

**CITY OF WATERFORD
DEPARTMENT OF PUBLIC WORKS**

CITY BID NO. 2018-05



**NOTICE TO CONTRACTORS
SPECIAL PROVISIONS
PROPOSAL & CONTRACT**

FOR

CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS

PREPARED BY:

MCR ENGINEERING, INC.
1242 DUPONT COURT
MANTECA, CALIFORNIA 95336
(209) 239-6229
(209) 239-8839 FAX

MAY 2018

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NOTICE TO CONTRACTORS

Contractors are invited to submit written formal bids for:

City Hall Alleyway Drainage Improvements

Bids shall be submitted in sealed envelopes on the form provided with the specifications for that purpose. Envelopes shall be addressed to City Hall, City of Waterford, 101 E Street, Waterford California, 95386, and plainly marked:

City Hall Alleyway Drainage Improvements

And delivered to the City Clerk at City Hall, City of Waterford, 101 E Street, Waterford California, 95386, up to 3:00 P.M., Wednesday, June 20, 2018, at which time subject bids will be publicly opened and read aloud.

Proposal forms for this work are included in the "Proposal" section of this document (blue pages).

The work to be performed consists, in general, of pavement grinding and removal, constructing concrete valleygutter, utility relocation and paving. Other such items and details not mentioned herein that are required by the plans, Standard Specifications or these Special Provisions shall be performed, placed, constructed, or detailed.

Bids are required for the entire work described herein. The Contractor shall possess a Class A license at the time this contract is awarded.

This contract is subject to state contract non-discrimination and compliance requirements pursuant to Government Code Section 12990.

Plans, specifications and proposals are available at **CITY HALL IN WATERFORD, 101 E Street, WATERFORD, CALIFORNIA 95386**, upon receipt of a \$25.00 fee, which is non-refundable. The successful bidder will be furnished with additional plans and specifications, upon request, at no additional cost. For information please call the **City Engineer** at **(209) 239-6229** or **City Hall** at **(209) 874-2328**.

Bids shall be accompanied by a Proposal Guaranty of a certified check or bidder's bond of not less than 10 percent (10%) of the total amount of the bid, made payable to the order of the City of Waterford, to be retained as liquidated damages by the Owner if the successful bidder fails to enter into a Contract. Upon entering into a contract, the successful bidder will be required to furnish a Performance Bond and a Payment Bond each for 100 percent of the contract amount.

The City of Waterford hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement any disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Pursuant to Section 1773 of the Labor Code, the general prevailing rate of wages in the County in which work is to be done has been determined by the Director of the Department of Industrial relations. These wage rates and the Federal minimum wage rates for this project as predetermined by the United

States Secretary of Labor are set forth in the serially numbered books issued for bidding purposes entitled "Proposal and Contract", and in the copies of said book that may be examined at the offices described above where project plans, special provisions, and proposal forms may be seen. Addenda to modify rates, if necessary, will be issued to holders of "Proposal and Contract" books. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

Attention is directed to the Federal minimum wage rate requirements in said books entitled "Proposal and Contract". If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. The Department will not accept lower State wages not specifically included in the Federal minimum wagger determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determinations otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall not pay less than the Federal minimum wage rate which most closely approximates the duties of the employees in question.

The Owner reserves the right to reject any or all bids, or to waive any informalities. If awarded, a contract will be awarded within 10 days of the bid opening. The Contract shall be signed within 14 calendar days; not including Sundays and legal holidays, after receipt of the Notice of Award, and work shall be completed within **30 calendar days** after Notice to Proceed.

For any moneys earned by the Contractor and withheld by the City of Waterford to ensure the performance of the contract, the Contractor may, at his request and expense, substitute securities equivalent to the amount withheld in the form and manner and subject to the conditions provided in Sections 22300 and 10263 if the Public Code of the State of California.

INSTRUCTIONS TO BIDDERS

ENGINEER:

MCR Engineering, Inc.
1242 Dupont Court
Manteca, CA 95336
(209) 239-6229

OWNER:

CITY OF Waterford
Public Works Department
101 E Street
Waterford, CA 95386
Phone: (209) 874-2328

PART 1 - DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders, which are defined in the General Conditions and Supplementary Conditions have the meaning assigned to them in the General Conditions and the Supplementary Conditions. The term "Bidder" means one who submits a bid directly to the Owner, as distinct from a sub-bidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible, responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Advertisement or Invitation to Bid, Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all addenda issued prior to receipt of Bids).

PART 2 - COPIES OF CONTRACT DOCUMENTS

- 2.01 Complete copies of the Plans and Specifications for use in preparing bids may be obtained in accordance with the Invitation to Bid.
- 2.02 Partial sets of Bidding Documents will not be issued. Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 Owner and Engineer in making copies of Bidding Documents available do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

PART 3 - QUALIFICATIONS OF BIDDERS

- 3.01 Each bidder must be prepared to submit within five days of Owner's request written evidence of his qualifications to perform the work. Bidders may be required to submit evidence that they have a practical knowledge of the particular work bid upon, and that they have the financial resources to complete the proposed work. In determining the Bidder's qualifications, the following factors will be considered: work previously completed by the Bidder and whether the Bidder (a) maintains a permanent place of business, (b) has adequate plant and equipment to do the Work properly and expeditiously, (c) has the financial resources to meet all obligations incident to the Work, and (d) has appropriate technical experience. Each Bidder may be required to show that he has handled former work so that no just claims are pending against such work. No bid will be accepted from a Bidder who is engaged on any work, which would impair his ability to perform or finance this work.
- 3.02 Each Bidder shall type or write in a legible manner his California Contractor's license number on the outside of the envelope or wrapper which contains his bid and in the space provided on the Bid Form

or attach a notarized affidavit to his Bid that if he is the successful Bidder he will secure a valid California Contractor's license before beginning work.

- 3.03 The contractor who is awarded a contract must be properly licensed as a contractor from contract award through contract acceptance (Public Contract Code § 10164).
- 3.04 The contractor who is awarded a contract must be registered to perform public work with the California Department of Industrial Relations at the time the contract is awarded. This requirement also applies to subcontractors listed in the Bid Proposal.

PART 4 - EXAMINATION OF CONTRACT DOCUMENTS AND SITE

- 4.01 It is the responsibility of each bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work, (c) consider federal, state and local laws and regulations that may affect cost progress, performance or furnishing of the work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents.
- 4.02 Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the work and which Bidder deems necessary to determine its Bid from performing and furnishing the work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 4.03 On request in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.
- 4.04 The work must be confined to the rights-of-way of the various streets shown on the plans within the project limits, unless other arrangements are made by the contractor.
- 4.05 Access to the site (if needed) may be arranged by contacting the City of Waterford, at telephone number (209) 874-2328. In general, site access will be limited to normal working hours.
- 4.06 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this part, that without exception the Bid is premised upon performing and furnishing the work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the work.
- 4.07 **No Pre-Bid Job Walk will be held for this project.**

PART 5 - INTERPRETATIONS AND ADDENDA

- 5.01 All questions about the meaning or intent of the Contract Documents are to be submitted to Engineer. Replies will be issued only by Addenda. Questions received within the week of the date fixed for the

opening of bids will not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

- 5.02 Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.
- 5.03 The City will make reasonable efforts to deliver Addenda to all Bidders who are known by the City to have received a complete set of Contract Documents and who have provided a street address for receipt of Addenda. The City makes no guarantee that all Bidders will receive all issued Addenda. Each Bidder shall be responsible for ascertaining, prior to submitting its Bid, that it has received all issued Addenda. Each Bidder shall acknowledge receipt of all addenda on the Bid Form. Failure to acknowledge receipt of Addenda may render the bid non-responsive. Bidder shall not rely upon any interpretation or correction given by any other method. All Addenda shall become part of the contract documents. No Addenda will be issued within two days of the date fixed for the opening of bids except an Addendum, if necessary, postponing the date for receipt of Bids or withdrawing the request for Bids.

PART 6 - BASIS OF BIDS

- 6.01 The Bidder shall submit a single base bid price as required by the Proposal, said base bid being the total of the prices for the various items listed in the Bid Form. The Base Bid shall be stated in words and numerals, in case of a conflict, words will take precedence.

PART 7 - BID SECURITY

- 7.01 Bid Security shall be made payable to Owner, in an amount of 10 percent of the Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond (on form attached if a form is prescribed) issued by a Surety meeting the requirements of the General Conditions.
- 7.02 The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if the successful Bidder fails to execute and deliver the Agreement and furnish the required Contract security within 14 calendar days of the Notice of Award, Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the seventh day after the "effective date of the Agreement" (which term is defined in the General Conditions) by Owner to Contractor and the required Contract Security is furnished or the first day following the end of time specified in the Bid form during which the Bids shall remain open. Bid Security of other Bidders will be returned within 10 days of the Bid opening.

PART 8 - SUBSTITUTE MATERIAL AND EQUIPMENT

- 8.01 The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the "effective date of the Agreement". The procedure for submittal of any such application by Contractor and

consideration by Engineer is set forth in the General Conditions which are supplemented in the General Requirements.

- 8.02 Whenever a material or article is specified or described by using the name of a proprietary product or the name of a particular manufacturer or vendor, the specified item mentioned shall be understood as establishing the type, function, and quality desired. Other manufacturer's products will be accepted provided sufficient information is submitted to allow Engineer to determine that the products submitted are equivalent to those names. Applications for such review will not be considered by Engineer until after the "effective date of the Agreement". The procedure for submittal of any such application by Contractor and consideration by Engineer is set forth in the General Conditions which are supplemented in the General Requirements.

PART 9 BID FORM

- 9.01 Bid form is to be completed and submitted with bid.
- 9.02 Bid forms must be completed in ink.
- 9.03 Bid by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of the authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.
- 9.04 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 9.05 Bids by joint ventures shall be signed by each participant in the joint venture or by an authorized agent of each participant.
- 9.06 The names of all persons signing must also be legibly printed or typed below the signature. A Bid by a person who affixes to his signature the word "president", "secretary", "agent", or other designation without disclosing his principal may be held to be the Bid of the individual signing. When requested by Owner, evidence of the authority of the person signing shall be furnished.
- 9.07 The full name of each person or company interested in the Bid shall be listed on the Bid Form.
- 9.08 The Bidder shall acknowledge receipt of all Addenda on the bid form.
- 9.09 No alterations in Bids, or in the printed forms therefore, by erasures. Interpolations, or otherwise will be acceptable unless each such alteration is signed by the Bidder; if initialed, Owner may require the Bidder to identify any alteration so initialed. No alteration in any Bid, or in the form on which it is submitted, shall be made after the Bid has been submitted.
- 9.10 The address to which communications regarding the Bid are to be directed must be shown.

PART 10 - SUBCONTRACTOR LISTING

- 10.01 Each Bidder shall list on the form provided, the name and the address of each subcontractor who will perform work or labor, or render service to the Bidder in or about the work; or a licensed subcontractor who, under subcontract to the Bidder, specially fabricates and installs a portion of the work, in an amount in excess of one-half of one percent and the portion of the work which will be done by each subcontractor.
- 10.02 If a Bidder fails to specify a subcontractor for any portion of the work, the bidder shall perform that portion himself or obtain the written approval of the Owner for the proposed subcontractor.

PART 11 - SUBMISSION OF BIDS

- 11.01 Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be included in an opaque sealed envelope addressed to City of Waterford and identified on the outside with the Bidder's name, license number, and address and with the words:

Bid for the **CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS**

- 11.02 Each Bid shall be accompanied by the Bid Security and other required documents.
- 11.03 If the Bid is sent by mail, the sealed envelope shall be enclosed in a separate mailing envelope with the notation "BID ENCLOSED" on the face thereof.
- 11.04 Bids shall be deposited at the designated location prior to the time and date for receipt of Bids indicated in the Invitation to Bid, or the modified time and date indicated by addendum. Bids received after the time and date for receipt of Bids will be returned unopened. Bidder shall assume full responsibility for timely delivery at the location designated for receipt of Bids.
- 11.05 Oral, telephone, telegraph, or electronic Bids are invalid and will not receive consideration. No Bidder may submit more than one Bid. Multiple Bids under different names will not be accepted from one firm or association.

PART 12 - MODIFICATION AND WITHDRAWAL OF BIDS

- 12.01 Bids submitted early may be modified or withdrawn by notice to the party receiving Bids at the place and prior to the time designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder or be by telegram; written confirmation over the signature of Bidder must have been mailed and postmarked on or before the date and before time set for receipt of Bids; it shall be so worded as not to reveal the amount of the original Bid. Bids may also be modified or withdrawn in person by the Bidder or an authorized representative provided he could prove his identity and authority. Withdrawn Bids may be resubmitted up to the time designated for the receipt of Bids provided that they are then fully in conformance with these Instructions to Bidders.
- 12.02 If, within 24 hrs after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of his Bid, that Bidder may withdraw his bid, and his Security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the work.

PART 13 - OPENING OF BIDS

- 13.01 Bids will be opened publicly and read aloud at the time and place shown in this notice. An abstract of the amounts of the base Bids and major alternates (if any) will be made available after the opening of Bids.

PART 14 - AWARD OF CONTRACT

- 14.01 Owner reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional Bids. Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated sum of product of figures and the correct sum or product thereof will be resolved in favor of the correct or product sum.
- 14.02 In evaluating Bids, Owner shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternates and unit prices if requested in the Bid Forms. It is Owner's intent to accept alternates (if any are accepted) in the order in which they are listed in the Bid form but Owner may accept them in any order or combination.
- 14.03 Owner may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in the Supplementary Conditions. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by Owner.
- 14.04 Owner may conduct such investigations as he deems necessary to assist in the evaluation of any bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors and other persons and organizations to do the work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
- 14.05 Owner reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to Owner's satisfaction.
- 14.06 If the contract is to be awarded, it will be awarded to the lowest, responsible, responsive Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

PART 15 – DESCRIPTION OF BID ITEMS

- 15.01 **Mobilization** - The lump sum price bid for this item shall include the costs for bonds, insurance, permits, field offices, moving equipment to and from site and all other work required by the plans and specifications which is not specifically set forth in the bid form as a pay item. Payment will be at the lump sum contract price.

- 15.02 **Remove Existing Pavement** - The lump sum price bid for this item shall include all labor, equipment, materials and all incidentals necessary to sawcut and remove the existing asphalt pavement and base rock (including any striping) at the locations indicated on the plans. Work shall also include any excavation to the proposed subgrade to accommodate the new construction. All material shall be removed from the site and disposed of at a legal dump location. Payment will be at the unit price bid.
- 15.03 **Relocate Water Sampling Station** - The unit price for this item shall include all labor, equipment, materials and all incidentals necessary to remove and relocate existing water sampling station to the location shown on the plans. Work shall include, but not be limited to excavation, pipe cutting, pipe bedding material, pipe placement, valve relocation or replacement, backfill and compaction, disinfection and testing per the City of Waterford Standards, and incidentals necessary for a complete installation. Payment will be at the unit price bid.
- 15.04 **Relocate Fire Hydrant** - The unit price for this item shall include all labor, equipment, materials and all incidentals necessary to remove and relocate existing fire hydrant or replace with new hydrant at the location shown on the plans. Work shall include, but not be limited to excavation, pipe cutting, pipe bedding material, pipe placement, valve and assembly relocation or replacement, backfill and compaction, disinfection and testing per the City of Waterford Standards, and incidentals necessary for a complete installation. Payment will be at the unit price bid.
- 15.05 **Replace Water Valve Box** - The unit price for this item shall include all labor, equipment, materials and all incidentals necessary to replace the existing valve or utility box and set to the new finished grade. Extension Rings will not be allowed. Work shall include, but not be limited to extending the 8" PVC riser, preparation of aggregates, mixing, hauling, tack coats, placement, compaction, and incidentals necessary for a complete installation. Payment will be at the unit price bid.
- 15.06 **12" Storm Drain** - The unit price for this item shall include all labor, equipment, materials and all incidentals necessary to construct the 12" storm drain line complete in place, in the locations shown on the plans. Work shall include, but not be limited to excavation, shoring, pipe bedding material, pipe placement, backfill and compaction, and incidentals necessary for a complete installation. Payment will be at the unit price bid.
- 15.07 **Storm Drain Catch Basin** - The unit price for this item shall include all labor, equipment, materials and all incidentals necessary to construct the catch basin complete in place, in the locations shown on the plans. Work shall include, but not be limited to excavation, all required subgrade preparation, formwork, finishing, grouting, and incidentals necessary for a complete installation. Payment will be at the unit price bid.
- 15.08 **Connect to Existing Storm Drain** - The unit price for this item shall include all labor, equipment, materials and all incidentals necessary to connect new storm drain piping to the existing storm drain stub in the locations shown on the plans. Work shall include, but not be limited to potholing to verify location and depth, excavation, connection, backfill and compaction, and incidentals necessary for a complete installation. Payment will be at the unit price bid.
- 15.09 **4" Bollards** - The unit price for this item shall include all labor, equipment, materials and all incidentals necessary to install the 4" bollards complete in place, in the locations shown on the plans. Bollards shall be 8-gauge steel posts, filled with 2,000 psi concrete, and set in 12" of 2,000 psi concrete at a 36" minimum depth. Top of bollard shall be 42" from finish grade. Bollards shall have red oxide primer and be painted (City to approve color). Payment will be at the unit price bid.

- 15.10 **Valley Gutter** - The unit price bid for this item shall include all labor, equipment, materials and all incidentals necessary to construct the valley gutter at the locations indicated on the plans, complete in place. Work shall include, but not be limited to all required grading and subgrade preparation, sub-base, base course, formwork, reinforcement, joint construction, finishing, and curing. Payment will be at the unit price bid.
- 15.11 **3" AC / 6" AB** - The unit price bid for this item shall include all labor, equipment, materials and all incidentals necessary to construct the aggregate base and asphalt concrete pavement per the street structural section indicated on the plans, complete in place. Work shall include, but not be limited to preparation of aggregates, mixing, hauling, tack coats, placement, compaction and incidentals necessary for a complete installation. Payment will be at the unit price bid.
- 15.12 **SWPPP Implementation and Maintenance** – The lump sum price bid for this item shall include all labor, equipment, materials and all incidentals necessary to install SWPPP BMP's prior to construction and maintaining BMP's during the construction process. Payment will be at the lump sum contract price.
- 15.13 **Traffic Control** - The lump sum price bid for this item shall include all labor, equipment, materials and all incidentals necessary to safely redirect traffic per California MUTCD (current edition) Temporary Traffic Control Devices. Traffic control shall be properly indicated prior to construction and maintained during construction activities. Payment will be at the lump sum contract price.

PROPOSAL TO CITY OF WATERFORD
DEPARTMENT OF PUBLIC WORKS
FOR THE CONSTRUCTION OF

**CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS
WATERFORD, CALIFORNIA**

NAME OF BIDDER _____
BUSINESS P.O. BOX _____
CITY, STATE, ZIP _____
BUSINESS STREET ADDRESS _____
(Please include even if P.O. Box used)
CITY, STATE, ZIP _____
TELEPHONE NO: AREA CODE () _____
FAX NO: AREA CODE () _____
CONTRACTOR LICENSE NO. _____

The work for which this proposal is submitted is for construction in accordance with the special provisions (including the payment of not less than the Federal prevailing wage rates or), the project plans described below, including any addenda thereto, the contract annexed hereto, and also in accordance with the Standard Specifications and Drawings for the City of Waterford, dated January, 2014, and the Labor Surcharge And Equipment Rental Rates in effect on the date the work is accomplished.

The special provisions for the work to be done are included in this document. Project plans for the work to be done were approved and are entitled:

**IMPROVEMENT PLANS FOR
CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS**

Receipt of copies of the following addenda(s) is hereby acknowledged.

Addendum No.	Bidders Signature	Date
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Bids are to be submitted for the entire work necessary to construct those items listed in the "Contractor's Bid" sheet (P-3). The amount of the bid for comparison purposes will be the total of all items of the base bid and any combination of the bid alternates.

The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. 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 percentage wise the unit price or item total in the Department's Final 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. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cents symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. 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.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the City of Waterford, and that discretion will be exercised in the manner deemed by the City of Waterford to best protect the public interest in the prompt and economical completion of the work. The decision of the City of Waterford respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

If this proposal shall be accepted and the undersigned shall fail to enter into the contract and furnish the 2 bonds in the sums required by the State Contract Act, with surety satisfactory to the City of Waterford within 14 calendar days, not including legal holidays, after the bidder has received notice from the City of Waterford that the contract has been awarded, the Department of Public Works may, at its option, determine that the bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void and the forfeiture of the security accompanying this proposal shall operate and the same shall be the property of the City of Waterford.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with the City of Waterford in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the following prices, to wit:

CONTRACTOR'S BID

No.	Description	Quantity	Unit	Unit Price	Total Price
1.	Mobilization	1	LS @	_____	= _____
2.	Remove Existing Pavement	5,170	SF @	_____	= _____
3.	Relocate Water Sampling Station	1	EA @	_____	= _____
4.	Relocate Fire Hydrant	1	EA @	_____	= _____
5.	Replace Water Valve Box	2	EA @	_____	= _____
6.	12" Storm Drain	35	LF @	_____	= _____
7.	Storm Drain Catch Basin	1	EA @	_____	= _____
8.	Connect to Existing Storm Drain	1	EA @	_____	= _____
9.	4" Bollards	3	EA @	_____	= _____
10.	Valley Gutter	445	LF @	_____	= _____
11.	3" AC / 6" AB	4,280	SF @	_____	= _____
12.	SWPPP Implementation & Maintenance	1	LS @	_____	= _____
13.	Traffic Control	1	LS @	_____	= _____
				TOTAL BID	= _____

Bidder's Signature

Title

Company Name

**CITY OF WATERFORD
DEPARTMENT OF PUBLIC WORKS**

BIDDER'S BOND

We, _____
_____ as Principal, and

_____ as Surety are bound unto the City of Waterford, hereafter referred to as "Obligee", in the penal sum of ten percent (10%) of the total amount of the bid of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for **City Hall Alleyway Drainage Improvements** for which bids are to be opened at Waterford City Hall on **June 20th, 2018**.

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 him for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files two bonds with the Obligee, one to guarantee faithful performance of the contract and the other to guarantee payment for labor and materials as provided by law, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgement is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Dated: _____, 20 ____.

Principal

Surety

By _____
Attorney-in-fact

CERTIFICATE OF ACKNOWLEDGEMENT

State of California
City/County of _____ SS

On this _____ day of _____ in the year 20____ before me
_____, personally appeared _____,
Attorney-in-fact

personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument as the attorney-in-fact of _____, and acknowledged to me that he (she) subscribed the name of the said company thereto as surety, and his (her) own name as attorney-in-fact.

(SEAL) _____

The Bidder shall list the name and address of each subcontractor to whom the Bidder proposes to subcontract portions of the work, as required by the provisions in Section 7 (c) (2) "Required Listing of Proposed Subcontractors," of the Standard Specifications.

LIST OF SUBCONTRACTORS

Name, Address and License #

Description of Work Subcontracted

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL
SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE
CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____, proposed subcontractor _____, hereby certifies that he has _____, has not _____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

PUBLIC CONTRACT CODE

Public Contract Code Section 10285.1 Statement

In accordance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), 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 provided. The above Statement is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

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?

Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

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.

NONCOLLUSION AFFIDAVIT

(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the CITY OF WATERFORD

In accordance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Noncollusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Noncollusion Affidavit.

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgement rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

**A G R E E M E N T
FOR
PUBLIC IMPROVEMENT
PROJECT NO. 2018-05
CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS**

THIS AGREEMENT, is entered between the CITY OF WATERFORD, a Municipal Corporation, herein called "City", and _____ herein called "Contractor", on _____, 20__.

RECITALS

- (a) City has taken appropriate proceedings to authorize construction of the public work and improvements herein provided, and execution of this Agreement.
- (b) A notice was duly published for bids for the contract for the improvement hereinafter described.
- (c) On _____, 20__, after notice duly given, the City Council of said City awarded the contract for the construction of the improvements hereinafter described to Contractor, which Contractor said Council found to be the lowest responsible bidder for said improvements.
- (d) City and Contractor desire to enter into this Agreement for the construction of said improvements.

IT IS AGREED AS FOLLOWS:

1. Scope of Work:

Contractor shall perform the work described briefly as follows:

All work as specified on the Plans and in the Special Provisions, dated **May 2018**, for the project, **CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS**.

The aforesaid improvements are further described in the plans, specifications and technical requirements for such project, copies of which are on file in the office of the City Engineer, previously provided to Contractor, and which are incorporated herein by reference as if set forth fully herein.

2. The Contract:

The complete contract consists of the following documents: This Agreement, the notice to contractors, the Contractor's accepted proposal, general conditions, special provisions, plans and detailed drawings, faithful performance bond and labor and materials bond and any and all supplemental agreements amending, decreasing, or extending the work contemplated or which may be required to complete the work in a satisfactory and acceptable manner. The Current Edition of the "City of Waterford Standard Specifications and Drawings" is hereby incorporated as a part of the contract.

All rights and obligations of City and Contractor are set forth and described in the contract.

All of the above named 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. The documents comprising the complete contract will hereinafter be referred to as the "contract". In case of any dispute, the decision of the City Engineer shall be final.

3. Schedule:

All work shall be performed in accordance with the schedule provided by City Engineer, and under his direction.

4. Equipment & Performance of Work:

Contractor shall furnish all tools, equipment, facilities, labor and materials necessary to perform and complete in good workmanlike manner the work of general construction as called for and in the manner designated in and in strict conformity with the plans and specifications for said work, which said specifications are entitled, "General Conditions and Special Provisions for **“PROJECT 2018-05, CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS”**

The equipment, apparatus, facilities, labor and material shall be furnished, and said work performed and completed as required in said plans and specifications under the direction and supervision, and subject to the approval, of the City Engineer of said City, or his designated agent.

5. Contract Price:

City shall pay, and Contractor shall accept in full payment for the work above agreed to be done, the sum of: _____Dollars (\$_____). Said price is determined by the unit prices contained in Contractor's bid. In the event work is

performed or materials furnished in addition to those set forth in Contractor's bid and the specifications herein, said work and materials will be paid for at the unit price therein contained. Said amount shall be paid in installments as hereinafter provided.

6. Time for Performance:

The time fixed for the commencement of such work is ten (10) calendar days after the "Notice to Proceed" has been issued. The work on this project shall be completed on or before thirty (30) calendar days after the date of the "Notice to Proceed".

7. Rights of City to Increase Working Days:

If such work is not completed within such time, the City Council shall have the right to increase the number of working days in the amount it may determine will best serve the interests of the City, and if it desires to increase said number of working days, it shall have the further right to charge the Contractor and deduct from the final payment for the work the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to Contractor, and which accrue during the period of such extension except that the cost of the final service and preparation of the final estimates shall not be included in such charges; provided, however, that no extension of time for completion of such work shall ever be allowed unless requested by Contractor at least twenty (20) calendar days prior to the time herein fixed for the completion thereof, in writing, with the City Clerk, addressed to the City Council. In this connection, it is understood that the City Clerk shall not transmit any such request to the City Council if not filed within the time herein prescribed.

8. Option of City to Terminate Agreement in Event of Failure to Complete Work:

If Contractor shall have refused or failed to prosecute the work, or any severable part thereof, with such diligence as will insure its completion within the time specified or any extensions thereof, or shall have failed to complete said work within such time if Contractor should be adjudged a bankrupt, or if Contractor should make a general assignment for the benefit of Contractor's creditors, or if a receiver should be appointed in the event of Contractor's insolvency, or if Contractor or any subcontractor should violate any of the provisions of this Agreement, the City Engineer or the City Council may give written notice to Contractor and Contractor's sureties of its intention to terminate this Agreement, and unless within five (5) days after the serving of such notice such violation shall cease and satisfactory arrangements for the correction thereof made, this Agreement may, at the option of City, upon the expiration of said time, cease and terminate.

9. Liquidated Damages:

In the event Contractor for any reason shall have failed to perform the work herein specified within the time herein required and to the satisfaction of the City Engineer, City may, in lieu of any other of its rights authorized by paragraph 8 of this Agreement, deduct from payments or credits due Contractor after such breach, a sum equal to one thousand (\$ 1,000) Dollars as liquidated damages for each calendar day beyond the date herein provided for the completion of such work.

10. Performance by Sureties:

In the event of any termination as herein-before provided, City shall immediately give written notice thereof to Contractor and Contractor's sureties, and the sureties shall have the right to take over and perform the Agreement; provided, however, that if the sureties within five (5) days after giving them said notice of termination, do not give the City written notice of their intention to take over the performance of the Agreement and do not commence performance thereof within five (5) days after notice to the City of such election, City may take over the work and prosecute the same to completion by contract or by any other method it may deem advisable for the account, and at the expense of Contractor and the Sureties shall be liable to City for any excess cost or damages occasioned City thereby; and, in such event, City may, without liability for so doing, take possession of and utilize in completing the work such materials, appliances, plant and other property belonging to Contractor as may be on the site of the work and necessary therefore.

11. Disputes Pertaining to Payment for Work:

Should any dispute arise respecting the true value of any work done, of any work omitted, or of any extra work which Contractor may be required to do, or respecting the size of any payment to contractor during the performance of this contract, such dispute shall be decided by the City Engineer, and the decision of the latter shall be final and conclusive.

12. Permits, Compliance with Law:

Contractor shall, at Contractor's expense, obtain all necessary permits and licenses for the construction of each improvement, give all necessary notices and pay all fees and taxes required by law.

13. Superintendence by Contractor:

Contractor shall give personal superintendence to the work on said improvement or have a competent foreman or superintendent satisfactory to the City Engineer on the work at all times during progress, with authority to act for him.

14. Inspection by City:

Contractor shall at all times maintain proper facilities and provide safe access for inspection by City to all parts of the work and to the shops wherein the work is in preparation.

15. Extra and/or Additional Work and Changes:

Should City at any time during the progress of said work request any alterations, deviations, additions, or omissions from said specifications or plans or other contract documents, it shall be at liberty to do so, and the same shall in no way affect or make void the contract, but will be added to or deducted from the amount of said contract price as the case may be, by fair and reasonable valuation. Request for such change must be made in writing signed by the City Engineer, shall be accompanied by plans and specifications for such propose, shall be accepted in writing by Contractor and Contractor's surety.

16. Inspection and Testing of Materials:

Contractor shall notify City a sufficient time in advance of the manufacture of production materials to be supplied by Contractor under this contract in order that City may arrange for mill or factory inspection and testing of same, as required by the City.

Any materials shipped by Contractor from factory prior to having satisfactorily passed such testing and inspection by City's representative or prior to the receipt of notice from such representative that such testing and inspection will not be required shall not be incorporated on the job of said improvement.

Contractor shall also furnish City, in triplicate, certified copies of all factory and mill test reports upon request.

17. Permits and Care of the Work:

Contractor has examined the site of the work and is familiar with its topography and condition, location of property lines, easements, building lines, and other physical factors and limitations affecting the performance of this Agreement. Contractor, at Contractor's expense, shall obtain any permission necessary for any operations conducted off the property owned or controlled by City. Contractor shall be responsible for the proper care and protection of all materials delivered and work performed until completion and final acceptance.

18. Other Contracts:

City may award other contracts for additional work, and Contractor shall fully cooperate with such other Contractors and carefully fit Contractor's own work to that provided under other contracts as may be directed by the City Engineer. Contractor shall not commit or permit any act which will interfere with the performance of work by any other Contractor.

19. Payments to Contractor:

Payments are to be made to the Contractor in accordance with the provisions of Section 9 of the General Conditions of said specifications in legally executed and regularly issued warrants of the City, drawn on the appropriate fund or funds as required by law and order of the City Council thereof.

20. Contract Security:

Concurrently with the execution hereof, Contractor shall furnish on the forms provided (1) 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 this contract; and (2) 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. Sureties on each of said bonds thereof shall be satisfactory to the City Manager.

21. Hold-Harmless Agreement and Contractor's Insurance:

Contractor hereby agrees to and shall hold City, its elective and appointive boards, officers, agents and employees, harmless from any liability for damage or claims, for damage for personal injury including death, or any of subcontractor's operations under this Agreement, whether such operations be by contractor or by any subcontractor, or subcontractors, or by any one or more persons directly or indirectly employed by, or acting as agent for, contractor or any subcontractor or subcontractors. Contractor agrees to, and shall, defend City and its elective and appointive boards, officers, agents and employees from any suits or actions at law or inequity for damages caused, or alleged to have been caused, by reason of any of the aforesaid operations provided as follows:

- (a) That City does not, and shall not, waive any rights against Contractor which it may have by reason for the aforesaid hold-harmless agreement because of the acceptance by City, or the deposit with City by Contractor, of any of the insurance policies hereinafter described in Paragraph 22 hereof.
- (b) That the aforesaid hold-harmless agreement by Contractor shall apply to all

damages and claims for damages of every kind suffered, or alleged to have been suffered, by reason of any of the aforesaid operations of Contractor or any subcontractor, regardless of whether such insurance policies shall have been determined to be applicable to any of such damages or claims for damages.

22. Contractor's Insurance:

The Contractor shall take out and maintain during the life of his contract, such Commercial General Liability and Property Damage Insurance as shall protect him, the Owner, the Engineer, and their agents from all claims for personal injury, including accidental death, as well as from all claims for property damage arising from operation under this Contract. The amounts of such insurance shall be as hereinafter set forth.

The Contractor shall require the subcontractors, if any, to take out and maintain similar Commercial General Liability and Property Damage Insurance.

In case any of the work under this Contract is to be performed on, or at, the site of the project by the subcontractor, the contractor shall take out and maintain such contractor's Contingent or Protective Insurance as will protect him, the Owner, and the Engineer from damage claims arising from the operations of any subcontractor. The amounts of such insurance shall be hereinafter set forth.

As above provided, the Contractor shall take and maintain:

(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 Service Office form number GL 0404 covering Broad Form Comprehensive General Liability; or Insurance Services Office Commercial General Liability coverage ("occurrence" Form CG 0001)
- (2) Insurance Services Office form number CA 0001 (Ed. 1/78) covering Automobile Liability, code 1 "any Auto" and endorsement CA 0025.
- (3) Workers' 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: \$1,000,000 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: Workers' 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 Retention:

Any deductible or self-insured retention must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductible for self-insured retention as respects the City, its officers, officials, employees, and volunteers; or the Contractor shall post a security (including but not limited to cash, letter of credit, etc.) guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

(d) Other Insurance Provisions

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

(1) General Liability and Automobile Liability Coverage

- (a) The City, its officers, officials, employees, and volunteers are to be covered as insured 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, its officers, officials, employees, and volunteers.

- (b) The Contractor's insurance coverage shall be primary

insurance as respects the City, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the City, 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, its officers, officials, employees, or volunteers.
- (d) The Contractor's insurance shall apply separately to each insured against whom claim is made for 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, its officers, officials, employees, or volunteers for losses arising from work performed by the Contractor for the City.

(3) All Coverage:

Each insurance policy required by this section 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 (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

(e) Acceptability of Insurer:

Insurance is to be placed with insurers with a Best's rating of no less than A:VII.

If the Contractor has fully satisfied the City of his responsibility and capacity under the applicable workmen's compensation laws, if any, to act as self-insurer, he may so act, and in such a case, the insurance required in the paragraph second above need not be provided.

In the event the form of any policy or certificate, or the amount of the insurance or the companies writing same are not satisfactory to the City, the Contractor shall furnish other policies or certificates in form and amount, and with companies satisfactory to the City. The Contractor shall not cause any policies to be canceled or permit it to lapse, and all policies shall include a clause to the effect that the policy or certificate shall not be subject to cancellation or to a reduction in the required limits of liability or amounts of insurance until notice has been mailed to the City stating when, not less than ten (10) days thereafter, such

cancellation or reduction shall be effective. All certificates of insurance, authenticated by the proper officer of the insurer, shall state in particular those insured, the extent of the insurance, the location and operations to which the insurance applies, the expiration date, and the above-mentioned notice of cancellation clause.

The Contractor shall furnish to the City at the date of delivering the signed contracts and bonds, certificates or riders duly executed on behalf of the surety company, certifying as to the amounts of insurance carried, and providing for the coverage therein of the City, its officers, agents, and employees, within all risks arising out of the project.

23. Proof of Carriage of Insurance:

Contractor shall furnish City on City Forms, through the City Engineer, concurrently with the execution hereof, with satisfactory proof of carriage of the insurance required, and that each carrier shall give City at least thirty (30) days prior notice of the cancellation of any policy during the effective period of this contract.

24. Wages & Hours of Employment:

In the performance of this contract, eight (8) hours shall be the maximum hours of labor on any calendar day, and the minimum wages of compensation of persons performing labor in the execution of this Agreement shall be the current prevailing scale of wages determined by the U.S. Secretary of Labor for the community and on file with the City Engineer.

The Contractor shall forfeit as penalty to the City, Twenty-Five Dollars (\$25) to be paid to the City of Waterford for each workman employed in the execution of this Agreement by him or by any subcontractor, for each calendar day during which any workman is required or permitted to labor more than eight (8) hours, in violation of provisions of Article 3, Chapter 1, Part 7, a Division 2, of the Labor Code of the State of California, and all amendments thereto.

25. Emergency - Additional Time for Performance - Procurement of Materials:

If, because of war or other declared national emergency, the Federal or State Government restricts, regulates, or controls the procurement and allocation of labor or materials, or both, and if solely because of said restrictions, regulations or controls, contractor is through no fault of the contractor, unable to perform this Agreement, or the work is thereby suspended or delayed, any of the following steps may be taken.

- (a) City may, pursuant to resolution of the Council, grant Contractor additional time for the performance of this Agreement, sufficient to compensate in time, for delay or suspension.

To qualify for such extension in time, Contractor within ten (10) days of Contractor's

discovering such inability to perform, shall notify City Engineer in writing thereof, and give specific reasons therefore; City Engineer shall thereupon have sixty (60) days within which to procure such needed materials or labor as is specified in this Agreement, or permit substitution, or provide for changes in the work in accordance with other provisions of this Agreement. Substituted materials, or changes in the work, or both, shall be ordered in writing by City Engineer, and the concurrence of the Council shall not be necessary. All reasonable expenses of such procurement incurred by the City Engineer shall be defrayed by the Contractor; or

- (b) If such materials or labor cannot be procured through legitimate channels within sixty (60) days after the filing of the aforesaid notice, either party may, upon thirty (30) days' written notice to the other, terminate this Agreement. In such event, Contractor shall be compensated for all work executed upon a unit basis in proportion to the amount of the work completed, or upon a cost-plus ten percent (10%) basis, whichever is the lesser. Materials on the ground, in process of fabrication or in route upon the date of notice of termination specially ordered for the project and which cannot be utilized by Contractor, shall be compensated for by City at cost, including freight, provided the Contractor shall take all steps possible to minimize this obligation; or
- (c) City Council, by resolution, may suspend this Agreement until the cause of inability to perform is removed but for a period of not to exceed sixty (60) days.

If this Agreement is not canceled, and the inability of Contractor to perform continues without fault on Contractor's part, beyond the time during which the Agreement may have been suspended, as hereinabove provided, City Council may further suspend this Agreement, or either party hereto may, without incurring any liability, elect to declare this Agreement terminated upon the ground of impossibility of performance. In the event City declares this Agreement terminated, such declaration shall be authorized by the City Council by resolution, and Contractor shall be notified in writing thereof within five (5) days after the adoption of such resolution. Upon such termination, Contractor shall be entitled to proportionate compensation at the Agreement rate for such portion of the Agreement as may have been performed, or

- (d) City may terminate this Agreement, in which case Contractor shall be entitled to proportionate compensation at the agreed rate for such portion of the Agreement as may have been performed. Such termination shall be authorized by resolution of the Council. Notice thereof shall be forthwith given in writing to Contractor, and this Agreement shall be terminated upon receipt by Contractor of such notice. In the event of the termination provided in this sub-paragraph (d), none of the covenants, conditions or provisions hereof shall apply to the work not performed, and City shall be liable to Contractor for the proportionate compensation last herein mentioned.

26. 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 City.

27. Notices:

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

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

CITY MANAGER, CITY OF WATERFORD, P. O. BOX 199, WATERFORD, CA 95386

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

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

28. Interpretation:

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

29. Anti-Trust Claims:

The Contractor or subcontractor offers and agrees to assign to the City all rights, title and interest to any causes of action under Section Four of the Clayton Act and the Cartwright Act concerning anti-trust claims.

IN WITNESS WHEREOF, four identical counterparts of this Agreement, consisting of a total of 18 pages, each of which counterparts shall for all purposes be deemed an original of said Agreement, have been duly executed by the parties hereinabove named, on the day and year first hereinabove written.

(Attach Contractor's
Notary Seal here)

By: _____
Contractor

Address: _____

Phone: _____

Federal Tax ID #

OR

Social Security #

**CITY OF WATERFORD,
A MUNICIPAL CORPORATION**

By: _____

APPROVED AS TO FORM:

By: _____

Corbett Browning
City Attorney

APPROVED AS TO SUFFICIENCY:

MCR ENGINEERING

By: _____
City Engineer

ATTEST:

By: _____

NOTICE OF AWARD

Description of Work: **CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS**

To _____
(Contractor)

(Address)

(City, State, Zip)

The **City of Waterford, (Owner)**, represented by the undersigned has considered the proposal submitted by you for the above described work in response to its Notice to Contractors dated _____, 20____, revised _____, 20____.

It appears that it is to the best interest of said **Owner** to accept your Proposal in the amount of

(written description of contract amount)

(\$ _____) you are hereby notified that your Proposal has been accepted.

If you fail to execute said contract and to furnish bonds and certificates within **14 calendar days** from the date of delivery of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Proposal as abandoned and to award the work covered by your Proposal to another, or to re-advertise the work or otherwise dispose thereof as the Owner may see fit.

Dated this _____ day of _____, 20____.

OWNER: City of Waterford

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged

This _____ day of _____, 20____

By _____

By _____

Title: _____

Title: _____

NOTICE TO PROCEED

Description of Work: **CITY HALL ALLEYWAY DRAINAGE IMPROVEMENTS**

To _____
(Contractor)

(Address)

(City, State, Zip)

You are hereby given Notice to Proceed with the construction of the above referenced project.
This notice

Given this _____ day of _____, 20____, begins the **30 days** construction period
for this project, and unless amended as provided for in the specifications, work shall be completed
by the _____ day of _____, 20____.

Work required beyond the established date of completion for this project will be assessed
liquidated damages at the rate of **\$ 1,000.00 per day** in conformance with the specifications.

OWNER: City of Waterford

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is
hereby acknowledged

This _____ day of _____, 20____

By _____

By _____

Title: _____

Title: _____

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Contractor,

and _____ as Surety,

are held firmly bound unto _____

hereinafter called "Owner", in the sum of _____

_____ dollars,

for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Contractor has been awarded and is about to enter into the annexed Contract with said Owner to perform and furnish all work as specified or indicated in the Contract Documents entitled _____

NOW, THEREFORE, if said Contractor, his subcontractors, his or its heirs, executors, administrators, successors, or assigns, shall fail to pay for any materials, provisions, provender, equipment or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts for amounts due under the Unemployment Insurance Code, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such labor, all as required by the provisions of Title XV, Chapter 7, Sections 3247-3252 inclusive, of the Civil Code of the State of California and acts amendatory thereof, and sections of other codes of the State of California referred to therein and acts amendatory thereof, and provided that the persons, companies or corporations so furnishing said materials, provisions, provender, equipment or other supplies, appliances or power used in, upon, for or about performance of the work contracted to be executed or performed, or any person, company or corporation renting or hiring implements r machinery or power for or contributing to said work to be done, or any person who performs work or labor upon the same, or any person who supplies both work and materials therefor, shall have complied with the provisions of said laws, then said Surety will pay the same in an amount not exceeding the sum hereinabove set forth and also will pay, in case suit is brought upon this bond, a reasonable attorney's fee, as shall be fixed by the Court. This bond shall insure to the benefit of any and all persons named in Section 3181 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

PAYMENT BOND
(CONTINUED)

PROVIDED, that any alterations in the work to be done or the materials to be furnished, or changed in the time of completion, which may be made pursuant to the terms of said Contract, shall not in any way release said Contractor or said Surety thereunder, nor shall any extensions of time granted under the provisions of said Contract release either said Contractor or said Surety, and notice of such alterations or extensions of the Contract is hereby waived by said Surety.

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

(Contractor's Seal)

(Surety Seal)

By: _____
(Signature)

(Address & Telephone Number)

By: _____
(Signature)

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS,

That _____ as Contractor,

and _____ as Surety,

are held firmly bound unto _____

hereinafter called "Owner", in the sum of _____

_____ dollars,

for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

WHEREAS, said Contractor has been awarded and is about to enter into the annexed Contract with said Owner to perform and furnish all work as specified or indicated in the Contract Documents entitled _____

NOW THEREFORE, if said Contractor shall perform all the requirements of said Contract required to be performed on his part, at the times and in the manner specified therein, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

PROVIDED, that any alterations in the work to be done or the materials to be furnished, or changed in the time of completion, which may be made pursuant to the terms of said Contract, shall not in any way release said Contractor or said Surety thereunder nor shall any extensions of time granted under the provisions of said Contract release either said Contractor or said Surety, and notice of such alterations or extensions of the Contract is hereby waived by said Surety.

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

(Contractor's Seal)

(Surety Seal)

By: _____
(Signature)

(Address & Telephone Number)

By: _____
(Signature)

(SEAL AND NOTARIAL ACKNOWLEDGEMENT OF SURETY)

CITY OF WATERFORD
DEPARTMENT OF PUBLIC WORKS
SPECIAL PROVISIONS

SECTION 1
SPECIFICATIONS AND PLANS

The work embraced herein shall be done in accordance with the Standard Specifications (current edition), and the Standard Plans (current edition), of the Department of Transportation insofar as the same may apply; in accordance with the City of Waterford's Standard Plans and Specifications, which plans and specifications are hereinafter referred to same; and in accordance with the following special provisions. In case of conflict between the Standard Specifications and these special provisions, the special provisions shall take precedence over and be used in lieu of the conflicting portions.

Amendments to the Standard Specifications set forth in these special provisions shall be considered as part of the Standard Specifications for the purposes set forth in Section 5-1.04, "Coordination and Interpretation of Plans, Standard Specifications and Special Provisions," of the Standard Specifications. Whenever either the term "Standard Specifications is amended" or the term "Standard Specifications are amended" is used in the special provisions, the indented text or table following the term shall be considered an amendment to the Standard Specifications. In case of conflict between such amendments and the Standard Specifications, the amendments shall take precedence over and be used in lieu of the conflicting portions.

In the event of a conflict in the Contract documents, the order of precedence from highest to lowest shall be as follows:

- These Special Provisions
- The Project Plans
- City of Waterford's Standard Plans and Specifications
- Standard Specifications

1-1.01 - Definitions And Terms – Whenever in the Standard Specifications, or in any documents or instruments where these specifications govern, the terms State of California, Department of Transportation, Director Engineer, or Laboratory are used, the following terms shall be substituted therefor, and any reference to any of the above terms shall be understood and interpreted to mean and refer to such substituted terms as follows:

STATE OF CALIFORNIA: The City of Waterford

DEPARTMENT OF TRANSPORTATION: The Public Works Department of the City of Waterford.

DIRECTOR: The Director of Public Works of the City of Waterford.

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

LABORATORY: Any laboratory as may be authorized by the City to test materials and work involved in the Contract.

OWNER: The City of Waterford

SECTION 2

BIDDING

2-1.01 - 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 the bidder must observe in the preparation of the proposal form and the submission of the bid.

In accordance with Labor Code Section 1771.1(a):

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

The bidder's bond shall conform to the bond form in the Bid book for the project and shall be properly filled out and executed. The bidder's bond form included in that book may be used.

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in the Bid book. Signing the Proposal shall also constitute signature of the Noncollusion Affidavit.

The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR (Code of Federal Regulations) part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

Failure of the bidder to fulfill the requirements of the Special Provisions for submittals required to be furnished after bid opening, including but not limited to escrowed bid documents, where applicable, may subject the bidder to a determination of the bidder's responsibility in the event it is the apparent low bidder on a future public works contract.

2-1.02 – NOT USED

2-1.03 - Required Listing of Proposed Subcontractors - Each proposal shall have listed therein the name and address of each subcontractor to whom the bidder proposes to subcontract portions of the work in an amount in excess of ½ of one percent of his total bid or \$10,000, whichever is greater, in accordance with the Subletting and Subcontracting Fair Practice Act, commencing with Section 4100 of the Public Contract Code. The bidder's attention is invited to other provisions of said Act related to the impositions of penalties for failure to observe its provisions by using unauthorized subcontractors or buy making or unauthorized substitutions.

A sheet for listing the subcontractors, as required herein, is included in the Proposal.

Bidders are cautioned that this listing requirement is in addition to the requirements to provide a list of DBE subcontractors after the opening of the proposals.

SECTION 3

AWARD AND EXECUTION OF CONTRACT

3-1.01 - General – The bidder’s attention is directed to the provisions in Section 3, “Award and Execution of Contract,” of the Standard Specifications and these special provisions for the requirements and conditions concerning award and execution of contract.

Bid protests are to be delivered to the following address:

City of Waterford
101 E Street
Waterford California, 95386

The right is reserved to reject any and all proposals.

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. Such award, if made, will be made within 10 days after the opening of proposals. This period will be subject to extension for such further period as may be agreed upon in writing between the Owner 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.

3-1.02 - Contract Bonds – The Contractor will be required to execute the performance and payment bonds within fourteen calendar days from the date when the Notice of Award is delivered to the Contractor. The performance and payment bonds must each be in the amount of 100 percent of the Contract price with a corporate surety approved by the Owner and authorized to do business in the state where the Contract is to be performed. Failure to execute the bonds within the time specified shall allow the Owner to consider that the bidder has abandoned the Contract, in which case the check or bidder’s bond accompanying the proposal shall be the property of the Owner.

The bond covering performance shall be conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions, and agreements of the Contract. The bond covering payment shall be conditioned upon the prompt payment by the Contractor to all persons supplying labor and materials to be used in the performance of the Work. Such bond(s) shall also run in favor of any other person or entities required by law and shall be in the form(s) required by applicable statutes, if any, and acceptable to Owner. Evidence of authority of any attorney, in fact, acting for the corporate surety must be provided in the form of a certificate as to his power of attorney and to the effect that it is not terminated and remains in full force and effect on the date of the bond. The expense of such bond(s) shall be borne by the Contractor. If at any time a surety on such bond(s) becomes irresponsible or loses its right to do business in the aforementioned State, the Owner may require another surety, which the Contractor shall furnish within ten calendar days after receipt of written notice to do so.

The performance bond shall guarantee the repair of all damage due to faulty materials or workmanship provided or done by the Contractor. This guarantee shall remain in effect for a period of one year after the date of final acceptance of the job by the Owner.

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 of the contract bonds.

3-1.03 - Execution of Contract – The contract shall be signed by the successful bidder and returned, together with the contract bonds, within 14 calendar days, after the bidder has received the Notice of Award.

3-1.04 - Failure to Execute Contract – Failure of the lowest responsible bidder, or the second lowest responsible bidder, to execute the contract and file acceptable bonds and certificates of insurance as provided herein within 14 calendar days, not including legal holidays, after such bidder has received notice that the contract has been awarded to him, shall be just cause for the annulment of the award and the forfeiture of the proposal guaranty.

3-1.05 - Return of Proposal Guaranties – Within 10 days after the award of the contract to the lowest responsible bidder, the Owner will return the proposal guaranties, other than bidder's bonds, accompanying such of the proposals as are not to be further considered in making the award. Retained proposal guaranties will be held until the contract has been finally executed, after which all proposal guaranties, except bidder's bond and any guaranties which have been forfeited, will be returned to the respective bidders whose proposals they accompany.

SECTION 4

SCOPE OF WORK

4-1.01 - Beginning of Work, Time of Completion and Liquidated Damages – Attention is directed to the provisions in Section 8-1.03, "Beginning of Work," in Section 8-1.06, "Time of Completion," and in Section 8-1.07, "Liquidated Damages," of the Standard Specifications and these special provisions.

Within twenty days after the Effective Date of the Agreement, but before Contractor starts the Work at the site, a conference attended by Contractor, Owner, Engineer and others as appropriate will be held to discuss the preliminary construction schedule, to discuss procedures for handling Shop Drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

The Contractor shall begin work within 30 calendar days after the contract has been approved by the attorney appointed and authorized to represent the City of Waterford, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed.

Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby; however, Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error or discrepancy in the Contract Documents, unless Contractor had actual knowledge thereof or should reasonably have known thereof.

This work shall be diligently prosecuted to completion before the expiration of the contract time.

The Contractor shall pay to the City of Waterford the sum indicated in section 8-1.07 of these Special Provisions for each and every calendar day's delay in finishing the work in excess of the number of calendar days prescribed in the contract documents.

4-1.01B - Intent of Plans and Specifications – The intent of the plans and specifications is to prescribe the details for the construction and completion of the work which the contractor undertakes to perform in accordance with the terms of the contract. Where the plans or specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the contractor shall furnish all labor, materials, tools, equipment, and incidentals, and do all the work involved in executing the contract in a satisfactory and workmanlike manner.

4-1.02 - Final Cleaning Up – Before final inspection of the work, the contractor shall clean up the work, material sites, and all ground occupied by him in connection with the work of all rubbish, excess materials, falsework, temporary structures, and equipment. All parts of the work shall be left in a neat and presentable condition. Full compensation for final cleaning up will be considered as included in the prices paid for the various contract items of work and no separate payment will be made therefor.

4-1.03 - Changes – Extra work means work which was not included in the Drawings or Specifications or in any bid Schedule. Extra work does not include any items for which a unit price was stated in the Bid even if the estimated quantity differs from the actual quantity. The Owner, without invalidating the contract, may order extra work or make changes in or deletions from the work and increase or decrease the Contract price accordingly. All such work shall be executed under the original contract except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such extra work or change. Before becoming effective, all Change Orders must be signed by all parties indicated on the change order form.

The value of such extra work or change shall be determined in one of the following ways:

- A. By estimate and acceptance in a lump sum.
- B. By any unit prices named in the contract or subsequently agreed upon.

C. By Force Account

The contract price shall be adjusted by considering separately any work added and any work deleted. The Contractor agrees that he shall not be entitled to claim damages for anticipated profits on any portion of work that may be deleted. The amount of any adjustment for work deleted from the subsequent monthly pay estimates.

The Owner reserves the right to contract with any person or firm other than the Contractor for any or all extra work.

4-1.03B - Increased or Decreased Quantities – Increases or decreases in the quantity of a contract item of work will be determined by comparing the total pay quantity of such item of work with the Engineer's estimate therefor.

If the total pay quantity of any item of work required under the contract varies from the Engineer's estimate therefor by 25 percent, in the absence of an executed contract change order specifying the compensation to be paid, the compensation payable to the contractor will be a mutually agreed upon amount or will be determined by force account.

4-1.03C - Extra Work – New and unforeseen work will be classed as extra work when determined by the Engineer that such work is not covered by any of the various items for which there is a bid price or by combinations of such items. In the event that portions of such work are determined by the Engineer to be covered by some of the various items for which there is a bid price or combination of such items, the remaining portion of such work will be classed as extra work.

The contractor shall do such extra work and furnish material and equipment therefor upon receipt of an approved contract change order or other written order of the Engineer.

SECTION 5

CONTROL OF WORK

5-1.01 - Authority of Engineer – The Engineer shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the work; all questions which may arise as to the interpretation of the plans and specifications; all questions as to the acceptable fulfillment of the contract on the part of the contractor; and all questions as to compensation. His decision shall be final, and he shall have authority to enforce and make effective such decisions and orders which the contractor fails to carry out promptly. The Engineer will not be responsible or have authority for job safety. Job safety shall be the sole responsibility of the contractor.

5-1.02 - Plans and Working Drawings – The contract plans furnished consist of general drawings and show such details as are necessary to give a comprehensive idea of the construction contemplated. All authorized alterations affecting the requirements and information given on the contract plans shall be in writing.

The contract plans shall be supplemented by such working drawings prepared by the contractor as are necessary to adequately control the work. No change shall be made by the contractor in any working drawing after it has been approved by the Engineer.

Working drawings for cribs, cofferdams, falsework, centering and form work, and for other temporary work and methods of construction the contractor proposes to use, will be required. Such working drawings shall be subject to approval insofar as the details affect the character of the finished work, but details of design will be left to the contractor who shall be responsible for the successful construction of the work.

It is expressly understood, however, that approval of the contractor's working drawings shall not relieve the contractor of any responsibility for accuracy of dimensions and details, or for mutual agreement of dimensions and details. It is mutually agreed that the contractor shall be responsible for agreement and conformity of his working drawings with the contract plans and specifications.

Full compensation for furnishing all working drawings shall be considered as included in the prices paid for the contract item of work to which such drawings relate, and no additional compensation will be allowed therefor.

5-1.03 - Differing Site Conditions

a. Contractor Notification:

Promptly notify the Agency's Engineer if you find either of the following conditions:

1. Physical conditions differing materially from either of the following:
 - Contract documents
 - Job site examination
2. Physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract

Include details explaining the information you relied on and the material differences you discovered.

If you fail to promptly notify the Engineer, you waive the differing site condition claim for the period between your discovery of the differing site condition and your notification to the Engineer.

If you disturb the site after discovery and before the Engineer's investigation, you waive the differing site condition claim.

b. Engineer's Investigation and Decision

Upon your notification, the Engineer investigates job site conditions and:

1. Notifies you whether to resume affected work
2. Decides whether the condition differs materially and is cause for an adjustment of time, payment, or both

5-1.04 - Conformity With Contract Documents and Allowable Deviations – Work and materials shall conform to the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown on the plans or indicated in the specifications. Although measurement, sampling, and testing may be considered evidence as to such conformity, the Engineer shall be the sole judge as to whether the work or materials deviate from the plans and specifications, and his decision as to any allowable deviations therefrom shall be final.

5-1.05 - Coordination and Interpretation of Plans, Specifications, and Special Provisions – The specifications, plans, special provisions, contract change orders, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be cooperative, and to describe and provide for a complete work.

Plans shall govern over these specifications; the special provisions shall govern over both these specifications and the plans.

Should it appear that the work to be done, or any of the matters relative thereto are not sufficiently detailed or explained in these specifications, the special provisions, or the plans, the contractor shall apply to the Engineer for such further explanations as may be necessary and shall conform to them as part of the contract. In the event of any doubt or question arising respecting the true meaning of these specifications, the special provisions, or the plans, reference shall be made to the Engineer, whose decision thereon shall be final.

In the event of any discrepancy, between any drawings and the figures written thereon, the figures shall be taken as correct. Detail drawings shall prevail over general drawings.

5-1.06 - Order of Work – When required by the special provisions or plans, the contractor shall follow the sequence of operations as set forth therein.

Full compensation for conforming to such requirements will be considered as included in the prices paid for the various contract items of work, and no additional compensation will be allowed therefor.

5-1.07 - Superintendence – The contractor shall designate in writing before starting work, an authorized representative who shall have complete authority to represent and to act for the contractor. Said authorized representative shall be present at the site of the work at all times when work is actually in progress on the contract. When work is not in progress, and during periods when work is suspended, arrangements acceptable to the Engineer shall be made for any emergency work which may be required.

5-1.08 - Lines and Grades – See the Special Provisions for staking to be provided by the Engineer.

When the contractor requires such stakes or marks, he shall notify the Engineer of his requirements in writing, a reasonable length of time in advance of starting operations that require such stakes or marks. In no event shall a notice of less than two working days be considered a reasonable length of time.

The Contractor shall carefully preserve stakes and marks set by the Engineer. In case such stakes and marks are destroyed or damaged, they will be replaced at the Engineer's earliest convenience. The contractor will be charged for the cost of replacement or restoration of stakes and marks. This charge will be deducted from any moneys due, or that may become due, the contractor under the contract.

5-1.09 - Inspection – The Engineer shall at all times have access to the work during its construction, and shall be furnished with every reasonable facility for ascertaining that the materials and the workmanship are in accordance with the requirements and intentions of the specification, the special provisions, and the plans. All work done, and all materials furnished, shall be subject to his inspection and approval.

The inspection of the work or materials shall not relieve the contractor of any of his obligations to fulfill his contract as prescribed. Work and materials not meeting such requirements shall be made good and unsuitable work or materials may be rejected, notwithstanding that such work or materials have been previously inspected by the Engineer or that payment therefor has been included in a progress estimate.

Projects financed in whole or in part with State or Federal funds shall be subject to inspection at all times by the agency involved.

5-1.10 - Removal of Rejected and Unauthorized Work – All work which has been rejected shall be remedied, or removed and replaced by the contractor in an acceptable manner and no compensation will be allowed him for such removal, replacement, or remedial work.

Any work done beyond the lines and grades shown on the plans or established by the Engineer, or any extra work done without written authority will be considered as unauthorized work and will not be paid for. Upon order of the Engineer unauthorized work shall be remedied, removed, or replaced at the contractor's expense.

Upon failure of the contractor to comply promptly with any order of the Engineer made under this Section, the Owner may cause rejected or unauthorized work to be remedied, removed, or replaced, and to deduct the costs from any moneys due or to become due the contractor.

5-1.11 - Equipment and Plants – Only equipment and plants suitable to produce the quality of work and materials required will be permitted to operate on the project.

Plants shall be designated and constructed in accordance with general practice for such equipment and shall be of sufficient capacity to insure the production of sufficient materials to carry the work to completion within the time limit.

The contractor shall provide adequate and suitable equipment and plants to meet the above requirements, and when ordered by the Engineer shall remove unsuitable equipment from the work and discontinue the operation of unsatisfactory plants.

The make, model number, and empty gross weight of each unit of compacting equipment shall be plainly stamped or stenciled in a conspicuous place on the unit. The gross weight shall be either the manufacturers rated weight or the scale weight.

5-1.12 - Character of Workers – If any subcontractor or person employed by contractor shall appear to the Engineer to be incompetent or to act in a disorderly or improper manner, he shall be discharged immediately on the requisition of the Engineer, and such person shall not again be employed on the work.

5-1.13 - Final Inspections – Final inspection and acceptance of the work shall be made for the Owner by the Engineer. Such inspection shall be made as soon as practical after the Contractor has notified the Owner in writing that the Work is ready for such inspection.

5-1.14 - LABOR NONDISCRIMINATION – Attention is directed to the following Notice that is required by Chapter 5 of Division 4 of Title 2, California Code of Regulations.

**NOTICE OF REQUIREMENT FOR NONDISCRIMINATION PROGRAM
(GOV. CODE, SECTION 12990)**

Your attention is called to the "Nondiscrimination Clause", set forth in Section 7-1.01A(4), "Labor Nondiscrimination," of the Standard Specifications, which is applicable to all nonexempt state contracts and subcontracts, and to the "Standard California Nondiscrimination Construction Contract Specifications" set forth therein. The Specifications are applicable to all nonexempt state construction contracts and subcontracts of \$5,000 or more.

5-1.15 - PREVAILING WAGE – Attention is directed to Section 7-1.01A(2), "Prevailing Wage," of the Standard Specifications.

The general prevailing wage rates determined by the Director of the California Department of Industrial Relations, for the county or counties in which the work is to be done, are available at the following internet web site:

<http://www.dir.ca.gov/OPRL/dprevwagedetermination.htm>

The Federal prevailing wage rates as determined by the United States Secretary of Labor are available at the following internet web site:

<http://www.wdol.gov/dba.aspx>

If there is a difference between the wage rates predetermined by the Secretary of Labor and the wage rates determined by the Director of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate.

5-1.16 - NOT USED

5-1.17 - REMOVAL OF ASBESTOS AND HAZARDOUS SUBSTANCES – When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The Contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

In conformance with Section 25914.1 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If delay of work in the area delays the **current** controlling operation, the delay will be considered a right of way delay and the Contractor will be compensated for the delay in conformance with the provisions in Section 8-1.09, "Right of Way Delays," of the Standard Specifications.

5-1.18 - SUBCONTRACTING – No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Pub Cont Code § 4100 et seq., the City of Waterford may exercise the remedies provided under Pub Cont Code § 4110. The City of Waterford may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

The Contractor shall perform work equaling at least 30 percent of the value of the original total bid with the Contractor's own employees and equipment, owned or rented, with or without operators.

Each subcontract must comply with the contract.

Each subcontractor must have an active and valid State contractor's license with a classification appropriate for the work performed (Bus & Prof Code, § 7000 et seq.)

Each subcontractor must be registered to perform public work with the California Department of Industrial Relations.

Submit copies of subcontracts upon request by the Engineer.

Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred contractor; a current list of debarred contractors is available at the Department of Industrial Relations web site at: <http://www.dir.ca.gov/dlse/debar.html>

Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

Each subcontract and any lower-tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts" in Section 14 of these special provisions. Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due or to become due, until correction is made. Failure to comply may result in termination of the contract.

5-1.19 - PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS – A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provisions in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The

10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of Section 7108.5 shall subject the violating contractor or subcontractor to the penalties, sanction and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

5-1.20 - PROMPT PAYMENT OF WITHHELD FUNDS TO SUBCONTRACTORS – The agency shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the agency, of the contract work, and pay retainage to the prime contractor based on these acceptances. The prime contractor, or subcontractor, shall return all monies withheld in retention from a subcontractor within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the agency. Federal law (49CFR26.29) requires that any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

5-1.21 - PAYMENTS -- Attention is directed to Section 9-1.06, "Partial Payments," and 9-1.07, "Payment After Acceptance," of the Standard Specifications and these special provisions. No partial payment will be made for any materials on hand but not incorporated into the work.

5-1.22 - ENCROACHMENT PERMIT – Not applicable.

SECTION 6

CONTROL OF MATERIALS

6-1.01 - Source of Supply and Quality of Materials -- The contractor shall furnish all materials required to complete the work, except materials that are designated in the special provisions to be furnished by the Owners.

Only materials conforming to the requirements of the specifications shall be incorporated in the work.

The materials furnished and used shall be new, except as may specifically be provided elsewhere in these specifications, on the plans, or in the special provisions. The materials shall be manufactured, handled, and used in a workmanlike manner to insure completed work in accordance with the plans and specifications.

The contractor shall furnish the Engineer a list of his sources of materials. The list shall be furnished to the Engineer in sufficient time to permit proper inspecting and testing of materials to be furnished from such listed sources in advance of their use. The contractor shall furnish without charge such samples as may be required. Inspection and tests, if made at any point other than the point of incorporation of the work, in no way shall be considered as a guaranty of acceptance of such material nor of continued acceptance of material presumed to be similar to that upon which inspections and test have been made.

Manufacturer's warranties, guarantees, instruction sheets and part's lists, which are furnished with certain articles or materials incorporated in the work, shall be delivered to the Engineer before acceptance of the contract.

Reports and records of inspections made and tests performed, when available at the site of the work, may be examined by the contractor.

6-1.02 - Storage of Materials – Articles or materials to be incorporated in the work shall be stored in such a manner as to insure the preservation of their quality and fitness for the work, and to facilitate inspection.

6-1.03 - Defective Materials – All material which the Engineer has determined do not conform to the requirements of the plans and specifications will be rejected, whether in place or not. They shall be removed immediately from the site of the work, unless otherwise permitted by the Engineer. No rejected material, the defects of which have been subsequently corrected, shall be used in the work, unless approval in writing has been given by the Engineer. Upon failure of the contractor to comply promptly with any order of the Engineer made under this Section, the Engineer shall have authority to cause the removal and replacement of rejected material and to deduct the cost thereof from any moneys due or to become due the contractor.

6-1.04 - Trade Names and Alterations – For convenience in designation on the plans or in the specifications, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and his catalogue information. The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:

The burden of proof as to the quality and suitability of alternatives shall be upon the contractor and he shall furnish all information necessary as required by the Engineer. The Engineer shall be the sole judge as to the quality and suitability of alternative articles or materials and his decision shall be final.

Whenever the specifications permit the substitution of a similar or equivalent material or article, no tests or action relating to the approval of such substitute material will be made until the request for substitution is made in writing by the contractor accompanied by complete data as to the equality of the material or article proposed. Such request shall be made in ample time to permit approval without delaying the work.

6-1.05 - Plant Inspection – The Engineer may inspect the production of materials, or the manufacture of products at the source of supply. Plant inspection, however, will not be undertaken until the Engineer is assured of the cooperation and assistance of both the contractor and the material producer. The Engineer or his authorized representative shall have free entry at all times to such parts of the plant as concerns the manufacture or production of the materials. Adequate facilities shall be furnished free of charge to make the necessary inspection. The Owner assumes no obligation to inspect materials at the source of supply.

6-1.06 - Testing – Unless otherwise specified, all tests shall be performed in accordance with the methods used by the California Department of Transportation, All tests that are performed shall be made by the Engineer or his designated representative.

Whenever a reference is made in the specifications to a test method by California Number, it shall mean the test method in effect on the day the Notice to Contractors for the work is dated.

Whenever a reference is made in the specifications to a specification or test designation either of the ASTM, the AASHTO, Federal Specifications, or any other recognized national organization, and the number or other identification accompanying the test designation representing the year of adoption or latest revision if the test is omitted, it shall mean the test method in effect on the day the Notice to Contractors for the work is dated.

When requested by the Engineer, the contractor shall furnish, without charge, samples of all materials entering into the work, and no material shall be used prior to approval by the Engineer, except as provided in this Section. Samples of material from local sources shall be taken by or in the presence of the Engineer, otherwise the samples will not be considered for testing.

SECTION 7

LEGAL RELATIONS AND RESPONSIBILITY

7-1.01 - Laws To Be Observed – The contractor shall keep himself fully informed of all existing and future State and National laws and county and municipal ordinances and regulations which in any manner affect these engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. He shall at all times observe and comply with, and shall cause all his agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders, and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the Owner and all officers and employees thereof connected with the work against any claim or liability arising from, or based on, the violation of any such law, ordinance, regulation, order, or decree.

7-1.02 - Hours of Labor – Eight hours labor constitutes a legal day's work. The contractor shall forfeit, as a penalty to the Owner, \$25.00 for each workman employed in the execution of the contract by the contractor or any subcontractor under him for each calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code, and in particular, Section 1810 to Section 1815, thereof, inclusive, except that work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay, as provided in said Section 1815.

7-1.03 - Labor Nondiscrimination - Attention is directed to Section 1735 of the Labor Code which reads as follows: "No discrimination shall be made in the employment of persons upon public works because of their race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons except as provided in Section 1420, and every contractor for public work violating this section is subject to all the penalties imposed for a violation of this chapter."

7-1.04 - Prevailing Wage – In accordance with Section 1771 to 1774 of the Labor Code, for contracts in excess of one thousand dollars (\$1,000) the contractor and all subcontractors under him shall pay all laborers, workmen, and mechanics on all work included in this contract no less than the general prevailing rate of per diem wages for work performed, (to-wit, within the limits if the City), and no less than the general prevailing rate of per diem wages for legal holiday and overtime work in said locality, which per diem wages shall not be less than the stipulated rate contained in a schedule thereof which has been ascertained and determined by the Council to be the general prevailing rate of per diem wages for each draft or type of workman or mechanic needed to execute this contract, and which is now on file with the City Clerk, as set forth in the Notice to Bidders, and by reference it is incorporated herein and made a part hereof.

The contractor shall forfeit, as a penalty to the City, twenty-five dollars (\$25.00) for each laborer, workman, or mechanic employed for each calendar day or portion thereof such laborer, workman, or mechanic is paid less than the said stipulated rates for any work done under this contract by him or by any subcontractor under him in violation of Articles 1 and 2 of Chapter 1 Part 7 of Division 11 of the Labor Code of the State of California, and said sums and amounts which shall have been so forfeited pursuant to the herein paragraph and the said terms of said Labor Code shall be withheld and retained from payments due to the contractor under said contract, pursuant to this contract and the terms of said Labor Code; but no sum shall be so withheld, retained, or forfeited except from the final payment without a full investigation by either the Division of Labor Law Enforcement of the State Department of Industrial Relations or by said Council.

The difference between such stipulated prevailing wage rates and the amount paid to each workman for each calendar day, or a portion thereof, for which each workman was paid less than the stipulated prevailing wage rate shall be paid to each workman by the contractor. The contractor shall comply with the provisions of Section 1775 of the Labor Code of the State of California.

The contractor and subcontractor shall keep accurate payroll records. Certified copies of payroll records shall be provided to the City and the Division of Labor Standards Enforcement of the Department of Industrial Relations in accordance with Section 1776 of the Labor Code of the State of California.

7-1.05 - Contractors Licensing Laws –Attention is directed to the provisions of Chapter 9 of Division 3 of the Business and Professions Code concerning the licensing of contractors.

All bidders and contractors shall be licensed in accordance with the laws of this state, and any bidder or contractor not so licensed, is subject to the penalties imposed by such laws.

7-1.06 - Permits and Licenses – The contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

The contractor shall obtain a permit for construction of a trench or excavation 5 feet or deeper, prior to beginning construction, from the State Industrial Relations Department.

If the Contract amount is in excess of \$25,000, the contractor to whom award is made shall submit a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of any trench or trenches five feet or more in depth. If the plan varies from the shoring systems standards, the plan shall be prepared by a registered Civil or Structural Engineer. In no event shall shoring, sloping, or a protective system be allowed less effective than that required by construction safety orders. The Owner or its Engineer assume no responsibility for the Contractor's plan.

7-1.07 - Patents – The contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on, or incorporated in, the work, and agrees to indemnify and save harmless the Owner and duly authorized representatives from all suits at law, actions of every nature for, or on account of the use of any patented materials, equipment, devices, or processes.

7-1.08 - Safety Provisions – The contractor shall conform to the rules and regulations pertaining to safety established by the California Division of industrial Safety.

7-1.09 - Public Convenience -- The contractor shall so conduct his operations as to offer the least possible obstruction and inconvenience to the public, and he shall have under construction no greater length or amount of work than he can prosecute properly with due regard to the rights of the public. Traffic control and access shall be in accordance with Subsection 7-1.08 of the Standard Specifications, except as herein provided.

The Contractor shall provide general construction signing. The Contractor shall be required to provide adequate signing and flagmen as described herein as required for his operations.

Unless otherwise provided in the special provisions, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible.

Spillage resulting from hauling operations along or across any public traveled way, shall be removed immediately by the contractor at his expense.

Existing traffic signal and street lighting systems shall be kept in operation for the benefit of the traveling public during progress of the work, and other forces will continue routine maintenance of existing systems unless otherwise specified.

Construction operations shall be conducted in such a manner as to cause as little inconvenience as possible to abutting property owners.

Convenience access to driveways, houses, and buildings along the line of the work shall be maintained and temporary approaches to crossings or intersecting streets shall be provided and kept in good condition. When the abutting property owner's access across the right-of-way lines is to be eliminated, or to be replaced under the contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

Culvert installation, or other underground pipe construction, shall be conducted on but one-half of the width of the traveled way at a time, and that portion of the traveled way being used by public traffic shall be kept open and unobstructed until the opposite side of the traveled way is ready for traffic.

The Contractor will be required to provide dust control for his operations. Water or dust palliative shall be applied as ordered by the Engineer for the alleviation or prevention of dust nuisance, The cost of dust control shall be considered as included in the cost of items for which there is a bid price.

In order to expedite the passage of vehicular traffic through or around the work, the contractor shall provide, erect, and maintain all necessary barricades, signs, danger signals, and lights for the protection of the work and the safety of the public. Roadways closed to traffic shall be protected by effective barricades, and signs and obstructions shall be illuminated at night. Suitable warning signs, illuminated at night by lanterns or flares, shall be provided.

Flagmen and guards, while assigned to traffic control, shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Instructions to Flagmen" of the Department of Transportation of the State of California. The equipment shall be furnished and kept clean and in good repair by the contractor at his expense.

The contractor will be required to pay the cost of replacing or repairing all facilities installed for the convenience, direction, or warning of public traffic, that are lost while in his custody, or are damaged by reason of his operations.

Except as otherwise provided under this Section or in the Special Provisions, full compensation for conforming to the requirements of this Section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefore.

7-1.10 - Public Safety - Whenever the contractor's operations create a condition hazardous to traffic or to the public, he shall furnish, at his own expense and without cost to the Owner, such flagmen and guards as are necessary to give adequate warning to the public of any dangerous conditions to be encountered, and he shall furnish, erect, and maintain such fences, barricades, lights, signs, and other devices as are necessary to prevent accidents and avoid damage or injury to the public.

No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic, and at the end of the day's work, and at other times when construction operations are suspended for any reason, the contractor shall remove all equipment and other obstructions from that portion of the roadway open for use by public traffic.

Except as otherwise provided in this section or in the special provisions, compensation for conforming to all of the provisions in this section and in the special provisions, shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefor.

7-1.10A - Flagging Costs – The cost of furnishing all flagmen and guards under "Public Convenience" will be borne by the contractor.

The provisions in this section shall in no way relieve the contractor from his responsibility for providing for the public's convenience or safety, nor relieve the contractor from his responsibility for damage as provided under "Responsibility for Damage," in this section.

7-1.11 - Preservation of Property – Due care shall be exercised to avoid injury to existing improvements or facilities, utility facilities, adjacent property, and trees and shrubbery that are not to be removed.

Trees and shrubbery that are not to be removed, and pole lines, fences, signs, markers and monuments, buildings, and structures, conduits, pipe lines (under or above ground) sewer and water lines, all street facilities, and any other improvements or facilities within or adjacent to the work shall be protected from injury or damage, and if ordered by the Engineer, the contractor shall provide and install suitable safeguards, approved by the Engineer, to protect such objects from injury or damage. If such objects are injured or damaged by reason of the contractor's operations, they shall be replaced or restored at the contractor's expense.

The Engineer may make, or cause to be made, such temporary repairs as are necessary to restore to service any damaged street facility. The cost of such repairs shall be borne by the contractor and may be deducted from any

monies due, or to become due, to the contractor under the contract.

The fact that any underground facility is not shown upon the plans shall not relieve the contractor of his responsibility under this Section. It shall be the contractor's responsibility to ascertain the existence of any underground improvements or facilities which may be subject to damage by reason of his operations.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and doing all the work involved in protecting or repairing property as above specified, shall be considered as included in the prices paid for various contract items of work and no additional compensation will be allowed therefor.

7-1.12 - Insurance – The contractor shall take out and maintain during the life of his contract, such Commercial General Liability and Property Damage Insurance as shall protect him, the Owner, the Engineer, and their agents from all claims for personal injury, including accidental death, as well as from all claims for property damage arising from operation under this contract. The amounts of such insurance shall be as hereinafter set forth.

The contractor shall require the subcontractors, if any, to take out and maintain similar Commercial General Liability and Property Damage Insurance.

In case any of the work under this contract is to be performed on, or at, the site of the project by the subcontractor, the contractor shall take out and maintain such contractor's Contingent or Protective Insurance as will protect him, the Owner, and the Engineer from damage claims arising from the operations of any subcontractor. The amounts of such insurance shall be hereinafter set forth.

As above provided, the contractor shall take and maintain:

7-1.12A - 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" from CG 0001).
2. Insurance Services office form number CA 0001 (Ed. 1/78) covering Automobile Liability, code 1 "any auto" and endorsement CA 0025.
3. Workers' Compensation insurance as required by the Labor Code of the State of California and Employers Liability insurance.

7-1.12B - MINIMUM LIMITS OF INSURANCE - Contractor shall maintain limits no less than:

1. General Liability: \$1,000,000 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: Workers' compensation limits as required by the Labor Code of the State of California and Employers Liability limits of \$1,000,000 per accident.

7-1.12C - DEDUCTIBLES AND SELF- INSURED RETENTION'S - Any deductibles or self-insured retention 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 retention 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.

7-1.12D - OTHER INSURANCE PROVISIONS - The policies are to contain, or be endorsed to contain, the following provisions:

1. General Liability and Automobile Liability Coverage's

- a. The City, 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, its officers, officials, employees or volunteers.

- b. The Contractor's insurance coverage shall be primary insurance as respects the City, its officers, officials, employees and volunteers. Any insurance of self-insurance maintained by the City, 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, its 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, its officers, officials, employees and volunteers for losses arising from work performed by the Contractor for the City.

3. All Coverages - Each insurance policy 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 (30) days' prior written notice by certified mail, return receipt requested, has been given to the City.

7-1.12E - ACCEPTABILITY OF INSURERS - Insurance is to be placed with insurers with a Bests rating of no less than A: VII.

If the contractor has fully satisfied the Owners of his responsibility and capacity under the workmen's compensation laws, if any, to act as self-insurer, he may so act, and in such a case, the insurance required in the paragraph second above need not be provided.

In the event the form of any policy or certificate, or the amount of the insurance or the companies writing same are not satisfactory to the Owners, the contractor shall furnish other policies or certificates in form and amount, and with companies satisfactory to the Owners. The contractor shall not cause any policies to be

canceled or permit it to lapse, and all policies shall include a clause to the effect that the policy or certificate shall not be subject to cancellation or to a reduction in the required limits of liability or amounts of insurance until notice has been mailed to the Owners stating when, not less than ten (10) days thereafter, such cancellation or reduction shall be effective. All certificates of insurance, authenticated by the proper officer of the insurer, shall state in particular those insured, the extent of the insurance, the location and operations to which the insurance applies, the expiration date, and the above-mentioned notice of cancellation clause.

The contractor shall furnish to the Owners at the date of delivering the signed contracts and bonds, certificates or riders duly executed on behalf of the surety company, certifying as to the amounts of insurance carried, and providing for the coverage therein of the Owners, their officers, agents, and employees, within all risks arising out of the project.

7-1.13 - Cooperation — Should construction be under way by other forces or by other contractors within or adjacent to the limits of the work specified, or should work of any other nature be under way by other forces within or adjacent to said limits, the contractor shall cooperate with all such other contractors or other forces to the end that any delay or hindrance to their work will be avoided. The right is reserved to perform other or additional work at or near the site at any time, by the use of other forces.

When two or more contractors are employed on related or adjacent work, each shall conduct his operations in such a manner as not to cause any unnecessary delay or hindrance to the other. Each contractor shall be responsible to the other for all damage to work, to person, or property caused to the other by his operations, and for loss caused the other due to his unnecessary delays or failure to finish the work within the time specified for completion

7-1.14 - Contractor's Responsibility for the Work and Materials -- Until the acceptance of the contract, the

contractor shall have the charge and care of the work and of the materials to be used therein, and shall bear the risk of injury, loss, or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the work. The contractor shall rebuild, repair, restore, and make good all injuries, losses, or damage to any portion of the work or the materials occasioned by any cause before its completion and acceptance and shall bear the expense thereof, except for such injuries, losses, or damages as are directly and proximately caused by acts of the federal government or the public enemy. The suspension of work from any cause whatever shall not relieve the contractor of his responsibility for the work and materials herein specified.

7-1.14A - Responsibility for Damage – The Owner, Engineer, and all of their officers and employees thereof connected with the work, shall not be answerable or accountable in any manner; for any loss or damage that may happen to the work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the work; for injury to or death of any person or persons either workmen or the public; or for damage to property from any cause which might have been prevented by the contractor, or his workmen, or anyone employed by him.

The contractor shall be responsible for any liability imposed by law, and for injuries to, or death of any person, or damage to property resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or at any time before its completion and final acceptance.

The contractor shall indemnify and save harmless the Owner, Engineer, and all of their officers and employees thereof connected with the work from all claims, suits, or actions of every name, kind, and description, brought for, or on account of, any injuries to or death of any person, or damage to property resulting from the construction of the work, or by or in consequence of any negligence in guarding the work, use of improper materials in construction of the work, or by or on account of any act or omission by the contractor or his agents during the progress of the work or at any time before its completion and final acceptance.

7-1.15 - Personal Liability – Neither the owner, the Engineer, nor any other officer or authorized employee or agent of the Owner or Engineer, shall be personally responsible for any liability arising under or by virtue of the contract. Job safety is the sole responsibility of the Contractor.

7-1.16 - Apprentices – Attention is directed to the provisions in Sections 1777.5 and 1777.6 of the California Labor Code concerning the employment of apprentices by the contractor or by any subcontractor under him.

“Apprenticeable craft or trade,” as used in this section, shall mean a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council. The joint apprenticeship committee shall have the discretion to grant a certificate exempting a contractor from the 1-to-5 ratio set forth in this section when it finds that any one of the following conditions is met:

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

When such exemptions are granted to an organization which represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member contractors will not be required to submit individual applications for approval to local joint apprenticeship committees, provided they are already covered by the local apprenticeship standards.

A contractor to whom the contract is awarded, or any subcontractor under him, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade and who is not

contributing to a fund or funds to administer and conduct the apprenticeship program in any such craft or trade in the area of the site of the public work, to which fund or funds other contractors in the area of the site of the public work are contributing, shall contribute to the fund or funds in each craft or trade in which he employs journeymen or apprentices on the public work in the same amount or upon the same basis and in the same manner as the other contractors do, but where the trust fund administrators are unable to accept such funds, contractors not signatory to the trust agreement shall pay a like amount to the California Apprenticeship Council. The contractor or subcontractor may add the amount of such contributions in computing his bid for the contract. The responsibility of compliance with this section for apprenticeable occupations is the prime contractors.

7-1.17 - Federal Requirements — Contractor is required to comply with all applicable standards, orders, or regulations pursuant to the Clean Air Act of 1970 (42 U.S.C. 1857 et req.) and the Federal Water Pollution Control Act (33 U.S.C. 1251 et req.) as amended.

7-1.18 - Female and Minority Goals

To comply with section II, "Nondiscrimination," of "Required Contract Provisions Federal-Aid Construction Contracts," the Department is including in section 7-1.11C female and minority utilization goals for federal-aid construction contracts and subcontracts that exceed \$10,000.

The nationwide goal for female utilization is 6.9 percent.

The goal for minority utilization [45 Fed Reg 65984 (10/3/1980)] for Stanislaus County is 12.3 percent.

For each July during which work is performed under the Contract, you and each non-material-supplier subcontractor with a subcontract of \$10,000 or more must complete Form FHWA PR-1391 (Appendix C to 23 CFR 230). Submit the forms by August 15.

7-1.19 - Federal Training Program

For the Federal training program, the number of trainees or apprentices is 0.

This section applies if a number of trainees or apprentices is specified in the special provisions.

As part of your equal opportunity affirmative action program, provide on-the-job training to develop full journeymen in the types of trades or job classifications involved.

You have primary responsibility for meeting this training requirement.

If you subcontract a contract part, determine how many trainees or apprentices are to be trained by the subcontractor.

Include these training requirements in your subcontract.

Where feasible, 25 percent of apprentices or trainees in each occupation must be in their 1st year of apprenticeship or training.

Distribute the number of apprentices or trainees among the work classifications on the basis of your needs and the availability of journeymen in the various classifications within a reasonable recruitment area.

Before starting work, submit to the City of Waterford:

Number of apprentices or trainees to be trained for each classification

1. Training program to be used
2. Training starting date for each classification

Obtain the City of Waterford's approval for this submitted information before you start work. The City of Waterford credits you for each apprentice or trainee you employ on the work who is currently enrolled or becomes enrolled in an approved program.

The primary objective of this section is to train and upgrade minorities and women toward journeymen status. Make every effort to enroll minority and women apprentices or trainees, such as conducting systematic and direct recruitment through public and private sources likely to yield minority and women apprentices or trainees, to the

extent they are available within a reasonable recruitment area. Show that you have made the efforts. In making these efforts, do not discriminate against any applicant for training.

Do not employ as an apprentice or trainee an employee:

1. In any classification in which the employee has successfully completed a training course leading to journeyman status or in which the employee has been employed as a journeyman
2. Who is not registered in a program approved by the US Department of Labor, Bureau of Apprenticeship and Training

Ask the employee if the employee has successfully completed a training course leading to journeyman status or has been employed as a journeyman. Your records must show the employee's answers to the questions.

In your training program, establish the minimum length and training type for each classification. The City of Waterford and FHWA approves a program if one of the following is met:

1. It is calculated to:
 - Meet the your equal employment opportunity responsibilities
 - Qualify the average apprentice or trainee for journeyman status in the classification involved by the end of the training period
2. It is registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, and it is administered in a way consistent with the equal employment responsibilities of Federal-aid highway construction contracts

Obtain the State's approval for your training program before you start work involving the classification covered by the program.

Provide training in the construction crafts, not in clerk-typist or secretarial-type positions. Training is allowed in lower level management positions such as office engineers, estimators, and timekeepers if the training is oriented toward construction applications. Training is allowed in the laborer classification if significant and meaningful training is provided and approved by the division office. Off-site training is allowed if the training is an integral part of an approved training program and does not make up a significant part of the overall training.

The City of Waterford reimburses you 80 cents per hour of training given an employee on this contract under an approved training program:

1. For on-site training
2. For off-site training if the apprentice or trainee is currently employed on a Federal-aid project and you do at least one of the following:
 - Contribute to the cost of the training
 - Provide the instruction to the apprentice or trainee
 - Pay the apprentice's or trainee's wages during the off-site training period
3. If you comply this section.

Each apprentice or trainee must:

1. Begin training on the project as soon as feasible after the start of work involving the apprentice's or trainee's skill
2. Remain on the project as long as training opportunities exist in the apprentice's or trainee's work classification or until the apprentice or trainee has completed the training program

Furnish the apprentice or trainee:

1. Copy of the program you will comply with in providing the training
2. Certification showing the type and length of training satisfactorily completed

7-1.20 - Title VI Assurances:

During the performance of this Agreement, the contractor, for itself, its assignees and successors in interest (hereinafter collectively referred to as CONTRACTOR) agrees as follows:

- (1) Compliance with Regulations: CONTRACTOR shall comply with the regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the REGULATIONS), which are herein incorporated by reference and made a part of this agreement.
- (2) Nondiscrimination: CONTRACTOR, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, sex, national origin, religion, age, or disability in the selection and retention of sub-applicants, including procurements of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the agreement covers a program set forth in Appendix B of the Regulations.
- (3) Solicitations for Sub-agreements, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by CONTRACTOR for work to be performed under a Sub-agreement, including procurements of materials or leases of equipment, each potential sub-applicant or supplier shall be notified by CONTRACTOR of the CONTRACTOR'S obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- (4) Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the California Department of Transportation or FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the California Department of Transportation or the FHWA as appropriate, and shall set forth what efforts CONTRACTOR has made to obtain the information.
- (5) Sanctions for Noncompliance: In the event of CONTRACTOR's noncompliance with the nondiscrimination provisions of this agreement, the California Department of Transportation shall impose such agreement sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
 - (a) withholding of payments to CONTRACTOR under the Agreement within a reasonable period of time, not to exceed 90 days; and/or
 - (b) cancellation, termination or suspension of the Agreement, in whole or in part.
- (6) Incorporation of Provisions: CONTRACTOR shall include the provisions of paragraphs (1) through (6) in every sub-agreement, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

CONTRACTOR shall take such action with respect to any sub-agreement or procurement as the California Department of Transportation or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that, in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a sub-applicant or supplier as a result of such direction, CONTRACTOR may request the California Department of Transportation enter into such litigation to protect the interests of the State, and, in addition, CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

SECTION 8

PROSECUTION AND PROGRESS

8-1.01 - Subcontracting — The contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control.

No subcontractor will be recognized as such, and all persons engaged in the work of construction will be considered as employees of the contractor, and he will be held responsible for their work, which shall be subject to the provisions of the contract and specifications.

The contractor shall perform with his own organization, work of a value amounting to not less than 50 percent of the remainder obtained by subcontracting from the total original contract value the sum of any items that may be designated as "Specialty Items" in the special provisions. Where an entire item is subcontracted, the value of work subcontracted will be based on the contract bid price. When a portion of an item is subcontracted, the value of work subcontracted will be based on the estimated cost of such portion of the contract item, determined from information submitted by the contractor, subject to approval by the Engineer.

Before any work is started on a subcontract, the Contractor shall file with the Engineer at his office, a written statement showing the work to be subcontracted, giving the names of the subcontractors and the description of each portion of the work to be so subcontracted.

When a portion of the work which has been subcontracted by the contractor is not being prosecuted in a manner satisfactory to the Engineer, the subcontractor shall be removed immediately on the requisition of the Engineer and shall not again be employed on the work.

8-1.02 - Assignment — The performance of the contract may not be assigned, except upon the written consent of the Engineer. Consent will not be given to any proposed assignment which would relieve the original contractor or his surety of their responsibilities under the contract, nor will the Engineer consent to any assignment of a part of the work under the contract.

The contractor may assign moneys, due or to become due, him under the contract and such assignment will be recognized by the Owners, if given proper notice thereof, to the extent permitted by law, but any assignments of moneys shall be subject to all proper set-offs in favor of the Owners and to all deductions provided for in the contract and particularly all money withheld, whether assigned or not, shall be subject to being used by the Owners for the completion of work in the event that the contractor should be in default therein.

8-1.03 - Beginning of Work — The contractor shall begin work within 30 calendar days after the contract has been approved by the attorney appointed and authorized to represent the City of Waterford, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed, and shall diligently prosecute the same to completion within the time limit provided in the contract documents.

Should the contractor begin work in advance of receiving notice that the contractor has been approved as above provided, any work performed by him in advance of the said date of approval shall be considered as having been done by him at his own risk and as a volunteer unless said contract is so approved.

The delivery to the Owners, for execution and approval, of the contract properly executed on behalf of the contractor and surety shall constitute the contractor's authority to enter upon the site of work and to begin operations, subject to his assumption of the risk of the disapproval of the contract, and subject also the following:

- (1) Notice in writing of the contractors' intention to start work prior to approval, specifying the date on which he intends to start, shall be given to the Engineer at least two working days in advance.
- (2) The contractor shall, on commencing operations, observe all provisions of the specifications relating thereto.
- (3) All work done according to the contract prior to its approval, will, when the contract is approved, be considered authorized work and will be paid for as provided in the contract.

8-1.04 - Temporary Suspension of Work — The Owner shall have the authority to suspend the work wholly or in part, for such period as it may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary due to the failure on the part of the contractor to perform a provision of the contract. The contractor shall immediately comply with the written order of the Owner to suspend the work wholly or in part. The suspended work shall be resumed when approved in writing by the Owner.

8-1.05 - Time of Completion — The contractor shall complete the work called for under the contract in all parts and requirements, within the number of calendar days set forth in the contract documents.

The current controlling operation, or operations, is to be construed to include any feature of the work considered at the time by the Engineer and the contractor, which, if delayed, will delay the time of completion of the contract.

8-1.06 - Liquidated Damages — It is agreed by the parties to the contract, that in case all the work called for under the contract in all parts and requirements is not finished or completed within the number of calendar days as set forth in the special provisions, damage will be sustained by the Owners, and that it is, and will be, impracticable and extremely difficult to ascertain and determine the actual damage which the Owners will sustain in the event of, and by reason of, such delay; and it is, therefore, agreed that the Contractor will pay to the Owners, the sum of one thousand dollars (\$1,000) per day for each and every calendar day's delay in finishing the work in excess of the number of days prescribed; and the contractor agrees to pay said Liquidated damages herein provided for, and further agrees that the Owners may deduct the amount thereof from any moneys due, or that may become due, the contractor under the contract.

It is further agreed that in case the work called for under the contract is not finished and completed in all parts and requirements within the number of days specified, the Owners shall have the right to increase the number of days, or not, as may seem best to serve the interest of the Owners, and if they decide to increase the said number of days, they shall further have the right to charge the contractor, his heirs, assigns, or sureties and to deduct from the final payment for the work all or any part as it may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the contract, and which accrue during the period of such extension, except that cost of final surveys and preparation of final estimate shall not be included in such charges.

The contractor will be granted an extension of time and will not be assessed with liquidated damages or the cost of engineering and inspection for any portion of the delay in completion of the work beyond the time named in the special provisions for the completion of the work caused by acts of God or of the Public enemy, fire, floods, epidemics, quarantine restrictions, strikes, labor disputes, shortages of materials, and freight embargoes, provided that the contractor should notify the Engineer in writing of the causes of delay. The Engineer shall ascertain the facts and the extent of the delay, and his findings thereon shall be final and conclusive.

8-1.07 - Utilities — The right is reserved to the Owner and the owners of facilities, or their authorized agents, to enter upon the work for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. The contractor shall cooperate with forces engaged in such work and shall conduct his operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such other forces.

Attention is directed to the possible existence of underground facilities not known to the Owner in a location different from that which is shown on the plans or in the special provisions. The contractor shall take steps to ascertain the exact location of all underground facilities prior to doing work that may damage such facilities or interfere with their service.

The Contractor shall not interfere with the operations of any existing utility lines during the progress of the work. All utility pipes or lines, conduits, or structures encountered in, across, or near the trench excavation. The Contractor shall be responsible for any damage or injury to such pipes, conduits, or structures and shall replace and/or repair at his own expense any such damage or injury using like or equal materials as approved by the Engineer and the applicable utility company.

8-1.08 - Owners Right to Take Over the Work — If the contractor should be adjudged a bankrupt, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed to take over his affairs, or if he should fail to prosecute the work with due diligence and carry the work forward in accordance with the work schedules and the time limits set forth in the contract documents, or if he should fail to substantially perform one or more of the provisions of the contract, including all provisions relating to equal employment opportunity, the Owner shall inform the contractor and his surety, stating its intention to exercise one of the remedies hereinafter set forth and the grounds upon which the Owner bases its right to exercise such remedy.

In any event, unless the matter complained of is satisfactorily cleared within ten days after service of such notice, the Owner may, without prejudice to any other right or remedy, exercise one of such remedies at once, having first obtained a certificate from the Engineer that sufficient cause exists to justify such action.

(1) The Owner may terminate the services of the contractor, which termination shall take effect immediately upon service of notice thereof on the contractor and his surety, whereupon the surety shall have the right to take over and perform the contract. If the surety does not commence performance of the contract within ten days after service on surety of the notice of termination, the Owner may itself take over the work, take possession of and use all materials, tools, equipment, and appliances on the premises and prosecute the work to completion by such means as it shall deem best.

In the event of such termination of his service, the contractor shall not be entitled to any further payment under the contract until the work, is completed and accepted. If the Owner takes over the work and if the unpaid balance of the contract price when the Owner takes over the work exceeds the cost of completing the work, including compensation for any damage or expenses incurred by the Owner through the default of the contractor, such excess shall be paid to the contractor. In such event, if such cost expenses, and damages shall exceed such unpaid balance of the contract price, the contractor and his surety shall pay the difference to the Owner. Such cost, expenses, and damages shall be certified by the Engineer.

(2) The Owner may take control of the work and either make good the deficiencies of the contractor itself or direct the activities of the contractor in doing so, employing such additional help as the Owner deems advisable. In such event, the Owner shall be entitled to collect from the contractor and his surety, or to deduct from any payment then or thereafter due the contractor, the costs incurred by it through the default of the contractor, provided the Engineer approves the amount thus charged to the contractor.

(3) The Owner may require the surety on the contractor's performance bond to take control of the work at once and see to it that all deficiencies of the contractor are made good with due diligence. As between the Owner and the surety the cost of making good such deficiencies shall all be borne by the surety. If the surety takes over the work, whether upon termination of the services of the contractor or upon instructions from the Owner to do so, the provisions of the contract shall govern in respect to the work done by the surety, the surety being substituted for the contractor as to such provisions of this section as to the right of the Owner to do the work itself or to take control of the work,

8-1.08A - Contractor's Right to Stop Work or Terminate Contract — If the work shall be stopped under an order of any court or other public authority for a period of three months through no act or fault of the contractor or of anyone employed by him, then the contractor may on seven days' written notice to the Owner and the Engineer, stop work or terminate this contract and recover from the Owner payment for all work executed, any losses sustained on any plant or material, and a reasonable profit. If the Engineer shall fail to issue any certificate for payment, without reasonable cause, within ten days after it is due, or if the Owner shall fail, without reasonable cause, to pay the contractor within fifteen days after its maturity and presentation any sum certified by the Engineer, then the contractor may on seven days' written notice to the Owner and the Engineer stop work and given written notice of intention to terminate the contract. If the Owner shall thereafter fail to pay the contractor within seven days after receipt of such notice, then the contractor may terminate the contract and recover from the Owner payment for all work executed, any losses sustained upon any plant or materials, and a reasonable profit.

8-1.09 - Indemnify — The Contractor shall indemnify and save harmless the Owner, Engineer and their agents and employees, from and against all losses and all claims, demands, payments, suits, actions, recoveries, and

judgements of every nature and description brought or recovered against them by reason of any act or omission of the said Contractor, his agents, or employees, in the execution of the Work or in making or failing to make payments therefor, or in guarding the same.

8-1.10 - Cost Of Living Council — Each Contractor will comply with the applicable regulations and standards of the Cost of Living Council in establishing wages and prices. The submission of a bid shall constitute a certification by him that amounts to be paid do not exceed maximum allowable levels authorized by the Cost of Living Council regulations or standards.

8-1.11 - Clean Air Act — If this contract exceeds \$100,000, the Contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act of 1970.

8-1.12 - Contractual Restrictions — No member of or delegate to Congress, or Resident Commissioner, shall be admitted to any share of part of this contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this contract is made with a corporation for its general benefit.

No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspecting, construction or material supply contract or any subcontract in connection with the construction of the project shall become directly or indirectly interested personally in this contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner who is in any legislative, executive, supervisory, or other similar function in connection with the construction of the project, shall become directly or indirectly interested personally in this contract, subcontract, insurance contract, or any other contract pertaining to this project.

SECTION 9

MEASUREMENT AND PAYMENT

9-1.01 - Measurement of Quantities – Measurement of quantities shall conform to the provisions of Section 9-1.01 of the Standard Specifications.

9-1.02 - Scope of Payment – The contractor shall accept the compensation provided in the contract as full payment for furnishing all labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the contract; also, for all loss or damage arising from the nature of the work, or from the action of the elements, or from any unforeseen difficulties which may be encountered during the prosecution of the work until the acceptance by the Owner, and for all risks of every description connected with the prosecution of the work: also, for all expenses incurred in consequence of the suspension or discontinuance of the work as provided in the contract; and for completing the work according to the plans and specifications. Neither the payment of any estimate nor of any retained percentage shall relieve the contractor of any obligation to make good any defective work or material.

No payment will be made in any case for loss of anticipated profits.

9-1.02A - Payments for Work Completed – Partial payments will be made as the work progresses at the end of each calendar month, or as soon thereafter as practicable on estimates made by the Representative and as approved by the Owner, provided that the Contractor is performing the overall job in a diligent manner. In making partial payments, there shall be retained ten percent on the amount of each estimate until final completion and acceptance of all the Work.

For any moneys earned by the Contractor and withheld by the Owner to ensure the performance of the contract, the Contractor may, at his request and expense, substitute securities equivalent to the amount withheld in the form and manner and subject to the conditions provided in Chapter 13 (commencing with Section 4590), Division 5. Title I of the Government Code of the State of California.

Upon completion and acceptance of the Work, the Engineer shall issue a certificate that the Work has been substantially completed and accepted by him under the conditions of this Contract, and shall make and approve the final estimate of the Work. A Notice of Completion shall then be filed or recorded by Owner if permitted by law, in full compliance with the applicable statutory requirements. The entire balance found to be due the Contractor, including the retained percentage, but accepting such sums as may be lawfully retained by the Owner, shall be paid to the Contractor 35 days after the filing of the Notice of Completion. Such payment shall be conditioned, however, upon the submission by the Contractor of evidence satisfactory to the Owner that all claims for labor, material, and any other outstanding indebtedness in connection with the Contract have been paid.

If after the Work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Representative so certifies, the Owner shall upon the certificate of the Representative and, without terminating the Contract, make payment for the balance due for that portion of the Work fully completed and accepted. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claim.

Form entitled, "Partial Payment Estimate," shall be used when estimating periodic payments due the Contractor.

9-1.03 - Force Account Payment – Work to be done by force account must be shown on a change order, approved prior to execution of the work, with a not-to-exceed amount shown on the change order. Once the work is complete, a subsequent change order may be executed to reduce the amount to that actually required. When extra work is to be paid for on a force account basis, the labor, materials, and equipment used in the performance of such work shall be subject to the approval of the Engineer and compensation will be determined as follows:

9-1.03A - Labor – The cost of labor used in performing the work, whether the employer is the contractor, subcontractor, or other forces, will be the sum of the following:

- A. Actual Wages paid (including any employer payments to, or on behalf of, workmen for health and welfare,

pension, vacation, and similar purposes).

- B. Labor Surcharge as set forth in the California Department of Transportation publication entitled "Equipment Rental Rates and General Prevailing Wage Rates".

To the cost of Labor as described above, 20 percent will be added to contractor-performed work. If work is subcontracted, 20 percent will be added for the subcontractor and 5 percent for the contractor.

9-1.03B - Materials – The cost of materials incorporated in the work will be the cost to the purchaser, whether contractor, subcontractor, or other forces, from the supplier thereof, except as the following are applicable:

If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the Owner notwithstanding the fact that such discount may not have been taken.

If materials are obtained from a supply or source owned wholly or in part by the purchaser, payment therefor will not exceed the price paid by the purchaser for similar materials furnished from said source on contract items or the current wholesale price for such material delivered to the job site, whichever is lower.

The Owner reserves the right to furnish such materials as it deems advisable, and the contractor shall have no claim for costs and profit on such materials.

To the cost of the materials as described above, 15 percent will be added.

9-1.03C - Equipment Rental – The equipment rental rates shall be these:

- A. Published monthly by the State of California, Department of Transportation, for the month of the date of the proposal.
- B. Construction Equipment Rented from Third Parties -- Charges will be made for construction equipment rented from third parties only if the Engineer determines that such equipment is necessary for the proper prosecution to the force account work, and that neither the contractor nor any of his subcontractors has such equipment on the work. Such charges will consist of: the rental paid for the equipment up to the current prevailing rental rate for such equipment rental details in the area of the work; the charges for moving the equipment to and from the force account work, and payments made for equipment operators, if the equipment must be rented with operators and the cost thereof is not included in the rental rate.
- C. To the cost of equipment rental as described above, 15 percent will be added.

9-1.03D - Records – The contractor shall maintain his records in such a manner as to provide a clear distinction between the direct costs of extra work paid for on a force account basis and the costs of other operations.

The contractor shall furnish the Engineer report sheets in duplicate of each day's extra work paid for on a force account basis no later than seven (7) days following the performance of said work. The daily report sheets shall itemize the materials used, and shall cover the direct cost of labor and the charges for equipment rental, whether furnished by the contractor or subcontractor. The daily report sheets shall provide names or identifications and classifications of workmen, the hourly rate of pay, and hours worked, and, also, the size, type, and identification number of equipment and hours operated.

Materials charges shall be substantiated by valid copies of vendors invoices. Such invoices shall be submitted with the daily report sheets.

Said daily report sheets will be signed by the contractor or his authorized agent.

The Engineer will compare his records with the daily report sheets furnished by the contractor, make any necessary adjustments, and compile the costs of work paid for on a force account basis.

9-1.04 - Maintenance – Neither the final certificate, final payment, nor any provision in the contract shall relieve the contractor of responsibility for faulty materials or workmanship, and he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which may appear or be discovered up to one year after recording or filing of the Notice of Completion, or one year after final payment, if, for any reason, no Notice of

Completion was timely recorded or filed. During the first 30 days of this period, the contractor shall clean out any lines or structures that have become plugged with dirt or debris. The Owner shall give notice of observed defects with reasonable promptness, and the contractor shall proceed to remedy such defects immediately upon receiving such notification. Payment due the Engineer by the Owner for extra service required in the enforcement of the contractor's guarantees after acceptance of the work, shall be paid to the Owner by the contractor or his surety.

9-1.05 - Liens or Claims – If at any time there shall be evidence of any lien or claim for which the Owner might become liable and which is chargeable to the contractor, the Owner shall have the right to retain out of any payment then due or thereafter to become due, an amount sufficient for complete indemnification against such lien or claim. If the Owner has already paid to the contractor all sums due under this contract, or if the balance remaining unpaid is insufficient to protect the Owner, the contractor and his surety shall be liable to the Owner for any loss so sustained.

TECHNICAL SPECIFICATIONS

DIVISION 1 – GENERAL

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DIVISION 2 – SITE CONSTRUCTION

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DIVISION 1 – GENERAL

Section 01011

GENERAL PARAGRAPHS

1. General

The contractor shall furnish all labor, equipment, materials, and service necessary to construct the work shown on the drawings and in the manner described in these specifications. All equipment and materials furnished and installed shall be new.

2. Equals

It is the intention of this specification to allow the contractor to offer to supply either the material specified, or a suitable equivalent. The Engineer will determine whether the material offered as a substitute is equivalent to that specified and the contractor shall obtain permission in writing from the Engineer before making substitution.

3. Condemned Materials and Workmanship

Any materials failing to meet specifications shall be removed from work at once. Any employee of the contractor performing his work contrary to the specifications shall be discharged and not re-employed. No work will be considered as accepted because the Engineer fails to point out its deficiencies. The contractor shall correct any imperfect work whenever discovered.

4. Inspection and Testing

Inspections, tests, or approvals by the Engineer or others shall not relieve the contractor from his obligations to perform the work in accordance with the requirements of the contract documents.

The Owner shall pay for initial compaction testing. The contractor shall pay for all other compaction tests which are in areas which failed the initial compaction test. The contractor shall also pay the cost incurred by the Engineer for inspecting repairs, inspecting and observing retesting, etc., and inspecting all other work which previously failed to conform to the contract. These cost will be deducted from monies due or to become due to the contractor, and will be determined from the Engineer's records.

Payment for repair and all other testing, including all labor, materials, tools, and equipment, of any work to be done by the contractor, shall be included in the cost of the work in place.

The Engineer and his representatives will at all times have access to the work. In addition, authorized representatives and agents of any participating government agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The contractor will provide proper facilities for such access and observation of work and, also, for any inspection, or testing thereof.

If any work is covered contrary to the instructions of the Engineer, it must, if requested by the Engineer, be uncovered for his observation and replaced at the contractor's expense.

In the event the contractor elects to work on a Saturday, Sunday, or legal holiday, the contractor shall notify the Engineer in advance in order that inspection may be performed. The contractor shall pay Owner's expense of providing such special inspection on a Saturday, Sunday, or legal holiday.

If the Contractor elects to work more than 8 hours a day, the Contractor shall pay the Owner for the difference between the normal charge rate for the inspector and the inspector's overtime charge rate.

No work shall be done at night without the prior written approval of the Engineer.

Two working days' notice shall be given before a test is made, and no test shall be made without the presence of the Engineer or his authorized representative.

5. Time of Completion

The contractor shall plan the work and prosecute the same with such diligence that said work shall commence within 10 days after the Notice to Proceed is received, and it shall be completed within the time period set forth in the Construction Agreement.

6. Permits

The contractor shall obtain at his own expense, all necessary permits and comply with all requirements of the permits at his sole expense. The contractor shall obtain a City Business License and a City Encroachment Permit.

7. Shop Drawing Submittals

Submittals shall be made for materials and equipment so the Engineer can examine the submittals for compliance with the plans and specifications. Each submittal shall be accompanied by a letter or form indicating the following:

1. Submittal No.
2. Date of Submittal.
3. Contractor's Company Name.
4. Contractor's Signature (or authorized rep.)
5. Description of Submitted Item.

Submittals may be made within 10 working days of the approval of the contract. However, submittals shall not be made within 15 working days prior to installation of the item submitted for review. Contractor shall submit 3 copies of submittals. Electronic submittals are acceptable where materials samples are not required.

8. Easements

Where the proposed work lies within or near an easement on private property, the Contractor shall take care not to disturb any more property than is necessary and to restore conditions to their original state after completion, including replacement of fences, bushes, pipelines, etc. at his sole expense.

9. Shoring, Sheeting, and Bracing

Attention is directed to Section 5-1.02A "Trench Excavation Safety Plans," and 7-1.01E, "Trench Safety," of the Standard Specifications and these Special Provisions. Engineer will not be responsible for approving the Contractor's detailed plan for worker protection as stated in Section 5-1.02A. Safety is the sole responsibility of the Contractor.

10. Cleanliness of Premises

During the progress of the work, the contractor shall keep the premises reasonably clean. The premises shall be kept and left free of all debris.

11. Materials, Fittings, and Equipment

All materials, fittings, and equipment used in the installation of the work shall be new when installed and in excellent condition when the job is completed.

12. Cleanup

Upon completion of the work and before making application for final inspection of the work, the contractor shall clean all ground occupied by him, in connection with the work, of all rubbish, debris, excess materials, temporary structures, and equipment. All portions of the work shall be left in a neat and sightly condition.

Nothing in this section, however, shall require or permit the contractor to remove warning or directional signs prior to formal acceptance by the Owner.

13. Construction Staking

The Engineer will provide the following construction staking: Locations, line and grade stakes for curb, gutter, sidewalk, driveways, catch basins, storm drain line, and survey monuments will be staked upon request by contractor.

Contractor shall provide a worker to assist the Inspector in checking subgrade and base elevations in the reconstruction area.

14. Record Drawings

The Contractor shall maintain at the job site, two sets of full-size contract drawings marked to show any deviations which have been made from the contract drawings including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the contract drawings. Upon completion of the work, the marked sets of prints shall be delivered to the Engineer. Requests for partial payments will not be approved if the marked prints are not kept current, and request for final payment will not be approved until the marked prints are delivered to the Engineer.

15. Order of Work

Contractor shall submit proposed schedule and order of work for project construction to Engineer for review within ten (10) working days of the approval of the contract.

Contractor shall establish communication with property owners affected by construction and shall cooperate with them to minimize disruption of their operations due to construction.

16. Plans

The following drawings, including standard drawings, are referred to in these Specifications and Contracts as the Plans. Said Plans are attached hereto and are an integral part of the Contract.

Title: (a). City Hall Alleyway Drainage Improvements

* * * *

DIVISION 2 – SITE CONSTRUCTION

Section 02220

SITE PREPARATION, DEMOLITION AND REMOVAL

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Preparation of the site for all work of this Contract including but not limited to clearing, grubbing, demolition, and removals.
- B. Implementation of the SWPPP for the project.

1.02 SUBMITTALS

- A. Traffic Control Plan
- B. Proposed demolition and removal procedures

1.03 REQUIREMENTS

- A. The work includes demolition or removal of all existing pavements in trench or reconstruction areas, and all other materials that must be removed during the construction of the project. All materials resulting from demolition work shall be removed from the project site. Remove rubbish and debris from the project daily, unless otherwise directed; do not allow accumulations.

1.04 DUST CONTROL

- A. Take appropriate action to check the spread of dust, and to avoid the creation of a nuisance in the surrounding area. Do not use water if it results in hazardous or objectionable conditions, such as ice, flooding, or pollution. Comply with all dust regulations imposed by local air pollution agencies.

1.05 PROTECTION

- A. Protect existing pavement, etc. that is to remain by shoring, bracing, and supports. Repair items damaged during performance of the work or replace with new. Do not overload structural elements. Provide new supports or reinforcement for existing construction weakened by demolition or removal work.

1.06 EXPLOSIVES

- A. Use of explosives will not be permitted.

PART 2 – PRODUCTS

2.01 MANUFACTURERS

- A. As approved.

2.02 MATERIALS

- A. As approved.

2.03 MANUFACTURED UNITS

- A. As approved.

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Prior to start of Work, meet with Engineer on site to verify and confirm limits of demolition and removals.

- B. Notify Engineer of all existing above and below grade features not shown on plans but discovered during site preparation. Allow City time to survey discovered elements and determine impact on proposed Work.
- C. Start of Work shall indicate Contractor's acceptance of suitability and compatibility of existing conditions with respect to the Work.

3.02 PREPARATION

- A. Install all temporary controls.
- B. Install security fencing.
- C. Implement requirements of the SWPPP. Monitor performance of BMP's daily.
- D. Erect tree and/or utility pole protection measures.

3.03 EXISTING FACILITIES TO BE REMOVED

- A. Remove portland cement concrete and asphaltic concrete paving and slabs in trench and reconstruction areas.
- B. Where concrete is to be removed, saw concrete along straight lines to a depth of not less than 2 inches. Make each cut in wall perpendicular to the face and in alignment with the cut in the opposite face. The remainder of the concrete shall be broken out, provided that the broken area is concealed in the finished work, and the remaining concrete is sound. At locations where the broken face cannot be concealed, it shall be ground smooth or the saw cut shall be made entirely through the concrete.
- C. Remove tree stumps and roots completely.

3.04 CLEANUP

- A. Debris and Rubbish: Remove and transport debris and rubbish in a manner that will prevent spillage on streets or adjacent areas. Clean up spillage from streets and adjacent areas.
- B. Regulations: Comply with Federal, State, and Local hauling and disposal regulations.

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Section 02310
EARTHWORK [Except Utilities]

PART 1 – GENERAL

1.01 SCOPE OF WORK

- A. Consists of furnishing all labor, materials, tools, and equipment, excavation and embankment incidental to construct the subgrade for pavement, curb, gutter, drive approaches, and sidewalk in accordance with the plans.

1.02 WATER SUPPLY

- A. Contractor shall provide a water supply as required for accomplishing the work of this section.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.01 ROADWAY/STREET EXCAVATION

- A. Perform roadway/street excavation in accordance with Section 19 of the Standard Specifications.

3.02 EXCAVATION

- A. Perform excavation and backfill in accordance with Section 19 of the Standard Specifications.

3.03 EMBANKMENT

- A. Construct roadway embankment in accordance with Section 19 of the Standard Specifications.

3.04 COMPACTION

- A. Perform compaction in accordance with Section 19 of the Standard Specifications.

3.05 DUST CONTROL

- A. Provide dust control in accordance with Section 10 of the Standard Specifications.

3.06 WATERING

- A. Watering shall conform to Section 19 of the Standard Specifications.

3.07 DISPOSAL

- A. Remove all deleterious and excess materials from the site.

3.08 TESTING

- A. Compaction density shall be measured in accordance with ASTM D 2922 and D 3017, latest revision, and shall be taken at locations selected by the Engineer.

* * * *

Section 02315
EARTHWORK FOR UTILITIES

PART 1 – GENERAL

1.01 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.
- B. American Society for Testing and Materials (ASTM) Publications:
 - C 33-81 Concrete Aggregates
 - C 136-81 Sieve Analysis of Fine and Coarse Aggregates
 - D 1557-78 Moisture-Density Relations of Soils and Soil-Aggregate Mixtures using 10-lb. (4.5 KG) Rammer and 18-in. (457-mm) Drop
 - D 2487-69 Classification of Soils for Engineering Purposes (R 1975)
 - D 2922-78 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
 - D 3017-78 Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)

1.02 DESCRIPTION

- A. This section covers earthwork requirements for buried piping and conduit systems.

1.03 SUBMITTALS

- A. Certified Test Reports: Submit certified test reports for the following:
 - 1. Sand tested in accordance with ASTM C 136 and ASTM D 2487

1.04 DELIVERY AND STORAGE

- A. Deliver and store materials in a manner to prevent contamination or segregation.

PART 2 – PRODUCTS

2.04 NATIVE MATERIAL

- A. In general, shall be free of debris (including asphalt), roots, wood, scrap material, vegetable matter, refuse, soft unsound particles, frozen, deleterious, or objectionable materials.

2.05 SELECT NATIVE MATERIAL

- A. Shall conform to the general requirements for native material above and lumps over 2" diameter shall be removed.

2.06 SAND

- A. Shall conform to the general requirements for native material above and shall be clean, coarse-grained material classified as SP by ASTM D 2487 of which not more than 10 percent by weight shall be finer than the No. 200 sieve.

2.07 CRUSHED STONE

- A. Shall conform to the general requirements for gravel above and a minimum of 10 percent of the particles shall have at least the fractured face and gradation shall conform to coarse aggregate requirements of ¾-inch to #4 size in accordance with ASTM C 33.

2.08 BEDDING

- A. Shall be select native material.

2.09 BORROW

- A. Shall be materials conforming to the requirements above.

PART 3 – EXECUTION

3.01 SURFACE PREPARATION

- A. Cutting pavement, Curbs, and Gutters: Make cuts with neat, vertical, parallel, straight lines six inches wider than trench width on each side of trenches and six inches beyond each edge of pits.

3.02 GENERAL EXCAVATION

- A. Shall be to the elevations and dimensions indicated or otherwise specified. Keep excavations free from water while construction is in progress. Make trench sides as nearly vertical as practicable and safe. Sides of trenches shall not be sloped from the bottom of the trench up to the elevation of the top of the pipe and conduit. Excavate hard material to an over-depth at least 4 inches below the bottom of the pipe, conduit, and appurtenances unless otherwise indicated or specified. Stabilize soft, weak, or wet excavations by excavating an additional 8-inches and placing compacted bedding material. Use bedding material to refill over-depths to the proper grade and place in 8-inch maximum layers. Grade bottom of trenches accurately to provide uniform bearing and support for each section of pipe, conduit, and structures on undisturbed soil, or bedding material as indicated or specified at every point along its entire length except for portions where it is necessary to excavate for bell holes and for making proper joints. Dig bell holes and depressions for joints after trench has been graded and dimension as required for properly making the particular type of joint to ensure that the bell does not bear on the bottom of the excavation. Dimensions as indicated or specified.
- B. Excavations shall be back-filled before leaving work for the night, except for bore pits which are protected in accordance with all applicable safety regulations.

3.03 GENERAL BEDDING

- A. Shall be of the materials and depths as indicated or specified. Ensure that bedding is placed completely under pipe haunches. Place bedding in 8-inch maximum loose lifts. Provide uniform and continuous support for each section of structure except at bell holes or depressions necessary for making proper joints.
- B. Refill: Is defined as material placed in excavation to correct over-cuts in depth.

3.04 GENERAL BACK-FILLING

- A. Shall be as indicated or specified. Place in 8-inch maximum loose lifts to one foot above pipe unless otherwise specified. Bring up evenly on each side, and for the full length, of the structure. Ensure that no damage is done to structures or protective coatings thereon. Place the remainder of the back-fill in 8-inch maximum loose lifts unless otherwise specified. Compact each loose lift as specified in Paragraph "General Compaction" before placing the next lift. Do not back-fill in freezing weather, where the material in the trench is already frozen or is muddy, except as authorized. Where unacceptable settlements occur in trenches and pits due to improper compaction, excavate to the depth necessary to rectify the problem, then back-fill and compact the excavation as specified herein and restore the surface to the required elevation.

3.05 GENERAL COMPACTION

- A. Use hand-operated plate type vibratory or other suitable hand tampers in areas not accessible to larger rollers or compactors. Be careful to avoid damaging pipes and protective pipe coatings. Compaction shall be in accordance with the following unless otherwise specified. If necessary, the Contractor's selected equipment and construction procedure shall be altered, changed or modified in order to meet the specified compaction requirements.
- B. Compaction of Refill: In soft, weak, or wet soils tamp refill to consolidate and densify the material. In stable soils compact to 90 percent ASTM D 1557, Method D, maximum density.
- C. Compaction of Bedding: Compact to 90 percent of ASTM D 1557, Method D, maximum density.
- D. Compaction of Back-fill: Compaction shall be to 90 percent of ASTM D 1557, Method D, maximum density, except as otherwise specified herein.

3.06 SPECIAL EARTHWORK INSTALLATION REQUIREMENTS

- A. Manholes and Other Appurtenances: Provide at least 12 inches clear from outer surfaces to the ground. Remove unstable soil that is incapable of supporting the structure to an over-depth of one foot and refill with crushed stone to the proper elevation. Refill over-depths with crushed stone to the required grade and compact to 95 percent of ASTM D 1557, Method D, maximum density.
- B. Roads and Streets (Paved or Unpaved), and within 4-Feet of Pavement or Travel Way: Place back-fill in 8-inch maximum loose lifts. Compact back-fill surrounding pipes, ducts, conduits, and other structures as specified herein. Compact back-fill to 90 percent of ASTM D 1557, Method D, maximum density except compact the top 24 inches to 95 percent of ASTM D 1557, Method D, maximum density. Back-fill in a manner to permit the rolling and compacting of the completed excavation with the adjoining material to provide the specified density so that paving of the area can proceed immediately after back-filling has been completed. Compaction requirements for materials in pavement sections above the subgrade level shall be as specified in Section 02640, Asphalt Concrete Pavement.

3.07 FINISH OPERATIONS

- A. Grading: Shall be to finished grades indicated within one tenth of a foot. Existing grades which are to remain but are disturbed by the Contractor's operations shall be graded as directed.
- B. Disposition of Surplus Material: Surplus or other soil material not required or suitable for filling, back-filling, or grading shall be removed.
- C. Protection of Surfaces: Protect newly graded areas from traffic, erosion, and settlements that may occur. Repair or re-establish damaged grades, elevations, or slopes.
- D. Pavement Repair: Repair pavement, curbs, and gutters as specified in Section 02640, Asphalt concrete For Vehicular Traffic and Section 03302, Cast-In-Place Concrete (Minor Building Construction). Do not repair pavement until trench or pit has been back-filled and compacted as herein specified. Provide a temporary road surface over the back-filled portion until permanent pavement is repaired. Remove and dispose of temporary road surface material when permanent pavement is placed. As a minimum, one way traffic shall be maintained at all times on roads and streets crossed by trenches; roads and streets shall be fully opened to traffic at the end of each day, unless otherwise noted.

3.08 TESTING

- A. Compaction density testing shall be measured in accordance with ASTM D 2922 and D 3017, and shall be taken at locations selected by the Engineer. In order to test the relative density in the critical area immediately around the pipe, the contractor may be required to spot excavate down to the installed pipeline so that proper compaction tests can be obtained. This will only be required if the inspector feels the pipe and back-fill was not installed in accordance with the specifications. After testing, the area shall be compacted as indicated above.

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Section 02335
SUBGRADE AND ROADBED

PART ONE -GENERAL

1.01 SECTION INCLUDES

- A. Subgrade preparation for all paving and surfacing

1.02 RELATED WORK

- A. Section 02300 -Earthwork

1.03 MEASUREMENT AND PAYMENT

- A. No separate payment or compensation shall be made for work of this Section.
- B. Full compensation and payment for work of this Section shall be considered as part of and included in payment for each construction item for which the work is executed.

PART TWO - PRODUCTS

2.01 MATERIALS

- A. Comply with requirements of Section 02300

PART THREE - EXECUTION

3.01 EXAMINATION

- A. Verify established grades are in conformance with requirements.
- B. Locate, identify, and protect from damage utilities that remain.

3.02 PREPARATION

- A. Adjust utility boxes, risers, lids and other appurtenances as required to meet and match proposed finish surface grades.

3.03 SUBGRADE

- A. Comply with recommendations of Geotechnical Engineer and Geotechnical Services Report prepared for this project.
- B. Excavate and shape subgrade to line, grade, and cross section.
- C. Roll subgrade with an approved roller until the top 12 inches is compacted to 95 percent of maximum density at optimum moisture content as determined by ASTM D 1557 (or as specified in the soils report or otherwise by the geo-technical engineer).
- D. Remove all soft or otherwise unsuitable material and replace with suitable material.
- E. Fill holes and depressions to the required grade and cross sections with material from the excavation.
- F. The finished subgrade shall be within a tolerance of plus or minus 0.05 of a foot of the grade and cross section shown, shall be smooth and free from irregularities and at the specified density.
- G. Extend compaction one foot beyond the edge of paving, curb, or form.

3.04 PROTECTION OF SUBGRADE

- A. Protect and maintain the prepared subgrade in the finished condition until the first succeeding course is placed.

- B. Restore and correct damaged subgrade as specified above. Verify compliance with subgrade requirements.

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Section 02630

STORM DRAIN

PART 1 – GENERAL

1.01 APPLICABLE PUBLICATIONS

- A. The following publications of the issues listed below, but referred to hereinafter by basic designation only, form a part of this specification to the extent required by the reference thereto:
- B. State of California:
 - 1. State of California, Department of transportation, Standard Specifications for Road Construction, July, 1992.
 - 2. American Society for Testing and Materials (ASTM) Publications:
 - C 33 Concrete Aggregates
 - C 76 Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
 - C 94 Ready-Mixed Concrete
 - C 150 Portland Cement
 - C 171-69 Sheet Materials for Curing Concrete (1986)
 - C 443 Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets
 - C 478 Precast Reinforced Concrete Manhole Sections
 - C 494-86 Chemical Admixtures for Concrete
 - D 3034 Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings
 - F 477 Elastometric Seals (Gaskets) for Joining Plastic Pipe
- C. Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:
 - 1. Earthwork: Section 02202
 - 2. Cast-in-Place Concrete: Section 03302

1.02 QUALITY ASSURANCE

- A. Design of Formwork is the Contractor's responsibility.
- B. Testing Services: In place soil compaction tests to be performed by Soils Engineer, at the Owner's expense. Retests shall be paid by the Contractor.

1.03 SUBMITTALS

- A. Manufacturer's Literature: Manufacturer's descriptive literature and recommended method of installation.
- B. Certification: Manufacturer's certification that products meet specification requirements.
- C. Testing Laboratory reports that backfill compaction meets the requirements of this Section.

1.04 DELIVERY, STORAGE, AND HANDLING OF MATERIALS

- A. Delivery and Storage: Inspect materials delivered to site for damage. Unload and store with minimum handling. Store materials on site in enclosures or under protective covering. Store plastic piping and rubber gaskets under cover out of direct sunlight. Do not store materials directly on the ground. Keep inside of pipes and fittings free of dirt and debris.

- B. Handling: Handle pipe, fittings, valves, hydrants, and other accessories in such manner as to ensure delivery to the trench in sound undamaged condition. Take special care to avoid injury to coatings and linings on pipe and fittings; make satisfactory repairs if coatings or linings are damaged. Carry pipe to the trench; do not drag it. Do not leave rubber gaskets and plastic piping that are not to be installed immediately out in the sunlight, but store under cover out of direct sunlight.

PART 2 – PRODUCTS

2.01 PIPING MATERIALS

- A. Polyvinyl Chloride (PVC) Plastic Piping:
 - 1. Pipe and Fittings: Pipe and fittings shall conform to ASTM D3034 (SDR 35), with ends suitable for elastomeric gasket joints.
 - 2. Joints and Jointing Material: Joints shall conform to ASTM D3212. Gaskets shall conform to ASTM F477.
- B. Reinforced Concrete Storm Drain Pipe:
 - 1. Pipe and Fittings: Pipe and fittings shall conform to ASTM C76 with end suitable for rubber gasket joints.
 - 2. Rubber Gasketed Joints: Joints shall conform to ASTM C443.
- C. Cast-in Place Concrete Pipe:
 - 1. Pipe and Materials: Pipe and materials shall conform to Section 63 of The State of California Department of Transportation Standard Specifications (1992 edition). Class A concrete mixture and single stage construction.

2.02 CONCRETE MATERIALS

- A. Precast Concrete Manhole Sections: Precast concrete manhole risers, cones, and grade rings shall conform to ASTM C478.
- B. Poured-in-place Concrete: Use Concrete conforming to ASTM C94, 1" maximum, having a minimum compressive strength of 2,500 psi at 28 days.

2.03 METAL MATERIALS

- A. Frame and cover Pinkerton A-624 or equal.

PART 3 – EXECUTION

3.01 EARTHWORK

- A. Do earthwork in accordance with Section 02202, "Earthwork for Utilities."

3.02 PIPE LAYING AND JOINTING

- A. Each pipe and fitting will be inspected before and after installation and those found defective will be rejected. Provide proper facilities for lowering sections of pipe into trenches. Lay non-pressure pipe with bell ends in the upgrade direction. Adjust spigots in bells to give a uniform space all around. Blocking or wedging between bells and spigots will not be permitted. Replace by one of the proper dimensions any pipe or fitting that does not allow sufficient space for proper caulking or installation of joint material. At the end of each day's work, close open ends of pipe temporarily with wood blocks or bulkheads.
- B. Connections to Existing: Make connections to existing in an approved manner. Conduct work so that there is minimum interruption of service on existing line.

3.03 FIELD TESTS AND INSPECTIONS

- A. Field Tests and Inspection, General: The Engineer or Inspector will witness all field tests specified in this section. The Contractor shall perform all field tests and provide all labor, equipment, and incidentals required for testing.
- B. Pipeline Testing: Check each straight run of pipeline for visible deficiencies by holding a light in a manhole; it shall show a practically full circle of light through the pipeline when viewed from the adjoining end of line.

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Section 02740

ASPHALT CONCRETE PAVEMENT

PART ONE – GENERAL

1.01 APPLICABLE PUBLICATIONS

- A. The following publications of the issues listed below, but referred to hereinafter by basic designation only, form a part of this specification to the extent required by the references thereto:
- B. State of California, Department of Transportation, Standard Specifications for Road Construction, July, 1992.
- C. American Society for Testing and Materials (ASTM):
 - D 1557-78 Test for Moisture-Density Relations of Soils Using 10-lb. Rammer and 18-inch Drop (Method D).
 - D 2922-78 Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
 - D 3017-78 Moisture Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- 1. Federal Specifications (Fed. Spec.): FS TT-P-ISC Paint, Traffic, Highway, White and Yellow.

1.02 STATE STANDARD SPECIFICATION

- A. Whenever this specification is referenced, the following is understood:
- B. When the term “commission” or “Department” occurs, it shall mean the Owner. Whenever the term “Director” or “Executive Officer” occurs, it shall mean the City Manager.
- C. Whenever the term “Engineer” occurs, it shall mean the Engineer of this project.
- D. Whenever a discrepancy occurs, it shall mean the Engineer of this project.
- E. All references to measurement and payment are deleted.

1.03 SUBMITTALS

- A. General: Preparation of mix design, sampling, and testing of materials and equipment for compliance with the specifications shall be made by the Contractor. The samples shall be properly marked to show the name of the material, name of the supplier, contract number and the segment of the work where the material represented by the sample is to be used. Sampling and test methods shall be in accordance with procedures of the applicable publications and the State Materials Manual. If material supplied from a commercial pug mill or mixing plant has been sampled and tested by an independent engineering testing laboratory during the last 6 months from the time of contract award, certified copies of tests specified herein for the material being furnished may be submitted in lieu of the specified conformance tests. Copies of weigh-master’s certificates or certified delivery tickets for each truck load of material shall result in the Contractor providing physical evidence (corings, etc.) which clearly show that the material has the proper thickness.

1.04 SUBGRADE

- A. Requirements for subgrade are specified in Section 02200, Earthwork. Prior to construction of base course and asphaltic concrete, clean previously constructed subgrade or sub-base of all foreign substances. The surfaces shall be inspected for the specified compaction and trueness to line and grade.

1.05 REQUIREMENTS

- A. General: The aggregate base, tack coat, and bituminous course or overlay and traffic control shall conform to the requirements of the Standard Specifications for Road Construction, State of California Department of Transportation, current edition.

PART TWO – PRODUCTS

2.01 MATERIALS

- A. Aggregates: The grading and proportioning of aggregates shall be such that the combined mineral aggregate conforms to the specified requirements.
 - 1. Aggregates for base course shall conform to Section 26 of the Standard Specifications, Class 2 for ¾-inch maximum gradation.
 - 2. Aggregates for asphaltic concrete shall conform to Section 39 of the Standard Specifications, Type B for individual test result conforming to ½-inch maximum size gradation, medium.
- B. Asphaltic Materials:
 - 1. Asphaltic Emulsion, (RS-1), shall conform to Section 94 of the Standard Specifications.
 - 2. Striping: Traffic striping shall be thermoplastic and shall conform to section 84.2 of the standard specs.

PART THREE – CONSTRUCTION

3.01 CONSTRUCTION

- A. Base Course:
 - 1. Aggregate base shall be place in accordance with requirements of Section 26 of the Standard Specifications and to the thickness shown. The materials shall be graded and compacted in maximum 4-inch layers to at least 95 percent of maximum density (ASTM D 1557).
 - 2. Maintenance: The base course shall be maintained until the asphaltic pavement is in place. Maintenance shall include drainage, rolling, shaping, and water as necessary to maintain the course in proper condition. Sufficient moisture shall be maintained at the surface to prevent a dusty condition by light sprinkling with water. Areas of completed base course that are damaged by freezing shall be conditioned, reshaped and re-compacted in accordance with the requirements of this specification, without additional cost to the Owner.
- B. Paint Binder: Asphaltic emulsion shall be applied to the existing pavement surface, inaccordance with Section 39 of the Standard Specifications to the exposed edges and surfaces of the existing pavement and concrete against which asphaltic concrete is to be placed. Existing surfaces shall be clean of dirt, grease, etc. which would prevent bond of new pavement to existing.
- C. Saw-cutting of Asphalt Pavement: Use saw capable of cutting a minimum of 1-1/2 inches in depth. Mark cut lined precisely with chalkline. On trenches saw-cut must be a minimum of 12 inches wider (6 inches each side) than trench width. Saw along line to provide a neat, uniform straight cut. Re-cut at Contractor's expense all edges that become broken or damaged.
- D. Asphalt Concrete:
 - 1. All materials shall be furnished by the Contractor. The bituminous concrete shall consist of mineral aggregate, uniformly mixed with bituminous material in a central plant in accordance with Section 39 of the Standard Specifications. The mixing plant and construction equipment shall conform to the requirements of Section 39.
 - 2. Placing: Bituminous mixtures shall be delivered to the roadbed at temperatures specified in the Standard Specifications. Spreading of the mixture shall be in accordance with Section 39 of the

Standard Specifications. All loads shall be covered with tarpaulin or other material during transportation, if needed to preserve heat.

3. Compaction: Initial or breakdown rolling and the final rolling of the uppermost layer of the asphalt concrete shall be compacted in accordance with Section 39 of the Standard Specification. Compaction by vehicular traffic shall not be permitted.
4. Joining Pavement: the joints between old and new pavements or between successive days' work shall be carefully made in such a manner as to insure a continuous bond between old and new sections of the course. Edges of existing pavement shall be exposed and cleaned and edges cut to straight, vertical surfaces. All joints shall be painted with a uniform coat of tack coat before the fresh mixture is placed.
5. Protection of Pavement: After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until it has cooled and hardened.

3.09 STRIPING

- A. Replace existing striping with thermoplastic in accordance with section 84.2 of the standard specifications.
- B. Cleaning: Sweep surface to remove loose material, contaminants and dirt. Do not begin marking pavement until it is acceptable to Engineer.
- C. Apply thermoplastic with mechanical equipment equipped with guide painter and metering device adequate to determine quantity of thermoplastic being applied. Apply at uniform rate of 0.20 16/ft of 4" wide stripe for extended thermoplastic and 0.13 16/ft of 4" wide stripe for sprayable thermoplastic. Provide uniform straight edges. Use approved stencils for arrows, letters, and other symbols. Color shall be same as existing.

3.03 INSPECTION OF PLANT AND EQUIPMENT

- A. The Engineer shall have access at all times to all parts of the batch plant for checking the adequacy of the equipment in use, inspecting the operation of the plant, verifying weight, proportions, and character of materials and checking temperatures being maintained in the preparation of the mixtures.

3.04 TESTING

- A. Compaction density testing shall be measured in accordance with ASTM D 2922 and D 3017, and shall be taken at locations selected by Engineer.

* * * *

Section 02750

CONCRETE SIDEWALK, CURBS, AND GUTTERS

PART ONE - GENERAL

1.01 SECTION INCLUDES

- A. Concrete paving, curbs, and mow strips.
- B. Thickened edge.

1.02 RELATED SECTIONS

- A. Section 01400 - Quality Requirements, field samples.
- B. Section 02300 - Earthwork, preparation of site for paving.
- C. Section 02335 - Subgrade and Roadbed, subgrade and base preparation.
- D. Section 03100 - Concrete Forms and Accessories.
- E. Section 03200 - Concrete Reinforcement.

1.03 PRICE AND PAYMENT PROCEDURES

- A. Payment of the various Construction Items described in the Schedule of Values shall be considered full compensation for work of this Section.
- B. Paving shall be measured edge to edge. Thickened edges or thickened slab sections shall be considered as incidental to paving bid items except that turn down slab edges shall be in addition to the edge-to-edge measurement.
- C. Payment for thickened edges shall include all work in addition to slab of which the turn down edge is a part.

1.04 REFERENCES

- A. ACI 211.1 - Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete; American Concrete Institute International; 1991 (Reapproved 2002).
- B. ACI 301 - Specifications for Structural Concrete for Buildings; American Concrete Institute International; 2005.
- C. ACI 302.1R-4 - Guide for Concrete Floor and Slab Construction.
- D. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete; American Concrete Institute International; 2000.
- E. ACI 305R - Hot Weather Concreting; American Concrete Institute International; 1999.
- F. ACI 306R - Cold Weather Concreting; American Concrete Institute International; 1988 (Reapproved 2002).
- G. ASTM A 615/A 615M - Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement; 2009b.
- H. ASTM C 33 - Standard Specification for Concrete Aggregates; 2008.
- I. ASTM C 39/C 39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens; 2009a.
- J. ASTM C 94/C 94M - Standard Specification for Ready-Mixed Concrete; 2009a.
- K. ASTM C 150 - Standard Specification for Portland Cement; 2007.

- L. ASTM C 260 - Standard Specification for Air-Entraining Admixtures for Concrete; 2006.
- M. ASTM C 309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete; 2007.
- N. ASTM C 494/C 494M - Standard Specification for Chemical Admixtures for Concrete; 2008a.
- O. ASTM C 618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete; 2008a.
- P. ASTM D 1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (nonextruding and Resilient Bituminous Types); 2004 (Reapproved 2008).

1.05 SUBMITTALS

- A. See Section 01300 - Administrative Requirements.
- B. Product Data: Provide data on joint filler, admixtures, curing compound, and accessories.
- C. Design Data: Indicate pavement thickness, designed concrete strength, reinforcement, and typical details. Allow 10 days for review by Owner's testing service.
- D. Certificate of Compliance: Submit certification by the materials and mix producers indicating that the materials and mixes are in compliance with these specifications. Certification shall be signed by the material and mix producers.
- E. Batch Tickets: Conform to ASTM C94.
- F. Placement Record.

1.06 QUALITY ASSURANCE

- A. Owner may employ the services of independent inspection and testing agencies for inspections and tests required for work of this Section. Contractor shall comply with requirements of the agencies during execution of the work.
- B. Perform work in accordance with ACI 301.
- C. Comply with City and Caltrans standard specifications as applicable.
- D. Acquire cement and aggregate from same source for all work.
- E. Installer Qualifications: Company specializing in performing the work of this section with minimum 10 years related experience and demonstrative experience on at least 5 successful projects of a similar scope to this project. Submit applicators/contractors resume of successful projects utilizing specified concrete color system.

PART TWO - PRODUCTS

2.01 PAVING ASSEMBLIES

- A. Comply with applicable requirements of ACI 301.
- B. Conform to City Standards.

2.02 FORM MATERIALS

- A. Form Materials: Conform to ACI 301.
- B. Joint Filler: Preformed; non-extruding bituminous type (ASTM D 1751).
 - 1. Thickness: 1/2 inch.

2.03 REINFORCEMENT

- A. Reinforcing Steel: ASTM A 615/A 615M Grade 40 (280); deformed billet steel bars; unfinished finish.
- B. Dowels: ASTM A 615/A 615M Grade 40 (280); deformed billet steel bars; unfinished finish.

2.04 CONCRETE MATERIALS

- A. Obtain cementitious materials from same source throughout.
- B. Cement: ASTM C 150 Normal - Type I portland type, grey color.
- C. Fine and Coarse Mix Aggregates: ASTM C 33.
- D. Fly Ash: ASTM C 618, Class C or F.
- E. Water: Clean, and not detrimental to concrete.
- F. Air Entrainment Admixture: ASTM C 260.
- G. Chemical Admixtures: ASTM C 494/C 494M, Type A - Water Reducing, Type C - Accelerating, and Type G - Water Reducing, High Range and Retarding.

2.05 ACCESSORIES

- A. Curing Compound: ASTM C 309, Type 1, Class A.
 - 1. Acceptable Products:
 - a. 1100-Clear, by WR Meadows, Inc, www.wrmeadows.com, or equal.
- B. Joint Sealant: Sonolastic Paving Joint Sealant by Sonneborn or approved equal conforming to ASTM C920.
 - 1. Horizontal Conditions: Sonolastic SL1.
 - 2. Color: Provide manufacturer's full range of available colors to Landscape Architect for selection.
- C. Dowel Alignment:
 - 1. Speed Dowel system by Greenstreak. Size per plans.
 - 2. Diamond Dowel System by PNA, Plate size and spacing per ACI 302.1R-04.

2.06 CONCRETE MIX DESIGN

- A. Admixtures: Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer.
- B. Concrete Properties:
 - 1. Conform to City standards.
 - 2. Compressive Strength, when tested in accordance with ASTM C 39/C 39M at 28 days: As scheduled.
 - 3. Maximum Slump: 3 inches.
 - 4. Maximum Aggregate Size: 3/4 inch.

2.07 MIXING

- A. Transit Mixers: Comply with ASTM C 94/C 94M.

2.08 SOURCE QUALITY CONTROL

- A. Submit proposed mix design of each class of concrete to Landscape Architect for review prior to commencement of work.
- B. Tests on cement and aggregates will be performed to ensure conformance with specified requirements.
- C. Test samples in accordance with ACI 301.

PART THREE - EXECUTION

3.01 EXAMINATION

- A. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.
- C. Start of Work of this Section will indicate Contractor's acceptance of existing conditions.

3.02 SUBBASE

- A. See Section 02335 for construction of base course for work of this Section.

3.03 PREPARATION

- A. Moisten base to minimize absorption of water from fresh concrete.
- B. Adjust utility boxes, risers, lids and other appurtenances as required to meet and match proposed surface finish grade.

3.04 FORMING

- A. Place and secure forms to correct location, dimension, profile, and gradient.
- B. Form curves at constant, true radius. Straight steel forms shall not be used to form curves.
- C. Allow time for adequate review by Landscape Architect or Designated Representative prior to scheduling pour and placement of concrete. Accommodate these review into the project schedule.
- D. Construct formwork to extend from the surface design elevation to the full depth of the paving cross section. Do not allow forms to extend above design elevations.
- E. Place dowel system according to manufacturer's recommendations.

3.05 PLACING CONCRETE

- A. Place concrete in accordance with ACI 304R.
- B. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.
- C. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

3.06 JOINTS

- A. General:
 - 1. Accurately construct joints to the design lines indicated on the Drawings.
 - 2. Align curb, gutter, and sidewalk joints.
 - 3. Joints at walkway intersection shall be laid out as directed in the field. Mark joint locations on forms for review prior to placement of concrete. Adjust as directed.
 - 4. Joints along walkways between intersections shall be located at equal intervals at a distance approximately equal to the width of the walk.

- B. Isolation Joints:
 - 1. Place isolation joints as indicated on Drawings.
 - 2. Place joint filler vertical in position, in true to design lines. Secure to formwork during concrete placement to resist movement by wet concrete.
 - 3. Place joint filler between paving components. Recess top of filler 1/4- inch or to bottom of tooled radius.
- C. Control Joints:
 - 1. Construct as indicated on the Drawings.
 - 2. Control joints shall be tooled with a standard tool. Tool shall leave rounded edges and shall completely separate aggregate the full depth of the joint.
- D. Cold Joints:
 - 1. Construct as indicated on the Drawings.
 - 2. Plan execution of work so that cold joints occur at predetermined joint locations as shown on drawings and as required.

3.07 FINISHING

- A. Vehicular Paving: Light broom, texture perpendicular to pavement direction.
- B. Sidewalk Paving: Light broom, texture perpendicular to direction of travel with troweled and radiused edge 1/2 inch radius.
- C. Place curing compound on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

3.08 TOLERANCES

- A. Maximum Variation of Surface Flatness: 1/4 inch in 10 ft.
- B. Maximum Variation From True Position: 1/4 inch.

3.09 FIELD QUALITY CONTROL

- A. All testing to conform to City standards.
- B. Observations: Notify Landscape Architect at the following points during the progress of the Work. No subsequent Work shall be executed until Landscape Architect has had the opportunity to observe the condition and status of the Work.
 - 1. When field samples are ready for review.
 - 2. Forms: When forms, base material, and embedded items are in place.
- C. Testing:
- D. Appointed testing agency will take cylinders and perform slump and air entrainment tests in accordance with ACI 301.
- E. Three concrete test cylinders will be taken for every 100 or less cubic yards of each class of concrete placed each day.
- F. One additional test cylinder will be taken during cold weather and cured on site under same conditions as concrete it represents.
- G. One slump test will be taken for each load of concrete upon delivery. Perform air entrainment test with each slump test.

- H. Contractor shall maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.10 PROTECTION

- A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

3.11 CLEANING

- A. Clean concrete of efflorescence in accordance with manufacturer's instructions.
- B. Ensure concrete has sufficiently cured before cleaning.
- C. Use concrete cleaner approved by pigment manufacturer and Landscape Architect. Do not use cleaners containing acid.
- D. Apply cleaner in accordance with cleaner manufacturer's instructions.

* * * *

DIVISION 3 – CONCRETE

Section 03000

CONCRETE WORK - GENERAL

PART FOUR - GENERAL

4.01 APPLICABLE SECTION

- A. Submit Shop Drawings, Product Data, Mill Certificates and Samples required by other portions of Contract Documents. The requirements/provisions of the General and Supplementary Conditions and Division 1 Specification Section shall apply to this section.

4.02 DESCRIPTION OF WORK

- A. The work included under this section consists of furnishing all material, supplies, equipment, tools, transportation, and facilities, and performing all labor and services necessary for, required in connection with or properly incidental to furnishing, and installing concrete work as described in this section of the specifications, shown on the accompanying drawings, or reasonably implied therefrom, except as hereinafter specifically excluded.
- B. Work Included:
 - 1. All formwork, including any special forms necessary to produce architectural details and/or to accommodate the work of others and removal of forms.
 - 2. All concrete reinforcement, placement, bending and forming thereof.
 - 3. All concrete and cement finishing; all surface treatment and curing, including non-slip finishes and color work.
 - 4. Installation of all reglets, bolts, anchors, cans, sleeves, column anchor bolts, etc., whether furnished under this section or by others (except cans and sleeves required under the Electrical and Mechanical Divisions).
 - 5. The furnishing of all items required to be or shown on the drawings as embedded in concrete, which are not specifically required under other sections.
 - 6. Setting headers and screeds. Curing and protecting concrete.
 - 7. Grouting of column bases.
 - 8. Inserts, sleeves, cans, etc. required under the Electrical and Mechanical Divisions.
 - 9. Routing out cracks and saw-cutting control joints as required by waterproofing.

4.03 MEASUREMENT AND PAYMENT

- A. No separate compensation or payment shall be made for work of this Section.
- B. Full compensation for work of this Section shall be considered as part of and included in payment for each Construction Item for which the work is executed.

PART FIVE - PRODUCTS – SEE OTHER PORTIONS OF SPECIFICATIONS

PART SIX - EXECUTION

6.01 DEFECTIVE WORK

- A. General: Work considered to be defective may be ordered by the Landscape Architect to be replaced in which case the Contractor shall remove the defective work at his expense. Work considered to be defective shall include, but not be limited to, the following:
 - 1. Reinforcing:
 - a. Kinks and bends therein which are not scheduled or indicated on the drawings; reinforcing improperly placed, or previously heated, or excessively cold worked reinforcing.
 - 2. Concrete:
 - a. Concrete in which defective or inadequate reinforcing steel has been placed.
 - b. Concrete incorrectly formed or not conforming to details and dimensions on the drawings or with the intent of these documents, or concrete the surfaces of which are out of plumb or level.
 - c. Concrete below specified strength.
 - d. Concrete not meeting the maximum allowable drying shrinkage requirements.
 - e. Concrete containing wood, cloth, or other foreign matter, rock pockets, voids, honeycombs, cracks or cold joints not scheduled or indicated on the drawings.

6.02 CORRECTION OF DEFECTIVE WORK

- A. The Contractor shall, at his expense, make all such corrections and alleviation measures as directed by the Engineer.
- B. Concrete work containing rock pockets, voids, honeycombs, cracks or cold joints not scheduled or indicated on the drawings, shall be chipped out until all unconsolidated material is removed.
- C. Secure approval of chipped-out areas before patching. Patch per ACI 301-89.

* * * *

Section 03100
CONCRETE FORMWORK

PART SEVEN - GENERAL

7.01 APPLICABLE SECTION

- A. The requirements/provisions of the General and Supplementary Conditions and Division 1 Specification Section shall apply to this section.

7.02 SECTION INCLUDES

- A. The work included under this section consists of furnishing all material, supplies, equipment, tools, transportation, and facilities, and performing all labor and services necessary for, required in connection with or properly incidental to furnishing, installing, and removing form work as described in this section of the specifications, shown on the accompanying drawings, or reasonably implied therefrom, except as hereinafter specifically excluded.
- B. Work Included:
 - 1. Design of Formwork, Shoring and Falsework
 - 2. Construction and removal of all forms.
 - 3. Installation of items furnished under other sections but indicated therein to be installed under this section.
 - 4. Accuracy of installation is responsibility of section furnishing item.

7.03 RELATED SECTIONS

- A. Section 03200 – Reinforcing Steel
- B. Section 03300 – Cast-in-Place concrete

7.04 MEASUREMENT AND PAYMENT

- A. No separate compensation or payment shall be made for work of this Section.
- B. Full compensation for work of this Section shall be considered as part of and included in payment for each Construction Item for which the work is executed.

7.05 REFERENCES

- A. The following is a list of Reference Standards referred to in this portion of the Specification:
 - 1. W.C.L.I.B.; "Standard Grading and Dressing Rules No. 17"
 - 2. American Concrete Institute Standard ACI 347 "Guide to Formwork for Concrete" and ACI 318 "Building Code Requirements for Reinforced Concrete", Latest edition.
 - 3. Uniform Building Code, current governing edition.
 - 4. American Plywood Association, "U.S. Product Standard PS1-95"

7.06 QUALITY ASSURANCE

- A. Codes and Standards: Comply with all Federal, State and Local Codes and Safety Regulations. In addition, comply with the provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified.
 - 1. Uniform Building Code, current governing edition.

2. ACI-347 "Guide to Formwork for Concrete", current edition.
 3. State of California Department of Transportation Standard Specifications, current governing edition.
- B. Qualifications: Design and detailing of formwork shall be by a person experienced in the design of formwork and familiar with the principles of engineering mechanics. Design and detailing of formwork over 12' in height, shoring, and falsework shall be prepared by a registered Civil/Structural Engineer of the State of California.

7.07 SUBMITTALS

- A. General Requirements
1. Submittals shall be made to Landscape Architect in accordance with the requirements of Division 1, General Requirements of these specifications.
 2. Construction, and fabrication or ordering of materials for formwork shall not begin until Contractor has received submittals reviewed by Landscape Architect governing all aspects of the intended work as required in these specifications.
- B. Shop Drawings:
1. Formwork: Submit shop drawings for fabrication and erection of forms for portions of the concrete surfaces, as indicated below:
 - a. Formwork over 12' in height
 - b. Show general construction of forms including size of members, bracing, jointing, special form joint or reveals, location and pattern of form tie placement, and other items that affect the structural integrity of formwork or exposed concrete visually. Formwork over 12' in height shall be designed, detailed, and stamped by a registered Civil/Structural Engineer of the State of California.
 2. Falsework and Shoring Shop Drawings: The Contractor shall submit shop drawings and calculations of any required falsework or shoring. Shop drawings and calculations shall be prepared, stamped, and signed by a registered Civil/Structural Engineer of the State of California. Shop drawings and calculations shall be prepared in accordance with the requirements of the State of California Department of Transportation Standard Specifications, Section 51-1.06A, "Falsework Design and Drawings."

7.08 SEQUENCE AND SCHEDULING

- A. The Contractor shall obtain information and instructions from other trades and suppliers in ample time to schedule and coordinate the installation of items furnished by them to be embedded in concrete.

PART EIGHT - PRODUCTS

8.01 FORMS

- A. Plywood shall be 5/8" Exterior "B.B." Plyform Class I. Each sheet shall be grade stamped with an APA stamp.
- B. Sheathing shall be Douglas Fir "Standard" grade per Grading Rules #17, W.C.L.I.B., Paragraph 118-c. 1x6 shiplap S4S.
- C. Hardboard shall be 1/8" tempered.

8.02 SPREADERS

- A. Spreaders shall be of metal type that will give positive tying and accurate spreading.

8.03 STUDS, WALES AND SHORING

- A. Studs, wales, and shoring shall be Douglas Fir "Construction" grade per Grading Rules #17,
- B. W.C.L.I.B. Paragraph 122-b or "No. 2" grade, Paragraph 123-c.

8.04 MANUFACTURED ASSEMBLIES

- A. Manufactured assemblies may be used as forms provided that maximum loadings and deflections used on jacks, brackets, columns, joists and other manufacturer devices does not exceed the manufacturer's recommendations.

PART NINE - EXECUTION

9.01 GENERAL

- A. Furnish and install all forms, clamps, accessories, etc., required for all poured-in-place concrete below grade and unexposed portions above grade. Where sides of excavations have been cut neat and accurate to size for pouring of concrete directly against the excavation, forms for footings will not be required.
- B. Furnish and install all forms, clamps, sealer, accessories, etc., required for all poured-in-place concrete above grade that will be exposed.
- C. Provide crack control and keyed cold joint forms.

9.02 DESIGN AND CONSTRUCTION OF FORMWORK

- A. Forms shall be constructed of sound material, of the correct shape and dimension, mortar tight, and of sufficient strength, and so braced and tied together that the movement of equipment, men, materials, or placing and vibrating the concrete will not throw them out of line or position. Construct so that they may be easily removed without damage to the concrete. Any movement or bellying of forms during construction shall be considered just cause for their removal and, in addition, the concrete work so affected. All formed joints on concrete surfaces to be exposed shall be taped and shall align so joints will not be apparent on the concrete surfaces. All dirt, chips, sawdust and other foreign matter shall be completely removed before concrete is placed.
- B. Before concrete is placed in forms, all inside surfaces of the forms shall be thoroughly coated with an approved form sealer. The form sealer shall be of high penetrating quality leaving no film on the surface of the forms that can be absorbed by the concrete.
- C. Form supports shall be placed on adequate foundations and have sufficient strength and bracing to prevent settlement or distortion from the weight of the concrete or other cause. Support shall rest on double wedged shim, or other approved means, so that the forms will be maintained at the proper grade.
- D. Form Ties: Bolts, rods, or other approved devices shall be used for internal form ties and shall be of sufficient quantities to prevent spreading of the forms. The ties shall be placed at least 1 inch away from the finished surface of the concrete. The use of ties consisting of twisted wire loop will not be permitted. Bolts and rods that are to be completely withdrawn shall be coated with grease.

9.03 PLUMBING, LEVELING, REPAIRING AND MAINTAINING FORMS

- A. Before concrete is placed in any form, the horizontal and vertical position of the form shall be carefully verified and all inaccuracies corrected. All wedging and bracing shall be completed in advance of placing of concrete.

- B. Boards or other form materials that have been damaged or checked or warped prior to placing of concrete shall be removed from the forms and replaced with approved materials or otherwise corrected to the satisfaction of the engineer.
- C. Assign a sufficient number of men to keep watch on and maintain the forms during placing of concrete. Satisfactorily remedy any displacement or looseness of forms or reinforcement before placing of concrete. No form shall be moved or altered except as may be specifically directed.
- D. Wall forms shall be set to account for movement of post-tensioned slabs that will occur due to long term shortening of slabs. The Engineer will establish the offsets at each level after the Contractor has submitted a detailed pour schedule.

9.04 FIELD QUALITY CONTROL

- A. The Contractor shall hire the Engineer responsible for the design of formwork over 12' in height, falsework or shoring to inspect the work as detailed on the reviewed shop drawings.
- B. The Engineer responsible for design of formwork over 12' in height, falsework or shoring shall write a letter to the Landscape Architect certifying construction is in accordance with the reviewed shop drawings and meets his/her approval prior to the Contractor placing any concrete.
- C. The Contractor shall verify accuracy of items, furnished under other sections of these specifications and installed under this section.

9.05 REMOVAL OF FORMWORK, FALSEWORK, AND SHORING

- A. Formwork, falsework, and shoring shall not be removed until the concrete members have acquired sufficient strength to support their weight and the loads to be superimposed thereon safely.
- B. Vertical forms shall remain on columns, walls, pilasters, etc., for at least seven (7) days, and formwork over 12' in height shall not be removed until the Engineer responsible for design of the formwork has approved removal.
- C. Shoring and falsework under beams, girders, slabs, etc. shall remain in place for at least 14 days and until the Engineer responsible for design of shoring and falsework has approved removal.
- D. The Contractor shall request to have field cured compression test specimens taken for any concrete where it is planned to remove formwork, falsework, or shoring sooner than indicated above.
- E. In removing plywood forms, no metal pinch bars shall be used and special care to be taken in stripping. Start at top edge or vertical corner where it is possible to insert wooden wedges. Wedging shall be done gradually and shall be accompanied by light tapping of the plywood panels to crack them loose. Do not remove forms with a single jerk after it has been started at one end.
- F. Forms shall be left in place as long as possible to permit shrinkage away from concrete and plywood forms shall be left in place until all other forms around are stripped and until there is no danger of damaging the architectural concrete due to other work in the vicinity.
- G. Nothing herein shall be construed as relieving the Contractor of any responsibility of the safety of the structure.
- H. After stripping, properly protect all concrete to be exposed in the finish work from damage with boards and building paper to prevent staining, spoiled edges, chips, etc.

- I. Whenever the formwork is removed during the curing period, the exposed concrete shall be cured by one of the methods specified in Section 03300.

9.06 CLEANING

Clean up shall be per special conditions. Failure to perform clean up within 24 hours notice by the Landscape Architect shall be considered adequate grounds for having the work done by others at the Contractor's expense.

* * * *

Section 03200
REINFORCING STEEL

PART TEN - GENERAL

10.01 APPLICABLE SECTION

- A. The requirements/provisions of the General and Supplementary Conditions and Division 1 Specification Section shall apply to this section.

10.02 SECTION INCLUDES

- A. The work included under this section consists of furnishing all material, supplies, equipment, tools, transportation, and facilities, and performing all labor and services necessary for, required in connection with or properly incidental to furnishing and installing all reinforcing bars, ties, spacing devices, inserts, and all other material required to complete installation, as described in this section of the specifications, shown on the accompanying drawings, or reasonably implied therefrom.
- B. Work Included:
 - 1. Fabricating and installing all reinforcing steel for cast in place concrete and unit masonry.
 - 2. Fabrication and installing all reinforcing steel for shotcrete.
 - 3. Fabrication of reinforcing steel dowels to be embedded in existing concrete and existing masonry.
 - 4. Fabrication and installing all reinforcing steel for tilt-up precast concrete.

10.03 RELATED SECTIONS

- A. Section 03100 – Concrete Formwork
- B. Section 03300 – Cast-in-Place Concrete
- C. Section 04200 – Concrete Unit Masonry

10.04 MEASUREMENT AND PAYMENT

- A. No separate compensation or payment shall be made for work of this Section.
- B. Full compensation for work of this Section shall be considered as part of and included in payment for each Construction Item for which the work is executed.

10.05 REFERENCES

- A. The following is a list of Reference Standards referred to in this portion of the specifications:
 - 1. ASTM A82, "Specification for Cold-Drawn Steel Wire for Concrete Reinforcement".
 - 2. ASTM A185, "Specification for Welded Steel Wire Fabric for Concrete Reinforcement".
 - 3. ASTM A615, "Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement".
 - 4. ASTM A706, "Specification for Low Alloy Steel Deformed Bars for Concrete Reinforcement".

10.06 SUBMITTALS

- A. General Requirements:

1. Submittals shall be made to Landscape Architect in accordance with the requirements of Division 1, General Requirements of these specifications.
 2. Construction, fabrication, or ordering of materials shall not begin until Contractor has received submittals reviewed by Landscape Architect governing all aspects of the intended work.
- B. Shop Drawings: Shop Drawings shall be submitted that show diagrammatic elevations of all walls, footings, columns, beams, slabs, etc., at a scale sufficiently large to show clearly the positions and erection marks of reinforcing bars, their dowels, and splices. Shop drawings shall also show details for congested areas and connections. Shop Drawings used in field must be reviewed copies.
- C. Product Data: Manufacturer's catalog sheets including instructions for use and description of application shall be provided on each of the following items intended for use on project:
1. Mechanical anchorage devices for butt splices.
- D. Mill Certificates:
1. The Contractor shall provide Mill Certificates for each size of bar for each heat to be used on project.
 2. Mill Certificates shall include name of mill, date of rolling, date of shipping to fabricator and shall be signed by fabricator certifying that each material complies with or exceeds the specified requirements. A Mill Certificate shall be furnished with each lot of material delivered to the project and the lot shall be clearly identified in the Certificate.
 3. When Mill Certificates cannot be provided, the Contractor shall hire a professional testing laboratory to verify compliance and provide laboratory test reports. The Contractor shall pay for the cost of testing.
- E. Laboratory Test Reports:
1. Laboratory test reports shall show the name of testing agency; date of testing, types of tests performed and shall be signed by a principal of the testing agency who is a registered Civil Engineer in the State of California.
 2. When required by other portions of these specifications, laboratory test reports shall be submitted for each size of bar tested for each heat to show compliance with appropriate ASTM Standards and these specifications.

10.07 QUALITY ASSURANCE

- A. Codes and Standards: Comply with all applicable Federal, State and Local Code and Safety Regulations. In addition, comply with the provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified:
1. ACI 315, "Details and Detailing of Concrete Reinforcement", latest edition.
 2. ACI 318, "Building Code Requirements of Reinforced Concrete", latest edition.
 3. AWS D1.4, "Structural Welding Code-Reinforcing Steel", latest edition.
- B. Mill Certificates: The Contractor shall provide Mill Certificates for reinforcing steel in accordance with the requirements of Part 1.05, "Submittals" of this specification section. When Mill Certificates cannot be provided, laboratory test reports shall be provided in accordance with the requirements of Part 1.05, "Submittals" of this specification section.

C. Sampling, Testing, and Inspection:

1. General

- a. All materials and work shall be subject to inspection at the mill, the fabrication shop, and at the building site. Material or workmanship not complying fully with the drawings, and/or specifications will be rejected.
- b. If the City's agent, through oversight or otherwise, has accepted material or work which is defective or contrary to specifications, this material or work, regardless of state of completion, may be rejected.

2. City: The City shall employ an independent testing laboratory or the Engineer as the City's agent to perform the sampling, testing and inspections shown on the contract drawings, and submit certified test results.

3. Contractor:

- a. The Contractor shall cooperate with and notify City's agent at least 24 hours in advance of inspections required and shall provide samples, test pieces, and facilities for inspection without extra charge.
- b. The Contractor shall identify each lot of fabricated reinforcing steel to be shipped to the site by assigning an individual lot number that identifies steel by heat number and shall be tagged in such a manner that each such lot can be accurately identified at the job site.
- c. The Contractor shall remove all unidentified reinforcing steel, anchorage assemblies and bar couplers received at the site.

10.08 STORAGE OF MATERIALS

- A. Store reinforcement during fabrication and at site to avoid excessive rusting or coating with grease, oil, dirt, or other objectionable materials.

10.09 SEQUENCE AND SCHEDULING

- A. Coordinate work with all trades so as not to interfere with the work of other trades. Bring interferences between trades to Landscape Architect's attention and resolve before any concrete is placed.

PART ELEVEN - PRODUCTS

11.01 REINFORCING BARS

- A. Bars for reinforcement listed below shall conform to the requirements of ASTM A706, Grade 60 including Supplement S1, except as allowed in CBC Section 1921.2.5.2.
 - 1. Chord Bars
 - 2. Vertical Bars, Columns
 - 3. Vertical Bars, Pilasters
 - 4. Vertical and Horizontal Bars in Shear Walls, except Ties
 - 5. All Reinforcing Bars to be Welded
- B. Bars for reinforcement not noted above shall be deformed, intermediate grade steel conforming to the requirements of ASTM A615, Grade 60 including Supplement S1.

11.02 WIRE

- A. All wire for concrete reinforcement shall conform to "Specifications for Cold-Drawn Steel Wire for Concrete Reinforcement," ASTM A82.

11.03 MESH

- A. All wire fabric mesh shall conform to "Specifications for Wire Fabric for Concrete Reinforcement," ASTM A185.

11.04 WELDING ELECTRODES

- A. Welding electrodes shall be per Table 5-1 of AWS D1.4.

11.05 MECHANICAL COUPLING DEVICES

- A. Mechanical coupling devices shall develop 125 percent of the minimum yield strength of the bars spliced.

11.06 OTHER MATERIALS

- A. All other materials, not specifically described by these specifications but required for complete and proper placement of reinforcement shall be new, first quality of their respective kinds, and subject to the approval of the Landscape Architect.

PART TWELVE - EXECUTION

12.01 EXISTING CONDITIONS

- A. Prior to all work of the section, carefully inspect the installed work of other trades and verify that all work is sufficiently complete to permit the start of work under this section and that the completed work of this section will be in complete accordance with the original design and the reviewed shop drawings. In the event of discrepancy, immediately notify the Landscape Architect/Engineer in writing.
- B. In the event conduits, pipes, inserts, sleeves, or any other items interfere with placing the reinforcement as indicated on the drawings or approved shop drawings, or as otherwise required, immediately notify the Landscape Architect/Engineer and obtain approval on procedure before placement of reinforcement is started.

12.02 BENDING

- A. Bends for reinforcing steel shall be made in accordance with ACI 318 latest edition. Bend all bars cold. Do not field bend reinforcing steel in a manner that will injure material, cause the bars to be bent on too tight a radius, or that is not indicated as allowed on drawings or permitted by Engineer. Do not straighten bent or kinked bars for use on project without permission of Engineer. Replace bars with kinks or bends not shown on the drawings.

12.03 PLACING

- A. All reinforcement shall be placed in strict conformity with the requirements of the engineering drawings, both as to location, position and spacing of members. It shall be supported and secured against displacement by the use of adequate and proper wire supporting and spacing devices, tie wires, etc. so that it will remain in its proper position in the finished structure.
- B. Preserve clear space between parallel bars of not less than 1 1/2 times the nominal diameter of round bars and in no case let the clear distance be less than 1 1/2 inches nor less than 1-1/3 times the maximum size of aggregate for concrete. Bars placed in shotcrete shall have a

minimum clearance between bars of 2 1/2" for No. 5 and smaller and 6 bar diameters for bars larger than No. 5.

- C. Lap splices shall be contact lap splices in accordance with ACI 318 unless noted otherwise on the Contract Drawings. Bars shall be wired together at laps. Wherever possible, stagger splices in adjacent bars. Make all splices in wire fabric at least 1 1/2 meshes wide or 12", which ever is greater. When splicing in areas to receive shotcrete, lap splices shall be non-contact with at least 2" clearance between bars.
- D. D. Butt splices shall be accomplished by mechanical anchorage devices.
- E. E. Bars shall not be cut by gas torch.

12.04 FIELD QUALITY CONTROL

- A. Inspection: The City's agent will perform the inspections shown on the contract drawings.

12.05 CLEANING

- A. Take all means necessary to ensure that steel reinforcement, at the time concrete is placed around it, is completely free from rust, dirt, loose mill scale, oil, paint and all coatings which will destroy or reduce the bond between steel and concrete.

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Section 03300
CAST-IN-PLACE CONCRETE

PART 1 – GENERAL

1.01 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.
 - 1. American Concrete Institute (ACI) Publications:
 - 211.1-81 Recommended Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete
 - 2. American Society for Testing and Materials (ASTM) Publications:
 - C 33-81 Concrete Aggregated
 - C 94-81 Ready-Mixed Concrete
 - C 150-81 Portland Cement
 - C 171-69 Sheet Materials for Curing Concrete (R1980)
 - C 309-81 Liquid Membrane-Forming Compounds for Curing Concrete

1.02 SUBMITTALS

- A. Certification: Submit one copy of the delivery ticket for each load of ready-mixed concrete, showing all information required by ASTM C94.

1.03 DELIVERY

- A. Do not deliver concrete until forms, reinforcement, and embedded items are in place and ready for concrete to be placed.

PART 2 – PRODUCTS

2.01 CONCRETE

- A. Contractor Furnished Mix Design: Design concrete mix in accordance with ACI 211.1. Slump shall be between 2 inches and 4 inches. The concrete shall have a 28-day compressive strength of 3,000 pounds per square inch.

2.02 MATERIALS

- A. Cement: ASTM C 150, Type I or II for all concrete. All cement for exposed concrete surfaces shall be of the same manufacture.
- B. Water: Water, including free moisture and water in the aggregates, shall be fresh, clean, and potable.
- C. Aggregates: ASTM C 33, Size No. 67 except as modified herein. Obtain all aggregates for exposed concrete surfaces for one source. Aggregates shall be free from any substances which may be deleteriously reactive with the alkalies in the cement.
- D. Materials for Forms: Wood, plywood, steel, or other suitable material. Wood forms, for surfaces exposed to view in the finished structure, shall be boards or plywood. Dress boards to a uniform thickness, evenly match, and provide boards free from loose knots, holes, and other defects. Plywood shall be B-B concrete form panels conforming to PS-1. Surfaces of steel forms shall be free from irregularities, dents, and sags.

E. Materials for Curing Concrete:

1. Impervious Sheeting: Waterproof paper, polyethylene sheeting, or polyethylene coated burlap conforming to ASTM C 171.
2. Liquid Membrane-forming Compound: ASTM C 309, white-pigmented, Type 2, free of paraffin or petroleum.
3. Liquid Chemical Compound: A suitable sealer-hardener designed for sealing and hardening in addition to curing of the concrete, applied by the method and at the rate recommended by the manufacturer. It shall not reduce the adhesion of tile, paint, roofing, waterproofing, or other material to be applied to the concrete. The chemical compound shall be free of petroleum resin or waxes.

F. Preformed Joint Filler: ASTM 1751.

PART 3 – EXECUTION

3.01 FORMS

- A. General: Provide forms for all concrete at grade or above grade. Set forms true to line and grade and maintain so as to insure completed work within the allowable tolerances specified, and make mortar-tight. Construct forms so that they can be removed without damaging the concrete. Chamfer all exposed joints, edged, and external corners of concrete $\frac{3}{4}$ inch unless otherwise indicated.
- B. Broomed Finish: Provide a floated finish and a steel troweled finish, as specified herein, and the broom with a flexible bristle broom. At time of brooming the troweled surface shall have hardened sufficiently to retain the scoring or ridges. Broom in a direction transverse to that of traffic or at right angles to the slope of the slab.

3.02 MISCELLANEOUS CONSTRUCTION

- A. All construction shall conform to Section 73 of the State Standards and the Oakdale City Standards.

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