

CITY OF BURLINGAME

DEPARTMENT OF PUBLIC WORKS

NOTICE TO BIDDERS

INSTRUCTION TO BIDDERS

PROPOSAL AND AGREEMENT

SPECIAL PROVISIONS

FOR

**WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893**

FOR USE IN CONNECTION WITH
STANDARD SPECIFICATIONS DATED 2010
AND STANDARD PLANS DATED 2010
OF THE CALIFORNIA DEPARTMENT OF TRANSPORTATION

MAYOR: DONNA COLSON, MAYOR

CITY COUNCIL: EMILY BEACH, VICE-MAYOR
MICHAEL BROWNRIGG
RICARDO ORTIZ
PETER STEVENSON

CITY MANAGER: LISA K. GOLDMAN

CITY CLERK: MEAGHAN HASSEL-SHEARER

PUBLIC WORKS
DIRECTOR: SYED MURTUZA



WEIZHI CHENG, P.E.
ASSOCIATE ENGINEER
RCE 90121
EXP. 6-30-25

BIDS ARE ACCEPTED ONLY BETWEEN 1:00 PM AND 2:00 PM ON TUESDAY, APRIL 30, 2024 AND BIDS WILL BE OPENED AT 2:30 PM THE SAME DAY VIA VIDEO CONFERENCING PLATFORM. ONLY THE CONTRACTORS WHO SUBMITTED BIDS WILL RECEIVE AN INVITATION TO THE VIDEO CONFERENCING BID OPENING. THE CONTRACTORS ARE REQUESTED TO PROVIDE AN EMAIL AND A PHONE NUMBER ON THE SEALED PROPOSAL TO RECEIVE AN INVITATION TO THE BID OPENING.

INDEX

NOTICE TO BIDDERS

INSTRUCTIONS TO BIDDERS

PROPOSAL

GENERAL

DESIGNATION OF SUBCONTRACTORS

STATEMENT OF EXPERIENCE QUALIFICATIONS

NON-COLLUSION DECLARATION

PUBLIC CONTRACT CODE STATEMENT AND QUESTIONNAIRE

CALIFORNIA AIR RESOURCES BOARD (CARB) COMPLIANCE STATEMENT

BID SCHEDULE

AGREEMENT FOR PUBLIC IMPROVEMENT

SPECIAL PROVISIONS

GENERAL CONDITIONS

SECTION 1. DEFINITIONS AND TERMS

- 1.01 General
- 1.02 Abbreviations
- 1.03 Definitions and Terms

SECTION 2. BIDDING

- 2.01 General
- 2.02 Subcontractor List
- 2.03 Proposal Pages
- 2.04 Compliance Statement
- 2.05 Bidder's Security

SECTION 3. AWARD AND EXECUTION OF CONTRACT

- 3.01 General
- 3.02 Award of Contract
- 3.03 Contract Bonds
- 3.04 Agreement Execution
- 3.05 Return of Proposal Guaranties
- 3.06 Insurance

SECTION 4. SCOPE OF WORK

- 4.01 General

- 4.02 Value Engineering
- 4.03 Increases of More Than Twenty-Five (25%) of Engineer's Estimate
- 4.04 Changes Initiated by the City

SECTION 5. CONTROL OF WORK

- 5.01 General
- 5.02 Coordination and Interpretation of Plans, Specifications and Special Provisions
- 5.03 Superintendence
- 5.04 Inspection
- 5.05 Payments to Subcontractors
- 5.06 Permits
- 5.07 City Business License
- 5.08 Engineering Submittals
- 5.09 Project Appearance
- 5.10 Lines and Grades
- 5.11 Project Plans
- 5.12 Construction Area Lighting
- 5.13 Areas for Contractor's Use
- 5.14 Nonhighway Facilities
- 5.15 Acceptance of Contract
- 5.16 Availability of Plans

SECTION 6. CONTROL OF MATERIALS

- 6.01 General
- 6.02 City-Furnished Materials
- 6.03 Local Materials
- 6.04 Buy America
- 6.05 Specific Brand or Trade Name and Substitution

SECTION 7. LEGAL RELATIONS AND RESPONSIBILITY

- 7.01 General
- 7.02 Construction Hours
- 7.03 Excavation Safety
- 7.04 Assignment of Antitrust Actions
- 7.05 Highway Construction Equipment
- 7.06 Sound Control Requirements
- 7.07 Relations with Property Owners
- 7.08 Public Convenience
- 7.09 Indemnification

SECTION 8. PROSECUTION AND PROGRESS

- 8.01 General
- 8.02 Progress Schedule
- 8.03 Start of Job Site Activities
- 8.04 Liquidated Damages
- 8.05 Contractor's Control Termination
- 8.06 As-Built Data

SECTION 9. MEASUREMENT AND PAYMENT

- 9.01 General
- 9.02 Payment Adjustments for Price Index Fluctuations
- 9.03 Lump Sum Bid Item Progress Payments
- 9.04 Materials On-Hand
- 9.05 Mobilization
- 9.06 Retentions
- 9.07 Progress Payments
- 9.08 Final Payment After Contract Acceptance
- 9.09 Claim Resolution
- 9.10 Adjustment of Overhead Costs
- 9.11 Damages
- 9.12 Compensation for General Conditions and Supplementary General Conditions

SECTION 10. MAINTAINING TRAFFIC

- 10.01 General
- 10.02 Portable Delineators
- 10.03 Lane Closures
- 10.04 Parked Vehicles
- 10.05 Traffic Control
- 10.06 Contractor Representative
- 10.07 Portable Flashing Beacons
- 10.08 Portable Barricades
- 10.09 Temporary Delineation
- 10.10 Procedures and Posting of "No Parking" Signs on City Streets
- 10.11 Payment

SUPPLEMENTARY GENERAL CONDITIONS

TECHNICAL SPECIFICATIONS

- SECTION 01010 – SUMMARY OF WORK AND CONTRACT CONSIDERATIONS
- SECTION 01040 – COORDINATION AND PROJECT REQUIREMENTS
- SECTION 01130 – WORK RESTRICTIONS
- SECTION 01140 – ENVIRONMENTAL PROTECTION
- SECTION 01300 – SUBMITTALS
- SECTION 01400 – MOBILIZATION, SITE PREPARATION, SITE
MAINTENANCE, DEMOBILIZATION
- SECTION 01500 – CONSTRUCTION FACILITIES AND TEMPORARY
CONTROLS
- SECTION 01700 – CONSTRUCTION CLOSEOUT
- SECTION 02204 – DEWATERING
- SECTION 02315 – EXCAVATION AND FILL
- SECTION 02510 – WATER SYSTEM PIPING AND ACCESSORIES
- SECTION 02511 – FIRE SYSTEM PIPING
- SECTION 02532 – HAND DIG TO REPLACE EXISTING WATER MAIN AND
PRECONSTRUCTION POTHOLING
- SECTION 02705 – PAVING AND RESURFACING
- SECTION 02775 – CURB, GUTTERS, AND SIDEWALKS

.....
The City of Burlingame Standard Details are available at:

https://www.burlingame.org/departments/public_works/city_standard_details.php



The City of Burlingame

PUBLIC WORKS DEPARTMENT
(650) 558-7230

CITY HALL - 501 PRIMROSE ROAD
BURLINGAME, CALIFORNIA 94010-3997

CORPORATION YARD
(650) 558-7670

NOTICE TO BIDDERS

For the **WEST BURLINGAME TERRACE SUBDIVISION WATER MAIN REPLACEMENT PROJECT, CITY PROJECT NO. 84893**, sealed proposals will be received at the office by the City Clerk. In order to maintain physical distancing requirements, the Contractors are requested to drop off sealed proposals on a table in front of City Clerk's office in the Lobby area of the City Hall. The sealed proposals will only be received from 1:00 PM to 2:00 PM on Tuesday, April 30, 2024. Sealed bids will be publicly opened and read at 2:30 P.M. on Tuesday, April 30, 2024 via a video conference platform. Only the contractors who submitted bids will receive an invitation to the bid opening. To ensure that all contractors who submitted sealed proposals receive an invite for video conference bid opening, the contractors are requested to write an email and a phone number on the front of the sealed proposal to receive a video conferencing invite. In the absence of this information or incorrect information, a contractor may not receive an invite to the bid opening. However, a recording of a bid opening will be available for the contractors to view at a later time.

Hard copy bid documents are not available at this time. A printable electronic copy of Plans and Specifications covering the work may be obtained by prospective bidders. To obtain a printable electronic copy of the bid documents, please email Carla Talavera at ctalavera@burlingame.org.

The work shall consist of installing new water mains in the City of Burlingame. Base Bid Schedule A includes approximately 410 linear feet of new 12-inch, 1,150 linear feet of new 8-inch, and 3,360 linear feet of new 6-inch Ductile Iron Pipe (DIP) water main on Fairfield Rd., Palm Dr., Willow Ave., Arc Way, Walnut Ave., Sanchez Ave., Edgehill Dr., and Balboa Ave. The existing water mains will be abandoned in place, except for specific areas on Fairfield Rd., Sanchez Ave., and Forest View Ave. where the existing water mains will be removed. The construction method is anticipated to be conventional open trench and the water main will typically be installed at three feet minimum cover. Water mains shall be DIP Pipe throughout the entire project. Work also consists of installing new 1- and 2-inch water services totaling approximately 2,400 linear feet, and city-furnished water meters for customer connections. Seven fire hydrant assemblies will be removed and replaced, and two new fire hydrant assemblies will be installed. One existing water sampling station will be reconnected with a new service line, and one new water sampling station will be installed. Miscellaneous concrete and asphalt work will be performed as needed and will consist of approximately 400 square feet of sidewalk, 125 square feet of concrete driveway, 680 linear feet of curb and gutter, and 75 square feet of concrete cap work. Work will also consist of traffic control and miscellaneous concrete and asphalt work for pavement restoration within the limits of the Town of Hillsborough, where an encroachment permit is required.

The Engineer's Estimate for the project is approximately \$3,050,000.

Special Provisions, Specifications and Plans, including prevailing wage rates to be paid in compliance with Section 1773.2 of the California Labor Code and related provisions, may be inspected in the office of the City Engineer during normal working hours at City Hall, 501 Primrose Road, Burlingame, California, and are also available for review at the State of California Department of Industrial Relations' Web site.

A **non-mandatory** pre-bid meeting associated with this project will be held on Monday, April 22, 2024 at 10:00 A.M. via a video conference platform. Contractors shall email Weizhi Cheng at

wcheng@burlingame.org by 5:00 PM on Friday, April 19, 2024 to register for the pre-bid meeting. A pre-bid meeting invitation with a link to the video conference platform will be sent to registered contractors on Friday, April 19, 2024. Any questions related to the bid documents shall be sent via email to Weizhi Cheng, wcheng@burlingame.org by Tuesday, April 23, 2024.

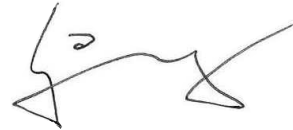
The Contractor shall possess a Class A license prior to submitting a bid.

No contractors and subcontractor may be listed on the bid proposal for a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.5(a)]. All contractors and subcontractors will be required to furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

All contractors and subcontractors will be required to furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).

All contractors and subcontractors will be required to submit a California Air Resources Board (CARB) compliance statement with the bid proposal. Failure to submit this statement may result in a nonresponsive bid.

All work specified in this project, shall include the base bid and alternate bids (if shown in Proposal), and shall be completed within 150 Working Days (WD) (one hundred fifty working days) from date of the Notice to Proceed.



DATE OF POSTING: April 3, 2024

Weizhi Cheng, P.E.
Associate Engineer

INSTRUCTIONS TO BIDDERS

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893

Proposals shall be submitted in accordance with the Special Provisions and these Instructions.

General Instructions

- A. Bids shall be made upon the form provided, properly executed and with all items completed. All signatures shall be in longhand.
- B. Bids shall not be unbalanced. Any apparent unbalancing of bids may be considered sufficient grounds for rejection of a proposal.
- C. A proposal shall cover all items of the bidding schedule. Blank spaces in the bid shall be properly filled in, and the wording thereof must not be changed. Additions shall not be made to the items mentioned therein. Any unauthorized conditions, limitations or provisions attached to a proposal may cause its rejection. Alterations by erasures or interlineation shall be explained or noted in the bid over the signature of the bidder.
- D. Late bids will be returned to the bidder unopened.
- E. Each bid shall be addressed to the City Clerk of the City of Burlingame, and shall be delivered to the office of the City Clerk of the City of Burlingame, 501 Primrose Road, Burlingame, California 94010, on or before the day and time set for the opening of bids. The bid shall be enclosed in a sealed envelope bearing the title of the project, the name of the bidder, and the date and time of the opening. It is the sole responsibility of the bidder to ensure that the bid is received in proper time at the office of the City Clerk.
- F. Cash deposits for Plans and Specifications will not be refunded.

Licensure

All bidders shall have the class of license(s) listed in the Notice Inviting Sealed Bids prior to submitting a bid.

Bidder's Bond

Each bid must be accompanied by cash, a certified or cashier's check, or a bidder's bond in the sum of not less than ten percent (10%) of the total aggregate of the bid, and such a check or bond shall be made payable to the City of Burlingame as set forth in Section 3 of the Special Provisions. If the successful bidder fails to file the bonds or to provide the insurance required by the Contract Documents, or refuses to enter into a contract within the specified time, it shall be liable for any difference by which the cost of procuring the work exceeds the amount of its bid and the bond or the amount of cash or check shall be available to offset such difference.

Examination of Plans, Specifications and Site Work

Before submitting a bid, each bidder shall carefully read the Specifications and all other Contract Documents. The bidder shall visit the site of the Project and shall fully inform itself as to all existing conditions and limitations under which the work is to be performed, and it shall include in its bid a sum to cover the cost of all items necessary to perform the work as set forth in the Contract Documents. No allowance of any kind whatsoever will be made to any bidder because of lack of such examination or knowledge. The submission of a bid shall be conclusive evidence that the bidder has made such an examination. *Bidders shall report any discrepancies in the field conditions or Contract Documents that they discover to the City before bids are opened.*

Competency of Bidder

Any bidder may be required to furnish evidence satisfactory to City that it and its proposed subcontractors have sufficient means and experience in the type of work called for to insure completion of the contract in a satisfactory manner.

Withdrawal of Bid

Any bidder may withdraw its bid, either personally or by a written request, at any time prior to the scheduled time for opening of bids.

Award or Rejection of Bids

The Contract, if awarded, will be awarded to the lowest responsible bidder subject to City's right to reject any or all bids and to waive informalities to the fullest extent provided by law in the bids.

Withdrawal of Bids after Opening

No bidder may withdraw its bid for a period of sixty (60) calendar days after the date set for the opening thereof, and the same shall be subject to acceptance by the City during this period.

Execution of Agreement

The successful bidder, as Contractor shall, within ten (10) calendar days after notice of award, execute and deliver to City one original and one counterpart of the Agreement, which is included in the Contract Documents.

Performance Bond, Labor and Materialpersons Bond, Deposit of Securities

At or prior to the delivery of the signed Agreement, Contractor shall deliver to the City a Faithful Performance Bond and a Contractor's Payment (Labor and Materials) Surety Bond, as are required by the Special Provisions. All bonds shall be in the general forms designated by City, and each shall be in an amount equal to one hundred percent (100%) of the contract price. All bonds shall be approved by the City Attorney before the successful bidder may proceed with the work. Failure or refusal to furnish bonds in the form satisfactory to the City Attorney shall subject the bidder to penalties for delay in commencement of the work or revocation of the award of contract.

Pursuant to Section 22300 of the California Public Contract Code, the Contractor will be permitted, at its request and sole expense, to substitute securities for any monies withheld by the City, as provided in the Special Provisions.

Insurance

At or prior to the delivery of the signed Contract Agreement, Contractor shall deliver to the City the policies of insurance and certificates and endorsements that are required by the Special Provisions. Failure or refusal to furnish insurance policies or certificates in the form satisfactory to the City Attorney shall subject the bidder to penalties for delay in commencement of the work or revocation of the Award of Contract. All policies,

endorsements, and certificates of insurance shall be approved by the City Attorney before the successful bidder may proceed with any work.

Interpretation of Drawings and Documents Prior to Bidding

If any potential bidder is in doubt as to the true meaning of any part of the Plans, Specifications, or other Contract Documents, or finds discrepancies in, or omissions from the Plans or Specifications, it may submit to the City Engineer a written request for an interpretation or correction thereof not later than five working days before the date bids will be opened. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the Contract Documents will be made only by addendum. Bidders shall confirm the existence of any and all addenda. The City will not be responsible for any other explanation or interpretation of the Contract Documents.

Addenda

Addenda issued during the time of bidding shall become a part of the documents furnished to bidders for the preparation of bids, shall be covered in the bids and shall be made a part of the Contract Documents. Each bid shall include specific acknowledgement in the space provided of receipt of all Addenda issued during the bidding period. Failure to do so may result in the bid being rejected and labeled as nonresponsive. Failure of any bidder to receive such Addenda shall not be grounds for non-compliance with the terms of the instructions. It is the responsibility of the Contractor to contact the City to determine the existence of any and all addenda.

Bidders Interested in More than One Bid

No person, firm or corporation shall be allowed to make or file or be interested in more than one bid for the same work, unless alternate bids are called for. A person, firm or corporation submitting a sub-proposal to a bidder, or who has quoted prices on materials to a bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders.

Special Notice

Bidders are required to inform themselves fully of the conditions relating to construction and labor under which the work will be or is now performed, and, so far as possible, the successful bidder must employ such methods and means in carrying out his/her work as will not cause any interruption or interference with any other Contractor.

List of Subcontractors

Bidders shall submit a list of their proposed subcontractors in compliance with Sections 4100-4113 of the Public Contract Code of the State of California. A form for this designation is furnished in the Contract Documents.

Additional Sureties

If at any time during the continuance of the contract the Sureties, or any of them, shall, in the opinion of City, be no longer responsible, the City shall have the right to require additional and sufficient Sureties which Contractor shall furnish to the satisfaction of City within ten (10) working days after notice.

Definition of Contract Documents

The term "Contract Documents" is defined in section 1.03 Definitions and Terms of the Special Provisions and in the AGREEMENT FOR PUBLIC IMPROVEMENT. The submission of any bid shall be deemed a thorough and complete understanding of all provisions of the Contract Documents.

Business License

All Contractors, whether they are general Contractors or subcontractors, who transact or carry on business in the City, shall acquire a Business License in conformance with the Burlingame Municipal Code.

Wages

Workers employed in the work must be paid at rates at least equal to the then current prevailing wage scale as determined by the State Director of the Department of Industrial Relations. A copy is on file in the City Department of Public Works, and is also available for review at the State of California Department of Industrial Relations' web site at www.dir.ca.gov/DLSR/PWD.

Pursuant to Labor Code Section 1770 *et. seq*, any Contractor who is awarded a public works project and intends to use a craft or classification not shown on the general prevailing wage determinations, may be required to pay the wage rate of that craft or classification most closely related to it as shown in the general determinations effective at the time of the calls for bids.

Unit Prices

Because unit prices are key elements of bid award and contract administration, in case of discrepancy between the unit price and the total set for a unit basis item, the unit price shall prevail. If, however, the unit price is omitted, ambiguous, unintelligible, or uncertain for any reason, or if it is the same amount as set forth in the “Total” column, then the amount set forth in the “Total” column for the item shall prevail and shall be divided by the estimated quantity to determine the unit price.

GENERAL

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893

TO THE CITY OF BURLINGAME, CALIFORNIA: _____, 20____

Pursuant to the foregoing Notice to Contractors, the undersigned bidder has reviewed and examined the plans and specifications, and any addenda in their entirety, and hereby states that the firm is qualified to construct the project. The bidder herewith submits its proposal on the Bid Form, Designation of Subcontractors, and Statement of Experience Qualifications, Non-Collusion Declaration, and Statement under Public Contract Code Section 10285.1 attached hereto and made a part hereof, and binds itself on award by the City of Burlingame under this proposal to execute in accordance with such award, a contract, of which this Proposal and the Notice to Contractors, Instructions to Bidders, Special Provisions, Standard Specifications, and Plans and Specifications are hereby made a part of this Proposal and all provisions thereof are hereby accepted.

In submitting this proposal, the bidder has confirmed the existence of any and all addenda and accepts the changes to the contract included in all addenda. The bidder shall include specific acknowledgement in the space provided of receipt of all addenda issued during the bidding period.

The bidder further agrees that in case of its default in executing the Contract Documents, and providing the required bonds and insurance, the cash, check or Bidder's Bond, accompanying its proposal and the money payable thereon shall be and remain the property of the City of Burlingame, as provided in the Instructions to Bidders and the Special Provisions.

Company name: _____

(Corporate Seal)

Signature _____

Address _____

Contractor's license number: _____

Contractor's telephone no. _____

Contractor's facsimile no. _____

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

If a corporation, organized under the laws of the state of: _____,

Nature of firm (corporation, partnership, etc.) and names of individual members of the firms, or names and titles of officers of the corporation:

Name _____ Title _____

Name _____ Title _____

Name _____ Title _____

Name _____ Title _____

DESIGNATION OF SUBCONTRACTORS

(Public Contract Code Sections 4100 *et seq.*)

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID PROPOSAL

WEST BURLINGAME TERRACE SUBDIVISION

WATER MAIN REPLACEMENT PROJECT

CITY PROJECT NO. 84893

As a bidder on the above-entitled project, the undersigned hereby designates the subcontractors that will perform work or labor or render services to the Contractor in or about the construction of the project in an amount in excess of one-half (1/2) of one percent (1%) of the Contractor's total bid or \$10,000 whichever is greater.

The undersigned understands and agrees that should it fail to specify a subcontractor for any portion of the work as above stated, it agrees that the undersigned is fully qualified to perform that portion of the work itself, and that it shall perform that portion itself. Penalties for failure to comply with this provision are provided in the Subletting and Subcontracting Fair Practices Act commencing with Section 4100 of the Public Contract Code.

Pursuant to Public Contract Code Section 6109, Contractor shall not allow or permit any subcontractor that is ineligible to perform work on a public works project pursuant to Labor Code Section 1777.1 or 1777.7, to perform any work on this Project.

The undersigned agrees that it shall not, without written consent of the City Council, make any substitution, assignment or sublet to or of the following list of subcontractors which is made a part of this proposal and then only after compliance with the provisions of the Subletting and Subcontracting Fair Practices Act.

LIST OF SUBCONTRACTORS

NAME OF SUBCONTRACTOR	ADDRESS OF SUBCONTRACTOR	<u>STATE</u> <u>CONTRACTORS</u> <u>LICENSE #</u>	DIR REGISTRATION #	WORK TO BE DONE BY SUBCONTRACTOR

NAME OF BIDDER: _____

Signature: _____

STATEMENT OF EXPERIENCE QUALIFICATIONS
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID PROPOSAL
WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893

The following statement as to experience qualifications of the bidder is submitted in conjunction with the Proposal, as a part thereof, and the truthfulness and accuracy of the information is guaranteed by the Bidder.

The bidder has been engaged in the contracting business, under the present business name, for _____ years. Experience in work of a nature similar to that covered in the proposal extends over a period of 3 years *with a minimum of five (5) projects each exceeding \$2,000,000.*

The bidder, as a contractor, has never failed to satisfactorily complete a contract awarded to it, except as follows:

The following contracts have been satisfactorily completed in the last three years for the persons, firm or authority indicated, and to whom reference is made:

YEAR	TYPE OF WORK PROJECT NAME	CONTRACT AMOUNT	LOCATION	FOR WHOM PERFORMED	CONTACT NAME AND PHONE NO.

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

The following is a list of plant and equipment owned by the bidder, which is definitely available for use on the proposed work as required:

QUANTITY	NAME, TYPE, CAPACITY	CONDITION	LOCATION

NAME OF BIDDER: _____

Signature: _____

NON-COLLUSION DECLARATION

(PUBLIC CONTRACT CODE SECTION 7106)

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID PROPOSAL

WEST BURLINGAME TERRACE SUBDIVISION

WATER MAIN REPLACEMENT PROJECT

CITY PROJECT NO. 84893

I, _____, declare under penalty of perjury that I am _____ (sole owner, partner, president, etc.) of _____, the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract or anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly, or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare under penalty of perjury that the foregoing is true and correct and this was executed on the date shown below at _____.
(City, State)

Dated: _____

NAME OF BIDDER: _____

Signature _____

PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

WEST BURLINGAME TERRACE SUBDIVISION

WATER MAIN REPLACEMENT PROJECT

CITY PROJECT NO. 84893

In accordance with Public Contract Code Section 10285.1 (Stats. 1985, Ch. 376), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has _____, has not _____ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

[NOTE: THE BIDDER MUST PLACE A CHECK MARK AFTER "HAS" OR "HAS NOT" IN ONE OF THE BLANK SPACES ABOVE.]

The above Statement is part of the Proposal. Bidders are warned that making a false certification may subject the certifier to criminal prosecution.

I declare under penalty of perjury that the foregoing is true and correct and this was executed on the date shown below at _____.
(City, State)

Dated: _____

NAME OF BIDDER: _____

Signature _____

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID PROPOSAL

In accordance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

No _____ Yes _____

If the answer is yes, explain the circumstances below:

I declare under penalty of perjury that the foregoing is true and correct and this was executed on the date shown below at _____.
(City, State)

Dated: _____

NAME OF BIDDER: _____

Signature _____

Public Contract Code 10232 Statement

In accordance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement and Questionnaire. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

I declare under penalty of perjury that the foregoing is true and correct and this was executed on the date shown below at _____.
(City, State)

Dated: _____

NAME OF BIDDER: _____

Signature _____

California Air Resources Board (CARB) Compliance Statement

In accordance with the California Environmental Protection Agency Air Resources Board (CARB), the Bidder shall provide and attach a copy of the certificate of reported compliance in use off road Diesel Fueled Fleets regulation. (ATTACH CERTIFICATION OF COMPLIANCE)

All contractors and subcontractors will be required to submit with the bid proposal Certificates of Reported Compliance (CRC) which is stored at the California Air Resources Board (CARB) website. Failure to submit this certification may result in a nonresponsive bid.

https://ssl.arb.ca.gov/ssldoors/doors_reporting/doors_login.html

All CRC shall contain an off-road diesel fleet identification number and valid certificate. Contractor shall submit and confirm all CRC have been submitted to the CARB website or have indicated that CARB compliance does not apply to the contractor or subcontractor with a detailed reasoning for said exemption.

If the project is exempt from this requirement state, the reason below:

I declare under penalty of perjury that the foregoing is true and correct and this was executed on the date shown below at _____.
(City, State)

Dated: _____

NAME OF BIDDER: _____

Signature _____

BID SHEET

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893

BASE BID - SCHEDULE A:

ITEM NO.	ITEM DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	ITEM TOTAL
1	Mobilization	1	LS		
2	Traffic Control	1	LS		
3	Sheeting, Shoring and Bracing	1	LS		
4	Construction Staking and Survey	1	LS		
5	Site Investigation and Potholing	1	LS		
6	Storm Water Pollution Prevention	1	LS		
7	Encroachment Permit (Town of Hillsborough) (NO FEE PERMIT)	1	LS		
8	6" Water Main - DIP	3,360	LF		
9	8" Water Main - DIP	1,150	LF		
10	12" Water Main - DIP	410	LF		
11	4" Plug or Cap & Thrust Block	3	EA		
12	6" Plug or Cap & Thrust Block	10	EA		
13	8" Plug or Cap & Thrust Block	6	EA		
14	12" Plug or Cap & Thrust Block	7	EA		
15	Fitting 6" 90 Degree Bend & Thrust Block	1	EA		
16	Fitting 8" 90 Degree Bend & Thrust Block	1	EA		
17	Fitting 6" 45 Degree Bend & Thrust Block	31	EA		
18	Fitting 8" 45 Degree Bend & Thrust Block	15	EA		
19	Fitting 12" 45 Degree Bend & Thrust Block	6	EA		
20	Fitting 6" 22.5 Degree Bend & Thrust Block	1	EA		
21	Fitting 8" 22.5 Degree Bend & Thrust Block	2	EA		
22	Fitting 12" 22.5 Degree Bend & Thrust Block	1	EA		
23	Fitting 6" 11.25 Degree Bend & Thrust Block	2	EA		
24	Fitting 12" 11.25 Degree Bend & Thrust Block	2	EA		
25	Fitting 8"x6" Concentric Reducer	6	EA		
26	Fitting 12"x6" Concentric Reducer	3	EA		
27	Fitting 6"x6" Tee & Thrust Block	1	EA		
28	Fitting 8"x8" Tee & Thrust Block	5	EA		
29	Fitting 12"x12" Tee & Thrust Block	3	EA		
30	6" Gate Valve	10	EA		
31	8" Gate Valve	13	EA		
32	12" Butterfly Valve	8	EA		
33	2" Blow Off Valve	1	EA		
34	2" Irrigation Valve	1	EA		
35	12" Blind Flange	1	EA		
36	Fire Hydrant Assembly	9	EA		
37	Remove Existing Fire Hydrant Assembly	7	EA		
38	Water Sampling Station Assembly	1	EA		
39	Reconnect to Existing Water Sampling Station	1	EA		

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

40	New 4" Fire Service Type-1 Single Service	1	EA		
41	1" Water Service Type K Copper Tubing Small (less than 10ft)	41	EA		
42	1" Water Service Type K Copper Tubing Medium (10-25ft)	34	EA		
43	1" Water Service Type K Copper Tubing Large (more than 25ft)	36	EA		
44	2" Water Service Type K Copper Tubing & Assembly Small (less than 10ft)	2	EA		
45	2" Water Service Type K Copper Tubing & Assembly Medium (10-25ft)	2	EA		
46	2" Water Service Type K Copper Tubing & Assembly Large (more than 25ft)	1	EA		
47	1" Customer-Side Water Service Type K Copper Tubing Small (less than 10ft)	59	EA		
48	1" Customer-Side Water Service Type K Copper Tubing Medium (10-25ft)	6	EA		
49	1" Customer-Side Water Service Type K Copper Tubing Large (more than 25ft)	2	EA		
50	2" Customer-Side Water Service Type K Copper Tubing Small (less than 10ft)	2	EA		
51	Water Meter Box - B16	104	EA		
52	Water Meter Box - Traffic-Rated H20	4	EA		
53	Water Meter Box - Large B36	5	EA		
54	Remove and Dispose of Water Meter Box and Salvage Meter	113	EA		
55	Connect to Existing Water 6" Main (incl. shut down, tie-in)	7	EA		
56	Connect to Existing Water 8" Main (incl. shut down, tie-in)	3	EA		
57	Connect to Existing Water 12" Main (incl. shut down, tie-in)	5	EA		
58	Abandon Existing Water Valve	22	EA		
59	Remove Existing Water Valve	8	EA		
60	Abandon Existing Blow Off Valve	2	EA		
61	Remove Existing 8" Water Pipe	275	LF		
62	Remove Existing 12" Water Pipe	60	LF		
63	Temporary Service Connections	12	EA		
64	Repair Sewer Crossing (5' section)	3	EA		
65	Miscellaneous Concrete Repair (Curb & Gutter, Wide Gutter Apron, etc.)	100	LF		
66	Remove and Replace Sidewalk	400	SF		
67	Remove and Replace Concrete Driveway Section	125	SF		
68	Install ISA Marking	1	EA		
69	Hand Dig Section (1 Unit = 20LF)	3	Unit		
70	Remove and Replace Curb Drain	3	EA		
71	Remove and Replace Curb & Gutter	680	LF		
72	Concrete Cap	75	SF		
73	Allowance for Additional AC Pavement Lift (4" Max)	10	SF		
74	Remove and Replace Traffic Detector Loops	1	EA		

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

75	Allowance for Air Release Valve Assembly	1	EA		
76	Temporary Blow Off Valve Assembly	2	EA		
77	Contaminated Soil Removal Allowance	30	CY		
78	Dielectric Blanket	3	LS		
79	Striping & Signage	1	LS		

**WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893 – BID SCHEDULE A TOTAL _____**

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

NOTES:

1. A proposal must include a total estimated amount together with an estimated amount for each item listed herein. Failure to do so may cause the proposal to be considered nonresponsive.
2. All quantities are estimated except where the unit is given as "LS".
3. Job prices shall cover all work complete and finished in accordance with the Contract Documents.
4. The successful lowest responsible bidder will be determined based on the lowest Bid Schedule A amount.

TOTAL BID AMOUNT (SCHEDULE A): _____

BIDDING CONTRACTOR'S SIGNATURE: _____

BIDDING CONTRACTOR'S NAME: _____

CONTRACTOR'S LICENSE NUMBER

EXPIRATION DATE

CONTRACTOR'S ADDRESS

CONTRACTOR'S TELEPHONE NO.

DATE

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893

Water Main Improvements – Base Bid
Bid Item Descriptions (Bid Schedule A):

Bid Item No. 1 – Mobilization

The contract lump sum price paid for **Mobilization** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved with mobilization including obtaining all bonds, insurance and permits, moving on to the site, moving off of the site; removing, storing and rebuilding fences and protective barriers; construction signage, notification of residents, and all other incidental work required for mobilization and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 2 - Traffic Control

The contract lump sum price paid for **Traffic Control**, shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved to provide traffic control, complete in place, including preparation of the traffic control plan stamped and signed by a California Licensed Professional Engineer (traffic control plan shall not include full road closures), flag men, equipment, incidentals necessary for doing all work involved in maintaining traffic, as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as required by the approved permit and directed by the Engineer.

Bid Item No. 3 – Sheeting, Shoring and Bracing

The contract lump sum price paid for **Sheeting, Shoring and Bracing** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved to provide sheeting, shoring and bracing, complete in place, including design, installation and removal of sheeting, shoring, bracing and other excavation supports necessary to complete all work in compliance with the California Occupational Safety and Health (CAL-OSHA) standards, and all work as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 4 – Construction Staking and Surveying

The contract lump sum price paid for **Construction Staking and Surveying** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved to provide construction staking under the direction of a professional land surveyor licensed in the State of California, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

Bid Item No. 5 – Site Investigation and Potholing

The contract lump sum price paid for **Site Investigation and Potholing** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in site investigation and potholing including performing a pre-construction site investigation, verifying existing pipe locations, depths and sizes, materials and whether water meters are active or abandoned, for all work in the Burlingame Terrace Subdivision area and also including proposed water service replacement locations outside the Burlingame Terrace Subdivision area, pre-construction television inspection and potholing, traffic control required for site investigation or potholing, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 6 – Stormwater Pollution Prevention

The contract lump sum price paid for **Stormwater Pollution Prevention** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in Stormwater Pollution Prevention, complete in place, including inlet protection, removal of groundwater, nonhazardous material and waste management, dust control, hazardous material / waste management, spill prevention, vehicle / equipment inspection and cleaning, concrete truck / equipment wash out, paint cleanup, street sweeping, dewatering, recycling, compliance with the Storm Water Pollution Prevention Plan (SWPPP), and assigning a Qualified SWPPP Practitioner (QSP) to monitor and ensure compliance with the SWPPP, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 7 – Encroachment Permit (Town of Hillsborough) (NO FEE PERMIT)

The contract lump sum price paid for **Encroachment Permit (Town of Hillsborough)** shall include full compensation for obtaining encroachment permits prior to starting work in the Town of Hillsborough right-of-way along with furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved with obtaining the encroachment permit including, insurance, traffic control plans, and, moving and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer. **Town of Hillsborough has waived encroachment permit fees for this project.**

Bid Item No. 8 – 6" Water Main-DIP

Bid Item No. 9 – 8" Water Main-DIP

Bid Item No. 10 – 12" Water Main-DIP

The contract unit price paid per linear foot for **Water Main** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing each size water main, complete in place, including profile adjustments necessary to avoid utility conflicts, excavation, backfill, off-haul, disposal of valves and hydrants,

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

removing existing water mains and tees, saw cutting, testing, cleaning, dewatering, disinfecting, installing fittings, thrust blocks, bolts, flanges, couplings, ductile iron pipe (DIP), tees, reducers, mechanical joints, restoring the surface to City standards with aggregate base, asphalt concrete and per Note 6 on City Standard Details. Trench requirements within 3-ft or less from curb & gutter shall include the removal and restoration of asphalt segments, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 11 – 4” Plug or Cap & Thrust Block

Bid Item No. 12 – 6” Plug or Cap & Thrust Block

Bid Item No. 13 – 8” Plug or Cap & Thrust Block

Bid Item No. 14 – 12” Plug or Cap & Thrust Block

The contract unit price paid for each **Plug or Cap & Thrust Block** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in plugging or capping the existing water main, complete in place, including excavation, cutting of existing pipe, installation of required thrust blocks or other thrust restraint devices, for all locations as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 15 thru 29 – Fittings

The contract unit price paid for each **Fittings** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing fittings, complete in place, including thrust blocks, flanges, bolts, nuts, mechanical joints, and connection accessories, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 30 – 6" Gate Valve

Bid Item No. 31 – 8" Gate Valve

The contract unit price paid for each **Gate Valve** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing gate valves, complete in place, including valve connection, adaptors, valve box and iron cover, thrust blocks and/or mechanical restraints recommended or specified by the equipment manufacturer, as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 32 – 12" Butterfly Valve

The contract unit price paid for each **12” Butterfly Valve** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing butterfly valves, complete in place, including valve connection, adaptors, valve box and iron cover, thrust blocks and/or mechanical restraints recommended or specified by

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

the equipment manufacturer, as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 33 – 2" Blow Off Valve

The contract unit price paid for each **2" Blow Off Valve** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing blow off valves, complete in place, including valve connection, adaptors, valve box and iron cover, thrust blocks and/or mechanical restraints recommended or specified by the equipment manufacturer, as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 34 – 2" Irrigation Valve

The contract unit price paid for each **2" Irrigation Valve** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing irrigation valves, complete in place, including valve connection, adaptors, valve box and iron cover, thrust blocks and/or mechanical restraints recommended or specified by the equipment manufacturer, as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 35 – 12" Blind Flange

The contract unit price paid for each **4" & 12" Blind Flange** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing blind flange, complete in place, including excavation, cutting of existing pipe, installation of required thrust blocks or other thrust restraint devices, for all locations as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 36 – Fire Hydrant Assembly

The contract unit price paid for each **Fire Hydrant Assembly** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing the fire hydrant assembly, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, testing, cleaning, disinfecting, installing the tee on the water main, and installing 6" gate valve at the tee on the water main, valve box, fittings, thrust blocks, hydrant, hydrant bury, spacer, 6" break-off check valve on hydrant and on the downstream side of the main, installing valve box, connection accessories, appurtenances, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and painting new red curb with stenciling and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 37 – Remove Existing Fire Hydrant Assembly

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

The contract unit price paid for each **Remove Existing Fire Hydrant Assembly** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing the existing fire hydrant assembly including excavation, off-haul, disposal, removal of fire hydrant and appurtenances, saw cutting, backfilling, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and removing existing red curb paint and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 38 – Water Sampling Station Assembly

The contract unit price paid for each **Water Sampling Station Assembly** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing the water sampling station assembly, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, testing, cleaning, disinfecting, installing the tee on the water main, and installing any valves at the tee on the water main, fittings, thrust blocks, hydrant, hydrant bury, spacer, check valves, valve boxes, connection accessories, appurtenances, and restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and painting new red curb with stenciling and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 39 – Reconnect to Existing Water Sampling Station

The contract unit price paid for each **Reconnect to Existing Water Sampling Station** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in reconnecting the existing water sampling station assembly to the new water main and service line, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, testing, cleaning, disinfecting, installing the tee on the water main, and installing any valves at the tee on the water main, fittings, thrust blocks, spacer, check valves, valve boxes, connection accessories, appurtenances, and restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and painting new red curb with stenciling and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 40 – New 4" Fire Service Type-1 Single Service

The contract unit price paid for each **New 4" Fire Service Type-1 Single Service** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing the fire service type with any required parts of the assembly, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, testing, cleaning, disinfecting, and installing a 4" gate valve at the tee on the water main, valve box, fittings, tees, thrust blocks, couplers, flanges blind flanges, spacer, check valve on the downstream side of the main, installing valve box, connection accessories, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

painting any required exposed parts to its matching color and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

- Bid Item No. 41 – 1" Water Service Type K Copper Tubing Small (less than 10ft)**
- Bid Item No. 42 – 1" Water Service Type K Copper Tubing Medium (10-25ft)**
- Bid Item No. 43 – 1" Water Service Type K Copper Tubing Large (more than 25ft)**
- Bid Item No. 44 – 2" Water Service Type K Copper Tubing Small (less than 10ft)**
- Bid Item No. 45 – 2" Water Service Type K Copper Tubing Medium (10-25ft)**
- Bid Item No. 46 – 2" Water Service Type K Copper Tubing Large (more than 25ft)**

The contract unit price paid per each for small, medium, or large for **Water Service Type K Copper Tubing** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing water services from the new main to the existing customer side water service in the Burlingame Terrace Subdivision area, complete in place, including trench excavation, backfill, off-haul, disposal, verifying the existing connection material, sawcutting, testing, cleaning, dewatering, disinfecting, removing the existing water service, and installing City furnished meter, fittings, adapters, copper pipe, couplings, corporation stops, service clamps, saddles, connection accessories, valves, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer. This bid item shall also include installation of up to 2' of customer-side water service Type K copper tubing (diameter to match existing) to connect the water meter to the existing customer-side water service.

- Bid Item No. 47 – 1" Customer-Side Water Service Type K Copper Tubing Small (less than 10ft)**
- Bid Item No. 48 – 1" Customer-Side Water Service Type K Copper Tubing Medium (10 to 25ft)**
- Bid Item No. 49 – 1" Customer-Side Water Service Type K Copper Tubing Large (more than 25ft)**
- Bid Item No. 50 – 2" Customer-Side Water Service Type K Copper Tubing Small (less than 10ft)**

The contract unit price paid per each for small, medium, or large **Customer-Side Water Service Type K Copper Tubing** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing customer-side water services from the new water meter connection to the existing customer-side water service in the Burlingame Terrace Subdivision area, complete in place, including trench excavation, backfill, off-haul, disposal, verifying the existing connection material, sawcutting, testing, cleaning, dewatering, disinfecting, and installing, fittings, adapters, copper pipe, couplings, corporation stops, service clamps, saddles, connection accessories, valves, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

Bid Item No. 51 – Water Meter Box – B16

The contract unit price paid for each **Water Meter Box – B16** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing water meter boxes in the Burlingame Terrace Subdivision area, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, cleaning, dewatering, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 52 – Water Meter Box – Traffic-Rated H20

The contract unit price paid for each **Water Meter Box – Traffic-Rated H20** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing H20 traffic-rated water meter boxes in the Burlingame Terrace Subdivision area, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, cleaning, dewatering, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 53 – Water Meter Box – Large B36

The contract unit price paid for each **Water Meter Box – Large B36** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing water meter boxes in the Burlingame Terrace Subdivision area, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, cleaning, dewatering, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 54 – Remove and Dispose of Water Meter Box and Salvage Meter

The contract unit price paid for each **Remove and Dispose of Water Meter Box and Salvage Meter** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing existing water meters and boxes which are being replaced as part of this project in the Burlingame Terrace Subdivision area, complete in place, including excavation, off-haul, disposal, verification in the field the water meters and services are abandoned and the removal of water meters and boxes, saw cutting, backfilling, salvaging the existing meter, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

Bid Item No. 55 – Connect to Existing 6” Water Main (including shut down and tie-in)

Bid Item No. 56 – Connect to Existing 8” Water Main (including shut down and tie-in)

Bid Item No. 57 – Connect to Existing 12” Water Main (including shut down and tie-in)

The contract unit price paid for each **Connect to Existing Water Main (including shut down and tie-in)** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in connecting to the existing water mains, complete in place, including saw cutting, trench excavation, backfill, off-haul, disposal, overtime premiums, removal and disposal of pipe, shutdowns, and installation of temporary and permanent fittings, for all locations as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 58 - Abandon Existing Water Valve

The contract unit price paid for each **Abandon Existing Water Valve** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in abandoning existing water valve boxes and restoring per City standards, complete in place, including excavation, off-haul, disposal, saw cutting, backfilling, removing the water valve boxes, and restoring the surface to City standards with asphalt concrete, aggregate base, and concrete, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 59 - Remove Existing Water Valve

The contract unit price paid for each **Remove Existing Water Valve** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing existing water valve boxes and restoring per City standards, complete in place, including excavation, off-haul, disposal, saw cutting, backfilling, removing the water valve boxes, and restoring the surface to City standards with asphalt concrete, aggregate base, and concrete, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 60 - Remove Existing Blow Off Valve

The contract unit price paid for each **Remove Existing Blow Off Valve** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing existing blow off valve boxes and restoring per City standards, complete in place, including excavation, off-haul, disposal, saw cutting, backfilling, removing the blow off valve boxes, and restoring the surface to City standards with asphalt concrete, aggregate base, and concrete, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 61 – Remove Existing 8” Water Pipe

Bid Item No. 62 – Remove Existing 12” Water Pipe

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

The contract unit price paid per linear foot for **Remove Existing Water Pipe** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in removing each size water pipe, complete in place, including excavation, backfill, off-haul, disposal of fittings valves and hydrants, removing existing water mains and tees, saw cutting, testing, cleaning, dewatering, disinfecting, removing fittings, thrust blocks, bolts, flanges, couplings, tees, reducers, mechanical joints, restoring the surface to City standards with aggregate base, asphalt concrete and per Note 6 on City Standard Details. Trench requirements within 3-ft or less from curb & gutter shall include the removal and restoration of asphalt segments, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 63 – Temporary Service Connection

The contract unit price paid per each for **Temporary Service Connection** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in installing temporary water services from the new main to the existing customer side water service, complete in place, including testing, cleaning, disinfecting, removing the existing water service, and installing City furnished meter, fittings, adapters, copper pipe, couplings, corporation stops, service clamps, saddles, connection accessories, valves, removal or abandonment of temporary service, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 64 – Repair Sewer Crossing (5' section)

The contract unit price paid per each for **Repair Sewer Crossing (5' section)** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved to provide a sanitary sewer repair to a crossing that includes all excavation and backfill, saw cutting, dewatering, removal and disposal of existing damaged sewer along with any material, couplings, fittings and connections for repair complete in place, including any additional concrete, rebar, drain rock, aggregate base, asphalt concrete, CDF backfill, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 65 – Miscellaneous Concrete Repair (Curb & Gutter, Wide Gutter Apron, etc.)

The contract unit price paid per linear foot for **Miscellaneous Concrete Repair (Curb & Gutter, Wide Gutter Apron, etc.)** shall include full compensation for furnishing all additional labor, materials, tools, equipment, and incidentals above for doing all the work involved in normal concrete removal and disposal work and repairing concrete pavement. This includes all materials, labor, sawcutting, jackhammering, drilling, or excavation of street surface, hauling and disposal of concrete, placement and compaction of base, installing any new AC pavement, rolling new AC pavement installing new concrete and concrete surface treatment. The Contractor shall notify the

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

inspector and the City upon the paving schedule, lane closers, and condition before continuing beginning demo and paving stages.

Bid Item No. 66 – Remove and Replace Sidewalk

Bid Item No. 67 – Remove and Replace Concrete Driveway Section

The contract unit price paid per square foot for **Remove and Replace Sidewalk**, and **Remove and Replace Concrete Driveway Section**, shall include full compensation for furnishing all additional labor, materials, tools, equipment, and incidentals above for doing all the work involved in normal concrete removal and disposal work and replacing with new concrete. This includes all materials, labor, sawcutting, jackhammering, drilling, hand digging around tree roots, or excavation of sidewalk or driveway, hauling and disposal of concrete, placement and compaction of base, installing concrete form work, new concrete, and surfacing new concrete. The Contractor shall notify the inspector and the City upon the replacement schedule, street, sidewalk & driveway closers, and condition before beginning demo and continuing replacement stages and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 68 – Install ISA Marking

The contract unit price paid for each to **Install ISA Marking** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved to install International Symbol of Accessibility pavement marking, complete in place, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 69 – Hand Dig Section (1 Unit = 20LF)

The contract price paid per unit for **Hand Dig Section (1 Unit = 20LF)** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in digging by hand, appropriate trench for water main including profile adjustments necessary to avoid utility conflicts, excavation, backfill(hand or approved other), off-haul, disposal of valves and hydrants, removing existing water mains and tees, sawcutting, dewatering, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 70 – Remove and Replace Curb Drain

The contract unit price paid per each for **Remove and Replace Curb Drain** shall include full compensation for furnishing all additional labor, materials, tools, equipment, and incidentals above for doing all the work involved in removing existing curb drain and replacing with new curb drain

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

in a location to be approved by the Engineer, normal concrete curb & gutter removal and disposal work, replacing with new curb & gutter. This includes all materials, labor, sawcutting, jackhammering, drilling, hand digging around tree roots, or excavation of curb & gutter, hauling and disposal of concrete, placement and compaction of base, installing concrete form work, new curb & gutter, etc.. The Contractor shall notify the inspector and the City upon the replacement schedule, and condition before beginning demo and continuing replacement stages and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 71 – Remove and Replace Curb & Gutter

The contract unit price paid per linear foot for **Remove and Replace Curb & Gutter** shall include full compensation for furnishing all additional labor, materials, tools, equipment, and incidentals above for doing all the work involved in normal concrete curb & gutter removal and disposal work and replacing with new curb & gutter & valley gutter. This includes all materials, labor, sawcutting, jackhammering, drilling, hand digging around tree roots, or excavation of curb & gutter, hauling and disposal of concrete, placement and compaction of base, installing concrete form work, new curb & gutter, valley gutter etc.. The Contractor shall notify the inspector and the City upon the replacement schedule, and condition before continuing beginning demo and replacement stages and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 72 – Concrete Cap

The contract unit price paid per square foot for **Concrete Cap** shall include full compensation for furnishing all additional labor, materials, tools, equipment, and incidentals above for doing all the work involved in installing each size concrete cap above shallow utilities. This includes all materials, labor, sawcutting, jackhammering, drilling, hand digging around tree roots, or profile adjustments necessary to avoid conflicts, excavation, backfill, off-haul, disposal of material, placement and compaction of class 2 base, installing concrete form work, rebar/wire mesh, bond breaker, asphalt in place. The Contractor shall notify the inspector and the City upon the replacement schedule, lane closers, and condition before beginning demo and continuing replacement stages and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 73 – Allowance for Additional AC Pavement Lift (4” Max)

The contract unit price paid per square foot for **Allowance for Additional AC Pavement Lift (4” Max)** shall include full compensation for furnishing all additional labor, materials, tools, equipment, and incidentals above for doing all the work involved in normal concrete or AC removal and disposal work and replacing with AC pavement. This includes all materials, labor, sawcutting, jackhammering, drilling, or excavation of street surface, hauling and disposal of concrete, placement and compaction of base, installing new AC pavement, rolling new AC

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

pavement. The Contractor shall notify the inspector and the City upon the paving schedule, lane closers, and condition before continuing beginning demo and paving stages.

Bid Item No. 74 – Remove and Replace Traffic Detector Loop System

The contract unit price paid per each for **Remove and Replace Traffic Detector Loop System** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved to restore traffic loop systems damaged or removed by construction activities. If one or more traffic detector loops in a system is damaged or removed by construction activities, the Contractor shall replace the entire affected traffic detector loop system, complete in place, including all conduits, controls, connections, disposal, placement, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

Bid Item No. 75 – Allowance for Air Release Valve Assembly

The contract unit price paid for each **Allowance for Air Release Valve Assembly** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing air release valves at the locations shown on the plans, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, and installing the air release valve, fittings, connection accessories, restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 76 – Temporary Blow Off Valve Assembly

The contract unit price paid for each **Temporary Blow Off Valve Assembly** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in constructing Temporary Blow off valve assembly at the locations shown on the plans, complete in place, including excavation, backfill, off-haul, disposal, saw cutting, and installing the Temporary Blow off valve, fittings, connection accessories, and removing blow off valves when no longer needed and new main is operational and restoring the surface to City standards with aggregate base, asphalt concrete, concrete, and other existing surface landscaping material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 77 – Contaminated Soil Removal Allowance

The contract unit price paid per cubic yard for **Contaminated Soil Removal Allowance**, shall include full compensation for furnishing all additional labor, materials, tools, equipment, and incidentals above for doing all the work involved in typical contaminated soil removal and disposal at a class 2 facility along with any work and replacing with new clean soil. This includes all materials, labor, sawcutting, jackhammering, drilling, hand digging around tree roots, or excavation, hauling and disposal of soil, placement and compaction of new soil, and surfacing new soils. The Contractor shall notify the inspector and the City upon the replacement schedule, for any closers, and condition before beginning demo and continuing replacement stages and all other

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 78 – Dielectric Blanket Allowance

The contract unit price paid for each **Dielectric Blanket Allowance** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in providing and installing dielectric blankets at the locations where new water mains cross the existing SFPUC water mains as shown on the plans, complete in place, including excavation, placement, exposing and attaching, and restoring the surface over SFPUC main to SFPUC standards and City standards with the required material, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, these technical specifications, and as directed by the Engineer.

Bid Item No. 79 – Striping & Signage

The contract lump sum price paid to install new **Striping & Signage** shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved to restore pavement striping, markings and markers, complete in place, including taking an inventory of existing pavement striping and markings to be replaced, and all other work as shown on the plans, as specified in the Standard Specifications, these special provisions, and these technical specifications, and as directed by the Engineer.

**END OF BASE BID ITEM DESCRIPTIONS
(BID SCHEDULE A)**

AGREEMENT FOR PUBLIC IMPROVEMENT

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893

THIS AGREEMENT, made in duplicate and entered into in the City of Burlingame, County of San Mateo, State of California on _____, 2024 by and between the CITY OF BURLINGAME, a Municipal Corporation, hereinafter called "City", and _____, a [State of incorporation] [Corporation or other form of business], hereinafter called "Contractor."

WITNESSETH:

WHEREAS, City has taken appropriate proceedings to authorize construction of the public work and improvements herein provided for and to authorize execution of this Contract; and

WHEREAS, pursuant to State law and City requirements, a notice was duly published for bids for the contract for the improvement hereinafter described; and

WHEREAS, on _____, after notice duly given, the City Council of Burlingame awarded the contract for the construction of the improvements hereinafter described to Contractor, which the Council found to be the lowest responsive, responsible bidder for these improvements; and

WHEREAS, City and Contractor desire to enter into this Agreement for the construction of said improvements.

NOW, THEREFORE, IT IS AGREED by the parties hereto as follows:

1. Scope of work.

Contractor shall perform the work described in those Contract Documents entitled: WEST BURLINGAME TERRACE SUBDIVISION WATER MAIN REPLACEMENT PROJECT CITY PROJECT NO. 84893.

2. The Contract Documents.

The complete contract between City and Contractor consists of the following documents: this Agreement; Notice Inviting Sealed Bids, attached hereto as Exhibit A;

the accepted Bid Proposal, attached hereto as Exhibit B; the specifications, provisions, addenda, complete plans, profiles, and detailed drawings contained in the bid documents titled "West Burlingame Terrace Subdivision Water Main Replacement Project, City Project No. 84893" attached as Exhibit C; the State of California Standard Specifications 2010, as promulgated by the California Department of Transportation; prevailing wage rates of the State of California applicable to this project by State law; and all bonds; which are collectively hereinafter referred to as the Contract Documents. All rights and obligations of City and Contractor are fully set forth and described in the Contract Documents, which are hereby incorporated as if fully set forth herein. All of the above described documents are intended to cooperate so that any work called for in one, and not mentioned in the other, or vice versa, is to be executed the same as if mentioned in all said documents.

3. Contract Price.

The City shall pay, and the Contractor shall accept, in full, payment of the work above agreed to be done, the sum of _____ dollars (\$_____), called the "Contract Price". This price is determined by the lump sum and unit prices contained in Contractor's Bid. In the event authorized work is performed or materials furnished in addition to those set forth in Contractor's Bid and the Specifications, such work and materials will be paid for at the unit prices therein contained. Said amount shall be paid in progress payments as provided in the Contract Documents.

4. Termination

At any time and with or without cause, the City may suspend the work or any portion of the work for a period of not more than 90 consecutive calendar days by notice in writing to Contractor that will fix the date on which work will be resumed. Contractor will be granted an adjustment to the Contract Price or an extension of the Time for Completion, or both, directly attributable to any such suspension if Contractor makes a claim therefor as provided in the Contract Documents.

The occurrence of any one or more of the following events will justify termination of the contract by the City for cause: (1) Contractor's persistent failure to perform the work in accordance with the Contract Documents; (2) Contractor's disregard of Laws or Regulations of any public body having jurisdiction; (3) Contractor's disregard of the authority of the Engineer; or (4) Contractor's violation in any substantial way of any provision of the Contract Documents. In the case of any one or more of these events,

the City, after giving Contractor and Contractor's sureties seven calendar days written notice of the intent to terminate Contractor's services, may initiate termination procedures. Such termination will not affect any rights or remedies of City against Contractor then existing or that accrue thereafter. Any retention or payment of moneys due Contractor will not release Contractor from liability. At the City's sole discretion, Contractor's services may not be terminated if Contractor begins, within seven calendar days of receipt of such notice of intent to terminate, to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 calendar days of such notice.

Upon seven calendar days written notice to Contractor, City may, without cause and without prejudice to any other right or remedy of City, terminate the Contract for City's convenience. In such case, Contractor will be paid for (1) work satisfactorily completed prior the effective date of such termination, (2) furnishing of labor, equipment, and materials in accordance with the Contract Documents in connection with uncompleted work, (3) reasonable expenses directly attributable to termination, and (4) fair and reasonable compensation for associated overhead and profit. No payment will be made on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

5. Provisions Cumulative.

The provisions of this Agreement are cumulative and in addition to and not in limitation of any other rights or remedies available to the City.

6. Notices.

All notices shall be in writing and delivered in person or transmitted by certified mail, postage prepaid.

Notices required to be given to the City shall be addressed as follows:

Mr. Kevin Okada
Senior Engineer
City of Burlingame
501 Primrose Road
Burlingame, California 94010

Notices required to be given to Contractor shall be addressed as follows:

Name
Company Name
Address

7. Interpretation

As used herein, any gender includes the other gender and the singular includes the plural and vice versa.

8. Waiver or Amendment.

No modification, waiver, mutual termination, or amendment of this Agreement is effective unless made in writing and signed by the City and the Contractor. One or more waivers of any term, condition, or other provision of this Agreement by either party shall not be construed as a waiver of a subsequent breach of the same or any other provision.

9. Controlling Law.

This Agreement is to be governed by and interpreted in accordance with the laws of the State of California.

10. Successors and Assignees.

This Agreement is to be binding on the heirs, successors, and assigns of the parties hereto but may not be assigned by either party without first obtaining the written consent of the other party.

11. Severability.

If any term or provision of this Agreement is deemed invalid, void, or unenforceable by any court of lawful jurisdiction, the remaining terms and provisions of the Agreement shall not be affected thereby and shall remain in full force and effect.

12. Indemnification.

Contractor shall indemnify, defend, and hold the City, its directors, officers, employees, agents, and volunteers harmless from and against any and all liability, claims, suits, actions, damages, and causes of action arising out of, pertaining or relating to the actual or alleged negligence, recklessness or willful misconduct of Contractor, its employees, subcontractors, or agents, or on account of the performance or character of the services, except for any such claim arising out of the sole negligence or willful misconduct of the City, its officers, employees, agents, or volunteers. It is understood that the duty of Contractor to indemnify and hold harmless includes the duty

to defend as set forth in section 2778 of the California Civil Code. Notwithstanding the foregoing, for any design professional services, the duty to defend and indemnify City shall be limited to that allowed by state law. Acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

IN WITNESS WHEREOF, two identical counterparts of this Agreement, consisting of five pages, including this page, each of which counterparts shall for all purposes be deemed an original of this Agreement, have been duly executed by the parties hereinabove named on the day and year first hereinabove written.

CITY OF BURLINGAME,
a Municipal Corporation

By _____
Lisa K. Goldman, City Manager

Approved as to form:

"CONTRACTOR"

Michael Guina, City Attorney

By _____
Print Name:
Company Name:

ATTEST:

Meaghan Hassel-Shearer, City Clerk

CITY OF BURLINGAME

DEPARTMENT OF PUBLIC WORKS

SPECIAL PROVISIONS

FOR

**WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT
CITY PROJECT NO. 84893**

GENERAL CONDITIONS

SECTION 1. DEFINITIONS AND TERMS

1.01 General

The following shall be added to Standard Specifications Section 1-1.01:

The work contemplated herein shall be done in accordance with these Specifications as defined in the Special Provisions Section 1.03, and the Municipal Code of the City of Burlingame, insofar as the same may apply and in accordance with the following Special Provisions.

In the case of conflict between the Standard Specifications and these Special Provisions, the Special Provisions shall take precedence over and be used in lieu of such conflicting portions.

1.02 Abbreviations

Abbreviations of the Standard Specifications shall be amended to include the following:

AIA	American Institute of Architects
APWA	American Public Works Association
ASA	American Standard Association
CSI	Construction Specifications Institute
IAMPO	International Association of Mechanical & Plumbing Officials
ICBO	International Conference of Building Officials
UBC	Uniform Building Code
UPC	Uniform Plumbing Code

1.03 Definitions and Terms

The definitions in Standard Specifications Section 1-1.07B are amended as follows:

As used herein, unless the context otherwise requires, the following terms have the following meanings:

Agency: The legal entity for which the work is being performed.

Authorized Laboratory: The laboratory authorized by the Engineer to test materials and work involved in the contract.

Contract Documents: The Contract Documents shall include the complete contract between City and Contractor, which shall consist of the following documents: the Agreement and Notice Inviting Sealed Bids; the accepted Bid Proposal; the specifications, provisions, addenda, complete plans, profiles, and detailed drawings contained in the bid documents entitled "West Burlingame Terrace Subdivision Water Main Replacement Project, City Project No. 84893"; the State of California Standard Specifications 2010, as promulgated by the California Department of Transportation; prevailing wage rates of the State of California applicable to this project by State law; and all bonds. All rights and obligations of City and Contractor are fully set forth and described in the Contract Documents, which are hereby incorporated as if fully set forth herein. All of the above described documents are intended to cooperate so that any work called for in one, and not mentioned in the other, or vice versa, is to be executed the same as if mentioned in all said documents. In case of any inconsistencies among the various documents, the Agreement shall prevail.

Contract Acceptance: The formal written contract acceptance of an entire contract by the City Council at a regularly scheduled meeting, recorded in the County of San Mateo Recorder's Office, titled "Notice of Completion," signed by an authorized official of the City of Burlingame, which has been completed in all respects in accordance with the plans and specifications and any modification thereof previously approved.

City: The City of Burlingame, State of California.

Department: The Department of Public Works of the City of Burlingame.

Director: The Director of Public Works of the City of Burlingame, California.

Engineer: The City Engineer of the City of Burlingame, State of California, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

Inspector: An inspector employed or retained by the City to perform inspection during construction of the work under the direction of the Director.

Legal Holiday: A holiday as specified in Section 5.04 of these Special Provisions.

Owner: The City of Burlingame, a political subdivision of the State of California.

Plans: Standard plans, revised standard plans and project plans.

1. **Project plans:** Drawings specific to the project, including authorized shop drawings.
2. **Standard plans:** *2010 California Department of Transportation Standard Plans, City of Burlingame Standard Details*, and any other local agency or district standard plans or details referenced in project plans.

The California Department of Transportation standard plans are available at:
http://www.dot.ca.gov/hq/esc/oe/construction_standards.html

The City of Burlingame Standard Details are available at:
https://www.burlingame.org/departments/public_works/city_standard_details.php

Specifications: Standard specifications, and special provisions, as follows:

1. **Special Provisions:** Specifications specific to the project. These specifications are in a section titled *Special Provisions* of this bid book titled *Notice to Bidders/Proposal and Agreement/Special Provisions*.

2. **Standard Specifications:** Specifications standard to City construction projects. These specifications are in a book titled State of California Department of Transportation *Standard Specifications 2010* (Standard Specifications or SS). These standard specifications are available at:

http://www.dot.ca.gov/hq/esc/oe/construction_standards.html

Any reference therein to the State of California or a State agency, office or officer, acting under the Standard Specifications shall be interpreted to refer to the City or its corresponding agency, office or officer acting under this contract.

State: In references where context applies to "State" as the owner of the Project, the City of Burlingame.

Supplementary General Conditions: The part of the Contract Documents that makes additions, deletions, or revisions to these General Conditions.

Technical Specifications: Those portions of the Contract Documents consisting of the written technical descriptions of products and execution of the Work.

Work: The entire completed construction required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

*** END OF SECTION ***

SECTION 2. BIDDING

2.01 General

The bidder's attention is directed to the provisions in Section 2, "Bidding," of the Standard Specifications and these Special Provisions for the requirements and conditions which it shall observe in the preparation of the proposal form and the submission of the bid.

The following Sections in the Standard Specifications are deleted:

- 2-1.15, "Disabled Veterans Business Enterprises".
- 2-1.18, "Small Business and Non-small Business Subcontracting Preferences".
- 2-1.27, "California Companies"

2.02 Subcontractor List

Standard Specifications Section 2-1.10, "Subcontractor List," is replaced by the following:

2-1.10 SUBCONTRACTOR LIST

On the Subcontractor List form, list each subcontractor to perform work in an amount in excess of 1/2 of 1 percent of the total bid or \$10,000, whichever is greater (Pub Cont Code § 4100 et seq.).

For each subcontractor listed, the Subcontractor List form must show:

1. Business name and the location of its place of business.
2. California contractor license number for a non-federal-aid contract.
3. Public works contractor registration number
4. Portion of work it will perform.

2.03 Proposal Pages

Standard Specifications Section 2-1.33, "Bid Document Completion" is amended to provide that the bid documents shall include the required proposal pages or copies thereof completed and signed, including Proposal to the City of Burlingame, Designation of Subcontractors, Experience Qualifications, Non-Collusion Declaration, Public Contract Code Compliance Statement and Questionnaire, and Bid Sheet in these Special Provisions.

2.04 Compliance Statement

The Contractor shall complete a statement indicating compliance with Public Works Contracts Code Section 10285.1 and Public Contract Code Section 10162 Questionnaire. These documents shall be completed and included in the Proposal.

2.05 Bidder's Security

Standard Specifications Section 2-1.34, "Bidder's Security" is replaced with the following:

If Contractor's bid is greater than \$25,000, a Contractor shall submit bid with one of the following forms of bidder's security equal to at least 10 percent of the bid:

1. Cashier's check
2. Certified check
3. Signed bidder's bond by an admitted surety insurer

A sample bid bond is provided at the end of this Section.

Bidders shall submit a cashier's check, a certified check, or a bidder's bond to the City before the bid opening time. The bidder's security shall be made payable to the City of Burlingame.

*** END OF SECTION ***

BIDDER'S BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That _____ we,
as _____ Principal, and

_____ as Surety, are held and firmly bound unto the City of Burlingame, a municipal corporation of the State of California (hereinafter called "City") in the penal sum of ten percent (10%) of the total aggregate amount of the bid of the Principal above named, submitted by said Principal to the City for the work described below, for the payment of which sum in lawful money of the United State, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. In no case shall the liability of the Surety hereunder exceed the sum of _____ (\$_____)

Dollars.

The condition of this obligation is such that a bid to the City for certain construction specifically described as follows, for which bids are to be opened on _____, _____, 20____, at ____:_____, has been submitted by Principal to City:

NOW THEREFORE, if the Principal is awarded the Contract and within the time and manner required under the Specifications, after the prescribed forms are presented to the Principal for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files two bonds with the City, one to guarantee faithful performance of the Contract and the other to guarantee payment for labor and materials as provided by law as well as files insurance certificates and equal employment opportunity documentation required under the bid, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon said bond by City, and judgment is recovered, the Surety shall pay all costs incurred by City in such suit, including a reasonable attorney's fee to be fixed by the Court.

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

_____(Seal)

_____(Seal)

_____(Seal)

_____(Seal)

_____(Seal)

NOTE: Attach notary acknowledgment for signatures of those executing for Principal and Surety

SECTION 3. AWARD AND EXECUTION OF CONTRACT

3.01 General

The bidder's attention is directed to the provisions of Standard Specifications Section 2, "Bidding," and Section 3 "Contract Award and Execution," , and to "Proposal Requirements and Conditions," of these Special Provisions for the requirements and conditions concerning award and execution of the contract, with the following clarifications, changes and additions.

The second paragraph of Standard Specifications Section 3-1.02A, "General," is replaced with the following:

In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b), as follows:

(a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;

(b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentagewise the unit price or item total in the Agency's Engineer Estimate of cost.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.

Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Cents symbols also have no significance in establishing any unit price or item total because all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

Standard Specifications Section 3-1.02B, "Tied Bids," is replaced with:

3-1.02B Tied Bids

The Department breaks a tied bid with a coin toss.

Standard Specifications Sections 3-1.08, "Small Business Participation Report," and 3-1.11, "Payee Data Record," are deleted.

3.02 Award of Contract

To the fullest extent provided by law, the City reserves the right to waive any irregularities and/or informalities in any bid received.

The award of the contract, if it be awarded, will be to the lowest responsive and responsible bidder whose proposal complies with all the requirements prescribed. Such award, if made, will be made within forty-five (45) days after the opening of the proposals. If the lowest responsive bidder refuses or fails to execute the contract, the City may award the contract to the second lowest responsive and responsible bidder. Such award, if made, will be made within sixty (60) days after the opening of proposals. If the second lowest responsive bidder refuses or fails to execute the contract, the City may award the contract to the third lowest responsive and responsible bidder. Such award, if made, will be made within seventy-five (75) days after the opening of the proposals. The periods of time specified above within which the award of contract may be made shall be subject to extensions for such further periods as may be agreed upon in writing between the City and the bidder concerned.

All bids will be compared on the basis of the Engineer's Estimate of the quantities of work to be done.

3.03 Contract Bonds

Standard Specifications Section 3-1.05, "Contract Bonds (Pub Cont Code Sections 10221 and 10222)," is replaced with the following:

The surety or sureties on all bonds furnished must be approved by the City. Any modifications or alteration made in the plans or specifications shall not operate to release any surety from liability on any bond or bonds herein required to be given. All contract bonds shall be payable to the City of Burlingame and shall reference the project name and number.

All alterations, extensions of time, extra and additional work, and other changes authorized by these specifications or any part of the contract may be made without securing the consent of the surety or sureties on the contract bonds.

(a) Faithful Performance Bond

Contractor shall provide, at the time of the execution of the contract for the work, and at its own expense, a surety bond in an amount equal to at least one hundred percent (100%) of the contract price as security for the faithful performance of the contract.

(b) Contractor's Payment (Labor and Materials) Surety Bond

Contractor shall also provide, at the time of the execution of the contract for the work, and at its own expense, a separate surety bond in an amount equal to at least one hundred percent (100%) of the contract price as security for the payment of all persons performing labor and furnishing materials in connection with this contract; a sample is attached at the end of this section.

(c) Maintenance Bond

The Contractor shall furnish a Corporate Surety Maintenance Bond for faulty workmanship and materials in the amount of ten percent (10%) of the total contract cost. This bond shall be for the term of one year after completion and acceptance of the work and shall be delivered to the Engineer before acceptance of the contract.

3.04 Agreement Execution

The Contractor shall sign and return the contract agreement and furnish required bonds and insurance certificates within ten (10) working days after the date of the letter of Notice of Contract Award. If the insurance and bonds are not provided within this time period, the City may proceed to declare the bid bond forfeited and award the bid to another bidder.

3.05 Return of Proposal Guaranties

Bidders' attention is directed to Standard Specifications Section 3-1.19, "Bidders' Securities."

3.06 Insurance

BIDDERS' ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW AND IN STANDARD SPECIFICATIONS SECTIONS 3-1.07, "INSURANCE POLICIES," and 7-1.06, "INSURANCE."

IT IS HIGHLY RECOMMENDED THAT BIDDERS CONFER WITH THEIR RESPECTIVE INSURANCE CARRIERS OR BROKERS TO DETERMINE IN ADVANCE OF BID SUBMISSION THE AVAILABILITY OF INSURANCE CERTIFICATES AND ENDORSEMENTS AS PRESCRIBED AND PROVIDED HEREIN. IF AN APPARENT LOW BIDDER FAILS TO COMPLY STRICTLY WITH THE INSURANCE REQUIREMENTS, THAT BIDDER MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT OR THE AWARD MAY BE REVOKED AND SUFFER LOSS OF BID BOND.

Contractor shall procure and maintain for the duration of the Contract insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, Contractor's agents, representatives, employees or subcontractors. The cost of such insurance shall be included in the Contractor's bid.

Standard Specifications Section 7-1.06, "Insurance," is amended to include the following:

(a) Minimum Scope of Insurance

Coverage shall be at least as broad as:

- (1) Insurance Services Office form number GL 0002 (Ed. 1/73) covering Comprehensive General Liability and Insurance Services Office form number GL 0404 covering Broad Form Comprehensive General Liability; or Insurance Services Office Commercial General Liability coverage ("occurrence" form GC 0001).
- (2) Insurance Services Office form number CA 0001 (Ed. 1/78) covering Automobile Liability, code 1 "any auto" and endorsement CA 0025.
- (3) Worker's Compensation insurance as required by the Labor Code of the State of California and Employers Liability insurance.

(b) Minimum Limits of Insurance

Contractor shall maintain limits no less than:

- (1) General Liability: \$2,000,000 combined single limit per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this Project/location or the general aggregate limit shall be twice the required occurrence limit.
- (2) Automobile Liability: \$1,000,000 combined single limit per accident for bodily injury and property damage.
- (3) Workers' Compensation and Employers Liability: Worker's compensation limits as required by the Labor Code of the State of California and Employers Liability limits of \$1,000,000 per accident.

(c) Deductibles and Self-insured Retentions

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

(d) Other Insurance Provision

The policies are to contain, or be endorsed to contain the following provision:

- (1) General Liability and Automobile Liability Coverages

- (A) The City of Burlingame, its officers, officials, employees and volunteers are to be covered as insureds as respects: liability arising out of activities performed by or on behalf of the Contractor, products and completed operations of the Contractor, premises owned, occupied or used by the Contractor, or automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to the City of Burlingame, its officers, officials, employees, or volunteers. The endorsement providing this additional insured coverage shall be equal to or broader than ISO Form CG 20 10 11 85 and must cover joint negligence, completed operations, and the acts of subcontractors.
- (B) The Contractor's insurance coverage shall be primary insurance as respects the City of Burlingame, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City of Burlingame, its officers, officials, employees, or volunteers shall be excess of the Contractor's Insurance and shall not contribute with it.
- (C) Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City of Burlingame, its officers, officials, employees, or volunteers.
- (D) The Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(2) Workers' Compensation and Employers Liability Coverage

The insurer shall agree to waive all rights of subrogation against the City of Burlingame, its officers, officials, employees, or volunteers for losses arising from work performed by the Contractor for the City of Burlingame.

(3) All Coverages

Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty days prior written notice by certified mail, return receipt required, has been given to the City of Burlingame.

(e) Acceptability of Insurers

Insurance is to be placed with insurers with a Best's rating of no less than A-:VII and be authorized to conduct business with regard to the proffered lines of insurance in the State of California.

(f) Verification of Coverage

Contractor shall furnish the City with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms approved by the City. All certificates and endorsements are to be received and approved by the City before work commences. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

(g) Subcontractors

Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

*** END OF SECTION ***

CONTRACTOR’S PAYMENT (LABOR AND MATERIALS) SURETY BOND

Sample

WHEREAS, the City Council of the City of Burlingame, State of California (“City”) and _____, (hereinafter designated as "Principal") have entered into an agreement dated _____, and identified as _____ (“Agreement”), which is hereby referred to and made a part here of, whereby Principal agrees to install and complete certain designated public improvements; and

WHEREAS, under the terms of said agreement, Principal is required before entering upon the performance of the work to file a good and sufficient payment surety bond with City to secure the claims to which reference is made in Titles 1 and 3 (commencing with Section 8000) of Part 6 of Division 4 of the Civil Code of the State of California.

NOW, THEREFORE, Principal and _____, as Surety, incorporated under the laws of the State of _____, and duly authorized to transact business as an admitted surety, under the Laws of the State of California, are held and firmly bound unto City in the penal sum of _____ dollars (\$ _____), this amount being not less than one hundred percent of the total amount payable by the terms of the Agreement per Civil Code section 9554, for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

The condition of this obligation is such that if Principal, Principal’s subcontractors, heirs, executors, administrators, successors, or assigns shall fail to pay any of the persons, companies, or corporations, referred to in Section 9100 of the California Civil Code, as amended, with respect to any work of labor performed or materials supplied by any such persons, companies, or corporations, which work, labor, or materials are covered by the above-mentioned agreement and any amendments, changes, change order, additions, alterations, or modifications thereof, or any amounts due under the California Unemployment Insurance Code with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal and its subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, as amended, with respect to such work and labor, the Surety will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, the Surety will pay reasonable attorney’s fees in an amount to be fixed by the court.

It is hereby expressly stipulated and agreed that this surety bond shall inure to the benefit of any and all persons, companies, and corporations entitled named in Section 9100 of the California Civil Code, as amended, so as to give a right of action to them or their assigns in any suit brought upon this surety bond.

The Surety hereby stipulates and agrees that no amendment, change, change order, addition, alteration, or modifications to the terms of the agreement of the work to be performed thereunder or the specifications accompanying the same, shall in any way affect its obligations on this surety bond, and it does hereby waive notice of any such amendment, change, change order, addition, alteration, or modification to the terms of the agreement or to the work performed thereunder or

to the specifications accompanying the same. Surety hereby waives the provisions of California Civil Code Sections 2845 and 2849.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on _____, 20__.

PRINCIPAL SURETY

By:_____

By:

Address

NOTE: Attach notary acknowledgement for signatures of those executing for Principal and Surety

SECTION 4. SCOPE OF WORK

4.01 General

Attention is directed to Standard Specifications Section 4, "Scope of Work," and these Special Provisions.

4.02 Value Engineering

The last paragraph of Section Standard Specifications 4-1.07C, "Value Analysis Workshop." is replaced with:

The Contractor will be responsible for all workshop costs. The City will not reimburse Contractor for any associated costs with conducting a value analysis workshop.

Attention is directed to the provisions in Standard Specifications Sections 8-1.04, "Start of Job Site Activities," Section 8-1.05, "Time," and Section 8-1.10, "Liquidated Damages," and these Special Provisions.

4.03 Increases of More than Twenty-Five Percent (25%) of Engineer's Estimate

The last paragraph in Standard Specifications Section 9-1.06B (1), "Increases of More Than Twenty-Five Percent," is amended to read as follows:

"When the compensation payable for the number of units of an item of work performed in excess of 125 percent of the Engineer's Estimate, is less than \$5,000 at the applicable contract unit price, the Engineer reserves the right to make no adjustment in said price if the Engineer so elects, except that an adjustment may be made if requested in writing by the Contractor.

It is the Contractor's responsibility to continually analyze and apply the estimated quantities provided in the Contract and to use the knowledge gained from site visits, construction, and professional experience, to update the estimated quantities as the work progresses. If and when the Contractor reaches seventy-five percent (75%) of the estimated quantities of materials required for any portion of the work as specified in the Plans and Specifications and has any reasonable belief that the Contractor will be required to exceed those estimated quantities by more than ten percent (10%), the Contractor shall provide written notice to the Engineer of the possibility and the estimated quantities required to complete the work. If the Contractor fails to provide that written notice before delivering materials in excess of the originally estimated quantities, the Contractor shall not be entitled to any additional compensation or payment for the additional work or materials needed for the additional materials above one hundred and ten percent (110%), but nevertheless shall be required to complete the work."

4.04 Changes Initiated by the City

The City reserves the right to change the scope of this contract to accommodate budget constraints. The City shall have full authority and discretion to determine the decrease or increase in quantities required as well as the sub-projects that will be altered, added, or deleted. The Contractor shall not be entitled to any additional compensation or adjustment in the unit prices bid because of the above-stated rights.

***** END OF SECTION *****

SECTION 5. CONTROL OF WORK

5.01 General

The control of the work shall be in conformance with Standard Specifications Section 5, "Control of Work," , except as herein amended.

The following sections in the Standard Specifications are deleted:

- Section 5-1.09, "Partnering"
- Section 5-1.13C, "Disabled Veteran Business Enterprises"
- Section 5-1.13D, "Non-Small Businesses"
- Section 5-1.27E "Change Order Bills"
- Section 5-1.43E "Alternative Dispute Resolution"

5.02 Coordination and Interpretation of Plans, Specifications and Special Provisions

Standard Specifications Section 5-1.02, "Contract Components," is replaced with the following:

5-1.02 CONTRACT COMPONENTS

A component in one Contract part applies as if appearing in each. The parts are complementary and describe and provide for a complete work.

If a discrepancy exists:

1. The governing ranking of Contract parts in descending order is:
 - 1.0 Proposal, and Agreement
 - 1.1 Supplementary General Conditions of the Special Provisions
 - 1.2 General Conditions of the Special Provisions
 - 1.3 Technical Specifications of the Special Provisions
 - 1.4 Project plans
 - 1.5 Standard Specifications
 - 1.6 City of Burlingame Standard Details
 - 1.7 (State) Standard Plans
 - 1.8 Supplemental project information
2. Written numbers and notes on a drawing govern over graphics
3. A detail drawing governs over a general drawing
4. A specification in a section governs over a specification referenced by that section

In the event of a discrepancy between units shown on plans, in the special provisions and in the proposal, the units shown in the proposal shall govern.

If a discrepancy is found or confusion arises, submit an RFI.

5.03 Superintendence

Standard Specifications Section 5-1.16, "Representative," is amended to include the following:

The Contractor's representative shall be available to personally talk to the Engineer within any eight (8) hour period when work is being performed on the project. A telephone number for such purpose shall be given to the Engineer at the start of the project.

The Contractor shall furnish to the Engineer the telephone number of a representative or answering service which will be responsible for responding to emergency calls (e.g., barricade replacement) from the Engineer during non-scheduled working hours.

If the Contractor fails to respond and correct the emergency condition within three (3) hours, and if, in the judgment of the Engineer, correction of the emergency condition should not be deferred until the next regularly scheduled working day, then the Engineer shall have the right to make appropriate arrangements to correct such emergency condition and charge the cost thereof to the Contractor.

5.04 Inspection

The following is added to Standard Specifications Section 5-1.01, "General:" :

The Contractor shall not perform any work during weekend days or City Holidays without the written permission of the Engineer. A fine of \$5000 per violation will be deducted from the next progress payment should the Contractor perform unauthorized weekend or Holiday work.

The Contractor shall pay for all inspections required to be performed by City employees due to the scheduling of work by the Contractor between 5:00 P.M. and 8 A.M. on weekdays, and anytime on Saturdays, Sundays and City Holidays, and shall include travel time of the inspector.

City holidays are as follows:

- *New Year's Day
- *Martin Luther King's Birthday
- *President's day
- *Memorial Day
- *Independence Day
- *Labor Day
- Columbus Day
- *Veteran's Day
- *Thanksgiving Day
- Day After Thanksgiving
- ½ Day Christmas Eve
- *Christmas Day
- ½ Day New Year's Eve

*Indicates holidays covered by "Construction Hours" restrictions of these Special Provisions Section 7.02.

Contact the City of Burlingame to determine the specific holiday dates for the current calendar year.

Holidays falling on Saturday or Sunday will be observed on Friday or Monday, respectively.

5.05 Payments to Subcontractors

The following is added to Standard Specifications Section 5-1.13A, "General," :

The Contractor shall comply with the provisions in Business and Professions Code Section 7108.5 concerning prompt payment to subcontractors.

The Contractor shall furnish a written statement showing all work to be subcontracted, giving the names and addresses of all subcontractors and a description of each portion of the work to be subcontracted. The Designation of Subcontractors statement shall be on the form furnished by the City as part of the Bid documents and shall be considered an integral part of those documents.

Pursuant to Public Contract Code Section 6109, no contractor or subcontractor that is ineligible under Labor Code Section 1777.1 or 1777.7 may bid or work on this project. Any contract entered into between the Contractor and such an ineligible subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on this project, and any public money that may have been paid to a debarred subcontractor by the Contractor on the project shall be returned to the City. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the project.

5.06 Permits

The Contractor shall obtain all permits, licenses, bonds, pay all charges and fees (including inspection fees); and other authorization required by all affected jurisdictions involved in this job, at its own expense, unless otherwise specified in Supplementary General Conditions of these Special Provisions. The City's issuance of permits shall not relieve the Contractor of its responsibility as described in this section.

City permits, if required, shall have all fees waived, except for City business licenses. All subcontractors performing work within the limits of the City of Burlingame shall also obtain a City Business Licenses in accordance with these Special Provisions Section 5.07, "City Business License."

Compliance with NPDES Permit. The Contractor shall comply with all requirements of the permit and shall not, directly or indirectly, cause a sanitary sewer overflow or prevent the City from complying with the requirements of the permit. Penalties imposed on the City as a result of any discharge violation caused by the actions of the Contractor, or its employees, or subcontractors shall be borne in full by the Contractor, including fines, legal fees, and other expenses to the City resulting directly or indirectly from such discharge

violations. The City may recover such sums by deduction from the construction progress payments.

5.07 City Business License

The Contractor and all Subcontractors are required to have City business licenses in accordance with the Burlingame Municipal Code. Business license information is available at <https://www.burlingame.org/index.aspx?page=3307>

5.08 Engineering Submittals

The following shall be added to Standard Specifications Section 5-1.23A, "General:"

Contractor's failure to make submittals in a timely manner will not be a basis for any time extensions and shall count against the Contractor's work days.

5.09 Project Appearance

The following shall be added to Standard Specifications Section 5-1.31, "Job Site Appearance:"

"PROJECT APPEARANCE. The Contractor shall maintain a neat appearance at the job site.

In any area visible to the public, the following shall apply: when practical, broken concrete and debris developed during the clearing and grubbing shall be disposed of concurrently with its removal. If stockpiling is necessary, the material shall be removed or disposed of weekly, unless otherwise granted by the City.

The Contractor shall furnish portable toilets for workmen and trash bins for all debris from structure construction. All debris shall be placed in trash bins daily. Forms or false work that are to be reused shall be stacked neatly concurrently with their removal. Forms and false work that are not to be reused shall be recycled concurrently with their removal.

5.10 Lines and Grades

Standard Specifications Section 5-1.26, "Construction Surveys," is replaced with the following:

Contractor shall perform all necessary construction surveys. Construction surveys shall be done in accordance with Chapter 12, "Construction Surveys," of the California Department of Transportation's *Survey Manual*.

All work shall be constructed to the lines and grades shown on the contract drawings. Unless authorized by the Engineer, any work done without construction survey line and grade will be done at the Contractor's risk.

5.11 Project Plans

Four (4) full-size sets of the project plans will be supplied to the successful bidder without charge. Additional sets will be supplied at the cost of reproduction.

5.12 Construction Area Lighting

The Contractor shall ensure that all working areas utilized during darkness are lighted to conform to the minimum illumination intensities established by California Division of Occupational Safety and Health Construction Safety Orders. In addition, the Contractor shall ensure that the lighting provides adequate safety to pedestrians in permitted portions of the construction area.

All lighting fixtures shall be mounted and directed in a manner precluding glare to approaching traffic.

5.13 Areas for Contractor's Use

The second and third paragraphs of Standard Specifications Section 5-1.32, "Areas of Use," are replaced with the following:

If no City-owned or City-secured area is designated on the plans for the Contractor's use, the Contractor will be responsible to secure additional staging/stockpiling areas at Contractor's own expense in order to perform the work.

The Contractor shall defend, indemnify, and hold the City harmless for any damage to or loss of materials or equipment in conformance with the indemnification requirements in the City's construction agreement.

5.14 Nonhighway Facilities

Standard Specifications Section 5-1.36D, "Nonhighway Facilities." is amended to include the following:

Unless otherwise permitted by the Engineer, the Contractor shall conduct its operations in a manner which will permit continuous operation of all utility facilities. The Contractor shall contact Underground Services Alert (USA) at 811 or 800-642-2444 at least forty-eight (48) hours before excavation so that underground facilities may be marked in the field. Locations of existing utility mains and utility connections, if shown on the plans, are only approximate. The Engineer assumes no responsibility for accuracy or completeness of said data, which is offered solely for the convenience of the Contractor. If the Contractor finds that a known utility has not marked the job site with either locations or no facilities, Contractor shall be responsible for contacting the utility, or USA regarding the discrepancy before proceeding with work.

Attention is directed to the possible existence of underground main or trunk line facilities not indicated on the plans or in the special provisions. The Contractor shall ascertain the exact location of underground main or trunk lines whose presence is indicated on the plans or in the special provisions, the location of their service laterals or other appurtenances and

of existing service lateral or appurtenances of any other underground facilities which can be inferred from the presence of visible facilities such as buildings, meters and junction boxes prior to doing work that may damage any of such facilities or interfere with their service.

If the Contractor discovers underground main or trunk lines not indicated on the Plans or in the special provisions, it shall immediately give the Engineer and the Utility Company written notification of the existence of such facilities. Such mains or trunk lines shall be located and protected from damage as directed by the Engineer and the cost of such work will be paid for as extra work as provided in Section 4-1.05. Damage due to the Contractor's failure to exercise reasonable care shall be repaired at its cost and expense.

5.15 Acceptance of Contract

Standard Specifications Section 5-1.46, "Inspection and Contract Acceptance," is amended to include the following:

However, nothing in this Section 5-1.46 shall be construed to relieve the Contractor of full responsibility for correcting or replacing defective work or materials found at any time before the expiration of the one-year maintenance bond required under Section 3.03 of these Special Provisions.

5.16 Availability of Plans

Contractor shall maintain on the job site at a specific location an official set of Contract Documents, readily available at all times to the Engineer or Inspector.

*** END OF SECTION ***

SECTION 6. CONTROL OF MATERIALS

6.01 General

Attention is directed to Standard Specifications Section 6, "Control of Materials," and these Special Provisions.

6.02 City-Furnished Materials

City-furnished materials shall be furnished in conformance to Standard Specifications Section 6-1.02 and as described herein.

The City-furnished materials on this project, if any, are listed in Section 2, "Supplementary General Conditions," of these Special Provisions.

The Contractor shall submit a written request to the Engineer for materials at least forty-eight (48) hours in advance of the date and time of their intended use. The request shall state the quantity and type of each material. Unless otherwise specifically provided in the Special Provisions, City-furnished materials will be stored at the City Corporation Yard at 1361 North Carolan Avenue, Burlingame. Materials will be available for pickup on weekdays, holidays excepted, from 8:00 a.m. to 9:00 a.m. and from 3:30 p.m. to 4:30 p.m.

All City-furnished materials that are not used on the project shall remain the property of the City and shall be returned to the City in as-furnished condition at the locations designated by the Engineer.

Any water use from fire hydrants shall be metered. A cash deposit shall be posted at the City Water Department Office at 501 Primrose Road, Burlingame, California, as assurance that the meter is returned in good condition. Meters shall be obtained from and returned to the Water Department Repair Shop at the City Corporation Yard at 1361 North Carolan Avenue, Burlingame, California,. If the meter is returned in good condition, a refund shall be mailed to the Contractor. Contractor shall also pay for the amount of water used. Water drawn from the City-furnished meter shall only be used for this project.

Any damage to the meters while in the Contractor's possession shall be its responsibility and deductions will be made from the deposit for repairs to the meters. Meters must be returned to the City within 10 working days after work is completed and payment made for water used prior to final payment.

6.03 Local Materials

The second paragraph of Standard Specifications Section 6-2.04, "Local Materials," is replaced with the following:

Testing of local materials to be used in the work for compliance with the specifications will be at the Contractor's expense.

6.04 Buy America

Standard Specifications Section 6-2.05, “Buy America,” is deleted, unless this is a federally-funded contract.

6.05 Specific Brand or Trade Name and Substitution

Standard Specifications Section 6-3.02, “Specific Brand or Trade Name and Substitution,” is amended to include the following:

The City Engineer’s decision to accept substitution is final.

*** END OF SECTION ***

SECTION 7. LEGAL RELATIONS AND RESPONSIBILITY

7.01 General

This section shall conform to Standard Specifications Section 7, "Legal Relations and Responsibility to the Public," with the following clarifications and amendments. The Contractor is responsible for protecting both its work and the public.

7.02 Construction Hours

Contractor shall not (including excavation and grading) work other than between the hours of 8:00 A.M. and 5:00 P.M. on weekdays (see Section 5.04 of these specifications), except in the case of urgent necessity in the interest of public health and safety, and then only with express permission of the Engineer. In the vicinity of any schools, the contractor shall not begin any operation until after 9:00 A.M. when school is in session.

7.03 Excavation Safety

Standard Specifications Section 7-1.02K(6)(b), "Excavation Safety," is amended to include the following:

If required the Contractor shall submit a trenching and shoring plan signed and stamped by a license civil engineer or licensed geotechnical engineer for approval by the City. The plan shall include trenching and shoring support calculations.

Designate a competent person to be on site at all times while trench excavation work is being performed. The competent person shall be certified and make daily inspection in accordance with all OSHA requirements. A competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

Additionally, the Contractor shall provide upon request by the Engineer calculations and details proving the adequacy of any proposed steel plate trench or excavation bridging to carry traffic loads.

The Contractor shall comply with Public Contract Code § 7104 while excavating.

7.04 Assignment of Antitrust Actions

The Contractor's attention is directed to Standard Specifications Section 7-1.02L(2), "Antitrust Claims."

7.05 Highway Construction Equipment

Attention is directed to Standard Specifications Section 7-1.02O, "Vehicle Code."

7.06 Sound Control Requirements

Sound control shall conform to the provisions of Standard Specifications Section 14-8, "Noise and Vibration," and these special provisions.

The Contractor shall keep noise pollution due to construction activities as low as possible. In no case shall noise levels produced by the Contractor exceed either of the following maximums:

- A. No individual piece of equipment shall produce a noise level exceeding 85dBA at a distance of 25 feet.
- B. The noise level at any point outside of the property line or temporary construction area shall not exceed 85dBA. No equipment violating these standards will be allowed to operate.

In no case shall the Contractor's operations violate the noise ordinance (Municipal Code Chapter 10.40).

This noise level requirement shall apply to all 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 signals shall be avoided in favor of light warnings, except those required by safety laws for the protection of personnel.

7.07 Relations with Property Owners

The Contractor shall notify, in writing, property owners or residents at least forty eight (48) hours in advance of all work affecting access into and out of their property or place of business.

Forms for such notices will be provided to the Contractor at start of construction and shall be distributed to the property owners by the Contractor throughout the length of the Contract, whenever appropriate.

Concrete pouring shall be scheduled to re-open new and replace concrete driveways within seventy-two (72) hours after being closed.

Access to any place of business shall be maintained at all times and shall be coordinated with the business owner. Complete closure of any business access shall be only as approved in writing by the Engineer.

7.08 Public Convenience

Section 7-1.03 "Public Convenience" shall be amended by adding the following:

Attention is directed to Section 7 of the Standard Specifications regarding the fact that the Contractor is responsible for protecting both its work and the public.

The Contractor shall conduct his operations in a manner to minimize inconvenience to the homeowners, residents and the traveling public.

Closed driveways shall be re-opened for safe passage of vehicle and pedestrians by end of the each work shift.

Closed driveways during working hours shall be reopened temporarily as requested by property owners or residents to allow access to their driveways. The Contractor shall re-open the closed driveway within ten minutes (10) of such request.

Access to any place of business shall be maintained at all times and shall be coordinated with the business owner. Complete closure of any business access shall be only as approved in writing by the Engineer.

The Contractor shall conduct his operations in a manner to minimize inconveniences to property owners and residents and to avoid damage on private property. The Contractor shall maintain property owner and resident access to the homes at all times. The Contractor shall keep the work site on the private property in a tidy and neat manner. The Contractor shall remove all tools, equipment and material from the property at the end of each workday.

7.09 Indemnification

Contractor shall indemnify, defend, and hold the City, its directors, officers, employees, agents, and volunteers harmless from and against any and all liability, claims, suits, actions, damages, and causes of action arising out of, pertaining or relating to the actual or alleged negligence, recklessness or willful misconduct of Contractor, its employees, subcontractors, or agents, or on account of the performance or character of the services, except for any such claim arising out of the sole negligence or willful misconduct of the City, its officers, employees, agents, or volunteers. It is understood that the duty of Contractor to indemnify and hold harmless includes the duty to defend as set forth in section 2778 of the California Civil Code. Notwithstanding the foregoing, for any design professional services, the duty to defend and indemnify City shall be limited to that allowed by state law. Acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply whether or not such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

*** END OF SECTION ***

SECTION 8. PROSECUTION AND PROGRESS

8.01 General

Prosecution and progress shall conform to Standard Specifications Section 8, "Prosecution and Progress," and these Special Provisions.

8.02 Progress Schedule

The work to be done shall be performed in stages to minimize the inconvenience to the public.

The Contractor shall develop and maintain the appropriate level critical path method schedule for this project in compliance with Standard Specifications Section 8-1.02, "Schedule." In addition to the required schedule reports to be submitted to the City in accordance with Standard Specifications Section 8-1.02, "Schedule," the Contractor shall maintain and furnish to the Engineer on a weekly basis a "three week look ahead" report detailing planned work for the following three weeks, highlighting critical path items of work.

8.03 Start of Job Site Activities

The Contractor shall sign and return the Contract Documents and furnish required bonds and insurance certificates within ten (10) working days after the date of the Notice of Contract Award. If the insurance and bonds are not provided within this time period, the City may declare the bid bond forfeited and award the bid to another bidder. Alternatively, the City may begin to count the elapsed time as "working days" under the Agreement.

The Contractor shall be able to begin work within fifteen (15) calendar days after receiving notice that the Contract has been approved by the City of Burlingame and shall diligently prosecute the same to completion before the expiration of the number of working days as set forth in the "Notice to Bidders." The "Notice to Proceed" shall indicate the "Beginning of Work" date to be used to determine the date of completion.

The "Notice to Proceed" will be given at the preconstruction meeting and will indicate the "Beginning of Work" date to be used to calculate the date of completion.

Even though the counting of working days may have begun, the Contractor shall not begin work before the preconstruction conference. The Contractor shall furnish all specified submittals to the Engineer at, or prior to, the preconstruction conference and shall obtain all specified approvals contained in the Standard Specifications and these Special Provisions prior to the beginning of job site activities.

8.04 Liquidated Damages

The Contractor's attention is directed to the Supplementary General Conditions for Liquidated Damages.

8.05 Contractor's Control Termination

The Contractor's attention is directed to Standard Specifications Section 8-1.13, "Contractor's Control Termination" and these Special Provisions.

If the Contractor's control of the work is terminated or it abandons the work and the contract work is completed in conformance with the provisions of Section 10255 of the Public Contract Code, any dispute concerning the amount to be paid to the City by the Contractor or its surety, under the provisions of Section 10258 of said Act, shall be subject to arbitration in accordance with the section of these special provisions entitled "Arbitration." The surety shall be bound by the arbitration award and is entitled to participate in such arbitration proceedings.

8.06 As-Built Data

The Contractor shall submit all information to the Engineer before project acceptance, including legible marked up plans of what was constructed, as required by the Engineer to verify as-built drawings for all permanent project work.

*** END OF SECTION ***

SECTION 9. MEASUREMENT AND PAYMENT

9.01 General

Measurement and payment shall be in conformance with these specifications in Section 9, "Payment," of the Standard Specifications and these Special Provisions.

Contractors' attention is directed to Standard Specifications Section 9-1.03, "Payment Scope," and as amended herein.

The fourth paragraph in Standard Specifications Section 9-1.03, "Payment Scope," is as follows:

Full compensation for work specified in divisions I, II and X of the Standard Specifications, and in Sections 1 and 2 of these special provisions is included in the payment for the bid items unless:

1. Bid item for the work is shown on the Bid Item List.
2. Work is specified as change order work.

When an (F) is included after a bid item name on the Bid List, that bid item quantity is a final pay item.

The Contractor shall agree that the approximate quantities shown in the Bid Item List are solely for the purpose of comparing bids. The Contractor's compensation will be computed upon the basis of the actual quantities of work marked by the Engineer and completed, whether they be more or less than those shown in the Bid Item List.

Linear measurement shall be determined from measurements of bid items complete and in place. Unit counts will be made of the unit items complete and in place. Weight measurements will be based on weight receipts issued by a qualified weight master. Any other method of establishing the quantities not listed specifically herein, or defined in other portions of the contract provisions, shall be determined by referring to the applicable section of the Standard Specifications.

9.02 Payment Adjustments for Price Index Fluctuations

Standard specifications Section 9-1.07, "Payment for Adjustments for Price Index Fluctuations," is deleted, unless otherwise specified in the Supplementary Conditions.

9.03 Lump Sum Bid Item Progress Payments

The first paragraph of Standard Specification Section 9-1.16B, "Schedule of Values," is amended to include the following:

If a schedule of values is not specified to be submitted or a payment breakdown is not provided in the payment clause of the applicable Standard Specifications or these Special Provisions, progress payments for lump sum bid items will be a percentage of the lump sum

bid item price based on the Engineer's determination of the amount of lump sum work already performed. At Contractors option, submit a lump sum breakdown that provides sufficient detail for the Engineer to determine the value of work performed. The Engineer may consider but not exclusively base the determination of progress payments on Contractors lump sum breakdown. The Engineer's determination of progress payments for lump sum bid items under the Contract will be final in accordance with Standard Specifications Section 5-1.03.

9.04 Materials On-Hand

Standard Specifications Section 9-1.16C, "Materials on Hand," is replaced by the following:

No partial payment will be made for any materials on hand which are furnished but not incorporated in the work.

9.05 Mobilization

Standard Specifications Section 9-1.16D, "Mobilization," is replaced with the following:

9-1.16D Mobilization

Public Contract Code Section 10104 defines "mobilization." The Contractor is eligible for partial payments for mobilization if the Contract includes a bid item for mobilization. The Department will make partial payments no less often than as specified under Public Contract Code Section 10264. If the Contract does not include a mobilization bid item, mobilization is included in the payment for the various bid items.

9.06 Retentions

Standard Specifications Section 9-1.16F, "Retentions," is replaced with the following:

9-1.16F Retentions

The City shall retain 5 percent of the estimated value of the work done and 5 percent of the value of materials so estimated to have been furnished and delivered and unused or furnished and stored as aforesaid as part security for Contractors fulfillment of the contract.

Pursuant to Public Contract Code Section 22300, the Contractor will be permitted, at its request and sole expense, to substitute securities for any monies withheld by the City to ensure performance under the contract. Said securities will be deposited either with the City or with the state or federally chartered bank as escrow agent. Securities eligible for this substitution are those listed in Government Code Section 16430 or bank or savings and loan certificate of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other mutually agreed to by Contractor and the City. The Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon.

9.07 Progress Payments

On or before the first day of every month the Contractor and Engineer shall meet and prepare a written estimate of progress payments. From this amount, five percent (5%) will be deducted and, from the remaining ninety five percent (95%), there will be deducted any amounts due City from Contractor for supplies, materials, services, damages or otherwise deductible under the terms of the contract and the amount of all payments previously made to Contractor. The remainder will be paid by the City to the Contractor as a progress payment by the 20th day of the month. The remaining five percent (5%) thereof shall be paid to Contractor thirty-five (35) days after the recording of the Notice of Completion.

Pursuant to Public Contract Code Section 20104.50, the City will promptly process all requests for progress payments pursuant to this contract. As to any undisputed payments that are made more than thirty (30) days after receipt of an undisputed and properly submitted payment request from the Contractor, the City will pay interest equivalent to the legal rate set forth in Code of Civil Procedure Section 685.10.

9.08 Final Payment After Contract Acceptance

Standard Specifications Section 9-1.17D (1), "General" is amended to include the following:

Upon satisfactory completion of the entire work, the Engineer will recommend the acceptance of the work to the City Council. If the City Council accepts the completed work, it will cause a Notice of Completion to be recorded with the County Recorder.

Thirty-five days after the filing of the Notice of Completion, the Contractor will be entitled to the balance due for the completion and acceptance of the work, if certification is made by sworn written statement that all claims have been filed with the City based upon acts or omissions of the Contractor and that no liens or withhold notices have been filed against said work or the property on which the work was done.

9.09 Claim Resolution

Any claim by the contractor in connection with this project shall be resolved pursuant to Section 9204 of the Public Contract Code; the full text of which is as follows:

SECTION 1. Section 9204 is added to the Public Contract Code, to read:

- (a) The Legislature finds and declares that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner.
- (b) Notwithstanding any other law, including, but not limited to, Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2, Chapter 10 (commencing with Section 19100) of Part 2, and Article 1.5 (commencing with Section 20104) of Chapter 1 of Part 3, this section shall apply to any claim by a contractor in connection with a public works project.
- (c) For purposes of this section:

- (1) “Claim” means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:
 - (A) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.
 - (B) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.
 - (C) Payment of an amount that is disputed by the public entity.
- (2) “Contractor” means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.
- (3)
 - (A) “Public entity” means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.
 - (B) “Public entity” shall not include the following:
 - (i) The Department of Water Resources as to any project under the jurisdiction of that department.
 - (ii) The Department of Transportation as to any project under the jurisdiction of that department.
 - (iii) The Department of Parks and Recreation as to any project under the jurisdiction of that department.
 - (iv) The Department of Corrections and Rehabilitation with respect to any project under its jurisdiction pursuant to Chapter 11 (commencing with Section 7000) of Title 7 of Part 3 of the Penal Code.
 - (v) The Military Department as to any project under the jurisdiction of that department.
 - (vi) The Department of General Services as to all other projects.
 - (vii) The High-Speed Rail Authority.
- (4) “Public works project” means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.
- (5) “Subcontractor” means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

(d)

(1)

- (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision.
- (B) The claimant shall furnish reasonable documentation to support the claim.
- (C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.
- (D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.

(2)

- (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute.
- (B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If

mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.

- (C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.
 - (D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.
 - (E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.
- (3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.
 - (4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.
 - (5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.
- (e) The text of this section or a summary of it shall be set forth in the plans or specifications for any public works project that may give rise to a claim under this section.
 - (f) A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements

in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

- (g) This section applies to contracts entered into on or after January 1, 2017.
- (h) Nothing in this section shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

9.10 Adjustment of Overhead Costs

Irrespective of the final payment to be made to the Contractor under this contract, there will be no adjustment of overhead costs.

9.11 Damages

Any provision in the Contract which limits the City's liability to an extension of time for delay for which the City is responsible and which delay is unreasonable under contemplation of the circumstances involved, and not within the parties', shall not be construed to preclude the recovery of damages by the Contractor or subcontractor. This section shall not be construed to void any provision in this Contract which requires notice of delays, provides for arbitration or other procedure for settlement, or provides for liquidated damages.

9.12 Compensation for General Conditions and Supplementary General Conditions

Compensation for doing any work under the General and Supplementary General Conditions shall be included in the various items of work, and no additional payment shall be made.

*** END OF SECTION ***

SECTION 10. MAINTAINING TRAFFIC

10.01 General

Attention is directed to Section 7-1.03, "Public Convenience," 7-1.04, "Public Safety," and Section 12, "Temporary Traffic Control," of the Standard Specifications. Nothing in these General Conditions shall be construed as relieving the Contractor from its responsibility as provided in said Section 7-1.09.

The Contractor is responsible for posting "No Parking" signs which will be furnished by the City, including "Hooding" or otherwise posting on all parking meters in the areas of work. The Contractor shall clean all construction area sign panels at the time of installation.

To properly provide for changing traffic conditions and damage caused by public traffic or otherwise, the Contractor shall be prepared to furnish on short notice additional portable signs and sign mounting devices. The Contractor shall maintain an inventory of the commonly required items at the jobsite or shall make arrangements with a supplier who is able, on a daily basis, to furnish such items on short notice.

10.02 Portable Delineators

When work is in progress in a trench or other excavation adjacent to the traveled way, portable delineators, conforming to Section 12-3.04, "Portable Delineators," of the Standard Specifications, shall be placed on the edge of pavement. At other times, the portable delineators shall be placed off of and adjacent to the edge of pavement. The portable delineators shall be spaced as necessary for proper delineation. The spacing between delineators shall not exceed one hundred feet (100') on tangents or fifty feet (50') on curves

10.03 Lane Closures

A traffic control system shall consist of closing traffic lanes in accordance with the details shown on the Traffic Control Plan, the provisions in Section 12, "Temporary Traffic Control," of the Standard Specifications and the following requirements.

No work shall be allowed to begin before closing any intersection or street. A "Road Closed Ahead" sign, mounted on a sturdy mounting device, shall be placed at the far end of every block converging on that intersection or street.

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 and shall restore the component to its original location.

When lane closures are made for work periods only, at the end of each work period, all 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.

No full road closures shall be allowed unless absolutely necessary and can only occur when coordinated and approved by the City Traffic Engineer. If full road closure is necessary, notice to businesses and residents shall be no later than 72 hours prior to closure.

10.04 Parked Vehicles

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulders, including any section closed to public traffic.

The Contractor shall notify the Engineer of its intent to begin work at least five (5) days before work is begun. The Contractor shall cooperate with the Engineer relative to handling traffic through the area and shall make its own arrangements relative to keeping the working area clear of parked vehicles.

Whenever vehicles or equipment are parked on the shoulder within 6 feet of a traffic lane, the shoulder area shall be closed with fluorescent traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at twenty-five-foot (25') intervals to a point not less than twenty-five feet (25') past the last vehicle or piece of equipment. A minimum of nine (9) cones or portable delineators shall be used for the taper. Contractor's warning signage and markings shall conform to the requirements of the Caltrans Traffic Manual, and in any event, a C23 (Road Work Ahead) or C24 (Shoulder Work Ahead) sign shall be mounted on a telescoping flag tree with flags prior to the taper.

10.05 Traffic Control

The Contractor shall provide and erect such warning lights, directional signs and barriers as are necessary to prevent accidents and avoid damage or injury to passing traffic. The Contractor shall comply with Section 12 of the Standard Specifications.

Full compensation for all traffic control, including any flagging costs, shall be considered as included in the bid schedule.

Minor deviations from the requirements of this section concerning hours of work which do not significantly change the cost of the work may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public traffic will be better served and the work expedited. Such deviations shall not be adopted until the Engineer has indicated written approval. All other modifications will be made by contract change order.

The Contractor shall prosecute the work in such a manner as not to damage any private property. All equipment and material shall be stored by the Contractor off the traveled way during non-working hours. Should any such structures or property be damaged during the operations of the Contractor, it shall immediately notify the proper owners or authorities and shall arrange for the immediate repair of same at its expense.

(A) Driveway Entrance Road Access

The Contractor's attention is directed to the fact that access to all driveways and entrance roads shall be maintained at all times, except during the time such driveways or entrance roads are being resurfaced as part of this contract. The Contractor shall provide the Engineer and the affected property occupants with written notice five (5) days in advance of beginning such driveway or entrance road resurfacing work, and shall complete such resurfacing work and restore vehicular access to each driveway or entrance road within six (6) hours after commencement of such resurfacing work. Forms of such notice of driveway closure will be provided to the Contractor at start of construction and shall be distributed to the property owner by the Contractor through the length of the contract, whenever appropriate.

Compensation for distributing such written notice shall be considered as included in the appropriate contract bid item necessitating the closure, and no additional compensation will be allowed therefor.

(B) Pedestrian Facilities

Existing pedestrian facilities shall be maintained in a safe condition through construction areas within the Project right of way at all times. In local residential areas the requirement for paved walkway area may be waived if other suitable and safe surface is available and is approved by the Engineer. However, all pedestrian facilities provided through or around construction areas shall be accessible for persons with disabilities in conformance with the requirements of the Americans with Disabilities Act and implementing laws and regulations.

(C) Temporary Steel Plate Bridging with Non-Skid Surface

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with a nonskid surface and shoring may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plates used for bridging must extend a minimum of 12" (305 mm) beyond the edges of the trench.
2. Steel plate bridging shall be installed to operate with minimum noise.
3. The trench shall be adequately shored to support the bridging and traffic loads.
4. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
5. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

Steel plate bridging and shoring shall be installed using either Method (1) or (2):

- 1) Method 1 [For speeds greater than 45 mph (70 Km /hr)]: The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

- 2) Method 2 [For speeds less than 45 mph (70 Km/hr)]: Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" (50 mm) into the pavement. Subsequent plates are butted to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5 % with a minimum 12" (305 mm) taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry or an equivalent slurry that is satisfactory to the Caltrans' representative.

Contractor is responsible for maintenance of the steel plates, shoring, and asphalt concrete ramps.

Unless specifically approved by the Engineer, use of steel plate bridging over the width of the open pipe trench should not exceed four (4) consecutive working days in any given week.

Backfilling of excavations shall be covered with a minimum 3" (75 mm) temporary layer of cold asphalt concrete.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual).

Trench Width Minimum Plate Thickness

- 1) Span < 10" the minimum plate thickness is (0.25 m) ½" (13 mm)
- 2) Span > 10" < 1'-11" the minimum plate thickness is (0.58 m) ¾" (19 mm)
- 3) Span > 1'-11" < 2'-7" the minimum plate thickness is (0.80 m) 7/8" (22 mm)
- 4) Span > 2'-7" < 3'-5" the minimum plate thickness is (1.04 m) 1" (25 mm)
- 5) Span > 3'-5" < 5'-3" the minimum plate thickness is (1.60 m) 1 ¼" (32 mm)

NOTE: For spans greater than 5'-3" (1.6 meters), a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right-of-way whether used in or out of the traveled way shall be without deformation. Inspectors can determine the trueness of steel plates by using a straight edge and any plate that is permanently deformed shall be rejected.

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342 (See Appendix H). If a different test method is used, Contractor may utilize standard test plates with known coefficients of friction available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, Contractor shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

A Rough Road sign (W33) with black lettering on an orange background may be used in advance of steel plate bridging. This sign is used along with any other required construction signing.

Surfacing requirements are not necessary for steel plates used in parking strips, on shoulders not used for turning movements, or on connecting driveways, etc., not open to the public.

10.06 Contractor Representative

As specified here and in Section 5.03 of these specifications, the Contractor shall be represented at all times during working operations.

One person at the work site shall be designated as having responsibility for carrying out directions from the Engineer.

10.07 Portable Flashing Beacons

Portable flashing beacons conforming to the provisions in Section 12, " Temporary Traffic Control," of the Standard Specifications shall be furnished, placed and maintained at the locations as directed by the Engineer.

If flashing beacons are displaced or are not in an upright position, from any cause, during the progress of the work, the Contractor shall immediately repair and repaint or replace the flashing beacons in their original locations.

At the end of each work shift, all portable flashing beacon units shall be removed from the traveled way. Full compensation for placing, removing and storing flashing beacon units daily as the work progresses shall be considered as included in the contract unit price paid for the various items of work and no additional compensation will be allowed therefor.

10.08 Portable Barricades

Type III barricades conforming to the provisions in Section 12-3, "Traffic-Handling Equipment and Devices," of the Standard Specifications shall be furnished, placed, and maintained in sturdy working manner at the locations designated by the Engineer and in accordance with the provisions in Section 7-1.03, "Public Convenience," of the Standard Specifications and these General Conditions.

The barricades shall conform to the details shown on Caltrans Standard Plan A73 and as specified in Section 12-3.02, "Barricades," of the Standard Specifications, except that minor variations in dimensions may be accepted if approved by the Engineer.

Barricades damaged from any cause during the progress of the work shall be replaced or repaired (including painting and reflectorized material) by the Contractor at its expense.

10.09 Temporary Delineation

If permanent or temporary traffic delineation operations are not properly performed by the working day completion time(s) specified, the City may elect to perform such operations; cost for all such City-performed operations will be at the Contractor's expense, with all costs therefor deducted from Contractor's progress payments.

10.10 Procedures and Posting of "No Parking" Signs on City Streets

The City's policy is to post effectively and prior to towing, attempt to contact all those in violation of the properly posted restrictions. Advanced coordination with the Police Department is required to make sure that the officers have sufficient notice and accurate construction time schedules for this activity. The Contractor is responsible for contacting the Police Department and effecting this notification procedure. Time must also be allowed for towing equipment to be notified and tow any vehicles.

The Police Traffic Sergeant's office hours are 8:00 a.m. to 9:00 a.m. and 2:30 p.m. to 4:00 p.m. The Traffic Sergeant may be reached by phone at 777-4100. If you need to contact the Sergeant immediately - when the sergeant is not in the office, contact Police Dispatch at the above number and ask them to contact the Sergeant. Prior to start of any work under this Contract, Contractor shall arrange a meeting with the Traffic Sergeant to go over the specific job needs.

Requirements for "No Parking" Posting and Any Required Towing Are As Follows:

- 1) Signs shall have date(s) of the "No Parking" (the actual day[s] of work – for example: 5/24/03 to 5/25/03) and hours (for example: 6:00 a.m. to 4:30 p.m.) indicated.
- 2) The No Parking areas shall be posted at least forty-eight (48) hours ahead of effective time. If the No Parking area is to take effect on a Monday, then the No Parking Area shall be posted pursuant to this section no later than the preceding Thursday evening. If the No Parking area is to take effect on the day following a holiday, then the No Parking area shall be posted pursuant to this section no later than the evening of the second preceding business day. For example, if the holiday falls on a Monday, the area shall be posed by Thursday evening; if the holiday falls on a Thursday, the area shall be posted by Tuesday evening. At the time of posting, the Contractor shall notify Police Dispatch with the following information: a) name and phone number of the person doing the posting; b) time and date posted; c) times and dates when the No Parking will be in effect; and d) location of the posting by street addresses.
- 3) Post on all trees and poles between barricades facing in the direction that drivers in traffic can read. Signs shall be mounted such that the words, "No Parking" are at an elevation at least 3 feet and not more than 7 feet above the adjacent flow line. Signs placed on trees shall be attached by string only. Signs placed on existing poles shall be attached by either string or tape only so as not to cause any damage to existing poles.
- 4) Barricades or temporary poles containing the no parking information shall be placed every twenty-five feet (25') on center or less.

- 5) Lighted barricades shall be installed on centers of no more than 150' if placed in the street.
- 6) The Contractor shall promptly reset or replace all damaged or defective signs.
- 7) Upon completion of work in each area, all signs, mounting materials, stakes, and barricades shall be promptly and completely removed by the Contractor.
- 8) Contractor shall notify Police Department of the work location and start time on the day before. Also, Contractor shall notify the Police Department at starting time for each street or area of work during the day. In addition, the Contractor shall update time schedule, if any changes, by phone: Call Police Department at (650) 777-4100 and have them notify the Traffic Sergeant and Parking Enforcement Officers.

THE POLICE DEPARTMENT HAS THE AUTHORITY TO REFUSE TOWING IF CONTRACTOR HAS NOT PLACE SIGNAGE APPROPRIATELY IN ACCORDANCE WITH THESE GENERAL CONDITIONS.

*** END OF SECTION ***

WEST BURLINGAME TERRACE SUBDIVISION
WATER MAIN REPLACEMENT PROJECT

SUPPLEMENTARY GENERAL CONDITIONS

The General Conditions and Standard Conditions are hereby amended as follows:

1. Section 6.02 of the General Conditions is amended by adding the following:

“The City-furnished materials for this project are:

- NONE”

2. Section 7 of the general conditions is amended by adding the following:

“7.10 Illness Control Plan

Contractor shall amend the construction safety plan to provide an illness control plan for Covid-19. The plan shall at minimum provide a Construction Project Safety Protocol for working on Public Works Projects. The Contractor shall ensure that the plan is in conformance with CalOSHA, CDC, San Mateo County Health Department and City of Burlingame COVID-19 Vaccination Policy requirements.”

3. Section 8.04 of the General Conditions is amended by adding the following:

“The Contractor shall pay to the City of Burlingame the sum of One-Thousand Dollars (\$1,000) per day for each and every calendar days’ delay in finishing the work in excess of the one hundred fifty (150) working days referred to in these specifications.”

*** END OF SECTION ***

TECHNICAL SPECIFICATIONS

Technical specifications prepared under the supervision of:

SECTION 01010

SUMMARY OF WORK AND CONTRACT CONSIDERATIONS

1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. Utility Work:

a. Water Main Portion: (Base Bid)- Bid Schedule A

- i. The water main project includes constructing approximately 410 linear feet of new 12-inch, 1,150 linear feet of new 8-inch, and 3,360 linear feet of new 6-inch Ductile Iron Pipe (DIP) water main on Fairfield Rd., Palm Dr., Willow Ave., Arc Way, Walnut Ave., Sanchez Ave., Edgehill Dr., and Balboa Ave. The existing water mains will be abandoned in place, except for specific areas on Fairfield Rd., Sanchez Ave., and Forest View Ave. where the existing water mains will be removed. The construction method is anticipated to be conventional open trench and the water main will typically be installed at three feet minimum cover. Water mains shall be DIP Pipe throughout the entire project.
- ii. Work also consists of installing new 1- and 2-inch water services, totaling approximately 2,400 linear feet, and new city-furnished water meters for customer connections.
- iii. Seven fire hydrant assemblies will be removed and replaced, and two new fire hydrant assemblies will be installed. One existing water sampling station will be reconnected with a new service line, and one new water sampling station will be installed.
- iv. Miscellaneous concrete and asphalt work will be performed as needed and will consist of approximately 400 square feet of sidewalk, 125 square feet of concrete driveway, 680 linear feet of curb and gutter, and 75 square feet of concrete cap work.
- v. Work will also consist of traffic control and miscellaneous concrete and asphalt work for pavement restoration within the limits of the Town of Hillsborough, where an encroachment permit is required.

B. Project plans include minimal potholing information at select project site locations that was performed during design effort.

C. This project will be constructed on the lands of the City of Burlingame. All rules and regulations and permit conditions of these agencies are made part of the Contract Documents and shall be adhered to by the contractor.

D. Refer to Section 01130 - Work Restrictions for project sequencing requirements.

1.02 TYPE OF CONTRACT

- A. The Work covered by these Contract Documents shall be provided under a unit price contract using individual bid items.

1.03 CONTRACTOR'S USE OF SITE AND OWNERS CONTINUED OPERATIONS

- A. No storage of materials or equipment shall be allowed at the job site. Equipment and materials for each day's work shall be transported to the job site daily. The Contractor's use of adjacent lands and roads for access to move onto and off of the site and for daily access of workers, material and equipment shall be arranged and scheduled to minimize interference with resident's daily activities.
- B. The Owner intends to continue operation of portions of its existing facility during all or most of the construction period. The Contractor shall plan and schedule its work to minimize impacting the Owner's continued operations and shall, at all times, maintain safe access for the Owner's operating personnel and equipment.
- C. The Contractor shall be responsible for maintaining safe emergency exiting for the Owner's and Contractor's personnel in all areas affected by the Contractor's work.
- D. If operation of the Owner's existing facility is adversely affected by the Contractor's work, the Owner may suffer a financial loss and may make a claim against the Contractor to recovery its loss.

1.04 DOCUMENTING EXISTING

- A. Prior to commencing the Work, tour the site with the Owner and the Engineer. Examine and document the condition of existing equipment, improvements, and landscape planting on or adjacent to the site in writing and on Digital Video Disc (DVD). This record shall serve as a basis for determination of subsequent damage due to the Contractor's operations and shall be signed by all parties making the tour.

1.05 SHUTDOWN OF EXISTING UTILITIES, SERVICES OR OPERATIONS

- A. Obtain the City's approval at least seven (7) calendar days prior to the shutdown of any utility, service or operation of any existing facility. Give required notice and make appropriate arrangements with the City, utility owners and other affected parties prior to shutdown of any utility service. Base bids on shutdown work performed during normal working hours. If premium time work is required, the difference in cost between performing the work during normal working hours and premium time will be covered by a Change Order.
- B. Schedule utility service or operations shutdowns for periods of minimum use and at the Owner's convenience. Have all required material, equipment and workers on site prior to beginning any work involving a possible shutdown. Perform work as required to reduce shutdown time to the minimum. In some cases, this may require increased numbers of workers and/or premium time night or weekend work.

1.06 APPLICATION FOR PAYMENT

- A. Applications for Payment shall be made monthly and shall be based on the work completed as of the date of Application for Payment. Line items on the Application for Payment shall be the same as those used on the Bid Schedule.

1.07 UNIT PRICE WORK

- A. When the Contract Documents include Unit Price Work, the Contract Price shall include an amount equal to the sum of Unit Prices bid for each item times the estimated quantity for that item listed on the Bid Form.
- B. The estimated quantities listed on the Bid Form are not guaranteed to be accurate but are intended solely to determine a Contract Price. If actual quantities differ from estimated quantities by more than plus or minus 25% the unit prices may be adjusted by negotiation. Payment to the Contractor shall be based on actual quantities for each type of work as determined by the Engineer from certified quantity surveys or measurements submitted by the Contractor.
- C. For the purpose of determining quantities for payment, the Contractor shall submit certified surveys by a licensed surveyor or other certified measurements of quantities to the Engineer with each application for payment. The Engineer will determine the quantities for payment based on data submitted by the Contractor and the Engineer's written determination shall be final unless appealed within 14 days under Article 10 of the General Conditions.
- D. Unit Prices shall include all of the Contractor's cost including overhead and profit.

END OF SECTION

SECTION 01040

COORDINATION AND PROJECT REQUIREMENTS

1.01 PROJECT COORDINATION

- A. Coordinate scheduling, submittals and work of various Sections of the Specifications and subcontractors to assure efficient and orderly sequence of interdependent construction.

1.02 FIELD ENGINEERING AND LAYOUT

- A. Employ an experienced surveying instrument technician to layout all detailed dimensions and elevations from reference points. Use recognized engineering survey methods and documentation techniques.

1.03 PRECONSTRUCTION MEETINGS

- A. Prior to beginning the Work, the Contractor and its key personnel and Subcontractors including the Contractor's Superintendent, Project Manager, and Field Engineer shall attend a meeting with the Owner and the Engineer to discuss the following:
 - 1. Name, Authority, and Responsibilities of Parties Involved
 - 2. Project Procedures:
 - a. Progress meetings
 - b. Correspondence
 - c. Notification
 - d. Submittal of Product Data, Shop Drawing Samples, and Proposed Equivalents
 - e. Requests for Information
 - f. Response to Requests for Information
 - g. Requests for Quotation
 - h. Work Directive Change
 - i. Change Orders
 - j. Engineer's "Items of Concern List"
 - 3. Temporary Schedule and Contractor's Construction Schedule
 - 4. Temporary Facilities and Control
 - 5. Testing During Construction
 - 6. Contractors Coordination
 - 7. Maintenance of Record Drawings
 - 8. Owner Provided Items or Work and Owner Furnished Contractor Installed items
 - 9. Final Testing, Startup, and Balancing
 - 10. Punch Lists and Project Closeout Procedures

11. Final Deliverables including Record Drawings, Operation and Maintenance Manuals, and Special Guarantees.

1.04 PROGRESS MEETINGS

- A. The Engineer will conduct weekly progress meetings with Contractor and Owner. Attendance is required by Contractor's project manager, superintendent and affected Subcontractors and suppliers. The Engineer will prepare, maintain and distribute agenda and dated record of: (1) actions required and taken and (2) decisions needed and made.
- B. The Contractor shall submit to the City a three week look ahead construction schedule. It shall show the following three weeks of construction schedule and project status. If the weekly schedule is revised, the Contractor shall request approval of changes from the Engineer at least twenty-four (24) hours in advance.

1.05 MATERIAL AND EQUIPMENT

- A. General:
 - 1. Verify that products delivered meet requirements of Contract Documents and the requirements for Favorably Reviewed submittals.
- B. Compatibility of Equipment and Material:
 - 1. Similar items, equipment, devices or products furnished under a single specification section shall all be made by the same maker and have interchangeable parts.
 - 2. All similar materials or products that are interrelated or used together in an assembly shall be compatible with each other.
- C. Transportation and Handling:
 - 1. Transport and handle products in accordance with manufacturer's instructions.
 - 2. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
 - 3. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.
- D. Storage and Protection:
 - 1. Store and protect products in accordance with manufacturer's instructions. Seals and labels shall be intact and legible.
 - 2. Cover products subject to deterioration from moisture, dust, or sunlight with opaque watertight but breathable sheet covering. Provide ventilation to avoid condensation.
 - 3. Provide offsite storage and protection including insurance coverage when site does not permit onsite storage or protection.
 - 4. Store loose granular materials on solid flat surfaces in a well-drained area.

Prevent mixing with foreign matter.

5. Provide facilities, equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
6. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

E. Installation Standards and Manufacturers' Recommendations:

1. Install all products and materials in strict compliance with the most restrictive of the following:
 - a. The manufacturer's or provider's written instructions or recommendations. Follow step-by-step installation procedures.
 - b. Recommendations of referenced trade associations or standards.
 - c. These specifications and drawings.
2. Where conflicts exist present alternatives with advantages and disadvantages to Engineer for decision.

F. If reference standards or manufacturer's instructions contain provisions that would alter or are at variance with relationships between the parties to the Contract set forth in the Contract Documents, the provisions in the Contract Documents shall take precedence.

1.06 SAFETY

- A. In accordance with generally accepted construction practice, applicable law and the General Conditions, the Contractor shall be solely and exclusively responsible for:
1. Construction means and methods.
 2. Safety of employees engaged in the work while on and off the site.
 3. Safety of the Owner, the Engineer, the Design Engineer, and others who may visit or be affected by the work.
 4. Safety of the work itself including material and equipment to be incorporated therein.
 5. Safety of other property at the site or adjacent thereto.
 6. Safety programs, equipment and protective devices required to assure the safety of persons and property for whom/which the Contractor is responsible.
- B. The duties of the Engineer in conducting review of the Contractor's performance is not intended to include review of the adequacy of the Contractor's work methods, equipment, bracing, scaffolding or safety measures in, on, or near the construction site.
- C. The Contractor is hereby informed that work on this project could be hazardous. The Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to potential dangers and shall provide such necessary safety equipment and instructions as required to prevent injury to personnel and damage to property,

and to comply with all applicable laws and regulations including State OSHA, Federal OSHA, and other regulations referenced in these Contract Documents.

- D. The Contractor shall, at all times, maintain the job in a condition that is safe for the Owner, the Engineer and their Consultants to make site visits and to conduct construction reviews. If the Owner or the Engineer cannot allow personnel to visit the job because it is not safe, the Contractor is not providing required safe access to the Work as required by General Conditions.
- E. The Contractor shall prepare a Safety Plan meeting the requirements of applicable regulations. As a minimum, the Contractors Safety Plan shall set forth definite procedures for informing workers about safety, for instructing workers in safe practices, for assuring that workers are using appropriate safety equipment and safe work practices and for reporting accidents.

1.07 EXCAVATION AND TRENCHING; WORK WITHIN CONFINED SPACES

- A. Submit specific plans to the Owner showing details of provisions for worker protection from caving ground in accordance with Section 6705 of the California State Labor Code. The detailed plans shall show the design of shoring, bracing, sloping banks or other provisions and shall be prepared, signed and stamped by a Civil or Structural Engineer licensed in the State in which the Work is performed and retained by the Contractor. The Owner's acceptance of the detailed plans submitted is only an acknowledgment of the submission and does not constitute review or approval of the designs, design assumptions, criteria, completeness, applicability to areas of intended use, or implementation of the plans, which are solely the responsibility of the Contractor and his Registered Engineer.
- B. Work Within Confined Spaces: Work within confined spaces is subject to applicable laws, regulations and safety orders including applicable California Tunnel Safety Orders and regulations.
- C. The foregoing provisions do NOT reduce the requirement for the Contractor to maintain safety in ALL operations performed by the Contractor or its Subcontractors.

1.08 CONTRACTOR'S QUALITY CONTROL

- A. The Contractor shall be fully responsible for inspecting the work of its suppliers and Subcontractors to assure that the work when completed will comply with the standards for materials and workmanship required by the Contract Documents.
- B. Inspections, periodic observations and testing performed by the Owner or the Engineer are for the Owner's benefit and information only and shall not be construed as partial or incremental acceptance of the work and shall not be deemed to establish any duty on the part of the Owner or the Engineer to the Contractor, its subcontractors or suppliers.

- C. The Contractor shall:
 - 1. Monitor quality control over suppliers, manufacturer, products, services, site conditions, and workmanship, to produce work of specified quality.
 - 2. Comply fully with manufacturer's installation instructions, including performing each step in sequence as recommended by the manufacturer.
 - 3. Submit a Request for Information to Engineer before proceeding with work when manufacturers' instructions or reference standards conflict with Contract Documents.
 - 4. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
 - 5. Perform work by persons specializing in the specific trade and class of work required and qualified to produce workmanship of specified quality.

- D. If reference standards or manufacturers' instructions contain provisions that would alter or are at variance with relationships between the parties to the Contract set forth in the Contract Documents, the provisions in the Contract Documents shall take precedence.

- E. The Contractor shall provide assistance required by the Engineer to adequately inspect the Work including ladders, scaffolding, lighting, ventilation and other aids to facilitate access and provide a safe working environment.

1.09 TESTING LABORATORY SERVICES AND CERTIFIED LABORATORY REPORTS

- A. Provide testing service in accordance with General Conditions and specific requirements contained in each technical specification section. Submit Certified Laboratory Reports required by technical specification sections.

END OF SECTION

SECTION 01130

WORK RESTRICTIONS

1.01 - PURPOSE

Requirements for sequencing, scheduling, and coordinating construction so that the Contractor's Work is integrated with the resident's needs, including work restrictions and coordination between construction operations and residents.

1.02 - GENERAL CONSTRAINTS

- A. Conduct work such that the City's ability to meet its customers' demands for potable water shall not be impaired or reduced in terms of the required quantity or quality of treated water.
- B. Contractor shall inform the city prior to start of water main construction for utility locations works.
- C. Work Sequence and Constraints
 - 1. Contractor shall maintain access to all ADA accessible parking spaces on the city streets at all times. If the work requires removal of any of the ADA accessible parking spaces then the contractor shall provide a replacement ADA accessible parking space nearby during normal business hours (8am to 5 pm Monday through Friday).
 - 2. Utilize description of critical work sequence described in this Section as a guideline for scheduling and undertaking the work.
 - 3. Work sequence and constraints presented do not include all items affecting completion of the work, but are intended to describe critical events necessary to minimize disruption of the existing facilities and to ensure compliance with the water quality permit requirements.
- D. Hours of Construction Work:
 - 1. Normal working hours will be allowed as defined in the General Conditions and the Supplementary General Conditions.
 - 2. The Contractor shall notify the Engineer at least 3 working days prior to any work proposed for outside normal working hours defined above.
- E. Contractor's onsite parking for employee vehicles shall not block residential area access or use.
- F. The Contractor shall not allow the discharge of any water to the storm drain system.

1.03 - COMPLIANCE WITH DRINKING WATER PERMIT

- A. The existing distribution system is operating under the terms of a Drinking water permit issued by the State of California Department of Public Health. A copy of the existing permit is on file for Contractor review.
- B. Work shall not adversely affect water quality:
 - 1. Perform the Work in a manner that will not compromise compliance with drinking water quality requirements established by Law and Regulations. Drinking water quality requirements include maximum contaminant and action levels listed in the following documents:
 - a. California State Drinking Water Act and Related Laws.
 - b. California Drinking Water Regulations.
- C. These documents are periodically updated as required by State and Federal regulations.
- D. Copies of these documents and updates can be obtained from the California Department of Public Health.
- E. The Contractor shall bear cost of any penalties, fines, clean-up costs, or damages imposed on the City by the State for violations including but not limited to drinking water and waste discharge violations, caused by actions or failures to act of the Contractor.

1.04 - REQUIREMENTS FOR MAINTAINING CONTINUOUS OPERATION OF EXISTING UTILITIES

- A. The existing water mains and temporary water line, if required, shall remain in continuous operation during the duration of the contract unless specifically allowed as discussed in Paragraph 1.08 and approved in writing by the City.
- B. Conduct the work and provide temporary facilities required to keep the existing water service continuously operational unless specifically authorized to stop service.
- C. Do not remove or demolish existing facilities required to keep water in service at the capacities specified until the existing facilities are replaced by temporary, new or upgraded facilities or equipment's. The replacement and/or temporary facilities shall have been tested and demonstrated to be operational prior to removing or demolishing existing facilities.

1.05 - OPERATIONAL AND SCHEDULE CONSTRAINTS AND REQUIREMENTS, GENERAL REQUIREMENTS

- A. The following shall be in operation or available at all times, including during shutdowns, with the exception of necessary outages up to 2 hours:
 - 1. Telecommunication systems;
 - 2. Electricity to the residences. Portable generators shall be provided to meet this requirement as necessary.
 - 3. Potable (drinking) and service water, and sewer.

4. Access for City and delivery vehicles to all residences.
- B. The Contractor shall employ labor and equipment on a 24-hour, 7-days a week basis at no additional cost to the City to correct all other unplanned operational disruptions caused by the work under this Agreement.
- C. The Contractor shall informally meet with the Engineer at the end of the working day to inform Engineer of construction status and known impact on residents.
- D. A minimum of one lane of traffic shall be kept open at all times on public roads. No full street closure is allowed unless it's necessary. Full street closure will be reviewed and permitted on case-by-case basis by the City. Contractor shall submit traffic detour plan for review and approval prior to lane closure. Police and Fire Departments must be notified 48 hours in advance if full closure is required.

1.06 - UTILITIES

- A. Contractor shall furnish advance notice to and utilize services of Underground Services Alert (“U.S.A.”) for location and marking of all underground utilities.
- B. Contractor shall protect the site’s electrical, gas, telephone, water, sanitary, control, and other utilities and structures.

1.07 - SHUTDOWN CONSTRAINTS

- A. The work will require the water service to be shut down to complete portions of the work described in the Contract Documents. Provide a written notification 7 days and 48 hours in advance to the Engineer and affected residents prior to any planned shutdown.

1.08 - TEMPORARY SERVICES, MATERIALS AND EQUIPMENT

- A. Locate temporary facilities in a manner that minimizes interferences to the public’s access to the existing public roadways and residences.
- B. Dimensions for all existing structures, piping, paving, and other nonstructural items are approximate. The Contractor shall field verify all dimensions and conditions and report any discrepancies to the Engineer a minimum of 10 working days in advance of any construction in the area.

1.09 - ILLNESS CONTROL PLAN

- A. Contractor shall amend the construction safety plan to provide an illness control plan for Covid-19. The plan shall at a minimum provide a Construction Project Safety Protocol for working on Public Works projects. The contractor shall ensure that the plan is in conformance with CalOSHA, CDC, City of Burlingame, and San Mateo County Health Department requirements.

END OF SECTION

SECTION 01140

ENVIRONMENTAL PROTECTION

1.01 SCOPE

- A. During the progress of the work, keep the work areas occupied by the Contractor in a neat and clean condition and protect the environment both onsite and offsite, throughout and upon completion of the construction project.
- B. These requirements are intended to be consistent with the Bay Area Air Quality Management District standard mitigation requirements, Federal Clean Water Act, the Porter-Cologne Water Quality Control Act, and the San Mateo County Storm Water Prevention Program. Notwithstanding any other provision of this Agreement, Contractor shall also comply with the General Construction Activity Permit.

1.02 SUBMITTALS

- A. Develop an Environmental Protection Plan in detail and submit to the Engineer within thirty (30) days from the date of the Notice to Proceed. Distribute the plan to all employees and to all subcontractors and their employees. The Environmental Protection Plan shall include, but not be limited to, the following items:
 - 1. Copies of required permits.
 - 2. Proposed sanitary landfill site.
 - 3. Other proposed disposal sites, including disposal site for Asbestos Cement Pipe.
 - 4. Copies of any agreements with public or private landowners regarding equipment, materials storage, borrow sites; fill sites, or disposal sites. Any such agreement made by the Contractor shall be invalid if its execution causes violation of local or regional grading or land use regulations.
 - 5. Haul Route Plans

1.03 MITIGATION OF CONSTRUCTION IMPACTS

- A. Requirements: All operations shall comply with all federal, state and local regulations pertaining to water, air, solid waste and noise pollution.
- B. Definitions of Contaminants:
 - 1. Sediment: Soil and other debris that have been eroded and transported by runoff water.
 - 2. Solid Waste: Rubbish, debris, garbage and other discarded solid materials resulting from construction activities, including a variety of combustible and non-combustible wastes, such as ashes, waste materials that result from construction or maintenance and repair work, leaves and tree trimmings.

3. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, disinfectants, organic chemicals and inorganic wastes. Some of the above may be classified as "hazardous."
4. Sanitary Wastes:
 - a. Sewage: That which is considered as domestic sanitary sewage.
 - b. Garbage: Refuse and scraps resulting from preparation, cooking, dispensing and consumption of food.
5. Hazardous Materials: As defined by applicable laws and regulations. Undisclosed hazardous material contamination, if encountered will constitute a changed site condition. The Owner may retain a separate contractor to dispose of undisclosed hazardous material encountered.

C. Protection of Natural Resources:

1. General: It is intended that the natural resources within the project boundaries and outside the limits of permanent work performed under this Contract be preserved in their existing condition or be restored to an equivalent or improved condition upon completion of the work. Confine construction activities to areas defined by the property boundaries, easements, and work area limits shown on the Drawings. Return construction areas to their pre-construction elevations except where surface elevations are otherwise noted to be changed. Maintain natural drainage patterns. Conduct construction activities to avoid ponding stagnant water conducive to mosquito breeding.
2. Land Resources: Do not trim, prune, remove, cut, deface, injure or destroy trees or shrubs outside the work area limits. Do not trim, prune, remove, deface, injure or destroy trees within the work area without permission from the Engineer.
 - a. Protection: Protect trees that are located near the limits of the Contractor's work areas which may possibly be defaced, bruised or injured or otherwise damaged by the Contractor's operations. No ropes, cables or guys shall be fastened to or attached to any existing nearby trees or shrubs for anchorages unless specifically authorized. Where such special emergency use is permitted, the Contractor shall be responsible for any damage resulting from such use.
 - b. Trimming: In the event the Engineer grants permission to do so, trim and seal tree limbs overhanging the line of the work and in danger of being damaged by the Contractor's operations in accordance with recognized standards for such work. Remove other tree limbs under the direction of the Engineer, so that the tree will present a balanced appearance.
 - c. Treatment of Roots: Do not cut roots unnecessarily during excavating or trenching operations. Expose major roots (larger than 2-inches in diameter) encountered in the course of excavation and do not sever. Wrap them in burlap as a protective measure while exposed and request Engineer's

direction regarding their continued protection or removal. In the event Engineer grants permission to remove, neatly trim major roots at the edge of the excavation or trench and paint them with a heavy coat of an approved tree seal.

- d. Repair or Restoration: Repair or replace as specified below any trees or other landscape features scarred or damaged by equipment or construction operations. The repair and/or restoration plan shall be favorably reviewed prior to its initiation.
 - e. Temporary Construction: Obliterate all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess or waste materials, or any other vestiges of construction as directed by the Engineer. Level all temporary roads, parking areas and any other areas that have become compacted or shaped. Any unpaved areas where vehicles are operated shall receive a suitable surface treatment or shall be periodically wetted down to prevent construction operations from producing dust damage and nuisance to persons and property, at no additional cost to the Owner. Keep haul roads clear at all times of any object that creates an unsafe condition. Promptly remove any contaminants or construction material dropped from construction vehicles. Do not drop mud and debris from construction equipment on public streets. Sweep clean turning areas and pavement entrances as necessary.
3. Fish and Wildlife Resources: Perform all work and take such steps required to prevent any interference or disturbance to fish and wildlife. The Contractor will not be permitted to alter water flows or otherwise significantly disturb native habitat adjacent to the project area which are critical to fish and wildlife except as may be indicated or specified.
 4. Cultural Resources: The project does not pass through any known archaeological sites. However, it is conceivable that unrecorded archaeological sites could be discovered during the construction. In the event that artifacts, human remains, or other cultural resources are discovered during excavations at locations of the Work, the Contractor shall protect the discovered items, notify the Engineer, and comply with applicable law.
 5. Dust Control, Air Pollution and Odor Control: Shall conform to Section 14-9 "Air Quality" of the Standard Specifications. Employ measures to prevent the creation of dust, air pollution and odors.
 - a. Unpaved areas where vehicles are operated shall be periodically wetted down or given an equivalent form of treatment, to eliminate dust formation.
 - b. Active construction areas will be watered at least twice daily.
 - c. All trucks hauling loose material (sand, dirt, etc.) will have their load covered. Maintain two (2) feet of freeboard within truck.
 - d. Store all volatile liquids, including fuels or solvents in closed containers.
 - e. No open burning of debris, lumber or other scrap will be permitted.

- f. Properly maintain equipment to reduce gaseous pollutant emissions.
 - g. Use of reclaimed water for dust control requires a Regional Water Quality Control Board permit.
6. Street Sweeping: At the end of each working day, the Contractor shall clean and sweep roadways with water sweepers and on-site paved areas of all materials attributed to or involved in the work. In addition, Contractor shall clean and sweep roadways as necessary to ensure that vehicle and pedestrian travel is not endangered by the presence of loose materials. Construction site entrances shall be kept free of these materials.
7. Construction Storage Areas: Storage of construction equipment and materials shall be limited to the Contractor's storage area. No storage area will be provided by the City. The Contractor shall secure its own storage area for materials and equipment.
- a. Store and service equipment at the designated Contractor's storage area where oil wastes shall be collected in containers. Oil wastes shall not be allowed to flow onto the ground or into surface waters. Containers shall be required at the construction site for the disposal of materials such as paint, paint thinner, solvents, motor oil, fuels, resins and other environmentally deleterious substances. No dumping of surplus concrete or grout on the site will be permitted.
8. Sanitation: During the construction period, provide adequate and conveniently located chemical sanitation facilities, properly screened, for use of construction crews, the Engineer and visitors to the site. Facilities shall be regularly maintained.
9. Fire Prevention: Take steps to prevent fires including, but not limited to the following:
- a. Provide spark arrestors on all internal combustion engines.
 - b. Store and handle flammable liquids in accordance with the Flammable and Combustible Liquids Code, NFPA 30.
 - c. Provide fire extinguishers at hazardous locations or operations, such as welding.
10. Erosion and Sediment Transport Control:
- a. The Contractor shall maximize the control of erosion and sediment by using the BMP's for erosion and sedimentation in the *California Storm Water Best Management Practice Handbook-Construction Activity* (published by the Storm Water Quality Task Force) or *Manual of Standards for Erosion & Sediment Control Measures* (published by the Association of Bay Area Governments (ABAG)).
 - b. Discharge construction runoff into small drainages at frequent intervals to avoid buildup of large potentially erosive flows.

- c. Prevent runoff from flowing over unprotected slopes.
- d. Keep disturbed areas to the minimum necessary for construction.
- e. Keep runoff away from disturbed areas during construction.
- f. Direct flows over vegetated areas prior to discharge into public storm drainage systems.
- g. Trap sediment before it leaves the site, using such techniques as check dams, sediment ponds, or siltation fences.
- h. Remove and dispose of all project construction-generated siltation that occurs in offsite retention ponds.
- i. Confine construction to the dry season, whenever possible. If construction needs to be scheduled for the wet season, ensure that erosion and sediment transport control measures are ready for implementation prior to the onset of the first major storm of the season.
- j. Stabilize disturbed areas as quickly as possible.

11. Spill Prevention and Control:

- a. The Contractor shall keep a stockpile of spill cleanup materials, such as rags or absorbents appropriate for the materials and equipment being used, readily accessible on-site. Other spill clean-up materials may include storm drain cover mats, portable dikes, and portable pumps.
- b. The Contractor shall immediately contain and prevent leaks and spills from entering storm drains, and properly clean up and dispose of the waste and cleanup materials. If the waste is hazardous, the Contractor shall handle the waste as described in Section 1.04C of this Technical specification.
- c. The Contractor shall not wash any spilled material into streets, gutters, storm drains, or creeks and shall not bury spilled hazardous materials.
- d. The Contractor shall immediately report any hazardous materials spill or release to the City of Burlingame Fire Department at 9-1-1 or (650) 672-0313.

12. Vehicle / Equipment Inspection and Cleaning:

- a. The Contractor shall not perform vehicle or equipment cleaning on-site or in any public right-of-way or on any public property using soaps, solvents, degreasers, steam cleaning equipment, or equivalent methods.
- b. 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 streets, gutters, storm drains, or creeks.

- c. The Contractor shall inspect all vehicles and equipment arriving on-site.

13. Vehicle / Equipment Maintenance and Fueling:

- a. The Contractor shall perform maintenance and fueling of vehicles or equipment in a designated, bermed area or over a drip pan that will not allow run-on of storm water or runoff of spills.
- b. The Contractor shall use secondary containment, such as a drain pan, to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed, or poured.
- c. The Contractor shall keep a stockpile of spill cleanup materials, such as rags or absorbents, readily accessible on-site.
- d. The Contractor shall clean up leaks and spills of vehicle or equipment fluids immediately and dispose of the waste and cleanup materials as hazardous waste, as described in Section 1.04C.
- e. The Contractor shall not wash any spilled material into streets, gutters, storm drains, or creeks and shall report material spills into streets, gutters, storm drains, or creeks to the Engineer immediately.
- f. The Contractor shall not bury spilled hazardous materials and shall report any hazardous materials spill to City of Burlingame Fire Department immediately.
- g. Drain pans shall be used to catch leaks or leaks are cleaned up immediately, and the waste and cleanup and the waste and cleanup materials shall be disposed of as hazardous waste.
- h. The Contractor shall recycle waste oil and antifreeze to the maximum extent practicable.
- i. The Contractor shall comply with Federal, State, County and City requirements for aboveground storage tanks.

14. Contaminated Soil Management:

- a. On all projects involving grading or excavation, the Contractor shall look for contaminated soil as evidenced by site history, discoloration, odor, differences in soil properties, abandoned underground tanks or pipes, or buried debris. If the project is not within an area of known soil contamination and no evidence of soil contamination is found, then testing of the soil shall only be required if directed by the Engineer. The Contractor shall follow subsection (b) below if contamination is found.
- b. If the project is within an area of known soil contamination or evidence of soil contamination is found, then soil from grading or excavation operations shall be tested. The soil shall be managed as required by the Burlingame Fire

Department, San Mateo County Department of Health Services or other designated agency.

- c. If the project is found to be within an area of soil contamination not identified by the City in the project specifications, a change order shall be negotiated to cover additional work performed by the Contractor.

15. Concrete, Grout, and Mortar Waste Management:

a. Material Management:

The Contractor shall store concrete, grout, and mortar away from drainage areas and ensure that these materials do not enter the storm drain system.

b. Concrete Truck/Equipment Wash Out:

- 1. The Contractor shall not wash out concrete trucks or equipment into streets, gutters, storm drains, or creeks.
- 2. The Contractor shall perform washout of concrete trucks or equipment off-site or in a designated area on-site where the water will flow onto dirt or into a temporary pit in a dirt area.
- 3. The Contractor shall let the water percolate into the soil and recycle the hardened concrete. If a suitable dirt area is not available, then the Contractor shall collect the wash water and concrete material and remove it off-site.

1.04 STORAGE AND DISPOSAL OPERATIONS

A. Recycling

- 1. It is the City's policy that all discarded or removed materials, if possible, are to be sorted and recycled, including base material, asphalt concrete, and form work. The San Mateo County Waste Management Program (650-599-1412) can provide specific information regarding the availability and costs involved in recycling materials.
- 2. At the pre-construction conference, Contractor shall provide the City with a plan for ensuring that materials, such as base material, asphalt concrete, and form work, that are being removed from the project during construction will be recycled. The City may require written proof that the Contractor has recycled the discarded and removed materials from the project, and the Contractor shall provide that proof within forty-eight (48) hours of the request with a written explanation why any materials that were not recycled could not be recycled.

B. Solid Waste Management:

1. Supply solid waste transfer containers. Each day remove all debris such as spent air filters, oil cartridges, cans, bottles, combustibles and litter. Take care to prevent trash and papers from blowing onto adjacent property. Encourage personnel to use refuse containers. Convey contents to a sanitary landfill.
 2. Washing of concrete containers where wastewater may reach adjacent property or natural water courses will not be permitted. Remove any excess concrete to the sanitary landfill.
- C. Chemical Waste and Hazardous Materials Management: Furnish containers for storage of spent chemicals used during construction operations. Dispose of chemicals and hazardous materials in accordance with applicable regulations. Any Asbestos Cement Pipe (ACP) that is disturbed shall be removed and disposed of offsite as hazardous waste in accordance with all applicable current regulations.
- D. Storage:
1. The Contractor shall label and store all hazardous materials such as pesticides, paints, thinners, solvents, and fuels; and all hazardous wastes, such as waste oil and antifreeze; in accordance with all applicable County, State and Federal regulations.
 2. The Contractor shall store all hazardous materials and all hazardous wastes in accordance with secondary containment regulations, and these materials and wastes shall be covered to avoid having to handle collected rain water.
 3. The Contractor shall keep an accurate, up-to-date inventory, including Material Safety Data Sheets (MSDS's), of hazardous wastes stored on-site, to assist emergency response personnel in the event of a hazardous materials incident. The inventory shall include a site map showing the location of these materials.
 4. The Contractor shall arrange for regular hazardous waste collection to comply with time limits on storage of hazardous wastes.
 5. The Contractor shall dispose of hazardous waste only at authorized and permitted Treatment, Storage, and Disposal Facilities, and use only licensed hazardous waste haulers to remove the waste off-site, unless quantities to be transported are below applicable threshold limits for transportation specified in State and Federal regulations.
- E. Garbage: Store garbage in covered containers, pick up daily and dispose of in a sanitary landfill.
- F. Dispose of vegetation, weeds, rubble, and other materials removed by the clearing, stripping and grubbing operations off site at a suitable disposal site in accordance with applicable regulations.
- G. Excavated Materials:

1. Native soil complying with the requirements of Section 02315, Excavation and Fill, may be used for backfill as allowed by that section.
2. Spoil Material:
 - a. Remove all material which is excavated in excess of that required for backfill, and such excavated material which is unsuitable for backfill, from the site and dispose of offsite in accordance with applicable regulations at the disposal site indicated in the Environmental Protection Plan. No additional compensation will be paid to the Contractor for such disposal. Include all such costs in the lump sum prices bid for the project.
 - b. Rubbish shall consist of all materials not classified as suitable materials or rubble and shall include shrubbery, trees, timber, trash and garbage.

END OF SECTION

SECTION 01300

SUBMITTALS

1.01 SUBMITTAL PROCEDURES

- A. Accompany each submittal with a Submittal form which contains the following information:
 - 1. Contractor's name and the name of Subcontractor or supplier who prepared the submittal.
 - 2. The project name and identifying number.
 - 3. Description of the submittal and reference to the Contract requirement or technical specification section and paragraph number being addressed.

- B. Submit the number and type of copies for each submittal and follow the procedures described below or in other paragraphs in this Section. Submit one digital copy and one hard copy of submittals not covered in this Section 01300.
 - 1. Designation of Superintendent: Submit one digital copy and one hard copy for information. Include name, address, home telephone number and a brief resume.
 - 2. List of Subcontractors and Major Suppliers: Submit one digital copy and one hard copy for information. Include address, telephone number and name of responsible party.
 - 3. Subcontractors'/Suppliers'/Manufacturers' Affidavits. Submit one digital copy and one hard copy for items specified in the Technical Specifications.
 - 4. Environmental Protection Plan. Submit one digital copy and one hard copy for information.
 - 5. All submitted copies shall be clear, sharp, of high contrast and legible.
 - 6. Digital copies of submittals shall be in a file format acceptable to the Engineer. Acceptable file format include MS Office Suite, Auto CAD, or Adobe formats. Any digital submittals submitted in an unacceptable format shall be reformatted and resubmitted by the Contractor.

1.02 SCHEDULE OF SUBMITTALS

- A. Submit one digital copy and one hard copy for information. No copy will be returned.

- B. Within 15 days after the Notice to Proceed, submit a Schedule of Submittals showing the date by which each submittal required for Product Review or Product Information will be made. Identify the items that will be included in each submittal

(see paragraph 1.05 of this Section) by listing the item or group of items and the Specification Section and paragraph number under which they are specified. Indicate whether the submittal is required for Product Review of Proposed Equivalents, Shop Drawings, Product Data or Samples or required for Product Information only.

- C. The Contractor shall allow 30 days for the Engineer's review of each submittal and 30 days for each resubmittal unless a different period is specified by the Engineer in writing. If the Engineer requests additional information or clarification of a submittal, the 30 days shall be measured from the date the additional information or clarification is received. If the Contractor requires more than two submittals to obtain the Engineer's Favorable Review, the Contractor shall compensate the Owner for the cost of the Engineer's additional review time. The Contractor shall not perform work for which reviewed submittals are required without obtaining Favorable Review of submittals.

1.03 CONSTRUCTION SCHEDULE

- A. Submit one digital copy and one hard copy copies for information. No copy will be returned.
- B. If the Construction Schedule does not reflect the format requirements, the specified work, or the Contract Time, it will be returned to the Contractor for modification.
- C. Accelerated Work if Required to Meet Schedule: Give Engineer 3 days prior notice of construction that will take place outside of normal work hours or work days. Compensate Owner for extra inspection cost caused by Accelerated Work required to meet Schedule.
- D. Give Engineer 3 days prior notice of normal work days on which construction will not take place or of scheduled construction that will not take place. Compensate Owner for extra inspection cost resulting from failure to give notice.

1.04 SHOP DRAWING, PRODUCT DATA AND SAMPLES SUBMITTED FOR PRODUCT REVIEW

- A. This paragraph covers submittal of Shop Drawings, Product Data and Samples required for the Engineer's review referred to as Product Review submittals in the Technical Specifications (Division 2 through 11). Submittals required for information only are referred to as Product Information submittals in the Technical Specifications and are covered in paragraph 1.07 of this Section.
 - 1. "Shop Drawings" are drawings, diagrams, schedules and other data custom prepared by the Contractor or on of its subcontractors or suppliers to illustrate some portion of the Work

2. "Product Data" are catalogue pages, brochures, schedules, performance charts, diagrams, instructions and other information which have been highlighted or marked and certified (If required in the Technical Specifications) by the Contractor to indicate the specific items, including options, that are being submitted for some portion of the work.

B. Number and type of submittals:

1. Shop Drawings: Submit one digital copy and one hard copy plus additional hard copies if required by the Contractor. Hard copies in excess of one will be marked, stamped and returned to the Contractor.
2. Product Data: Submit one digital copy and one hard copy. Hard copies in excess of one will be marked, stamped and returned to the Contractor.
3. Samples: Submit three labeled samples or three sets of samples of manufacturer's full range of colors and finishes. Comply with requirements in Technical Specification Sections. One sample will be returned to Contractor.

C. The Contractor shall make all Product Review submittals early enough to allow adequate time for the Engineer's review, for manufacture and for delivery at the construction site without causing delay to the Work. Submittals shall be made early enough to allow for unforeseen delays such as:

1. Failure to obtain Favorable Review because of inadequate or incomplete submittal or because the item submitted does not meet the requirements of the Contract Documents.
2. Delays in manufacture.
3. Delays in delivery.

D. Content of Submittals:

1. Each submittal shall include all of the items and material required for a complete assembly, system or Specification Section.
2. Submittals shall contain all of the physical, technical and performance data required by the specifications or necessary to demonstrate conclusively that the items comply with the requirements of the Contract Documents.
3. Include information on characteristics of electrical or utility service required and verification that requirements have been coordinated with services provided by the Work and by other interconnected elements of the Work.
4. Provide verification that the physical characteristics of items submitted, including size, configuration, clearances, mounting points, utility connection points and service access points, are suitable for the space provided and are

compatible with other interrelated items that are existing or have or will be submitted.

5. Label each Product Data Submittal, Shop Drawing and Sample with the information required in paragraph 1.01A of this Section. Highlight or mark every page of every copy of all Product Data submittals to show the specific items being submitted and all options included or choices offered.
6. Additional requirements for Product Review submittals are contained in the Technical Specification sections.
7. Designation of work as "NIC" or "by others," shown on Shop Drawings, shall mean that the work will be the responsibility of the Contractor rather than the subcontractor or supplier who has prepared the Shop Drawings.

E. Compatibility of Equipment and Material:

1. Verify that items proposed for use meet the requirements in the paragraph titled "Material and Equipment" in Section 01040 especially the subparagraphs titled "Compatibility of Material and Equipment."

F. Requirements for Contractor Designed Items and for First Specified (Named) Items.

1. Verify that items meet the requirements in the paragraph titled "Performance Specifications and Contractor Designed Work" in Section 01040.

G. Submittals that contain deviations from the requirements of the Contract Documents shall be accompanied by a separate letter explaining the deviations. The Contractor's letter shall:

1. Cite the specific Contract requirement including the Specification Section and paragraph number for which approval of a deviation is sought.
2. Describe the proposed alternate material, item or construction and explain its advantages and/or disadvantages to the Owner.
3. State the reduction in Contract Price if any that is offered to the Owner.

H. Engineer's Review Procedure and Meaning

1. The Engineer will stamp and mark each Product Review submittal prior to returning it to the Contractor. The stamp will indicate whether or not the review was favorable and what action is required of the Contractor. Review categories "No Exceptions Taken" and "Make Corrections Noted" both indicate Favorable Review.
2. Favorable Review is Contingent on:

- a. The compatibility of items included in a submittal with other related or interdependent items included in previous or future submittals.
 - b. Future submittal of items related to or required to be part of this submittal that was not included with this submittal.
3. Favorable Review of a submittal does not constitute approval or deletion of items required as part of the submittal but not included with the submittal. Favorable Review of items included in the submittal does not constitute deletion of specified features, options or accessories that were not included in the submittal.
4. The action required by the Contractor for each category of review is as follows:
- a. **NO EXCEPTIONS TAKEN.** NO RESUBMITTAL REQUIRED.
 - b. **MAKE CORRECTIONS NOTED:** The Contractor shall make corrections noted prior to manufacture. No resubmittal required.
 - c. **SUBMIT SPECIFIED ITEM.** (Partial Resubmittal) The Contractor shall submit related accessory or optional items as noted which are required but were not included with the submittal and/or shall resubmit unsatisfactory portions or attributes of items as noted. The Contractor may proceed to manufacture those portions of the submittal that will be unaffected by required resubmittals.
 - d. **REVISE AND RESUBMIT.** The Contractor shall amend and resubmit the submittal as noted or required to comply with the Contract Documents.
 - e. **REJECTED - RESUBMIT.** The item submitted does not comply with the Contract Documents in a major way. Resubmit items that comply with the requirements of the Contract Documents.
 - f. **NOT REVIEWED.** The item was submitted as required by the contract documents, but was not reviewed by the Engineer or City.
5. The letter of transmittal accompanying the returned Product Review submittal may contain numbered notes. Marking a corresponding number on a Shop Drawing or Product Data submittal shall have the same effect as applying the entire note to the submittal.
- I. Re-submittals that contain changes that were not requested by the Engineer on the previous submittal shall be accompanied by a letter explaining the change.
- J. Favorable Review Required Prior to Proceeding.
- 1. Do not proceed with manufacture, fabrication, delivery or installation of items prior to obtaining the Engineers Favorable Review of Product Review submittals.

1.05 PROPOSED EQUIVALENTS

- A. When the first specified item is followed by a second maker's name and "or equal," the Contractor may submit Proposed Equivalent items for the Engineer's review. Proposed Equivalent items that are in the Engineer's judgment equal to the first specified item in quality, utility, and appearance, will be Favorably Reviewed. Where a product description and first maker's name is followed by "or equal" with no second maker's name, it means the specifier knows of no equivalent product and the Contractor may submit Proposed Equivalent products by other makers for review. Where the term "or equal" is omitted, it means that the named item is required to meet the Owner's needs; no products or makers other than those specified will be considered.
- B. Time of Submittal:
1. Submittal of Proposed Equivalents shall be within 35 days of the Notice to Proceed. The Engineer may agree to a later submittal date if requested in writing within 35 days of the Notice to Proceed. The request shall identify the item, give the Specification reference, and proposed manufacturer and model number of the item that will be submitted and the proposed submittal date.
 2. The Engineer's agreement to a later submittal date shall be in writing and shall not be construed as Favorable Review or acceptance of the manufacturer or item proposed.
- C. Content of submittals shall be the same as that required for Product Data, Shop Drawings and Samples submitted for Product Review in another paragraph of this Section. In addition, the Contractor shall provide information on several recent similar installations of the item to verify its suitability. The information shall include the project name and location, the Owner's name, address, telephone number and name of a knowledgeable person to contact for information on performance of the product.
- D. When the Contractor has listed specific maker's products with its Bid, no changes will be permitted without submittal of acceptable evidence justifying the change and the Engineer's written approval.
- E. If a non-equivalent substitute is submitted for review, it shall be accompanied by a proposed reduction in Contract Price which shall include the increased cost of Engineering service required to evaluate the proposed substitute (which shall be paid to the Owner whether or not the substitute is accepted) plus the greater of 1) the difference in price between the first specified item and the item submitted and 2) the difference in value to the Owner between the two items.

1.06 PRODUCT INFORMATION SUBMITTALS

- A. Submit one digital copy and one hard copy. No copies will be returned.

- B. Product Information submittals are required for the Owner's permanent records and will be used for future maintenance, repair, modification or replacement work. Product Information submittals will be examined only to verify that the required submittals have been made; they will NOT be reviewed for compliance with the Contract Documents.
- C. Make Product Information submittals prior to delivering material, products or items for which Product Information submittals are required.
- D. The Contractor has the sole and exclusive responsibility for furnishing products and work that meets the requirements of the Contract Documents.
- E. The Engineer reserves the right to comment on any submittal and to reject any product or work delivered, installed or otherwise at any time that the Engineer become aware that it is defective or does not meet the requirements of the Contract Document.

1.07 OPERATION AND MAINTENANCE MANUALS AND PARTS LISTS

- A. Submit three complete hard copy sets and one complete digital set.
- B. Provide operation and maintenance manuals and parts lists for all equipment furnished under this contract. Comply with the detailed requirements in Technical Specification sections. Include instructions for delivery, storage, assembly, installation, lubrication, adjusting, startup, operation and maintenance.
- C. Bind each copy in one or more "D" ring, 8-1/2x11, 3-ring binders with clear view spine and cover, Avery E-Z –D View Binder; K&M; or equal. Prepare Titles for the spine and cover and a Table of Contents listing each piece of equipment. Organize the contents by Specification Section and paragraph number under which the equipment was specified. Provide labeled tab separators for each major item or group of smaller similar items. When standard manufacturer's literature is used, highlight or mark all copies to show specific items and options provided.

1.08 MANUFACTURER'S CERTIFICATES

- A. Submit three hard copies and one digital copy.
- B. When specified in Technical Specification section, submit manufacturers' certificate to Engineer for review. Indicate whether or not material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Engineer.

END OF SECTION

SECTION 01400

MOBILIZATION, SITE PREPARATION, SITE MAINTENANCE, DEMOBILIZATION

GENERAL

1.01 - SCOPE

Mobilization, site preparation, site maintenance, and demobilization consist of providing temporary facilities and utilities, establishing the work zones, clearing the Site, establishing health and safety procedures, maintaining the Site, providing Site security, and performing final Site grading, cleanup, and demobilization until the proper completion of the work, as required or specified.

1.02 - FIELD ENGINEERING AND LAYOUT

Employ an experienced surveying instrument technician to lay out all detailed dimensions and elevations from reference points. Use recognized engineering survey methods and documentation techniques.

1.03 - SANITARY REGULATIONS

- A. The Contractor will provide its own adequate sanitary facilities for the use of those employed on the Work. Such facilities will be made available when the first employees arrive on the site of the Work, will be properly secluded from public observation, will be constructed and maintained during the progress of the Work in suitable numbers and at such points and in such manner as may be required.
- B. The Contractor will maintain the sanitary facilities in a satisfactory and sanitary condition at all times and will enforce their use. Sanitation facilities will be serviced at least twice per week. The Contractor will rigorously prohibit the committing of nuisance on the Site of the Work, within the public right-of-way, or on adjacent property.

1.04 - WATER SUPPLY

- A. Water provided through a City meter pursuant to this section that is necessary for the performance of the Work under this Agreement will be at no cost to the Contractor.

Any water use from fire hydrants will be metered. A cash deposit will be posted at the Water Department Office at 501 Primrose Road, Burlingame, as assurance that the meter is returned in good condition. Meter will be obtained from and returned to the Water Department Repair Shop at the City Corporation Yard at 1361 North Carolan Avenue, Burlingame. If the meter is returned in good condition, the deposit will be returned to the Contractor.

1.05 - ELECTRICAL ENERGY

- A. If the Contractor desires a temporary electric service instead of utilizing temporary generator, the Contractor will make all necessary applications and arrangements and pay all fees and charges for electrical energy for power and light necessary for the proper completion of the Work and during its entire progress. The Contractor will provide and pay for all temporary wiring, switches, connections, and meters.
- B. The Contractor will provide sufficient electric lighting so that all work may be done in a workmanlike manner when there is not sufficient daylight.

1.06 - PRECAUTIONS DURING ADVERSE WEATHER

During adverse weather and against the possibility thereof, the Contractor will take all necessary precautions so that the Work may be done satisfactorily in all respects. When required, protection will be provided by use of tarpaulins or other suitable means.

1.07 - CONTRACTOR'S FIELD OFFICE

The Contractor will not be allowed to have a temporary field office at the project site and the contractor shall make the necessary arrangements to have readily accessible copies of all contract documents at the site including Contractor's set of as-built drawings.

1.08 - OWNER'S REPRESENTATION OF EXISTING CONDITIONS

Owner, Owner's Representative, and Design Engineer make no representation and assume no responsibility with respect to the ultimate type, nature, or quantity of soil encountered. Contractor will include, as appropriate, contingencies to cover uncertainties. See also Section 02315 Excavation and Fill.

1.09 - PERMITS

1. Contractor and subcontractors will obtain and pay for all required licenses and permits, including permits from the City of Burlingame, and submit all required notifications. See Section 5 of the General Conditions. Permits from or notifications to the City of San Mateo, Town of Hillsborough, County of San Mateo, Bay Area Air Quality Management District, CAL/OSHA, SamTran and the Bay Area Regional Water Quality Control Board, Caltrans may be required, including associated fees. Contractor will identify all permits and notifications including fees required for either Work and provide a summary table to the Owner's Representative for review 15 days after the Notice to Proceed.

1.10 - COORDINATION WITH THE CITY OF BURLINGAME AND SAN MATEO COUNTY

Contractor will provide Owner and Owner's Representative with 2 working days' notice prior to off hauling, delivery of all materials, or other activities that will generate a high volume of traffic.

1.11 - SECURITY

- A. The Contractor will provide any temporary fencing that it deems necessary for Site security. Contractor will promptly repair, maintain, or provide new fencing as needed to maintain Site security. In no case will the degree of Site security be reduced by the Contractor's Work or failure to act.
- B. Contractor will provide security and facilities to protect the Work, existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.12 - SAFETY

- A. Contractor will provide temporary guardrails, ladders, stairs, guards, and barricades to protect persons in accordance with applicable regulations, including California Code of Regulation Title 8 and Cal/OSHA.
- B. Contractor will prepare and submit a site-specific Health and Safety Plan to Owner's Representative within 10 working days of Notice to Proceed. Contractor will prepare the site-specific Health and Safety Plan in accordance with Laws and Regulations, including but not limited to CAL-OSHA CCR Title 8, Sections 5192 and 5214; 29 CFR Section 1910.120 et seq.; and Proposition 65.
- C. The Contractor's Health and Safety Plan will be prepared by the Contractor's responsible health and safety manager or Contractor's retained Certified Industrial Hygienist. At a minimum, the Contractor's Health and Safety Plan shall set forth definite procedures for informing workers about safety, for instructing workers in safe practices, for assuring that workers are using appropriate safety equipment and safe work practices and for reporting accidents. Contractor's Health and Safety Plan will include a specific plan for hazard communication and notification to Site workers and visitors.
- D. In accordance with generally accepted construction practice, applicable law and the General Conditions, the Contractor shall be solely and exclusively responsible for the following. This responsibility is continuous and is not limited to working hours:
 - 1. Construction means, methods, sequences, techniques, and procedures.
 - 2. Health, safety, and security of worker engaged in the work while on and off the site.
 - 3. Health, safety, and security of the City, the public, the Engineer, the Design Engineer, and others who may visit or be affected by the work.

4. Safety and security of the work itself including material and equipment to be incorporated therein.
 5. Security of other property at the site or adjacent thereto.
 6. Health, safety, and security programs, equipment and protective devices required to assure the safety of persons and property for whom/which the Contractor is responsible.
- E. All workers allowed on-Site by Contractor or its subcontractor will have the appropriate health and safety training, medical monitoring, and personnel protective equipment as require by the Contractor's Health and Safety Plan and will comply with all other provisions of the Contractor's Health and Safety Plan.
 - F. The Contractor shall, at all times, maintain the job in a condition that is safe for the Owner, the Engineer and their Consultants to make site visits and to conduct construction reviews. If the Owner or the Engineer cannot allow personnel to visit the job because it is not safe, the Contractor is not providing required safe access to the Work as required by General Conditions, and observation of the work for progress payment
 - G. Design Engineer, Owner's Representative and Owner will not review Contactor's submitted Health and Safety Plan to verify conformance with Laws and Regulations. Such submittal will not in any way relieve Contactor of Contractor's complete and continuous responsibility and duty for Site health and safety and security.
 - H. Contractor will keep a copy of its corporate Health and Safety Plan and the site-specific Health and Safety Plan on-Site and update it as appropriate.
 - I. The Contractor is hereby informed that work on this project could be hazardous. The Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to potential dangers and shall provide such necessary safety equipment and instructions as required to prevent injury to personnel and damage to property, and to comply with all applicable laws and regulations including State OSHA, Federal OSHA, and other regulations referenced in these Contract Documents.
 - J. In addition to the requirements of the Contractor's Health and Safety Plan and Laws and Regulations, the Contractor will conduct the following:
 1. Site Control: For the duration of the Project, the Contractor will assume full responsibility for Site health and safety and for Site security. The Contractor's responsibility and authority will be continuous and not limited to work hours.
 2. Health and Safety Instructions: At the beginning of work on the Site and as necessary thereafter, the Contractor will instruct all workers, the

Owner, the Owner's Representative, and visitors regarding health and safety measures.

3. Site Security: The Contractor's activities will not reduce the present level of Site security. If existing fences are removed or damaged as part of the work, then equivalent protection will promptly be provided until said fences are repaired or replaced, including temporary fencing or additional patrols as necessary. The Contractor will implement security measures that are necessary or potentially necessary to protect the Contractor's materials and equipment, or to prevent access to hazardous or potentially hazardous materials exposed during the work.
4. No Relief: From time to time, Owner, Owner's Representative, or other Site visitors may or may not comment on Contractor's health and safety plan or measures. None of the actions of the Design Engineer, Owner's Representative, Owner, or Site visitors will serve to relieve Contractor of its complete and continuous responsibility for Site health and safety and security.

1.13 - PROTECTION OF INSTALLED WORK AND EXISTING FACILITIES

- A. Contractor will provide temporary and removable protections for installed products and completed work. Control activity in immediate work area to minimize damage and between work zones using temporary chain link fence, traffic barricades and caution tape, or other appropriate method.
- B. Provide temporary and removable protection for existing facilities. Use protective barriers such as wood or steel mats, steel plates, etc. to protect existing facilities from damage.

EXECUTION

2.01 – WORK ZONE

- A. During construction, maintain the Site and all work in a clean orderly fashion for waste, debris, and rubbish. Contractor will patrol the Site and collect rubbish and trash daily. Pick up and store debris in covered containers. Burning debris on Site is not permitted.
- B. Contractor will clean mud from vehicles before leaving the Site. See Section 01140 Environmental Protection.
- C. Employ measures to prevent the creation of dust that may cause damage or nuisance to property or persons in accordance with Section 01500 Construction Facilities and Temporary Controls. Contractor is responsible for all damage resulting from dust produced by construction activities.
- D. Employ measures to prevent erosion and trap any sediment created by construction activities before it leaves the Site. See Section 01140 Environmental Protection.

- E. Avoid creating conditions conducive to pests and rodents. Comply with Laws and Regulations governing the use of chemicals to control pests and rodents.
- F. Maintain excavations free of water.
- G. Contractor will protect all utilities that may be present within the work area.

2.02 – PARKING OF VEHICLES AND EQUIPMENT

- A. Contractor will park all equipment and vehicles not currently in use within the Limits of Work designated on Contract Drawings.

2.03 – SPILL PREVENTION AND CONTROL

- A. The Contractor shall keep a stockpile of spill cleanup materials, such as rags or absorbents appropriate for the materials and equipment being used, readily accessible on-site. Other spill clean-up materials may include storm drain cover mats, portable dikes, and portable pumps.
- B. The Contractor shall immediately contain and prevent leaks and spills from entering storm drains, and properly clean up and dispose of the waste and cleanup materials. If the waste is hazardous, the Contractor shall handle waste in accordance with applicable rules and regulations.
- C. The Contractor shall not wash any spilled material into streets, gutters, storm, drains, or creeks and shall not bury spilled hazardous materials.
- D. The Contractor shall immediately report any hazardous materials spill or release to the City of Burlingame Fire Department at 9-1-1 or (650) 672-0313.

2.04 – SITE MAINTENANCE

- A. During all activities, Contractor will not permit dirt or debris to accumulate within the Site access and egress points. Contractor will promptly provide street sweeping or other methods satisfactory to the Owner’s Representative to remove all soils, dirt, rock, asphalt, and other deposits that accumulate at the Site and driveways, sidewalks, and public roads that are a result of the Contractor’s operations. This includes windblown deposits, spillage, and tracking of material onto the roads. Streets will be swept at least once daily during times when there are more than four truckloads hauling soil or debris in a day. Contractor will inspect the roads at least twice daily during hauling operations, at noon and at the end of each shift. When the inspection by Contractor or Owner’s Representative determines that cleaning is required, cleaning will be performed immediately. See Section 01140 Environmental Protection.
- B. At the end of each day, the Contractor will perform the following:
 - 1. Secure the Site;

2. Cover any soil or debris stockpiles in accordance with Section 01140 Environmental Protection on the Site;
3. Store equipment;
4. Disconnect water and power except as need for health and safety and security;
5. Position or implement any appropriate measures in accordance with Section 01140 Environmental Protection; and
6. Clean the entire work area with a street sweeper equipped with water and vacuum equipment.

2.05 – FINAL CLEANUP AND DEMOBILIZATION

- A. Upon completion of the Work, the Contractor will remove all materials and equipment brought to the Site that is not permanently installed as part of the Work. See Section 01700 Construction Closeout.
- B. Contractor will:
 1. Remove any temporary fencing that was installed,
 2. Repair any damage cause by Contractor's activities to perimeter fences, buildings, streets, curbs, landscaping, or any other part of the Site,
 3. Clean all equipment, vehicles, or other items that have entered the Site, and
 4. Leave the Site clear of all debris.

END OF SECTION

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.01 TEMPORARY UTILITIES

- A. Sanitary Facilities: Provide and maintain self-contained portable sanitary facilities for the Contractor's, subcontractors', Engineer's, and Owner's use. Facilities shall comply with applicable regulations and shall be serviced, cleaned and disinfected frequently.
- B. Temporary Water, Power, and Telephone Service:
1. No power or telephone service will be provided to the contractor.
 2. Potable water used for draining and flushing new water main piping shall be available from a meter connected on a fire hydrant and under the direction of the Engineer. Any other use of potable water shall require special approval from the City. Any water use from fire hydrants shall be metered. A cash deposit shall be posted at the Water Department Office at 501 Primrose Road, Burlingame, California, as assurance that the meter is returned in good condition. Meters shall be obtained from and returned to the Water Department Repair Shop at the City Corporation Yard at 1361 North Carolan Avenue, Burlingame. If the meter is returned in good condition, a refund shall be mailed to the Contractor. Any damages to the meters while in the possession of the Contractor shall be the Contractor's responsibility and deductions will be made from the deposit for repairs to the meters. Meters must be returned to the City within 10 working days after work is completed and prior to final payment. Payment for water from outside sources shall be included in the various bid items unless otherwise specified. Water provided through a City meter pursuant to this section that is necessary for the performance of the work under this Agreement shall be at no cost to the Contractor.
- C. Temporary Lighting: Provide and maintain lighting for construction operations to achieve a minimum lighting level of 20-foot candles for rough work and 60-foot candles for finish work.
- D. Temporary Fire Protection:
1. Provide and maintain fire protection equipment, including extinguishers, fire hoses, and other equipment required by law, insurance carriers, or necessary for proper fire protection during the course of the work.
 2. Use fire protection equipment only for fighting fires.
 3. Locate fire extinguishers in field offices, storage sheds, tool houses, temporary buildings, and throughout the construction site.

1.02 TEMPORARY CONSTRUCTION

- A. The Contractor is solely and exclusively responsible for the design, construction and maintenance of all temporary construction including forms, falsework, shoring, scaffolding, stairs, ladders and all other similar items.

1.03 BARRICADES, FENCES AND ENCLOSURES

- A. Barricades: Provide temporary guard rails, ladders, stairs, guards, and barricades to protect persons in accordance with applicable regulations, including California Code of Regulations Title 8 and Cal/OSHA.
- B. Fences:
 - 1. Existing fences enclose portions of the present facilities site. The fences are for the protection and security of the present operating facilities. If it is necessary for the Contractor to remove some of the fences for installation of new work, the Contractor shall provide equivalent temporary protection and security. Replace fencing removed by the Contractor with new fencing of equivalent quality prior to completion.

1.04 PROTECTION OF INSTALLED WORK AND EXISTING FACILITIES

- A. Provide temporary and removable protection for installed products and completed work. Control activity in immediate work area to minimize damage.
- B. Provide temporary and removable protection for existing facilities. Use protective barriers such as wood or steel mats, steel plates, etc. to protect existing facilities from damage.

1.05 SECURITY

- A. Provide security and facilities to protect the Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.06 TEMPORARY CONTROLS

- A. Cleaning:
 - 1. During Construction: Maintain the site and all work in a clean orderly fashion free of waste debris and rubbish. Store debris in covered containers. Pick up and remove debris daily if required, but not less frequently than weekly. Burning debris on site is not permitted. Remove debris from permanently closed spaces prior to enclosing them. Clean mud from vehicles before leaving the site.
 - 2. If work under this Contract creates dusty, dirty or unsightly conditions in adjacent areas, the Contractor shall immediately cleanup the affected areas.

3. Final cleanup is specified in Section 01700.
- B. Dust Control: Employ measures to prevent the creation of dust which may produce damage or nuisance to property or persons. Be responsible for all damage resulting from dust produced by construction operations. Periodically wet down unpaved areas where vehicles are operated. See Earthwork specification sections.
 - C. Erosion and Sediment Control: Employ measures to prevent erosion and trap any sediment created by construction operations before it leaves the site. Prevent sediment from entering streams or other water bodies. See Section 01140.
 - D. Pest and Rodent Control: Avoid creating conditions conducive to pests and rodents. Comply with regulations governing the use of chemicals to control pests and rodents.
 - E. Water Control: Maintain excavations free of water.

END OF SECTION

SECTION 01700

CONSTRUCTION CLOSEOUT

1.01 SUMMARY

- A. The work in the section includes all materials and labor associated with conducting final site cleanup at the completion of work to the satisfaction of the Engineer and in accordance to section 4-1.13, Cleanup, of the standard specifications.

1.02 FINAL CLEANUP

- A. Prior to Final Inspection, clean the entire construction area and all other areas affected by the performance of work under this Contract. Perform cleaning using personnel specializing in and skilled in cleaning and maintenance work. Perform repair work using personnel skilled in executing the type of work being repaired. Perform all work to the highest trade standards applicable to that type of work.
 1. Remove all temporary construction, signs, tools, equipment, excess material and debris.
 2. Remove all lumps, splatters, spots and stains caused by paint, adhesive, asphalt, concrete, mortar, sealant or other foreign material from exposed or finished surfaces. Remove all temporary labels.
 3. Repair, patch or replace new or existing work including pavement, sidewalks, curbs, gutters, catch basins, gratings, manholes, covers, landscaping, plant materials and other items that have been damaged, broken, cracked or chipped as a result of performing this Work.
 4. Sweep clean and wash down all exterior pavement. Remove all hazardous material and material that may cause sediment in drainage systems prior to wash down. Remove all grease and oil stains on pavement caused by Contractor's equipment.

1.03 CONTRACTOR'S ACTION LIST OF ITEMS TO BE CORRECTED AND/OR COMPLETED

- A. During construction, the Contractor shall maintain an action list of items to be corrected and/or completed. The Contractor shall regularly add items and update the list as information becomes available or as requested by the Engineer. The Contractor shall deliver a current copy of the list to the Engineer at each progress meeting.

1.04 SEMIFINAL INSPECTION/SUBSTANTIAL COMPLETION

- A. Definitions

1. "Substantial Completion" means that the work has progressed to the point that: (1) the Work is ready for beneficial use and occupancy by the Owner for the intended purpose, (2) all fire and life safety work has been completed, inspected and accepted, (3) all mechanical and process systems and equipment are complete and have been put in automatic operation, (4) the total value of uncompleted work is less than one-half of one percent of the Contract Price and (5) completing the Work will not significantly interfere with the Owner's convenience, use or cost of operation.
 2. "Semi-Final Inspection" determines if the Work is Substantially Complete.
 3. "Final Inspection" determines if the Work has reached final Completion.
 4. "Final Completion" indicates that the Work has been fully completed in accordance with the Contract Documents and is ready for acceptance and final payment by the Owner.
 5. "The Final Punch List" contains items that remain uncompleted after Substantial Completion but that must be completed prior to Final Completion.
- B. When the Contractor considers the Work nearly complete, the Contractor shall review the Contract Documents, inspect the Work, and use the Contractor's action list to prepare a Contractor's Punch List of all deficient or uncompleted items. The Contractor shall complete or correct items on the Punch List. When the Work is Substantially Complete, the Contractor shall notify the Engineer in writing that the Contractor has reviewed the Contract Documents, inspected the Work and believes that the Work is Substantially Complete and ready for Semifinal Inspection.
- C. On receipt of the Contractor's Punch List and notice that the work is ready for Semifinal Inspection, the Engineer will inspect the Work. The Engineer may add additional items to the Contractor's Punch List, may find that the work is not ready for inspection, is ready for inspection but not Substantially Complete or that the Work is Substantially Complete. When the Engineer finds the Work is Substantially Complete, it will prepare a Final Punch List and a notice of Substantial Complete, which will state the date of Substantial Completion and the time agreed to by the Owner and the Contractor (not to exceed 30 days) in which the Work shall be fully complete and ready for Final Inspection.

1.05 FINAL INSPECTION, FINAL COMPLETION AND FINAL PAYMENT

- A. When the Contractor has completed or corrected all the items on the Engineer's Final Punch List, the Contractor shall give the Engineer written notice that the Work is ready for Final Inspection. When the Engineer finds the Work acceptable and fully complete in accordance with the Contract Documents, and upon receipt of a final Application for Payment and all final submittals, the Engineer will recommend that the Owner issue a Notice of Final Completion, make Final Payment and Accept the Work stating that to the best of the Engineer's knowledge, information and belief, and on the basis of the Engineer's observations and inspection, the Work has been

fully completed in accordance with the terms and conditions of the Contract Documents.

B. Final Submittals include:

1. Operation and Maintenance Manuals and Parts Lists
2. Record Drawings
3. Extra Materials
4. Special Guarantees
5. Insurance Certificate showing required continuation of coverage beyond Final Payment.
6. Release of Liens.
 - a. Within 10 Days after the Contractor has delivered to the Owner a complete release of all liens arising out of this Contract or receipts in full covering all labor, materials and equipment for which a lien could be filed, or a bond satisfactory to the Owner to defend and indemnify the Owner against such liens, the Owner shall accept the Work and file a Notice of Completion. Final Payment shall not become due until 60 days after the Owner files a Notice of Completion and there being no liens or stop notices filed. If any lien or stop notice remains unsatisfied, the Contractor shall immediately take all the steps necessary to remove all liens or stop notices before Final Payment is made. If any liens are filed or exist after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such liens, including all costs and reasonable attorneys' fees.
7. Waiver of Claims by Contractor.
 - a. The making of Final Payment shall constitute a waiver of claims by the Owner except those arising from:
 - (i) Liens, claims, security interests or encumbrances arising out of the Contract and unsettled;
 - (ii) Failure of the Work to comply with the requirements of the Contract Documents; or
 - (iii) Terms of the one-year guarantee period and special warranties required by the Contract Documents.
 - (iv) Any of the Contractor's continuing obligations under the Contract Documents.
8. And any other submittals required by the Contract Documents and not previously received.

- C. The Owner will record the Notice of Final Completion at the County Recorder's Office.
- D. The Owner will make Final Payment to the Contractor 35 days after recording the Notice of Final Completion.

1.06 RECORD DRAWINGS

- A. The Contractor shall maintain on the jobsite, a complete set of Contract Documents and a complete file of all addenda, contract modifications and favorably reviewed submittals. The Contractor shall prepare a set of Record Drawings concurrently with the construction of the Work and in accordance with the following:
 - 1. Show the invert elevation of all gravity piping and the top of pipe, top of conduit or top of protective concrete encasement for other utilities. Elevations shall be related to a permanent visible elevation benchmark set at the site by the Contractor.
 - 2. Show the horizontal location of underground utilities measured from permanent visible physical features such as face of building, face of tank, centerline of manhole, or by coordinates based on the project datum.
 - 3. Comply with detailed requirements in technical specification sections describing the type of information required on Record Drawings. The Contractor's copy of Contract Documents, Contract modifications and Record Drawings shall be available to the Engineer for weekly verification that the records are being currently updated.

1.07 TWELVE-MONTH INSPECTION

- A. Thirty (30) days prior to the expiration of the one-year guarantee period, the Contractor shall tour the project with the Engineer and/or the Owner to prepare a list of corrective work required under the 12-month guarantee. The Contractor shall correct all items found to be defective within 20 days of receipt of the list of items to be corrected.

END OF SECTION

SECTION 02204

DEWATERING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Installation and maintenance of dewatering systems. Disposal of water entering excavation or other parts of the work.

1.02 REFERENCES

- A. Section 01140 Environmental Protection
- B. Section 02315 Excavation & Fill
- C. Section 02510 Waterline Piping
- D. Section 02511 Fire System Piping

1.03 SUBMITTALS

- A. Dewatering Plan: Proposed dewatering plan including arrangement, location, and depths of system components, type, and sizes of filters, and required permits.

1.04 QUALITY ASSURANCE

- A. Regulatory Requirements:
 - 1. The Contractor assumes responsibility for obtaining water discharge permits that are required

1.05 PROJECT CONDITIONS

- A. Environmental Requirements:
 - 1. Keep excavations reasonably free from water. The static water level shall be drawn down a minimum of 2 feet below the bottom of excavations.
 - 2. Provide standby power to ensure continuous dewatering in case of power failure.
 - 3. Prior to release of groundwater to its static level, all pressure relief devices shall be fully operational.

4. Release of groundwater to its static level shall be controlled to prevent disturbance of the natural foundation soils or compacted fill and to prevent flotation or movement of structures or pipelines.
5. Filter native soil and prevent loss of ground and sink hole development through erosion and piping.

1.05 SEQUENCING & SCHEDULING

- A. Secure written permission from the ENGINEER before locating wells, well points, or drain lines for purposes of dewatering.
- B. Groundwater Levels:
 1. During Trenching activities the ground water level will be observed by the ENGINEER to determine if Dewatering is required.
 2. Locate dewatering facilities where they will not interfere with utilities and construction work to be performed by others.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Not used

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Provide and Maintain During Construction: Ample means and devices with which to promptly remove and properly dispose of water entering excavation or other parts of the work, whether water be surface water or underground water.
- B. Install at least one ground water level monitoring well if dewatering wells are required. If more than four dewatering wells or well points are installed, install one additional monitoring well for every four dewatering wells or well points. The monitoring well must be within six feet of the excavation and located mid-way between dewatering wells or well points. Monitoring wells shall have a temporary cap and be not less than two inches in diameter. The contractor shall protect the dewatering wells in place during the excavation.
- C. Intercept and divert precipitation and surface water away from excavations through the use of dikes, curb walls, ditches, pipes, sumps, or other means.
- D. Disposing of Water:
 1. Dispose of water from the work in suitable manner without damage to adjacent property.

2. Do not drain water into work built or under construction.
 3. Dispose of water in such manner as not to be menace to public health.
 4. All water to be disposed of shall be free of dirt, silt, and any other material deemed objectionable by the City and/or regulatory agencies.
 5. Clean groundwater may be disposed of in the City's sanitary sewer system.
- E. Wells, Well Points, and Drain Lines for Dewatering:
1. Locate after receipt of Engineer's written permission.
 2. Fill dewatering wells, lines, and French drains to be left in place within structure foundation limits with concrete as specified in Section 02775.

3.02 DEWATERING OPERATION

A. Sediment Control:

1. The Contractor shall route water through a control measure, such as a sediment trap, sediment basin, or leak-free tank, to remove settleable solids prior to discharge to the storm drain system.
2. Approval of the control measures shall be obtained from the Engineer prior to start of work.
3. Filtration following the control measure may be required on a case-by-case basis.

B. Contaminated Groundwater:

1. If the project is within an area of groundwater contamination, then water from dewatering operations shall be tested. If the water quality meets Regional Water Quality Control Board (RWQCB) standards, then it may be discharged to the storm drain. If the water quality meets City of Burlingame Municipal Code Section 15.10, it may be discharged to the sanitary sewer with written approval from the Burlingame Waste Water Treatment Facility. Otherwise, the water shall be treated or hauled off-site for proper disposal.
2. If the project is not within an area of groundwater contamination, monitoring shall only be required if directed by the Engineer. The Contractor shall comply with subsection (3.02B1) above if contamination is found.
3. If the project is found to be within an area of ground-water contamination not identified by the City in the project specifications, a change order shall be negotiated to cover additional but unforeseen work.

END OF SECTION

SECTION 02315

EXCAVATION AND FILL

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Perform all excavation, shoring, dewatering, backfilling, compaction and grading necessary or required for the construction of the work as covered by these Specifications and indicated on the Project Engineers' or City's Standard Drawings as submitted to and accepted by the City. The excavation shall include the removal and disposal of all materials of whatever nature encountered, including water and all other obstructions that would interfere with the proper construction and completion of the required work.

1.02 REFERENCES

- A. American Society for Testing and Materials (ASTM).
- B. State of California, Department of Transportation, Standard Specifications - 2010.
- C. State of California, Department of Transportation, Manual of Test (California Test).

1.03 SUBMITTALS

- A. Submit the following under the Product Information category.
 - 1. Sheeting and Shoring Plan: Refer to Paragraph 1.08 below.
 - 2. Potholing Report as described in Paragraph 3.02.
 - 3. Samples and Test Results: Furnish such quantities of import materials as may be required by the City for test purposes. Cooperate with the City and furnish necessary facilities for sampling and testing of all materials and workmanship. Submit test results for import materials. Tests shall be performed within 30 days of the submission. All material furnished and all work performed shall be subject to rigid inspection, and no material shall be delivered to the site until it has been favorably reviewed by the City.
 - 4. Name and qualifications of independent testing laboratory.

1.04 QUALITY ASSURANCE

- A. Source Quality Control: Test import materials proposed for use to demonstrate that the materials conform to the specified requirements. Tests shall be performed by an independent testing laboratory.

B. Field Quality Control:

1. The City will:
 - a. Review materials proposed for use.
 - b. Inspect foundations and site grading.
 - c. Inspect placement and compaction of fill as follow:
 - i The City requires one compaction test to be conducted by Contractor every 200 linear feet of pipeline installed. More frequent tests may be required if compaction test results do not meet the project requirements, in addition areas not meeting compaction requirements shall be recompacted and retested.

C. Testing Methods:

1. Durability Index: Manual of Test, State of California, Department of Transportation.
2. Specific Gravity: ASTM D854.
3. Laboratory Compaction: ASTM D1557, Method A or C.
4. In-Place Density: ASTM D1556 or ASTM D2922.
5. Particle Size Analysis of Soils: ASTM D422.
6. Plastic Limit and Plasticity Index: ASTM D4318.
7. Soil Classification: ASTM D2487.
8. In-Place Moisture Content: ASTM D3017.

D. Definition:

1. Relative Compaction: In-place dry density divided by the maximum dry density laboratory compaction express as a percentage.

1.05 REFERENCE SPECIFICATIONS

- A. Whenever the words "Standard Specifications" are referred to, the reference is to the State of California, Department of Transportation, and Standard Specifications - 2010 edition.

1.06 ADDITIONAL SAFETY RESPONSIBILITIES

- A. The Contractor shall select, install and maintain shoring, sheeting, bracing, and sloping as necessary to maintain safe excavations. The Contractor shall be responsible for ensuring such measures: (1) comply fully with 29 CFR Part 1926 OSHA Subpart P Excavations and Trenches requirements, (2) provide necessary

support to the sides of excavations, (3) provide safe access to the City for sampling and testing within the excavation, (4) provide safe access for backfill, compaction, and compaction testings, and (5) otherwise maintain excavations in a safe manner that shall not endanger property, life, health, or the project schedule. All earthwork shall be performed in strict accordance with applicable law, including local ordinances, applicable OSHA, Cal OSHA, California Civil Code, and California Department of Industrial Relations requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Crushed Rock: Class 2, 3/4-inch maximum aggregate base, Standard Specifications Section 26.
- B. Bedding Materials:
 - 1. Sand: Standard Specifications, Paragraph 19-3.02E(2).
 - 2. Permeable Material: Standard Specifications, Paragraph 68-2.02F(2) Class I, Type A.
 - 3. Drain Rock: Standard Specifications, Paragraph 68-2.02F(3), Class 2.
- C. Controlled Density Fill (CDF): Shall consist of a ready-mix, 1.5 sack controlled low-strength material with a strength between 100 and 300 psi and shall be suitable for excavation by mechanical means after 30 days. CDF shall comply with the requirements at ACI 229, controlled low strength materials.
- D. Import Backfill: Imported nonexpansive soil with liquid limit no greater than 40% and a plasticity index no greater than 15%, free from clods or rocks larger than 2 inches in greatest dimension, and free from organic material.
- E. Native Backfill: Native soil prepared as necessary to be free from clods or rocks larger than 2 inches in greatest dimension, and free from organic material.
- F. Impervious Material: Clay with a minimum percentage of material passing the No. 200 sieve of 50%. The material shall be free of organics, rocks, or clods greater than 2 inches in diameter.
- G. Water: The water used shall be reasonably free of objectionable quantities of silt, oil, organic matter, alkali, salts and other impurities. Water quality must be acceptable to the City.
- H. Warning Tape: 3-inch-wide, inert, fade-resistant plastic film resistant to acids, alkalis, and other components likely to be encountered in soil. Tape shall be marked "Water".
- I. Tracing wire: #8 Copper, vinyl coated –blue.

J. Geotextile Fabric: Geotextile Fabric: Provide a pervious sheet of polyester, nylon, glass or polypropylene, ultraviolet resistant filaments woven, spun bonded, fused, or otherwise manufactured into a nonraveling fabric with uniform thickness and strength. Fabric shall have the following manufacturer certified minimum average roll properties as determined by ASTM D 4759:

1. Grab tensile strength (ASTM D 4632) machine and transverse direction	min. 200 lbs.
2. Grab elongation (ASTM D 4632) machine and transverse direction	min. 12 percent
3. Puncture resistance (ASTM D 4833)	min. 90 lbs.
4. Mullen burst strength (ASTM D 3786)	min. 400 psi.
5. Trapezoidal Tear (ASTM D 4533)	min. 75 lbs.
6. Apparent Opening Size (ASTM D 4751)	30 – 70 (U.S. Std Sieve)
7. Permittivity (ASTM D 4491)	0.03 1/second
8. Ultraviolet Degradation (ASTM D 4355)	70 percent Strength retained at 150 hours

PART 3 - EXECUTION

3.01 CONTROL OF WATER

- A. All excavations shall be kept free from water and all construction shall be in the dry.
 - 1. It should be presumed that the presence of groundwater will require dewatering operations. Furnish, install, maintain, and operate all necessary pumping and other equipment for dewatering all excavations. At all times have on the project sufficient pumping equipment for immediate use, including standby pumps for use in case other pumps become inoperable.
 - 2. Provide a sufficient number of pumps so as to hold the groundwater level at an elevation of not less than 1 foot below the lowest elevation of the pipe or other material to be placed.
 - 3. Dispose of water in such a manner as to cause no injury or nuisance to public or private property, or be a menace to the public health.
 - 4. The dewatering operation shall be continuous, so that the excavated areas shall be kept free from water during construction, while concrete is setting and achieves full strength, and until backfill has been placed to a sufficient height to anchor the work against possible flotation.

5. Continue dewatering during backfilling operations such that the groundwater is at least 1 foot below the level of the compaction effort at all times. No compaction of saturated materials will be allowed.
 6. Dewatering devices must be adequately filtered to prevent the removal of fines from the soil.
 7. The Contractor shall be responsible for any damage to the foundations or any other parts of existing structures or of the new work caused by failure of any part of the Contractor's protective works. After temporary protective works are no longer needed for dewatering purposes, they shall be removed by the Contractor.
 8. If pumping is required on a 24-hour basis, requiring engine drives, then engines shall be equipped in a manner to keep noise to a minimum in accordance with Section 7 of the City of Burlingame, General Conditions, latest edition.
 9. Prevent disposal of sediments from the soils to adjacent lands or waterways by employing whatever methods are necessary, including settling basins.
- B. The Contractor shall be responsible for furnishing temporary drainage facilities to convey and dispose of surface water falling on or passing over the site.
- C. These requirements are intended to be consistent with the Bay Area Air Quality District standard mitigation requirement, Federal Clean Water Act, the Porter-Cologne Water Quality Control Act, and the San Mateo County Stormwater Prevention Program. Notwithstanding any other provision of this Agreement, Contractor shall also comply with the General Construction Activity Permit.
1. The Contractor shall maximize the control of erosion and sediment by using the BMP's for erosion and sedimentation in the California Storm Water Best Management Practice Handbook-Construction Activity (published by the Storm Water Quality Task Force) or Manual of Standards for Erosion & Sediment Control Measures (published by the Association of Bay Area Governments (ABAG)).
 2. The Contractor shall prepare a Storm Water Pollution Prevention Plan in conformance with the requirements of the State Water Resources Control Board (SWRCB). The Contractor shall file the required Notice of Intent (NOI) with the SWRCB.

3.02 EXISTING UTILITIES

- A. General: The known existing utilities and pipelines shall be shown on the Drawings prepared by the Project Owner's Engineer. The Contractor shall exercise care in avoiding damage to all utilities as he/she will be held responsible for their repair if damaged.

1. Contact Underground Services, Alert (USA), (800) 642-2444 to mark utilities, 48 hours prior to excavating.

B. Check on Locations (Potholing):

1. Contact all affected utility owners and requests them to locate their respective utilities prior to the start of "potholing" procedures. The utility owner shall be given 7 days written notice prior to commencing potholing. If a utility owner is not equipped to locate its utility, the Contractor shall locate it.
2. Clearly paint the location of all affected utility underground pipes, conduits and other utilities on the pavement or identify the location with suitable markers if not on pavement. In addition to the location of metallic pipes and conduits, non-metallic pipe, ducts and conduits shall also be similarly located using surface indicators and detection tape, if present and shall then be similarly marked.
3. After the utility survey is completed, commence "potholing" to determine the actual location and elevation of all utilities where crossings, interferences, or connections to the new pipelines are as shown on the Project Engineer's Drawings, marked by the utility companies, or indicated by surface signs. Prior to the excavating for any new pipelines or structures, the Contractor shall locate and uncover these existing utilities including services and laterals to a point 1 foot below the utility. Submit a report identifying each underground utility and its depth and station. Any variation in the actual elevations and the indicated elevations shall be brought to the City's attention.
4. Excavations around underground electrical ducts and conduits shall be performed using extreme caution to prevent injury to workmen or damage to electrical ducts or conduits. Similar precautions shall be exercised around gas lines, telephone and television cables.

C. Existing Traffic Loops:

1. If the excavation area conflicts with any existing traffic loops or signal interconnect or if any traffic loop or signal interconnect is damaged during construction, the contractor must make the appropriate repairs. For traffic loops the contractor must replace the entire traffic loop system, including all connected traffic loops, conduits, and related appurtenances. Existing conflicting components shall be removed and a new traffic loop system shall be installed in the same location. All repairs and new system components and installation of traffic loops and signal interconnect must comply with the current State (Caltrans) Standard Specifications.

D. Interferences:

1. If interferences occur at locations other than shown on the Project Engineer's Drawings, the Contractor shall notify the City, and a method for correcting said interferences shall be supplied by the Project Owner's Engineer.

2. Any necessary relocations of utilities, whether shown on the Project Engineer's Drawings or not, shall be coordinated with the affected utility. The Contractor shall perform the relocation only if instructed to do so in writing from the City.

3.03 GENERAL CONSTRUCTION REQUIREMENTS

- A. Site Access: Access to the site will be over public and private roads. Exercise care in the use of such roads and repair at own expense any damage thereto caused by Contractor's operations. Such repair shall be to the satisfaction of the owner or agency having jurisdiction over the road. Conform to Caltrans requirements relative to SWMPP Best Management Practice to prevent tracking of mud onto existing roads and keep roads free of debris.
- B. Traffic Regulation: Provide such flagmen, patrols, pilot cars, drivers, lighted barricades, flares, lights, warning signs, and safety devices as may be required for control of traffic adjacent to all areas of work. A minimum of one lane of traffic shall be kept open at all times on public roads.
- C. Barriers: Barriers shall be placed at each end of all excavations and at such places along excavations as may be necessary to warn all pedestrian and vehicular traffic of such excavations. Lights shall also be placed along excavations from sunset each day to sunrise of the next day until such excavation is entirely restored.
- D. Access: Free access must be maintained to all fire hydrants, water valves and meters, and private driveways.
- E. Open Trench Limitations: The City shall have the authority to limit the amount of trench to be opened or left open at any one time. In public roads, excavation and pipe laying shall be coordinated to the end that a minimum of interference with public traffic will result. In existing streets, no more than 200 feet of trench shall be open at any time on any single heading. An open trench in existing streets shall be defined as any trench which has not been completely backfilled, satisfactorily compacted, and capped with at least 1-inch of temporary paving (hot asphalt). Contractor may request use of cutback in place of hot asphalt. Approval is at City's discretion.
- F. Demolition of Pavement: Where trenching or excavation occurs in paved areas, the pavement shall be saw-cut and removed ahead of the trenching or excavation operation. The extent of paving removed shall be limited to the minimum necessary for the excavation. See 3.08 for disposal of excavated materials.
- G. Dust Control: Employ measures to prevent the creation of dust which may produce damage or nuisance to property or persons. Be responsible for all damage resulting from dust produced by construction operations. Periodically wet down unpaved areas where vehicles are operated. When required by the City, the Contractor shall furnish and operate a self-leading motor sweeper with spray

nozzles at least once each working day for the purpose of keeping paved areas acceptably clean wherever construction, including restoration, is incomplete.

- H. Permits: Obtain all required permits and pay associated fees.
- I. Storage of Materials: Excavated materials unsuitable for backfill shall not be stored on existing streets, and shall be disposed of immediately. Keep the materials shaped so as to cause the least possible interference with drainage or the normal use of adjacent properties, structures or roadways. Work shall comply with Section 6 of the City of Burlingame General Conditions, latest edition, and City of San Mateo and County of San Mateo's requirements.
- J. Temporary Pavement: Place temporary pavement on trenches in existing streets at the end of each day unless the un-backfilled portion of trench is shored and covered with steel plates, properly shimmed, steel spiked, and ramped with temporary asphalt with traffic control signage in accordance with the current edition of CAMUTCD. Maintain temporary pavement until permanent pavement is to be placed. All temporary asphalt to be hot asphalt.

3.04 TRENCH EXCAVATION

- A. Excavation for pipe shall be in open cut. The trench shall be as wide as necessary for sheeting and bracing and the proper performance of the work up to the maximum width permitted by the typical cross-sections shown on the City's Standard Drawing. The sides of the trenches shall be vertical in existing streets. The bottom of the trench shall be constructed to the grades and shapes indicated on the Project Engineer's Drawings. Should the Contractor desire to use other equivalent methods, he shall submit his method of construction to the City for favorable review prior to its use.
- B. Take care not to overexcavate. Accurately grade the bottom of the trenches to provide uniform bearing and support for each section of the pipe at every point along its entire length, except for the portions of the pipe sections where it is necessary to excavate for bell holes and for the proper sealing of pipe joints, and as hereinafter specified. Dig bell holes and depressions for joints after the trench bottom has been graded, and, in order that the pipe rest on the bedding for as nearly its full length as practicable, bell holes and depressions shall be only of such length, depth and width as required for properly making the joint. Remove stones as necessary to avoid point bearing.
- C. Notification of Change in Condition of Soil: Pursuant to Public Contract Code section 7104, when trenches or other excavations must be dug pursuant to this contract that extend deeper than four (4) feet below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the City in writing of any:

1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health & Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law; or,
2. Subsurface or latent physical conditions at the site differing from those indicated; or,
3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the work of the character provided for in the Contract.

The City will promptly investigate the conditions identified by the Contractor, and if the City finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work will issue a change order under the procedures described in the Contract.

In the event a dispute arises between the City and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract documents, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by the Contract or by law which pertain to the resolution of disputes and protects between the contracting parties.

- D. Backfill and compact overexcavations to 90% relative compaction with bedding material. Remove unsatisfactory material encountered below the grades shown as directed by the City and replace with bedding material.
- E. Grade trenches so that they are uniformly sloped between the pipe elevations shown on the Project Engineer's Drawings. Comply with the minimum and maximum trench widths shown on the City's Standard Drawings. Notify the City if the trench width exceeds the maximum allowable width for any reason.
- F. Contractor shall comply with California Occupational Safety and Health Regulations (Cal/OSHA) trenches and excavation requirements. For trench excavations five feet deep or deeper, the Contractor shall obtain a permit from the Department of Industrial Relations for such excavation. The Contractor shall submit a copy of the permit to the Engineer prior to initiating any work requiring said permit.
- G. Submit Shoring Plan for review and approval.

3.05 BACKFILL AND COMPACTION

- A. Place bedding and backfill materials true to the lines, grades, and cross-sections indicated on the City's Standard Drawings and compacted to the degree specified on the City's Standard Drawings. Place bedding and backfill materials in horizontal lifts not to exceed 6 inches in thickness measured before compaction. The difference in level on either side of a pipe shall not to exceed 4 inches.

Backfill material shall not be placed over the pipe until after it has been inspected by the City. The inside of the pipe shall be maintained in a clean condition at all times; all exposed pipe ends shall be covered and sealed with plastic, and shall not be uncovered until just prior to completing the joint.

- B. It shall be incumbent upon the Contractor to protect the pipe from damage during the construction period. It shall be his responsibility to repair all broken or damaged pipe. Tamping of backfill over the pipe shall be done with tampers, vibratory rollers and other machines that will not injure or disturb the pipe. Carefully place backfill around and over the pipe.
- C. Do not allow construction traffic nor highway traffic over the pipe trench until the trench backfill has been brought back even with existing adjacent grade.
- D. Add water to the backfill material or dry the material as necessary to obtain the optimum moisture content for the compaction shown on the City's Standard Drawings or specified. If the City determines that the nature of the ground in which the trench lies precludes compaction of the backfill to the specified density, the backfill shall be compacted to the maximum practicable density. Employ such means as may be necessary to secure a uniform moisture content throughout the material of each layer being compacted. After the material has been moisture conditioned, compact it with compaction equipment approved by the City to achieve specified compaction. The Contractor shall be responsible for obtaining the densities specified. Should he fail, through negligence or otherwise, to compact to specified density, or to backfill and compact to surface grade, thus permitting saturation of the backfill material from rains or from any other source, the faulty material shall be removed and replaced with approved material which shall be compacted to the specified density at optimum moisture content.
- E. Compaction by flooding, ponding or jetting will not be permitted.

3.06 SUPPORT OF EXCAVATIONS

- A. Adequately support excavation for trenches and structures to meet all applicable requirements in the current rules, orders and regulations. Excavation shall be adequately shored, braced and sheeted so that the earth will not slide or settle and so that all existing structures and all new pipe and structures will be fully protected from damage. Keep vehicles, equipment and materials far enough from the excavation to prevent instability.

- B. Take all necessary measures to protect excavations and adjacent improvements from running, caving, boiling, settling, or sliding soil resulting from the high groundwater table and the nature of the soil excavated. Attention is directed to Section 832 of the Civil Code of the State of California relating to lateral and subjacent supports, and wherever structures or improvements adjacent to the excavation may be damaged by such excavation, the Contractor shall comply with this law.
- C. The support for excavation shall remain in place until the pipeline, or structure has been completed. During the backfilling of the pipeline or structure, the shoring, sheeting and bracing shall be carefully removed so that there shall be no voids created and no caving, lateral movement or flowing of the subsoils.

3.07 FINISH GRADING

- A. Except where shown otherwise in the Project Engineer's Drawings, restore the finish grade to the original contours and to the original drainage patterns. Grade surfaces to drain away from structures. The finished surfaces shall be smooth and compacted.

3.08 DISPOSAL OF EXCAVATED MATERIAL

- A. Suitably dispose of unsuitable material or excavated material in excess of that needed for backfill offsite in accordance with all applicable laws and regulations.
- B. The asphalt grindings contain pavement fabric, engineered paving mat or other contaminated materials in some project streets. It is the Contractor's responsibility to dispose and remove of these materials along with the grindings. There will be no additional compensation allowed.

END OF SECTION

SECTION 02510

WATER SYSTEM PIPING AND ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Furnish and install all piping, including fittings, valves, and accessories as shown on the Project Engineer's Drawings, as shown on City's Standard Drawings and as described in the Specifications and as required to completely interconnect all piping for a complete and operable systems.

1.02 REFERENCES

- A. American Association of State Highway and Transportation Officials (AASHTO)
- B. American National Standards Institute (ANSI)
- C. American Society of Mechanical Engineers (ASME)
- D. American Society for Testing and Materials (ASTM)
- E. American Water Works Association (AWWA)

1.03 SUBMITTALS

- A. Shop Drawings:
 - 1. Submit data to show that the following items conform to these Specification requirements:
 - a. Pipe, fittings, and accessories.
 - b. Flexible couplings and flanged coupling adapters.
 - c. Restrained joints.
 - d. Valves.
 - e. Air release valves.
- B. Chlorination and Bacteriological Analysis plan
 - 1. Submit disinfection schedule and procedures including:
 - a. "Normal" disinfection procedure, including location for sampling.
 - b. Emergency disinfection procedure for mains and services which must be returned to service immediately.
 - c. Disinfection schedule including number and type of services and length of disruption of service.
 - d. Disinfecting agent(s).
 - e. Method of disposal of chlorinated water.
- C. Publications: The Contractor shall furnish manufacturer's installation and operation manuals, bulletins, and spare parts lists for the following items:

1. All valves over 4-inch size.
2. Air release valves.

1.04 QUALITY ASSURANCE

- A. All materials and equipment furnished under this Section shall: (1) be of an American manufacturer who has been regularly engaged in the design and manufacture of the materials and equipment and (2) be demonstrated to the satisfaction of the City that the quality is equal to the materials and equipment made by those manufacturers specifically named herein, if an alternate product manufacturer is proposed.

1.05 POTHOLING (CHECK ON LOCATIONS)

- A. Do not begin any construction until all utilities in that section of pipeline have been exposed, as specified in paragraph 3.02 of Section 02315 and until such time as no interferences are found between said existing utilities and the proposed pipeline alignment. If interferences are found in any particular section of pipeline, do not begin construction for that particular section of pipeline until the pipeline alignment has been modified by the Project Owner's Engineer to eliminate all such interferences.

1.06 CONSTRUCTION SCHEDULING/SEQUENCING

- A. Construction may involve expansion and/or modification of the existing water system which must continue to provide service to all customers during construction.
- B. Connections and utilities changes must be programmed to provide the least possible interruptions of service. Prior to any shutdown all materials, fittings, supports, equipment and tools shall be on the site and all necessary labor scheduled prior to starting any connection work. The Contractor shall notify the City in writing at least 7 days in advance of any required shutdowns so that affected customers may be notified. In general, shutdowns shall not exceed four hours in duration unless specifically authorized or indicated in the suggested construction sequence.
- C. All work shall be conducted in a manner which will minimize shutdowns, open roadways, or traffic obstructions caused by the construction. Shutdowns causing damage to adjacent public and private property shall not be permitted, and any damage resulting shall be the sole responsibility of the Contractor.
- D. Planned water service shutdowns shall be accomplished during periods of minimum use. In some cases this will require night or weekend work. The Contractor shall program his work so that service will be restored in the minimum possible time, and shall cooperate with the City in reducing shutdowns of the water system to a minimum. No water interruption will be permitted without the prior approval of the City. The Contractor shall notify residents and businesses at least 48 hours in advance of any required shutdowns.

PART 2 – PRODUCTS

2.01 GENERAL

- A. Pipe and valve sizes are nominal inside diameter unless otherwise noted.
- B. All materials delivered to the job site shall be new, free from defects, and marked to identify the material, class, and other appropriate data such as thickness for piping.
- C. Acceptance of materials shall be subject to strength and quality testing in addition to inspection of the completed product. Acceptance of installed piping systems shall be based on inspection and leakage and bacteriological tests as specified hereinafter.
- D. Buried nuts and bolts for flanges and couplings shall be Type 316 stainless steel unless otherwise specifically specified herein.
- E. Fusion Epoxy Coating: Materials and application shall be in accordance with AWWA C213, except application shall be by the fluid bed method only unless the greatest dimension of the article to be coated exceeds 10 feet, in which case electrostatic spray method may be used.
- F. All brass components in contact with potable water shall be composed of either CDA/UNS Brass Alloys C89520 or C89833 with a maximum lead content of 0.25% by weight in accordance with ANSI/AWWA C-800. Brass alloys not listed in ANSI/AWWA C-800 Paragraph 4.1.2 are not approved. Brass saddles shall be composed of CDA/UNS C83600.
- G. Polyethylene Protection:
 - 1. Polyethylene encasement shall be per AWWA C105, black. Tape to seal seams and overlaps shall be plastic adhesive tape at least 4 mils thick and at least 2 inches wide.
 - i. Single wrap all ductile iron pipe and polyvinyl chloride pipe.
 - ii. Double wrap flanged fittings, mechanical joints, valves and other appurtenances with significantly different outside diameters from the pipe.
 - 2. All materials must be of domestic manufacture.

2.02 PIPING MATERIALS

- A. Pipe Designation: New water transmission mains shall be either the ductile iron (DI) or polyvinyl chloride (PVC) pipe. Service connections shall be copper.
- B. Polyvinyl Chloride Pipe (PVC):
 - 1. Pipe shall conform to AWWA C900-07 for 4-inch to 12-inch and AWWA C905-10 for 14-inch to 36-inch, minimum pressure class 305, cast iron pipe outside dimensions (OD).

2. Pipe shall be of domestic manufacture, UL listed or Factory Mutual Approved.
3. No fusible PVC pipe allowed.
4. PVC pipe joints shall have integral bell and spigot (push on) gasket.

C. Ductile Iron (DI):

1. Pipe shall conform to AWWA C151, minimum pressure class 250, Push-on rubber gasket joints conform to AWWA C111.
2. All ductile iron pipes shall be cement mortar lined in conformance with AWWA C104 and shall have a 1–mil thick exterior petroleum asphaltic coating.
3. Restrained Joint Ductile Iron Pipe shall have an internal pipe joint restraint system per 2.04.C of this Section when specified on the drawings or requested by the City. Burlingame Water Department.

D. Copper Pipe:

1. Pipe: Copper (Cu), ASTM B88, Type K.
2. Joints: Compression, Flared or Solder.

2.03 FITTINGS

- A. Fittings shall be Ductile Iron mechanical joint or flanged AWWA C153 or flanged AWWA C110, working pressure rated for 350 psi with type of pipe specified.
- B. Fittings shall be cement mortar lined per AWWA C104. T-bolts shall be stainless steel 316.
- C. Fittings and all accessories shall be of domestic manufacture; U.S. Pipe, Union Foundry, Tyler Union or approved equal.
- D. Provide external fusion-bonded epoxy coating (6 mil thickness minimum) and 316 stainless steel bolt up kits for all fittings.

2.04 MECHANICAL JOINT RESTRAINTS & PUSH ON JOINT RESTRAINTS

- A. Mechanical joint restraints for Ductile iron pipe and PVC pipe shall be rated in accordance with the performance requirements of AWWA C111 Rubber Gasket Joints for Ductile-Iron Pressure Pipe and Fittings, meeting or exceeding the requirements of ASTM F1674.
 1. Mega-Lug type as manufactured by EBAA, Inc Series 1100 for ductile iron pipe and series 2000 PV for PVC pipe

- B. Push on Joint Restraints (when shown on the plans or directed by the City)
 - 1. Ductile iron joint restraints with cor-ten rods and bolts. Pressure rating of at least 200 psi. Series 1500 by EBAA Iron for PVC pipe; equivalent by Uni-Flange; or equal for bell and spigot joints.

- C. Restrained Joint Ductile Iron Pipe (when shown on the plans or directed by the City)
 - 1. Restrained Joint Ductile Iron Pipe shall be TR FLEX GRIPPER RING System by United States Pipe & Foundry Company; equivalent by American Cast Iron Pipe Company; or equal.
 - 2. Provide restrained joints capable of deflection after the restraint is installed.
 - 3. Joints shall be pressure rated over 200 psi minimum.

2.05 PIPE COUPLING

A. General:

- 1. For typical pipe joints refer to pipe material specifications. Other joint devices shall be furnished where called for as specified below.
- 2. Handle fusion epoxy coated material with care. If material is damaged before installation, the Contractor shall repair or replace at the direction of the City Engineer.
- 3. Couplings on copper long side services are not allowed and should only be used where indicated on details.

B. Flexible Couplings and Flange Coupling Adaptors:

- 1. Sleeve: Cast iron or fabricated steel.
- 2. Followers: Cast iron, ductile iron, or steel.
- 3. Sleeve bolts: ASTM A325, Type 3; 316 stainless steel; or equivalent.
- 4. Coating: Fusion-bonded epoxy line and coat sleeve and followers.
- 5. Pressure rating: 200 psi.
- 6. Buried flexible coupling sleeve: Long barrel
- 7. Manufacturers:
 - a. Flexible couplings:
 - 1) Connecting pipe with identical outside diameters: Smith-Blair 411 or 431, Dresser Style 38 or 53, or equal.

- 2) Connecting pipe with slightly different outside diameters: Smith-Blair 413 or R 441, Dresser Style 162, or equal.
- b. Flange coupling adaptors:
 - 1) Connecting new pipe or new pipe to existing non-ferrous pipe: Smith-Blair 912 or 913, Dresser Style 127 or 128, or equal.
 - Connecting new pipe to existing ferrous pipe: Insulating flange coupling adaptor with insulating boot: Smith-Blair 932 or 933, or equal

8. Gaskets: Oil and grease resistant; Smith-Blair Grade 60; or equal.

C. Tapping Sleeves and Tapping Valves:

- 1. All bolts must be tightened to the manufacture’s specifications. All bolts, nuts, and washers shall be Type 316 stainless steel coated with anti-seize. Contractor shall present City with all tapping coupons upon completion of tap. Coupons are to be tagged or marked as to location, date of tap and pipe size.
- 2. Mueller tapping gate valves shall be as specified in section 2.06 Valves and Accessories – Gate Valves.
- 3. Valve box and riser pipe shall conform to Drawing No. W-1809

2.06 VALVES AND ACCESSORIES

A. General Requirements for Valves:

- 1. All valves of each type shall be the product of one manufacturer.
- 2. All valves shall be of an American manufacturer.
- 3. All valves shall be furnished with control assembly, operators, handwheels, levers, or other suitable type wrench including handles as specified herein or as shown on City’s Standard Drawings.
- 4. All threaded stem valves shall open by turning the valve stem counter-clockwise.
- 5. Provide bronze operating nuts, 316 stainless steel bolt up kits, and brass hand wheel for all valves.
- 6. Coating: All valves and valve operators shall be external fusion-bonded epoxy coated per AWWA C550. Thickness shall be 6 mils minimum.

B. Valves and Accessories:

- 1. Butterfly valves:
 - a. Use on lines 10 inches or greater or where shown on the Drawings.
 - b. Rating: 200 psi minimum. Leak tight in both directions.

- c. Type: Flanged body, or as shown on the Drawings, AWWA C504, geared operator, resilient seated, 90 degree seating.
- d. Connections: Flange or Mechanical joint, as shown on the Drawings.
- e. Materials: Cast iron body; cast iron or ductile iron disc with Ni-Chrome or Type 316 stainless steel edge; Type 316 stainless steel shaft; disc to be secured to shaft with Type 316 stainless steel taper pins.
- f. Operator: Traveling-nut type, 2-inch standard AWWA nut, designed for buried service, watertight to 10 psi with extension stem.
- g. Valve seat: Buna-N seat shall be applied to the valve body.
- h. Bearings: Self-lubricating and corrosion resistant.
- i. Manufacturers: Pratt Groundhog, equivalent by DeZurik, or equal.

2. Gate Valves:

- a. 4-inch through 8-inch: Mueller or City approved equal
- b. 2-inch: James Jones Co. (manufactured by Mueller), or City approved equal
- c. Rating: 200 psi minimum
- d. Type: Resilient seated, non-rising stem, AWWA C509
- e. Connection: Flanged or Mechanical joint, as shown on the Drawings.
- f. Materials: Ductile iron body
- g. Stem seal: O-ring

3. Air release valves: Combination air release valves, APCO Model 140C, equivalent by ValMatic, or equal.

- a. Materials: Cast iron body, Buna-N seat, and stainless steel float.
- b. Operating pressure: 200 psi.
- c. Enclosure shall be Pipeline Products #VCDD-1624 or Febco # BFE-SS-51M as determined by City.

4. Valve boxes, adjustable screw type:

- a. See Standard Drawing W -1809.

2.07 FIRE HYDRANT ASSEMBLIES

A. Hydrant assemblies shall use wet barrel type hydrants meeting AWWA C503 standards.

B. Hydrants shall be Clow/Rich No. MSG 76, Long Beach or City approved equal. Hydrant shall be supplied with (2) 2½ “ and (1) 41/2” outlets. Outlets to have National Hose Threads.

C. Hydrant shall have a break off check valve as manufactured by Clow Valve, Model LBI 400A, or City approved equal.

- D. Hydrant riser shall be flange by flange with integral snap-ring groove meeting, ANSI/AWWA C110/A21.10 and shall be 6 inches or longer in length to meet the 2 inch ground clearance.
- E. Hydrant bury shall be Cast Iron and meet ANSI C110/A21.10 standards and joints shall be mechanical joint by flange conforming to ANSI/AWWA C111/A21.11-80

2.08 SERVICE CONNECTIONS

A. General:

- 1. All corporation stops, service clamps or saddles, and service connection accessories shall be the product of one (1) manufacture. All components shall meet AWWA C800. See Drawing No. W-1779 for details.
- 2. Brass and low lead.
- 3. Rating: 300 psi minimum for all corporation stops, service clamps or saddles, and service connection accessories.

D. Service Saddles:

- 1. Type:
 - a. For Ductile Iron pipe: Bronze, double strap, Mueller BR 2 B, retained o-ring gasket, rolled strap threads, and tapping boss with full length AWWA threads.
 - b. For Polyvinyl Chloride pipe: Mueller series BR 2 S double straps or Smith Blair equivalent.
 - c. IPS threads, except on 1 inch service.
- 2. Manufacturer: Mueller Co. or City approved equal.

E. Corporation Stops:

- 1. Type: AWWA thread inlet by compression or flared; compression connection outlet.
- 2. Manufacturer: Mueller Co. or City approved equal.

F. Angle Stops:

- 1. Type: Compression or flared inlet; Meter connection outlet. IPS threads are not permitted.
- 2. Manufacturer: Mueller Co. or City approved equal.

G. Meter Box

- 1. 1 inch Service - Christy B-16 with Christy FL16P-F reading lid, or City approved equal.

2. 2 inch Service – Christy B-36 with FL36P-F reading lid, or City approved equal, separate City approval required.
3. Detection Check – Christy B-16 for meter only with FL16P-F lid, or City approved equal.

H. Water Meter Bypass Meter

1. To be furnished by City at owner's cost

2.09 APPURTENANCES

- A. Provide all necessary assembly bolts, washers and nuts, thrust blocks, supports, gaskets, flanges, and all other appurtenant items shown on the Project Engineer's or City's Standard Drawings, specified or required for the proper installation and operation of the piping, and devices included in or on the piping, equipment, and piping accessories.

PART 3 – EXECUTION

3.01 PIPING INSTALLATION

A. General Handling and Placing:

1. Exercise great care to prevent injury to or scoring of the pipe lining and coating, as applicable, during handling, transportation or storage; 10% of pipe thickness maximum allowed. Handle fusion epoxy coated pipe in accordance with AWWA C213. Pipe shall not be stored on rough ground and rolling of the pipe on the coating will not be permitted. Contractor shall be responsible for the repair of any damaged pipe sections, specials, or fittings or replace at the direction of the City.
2. Inspect each pipe fitting, valve and accessories carefully before installation. Inspect the interior and exterior protective coatings and patch all damaged areas in the field or replaced at the direction of the City.
3. Place or erect all piping to accurate line and grade and backfill, support, hang, or brace against movement as specified or shown on the Project Engineer's and City's Standard Drawings, or as required for proper installation. Remove all dirt and foreign matter from the pipe interior prior to installation and thoroughly clean all joints before joining. All exposed pipe ends shall be covered and sealed with plastic, and shall not be uncovered until just prior to completing the joint.
4. Use reducing fittings where any change in pipe size occurs. Bushings shall not be used. Use eccentric reducing fittings wherever necessary to provide free drainage of lines.

5. Connections between ferrous and non-ferrous piping and accessories shall be made using a dielectric coupling, union, or flange.

B. General Buried Piping Installation:

1. Trenching, bedding, and backfill for buried piping shall be as shown on the Project Engineer's and City's Standard Drawings and as specified in Section 02315.
2. Where no grade elevations are shown on the Drawings, buried piping shall have at least 36 inches (3 feet) of cover.
3. Provide each pipe with a firm, uniform bearing for its full length in the trench except at field joints. Do not lay pipe in water or when trench conditions or weather are unsuitable for such work.
4. Protect buried piping against thrust by use of restrained joints and thrust blocks at all fittings and valves. Securely brace all exposed free pipe ends.
5. Do not pull bell and spigot, gasketed joints more than 75% of the maximum deflection permitted by the pipe manufacturer.

C. Water Main Installation:

1. **DO NOT MAKE ANY CONNECTIONS BETWEEN THE NEW MAIN AND THE OLD MAIN UNTIL THE NEW MAIN HAS BEEN DISINFECTED AND TESTED AND THE CITY DIRECTS THAT CONNECTIONS CAN BE MADE. MAXIMUM LENGTH BETWEEN OLD AND NEW MAIN SHALL BE 20 FEET.**
2. The Contractor is advised that precautions taken to keep the pipeline clean during construction will facilitate achieving the disinfection requirements of this project with a minimum of effort and expense. Compliance with these suggested minimum procedures will not relieve the Contractor of the disinfection requirements.
3. Prior to installation, thoroughly clean the interior of each length of pipe and each fitting or valve and inspect to ensure that no foreign material remains. All exposed pipe ends shall be covered and sealed with plastic, and shall not be uncovered until just prior to completing the joint.
4. Pipe laying shall begin at the low end of the project and proceed uphill, unless authorized by the City. Pipe bells shall face uphill.
5. Whenever pipe laying is discontinued for short periods, or whenever work is stopped at the end of the day, close the open ends of the pipe with watertight plugs or bulkheads.

6. Provide adequate trench pumping to ensure against groundwater contacting the inside of the pipeline at any time. Do not lower any pipe or fitting into a trench where groundwater is present and may enter the pipe. When necessary, pump the water from trenches and keep the trench dry until the joints have been completed and the open ends of the pipe have been closed with a watertight plug. Do not remove the plug until the trench has again been pumped dry.
7. Keep new pipe sections clean and dry.
8. When making the connection between a new pipeline and an existing pipeline, or when repairing a damaged pipe, take the following extra precautions:
 - a. Clean the exterior of the existing pipeline of all dirt and debris, and spray or swab with a standard 5.25% or stronger chlorine solution (as specified) in the immediate vicinity of the work. Clean equipment and materials, including new pipe and fittings, to be used in making these connections of all dirt and debris and disinfect them. Allow at least 30 minutes contact time for disinfection before the chlorine solution is diluted or rinsed off. Provide sufficient trench pumps to prevent flooding of the trench.
 - b. When an old line is opened, either by accident or by design, the excavation may be wet or badly contaminated from groundwater. Apply liberal quantities of standard chlorine solution or tablets to the open trench areas to lessen the danger from such pollution. Tablets are recommended because they dissolve slowly and continue to release hypochlorite as water is pumped from the excavation. Scatter liberally around and locate the tablets so that flow entering the work site will contact the disinfecting agent. Trench application should be done very carefully to avoid contact by skin and clothing with chlorine solution.
9. Water Department personnel must be present during hot tap and inspection of materials and installation. The location of hot tap to be verified by the Contractor to insure a minimum of 2 feet is kept from tap location and a bell end or end of pipe on a dead end.
10. Provide insulation blanket of dielectric material, approximately 6' x 6' x 0.25" thick between new water main and existing SFPUC pipe crossings. Dielectric blanket shall be rubber, micarta, or phenolic, by Economy Rubber or approved equal.

D. Installation Specifics:

1. Ductile Iron Pipe:
 - a. Buried pipe shall be installed in accordance with AWWA C600.

- b. Where required by the City, wrap buried pipe with 8 mil polyethylene film in accordance with AWWA C105. Continuously seal seams and overlaps with tape. Seal circumferential overlaps with two turns of tape, half lapped. Gather excess polyethylene on top of pipe so as not to block backfill material from getting under bottom of pipe. Use caution so as not to rip or cut the polyethylene film. Seal any rips or cuts in the film with tape.
 - c. Wherever the pipeline crosses over or under a sewer main or house service lateral, center a standard length pipe, 18-foot minimum, on said sewer main or lateral so as to have the pipeline joints as far as possible away from the sewer. This may require field cutting of some pipe pieces.
 - d. Flanged Joints: Flanged joints shall be made up tight with care being taken to avoid undue strain in the flanges, fittings, and other accessories. Bolt holes shall be aligned for each flanged joint. Bolts shall be full size for bolt holes; use of undersize bolts to make up for misalignment of bolt holes or for any other purpose will not be permitted. Adjoining flange faces shall not be out of parallel to such a degree that the flanged joint cannot be made watertight without over-straining the flange. Replace any flanged pipe or fitting whose dimensions do not allow the making of a proper flanged joint as specified herein by one of proper dimensions. Clean flanges prior to making joints.
 - e. Restrained Joints: Install in accordance with manufacturer's instructions. Pull slack out of joint after makeup.
2. Polyvinyl Chloride Pipe: Installation shall conform to AWWA M23, Chapters 6 and 7.
3. Copper Pipe:
- a. Bends shall be made in a manner that does not crimp or flatten pipe.
 - b. Dielectric unions shall be installed at connections with ferrous piping.
 - c. Pipe shall have joints squarely cut clean, properly fluxed and heated before solder is placed in the joint. Joints must be driven up tight before solder is added. Compression and flared joints shall be made up in accordance with the manufacturer's instructions.

3.02 COUPLING INSTALLATION

- A. Flexible Couplings and Flange Coupling Adaptors: Prior to installation, thoroughly clean oil, scale, rust, and dirt from the pipe to provide a clean seat for the gasket. Care shall be taken that the gaskets are wiped clean before they are installed. If necessary, flexible couplings and flanged coupling adapter gaskets may be lubricated with soapy water or manufacturer's standard lubricant before installation on the pipe

ends. Install in accordance with the manufacturer's recommendations. Bolts shall be tightened progressively, drawing up bolt on opposite sides a little at a time until all bolts have a uniform tightness. Workers tightening bolts shall be equipped with torque-limiting wrenches or other favorably reviewed type. Anchor studs on restrained flanged coupling adapters shall be installed so as to lock into holes drilled through pipe wall in accordance with manufacturer's recommendation.

3.03 INSTALLATION OF VALVES AND ACCESSORIES

- A. Wrap buried valve bodies as specified for flexible couplings and flanged coupling adapters.
- B. Use reducing fittings where any change in pipe size occurs between valves or accessories and the attached pipeline. Bushings shall not be used, unless Use eccentric reducing fittings wherever necessary to provide free drainage of lines.
- C. Inspect each piece of pipe and each fitting carefully to see that there is no defective workmanship on pipe, or obstructions in pipes and fittings.

3.04 FIELD QUALITY CONTROL

- A. Factory Quality Control: The Contractor shall test all products as required herein and by the reference specifications.
- B. The Contractor shall:
 - 1. Perform leakage tests.
 - 2. Be responsible for the costs of additional inspection and retesting by the City resulting from non-compliance.
 - 3. Perform bacteriological analysis for pipelines to be disinfected.

3.05 CLEANING

- A. Prior to testing, the inside of each completed pipeline shall be thoroughly cleaned of all dirt, loose scale, sand and other foreign material. Cleaning shall be by sweeping, flushing with water internal cleaning device or "pig" or blowing with compressed air, as appropriate for the size and type of pipe. Flushing shall achieve a velocity of at least 3 feet per second. The Contractor shall install temporary strainers, temporarily disconnect equipment or take other appropriate measures to protect equipment while cleaning piping. Cleaning shall be completed after any repairs.
- B. The Contractor shall comply with the Municipal Regional Stormwater Permit (MRP) for discharge water.

3.06 FIELD TESTING

- A. General: Perform leakage tests on all pipe installed in this project. Furnish all equipment, material, personnel, test media and supplies to perform the tests and make

all taps and other necessary temporary connections. The test pressure, allowable leakage and test medium shall be as specified. Perform leakage tests on all piping at a time agreed upon and in the presence of the City.

- B. Buried Piping: Perform the leakage test for buried piping after all pipe is installed and backfilled. However, preliminary tests may be conducted prior to backfill. If preliminary tests are conducted, provide any necessary temporary thrust restraint.
- C. Accessories: It is the responsibility of the Contractor to block off or remove equipment, valves, gauges, etc., which are not designed to withstand the full test pressure.
- D. Testing Apparatus: Provide pipe taps, nozzles and connections as necessary in piping to permit testing, addition of test media, and draining lines and disposal of water, as is necessary. Plug these openings in a manner favorably reviewed by the Engineer after use. Provide all required temporary bulkheads.
- E. Correction of Defects: If leakage exceeds the allowable, repair or replace the installation and repeat leakage tests as necessary until conformance to the leakage test requirements specified herein have been fulfilled. All visible leaks shall be repaired even if the pipeline passes the allowable leakage test.
- F. Reports: Keep records of each piping test, including:
 - 1. Description and identification of piping tested.
 - 2. Test pressure.
 - 3. Date of test.
 - 4. Witnessing by Contractor and City.
 - 5. Test evaluation.
 - 6. Remarks, to include such items as:
 - a. Leaks (type, location).
 - b. Repairs made on leaks.
 - c. Submit test reports to the City.
- G. Venting: Where not shown on the Drawings, the Contractor may install corporation stops with saddles or "TEES" with shutoff valves at high points on piping to permit venting of air. Valves shall be capped after testing is completed.
- H. Testing Specifics:
 - 1. Water Transmission Mains:
 - a. Method: AWWA C600 and as modified herein.
 - b. Duration: Two hours.
 - c. Pressure: Hydrostatic test equal to 200 psi.
 - d. Medium: Potable water.
 - e. Allowable Leakage: Leakage shall be defined as the quantity of test medium that must be added to the section of pipeline being tested to maintain the specified test pressure for the specified test duration. Maximum allowable leakage shall be as specified in AWWA C600.

3.07 DISINFECTION OF POTABLE WATER SYSTEMS

- A. Disinfect all water mains and interconnected piping after testing and before being placed into service to ensure their bacteriological safety. Disinfection shall be accomplished under the supervision of the Contractor by a person skilled and experienced in the operation of water systems. Following disinfection and flushing, the Contractor will take water samples for bacteriological analysis of the water. If the specified bacteriological requirements are not satisfied, the disinfection procedure must be repeated until the requirements are met.
- B. Mains, Services, Hydrants, and related material:
 - 1. Standard: AWWA C651 as amended herein.
 - 2. Forms of Chlorine: Sodium hypochlorite or calcium hypochlorite.
 - 3. Method: Continuous-Feed.
- C. Chlorine Residual Testing: AWWA C651, Appendix A, DPD Drop Dilution Method, except where otherwise specified.
- D. Bacteriological Analyses of Water: Shall be performed in conformance with AWWA-C651 – most current version – Option A. Water quality supervisor to review and approve of the Chlorination and Bacteriological Analysis plan including the locations for sampling. After the completion of disinfecting procedure, including the final flushing as described above and before the new water main is connected to the distribution system, the Contractor shall test in conformance with AWWA C651 to indicate that water samples are absent for bacteria and certified by the laboratory. If bacteriological analyses do not satisfy the above requirements, then disinfection procedure must be repeated until these requirements are met.
- E. Disposal of Disinfection Solution: Dechlorinate and dispose of disinfection solution in accordance with applicable regulations and Section 01140. Take special measures to prevent chlorinated water from entering the ground, surface water, or sanitary sewer and storm drainage systems. Dechlorinate chlorinated water prior to discharge.

3.08 ABANDONMENT OF EXISTING WATERLINES AND APPURTENANCES

- A. Valves: Cut existing valves riser 12 inches (12”) below surface and fill riser with concrete. Repair surface. See plans for details.
- B. Fire Hydrants: Remove hydrant and cut hydrant bury 12 inches (12”) below surface and fill bury with concrete. Install concrete plug. See plans for details.
- C. Water Lines; Will be abandoned in place unless otherwise stated on the plans and will follow permit requirements.

END OF SECTION

SECTION 02511

FIRE SYSTEM PIPING AND ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Furnish and install all piping, including fittings, valves, and accessories as shown on the Project Engineer's and City's Standard Drawings, and as required to completely connect the structure's fire protection system with the City's water distribution system.
- B. Includes work within the City's public right-of-way and on Project Owner's private property.

1.02 REFERENCES

- A. Include those listed on Section 02510, Paragraph 1.02

1.03 SUBMITTALS

- A. Include those listed in Section 02510, Paragraph 1.03.
- B. Detector Check Valve
- C. Double Detector Check Valve
- D. Valve Vaults

1.04 OTHER

- A. Section 02510, Paragraphs 1.04, 1.05 and 1.06 shall apply.

PART 2 - PRODUCTS

2.01 GENERAL

- A. Include those listed in Section 02510, Paragraphs 2.01, 2.02, 2.03, 2.04, and 2.06.
- B. All underground Ductile Iron material shall be fusion epoxy coated (6 to 8 mil thickness – minimum with double polyethylene wrap on all bends, fittings & appurtenances) and 316 stainless steel bolt up kits.
- C. Tapping Sleeves and Tapping Valves:

- D. Tapping sleeves shall be all stainless steel with Type 316 stainless steel body and bolts.
- E. Tapping sleeves shall be Mueller tapping gate valves as specified in Section 02510 of these standard specifications.
- F. Valve box and riser pipe shall conform to Drawing No. W-1809
- G. Detector Check Valve.
 - 1. Detector check will be positive sealing with no backflow allowed.
 - 2. Detector check main valve seat must be bronze or stainless steel.
 - 3. Detector clapper or flapper will be on bronze or stainless steel construction with neoprene rubber face. No metal-to-metal seating allowed.
 - 4. Contact Water Department for City-approved units.
 - 5. Shall be of American manufacturer.
 - 6. Shall meet the requirements of the San Mateo County and State Health Department.
 - 7. Shall on the approval list published by the University of Southern California (USC).

PART 3 - EXECUTION

3.01 FIRE SYSTEM GENERAL

- A. For commercial and retail areas:
 - 1. All new installations are the responsibility of and shall be installed by private contractor and/or owner after plans have been approved by the Water Department.
 - 2. All new installations shall be double detector check valve assemblies constructed above ground in accordance with Drawing No. W-2780 unless a variance is granted.
 - a. Variances may be granted on a case-by-case basis
 - b. If a variance is granted, the installation shall conform to Drawing No. W-2779 or W-2781.
 - 3. The piping for sprinkler services shall be designed to connect at the main and extend to a point adjacent to two property lines. These locations will be as approved by the City.
 - 4. No part of the fire system in the public right-of-way shall be placed above ground.

5. Sprinkler service piping shall be six inches (6") minimum in diameter and shall meet Fire Department requirements to provide adequate fire sprinkler service for both properties. The sprinkler service piping shall consist of the connection at the main, the pipe run, and terminate in a tee fitting, complete with valve for the currently proposed fire service and having a blind flange for future connection.
 6. Whether the fire system piping serves a single parcel or is somehow manifolded to serve two adjoining properties, the downstream flange of the gate valve just prior to the detector check valve is the limit of the City's maintenance responsibility, except for the detector check meter and its trimming. The maintenance of the rest of the underground system, with the exception of the bypass meter and trim, is the responsibility of the private property owner. City maintenance shall begin at the end of the one-year warranty period.
- B. For areas that are not commercial or retail areas:
 1. All new installations are responsibility of and shall be installed by private contractor and/or owner after plans have been approved by Water Department.
 2. All new installations shall be double detector check valve assemblies constructed above ground in accordance with Drawing No. W-2780
 - C. Construction of a fire service shall be installed by owner or owner's contractor upon obtaining a street encroachment permit and building permit. Water department does not install fire services. Water department to be contacted to arrange for service and for payment of fees.
 - D. Connections to existing water main shall be made by hot tap method.
 - E. Water Department personnel must be present during hot tap and inspection of materials and installation. The location of hot tap to be verified by the Contractor to insure a minimum of 2 feet is kept from tap location and a bell end or end of pipe on a dead end.
 - F. Any maintenance or repair work done on existing fire services shall meet Building and Water Department Specifications.

3.02 REQUIRED TYPES OF BACK FLOW PROTECTION DEVICES

- A. A double detector check valve shall be used in fire sprinkler systems serving buildings unless approval for alternative system is granted by City.
- B. A double-check detector check valve, reduced pressure principle device, or other backflow protection per the approved product list published by the University of Southern California shall be used in all fire sprinkler systems.
- C. Except for commercial and retail areas, detector checks shall be epoxy coated (minimum 12 mil thickness) and placed above ground. Nuts and bolts that connect

detector check to pipe run shall be stainless steel. Detector check body nuts and bolts do not have to be stainless steel. (For detector check requirements for Burlingame Avenue and Broadway Commercial and Retail areas see below.)

- D. In retail and commercial areas, single check detector checks shall be epoxy coated (minimum 12 mil thickness) or stainless steel and shall be buried directly in ground after Water Department has installed bypass meter and trim. Contractor shall supply and set B-16 Box and FL16P-F Lid to finished grade after backfilling and compacting ground to City of Burlingame specifications. All nuts and bolts on detector check, including body bolts, shall be stainless steel. Any unused test plugs in detector check shall be changed to bronze plugs. Nuts and bolts that connect detector check to pipe run shall be 316 stainless steel.

3.03 INSTALLATION

1. All backflow prevention devices on fire system or domestic system will be installed as per City of Burlingame Engineering and/or Water Department requirements.
2. All devices shall be tested and approved by a San Mateo County Certified Device Tester before City approval of water system.
3. The Water Department shall inspect and approve all underground installations.
4. The type of pipe entering the building from underground shall meet all Building Department, Fire Department, and Water Department specification and cods as required.

END OF SECTION

SECTION 02532

HAND DIG TO REPLACE EXISTING WATER MAIN AND PRECONSTRUCTION POTHOLING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Furnish and install all piping, including fittings, laterals, and accessories for hand dig method as shown on the Project Engineer's Drawings, as shown on City's Standard Drawings and as described in the Specifications and as required to completely interconnect all piping for a complete and operable systems.
- B. Hand Digging: This section pertains to replacement of water main by Open-Cut with hand tools along streets, easements, near tree roots and on private properties. The standard hand-dig unit is a 20 linear-foot length. As examples, if the hand-dig section is between 1' to 20' long, it will be paid as 1 unit; 21' to 30' long will be paid as 1.5 units; 31' to 40' long will be paid as 2 units, etc. When the Contractor encounters obstructions or tree roots that he cannot use power equipment for trench digging, he shall inform the inspector prior to operations. All hand digging operations shall be approved by the Engineer prior to proceeding with the work. Excavation using hand tools required to locate and remove earth from around existing utilities in machine excavated trenches and other incidental hand work associated with machine excavated trenching and backfilling is included in the prices bid per linear foot for the sewer installation work. Hand digging around pipe as required under other items of work is included in the prices bid per linear foot under that item.
- C. Preconstruction potholing: This section also pertains to each utility identified as requiring field verification via preconstruction potholing, as listed on the Preconstruction Pothole Locations table as shown on the Contract Drawings. Vacuum extraction is an acceptable alternative to hand digging of potholes. Potholing shall be done prior to manhole shop drawing submittals or a minimum of ten working days in advance of pipe installation, whichever is longer.

1.02 REFERENCES

- A. American Association of State Highway and Transportation Officials (AASHTO)
- B. American National Standards Institute (ANSI)
- C. American Society of Mechanical Engineers (ASME)
- D. American Society for Testing and Materials (ASTM)

- E. American Water Works Association (AWWA)
- F. UNI-Bell PVC Pipe Association (UNI-B)
- G. Section 02315 Excavation and Fill.
- H. Section 02530 Water Main Open-Cut.

1.03 SUBMITTALS

A. Shop Drawings:

- 1. Data to be submitted is described in section 2530 Water Main Open-Cut along with publications regarding manufacturer's requirements.

1.04 POTHOLING (CHECK ON LOCATIONS)

- A. Do not begin any construction until all utilities in that section of sewer main have been exposed, as specified in paragraph 3.02 of Section 02315 and until such time as no interferences are found between said existing utilities and the proposed sewer main alignment. If interferences are found in any particular section of sewer main, do not begin construction for that particular section of sewer main until the sewer main alignment has been modified by the Project Owner's Engineer to eliminate all such interferences.

PART 2 - PRODUCTS

2.01 GENERAL MATERIAL

- A. Pipe and fitting sizes are nominal inside diameter unless otherwise noted.
- B. All materials shall be as indicated in these specifications and the Contractor shall refer to the following related Specification sections:
 - 1. Section 02530 Water Main Open-Cut.

PART 3 – EXECUTION

3.01 PIPE INSTALLATION

- A. Piping install shall be as indicated in these specifications and Open-Cut installation section. The Contractor shall refer to the following related Specification sections:
 - 1. Section 02315 Excavation & Fill

2. Section 02530 Water Main Open-Cut.

3.02 ACCESS TO WORK AREA

- A. On easements and private properties, the Contractor shall inform the residents within the area forty-eight (48) hours before commencing work. Extra care shall be taken while working along private properties.

END OF SECTION

SECTION 02705

PAVING AND RESURFACING

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Furnishing all labor, material, equipment, tools and services required for the placing and compacting of asphalt concrete pavement and aggregate surfacing for roadways, parking lots and walkways to the lines and dimensions shown on the Drawings and as specified herein. Also included is the repair and resurfacing of existing roadway and area paving damaged or removed during construction.
- B. Related Sections: Repair or replace concrete curbs, gutters and sidewalks damaged by the work in accordance with Section 02775. See 02315 Excavation and Fill 3.08 for disposal of excavated materials.

1.02 REFERENCE SPECIFICATIONS

- A. Whenever the words "Standard Specifications" are referred to, the reference is to the State of California, Department of Transportation, Standard Specifications – 2015.
- B. American Society for Testing and Materials (ASTM):
 - 1. D1556
Test Method for Density and Unit Weight of Soil in Place by the Sand- Cone Method
 - 2. D2922
Test Method for Density of Soil and Soil Aggregate in Place by Nuclear Method (Shallow Depth)

1.03 SUBMITTALS

- A. Submit the following.
 - 1. Samples: Furnish, without additional cost to the Owner, such quantities of construction materials as may be required by the Engineer for test purposes. The Contractor shall cooperate with the Engineer and furnish necessary facilities for sampling and testing of all materials and workmanship. All materials furnished and all work performed shall be subject to rigid inspection, and no materials shall be used in the construction work until it has been inspected by the Engineer.

2. Submit a signed verification from each source of supply for each construction material employed on this project indicating that the materials meet the Specification requirements.
3. Mix design for asphalt concrete and test results of California Test 367.
4. Submit manufacturer's certification of the actual volatile organic compounds (VOC) content for all pavement paints and bituminous pavement sealers proposed for use on this project. Submit certification of the actual VOC content for coatings manufactured after 1 September 1987. For coatings manufactured before 1 September 1987, submit VOC content and date of manufacture. VOC content shall be measured in grams per liter by weight of coating as applied excluding water and color added to the tint base.
5. Submit verification that bituminous pavement sealers and paint products furnished meet applicable regulations as to allowable VOC content for the time and place of application and use intended.

1.04 QUALITY ASSURANCE

- A. Comply with appropriate sections of the Standard Specifications of State of California, Department of Transportation (CALTRANS).

1.05 REGULATORY REQUIREMENTS

- A. All work, material, procedures and practices under this Section shall conform with requirements of the California Air Resources Board (CARB) and the Bay Area Air Quality Management District.

PART 2 - PRODUCTS

2.01 PAVING MATERIALS

- A. Aggregate Base: Standard Specifications, Division IV, Section 26. Class and size as indicated on the Drawings; or if not indicated on the Drawings, use Class 2, 3/4-inch maximum.
- B. Prime Coat: Liquid asphalt, Grade SC-70, Standard Specifications, Section 93.
- C. Tack Coat and Seal Coat: Emulsified asphalt, Grade SS-1, Standard Specifications, Section 94.
- D. Asphalt Concrete: Type A, 3/4-inch maximum, medium grading, Standard Specification Section 39. Bitumin ratio shall be selected by the supplier in accordance with paragraph 39-1.02 of the Standard Specifications.

2.02 PAVEMENT THERMOPLASTIC

- A. Comply with Section 84 of the Standard Specifications.

PART 3 - EXECUTION

3.01 GENERAL

- A. This Specification shall cover newly surfaced areas as well as restoration of existing surfacing.
- B. Adjust existing and new manholes, meter boxes, cleanouts, etc. to match the new grade.

3.02 PAVEMENT CUTTING

- A. After backfilling trenches and prior to paving, saw cut existing pavement parallel to the trench (using a concrete saw). The pavement shall be cut back 12 inches on each side of the trench or excavation wall. Re-cut and restore any pavement damaged outside these lines at the expense of the Contractor. Should voids develop under the existing pavements during construction, those affected pavements shall be neatly saw cut in straight lines and replaced after the voids have been filled.

3.03 PLACEMENT OF AGGREGATE BASE

- A. Subgrade Preparation: Water or dry subgrade as required to bring the soil to within 2% of the optimum moisture content for proper compacting. Compact to a relative compaction of not less than 95% in the upper 6 inches. When compaction of the subgrade areas on fill and embankments has been properly obtained, only such additional rolling will be required as necessary to obtain a thoroughly compacted subgrade immediately prior to placing the aggregate base thereon.
- B. Aggregate Base Tolerance: Do not place the aggregate base before the subgrade is approved by the Engineer. The finished aggregate base shall not vary more than 0.05 foot above, nor 0.10 foot below, the planned grade.
- C. Aggregate Base Placing: Spread the aggregate base material on the prepared subgrade by means of suitable spreading devices. The aggregate base material may be dumped in piles upon the subgrade and spread by bulldozing ahead from the dumped material. Each layer shall not exceed 0.50 feet. Segregation of large or fine particles of aggregate shall be avoided, and the material as spread shall be free from pockets of large and fine material.
- D. Compaction: Compact each layer of aggregate base material to not less than 95% relative compaction as determined by Test Method Calif. No. 216 or ASTM D1556 (Sand Cone), or Calif. No. 231 or ASTM D2922 (Nuclear method when approved by the Engineer). Compaction shall be in accordance with Section 26-1.03D of the Standard Specifications. Water aggregate base after compaction as provided in Section 17 of the Standard Specifications.

3.04 ASPHALT CONCRETE INSTALLATION

- A. Apply prime coat at a rate of 0.25-gallon per square yard or as determined by the Engineer. Blot any excess which has not penetrated the base with sand. Remove any loose sand.
- B. Apply tack coat a rate of 0.05 to 0.10-gallon per square yard or as determined by the Engineer.
- C. Spread and compact asphalt concrete in accordance with Standard Specifications Section 39 to the thickness shown on the Drawings.
- D. Protect asphaltic concrete paving until surface has cooled sufficiently to permit traffic without damage.
- E. Immediately remove spilled and splattered materials from adjacent surfaces.

3.05 PAVEMENT MARKINGS

- A. Replace existing pavement markings that are removed or damaged by the construction.
- B. Apply pavement markings in accordance with Section 84 of the Standard Specifications.

END OF SECTION

SECTION 02775

CONCRETE CURB, GUTTERS, AND SIDEWALKS

PART 1 - GENERAL

1.01 SUMMARY

- A. Section Includes: Furnish all labor, materials, methods or processes, implements, tools, machinery and equipment required to remove and replace existing concrete curb and gutter, sidewalks and driveways as required and as specified herein.

1.02 REFERENCE SPECIFICATIONS

- A. Wherever the words "Standard Specifications" are referred to, the reference is to the State of California, Department of Transportation, Standard Specifications – 2010.

1.03 SUBMITTALS

- A. Submit certificate of compliance indicating that the concrete complies with the specifications as submittals.

1.04 QUALITY ASSURANCE

- A. Removal of Existing Concrete:
 - 1. The Contractor shall not remove more concrete than can be replaced within the week that work has begun. All sidewalks, etc., shall be in place with barricades removed and ready for public traffic by 5:00 p.m., Friday, of any working week. No sidewalks, etc., shall be left open over weekends or holidays, except with the Engineer's permission. All forms shall be stripped and driveways shall be opened by the above times.
 - 2. Existing concrete curb, gutters, sidewalks and driveways shall be saw cut and then broken out to a straight joint as directed by the Engineer. The Contractor shall exercise care in removing the concrete so as not to damage adjoining areas which are to remain in place, and any damage so caused shall be repaired by the Contractor at his own expense.
 - 3. The Contractor shall exercise care so as not to injure any tree. If encounter any tree roots more than 3” in diameter, the Contractor shall inform the Park Department Inspector for inspection. Concrete directly adjacent to tree trunks or large roots shall be carefully removed so that the bark of the tree is not damaged.

4. The Contractor shall remove and dispose of all excess material or debris off the job site by the end of each workday. The existing concrete to be removed shall be outlined by the scoring with a concrete saw to a uniform depth of not less than four inches (4") to provide a break joint where a joint does not already exist.
 5. All sod or turf removed in order to place forms shall either be removed in such a manner as to enable the Contractor to put it back into place in its original condition after stripping forms or replaced with backfill and seeded. In the event the turf is non-existent or in so poor condition that it cannot be replaced, the area concerned will be brought back to grade and compacted to 80% density with good quality top soil to conform with the surrounding area.
- B. Planting Strip: Where materials, other than concrete (bricks, pavers, etc.), are encountered in areas to be removed and replaced with topsoil, the Contractor shall contact the homeowner to determine if the materials should be left on site or hauled off.

1.05 ADDITIONAL SAFETY RESPONSIBILITIES

- A. Contractor shall be responsible for safety of the public, especially in sidewalk areas, during this project. Work sites shall be kept safe by placing adequate barricades, wood walks in commercial areas, eliminating tripping hazards, and other means as appropriate. Open excavation shall be covered when no work is being performed. Steel plating shall be installed until temporary surfacing can be constructed.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Portland Cement Concrete:
All concrete shall consist of 5-sacks of Portland Cement per cubic yard of concrete and have a 28-day compressive strength of 2500 psi. Aggregate shall conform to combined aggregate sizes designated as 3/4" maximum. The concrete shall have a slump not to exceed three inches (3") as determined by the conventional slump cone method. It is the Contractor's responsibility to protect the concrete finish until acceptance by the Engineer. The color and finish shall be as close as possible to that of the surrounding pavement, with preference to a light broom finish and darkened with one (1) pound dry lampblack conforming to ASTM D209 per cubic yard concrete. Concrete shall be scored to conform to the existing pattern. No concrete shall be poured until forms have been inspected and approved by the Engineer.
- B. If necessary, concrete sidewalk, curb & gutter shall be replaced in accordance with project drawings and standard details, City of Burlingame or Caltrans depending on location.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Forms shall be smooth on the side placed next to the concrete and shall have a true smooth upper edge and shall be rigid enough to withstand the pressure of fresh concrete without distortion. All forms shall be thoroughly cleaned and coated with form oil to prevent the concrete from adhering to them. The depth of forms shall be equal to the full depth of the concrete section being poured. Contractor shall exercise care not to injure any part of the tree in placing his forms. No cutting away of any part of the trunk or main roots to accommodate forms will be permitted. Forms shall be bent around tree trunks to provide a minimum of two inches (2") clearance for the finished sidewalk.
- B. Control joints shall be placed as required or as herein specified. Control joints shall be 1 ½" deep and shall be constructed with a special tool design for such joints. At least a control joint shall be placed in each pour of concrete over 10 feet in length and at 10-foot intervals thereafter.

A control joint shall be placed on each side of the tree, at a distance of no more than five feet (5') either side of the tree. No additional compensation will be allowed for placing of control joints.

- C. Adjust structures such as valve boxes, manhole frames and covers, and electrical vaults to grade after the curb and gutter or sidewalk has been constructed for a reasonable distance on all sides of the structure.

3.02 CURING

- A. All concrete shall be cured as provided in Section 90-1.03B, "Curing Concrete," of the Standard Specifications for a period of 72 hours. The Contractor shall have the option of using the Water Method, the Curing Compound Method or the Waterproof Membrane Method as described in Section 90-1.03B(2), 90-1.03B(3) or 90-1.03B(4), respectively. No vehicular traffic shall be allowed on new concrete in less than 48 hours after it is poured.

3.03 CLEANUP

- A. After removal of forms, the adjacent area shall be backfilled and graded to conform to the surrounding ground. Each site shall be left neat and orderly. All turf or sod shall be both replaced in its original condition or backfilled and seeded. In the event the turf is non-existent or in so poor condition that it cannot be replaced, the area concerned will be brought back to grade and compacted to 80% density with good quality topsoil. Surrounding area, other than landscaping, shall be restored in kind.
- B. All work areas shall be left clean, neat and orderly with all concrete in place for the week's work by 5:00 p.m., Friday, Whenever work areas are not left clean, neat and

orderly, the City shall perform all necessary cleanup at the Contractor's expense and a deduction shall be made for such work on the next progress payment.

END OF SECTION