ENGINEER

DATE: APRIL 25, 2007
REVISED: DEC. 31, 2013

SHEET No.
ST-7b



NOTES:

1. ALL CONCRETE SHALL BE CLASS B, 2500 P.S.I. MIN., WITH 1½ LBS. FIBRILLATED POLYPROPYLENE FIBERS PER CUBIC YARD.
2. A PERFORATED DRAIN PIPE SHALL BE INSTALLED ON TYPES "A", "C" AND "D" PER CITY STANDARD ST-24.
3. ALL CURB TYPES SHALL HAVE A 1" MIN. DEEP SCORE MARK EVERY 10'. IN ADDITION, TYPE "A" SIDEWALK SHALL HAVE A ¼" x ¼" SHALLOW SCORE MARK 5' O.C. FROM THE DEEP SCORE MARK.
4. BROOM FINISH WALK AT RIGHT ANGLES TO CURB; CURB AND GUTTER PARALLEL TO STREET.
5. INSCRIBE A 3" HIGH "W" OR "S" ON TOP OF THE CURB DIRECTLY ABOVE THE WATER OR SANITARY SEWER SERVICE.
6. ALL CONCRETE SHALL HAVE A MINIMUM 4" CUSHION OF CLASS 2 A.B. AT 95% RELATIVE COMPACTION (D1557-78) ON SUB-GRADE @ 95% RELATIVE COMPACTION. THE USE OF RECYCLED CLASS 2 A.B. SHALL NOT BE ALLOWED.
7. ALL CORNERS SHALL BE FINISHED WITH A ½" RADIUS.

(Not To Scale)



**PUBLIC WORKS
DEPARTMENT**

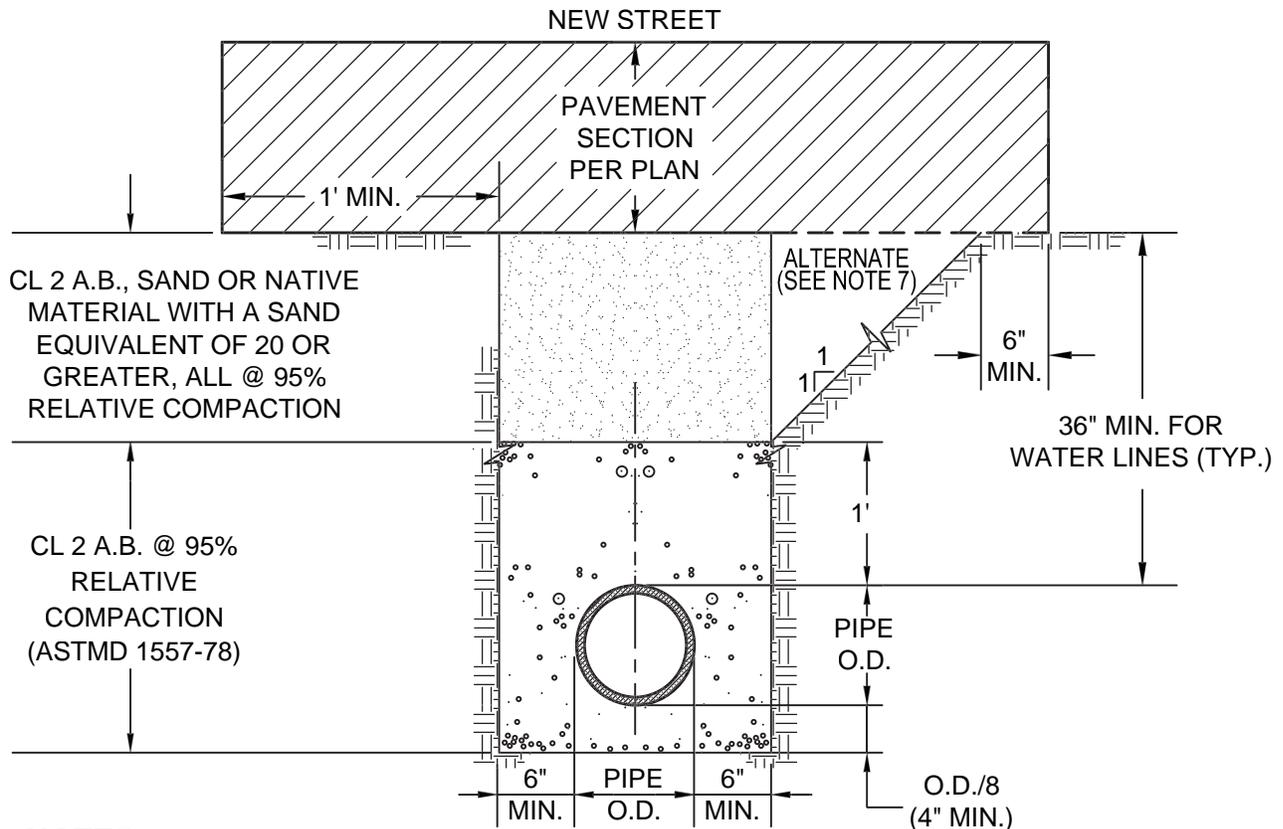


SIDEWALK, CURB AND GUTTER

B. Grewal
BALWINDER S. GREWAL CITY ENGINEER

DATE: JUNE 20, 2003
REVISED: DEC. 31, 2013

SHEET No.
ST-23



NOTES:

1. EASEMENT AREAS: SAME AS NEW STREETS BUT WITH 12" NATIVE SOIL CAP.
2. JETTING OF TRENCHES IS NOT ALLOWED.
3. ANY PROPOSED MODIFICATIONS MUST BE APPROVED IN WRITING BY THE CITY ENGINEER.
4. THE pH VALUE OF ALL BACKFILL MATERIAL SHALL BE TESTED TO BE WITHIN 6.5 TO 7.5 RANGE.
5. ANY NATIVE MATERIAL USED AS BACKFILL PER THIS STANDARD MUST BE PLACED AT OPTIMUM MOISTURE AND TESTED AND CERTIFIED AS SUCH BY AN APPROVED TESTING FIRM.
6. ALL COMPACTION SHALL BE DONE WITH REX COMPACTOR OR SHEEPS FOOT WHEEL.
7. ON NEW STREETS BEING A PART OF NEW SUBDIVISIONS: NATIVE MATERIAL MAY BE UTILIZED BETWEEN 1' ABOVE THE PIPE AND 1' BELOW SUBGRADE. IN THIS CASE, TRENCH SHALL BE LAID BACK AT 45° AND SHALL BE IN CONFORMANCE WITH ALL OTHER BACKFILL CRITERIA. MOISTURE CONTENT ON ROADWAYS AND SIDEWALKS SHALL BE WITHIN 2% OF OPTIMUM WITH THE CITY ENGINEER'S APPROVAL, AND 3% ABOVE OPTIMUM ON PARKWAYS, MEDIANS, AND LANDSCAPE AREAS.
8. NO RECYCLED A.B. IS ALLOWED.
9. SEE ST ST-25a FOR EXISTING STREET.

(Not To Scale)



**PUBLIC WORKS
DEPARTMENT**



**TRENCH AND BACKFILL
REQUIREMENTS**

BALWINDER S. GREWAL CITY ENGINEER

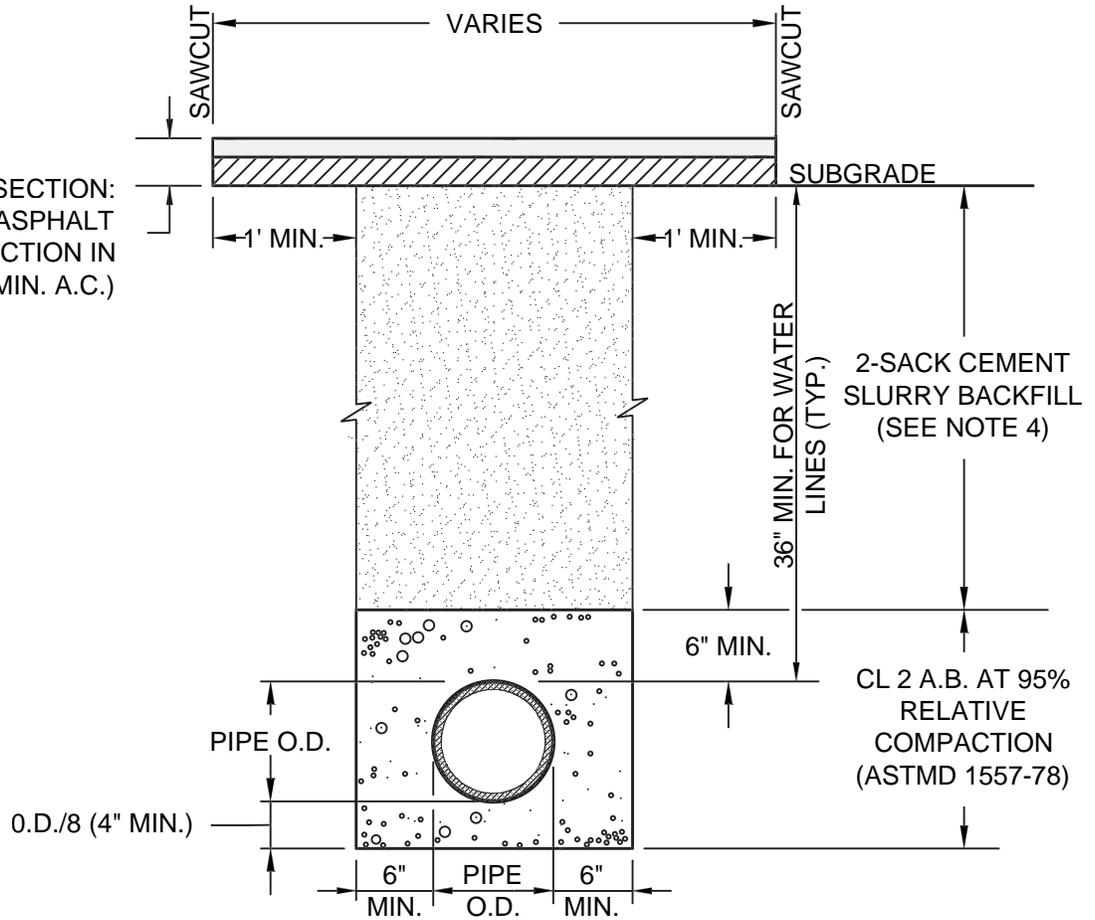
DATE: JUNE 20, 2003

REVISED: DEC. 31, 2013

SHEET No.

ST-25

PAVEMENT SECTION:
REPLACE ASPHALT
& A.B. SECTION IN
KIND (4" MIN. A.C.)



NOTES:

1. SEE ST-25b FOR ADDITIONAL NOTES ON OPEN TRENCH, BACKFILL AND REPAIR OF EXISTING STREETS.
2. UTILITY COMPANIES PARTICIPATING IN CONTRA COSTA UTILITY COALITION (i.e., PG&E, AT&T, COMCAST, CCWD, EBMUD, CCCSD), SHALL USE THE STANDARD TRENCH DETAIL EXHIBIT A OR B, DATED MARCH 2005 (SEE APPENDIX D OF THIS STANDARD PLANS AND SPECIFICATIONS).
3. THE USE OF RECYCLED A.B. SHALL NOT BE ALLOWED.
4. A 2-SACK CEMENT SLURRY SHALL BE REQUIRED ON ALL TRENCHES UNLESS APPROVED OTHERWISE BY THE CITY ENGINEER IN WRITING.

(Not To Scale)



**PUBLIC WORKS
DEPARTMENT**



**OPEN TRENCH, BACKFILL AND REPAIR
OF EXISTING STREETS**

B. Grewal
BALWINDER S. GREWAL CITY ENGINEER

DATE: AUG. 3, 2006
REVISED: DEC. 31, 2013

SHEET No.
ST-25a

NOTES:

1. REFER TO ST-25a FOR THE DETAIL ON OPEN TRENCH, BACKFILL AND REPAIR OF EXISTING STREETS.
2. JETTING OF TRENCHES IS NOT ALLOWED.
3. THIS DETAIL ASSUMES DEPTHS LESS THAN 8 FEET. FOR DEPTHS MORE THAN 8 FEET, ANY PROPOSED MODIFICATIONS OR ANY DIFFERING FIELD CONDITIONS NOT SPECIFIED HEREIN SHALL REQUIRE THE CITY ENGINEER'S WRITTEN APPROVAL.
4. CLASS II A.B. SHALL BE PLACED AND COMPACTED IN 1-FOOT LIFTS MAXIMUM. ALL COMPACTION SHALL BE DONE WITH REX COMPACTOR OR SHEEPS FOOT WHEEL.
5. ALL TRAFFIC STRIPING REMOVED OR DAMAGED SHALL BE REPLACED AND RESTORED TO ITS ORIGINAL CONDITION AND CONFIGURATION PER CITY STANDARDS.
6. PERMANENT PAVEMENT SHALL BE RESTORED WITHIN FOURTEEN (14) CALENDAR DAYS. TEMPORARY PAVEMENT DURING CONSTRUCTION SHALL BE MAINTAINED TO PROVIDE SMOOTH RIDE.
7. WHERE THE EDGE OF THE TRENCH IS WITHIN THREE (3) FEET OF A GUTTER LIP OR THE EDGE OF PAVEMENT, THE AC PAVEMENT BETWEEN THE TRENCH CUT AND THE GUTTER LIP/EDGE OF PAVEMENT SHALL BE REMOVED AND REPLACED WITH MATCHING PAVEMENT SECTION.
8. PERMISSION TO EXCAVATE OR TRENCH CUT IN NEW OR RESURFACED STREETS WILL NOT BE GRANTED FOR THREE (3) YEARS UNLESS APPROVED IN WRITING BY THE CITY ENGINEER.
9. A TRENCHED STREET SHALL BE GIVEN THE FOLLOWING CONDITIONS AS DIRECTED BY THE CITY ENGINEER:
 - A. FOR RESIDENTIAL ROADS AND STREETS, THE ENTIRE WIDTH OF THE ROAD FOR THE LENGTH OF TRENCH PLUS 3 FEET ON EITHER END OF TRENCH SHALL BE SLURRY SEALED.
 - B. FOR WIDE/MULTI-LANE ROADS THE SLURRY SEAL APPLICATION SHALL BE FOR THE TRENCH LENGTH PLUS 3 FEET ON EITHER SIDE OF TRENCH FOR:
 - a. THE AFFECTED TRAVEL LANE, OR
 - b. IF MULTIPLE LANES ARE AFFECTED, THOSE LANES, OR
 - c. IF THE CENTER OF THE STREET, BOTH DIRECTIONS TO THE NEAREST LANE LINE OR CURB TO CURB.
 - C. FOR ROADS THAT HAVE RECEIVED AN OVERLAY OR HAVE BEEN RECONSTRUCTED WITHIN THE LAST 3 YEARS, THE TRENCH LENGTH PLUS 1 FOOT BEYOND THE TRENCH WILL BE REPAIRED AND THE PAVEMENT WILL BE GROUND DOWN TO ACCEPT 0.15 FOOT OF 1/2 -INCH TYPE 'A' ASPHALT CONCRETE FOR:
 - a. THE AFFECTED LANE, OR
 - b. IF MULTIPLE LANE ARE AFFECTED, THOSE LANES, OR
 - c. IF THE CENTER OF THE STREET HAS BEEN AFFECTED, THEN BOTH DIRECTIONS TO THE NEAREST LANE OR CURB TO CURB.
 - D. TRANSVERSE TRENCHES SHALL HAVE A SLURRY SEAL APPLICATION OF A MINIMUM OF THE GREATER OF THE TRENCH WIDTH PLUS 1 FOOT OR 8 FEET TO REDUCE THE "PATCHY" APPEARANCE.

(Not To Scale)



**PUBLIC WORKS
DEPARTMENT**



**NOTES FOR OPEN TRENCH, BACKFILL AND
REPAIR OF EXISTING STREETS**


BALWINDER S. GREWAL CITY ENGINEER

DATE: JAN. 7, 2004

REVISED: DEC. 31, 2013

SHEET No.

ST-25b