



STATE OF CALIFORNIA

CITY OF PLACERVILLE
ENGINEERING DEPARTMENT

SPECIAL PROVISIONS

BOOK 2 OF 2

FOR CONSTRUCTION OF

MEASURE H & L PROJECTS

**SPRING STREET PAVEMENT REHABILITATION AND
MOSQUITO ROAD STABILIZATION PROJECT CIP NO. 41907 & 41819**

JULY 2020

For use in Connection with California Department of Transportation, Standard Specifications Dated **2018** and Revised Standard Specifications current as of September 1st, 2019, Caltrans Standard Plans Dated **2018**, City of Placerville Standard Plans, State of California Labor Surcharge and Equipment Rental Rates, and Director of Industrial Relations General Prevailing Wage Rates.

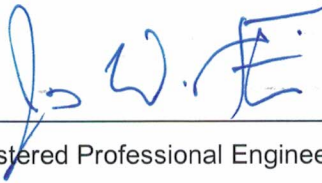
Bids Open: 2:00 PM
July 30, 2020

Location: City Hall
Engineering Department
3101 Center Street,
3rd Floor
Placerville, CA 95667

CITY OF PLACERVILLE, CALIFORNIA
ENGINEERING DEPARTMENT

**SPRING STREET PAVEMENT REHABILITATION AND MOSQUITO ROAD
STABILIZATION PROJECT - CIP NO. 41907 & 41819**

The Special Provisions contained herein have been prepared by or under the direction of the following
Registered Persons:



Registered Professional Engineer (Civil)



CITY OF PLACERVILLE, CALIFORNIA
ENGINEERING DEPARTMENT

**SPRING STREET PAVEMENT REHABILITATION CIP #41907 AND
MOSQUITO ROAD STABILIZATION CIP #41819**

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ORGANIZATION

Special provisions are under headings that correspond with the main-section headings of the Standard Specifications. A main-section heading is a heading shown in the table of contents of the Standard Specifications.

Each special provision begins with a revision clause that describes or introduces a revision to the Standard Specifications as revised by any revised standard specification.

Any paragraph added or deleted by a revision clause does not change the paragraph numbering of the Standard Specifications for any other reference to a paragraph of the Standard Specifications.

[illegible]

DIVISION I GENERAL PROVISIONS

1 GENERAL

Add to section 1-1.01:

The work embraced herein shall be done in accordance with the Standard Specifications of the Department of Transportation dated 2018, hereinafter referred to as the Standard Specifications, and the Standard Plans of the Department of Transportation dated 2018 supplemented by the Revised Standard Plans of the Department of Transportation as of September 1st, 2019, hereinafter referred to as the Standard Plans, insofar as the same may apply and in accordance with the following Special Provisions.

The components of the Contract Documents are intended to supplement each other. In the event of a conflict in the Contract Documents, the following order of precedence will govern interpretation of the Contract:

1. Field instruction or other written directives
2. Addenda
3. Special Provisions
4. Project Plans
5. EID Standard Specifications
6. EID Standard Plans
7. Standard Specifications
8. Standard Plans

Add to section 1-1.07B:

A term not defined in the Contract Documents or Standard Specifications has the meaning defined in Means Illustrated Construction Dictionary, Condensed Version, Second Edition.

Approval of the Contract: Execution of the Contract by the City Council of the City of Placerville.

Caltrans/Department of Transportation: Department of Transportation as defined in the St & Hwy Code § 20 and authorized in St & Hwy Cod § 90; its authorized representatives.

City: The City of Placerville, a municipal corporation of the State of California.

CCTV: Closed-circuit television.

City Council: City Council of the City of Placerville, State of California.

Contract: Written and executed Contract as approved by the City Council between the City of Placerville and the Contractor.

Contract Documents: Plans, Notice to Bidders, Special Provisions, and Proposal and Agreement

Contractor: Person of business or its legal representative approved by the City Council and entering into a Contract with the City of Placerville for performance of the work.

Department: The City of Placerville except that any reference to the Department's forms, websites, manuals, guides, and test methods. These shall be defined as forms, websites, manuals, guides, and test methods of Caltrans.

Design Engineer: R.E.Y. Engineers, Inc. and their subconsulting engineers.

Director: The City Engineer for the City of Placerville.

EID: El Dorado Irrigation District.

Engineer: The Resident Engineer of the City acting either directly or through properly authorized agents; such agents acting within the scope of the particular duties delegated to them.

Inspector or City Inspector: An authorized agent acting on behalf of the City Engineer and within the scope of the particular duties delegated to him/her.

Plans: Spring Street Pavement Rehabilitation and Mosquito Road Stabilization Plans. The Plans are specific details and dimensions particular to the work and are supplemented by the Standard Plans insofar as they may apply.

Project Plans: Spring Street Pavement Rehabilitation and Mosquito Road Stabilization Plans. The Project Plans are specific details and dimensions particular to the work and are supplemented by the Standard Plans insofar as they may apply.

Special Provisions: The Special Provisions are specific clauses required by the City setting forth conditions of requirements peculiar to the work and supplementary to the Standard Specifications of the State of California.

Standard Plans: 2018 Standard Plans of the State of California, Department of Transportation and the current Revised Standard Plans as of September 1st, 2019.

Standard Specifications: 2018 Standard Specifications of the State of California, Department of Transportation (Caltrans) and the current Revised Standard Specifications as of September 1st, 2019.

State: The State of California, including its agencies, departments or divisions whose conduct or action is related to the work or when referenced in the Standard Specifications "State" shall mean the City of Placerville, including its authorized officers, agents, consultants, and volunteers.

Project: The work as contemplated in these documents and Project Plans.

Proposal: The un-approved offer as submitted to the City for contemplation for the completion of the Project.

USDOT: The United States of America Department of Transportation.

Add to section 1-1.09:

This project is in a freeze-thaw area.

Web Sites, Addresses, and Telephone Numbers

Reference or agency or department unit	Web site	Address	Telephone no.
Public Purchase	http://www.publicpurchase.com	--	-
El Dorado County Fire Protection	http://www.eldoradocountyfire.com	4040 Carson Road Camino, CA	(530) 644-9630
Placerville Police Department	http://www.cityofplacerville.org/depts/police	730 Main Street Placerville, CA	(530) 642-5210
Placerville Downtown Association	http://www.placerville-downtown.org	--	(530) 672-3436
El Dorado Transit Authority	http://www.eldoradotransit.com/	6565 Commerce Way Diamond Springs, CA	(530) 642-5383

Replace the paragraph in section 1-1.12 with:

Make checks and bonds payable to the City of Placerville.

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2 BIDDING

Replace the paragraphs in section 2-1.06A with:

Standard Specifications and Standard Plans may be viewed at the Caltrans Office Engineer Web Site and may be purchased at the Publication Distribution Unit.

The Notice to Bidders, Special Provisions, Proposal and Agreement, and any Project Plans may be viewed and obtained at the locations stated in the Notice to Bidders.

Replace the paragraphs in section 2-1.33A with:

Complete forms in Bid book. Submit forms with your bid.

Except where stated acceptable elsewhere, do not fax submittals.

Failure to submit the forms and information as specified may result in a non-responsive bid.

Add to section 2-1.33A:

On the Subcontractor List, you must submit each subcontractor's license number, each subcontracted bid item number and corresponding percentage with your bid or email these numbers and percentages to Rebecca Neves, City of Placerville Engineering Department or email Rneves@cityofplacerville.org. Failure to do so results in a nonresponsive bid.

You must either submit with your bid the BIDDER'S LIST OF SELECTED SUBCONTRACTORS and BIDDER'S LIST OF NON-SELECTED SUBCONTRACTORS or email to Rebecca Neves, City of Placerville Engineering Department or email Rneves@cityofplacerville.org within 24 hours after bid opening. Failure to do so results in a nonresponsive bid.

Replace the last paragraph of section 2-1.34 with:

If using a bidder's bond, you must use the form in the Proposal section.

Replace the paragraph in section 2-1.47 with:

The Department may grant bid relief under Public Contracts Code § 5100 et seq. Submit any request for bid relief to Rebecca Neves, City of Placerville Engineering Department or email rneves@cityofplacerville. The Relief of Bid Request form is available at the Caltrans Web site.

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3 CONTRACT AWARD AND EXECUTION

Replace the paragraphs in section 3-1.04 with:

The Department reserves the right to reject any or all bids or any parts thereof and waive any irregularities or informalities in any bid or in the bidding to the extent permitted by law and to make awards in all or part of the best interest of the Department. No bidder may withdraw his/her bid for a period of sixty (60) days after the date set for the bid opening. Bid protests must be submitted in writing to the attention of the City Clerk before 4:00 pm of the 3rd calendar day following the bid opening.

If the Department awards the contract, the award is made to the lowest responsible bidder for the total of all the base bid items within 60 days after bid opening. The Department may extend the specified award period if the bidder agrees. The Department retains the right to remove any and/or all additive alternative to or from the plans as they see fit.

Barring some unforeseen irregularity, Notice of Award will be sent to the lowest responsive bidder after approval by the City Council.

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4 SCOPE OF WORK

Replace the paragraphs in section 4-1.13 with:

4-1.13 CLEANUP

4-1.13A General

Section 4-1.13 includes specifications for daily, weekly, and final cleanup.

The Contractor must locate and negotiate terms of use for their staging area.

If staging areas are designated "daily staging areas", these areas are permitted for use Monday through Friday only.

If at any time the cleaning of the job site and/or staging area(s) is not performed to the satisfaction of the City and the Engineer, the Contractor will be notified and shall immediately return to the project site and perform satisfactory cleaning. If the Contractor is unable to perform cleaning activities in a timely matter as determined by the City, the cleaning may be performed for the Contractor at their expense.

4-1.13A(1) Daily Cleanup

At the end of each working day, return all materials and equipment to approved staging areas. All rubbish and debris shall be completely removed from the project site. If pedestrian and/or vehicular signage is required during non-working hours, signage shall be placed to the satisfaction of the City and Engineer.

If Contractor utilizes cold mix asphalt (CMA) for temporary ramping or paving, the Contractor is responsible for maintaining the cold mix during non-working hours. Cold mix shall be properly compacted by an approved compaction device. Equipment tires or vehicle tires shall not be used for compaction of CMA, unless otherwise approved by the engineer.

Contractor shall use vector trucks or other approved equipment to prevent domestic water from entering the storm drain system.

All cleaning activities must be completed prior to opening of lane and/or roadway. The Contractor shall schedule work and cleaning activities to ensure streets can be reopened within the timeframes specified in the Contract Documents.

Contractor Shall perform Daily Cleanup per Section 4-1.13A(1).

All staging areas shall be cleaned to the satisfaction of the City and Engineer.

Contractor Shall perform Daily Cleanup per Section 4-1.13A(1) and Weekly Cleanup per Section 4-1.13A(2).

1. Rubbish and debris
2. Excess materials
3. Falsework
4. Temporary structures
5. Equipment

4-1.13A(4) Payment

[illegible]

Replace section 5-1.20D with:

1. The Contractor shall be responsible for the application process and fees associated with obtaining all permits required for the commencement and execution of the project, including but not limited to, work within any street right of way, storm water pollution prevention, discharge of construction water into the local drainage system, right-of-entry, excavation and trench safety. Any work performed within the City right-of-way will require encroachment permits. The Contractor shall obtain a no-fee encroachment permit from the City. *Any work performed within Caltrans right-of-way will require an encroachment permit. The Contractor is responsible for any forms, submittals, and fees necessary to obtain encroachment permit.*

July 2020

Water Usage	Price per 100 Cubic Feet
0-4000 cubic feet	\$2.94
4001-20,000 cubic feet	\$3.52
Over 20,000 cubic feet	\$3.81

The payment for the cost for this permit and water usage shall be included with the various items of the proposal and no separate payment will be made.

Replace the paragraphs in section 5-1.23A with:

5-1.23A GENERAL

5-1.23A(1) Submittal Procedure

Section 5-1.23 includes specifications for action and informational submittals.

Any submittal not specified as an informational submittal is an action submittal.

Accompany each submittal with a Submittal form, which contains the following information:

1. Contractor's name and the name of Subcontractor or supplier who prepared the submittal.
2. The project name and identifying number.
3. Description of the submittal and reference to the Contract requirement or technical specification section and paragraph number being addressed.

Electronic submittals are preferred. Provide original hard copies to the Engineer upon request. If hard copies are submitted in lieu of an electronic submittal, submit the number and type of copies for each submittal and follow the procedures described below or in other paragraphs in this Section. Submit three copies of submittals not covered in this Section.

1. Designation of Superintendent: Submit three copies for information. Include name, address, home telephone number, and a brief resume.
2. List of Subcontractors and Major Suppliers: Submit three copies for information. Include address, telephone number, and name of responsible party.
3. Subcontractors'/Suppliers'/Manufacturers' Affidavits. Submit three copies for items specified in the Technical Specifications.

The City or Engineer rejects a submittal if it has any error or any omission.

Failure to provide submittals requested by the Engineer constitutes contract noncompliance on that item of work and may be deducted in accordance with Sections 5-1.30 and 9-1.16E.

Convert foreign language documents to English and U.S. customary units.

5-1.23A(2) Schedule of Submittals

Submit three (3) copies for information. No copy will be returned.

At the pre-construction meeting, submit a Schedule of Submittals showing the date by which each submittal required for Product Review or Product Information will be made. Identify the items that will be included in each submittal by listing the item or group of items and the Specification Section and paragraph number under which they are specified. Indicate whether the submittal is required for Product Review of Proposed Equivalents, Shop Drawings, Product Data or Samples or required for Product Information only.

5-1.23A(3) Plan of Operations

Submit three (3) copies.

Before beginning on site work, submit a plan showing Contractor's intended use of the Work site, including on site storage of materials, on site handling of materials, and field offices.

5-1.23A(5) Shop Drawing, Product Data and Sample Submitted for Product Review

This paragraph covers submittal of Shop Drawings, Product Data and Samples required for the Engineer's review referred to as Product Review submittals for the Technical Specifications of the contract documents. Submittals required for information only are referred to as Product Information submittals in the Technical Specifications and are covered in section 5-1.23A(7).

Number and type of submittals:

1. Shop Drawings: Submit three (3) clear, sharp high contrast copies one of which will be marked, stamped and returned to the Contractor. The Contractor shall make and distribute the required number of additional copies to its superintendent, subcontractors and suppliers. Shop drawings must comply with section 5-1.23B(2).
2. Product Data: Submit three (3) clear copies. One copy will be marked, stamped and returned. The Contractor shall make and distribute the required number of additional copies to its superintendent, subcontractors and suppliers.

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

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

Content of Submittals:

1. Each submittal shall include all of the items and material required for a complete assembly, system or Specification Section.
2. Submittals shall contain all of the physical, technical and performance data required by the specifications or necessary to demonstrate conclusively that the items comply with the requirements of the Contract Documents.
3. Provide verification that the physical characteristics of items submitted, including size, configuration, clearances, mounting points, utility connection points and service access points, are suitable for the space provided and are compatible with other interrelated items that are existing or have or will be submitted.
4. Label each Product Data Submittal, Shop Drawing and Sample with the information required in paragraph 5-1.23A(1)1. of this Section. Highlight or mark every page of every copy of all
5. Product Data submittals to show the specific items being submitted and all options included or choices offered.
6. Additional requirements for Product Review submittals are contained in the Technical Specification sections.
7. Designation of work as "by others," shown on Shop Drawings, shall mean that the work will be the responsibility of the Contractor rather than the subcontractor or supplier who has prepared the Shop Drawings.

Requirements for Contractor Designed Items:

Verify that products delivered meet requirements of Contract Documents.

Compatibility of Equipment and Material:

1. Similar items, equipment, devices or products furnished under a single specification section shall all be made by the same maker and have interchangeable parts.

2. In addition, but only if so stated in each affected Specification Section, similar items furnished under two or more Specification Sections shall be made by the same maker and have interchangeable parts.
3. All similar materials or products that are interrelated or used together in an assembly shall be compatible with each other.

Requirements for the Contractor's review and stamping of submittals prepared by the Contractor or by Subcontractors or suppliers prior to submitting them to the Engineer. The Contractor warrants:

1. Work or items submitted are complete, accurate and meet the requirements of the Contract Documents, or else any deviations are identified and described in a separate letter accompanying the submittal form.
2. Work or items submitted have been coordinated with and meet the requirements of other submittals, field conditions and the Work as a whole and quantities and dimensions are correct.
3. Proposed Equivalent items are at least equal in quality, utility and appearance to the first specified item, or else any deviations are identified in a separate letter accompanying the submittal form.
4. Adjustments to other work required to accommodate Proposed Equivalent items including second named items have been delineated on the submittal and will be made at the Contractor's expense.
5. This submittal includes all items needed for a particular specification section or assembly for which submittals are required.

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

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

Engineer's Review Procedure and Meaning:

The Engineer will stamp and mark each Product Review submittal prior to returning it to the Contractor. The stamp will indicate whether or not the review was favorable and what action is required of the Contractor. Review categories "Approved" and "Approved as Corrected" both indicate Favorable Review.

The Engineer's Favorable Review is contingent on the Contractor's warranties. Favorable Review is also contingent on:

1. The compatibility of items included in a submittal with other related or interdependent items included in previous or future submittals.
2. Future submittal of items related to or required to be part of this submittal that were not included with this submittal.

Favorable Review of a submittal does not constitute approval or deletion of items required as part of the submittal but not included with the submittal. Favorable Review of items included in the submittal does not constitute deletion of specified features, options or accessories that were not included in the submittal or that are included as part of the contract.

The action required by the Contractor for each category of review is as follows:

1. **APPROVED. NO RESUBMITTAL REQUIRED.**
2. **APPROVED AS CORRECTED.** The submittal is approved as corrected by the reviewer. The contractor is responsible for incorporating the reviewer's corrections. The corrected submittal complies with the Contract Documents.
3. **REVISE & RESUBMIT.** The Contractor shall revise and resubmit the submittal as noted or required to comply with the Contract Documents.

4. **REJECTED.** The item submitted does not comply with the Contract Documents in a major way. Resubmit items that comply with the requirements of the Contract Documents.

The letter of transmittal accompanying the returned Product Review submittal may contain numbered notes. Marking a corresponding number on a Shop Drawing or Product Data submittal shall have the same effect as applying the entire note to the submittal.

Re-submittals that contain changes that were not requested by the Engineer on the previous submittal shall be accompanied by a letter explaining the revised items.

Favorable Review required prior to proceeding. Proceeding without a Favorable Review will be considered unauthorized work per section 5-1.30.

Do not proceed with manufacture, fabrication, delivery or installation of items prior to obtaining the Engineers Favorable Review of Product Review submittals.

Any work performed by the Contractor in advance of an approved submittal for said work is done so at the Contractor's sole risk.

Intent and Limitation on Engineer's Review:

The Contractor has primary responsibility for submitting and providing work that complies with the requirements of the Contract Documents. That responsibility cannot be delegated in whole or in part to subcontractors or suppliers. Neither the Engineer's Favorable Review nor the Engineer's failure to notice or comment on deficiencies in the Contractor's submittals shall relieve the Contractor from the duty to provide work, which complies with the requirements of the Contract Documents.

5-1.23A(6) Proposed Equivalents

Submittal for Proposed Equivalent products or materials shall comply with the submittal requirements for Shop Drawings, Product Data, and Samples submitted for Product Review in this Section. Bidders wanting to use "or approved equal items" may submit a Substitution Request Form no later than five (5) days after the issuance of the Notice to Proceed.

Time of Submittal:

1. Submittal of Proposed Equivalents shall be received within five (5) days of the Notice to Proceed. The Engineer may agree to a later submittal date if requested in writing within five (5) days of the Notice to Proceed. The request shall identify the item, providing the Specification reference, and proposed manufacturer and model number of the item that will be submitted and the proposed submittal date.
2. The Engineer's agreement to a later submittal date shall be in writing and shall not be construed as Favorable Review or acceptance of the manufacturer or item proposed.

Content of submittals shall be the same as that required for Product Data, Shop Drawings and Samples submitted for Product Review in another paragraph of this Section. In addition, the Contractor shall provide information on several recent similar installations of the item to verify its suitability. The information shall include the project name and location, the Owner's name, address, telephone number and name of a knowledgeable person to contact for information on performance of the product.

When the Contractor has listed specific maker's products submitted with its Bid no changes will be permitted without submittal of acceptable evidence justifying the change and the Engineer's written approval.

If a non-equivalent substitute is submitted for review, it shall be accompanied by a proposed reduction in Contract Price which shall include the increased cost of Engineering service required to evaluate the proposed substitute (which shall be paid to the Owner whether or not the substitute is accepted) plus the greater of 1) the difference in price between the first specified item and the item submitted and 2) the difference in value to the Owner between the two items.

5-1.23A(7) Product Information Submittals

1. Submit three (3) copies. No copies will be returned.
2. Product Information submittals are required for the Owner's permanent records and will be used for future maintenance, repair, modification or replacement work. Product Information submittals will be examined only to verify that the required submittals have been made; they will NOT be reviewed for compliance with the Contract Documents.
3. Make Product Information submittals prior to delivering material, products or items for which Product Information submittals are required.
4. The Contractor has the sole and exclusive responsibility for furnishing products and work that meets the requirements of the Contract Documents.
5. The Engineer reserves the right to comment on any submittal and to reject any product or work delivered, installed or otherwise at any time that the Engineer become aware that it is defective or does not meet the requirements of the Contract Document.

5-1.23A(8) Manufacture Certificates

1. Submit three (3) copies.
2. When specified in Technical Specification section, submit manufacturers' certificate to Engineer for review. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Engineer.

Replace Section 5-1.26A with:

5-1.26A General

The City of Placerville will provide the initial construction staking (one set of stakes) to locate the following items: Grind limits, dig out limits, overlay limits, pavement reconstruction limits, slurry seal limits, crown, striping and storm drainage systems. The aforementioned staking will be provided at approximate 50-foot intervals and at beginning, midpoints and ends of curves and at angle points and grade breaks. Line stakes will be set as appropriate. Contractor shall review initial construction staking and provide additional construction staking as determined necessary.

The Contractor shall be solely responsible for all cost and effort to provided additional construction staking and survey should the Contractor determine it necessary to complete Contract work after the City completes the initial construction staking effort. The Contractor shall be responsible for protecting and preserving the construction staking and survey throughout the Contract duration; maintaining alignment, elevation, and grade, as indicated on the Drawings and as required for the proper operation and function.

Replace the paragraph in section 5-1.26C with:

Payment

Construction surveys shall not be paid separately. Additional construction surveys required by the contractor will not be paid separately.

Replace the paragraphs in section 5-1.27E with:

Maintain separate records for change order work costs.

Submit change order bills to the Engineer.

Add to the end of section 5-1.32:

Personal vehicles of the Contractor's employees must not be parked on the traveled way or shoulders, including sections closed to traffic.

Add between the 2nd and 3rd paragraphs of section 5-1.36C(3):

Utilities shown on the Project Plans as being relocated or rearranged by others will be relocated or rearranged by others, but the Contractor shall coordinate those efforts with the utility owner(s) to ensure no schedule impacts or delays.

Replace the paragraphs in section 5-1.46 with:

When you complete the work, request the Engineer's final inspection. You will be notified, in writing, of any defects or deficiencies to be remedied. Correct all defects and deficiencies within 5 working days of notification and notify the Engineer all defects and deficiencies have been addressed. When notified that the work is complete, the Engineer will again inspect the work to ensure compliance with the Contract Documents.

If the Engineer determines that the work is complete, the Engineer recommends to the City Council that the Contract be accepted and the Notice of Completion be recorded to accept the Contract. Immediately after Contract acceptance, you are relieved from:

1. Maintenance and protection duties
2. Responsibility for injury to persons or property or damage to the work occurring after Contract acceptance expect as specified in section 6-3.06.

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6 CONTROL OF MATERIALS

Add to section 6-1.01:

No materials are allowed to be stockpiled in the State or City Right of Way unless a written request is made to Caltrans or the City in advance. The Contractor is responsible for maintaining and final cleaning after work and restoring the Right of Way to its original condition.

The Contractor shall provide a list of all hazardous materials to be used within the State Right of Way to Caltrans before materials are used.

The Contractor shall provide a list of all hazardous materials to be used within the City Right of Way to the City before materials are used.

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7 LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC

Replace the 11th paragraph of section 7-1.02K(3) with:

Submit certified payroll records to the Engineer and upload to the Department of Industrial Relations.

Add to section 7-1.02K(6)(a):

All Personnel shall wear hard hats and ANSI Class II or higher visibility garments as appropriate.

Add to section 7-1.02K(6)(b):

All trenches shall be securely covered or paved with temporary paving between the hours of 7 pm and 7 am unless otherwise approved by the Engineer.

Contractor shall notify the City, El Dorado Disposal, El Dorado County Fire District, Placerville Police Department, El Dorado County Transit Authority, local US Post Office, three (3) weeks prior to start of construction and two (2) weeks prior to any partial or full road closures. Notifications shall be by E-mail and copies of the notifications shall be provided to the City.

There is no separate bid item for this work and no additional payment will be allowed therefore.

See Section 12 for traffic control requirements.

New certificates of insurance are subject to City approval.

[illegible]

The contractor shall begin construction on the date specified on the Notice to Proceed (NTP), which is anticipated to be June 1, 2020. All preconstruction submittals must be approved prior to starting job site activities. The Contractor is encouraged to submit preconstruction submittals prior to receiving the NTP to allow for proper review and approval of the submittals.

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[illegible]

12 TEMPORARY TRAFFIC CONTROL

When practical, the full width of the roadway must be open to pedestrian and vehicular traffic outside of working hours. When not practical, the Contractor must make every effort to open the maximum number of lanes possible. The full width of the roadway must be open for all planned City of Placerville Events and holidays. At the completion of each workday, all existing lanes of traffic shall be opened to traffic unless advanced approval is given to the Contractor by the City. Provisions must be made for the uninterrupted passage of emergency vehicles through the project limits at all times, regardless of the controlled traffic conditions existing at that time. Additionally, provisions shall be in place to allow residents to have safe access to their houses at all times.

The Contractor shall provide a bicycle and pedestrian circulation plan along with the staging/sequencing plan and all traffic control plans as a submittal for approval by the Engineer. Pedestrians regularly use the existing roadway shoulders and may continue to travel through this area during construction. The expectation is that the pre-construction bicycle and pedestrian circulation will be maintained during construction and any temporary facilities to accommodate the flow of bicyclists and pedestrians will be equal to or better than the existing conditions.

Temporary pedestrian access routes per section 12-4 are only required where existing pedestrian facilities that meet those requirements are being affected by construction. Should the Engineer request a temporary access route per section 12-4 where none currently exists, that work is change order work and will be compensated per section 9.

The detour shown in Appendix D applies to work during the full depth removal and replacement at the intersection of Mosquito Road and Clay Street. At least one lane must be opened at all times on Mosquito Road.

Replace the paragraph in section 12-1.04 with:

There is no separate bid item for flagging so that work is included within the Traffic Control System item of work and no additional compensation is allowed therefore. The Contractor shall be responsible for the entire cost of flagging and is responsible for including that cost in the unit price for the Traffic Control System.

The development of all staging/sequencing plans, traffic control plans, and bicycle and pedestrian handling plans shall be paid for under the Traffic Control System bid item and no additional compensation will be allowed therefore.

The Traffic Control System bid item includes all tools, equipment, materials, and labor necessary to implement the contractor developed traffic control plan(s) and bicycle and pedestrian circulation plan(s) and install and remove all temporary construction area signage in compliance with City and Caltrans, if applicable, encroachment permit requirements. This includes, but is not limited to, all temporary and semi-permanent construction area signs, temporary signals, flaggers, temporary signal control and maintenance, barricades, cones, and K-rail concrete barriers used in the implementation of the traffic control plans and bicycle and pedestrian circulation plans and all other incidental work associated with the Traffic Control System.

Replace the paragraph in section 12-3.11D with:

There is no separate bid item for construction area signs. Payment for all construction area signs shall be included in the Traffic Control System bid item and no additional compensation will be allowed therefore.

Add to the 1st paragraph of section 12-4.02A(1):

Full road closures are not allowed.

Add to section 12-4.02A(2):

Martin Luther King Jr. Day is a designated holiday that is observed on the 3rd Monday in January. The day after Thanksgiving is a designated holiday that is observed the day after Thanksgiving Day. Christmas Eve is a designated holiday that is observed on December 24th.

Replace the 3rd paragraph of section 12-4.04C with:

There is no separate bid item for construction of a temporary pedestrian access route, so that work is considered incidental to the other items of work and no additional compensation is allowed therefore.

Replace “Reserved” in section 12-5 with:

12-5.01 GENERAL

Contractor shall notify the City, El Dorado Disposal, El Dorado County Fire District, Placerville Police Department, and El Dorado County Transit Authority, and local US Post Office 48 hours prior to any lane closures.

Replace “Reserved” in section 12-6.03D(1) with:

Temporary markers and/or markings shall be installed by the Contractor for any existing crosswalk line, limit line, arrow, and other legend or traffic lane line removed or damaged by the work activity prior to the end of the work shift and before opening the lanes for traffic. Temporary pavement markers shall be any of the following types and markers shall be installed in accordance with the following criteria:

1. Davidson Plastic, Model: TOM (Standard) with Reflexite PC-1000 or WZ with Reflexite AC-1000 Sheeting
2. Stimsonite, Model: 300 “Temporary Overlay Markers”
3. Hi-way Safety Inc., Model 1280/1281 with Reflexite PC 1,000

Pavement markings shall be any of the following types and tape pavement markings shall be installed in accordance with the following criteria:

Types of Temporary Pavement Markings:

1. Swarco
2. Visa-Line
3. Brite-Line
4. Series 100

Requirements for Placing Temporary Pavement Markings

Existing Striping	Temporary Striping
12-inch crosswalk line	3 – 4 inch white stripes appearing as 1– 12 inch stripe
8-inch solid line	1 – 4 inch white solid stripe
4-inch broken white	1 – 4 inch white stripe (typically 7' long, 17' gaps*)
4-inch broken yellow	1 – 4 inch yellow stripe (typically 7' long, 17' gaps*)
Double yellow	2 – 4 inch yellow solid stripes 3 inches apart

* Consult Chapter 3 of the California MUTCD for further details. The dimensions for broken lines apply for streets with posted speed limits of 35 MPH or less. For speed limits of 40 MPH or more, the dimensions are for 12' long stripes with 36' gaps.

Replace the 2nd and 3rd paragraphs of section 12-6.04 with:

There is no specific bid item for temporary traffic stripes or pavement markings and no additional compensation will be made therefore.

Replace Section 12-8 with:

12-8 CONSTRUCTION ZONE STANDARDS

12-8.01 GENERAL

12-8.01A Summary

Contractor is responsible for maintaining a safe work area during and after working hours.

12-8.02 Maintaining Traffic

12-8.02A Tow-Away Lanes

Add to section 15-1.01:

The types, locations, sizes and/or depths of existing underground utilities as shown on the Contract Documents were obtained from sources of varying reliability. The Contractor is cautioned that only actual excavation will reveal the types, extent, sizes, locations and depths of such underground utilities. A reasonable effort has been made to locate and delineate all known underground utilities. The majority of the utilities shown on the Project Plans on Spring Street were originally located using ground penetrating radar. Additionally, survey crews collected manhole, pipe sizes, and pipe invert information for the storm drain and sanitary sewer for both Spring Street and Mosquito Road. This information was further supplemented by cleaning and performing CCTV on the majority of the storm drain lines on Spring Street. No ground penetrating radar or CCTV was conducted on Mosquito Road.

As required by law, the Contractor shall contact the Underground Service Alert (U.S.A.) two working days in advance of performing any excavation work by calling the toll-free number 1-800-227-2600. Contractor shall verify all pipeline alignments are conflict free prior to any pipeline installation.

Locations of utility services and laterals are not always provided by utility companies and when shown are approximate (unless potholed). Nothing herein shall be deemed to require the City to indicate the presence of existing utility services, laterals, or appurtenances whenever their presence can be inferred from other visible facilities such as buildings, meters, junction boxes, valves, service facilities, identification markings and other indicators on or adjacent to the work. Potholing to locate services, laterals, and related appurtenances will be at the discretion of the Contractor and no separate bid item will be included for such pothole excavations.

The City is not liable for damages or injury to the Contractor's equipment or employees should they hit an unidentified underground utility in their excavation efforts.

There is no specific bid item for potholing and no additional compensation will be made therefore.

Replace section 15-1.03D with:

15-1.03D Existing Utilities

15-1.03D(1) Potholing

A reasonable effort has been made to locate and delineate all known underground utilities; however, if the contractor deems it necessary to positively identify underground utilities via potholing, the Contractor is required to use a Vactor Truck for all pothole excavations. Potholing must be completed a minimum of 1 week prior to working in any given area and all data must be provided to the Engineer. Pothole data including station & offset, owner, cover depth, facility type, direction, material, and size shall be organized into a spreadsheet and submitted to the Engineer at least 1 week prior to the start of that work.

There is no specific bid item for potholing and no additional compensation will be made therefore.

15-1.03D(2) Interruption of Service

Interruption of existing utility service shall be coordinated with the owner of the given utility at least five (5) days in advance of the interruption. The affected users of the utility shall be notified at least five (5) days in advance of any interruption.

Replace section 15-1.03E with:

15-1.03E Adjust Frames, Covers, Grates, and Manholes

Adjust frames, covers, grates and manholes by lowering before cold planing, pulverizing, and/or pavement reconstruction activities and raising after final paving or surfacing. Before opening the lane to traffic, either (1) complete permanent paving or surfacing or (2) temporarily fill any depressions with HMA or cold mix asphalt.

Where paving or surfacing work is shown, do not adjust to final grade until the adjacent pavement or surfacing is complete. For a structure that is to be raised, remove the cover or frame and trim the top of the structure to provide a suitable foundation for the new material. Instead of using new materials similar in character to those in the existing structure, you may use raising devices to adjust a manhole to grade. Before starting paving work, measure, fabricate, and install raising devices. Raising devices must:

Replace section 17-2.04 with:

Clearing vegetation is considered incidental to the pavement reconstruction item and no additional payment will be made therefore.

Only excavation tools and equipment will be permitted. Other methods of excavation, including blasting, chemical expanders, or hydraulic splitters, will not be allowed, unless otherwise approved by the Engineer.

There is no separate bid item for landscaping and no additional compensation will be made therefore.

Replace 2nd paragraph of section 26-1.02A with:

Unless otherwise noted on the plans or in these special provisions, aggregate used for Class 2 AB shall be ¾" and must comply with the ¾" maximum gradation in Section 26-1.02B.

Replace section 26-1.04 with:

Payment will not be made for any Class 2 AB outside of the limits determined by the Engineer. No additional payment will be made for Class 2 AB depths greater than what is indicated on the Project Plans unless otherwise directed or approved by the Engineer.

The payment quantity for the Class 2 AB bid item is the theoretical volume of Class 2 AB placed under the HMA on Mosquito Road, between stations 110+25 and 112+51, measured in compacted cubic yards. Class 2 AB used for the construction of all other bid items is included in those bid items and no additional compensation shall be made therefore. Scarification and recompaction of the subgrade material, where necessary, to place the Class 2 AB under the HMA shall be included in the Class 2 AB bid item.

The Class 2 AB bid item does not include payment for any AB required for the Road Reconstruction bid item. Should the Contractor select conventional removal and replacement for Road Reconstruction (per section 77-4 of these specifications), the Class 2 AB for that work shall be included in the Road Reconstruction bid item.

Class 2 AB placed on Spring Street will be included in the unit price for Curb & Gutter, Water Service Line, Remove and Replace Water Meter & Box, 12" HDPE Pipe, 48" SDMH, and Install DI.

AA

30 RECLAIMED PAVEMENTS

Replace Section 30-1.01C(1) with:

The Contractor Shall provide the City Engineer with a pavement reconstruction plan detailing the mix design, order of operations, QC plan, and schedule a minimum of three (3) weeks prior to beginning FDR-C operations.

Add to Section 30-4.01C(2)(b):

The mix design must achieve a minimum unconfined compressive strength of 350 pounds per square inch (PSI), after 7-days of curing per ASTM D 1633

Submit at least one mix design for Spring Street and one mix design for Mosquito Road.

Replace Section 30-4.02B with:

Cement shall be Portland cement and shall be Type II/V conforming to the requirements of Section 90-1.02B "Cement" of the 2018 Caltrans Standard Specifications. There are no substitutions for Portland cement.

Contractor shall identify the cement supplier. Contractor shall identify that the he has successfully completed at least five (5) other FDR-C or similar stabilization projects in California over the past three (3) years, including project name, agency/owner, project engineer, and construction dates.

Replace the table in Section 30-4-4.01D(4) with:

FDR—Cement Requirements for Acceptance		
Quality characteristic	Test method	Value
Cement application rate (lb/sq yd)	Calibrated tray or equal	Mix design rate \pm 5%

Relative compaction (% wet density)	California Test 231	95 min
Thickness (ft) ^a	Core measurements	±0.05 of the thickness shown
Unconfined Compressive Strength (PSI) (b)	ASTM D1633	350 psi

^a Take depth measurements during initial compaction from random locations the Engineer selects. The Engineer may require 3 locations per lot.

(b) UCS confirmation shall be based on lab testing results determined before construction

Add to Section 30-4.01D(4):

If the FDR-C section is damaged, or fails compaction or unconfined compressive strength test, then it shall be repaired by removing and replacing up to the full depth of the affected area at the direction of the City Engineer.

Add to Section 30-4.03C:

Trim and remove enough pulverized and mixed materials to allow for the proposed HMA section shown on the Project Plans to conform to existing concrete and asphalt concrete not shown to be removed.

Replace 2nd Sentence of Section 30-4.03F with:

Do not allow more than 2 hours between final mixing of the pulverized material with cement and completion of initial compaction. Do not allow more than 4 hours between final mixing of the pulverized material with cement and completion of compaction with vibratory steel drum rollers.

Replace 3rd Paragraph of Section 30-4.03G with:

At the discretion of the Engineer, micro-cracking of the cement treated section shall be completed within 48 to 72 hours of final compaction. Micro-cracking shall be accomplished with 1 to 4 passes by a 12 ton steel-wheel vibratory roller, traveling at a speed of approximately 2 mph and vibrating at maximum amplitude (or as directed by the Engineer). The section shall have 100% coverage exclusive of the outside 1 foot so as to induce minute cracks in the treated section. Micro-cracking shall be performed in the presence of the Engineer. Additional passes may be required to achieve the desired crack pattern or section modulus as directed by the Engineer.

Add to Section 30-4.03G:

The cement treated subgrade shall be kept free from heavy traffic during the curing period or until HMA is placed, whichever is less, unless otherwise directed by the City Engineer. No parking shall be permitted on the cement treated subgrade.

Curing seal shall consist of SS1h or CSS1h grade asphalt emulsion, or water cure as determined by contractor.

Add to the beginning of Section 30-4.04:

The payment quantity for the Option A: Pavement Reconstruction bid item is the area measured parallel to the ground surface in square yards. Measurement will be based on the actual length and width measurements of the completed FDR-C road section. The contract price paid per square yard of Option A: Pavement Reconstruction shall include costs for all pulverizing and mixing of the existing pavement and underlying materials; excavation of the existing roadway section; utility locating; utility protection, loading, off hauling and disposing of materials; water; spreading, compacting and trimming to the proper grade as shown on the Project Plans and as specified; haul away of all excess pulverized and cement treated material; micro-cracking, curing, protection and sealing of the cement treated base; and necessary testing and no additional compensation will be allowed therefore.

Cement used for FDR-C shall be paid under the Option A: Pavement Reconstruction bid item.

DIVISION V SURFACINGS AND PAVEMENTS

Type A HMA for the roadway shall be paid for under the HMA bid item. The payment quantity for HMA shown on the Bid Item List is measured based on the combined mixture weight. If recorded batch weights are printed automatically, the bid item for HMA is measured by using the printed batch weights, provided:

1. Total aggregate and supplemental fine aggregate weight per batch is printed. If supplemental fine aggregate is weighed cumulatively with the aggregate, the total aggregate batch weight must include the supplemental fine aggregate weight.
2. Total virgin asphalt binder weight per batch is printed.
3. Each truckload's zero tolerance weight is printed before weighing the first batch and after weighing the last batch.
4. Time, date, mix number, load number and truck identification is correlated with a load slip.
5. Copy of the recorded batch weights is certified by a licensed weigh master and submitted.

Payment will not be made for any HMA outside of the limits determined by the Engineer. No additional payment will be made for HMA depths greater than what is indicated on the plans unless otherwise directed or approved by the Engineer.

The Engineer does not adjust the unit price for an increase or decrease in the prepaving grinding day quantity.

The City will not adjust the unit price for an increase or decrease in the quantity of Hot Mix Asphalt (HMA).

The HMA bid item does not include payment for the HMA required for the Pavement Reconstruction bid item.

Payment will not be made for any HMA used as temporary paving surface, tapers, or ramps.

Replace section 39-2.02B(3) with:

Asphalt binder used in HMA Type A must be PG 64-16.

Add to section 39-2.02B(4)(b):

HMA used to plug the 6" Digout must comply with the ¾" HMA Type A gradation.

HMA used in final surface paving lift must comply with the ½" HMA Type A gradation.

Replace the 2nd paragraph of 39-3.04A with:

Cold plane asphalt concrete pavement includes the removal of pavement markers, traffic stripes, pavement markings.

Replace section 39-3.04B with:

Temporary tapers must be either HMA or CMA. No additional payment will be made for the placement of temporary tapers.

Replace section 39-3.04C(1) with:

The Contractor shall follow the order of work shown on the Plans for the 2" AC Grind, 6' Wedge Grind, and 6" Digouts. Digouts shall only be completed after the Contractor has cold planed 2" off of the existing AC surface.

The depth for 6" Digouts are measured from the top of the cold planed surface and are not measured from the top of the existing AC surface. The 6" Digouts bid item does not include the HMA. The HMA used to fill the 6" Digouts shall be paid for under the HMA bid item.

Do not use a heating device to soften the pavement.

The cold planing machine must be:

structural concrete, shoring and bracing, Class 2 AB, backfill, miscellaneous metal and all other incidental work associated with installing 48" SDMH, Type F DI and Type B DI. The payment quantity for 48" SDMH is based on the number of manholes installed. The Payment quantity for the Install Type F DI and Install Type B DI bid items is based on the number of drain inlets installed.

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DIVISION VII DRAINAGE FACILITIES

64 PLASTIC PIPE

Replace the 1st paragraph of section 64-2.02A with:

All plastic pipe must be polypropylene pipe (PP) unless otherwise directed by the Engineer. Polypropylene pipe must conform to ASTM F2736.

Add to section 64-2.02E:

Polypropylene pipe joints must be watertight in accordance to ASTM D3212 with gaskets meeting the requirements of ASTM F477.

Add to section 64-2.04:

The price for 12" PP Pipe includes all necessary trench excavation, backfill, shoring and bracing, installation, temporary surfacing, and all necessary work associated with installing 12" PP Pipe.

AA

70 MISCELLANEOUS DRAINAGE FACILITIES

Replace paragraph in section 70-5.05D:

Drainage inlet markers installed per Standard Plan D71 and as shown on the Project Plans shall be paid for under the DI Marker bid item. The payment quantity for DI Marker bid item is the actual number of drainage inlet markers installed.

AA

71 EXISTING DRAINAGE FACILITIES

Add to section 71-1.03:

Existing drainage facilities not scheduled for removal shall be protected in place. Any damage done to existing drainage facilities not scheduled for removal due to the Contractor's operations shall be repaired to the satisfaction of the City Engineer at the Contractor's expense.

Replace "Not Used" in section 71-1.03 with:

There is no separate bid item for the material used to backfill the trenches, holes, depressions, pits, etc. caused by removing, salvaging, reconstructing, abandoning, destroying, modifying, resetting, relocating,

adjusting, relaying, remodeling, and rehabilitating existing drainage facilities and no additional compensation will be allowed therefore.

Add to section 71-2.04:

The payment quantity for the Remove (E) DI bid item is the number of drainage inlets removed, per the Project Plans. The Contractor shall return the drainage inlet frame and grate to the City if requested by the Engineer.

The payment quantity for the Remove Storm Drain Pipe bid item is the length of removed pipe measured parallel to the ground surface along the centerline of the trench at the finished grade.

The payment quantity for the Remove SDMH bid item is the number of storm drain manholes removed per the Project Plans. The Contractor shall return the manhole lid and frame to the City if requested by the Engineer.

The payment quantity for the Connect to Existing SDMH bid item is the number of manholes requiring connections per the Project Plans, regardless of the actual number of connections made.

The payment quantity for the Connect to Existing DI bid item is the number of existing DI's requiring connections per the Project Plans.

Add to section 71-3.01D:

Cleaning, inspecting, and preparing the culverts (storm drain pipes) as shown on the Project Plans shall be paid for under the Clean 12" Storm Drain Pipe bid item. The payment for the Clean 12" Storm Drain Pipe shall be paid by the length measured parallel to the centerline of the pipe along the finished grade in linear feet.

Replace "Reserved" in section 71-6.03 with:

71-6.03A General

This section governs abandonment of culverts and pipelines.

71-6.03B Submittals

Upon request, schedules and method of abandonment shall be submitted to the Engineer for approval.

71-6.03C Materials

Concrete, fittings, backfill material and other material used for abandonment shall comply with the Standard Specifications and these Special Provisions and be per the Project Plans.

71-6.03D Construction

Pipelines to be cut and capped and abandoned in place by either plugging the ends or filling the entire pipeline with 1-sack light weight sand slurry as shown on the Project Plans. No pipeline shall be abandoned until the new pipeline and all services, if applicable, are installed, tested, and in service. Pipelines to be abandoned shall be securely closed at all pipe ends by an approved cap, blind flange, or, at manhole entries, by a watertight plug of concrete, or brick and cement mortar, not less than 2-feet thick.

For pipelines to be completely filled, the pumping pressure within the pipe shall not exceed 20 PSI. The Contractor's equipment shall be capable of pumping between 0-20 psi. In the event pump pressures are exceeded and the pipe fails, the Contractor shall be responsible for providing all labor, material, and equipment necessary to clean up any slurry. Contractor is made aware that where necessary multiple slurry insertion and monitoring locations will be required to ensure adequate abandonment.

The Contractor shall be responsible for the cutting, removing, and legally disposing of all materials and for the dismantling of any fittings and valves necessary to perform the abandonment. The Contractor shall anticipate the need for removal of sections of the existing pipeline during tie-ins to the existing system and abandonment of the existing pipelines where indicated on the plans.

All Asbestos Concrete Pipe shall be handled and disposed of according to California Code of Regulations

This section governs the work for trench excavation, backfill, and compaction for underground pipeline work including, but not limited to, the installation of PP pipe and removal and replacement of water services.

77-1.01B Submittals

Upon request, the following items shall be submitted and approved by the Engineer:

1. Test results showing gradation, durability, and sand equivalent of pipe zone material.
2. Permit and notification form for excavations 5 feet or more in depth as required by Cal-OSHA, including any trench excavation or shoring plans.

The testing frequency and location shall be approved by the Engineer.

77-1.02 MATERIALS

77-1.02A Trench Excavation

Excavation is unclassified. The Contractor shall complete all excavations regardless of the type of materials encountered. The Contractor shall make his own estimate of the kind and extent of the various materials which will be encountered in the excavation.

77-1.02B Pipe Zone

Material for the pipe zone shall be $\frac{3}{4}$ inch Class II Aggregate Base. The aggregate size gradation shall comply with Caltrans Specifications. The sand equivalent shall be 30 minimum. The durability index shall be 35 minimum.

77-1.02C Backfill

Material for the initial backfill from 12 inches above the top of the pipe to subgrade shall be $\frac{3}{4}$ inch Class 2 Aggregate Base. The aggregate size gradation shall comply with Caltrans Specifications. The sand equivalent shall be 30 minimum. The durability index shall be 35 minimum.

77-1.03 CONSTRUCTION

77-1.03A Excavation

77-1.03A(1) General

Excavation for pipelines, fittings, and appurtenances shall be open trench to the depth and in the direction necessary for the proper installation of the same as shown on the contract drawings or as otherwise approved by the Engineer. Excavation shall only proceed when the necessary materials have been delivered to the site.

The Contractor shall bear all costs of disposing of roots and all other waste materials from the excavation. Material shall be disposed of in such a manner as to meet all requirements of the state, county, and local regulations regarding health, safety, and public welfare. Non-flammable material and flammable material, when burning is not permitted, shall be disposed of off the construction site in an approved location at the Contractor's expense.

The Contractor shall remove obstructions within the trench area or adjacent thereto, such as abandoned concrete structures, logs, and debris of all types, without additional compensation. The Engineer may, if requested, make changes in the trench alignment to avoid major obstructions, if such alignment can be made without adversely affecting the intended function of the facility.

77-1.03A(2) Existing Pavement Removal

Pavement to be removed shall be removed and replaced in the manner prescribed by the Standard Specifications.

Existing pavement, curbs, gutters, sidewalks and driveways to be removed in connection with construction shall be neatly saw cut prior to removal. Saw cuts shall have a minimum depth of one inch in concrete sidewalk.

If the saw cut in a sidewalk or driveway would fall within 12 inches of a construction joint, expansion joint, or edge, the concrete shall be removed and replaced to the joint or edge. If the saw cut would fall within 6 inches of a score mark, the concrete shall be removed and replaced to the score mark. Concrete shall be removed by jackhammer.

77-1.03A(3) Grading and Stockpiling

The Contractor shall control grading in a manner to prevent water running into excavations. Obstructions of surface drainage shall be avoided and means shall be provided whereby storm and wastewater can be uninterrupted in existing gutters, other surface drains, or temporary drains. Material for backfill or for protection of excavation in public roads from surface drainage shall be neatly placed and kept shaped so as to cause the least possible interference with public travel. Free access must be provided to all fire hydrants, water valves, meters and private drives.

77-1.03A(4) Line and Grade

The Contractor shall excavate the trench to the lines and grades shown on the plans. Any deviations shall first be approved by the Engineer.

The trench shall be excavated to a minimum depth of 6 inches below the bottom of the pipe. The sides of the trench shall be excavated and maintained as nearly vertical as is practical.

77-1.03A(5) Trench Support

The trench shall be adequately supported and the safety of workers provided for as required by the standard of the appropriate regulatory agency.

All shoring for open excavations shall conform to the State of California, Department of Industrial Relations, Division of Industrial Safety "Construction Safety Orders."

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

No shoring once installed, shall be removed until the trench has been approved for backfill operations. Removal of shoring shall only be accomplished during backfill operations and in such a manner as to prevent any movement of the ground or damage to the pipe or other structures.

The Contractor shall obtain all permits for any excavations over five feet in depth into which a person is required to descend or any excavation less than five feet in depth in soils where hazardous ground movement may be expected and into which a person is required to descend.

Excavated material shall not be placed closer than two feet from the top edge of the trench. Heavy equipment should not be used or placed near the sides of the trench unless the trench is adequately braced.

77-1.03A(6) Use of Explosives

Blasting is not permitted.

77-1.03A(7) Preservation of Trees

Excavation within the dripline of any tree shall conform to the following. Trees shall not be removed outside of fill or excavated areas, except as authorized by the Engineer.

Tree roots larger than 2 inches in diameter shall not be cut and shall be kept moist during exposure. For damaged or severed root systems, trees shall be trimmed to compensate for the decreased root system. Trimming shall be done to the satisfaction of the Inspector. All roots shall be neatly cut with saw or sharp cutter.

77-1.03A(8) Dewatering

The Contractor shall provide and maintain, at all times during construction, ample means and devices with which to promptly remove and properly dispose of all water from any source entering the excavations

or other parts of the work. Dewatering shall be accomplished by methods which will ensure a dry excavation and preservation of the final lines and grades of the bottoms of excavations. Said methods may include well points, cofferdams, sump pumps, suitable rock or gravel placed below the required bedding for drainage and pumping purposes, temporary pipelines and other means, all subject to the approval of the Engineer.

Dewatering for the structures and pipelines shall commence when groundwater is first encountered and shall continue until the backfill at the pipe zone has been completed.

The Contractor shall dispose of the water from the work in a suitable manner without damage to adjacent property. No water shall be drained into work built or under construction without prior consent of the Engineer. Water shall be disposed in such a manner as not to be a menace to public health.

The Contractor shall be responsible to obtain all required Local and State Permits.

Dewatering is incidental to other items of work and no additional compensation will be allowed for dewatering.

77-1.03A(9) Correction of Faulty Grades

Any over-excavation carried below the grade as specified or shown, shall be rectified by backfilling with approved sand and/or graded gravel, and shall be compacted to provide a firm and unyielding subgrade and/or foundation, as directed by the Engineer.

77-1.03A(10) Structure Protection

Temporary support, adequate protection, and maintenance of all underground and surface structures, drains, sewers, and other obstructions encountered in the progress of the work shall be furnished by the Contractor at his expense and subject to the approval of the Engineer. Any structure that has been disturbed shall be restored upon completion of the work.

77-1.03A(11) Trench Width and Grade

The width of the trench within the pipe zone shall be such that the clear space between the barrel of the pipe and the trench wall shall not exceed the amount shown in the standard details. In general, the following shall be adhered to:

Nominal Pipe Diameter	Trench Width Minimum	Trench Width Maximum
12" or less	O.D. + 12"	O.D. + 18"
greater than 12"	O.D. + 18"	O.D. + 24"

Trench widths in excess of those specified must have prior written approval.

77-1.03A(12) Maximum Length of Open Trench

Unless otherwise specified or directed by the Engineer, the maximum length of open trench during working hours shall be 500 feet, or the distance necessary to accommodate twice the amount of pipe installed in a single day, whichever is greater. The maximum length of open trench appropriately covered during non-working hours is the distance necessary to accommodate the amount of pipe installed in a single day. The distance is the collective length of any location, including open excavation, pipe laying and appurtenant construction, and backfill, which has not been temporarily resurfaced. Failure by the Contractor to comply with the limitations specified herein may result in an order to halt progress of the work until compliance has been achieved. The Contractor shall provide proper barricades for excavated areas.

Open trenches must be appropriately covered during non-working hours. Open trenches are not allowed during the scheduled events listed in section 7-1.03. Prior to those events, all trenches must be temporarily resurfaced to the satisfaction of the Engineer.

77-1.03A(13) Rock Excavation

Excavation of unrippable rock requiring a larger excavator and/or hydraulic hammering will be paid for as an additional cost above and beyond the cost for excavation and trenching for ordinary excavation. The City Engineer will determine when rock excavation for unrippable rock is required per the definition below.

Definition of Rock: Rock encountered during the course of excavation which is sufficiently hard that it cannot be removed using a Caterpillar 320 class excavator or equivalent using conventional methods shall be deemed inexcavatable. Rock deemed inexcavatable shall be removed by substantial means such as reciprocating hydraulic hammers and shall conform to this specification.

77-1.03A(14) Payment:

There is no separate bid item for trench excavation. Trench excavation shall be considered incidental to other items of work and no additional compensation will be allowed therefore.

77-1.03B Trench Foundation

77-1.03B(1) General

The trench bottom shall be graded to provide a smooth, firm and stable foundation at every point throughout the length of the pipe. Should large gravel and cobbles be encountered at the trench bottom or pipe subgrade, they shall be removed from beneath the pipe and replaced with clean imported sand which shall be compacted to provide uniform support and a firm foundation.

77-1.03B(2) Foundations in Poor Soil

If excessively wet, soft, spongy, unstable, or similarly unsuitable material is encountered at the surface upon which the bedding material is to be placed, the unsuitable material shall be removed to a depth as determined in the field by the Engineer. The Contractor's attention is called to section 77-7.03A(8), regarding his/her responsibilities in maintaining adequate dewatering procedures to ensure that an otherwise stable foundation will not be rendered unfit due to accumulation of water.

77-1.03C Backfill and Compaction

77-1.03C(1) General

Backfill shall be completed within the shortest possible time so that the construction area or street can be opened to traffic. If for any reason construction of the pipeline or appurtenances thereto is delayed, the City may require that the trench be backfilled and such areas or streets opened to traffic.

77-1.03C(2) Pipe Zone

After completion of the trench excavation and proper preparation of the foundation, 6 inches of bedding material shall be placed on the trench bottom for support under the pipe. Bell holes shall be dug to provide adequate clearance between the pipe bell and the bedding material. All pipes shall be installed in such a manner as to insure full support of the pipe barrel over its entire length. After the pipe is adjusted for line and grade and the joint is made, the remainder of the pipe bedding shall be placed to the limits as shown on the Drawings. All bedding material shall be compacted 90% as measured by Test Method California 231, prior to placement of subsequent backfill.

When bedding material is selected material or imported sand, the pipe bedding backfill shall be brought to optimum moisture content and shall be placed by hand in layers not exceeding 3 inches in thickness to the centerline (string line) of the pipe and each layer shall be solidly tamped with the proper tools so as not to injure, damage, or disturb the pipe. Backfilling shall be carried on simultaneously on each side of the pipe to assure proper protection of the pipe.

Each lift shall be "walked in" and supplemented by slicing with a shovel to ensure that all voids around the pipe have been completely filled. Mechanical compaction such as "pogo sticks" or "wackers", as approved, shall be used for compaction of pipe zone.

77-1.03C(3) Initial Backfill

The remaining portion of the trench shall be backfilled, compacted, and/or consolidated by approved methods to obtain a 90% compaction as measured by CTM 231. Backfill shall be good sound earth, sand or gravel. Bituminous pavement, concrete, rock, or other lumpy material shall not be used in the backfill

unless these materials are scattered and do not exceed 6 inches in any dimension and are not placed within 1½ feet of the surface. Material of perishable, organic matter, spongy or otherwise improper nature, shall not be used.

When backfill is placed mechanically, the backfill material shall be pushed onto the slope of the backfill previously placed and allowed to slide down into the trench. The Contractor shall not push backfill into the trench in such a way as to permit free fall of the material until at least 18 inches of cover is provided over the top of the pipe. Under no circumstances shall sharp, heavy pieces of materials be allowed to be dropped directly onto the pipe or the tamped material around the pipe. Backfill shall be placed in layers not exceeding 8 inches and compacted by an approved method.

Heavy duty compacting equipment having an overall weight in excess of 125 pounds shall not be used until backfill has been completed to a depth of 2 feet over the top of the pipe.

If hydro-hammer is used for compaction of overlying materials, at least 4 feet of backfill must be placed over the top of pipe prior to its use. This is required to ensure that the pipe is not damaged.

77-1.03C(4) Final Backfill

Final backfill placed in trenches shall be compacted to a density of not less than 95%.

Backfill shall be placed in layers not exceeding 8 inches, compacted and brought up to the subgrade.

77-1.03D Excess Excavated Material

The Contractor shall make the necessary arrangements for, and shall remove and dispose of all excess excavated material. All surplus material not required for backfill or fill shall be disposed of by the Contractor outside the limits of the public right-of-way and/or easements at no liability to the City. Excess material becomes property of the Contractor and is incidental to other items of work.

No excavated material shall be deposited on private property unless written permission from the owner thereof is secured by the Contractor. Before the City will accept the work as being completed, the Contractor shall file a written release signed by all property owners with whom he has entered into agreements for disposal of excess excavated material absolving the District from any liability connected therewith.

Full compensation for haul-off and disposal of native trench material is included in the prices paid per linear foot of the respective sizes, grades, and types of pipes listed in the contract, and no additional compensation will be paid.

77-1.03E Restoration of Damaged Surfaces or Property

If any pavement, trees, shrubbery, fences, poles, or other property and surface structures have been damaged, removed, or disturbed by the Contractor, whether deliberately or through failure to carry out the requirements of the contract documents, state laws, municipal ordinances, or the specific direction of the City, or through failure to employ usual and reasonable safeguards, such property and surface structures shall be replaced or repaired at the expense of the Contractor.

77-1.03F Final Clean-Up

After backfill has been completed, the right-of-way shall be dressed smooth and left in a neat and presentable condition to the satisfaction of the Engineer.

77-1.04 PAYMENT

There is no separate bid item for the material, equipment, or labor used to backfill the trenches, holes, depressions, pits, etc. or restoration of surfaces caused by removing, salvaging, abandoning, destroying, modifying, adjusting, rehabilitating existing or installing new drainage or water facilities and no additional compensation will be allowed therefore. Backfill of trenches and restoration of surfaces shall be considered incidental to other items of work.

77-2 TAPPING VALVES AND SLEEVES

77-2.01 GENERAL

77-2.01A Summary

This section governs materials and installation of tapping valves and sleeves. Valves shall be furnished and installed by the Contractor at the locations shown on the Approved Plans, or as required by the Engineer.

77-2.01B Submittals

Prior to the purchase of tapping valves and sleeves to be used in the City's system, the following items shall be submitted to and approved by the Engineer:

1. Manufacturer's catalog data and detail construction sheets showing the size to be used, valve and sleeve dimensions, pressure rating and materials of construction.
2. Manufacturer's catalog data and NSF certification seal on the lining to be used.

77-2.02 MATERIALS

77-2.02A Tapping Valves

Tapping valves shall be of the double disc or resilient seat type conforming to all requirements for gate valves in Section 77-4. Valves shall be furnished with a flanged end with centering ring on the tapping sleeve side. The outlet side of valve shall have a mechanical joint, except as otherwise approved. Seat rings shall be oversized to permit the use of full-size cutters.

77-2.02B Tapping Sleeves

Sleeves shall be 304 stainless steel or cast iron conforming to ASTM-A-126 Class B. Bolts, nuts, and washers shall be type 304 Stainless Steel. Gaskets shall be Buna-N rubber at each end of the sleeve. Sleeves shall have a 3/4-inch NPT plug for air test.

77-2.02C Coating and Linings

Valves shall be coated and lined per Section 77-4. Cast iron sleeves shall be coated with two coats of asphalt varnish conforming to AWWA C504, except for face of flanges, bolts and nuts. Face of flanges shall be shop coated with a rust preventive compound.

77-2.03 CONSTRUCTION

77-2.03A Installation

Surface preparation, sleeve placement, and connection of valve shall be in accordance with manufacturer's recommendations. Method of installation may vary depending on type of pipe being tapped.

77-2.03B Testing

Valve and sleeve shall be air tested prior to pipe cutting. Valve and sleeve shall sustain an air pressure of 30 psi for 5 minutes. After acceptance of the air test the pipe can be tapped.

77-2.03C Tapping

Tapping shall only be done in the presence of the Inspector. The tapping mechanism shall be of the self-purging type so that cutting chips are removed from the tapping machine and do not enter the pipeline.

77-2.03D Size

The diameter of the tap shall be less than the diameter of the main being tapped.

77-2.04 PAYMENT

The tapping of valves and sleeves is considered incidental to other items of work and no additional compensation will be allowed therefore.

77-3 WATER SERVICE LINES AND APPURTENANCES

77-3.01 GENERAL

77-3.01A Summary

This section governs materials and installation of service line materials and fittings.

77-3.01B Submittals

Prior to the purchase of the material to be used in the City's system, the manufacturer's catalog data showing model, part number, pressure ratings, and materials of construction shall be submitted to and approved by the Engineer.

77-3.02 MATERIALS

77-3.02A Service Line Materials and Fittings

77-3.02A(1) General

Service line materials and fittings include service line pipe, service saddles, service fittings, meter stops, corporation stops, curb stops, and ball valves.

77-3.02A(2) Polyethylene Tubing (PE)

PE tubing shall be in accordance with AWWA C901 and correspond to iron pipe size (IPS). The tubing shall be marked with the following:

1. Nominal size,
2. Material code; i.e., PE 3406,
3. The word "Tubing" and dimension ratio,
4. AWWA pressure class; i.e., PC 160
5. AWWA designation AWWA C901,
6. Manufacturer's name or trademark,
7. Seal of testing agency.

The polyethylene material shall be type "3408" conforming to ASTM D3350. The pressure class shall be a minimum of 200 psi.

Stainless steel liners or inserts shall be used with PE tubing when compression type connections are specified or shown.

77-3.02A(3) Fittings

Fittings including PE tubing couplings, bends, unions, and adapters shall be constructed of bronze and shall be designed to join to IPS polyethylene tubing using a "stab type" connection (Mueller or approved equal) in ¾-inch and 1-inch sizes and compression type connections in 1½-inch and 2-inch sizes. Fittings shall also have male or female iron pipe-size-threaded ends and/or meter coupling nut or meter flange as required.

77-3.03 CONSTRUCTION

77-3.03A Polyethylene Tubing

Tubing and fittings should be stored in a way that prevents damage due to crushing or piercing, excessive heat, harmful chemicals, or exposure to sunlight for prolonged periods. The manufacturer's recommendations regarding storage should be followed.

Handling operations and trench installation and backfill shall be performed with reasonable care to prevent scratches, nicks, and gouges in the conduit.

Pipe excessively cut or kinked shall not be used.

Bends in PE tubing shall not occur closer than 10 diameters from any fitting or valve. The minimum radius of curvature is 30 diameters or the coil radius when bending with the coil. Bending of coiled tubing against the coil shall not go beyond straight. Polyethylene tubing that becomes kinked during handling or installation shall not be used, and care should be taken to ensure that kinking does not develop after

installation. Service line from the main line tap to the angle meter stop shall be one continuous length of tubing.

PE tubing shall be installed in trench bottoms with 6-inches of bedding material to provide continuous and uniform support. The initial backfill shall be 6 inches above the tubing and shall be materials free from rock, stones, and debris.

77-3.03B Fittings

Installation of fittings shall be as recommended by the manufacturer. Pipe or fittings made of nonferrous metals (bronze) shall be isolated from ferrous metals with insulating unions or couplings.

77-3.03D Hydrostatic Testing

The Contractor shall hydrostatic test all appurtenances in place with the pipe being tested.

77-3.04 PAYMENT

Measurement and payment for the Remove & Replace Water Service bid item shall be full compensation by each, as shown on the Project Plans. Work shall include all work required to hot tap the service and installation of service line, water meter, pressure regulator, traffic rated meter boxes and lids, and any work incidental to removing and replacing the water services as shown on the Project Plans.

The new water meter, pressure regulator, meter boxes, and lids shall be provided by the City for this work. All other materials shall be supplied by the Contractor.

The Contractor shall be responsible for examining all specified properties to determine all labor, materials, and equipment necessary to install a new 1-inch polyethylene water service; removing existing 1-inch meter, meter box and service line; and complete the installation of the new meter, residential pressure regulator, and meter boxes as specified in the project plans. This includes, but not limited to, furnishing valve(s), service saddle, corp stop, curb stop, pipe, fittings, couplings, excavation, drain rock, backfill and compaction, furnishing and installing new in-tract line, tie-in to existing in-tract line, temporary and permanent surface restoration and all other incidentals necessary to complete the item. No additional compensation will be made if wet connections are required.

The Contractor shall include in their bid price the removal and replacement of up to 10-feet of additional in-tract pipe past the new meter box. Connection to the existing in-tract pipe shall be made at the City agreed upon location; additional pipe replacement past the 10-feet will be paid under force account.

Contractor shall place new meter and pressure regulator per the locations shown on the project plans or coordinate new meter and pressure regulator placement with City inspector prior to excavation.

77-4 PAVEMENT RECONSTRUCTION

77-4.01 GENERAL

77-4.01A Summary

Pavement Reconstruction includes all of the work, equipment and materials necessary to reconstruct the pavement sections identified on the Project Plans using either Full Depth Reclamation with Concrete (FDR-C) or by conventional removal and replacement. Measurement and payment shall be made by the area measured parallel to the ground surface in square yard and shall be full compensation including but not limited to submittals; locating and protecting existing utilities; removal and disposal of AC dike; removal and disposal of excess materials; and import of materials, preparation, placement, compaction and incidentals required to reconstruct the section according to the plans, special provisions and geotechnical report, of the option selected by the contractor.

Contractor shall include pricing for only one option:

Option A includes reconstruction of the existing structural section using FDR-C structural section consisting of 3" HMA placed over 9" of FDR-C. Contractor will submit a schedule of values based upon their project

specific mix design which will be used to facilitate progress payment. For bid purposes, include 225 Tons of cement within the unit cost for Option A.

Option B includes reconstruction of the existing structural section by removal and disposal of the existing pavement section, base, and subgrade material and replacement of it with a structural section consisting of 3.5" HMA placed over 6" of Class 2 AB.

AA

DIVISION IX TRAFFIC CONTROL DEVICES

81 MISCELLANEOUS TRAFFIC CONTROL DEVICES

Replace section 81-1.04 with:

All miscellaneous traffic control devices and items shall be paid under the Traffic Control Systems bid item.

AA

84 MARKINGS

Add to section 84-2.02A:

All traffic stipes and pavement markings must be thermoplastic unless otherwise specified in the Project Plans.

Add to section 84-2.03A:

Centerline traffic striping and pavement markings shall be replaced to existing configuration on Spring Street and Mosquito Road from the southernmost project limits to Dimity Lane unless otherwise shown on the Project Plans. The Contractor shall be responsible for documenting the existing centerline traffic striping and pavement markings prior to striping removal or resurfacing streets. All other traffic striping and pavement markings shall be placed per the locations on the Project Plans.

Add to section 84-2.04:

Traffic stripes shall be paid under the Thermoplastic Traffic Stripe bid item.

Pavement markings shall be paid under the Thermoplastic Pavement Marking bid item.

AA

DIVISION XI MATERIALS

90 CONCRETE

Add to section 90-1.01A:

All concrete shall be air entrained as this project is located within a freeze-thaw area.

Replace “Reserved” in the section 90-1.01C(1) with:

For each load of concrete delivered to the job site, the contractor shall submit quality control records from the concrete supplier identifying air content per California Test 504 or comparable ASTM test method. The concrete supplier shall have an authorized representative on-site during concrete pours to check and/or dose the concrete to ensure air content meets project specifications.

Replace the 4th sentence in the 1st paragraph of section 90-4.01C(3) with:

Allow 15 days for review.