CITY OF PLACERVILLE, CALIFORNIA
ENGINEERING DEPARTMENT

UPPER BROADWAY BIKE LANES PROJECT
(INCLUDING UPPER BROADWAY PEDESTRIAN CONNECTION)
PROJECT NO. CML – 5015 (027 & 029)
CIP #41508

DRAFT

SPECIAL PROVISIONS
BOOK 2 of 2

DIVISION I GENERAL PROVISIONS

1 GENERAL

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.

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, 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. Bid Item Descriptions
4. Special Provisions
5. Project Plans
6. Standard Specifications
7. 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.

Project Plans: The Project Plans are specific details and dimensions peculiar 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 Revised Standard Plans.

Standard Specifications: 2018 Standard Specifications of the State of California, Department of Transportation (Caltrans) and Revised Standard Specifications.

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 the construction drawings.

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 1-1.11:

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 section 2-1.05 with:

2-1.05 FEDERAL LOBBYING RESTRICTIONS

Section 1352, Title 31, United States Code prohibits Federal funds from being expended by the recipient or any lower tier sub recipient of a Federal-aid contract to pay for any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal aid contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement.

If any funds other than Federal funds have been paid for the same purposes in connection with this Federal-aid contract, the recipient shall submit an executed certification and, if required, submit a completed disclosure form as part of the bid documents.

A certification for Federal-aid contracts regarding payment of funds to lobby Congress or a Federal agency is included in the Bid book. Standard Form - LLL, “Disclosure of Lobbying Activities,” with instructions for completion of the Standard Form is also included in the Bid book. Signing the Bid book shall constitute signature of the Certification.

The above referenced certification and disclosure of lobbying activities shall be included in each subcontract and any lower-tier contracts exceeding $100,000. All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the Engineer.

The Contractor, subcontractors and any lower-tier contractors shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by the Contractor, subcontractors and any lower-tier contractors. An event that materially affects the accuracy of the information reported includes:

(1) A cumulative increase if $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(3) A change in the officer(s), employees(s), or Member(s) contacted to influence or attempt to influence a covered Federal Action.

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 Section 2-1.12B (2) with:

2-1.12B(2) Disadvantaged Business Enterprises Commitment submittal

Submit DBE information on the Local Agency Bidder - DBE - Commitment form (DBE commitment form) included in the Proposal and Agreement Section. If the form is not submitted with the bid, remove the form from the Proposal and Agreement Section before submitting your bid.

If the DBE commitment form is not submitted with the bid, the apparent low bidder, the 2nd low bidder, and the 3rd low bidder must complete and submit the form to the City of Placerville. The DBE commitment forms must be received by Rebecca Neves, City of Placerville Division of Engineering or email rneves@cityofplacerville.org no later than 4:00 p.m. on the 4th business day after bid opening.

Other bidders are not required to submit the DBE commitment form unless the Department requests it. If the Department requests a DBE commitment form from you, submit the completed form within 4 business days of the request.

Submit written confirmation from each DBE shown on the form stating that it will be participating in the Contract. Include confirmation with the DBE commitment form. A copy of a DBE's quote will serve as written confirmation that the DBE will be participating in the Contract.

If you do not submit the DBE commitment form by the specified time, your bid is nonresponsive.

Replace the second and third paragraph of Section 2-1.12B(3) with:

If you have not met the DBE goal, complete and submit the Good Faith Efforts Documentation form with the bid showing that you made adequate good faith efforts to meet the goal. Only good faith efforts directed toward obtaining participation by DBEs are considered. If good faith efforts documentation is not submitted with the bid, it must be received by Rebecca Neves, City of Placerville Division of Engineering or email rneves@cityofplacerville.org no later than 4:00 p.m. on the 4th business day after bid opening.

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 Division of Engineering 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 SUBCONTRATORS or email to Rebecca Neves, City of Placerville Division of Engineering 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 my grant bid relief under Public Contracts Code § 5100 et seq. Submit any request for bid relief to Rebecca Neves, City of Placerville Division of Engineering 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 his staging area. Several potential staging areas are shown in Attachment A.

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

If at any time the cleaning 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 his 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.

At any time, if requested by the City, the Contractor shall provide a street sweeper.

If requested after sweeping, the Contractor shall wash the work area with sufficient water to remove remaining debris. Drainage inlets must be properly protected with inlet fabric/bags per Section 13. Contractor shall use vactor trailers or other approved equipment to prevent domestic water from entering the storm drain system. Inlet bags shall be cleaned following each wash.

Building facades, windows and display cases shall be kept clean or cleaned to the start-of-work conditions.

The Contractor is responsible for maintaining vehicular and pedestrian traffic at all time. Repair and replace all striping affected by the day's work. Crosswalk and lane striping must be visible at all times.

All cleaning activities must be completed prior to opening of roadway. The Contractor shall schedule work and cleaning activities to assure streets can be reopened before 7 pm.

Stormwater BMP's shall be installed, inspected and maintained per Section 13 and per the approved SWPPP.

4-1.13A(2) Weekly Cleanup

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

The Contractor shall properly sweep the work area daily with hand brooms and/or street sweeper.

If requested after sweeping, the Contractor shall wash the work area with sufficient water to remove remaining debris. Drainage inlets must be properly protected with inlet fabric/bags per Section 13. Contractor shall use vactor trailers or other approved equipment to prevent domestic water from entering the storm drain system. Inlet bags shall be cleaned following each wash.

At the end of each working week, remove all equipment and materials from daily staging area(s) and transport them to an approved staging area.

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

4-1.13A(3) Final Cleanup

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

Before final inspection, leave the job site neat and presentable and dispose of:

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

Do not remove warning, regulatory, or guide signs until Contract acceptance unless otherwise directed by the Engineer.

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5 CONTROL OF WORK

Replace section 5-1.20D with:

5-1.20D Permits

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.*

2. The Contractor must obtain a water use permit for construction water. Construction meters require a one-thousand dollar ($1,025) deposit. The monthly rental fee for the construction meter is one-hundred dollars ($100) per month and is billed bimonthly. The usage fee is a tiered rate as shown in the table below.

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(4) Construction Schedule

Submit three (3) copies and the original electronic file in Microsoft Project format as used for generating said schedule for information. No copy will be returned.

The form of Construction Schedule may be selected by the Contractor, but shall require the following:

1. Beginning and ending date for each major construction task.
2. Sequential order of tasks.
3. Input from the Contractor's subcontractors and suppliers.
4. An allowance for normal unfavorable weather.
5. Enough time to accomplish all clarifications or changes such that it shall not exceed time limits specified in the Contract Documents.
6. 10 working days for review and response of submittal while not impacting Contractor's schedule.
7. Tabulation and analysis of the work schedule shall be performed by computer.

If the Construction Schedule does not reflect the format requirements, the specified work, or the Contract Time, it will be returned to the Contractor for modification.

Revise the Construction Schedule and resubmit within two (2) days following any comments from City or Engineer review.

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 while 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 5-1.26 with:

5-1.26 CONSTRUCTION SURVEYS

You must set construction stakes and markers to establish the lines and grades required for the completion of the work on the plans and as specified in the Standard Specifications and these Special Provisions and as necessary for the Engineer to check lines, grades, alignment and elevations.

All procedures, methods, and typical stake markings shall be in accordance with Chapter 12, Construction Surveys, of the Caltrans “Survey Manual.” Copies of the “Survey Manual” may be purchased from Caltrans Publications Unit, 1900 Royal Oaks Drive, Sacramento, and California 95815, (916) 445-3520.

Staking must be performed under the direction of a licensed surveyor or registered civil engineer with the authority to perform land surveying.

Replace section 5-1.26 with:

5-1.26 GRADE QUALITY CONTROL

Use a GNSS rover, robotic total station equipment, or a level to check the grades at the frequencies shown in the following table: **Grade Checking Requirements**

Type of work	Area or distance represented by the grade checking	Frequency (number of grade points)
Earthwork for cut and fill slopes ≤15 feet	200 feet	2
Earthwork for cut and fill slopes >15 feet	1,000 sq yd	1
Rough grading	1,000 sq yd	1
Trenching	100 feet	6
Subgrade	1 mi	30
Subbase layer	1 mi	50
Base layer	1 mi	100
Curb and gutter	100 feet	6
Concrete barrier	100 feet	5
Finishing roadway	1,000 sq yd	2

Increase the frequency of grade checking of a roadway:

1. Wherever its curve radius is 500 feet or less
2. In areas of a superelevation transition
3. At intersections

Notify the Engineer when an area is ready for line and grade inspection. Submit the grade checking results on a Grade Checking Report form as an informational submittal.

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 your 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):

The utilities shown in the following table will not be rearranged. The utilities may interfere with pile driving, drilling activities, or substructure construction. If you want any of them rearranged or temporarily deactivated, make arrangements with the utility owner.

Utilities Not Rearranged for Pile Driving, Drilling Activities, or Substructure Construction

Utility	Location
Communication Conduits	Under culvert extension at Retaining Wall No. 2
Electrical Conduits	Under culvert extension at Retaining Wall No. 2
Utility Pole	Adjacent to Retaining Wall No. 3

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.

^^

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.

Replace section 6-1.04A:

This Project is subject to the "Buy America" provisions of the Surface Transportation Assistance Act of 1982, as amended by the Intermodal Surface Transportation Efficiency Act of 1991.

^^

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.

Add to section 7-1.03:

Contractor to pay special attention to any scheduled events in the Project area. Contractor to coordinate with the Placerville Downtown Association and ensure Project area is clean, safe, and available for scheduled events. The Placerville Downton Association's contact number is (530) 303-8186.

Contractor shall notify the City, El Dorado County Fire District, Placerville Police Department, Placerville Downtown Association, and El Dorado County Transit Authority 48 hours prior to start of construction. Contractor is to leave the site in a condition that is acceptable as directed by the Engineer. Notifications shall be by E-mail and copies of the notification shall be provided to the City upon request.

Add to section 7-1.04:

At all times Contractor shall maintain pedestrian and vehicular traffic and maintain all ADA paths of travel per ADA regulations for access to all residential and commercial property unless written approval is otherwise obtained from the City allowing for reduced access.

Public traffic shall be allowed to pass through the work area at all times, unless a closure plan has been approved in writing by the City.

Contractor shall allow for passage of emergency vehicles at all times.

See Section 12 for traffic control requirements.

Add to section 7-1.06F:

New certificates of insurance are subject to City approval.

^^

8 PROSECUTION AND PROGRESS

Replace the 1st paragraph of section 8-1.02B(3) with:

Submit an updated schedule at all weekly construction meetings that includes the status of work completed to date and the work yet to be performed as planned.

Replace the 3rd sentence of the 1st paragraph of section 8-1.03 with:

You may not start work before the preconstruction conference.

Replace the 1st paragraph of section 8-1.04B with:

Start job site activities on the date stated in the Notice to Proceed (NTP). 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.

^^

9 PAYMENT

Delete section 9-1.11.

Add to section 9-1.16E(3):

The City returns performance-failure withholds in the progress payment following the correction of non-compliance.

Replace the paragraphs in section 9-1.16F with:

The City will withhold 5 percent of all progress payments as retention. Retention will be paid to the Contractor on Final Payment.

In accordance with Part 5 (§ 22300), Division 2 of the Public Contract Code, a Contractor may substitute securities for retention moneys withheld by a public agency to ensure performance under this Contract. At the request and expense of the Contractor, securities equivalent to the amount withheld shall be deposited with the City of Placerville, or with a state or federally chartered bank, as the escrow agent, who shall then pay such moneys to the Contractor, and upon satisfactory completion of the Contract, the securities shall be returned to the Contractor. No substations will be accepted until:

1. the City approves the securities and their value,
2. the parties have entered into an escrow agreement (if the securities are to be held in escrow) in a form substantially similar to that under § 22300,
3. all documentation necessary for assignment of the securities to the City or to the escrow agent are delivered in a form satisfactory to the City.

If the Contractor has substituted securities for any of the retention, the City may request that such securities be revalued from time to time, but not more often than monthly, at the expense of the Contractor. Such revaluation will be made by a person or entity designated by the City and approved by the Contractor. If such a revaluation results in a determination that the securities have a market value less than the amount of retention for which they were substituted, then the amount of the retention required under the Contract will be increased by such difference in market value.

Such increased retention will be withheld from the next progress payment(s) due to the Contractor under the Contract.

The City shall hold retainage from the Contractor and shall make prompt and regular incremental acceptances of portions, as determined by the City, of the contract work, and pay retainage to the Contractor based on these acceptances. The Contractor, or subcontractor, shall return all monies withheld in retention from a subcontractor within 30 days after receiving payment for work satisfactory

completed and accepted including incremental acceptances of portions of the contract work by the City. 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 City's prior written approval. Any violation of this provision shall subject the violating 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 Contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor, deficient subtract performance, or noncompliance by a subcontractor.

^^

DIVISION II GENERAL CONSTRUCTION

12 TEMPORARY TRAFFIC CONTROL

Add to the section 12-1.01:

Along with the project schedule, the Contractor shall submit a construction staging/sequencing plan for review and obtain approval by the Engineer prior to the start of construction. The staging/sequencing plan should identify any impacted driveways, businesses, or residences. A minimum of one driveway to each parking lot or parcel must remain open at all times. Where only one driveway exists, half the driveway must remain open at all times, unless otherwise approved by the Engineer. In the event vehicular access must be blocked to a business or residence, 72-hours advanced notice must be provided to any property owners and tenants affected by the blockage.

The Contractor shall submit traffic control plans, including closure plans, for review and obtain approval prior to any construction activities requiring temporary traffic control. The Engineer shall review and approve all traffic control systems, including hardware and location/placement, prior to beginning construction activities each workday. Public traffic shall be allowed to pass through the work area at all times unless a full road closure plan has been previously approved.

Full road closures will only be allowed during normal working hours and at the locations identified on Attachment B, unless otherwise approved by the Engineer. Full road closures must be approved a minimum of 15 working days in advance. Full road closure plans shall include a detour plan, a pedestrian circulation plan, hours in which the closure will take place, and any other pertinent information. Full road closures will only be allowed for one of the three locations shown on Attachment B at a time.

Half road closures are permitted for this project and must comply with Caltrans 2018 Standard Plan T13, unless otherwise approved by the Engineer. Half road closures must be approved a minimum of ten working days in advance. Should the Contractor desire to leave the half road closure up outside of normal working hours, a temporary signal or full-time flaggers must be employed at all times, and a half road closure at a single location must not extend longer than four consecutive weeks, including no more than three weekends.

Contractor shall provide and maintain traffic control devices, flaggers and all other necessary items per this section, the Caltrans Traffic Manual, and MUTCD where applicable. The Contractor will be responsible for the maintenance of all traffic control items and equipment during and outside of working hours.

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.

Contractor must provide a bicycle and pedestrian plan through the project site as a submittal.

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.

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

Full road closures are only allowed during the hours of 7 am to 7 pm unless otherwise approved by the Engineer. No full road closures will be permitted on Saturdays, Sundays, or Holidays.

Replace "Reserved" in section 12-5 with:

12-5.01 GENERAL

Contractor shall notify the City, El Dorado County Fire District, Placerville Police Department, Placerville Downtown Association, and El Dorado County Transit Authority 48 hours prior to any lane closures.

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

Contractor shall be responsible for keeping "Tow-Away No Stopping" traffic lanes clear during the effective hours posted.

12-8.02B Metal Plating

Any temporary metal plating and metal bridging shall be coated with a non-skid and rust inhibitive product. Examples of non-skid metal plating are surfaces with waffle patterns or right-angle undulations. Plating shall be installed with no edges or corners sticking up and with no bouncing or shifting. Plates shall be secured against shifting by tack welding, or fasteners. Any non-skid product shall have a friction factor of 0.35 or greater as measured by the California Test 342.

Plates shall be free of any openings greater than ¼ inch.

12-8.02C Transitioning (Ramping)

Whenever the grade difference between the existing pavement and the excavated area is greater than ¼ inch, Contractor shall provide longitudinal and transverse transitions prior to opening the lanes to traffic. The maximum slope on these transitions shall be 1:18. Transitions shall be installed with hot mix asphalt. This section applies to newly constructed roadway base, manholes, metal plating, bridging, trenching etc.

Cold mix asphalt may be used in lieu of hot mix asphalt for temporary ramping. The contractor is responsible for maintaining cold mix asphalt at all times and complying with ADA regulations if applicable. Cold mix shall comply with Sections 4-1.13 and 7-1.04.

12-8.03 Pavement Markings

12-8.03A Temporary Pavement Markings

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 Relexite 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

Table 5: 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.

12-8.04 Security and Contractor Property

The Contractor shall be responsible for the security of all Contractor property including, but not limited to, equipment, material that has not yet been installed, and tools. If the Contractor fails to properly lock, store, and secure equipment, tools, materials, etc., his property may be stolen. This area has a higher risk of theft than most areas within the City. The Contractor should expect transient trespassing within the project and staging areas. The Contractor shall do his best to deter trespassing onto the project and staging areas. No additional payment shall be made for added security measures. No additional payment shall be made for equipment, tools, materials, or any other property of the Contractor that is stolen.

^^

13 WATER POLLUTION CONTROL

Add to section 13-2.04:

SWPPP implementation shall be paid under Bid Item No. 4.

Temporary DI Protection shall be paid under Bid Item No. 57.

Delete first paragraph in section 13-7.03D

^^

15 EXISTING FACILITIES

Replace section 15-1.03D with:

15-1.03D Existing Utilities

15-1.03D(1) General

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. However, the City can assume no responsibility for the completeness or accuracy of its delineation of such underground utilities nor for the existence of other buried objects or utilities which may be encountered but which are not shown on these Plans. The majority of the utilities shown on the Plans 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. This information was further supplemented by cleaning and CCTVing the majority of the storm drain lines in the Project area.

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.

Payment will not be made for potholes performed by the Contractor to “locate and protect” known utilities.

15-1.03D(2) Potholing

Contractor is required to use a Vactor Truck for all pothole excavations.

No payment will be made for potholes of any kind.

15-1.03D(3) Interruption of Service

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

15-1.03D(4) Payment

There is no specific pay item for modifying or extending existing underdrain or irrigation facilities. The work is included in other pay items including but not limited to vertical curb and gutter, sidewalk and ramps, barrier curb, and under sidewalk drain.

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 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:

1. Comply with the specifications for section 75 except that galvanizing is not required
2. Have a shape and size that matches the existing frame
3. Be match marked by painting identification numbers on the device and corresponding structure
4. Result in an installation that is equal to or better than the existing one in stability, support, and nonrocking characteristics
5. Be fastened securely to the existing frame without projections above the surface of the road or into the clear opening

Manholes, valve boxes, monument boxes, etc., shall be brought to grade, as shown on the plans, after final pavement lift has been placed.

All existing manhole frames, lids or gates, valve boxes, monument boxes, and any other style of box or lid shall be reused. If any damages occur in the process of adjusting iron to grade then at Contractor's expense must supply new manhole frames, lids or gates, valve boxes, monument boxes, and any other style of box or lid.

Concrete collars must comply with section 90 and the Project Plans.

Where manholes are to be lowered, remove the facility to 3.5 feet below finished grade or to an authorized depth. Adjust the manhole using the taper needed to match the finished grade.

If a manhole cover is unstable or noisy under traffic, place a coil of asphalt-saturated rope, a plastic washer, or asphaltic compound on the cover seat. Before placement, obtain authorization for use of the material.

Eccentric manhole cone installed on and connected to existing manhole barrels must pass the Low-Pressure Air Test.

Low Pressure-Air Test shall comply with section 61-1.01.

15-1.03E(1) Payment

Adjust Utility to Grade shall be paid under Bid Item No. 15.

Additional payment will not be made for new iron or utility boxes installed as a result of contractor damage during initial removal.

No payment will be made for adjusting frames, covers, boxes, grates, or manholes not indicated for adjustment on the plans.

If adjusting frames, covers, boxes, grates, or manholes not indicated for adjustment on the plans, payment for adjusting these materials is included in the payment for the type of pavement or type of surfacing involved.

If adjusting frames, covers, boxes, grates, or manholes not indicated for adjustment on the plans, and if pavement or surfacing is not involved, payment for adjusting these materials is included in the payment of various other bid items, and no additional payment will be made therefore.

Eccentric Manhole Cones shall be paid under Bid Item No. 50.

Replace section 15-1.03F with:

After removing the roadside sign the Contractor is responsible for filling the void and matching the existing subgrade and surfacing sections, unless otherwise indicated on the Project Plans or these Special Provisions.

If a removed roadside sign is not to be reused the Contractor is responsible for furnishing the sign to City.

Replace sentence in 15-1.04 with:

Remove Wall shall be paid under Bid Item No. 39.

^^

DIVISION III EARTHWORK AND LANDSCAPE

17 GENERAL

Add to section 17-1.04:

There is no specific pay item for grading. Payment for grading is included in the payment of various other Bid Items.

Replace section 17-2.03D with:

Dispose of objectionable materials resulting from clearing and grubbing activities.

Do not leave objectionable material in or under embankments, including dikes.

Accumulation of flammable material is not allowed.

Clear and grub roadside ditches within the Project Limits on the North side of Broadway.

Add to section 17-2.04:

Clearing and Grubbing shall be paid under Bid Item No. 5. Removal of trees larger than 6 inches in diameter will be paid under Bid Item No. 6.

^^

19 EARTHWORK

Add to section 19-1.01A:

Contractor is to conform to the grades as indicated on the Project Plans.

Replace section 19-1.04 with:

Regrade Ditch shall be paid under Bid Item No. 9.

Excavation of materials not included in Bid Items No. 10, 11, 12, 13, 14, 27, 28, 29, 30, 31, 36, 39, 40, 41, 42, 43, 44, and 50 shall be paid under Bid Item 7.

Export and disposal of materials not included in Bid Items No. 10, 11, 12, 13, 14, 27, 28, 29, 30, 31, 36, 39, 40, 41, 42, 43, 44, and 50 shall be paid under Bid Item No. 8.

Add to section 19-2.01A:

Remove the subbase, base, and surfacing to the depth indicated on the Project Plans below the grade of the existing surfacing. Subbases and bases include the various types shown on the plans and Attachment C. Backfill the resulting holes and depressions with the materials indicated on the plans. Backfill the excavation and new roadway section to the lines and grades established by the Engineer. Native back fill may only be used if directed by the Engineer.

Replace section 19-2.03E with:

Only excavation tools and equipment will be permitted. Other methods of excavation including blasting, chemical expanders, or hydraulic splitters will not be allowed.

Add to section 19-2.04 with:

Payment will not be made for roadway removed outside of the limits determined by the Engineer. Additional payment will not be made for road section removed in excess of depths shown on the Project Plans. Additional payment will not be made for excavating rock material.

Roadway excavation will be paid under Bid Item No. 10.

Add to section 19-3.01D(2):

The wall zones for the soil nail wall at Retaining Wall No. 1 are as shown in the following table:

Wall zone	Beginning station	End station	Upper elevation (ft)	Lower elevation (ft)
1	19+54.34	21+68.28	1995.5	1992.0
2	19+33.11	21+75.12	1992.0	1986.0

^^

20 LANDSCAPING

Replace Section 20-15 with:

20-15 TREE REMOVAL

20-15.01 GENERAL

20-15.01A Summary

Section 20-15 includes specification for removing existing tree.

Trees shall be removed in a manner that will not jeopardize the public safety or damage structures including utility lines or services, or adjacent trees. In most cases, trees shall be entirely removed.

Contractor is to submit a report to the City detailing the trees removed that have a trunk 6 inches or greater in diameter at breast height.

20-15.02 MATERIALS

Not used.

20-15.03 CONSTRUCTION

20-15.03A Completion

To prevent the creation of hazards from partially removed trees, once work has commenced to remove a tree, this work shall be completed in a timely manner.

A tree will be considered completely removed when the stump is ground out up to 18 inches below grade.

20-15.03B Disposal of Wood

Disposal, use, or reuse of wood and woody debris from City or Street Trees is at the sole discretion of the City of Placerville including specific disposal methods for infected wood. Payment for tree disposal is included for the payment for Remove Tree, Bid Item 6.

20-15.04 PAYMENT

Paid by Unit Price for Each standing tree removed.

Tree removal shall be paid under Bid Item 6.

^^

DIVISION IV SUBBASES AND BASES

^^

26 AGGREGATE BASES

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.

Add paragraphs to section 26-1.04 with:

Payment will not be made for any Class 2 AB outside of the limits determined by the Engineer.

Class 2 AB used for the construction of Curb and Gutter, Barrier Curb, 12" HDPE, 18" HDPE, 48" HDPE, 48" RCP, Type GO/Bike Safe DI, Under Sidewalk Drain, OMPI, 48" SDMH, Junction Box, Retaining Wall – Structure Concrete, Retaining Wall – Concrete Soldier Pile, Retaining Wall – Soil Nail, Retaining Wall –

Vegetated MSE, Headwall, and Eccentric Manhole Cone is included in the Unit Price for these listed Bid Items and no additional compensation will be allowed.

Class 2 AB used for the construction of the roadway, Minor Concrete - Sidewalk, Minor Concrete – Driveway, JPCP shall be paid under Bid Item 16.

^^^

DIVISION V SURFACINGS AND PAVEMENTS

37 BITUMINOUS SEALS

Add to section 37-3.01C(4)

Contractor is to clean all cracks within the area to receive a slurry seal. Cracks shall be clear of all weeds, rubberized crack fill, dirt, and debris before being slurry sealed.

Add to section 37-3.02A(1) :

Slurry seal shall be Type II.

Replace section 37-3.02D with:

Slurry seal shall be paid under Bid Item 18.

Replace section 37-6.04 with:

Crack treatment shall be included in the unit price for Bid Item No. 18.

^^^

39 ASPHALT CONCRETE

Add to 1st paragraph of section 39-2.01C(4)(a):

If it is impractical or impossible for longitudinal joints to match the lane lines, then the Contractor shall limit the paving seems to the least amount practical.

Replace section 39-2.01D with:

39-2.01D Payment

Payment for tack coat is included in the payment for Bid Item No 17.

The payment quantity for HMA for HMA-Roadway, Bid Item No 17, 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.

HMA Dike shall be paid under Bid Item No. 19 and 20. Payment for the HMA used to construct the HMA Dike is included in the payment for HMA Dike.

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

HMA for the roadway shall be paid under Bid Item No. 17.

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.

Payment will not be made for any HMA used as temporary paving surface.

Replace section 39-2.02A(3)(b) with:

The JMF must be based on Hveem or Marshall HMA mix design as described in MS2 Asphalt Mix Design Methods by the Asphalt Institute. On areas within the Caltrans Right of Way the JMF must be based on the superpave HMA mix design as described in MS-2 Asphalt Mix Design Methods by the Asphalt Institute.

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):

Aggregate used in HMA Type A must comply with the ¾" HMA Type A gradation.

Add to section 39-3.03C:

AC dike shall be removed completely and all removed AC is to be loaded, off-hauled, and disposed of in a safe and legal manner.

Replace section 39-3.03D with:

Remove AC dikes shall be paid under Bid Item No. 11. The payment quantity for removing AC dikes shall be based on the linear feet of AC dikes removed as measured along the flowline of the AC dike.

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:

Do not use a heating device to soften the pavement.

The cold planing machine must be:

1. Equipped with a cutter head width that matches the planing width unless a wider cutter head is authorized.
2. Equipped with automatic controls for the longitudinal grade and transverse slope of the cutter head and:

2.1. If a ski device is used, it must be at least 30 feet long, rigid, and a 1-piece unit. The entire length must be used in activating the sensor.
2.2. If referencing from existing pavement, the cold planing machine must be controlled by a self-contained grade reference system. The system must be used at or near the centerline of the roadway. On the adjacent pass with the cold planing machine, a joint-matching shoe may be used.

3. Equipped to effectively control dust generated by the planing operation
4. Operated such that no fumes or smoke is produced.

Replace broken, missing, or worn machine teeth.

If you do not complete placing the HMA surfacing before opening the area to traffic, you must:

1. Construct a temporary HMA or CMA taper to the level of the existing pavement.
2. Place final HMA surface within 5 working days of cold planning.

Replace section 39-3.04D with:

Payment for Cold Planning will be paid under Bid Items No. 13 and 14.

^^

40 CONCRETE PAVEMENT

Add to section 40-1.02A:

Concrete used for Bid Item No. 25, Minor Concrete – Driveway, shall be 3,600 PSI with Solomon UltraFiber 500 or approved equal.

Add to section 40-1.04:

Minor Concrete - Driveway shall be paid under Bid Item No. 25.

Replace section 40-4.04 with:

JPCP shall be paid under Bid Item No. 21.

^^

46 GROUND ANCHORS AND SOIL NAILS

Replace the 3rd paragraph of section 46-2.02B with:

The permanent bearing plate must effectively distribute the design force, T, uniformly to the shotcrete such that:

1. Shotcrete bearing stress does not exceed 1,600 psi
2. Bending stress of the plate does not exceed:

2.1. 0.55 of the yield strength for steel
2.2. 0.36 of the yield strength for cast steel or cast iron

Add to the 2nd paragraph of section 46-3.01D(2)(b)(ii)(3):

In addition to the proof test soil nails shown, install and test two proof test soil nails at locations determined by the Engineer.

Add to section 46-3.03A:

Expect difficult soil nail installation at Retaining Wall No. 1 due to the presence of the following conditions:

1. Fractured and hardrock

Replace both paragraphs of section 46-3.04 with:

Soil nails shall be paid under Bid Item No. 42.

^^

49 PILING

Add to section 49-4.03B:

Rock subsurface foundation material is anticipated at the soldier pile retaining wall, Retaining Wall No. 3. Conventional drilling equipment for drilling in soils may not be suitable for drilling holes for the steel soldier piling.

If the Contractor substitutes piles with a larger diagonal dimension for the piles shown, ream or enlarge the drilled hole to provide a hole diameter at least 4 inches larger than the diagonal dimension of the pile.

^^

51 CONCRETE STRUCTURES

Add to Section 51-1.02E:

Test panel and concrete color to follow pattern in the plans and the pattern on existing wall along Forni Road between Placerville Drive and Ray Lawyer Drive.

Add to section 51-7.01B:

Under sidewalk drains shall include 4”x4” woven wire mesh and 3”x5” Alhambra A-470 or approved equal rectangular cast iron pipe. Under sidewalk drains shall be constructed in accordance with Detail 12 on Page C03 of the Project Plans.

Add to section 51-7.01D:

Type GO/Bike Safe DI shall be paid under Bid Item No. 32.

Type G1/Bike Safe DI shall be paid under Bid Item No. 33.

Storm Drain Manholes shall be paid under Bid Item No. 36.

Under Sidewalk Drains shall be paid under Bid Item No. 34.

Junction Box shall be paid under Bid Item No. 38.

Headwall shall be paid under Bid Item No. 44.

^^

55 STEEL STRUCTURES

Replace section 55-1.02A with:

Bus Shelter shall be Tolar Model 2589-01 or approved equal 9' dome roof advertising transit shelter. Solar powered LED light shall be Tolar Model 336010/15902 – Tolar/USC RMS60F or approved equal. The shelter must contain a Tolar Model 1578-01 or approved equal 20-gallon pole mounted trash receptacle with a covered lid. The shelter must contain a Tolar Model 12092-111 or approved equal 4' perforated metal bench.

Add to section 55-1.03A:

Construct Bus Shelters to the manufacturer's specifications.

Replace section 55-1.04 with:

Bus Shelter shall be paid under Bid Item No. 49.

^^

DIVISION VI DRAINGAGE FACILITIES

64 PLASTIC PIPE

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

All HDPE pipes must be Type S.

Add to section 64-2.04:

HDPE pipes shall be paid under Bid Item Nos. 27-29.

^^

65 CONCRETE PIPE

Add to section 65-1.04:

48" RCP shall be paid under Bid Item No. 30.

^^

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.

^^

DIVISION VIII MISCELLANEOUS CONSTRUCTION

73 CONCRETE CURBS AND SIDEWALKS

Replace paragraph in section 73-1.02B with:

Detectable warning surface shall be Armor Tile Brick Red (Federal Color No. 22144) or approved equal unless otherwise shown on the Project Plans.

If a utility box is located within detectable warning surface, detectable warning surface shall be neatly trimmed around utility box to allow access to utility. Contractor is responsible for maintaining ADA compliance.

Detectable warning surfaces shall be wet set in concrete. Surface applied Detectable Warning Surfaces, such as those attached by adhesives, are not authorized.

Add to Section 73-1.03A:

Detectable Warning Surfaces shall be installed per the manufacturer's specifications.

Replace section 73-2.04 with:

Curb & Gutter shall be paid under Bid Item No. 22.

Concrete gutters constructed along sidewalk ramps will be paid as Vertical Curb & Gutters.

Barrier Curbs shall be paid under Bid Item No. 23.

Add to section 73-3.03:

All concrete used for curb ramps and landings shall be broom finished.

Replace section 73-3.04 with:

Minor Concrete - Sidewalk shall be paid under Bid Item No. 24.

Detectable Warning Surface shall be paid under Bit Item No. 69.

Add paragraphs to section 73-10.04:

Remove Barrier Curb shall be paid under Bid Item No. 12.

Concrete removed as part of the removal of barrier curb, removal of road section, removal of DI, and cold plane will be paid under the various other bid items specific to the removal of said items, and no additional payment will be made under this section.

^^

75 MISCELLANEOUS METAL

Replace section 75-1.04 with:

There is no specific Bid Item for miscellaneous metal. Miscellaneous metal materials shall be paid under Bid Item Nos. 32, 33, 34, 35, 36, 38, 46, 47, 48, 49, and 50.

Replace section 75-2.04 with:

There is no specific Bid Item for manhole frames or drainage inlet frames and grates. Manhole frames and drainage inlet frames and grates shall be paid under Bid Items 32, 33, 34, 36, and 50.

^^

77 LOCAL INFRASTRUCTURE

Replace "Reserved" in section 77-1 with:

77-1 TRENCH EXCAVATION, BACKFILL, AND COMPACTION

77-1.01 GENERAL

77-1.01A Summary

This section governs the work for trench excavation, backfill, and compaction for underground pipeline work.

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 ¾ 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 backfill from 12 inches above the top of the pipe to subgrade, shall be free from organic matter, debris, and rocks larger than 6 inches in diameter or length. The Engineer shall be the sole judge of conformance of backfill material to this specification.

Backfill material shall generally conform to the following gradation:

Sieve Size	Percent Passing
6”	100
3”	50
#4	35-100
#30	20-100

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.

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.

77-1.03B 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 Test Method 231F. 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. It is the intent of these specifications that 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.

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.

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

Not Used

Add in section 77-2:

77-2 SANITARY SEWER CIPM LINER

77-2.01 GENERAL

77-2.01A Summary

Section 77-2 includes specifications for lining the existing sanitary sewer manhole with cured-in-place manhole (CIPM) liner system.

Furnish all materials, labor, equipment, tools and required incidentals for providing and installing a resin impregnated custom fabricated liner by means of air inflation into an existing manhole, wet well, pump station, or catch basin. The liner is installed from the top of the casting to the top of the channel which includes; shim rings, casting chimney interface, chimney, cone, wall and bench. The channel can be included as directed by the City. When cured, the liner will provide a durable monolithic chemical resistant barrier that will protect the existing substrate from further deterioration. The finished liner will also stop any water from either entering or exiting from the lined surfaces of the original substrate.

77-2.01B Submittals

Furnish the following to the owner when required:

1. Detailed installation procedures, including substrate preparation, liner wet out, resin mixing, liner insertion, curing, cut-out, and edge sealing.
2. Shop Drawing showing structure configuration, diameter, and length.
3. Resin information including, Technical Data Sheets (TDS), Safety Data Sheets (SDS), and published physical properties.
4. Liner information including, TDS, SDS, and composition of the respective layers.
5. Certified independent laboratory tests on the proposed resin impregnated Liner showing values for Flexural Modulus of Elasticity, Flexural Strength, Tensile Strength, and Adhesion Testing.
6. PH of the original substrate shall be taken. Third Party Chemical Resistance test results shall be submitted showing acceptable results of the Liner’s ability withstand the determined PH. For lined channels testing must be in accordance with ASTM F1216 Appendix X2.1.
7. Stamped design for wall thickness. See Section 1.05.
8. A warranty certificate provided by the installer for material and labor.

77-2.01C Design

In order to maintain its water tightness, the liner shall be bonded to the original substrate in a way that does not allow water to find a pathway behind the liner and enter into the waste stream. For the areas that are bonded the bond strength must be greater than the hydrostatic pressure. For areas that are not bonded a maximum radius of unbonded area and maximum distance (height) the liner can be pushed off the substrate shall be established. It is recommended that the maximum radius of any one unbonded area be 6 inches and the maximum height be 1 inch. Therefore, the minimum thickness can be determined by the following Roark's Formula for Stress and Strain 7th Edition Table 11.2, 10b.

In order to prevent cracking in the chimney portion of the Liner in geographical areas of freeze thaw and/or areas of traffic loading, at least one layer of 24oz per square yard woven roving fiberglass shall be incorporated into the chimney portion of the Liner. The fiberglass shall extend 4 inches below the last joint of the chimney.

77-2.02 MATERIALS

77-2.02A Liner

The Liner shall be composed in one of the following two configurations:

1. Single Layer - Non-Porous Membrane
   a. Non-Porous Membrane is to be a gas and liquid impermeable membrane of special non-porous materials with felt mechanically embedded on both sides. Membrane is to be custom fabricated to fit to the inside dimensions of each structure.

2. Multiple Layers - Non-Porous Membrane and fiberglass.
   a. Non-Porous Membrane is to be a gas and liquid impermeable membrane of special non-porous materials with felt mechanically embedded on both sides. Membrane is to be custom fabricated to fit to the inside dimensions of each structure.
   b. Fiberglass shall be a coated woven roving style to allow for resin adherence. The weight of the fiberglass and number of layers required shall be based on the manufactured published data and the stamped design for minimum wall thickness.

77-2.02B Resin System

Resin shall be 100% solids epoxy formulated to withstand a typical domestic wastewater sewer system including high sulfide areas near force mains and wet wells. The resin must be compatible with both the non-porous membrane and the fiberglass. The resin must have a minimum of 250psi bond strength to wet or dry brick and concrete surfaces.

77-2.03 CONSTRUCTION

77-2.03A Preparation Procedures

PH of the original substrate shall be determined.

Contractor will perform preliminary cleaning of the structure with high-pressure water-blasting at a minimum of 4000psi and 4gpm to obtain the desired concrete surface profile (CSP) of 3 or greater.

If the desired CSP is not achieved by high-pressure water-blasting other methods of obtaining the surface profile such as abrasive blasting and acid etching shall be used.

The Contractor shall remove all the existing manhole steps. The metal portion of all steps will be removed to within ½" of the manhole interior wall surface. The remaining protruding metal portion of the step shall be covered with a cementitious material to provide a smooth surface on and around the protrusion for the liner to bond.

All open joints, voids, holes, cracks, and missing bricks larger than 3 inches in diameter or equivalent shall be patched with a cementitious material to provide a smooth surface for the liner to bond. All loose, cracked or disintegrated material shall be removed from the area to be patched exposing a sound substrate. The cementitious patch material shall be allowed to cure according to the manufacturer's specifications before continuing with the Liner installation process.

Bench shall be sloped so that water will flow back into channel.

All active water leakage shall be stopped for a minimum of 30 minutes prior to installation to allow time to insert and pressurize the liner. This prevents resin washout and allows proper curing and bonding. Leaks may be stopped with fast setting cement or chemical grout injection.

When the channel is required to be lined the Contractor shall plug the inlet pipe, inspect for infiltration leaks around the inlet and outlet pipes and in the channel. All leaks present shall be stopped by the use of chemical grout injection and/or by the use of fast-setting cement.

Contractor shall remove any incoming pipes to within 2 inches of the wall. The pipe outside circumference shall be cemented with an approximate 60º taper, forming a filet between the structure wall and the pipe making a smooth transition for the liner to bond.

The final prepared surface shall have a concrete surface profile of 3 or greater and have a smooth uniform appearance.

After the above-mentioned procedures the surface shall be cleaned with degreaser or other solvents, as needed, in order to remove any film, grease, loose patching material, chemical grout or residue on the surface. Structure shall then be pressure rinsed with water.

77-2.03B General Installation

Contractor shall verify that the liner intended for the structure matches the dimensions of the structure by measuring the dimensions of the structure and the liner prior to installation.

All resin intended for the liner shall be mixed properly.

Contractor shall apply mixed resin evenly onto both the inside and outside of the entire liner with rollers. There shall be no white spots (dry liner) on either side of the liner including seams and bottom disk(s). Areas of heavily saturated resin shall be spread out to cover areas that are deficient of resin.

Liner can be installed to include or omit the structure channel depending upon the intention of the owner.

For liner installation that does not include the channel, a temporary subfloor shall be constructed to keep liner from inflating into the channel and to allow the sewer to flow unobstructed without bypass pumping. A saturated bottom disk or disks are installed onto the subfloor, bench, and up the wall about 6 inches.

For channel lining the incoming and outgoing pipes are plugged. This may require bypass pumping. Two or more bottom disks are placed into the channel, onto the bench, and 6 inches up the wall.

Resin saturated liner is lowered into the structure and positioned properly to line up any offsets.

Liner is pressurized with air or water to a minimum of 3psi. Contractor shall verify proper position of the liner from the inspection portal located on the installation canister. If liner is not positioned properly the liner can be raised, lowered or rotated to desired position. In some cases, it may be necessary to enter the structure to hand position portions of the liner.

The liner is cured with steam, hot water, or ambiently. Cure times vary according to, cure method, liner thickness, structure size, ambient temperatures, and resin formulation. Typically, curing takes about an hour with steam. Contractor may use the exposed portion of the liner above the frame as an indicator. When steam is used a cool down period is needed equaling about 25% of cure time.

Liner shall be cut and trimmed to allow for all incoming and outgoing pipe to flow without obstruction. If channel is unlined the subfloor shall be removed.

All cut edges shall be sealed with an epoxy mastic material that is compatible with the liner system.

77-2.03C Finished Liner

The finished CIPM liner system shall be continuous over the entire length of the structure from the cover seat to the top of the channel, or shall include the channel as required. The liner shall be smooth with minimal wrinkling.

Liner shall be bonded to the structure, as required by design, and in such a way as to not allow any water to flow behind the liner and enter back into the waste stream.

77-2.03D Quality Assurance

The Contractor shall visually inspect the liner from inside the structure and report to the City any defects that may affect performance of the liner. All defects shall be fixed to conform with these specifications.

The Contractor shall spark test the entire liner in accordance with the spark testing equipment specifications. All defects must be repaired using an epoxy mastic that is compatible to the liner system.

Adhesion testing shall be performed on the first manhole of the Project in two locations; a location on the wall within 6 inches from the bench and a location on the bench.

77-2.04 PAYMENT

SSMH Lining shall be paid under Bid Item 38.

^^

78 INCIDENTAL CONSTRUCTION

Add to section 78-4.03B:

Primer for concrete paint shall be Loxon Concrete & Masonry Primer by Sherwin-Williams or approved equal.

Paint for concrete, aluminum & aluminum siding, galvanized steel, and timer shall be A-100 Exterior Latex Flat by Sherwin-Williams or approved equal.

Follow the manufacturer's specifications for applying paint and primer.

Contractor shall use #1208 Drystack by Custom Rock Formliner or approved equal.

^^

80 FENCES

Replace "Reserved" in section 80-11 with:

80-11 ROCKFALL DRAPERY MESH

80-11.01 General

80-11.01A Summary

Section 80-11 includes specifications for constructing Rockfall Drapery Mesh.

80-11.01B Submittals

The Contractor shall submit the manufacturer for rockfall Drapery Mesh to the City no later than 10 business days before installation of Rockfall Drapery Mesh.

80-11.02 Materials

The Contractor shall use DT Mesh by Maccaferri Inc. or approved equal.

80-11.03 Construction

Contractor shall install Rockfall Drapery Mesh per manufacturer's specifications.

80-11.04 Payment

Rockfall Drapery Mesh shall be paid under Bid Item No. 45.

Replace "Reserved" in section 80-12 with:

80-12 TEMPORARY PROTECTIVE FENCE

80-12.01 General

80-12.01A Summary

Section 80-12 includes specifications for constructing temporary protective fences.

80-12.01B Submittals

The Contractor shall submit the manufacturer and model for temporary protective fences to the City no later than 10 business days before installation of temporary protective fences.

80-12.03 Construction

Contractor shall install tree protective fences around all trees within 10 feet of the project area not designated for removal on the Project Plans.

80-12.04 Payment

Temporary Protective Fence shall be paid under Bid Item No. 54.

^^

DIVISION IX TRAFFIC CONTROL DEVICES

81 MISCELLANEOUS TRAFIC CONTROL DEVICES

Replace section 81-1.04 with:

All miscellaneous traffic control devices shall be paid under Bid Item No. 2.

^^

82 SIGNS AND MARKERS

Replace section 82-3.04 with:

Each sign installation is 1 measured unit, regardless of the number of posts or sign panels involved. Roadside signs shall be paid under Bid Item No. 60.

Add to section 82-9.04:

Each sign removal and relocation is 1 measured unit, regardless of the number of posts or sign panels involved. Remove roadside signs be paid under Bid Item No. 59. Relocate roadside signs shall be paid under Bid Item No. 61.

^^

83 RAILINGS AND BARRIERS

Add to section 83-2.02D:

Midwest guardrails shall be paid under Bid Item No. 48.

Replace Section 83-5 "RESERVED" with "PEDESTRIAN HAND RAILINGS"

83-1.01 General

Section 83-5 includes specifications for constructing railings and barriers.

83-1.02 Materials

Contractor is to submit to the City the make and model of pedestrian hand railings used no later than 15 days prior to installation.

83-5.03 Construction

Posts shall be anchored to concrete and structures in accordance with the manufacture's specifications.

83-5.04 Payment

Ground mounted pedestrian railings shall be paid under Bid Item No. 46.

Wall mounted pedestrian railings shall be paid under Bid Item No. 47.

^^

84 MARKINGS

Add to section 84-2.04:

Traffic Stripes shall be paid under Bid Item No. 62.

Pavement Markings shall be paid under Bid Item No. 63.

Green Bike Lane shall be paid under Bid Item No. 64.

Pavement Paint shall be paid under Bid Item No. 65.

^^

90 CONCRETE

Add to section 90-1.01A:

Unless otherwise noted on the plans or in these Special Provisions all PCC and concrete shall be Class B concrete and shall conform to this section.

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

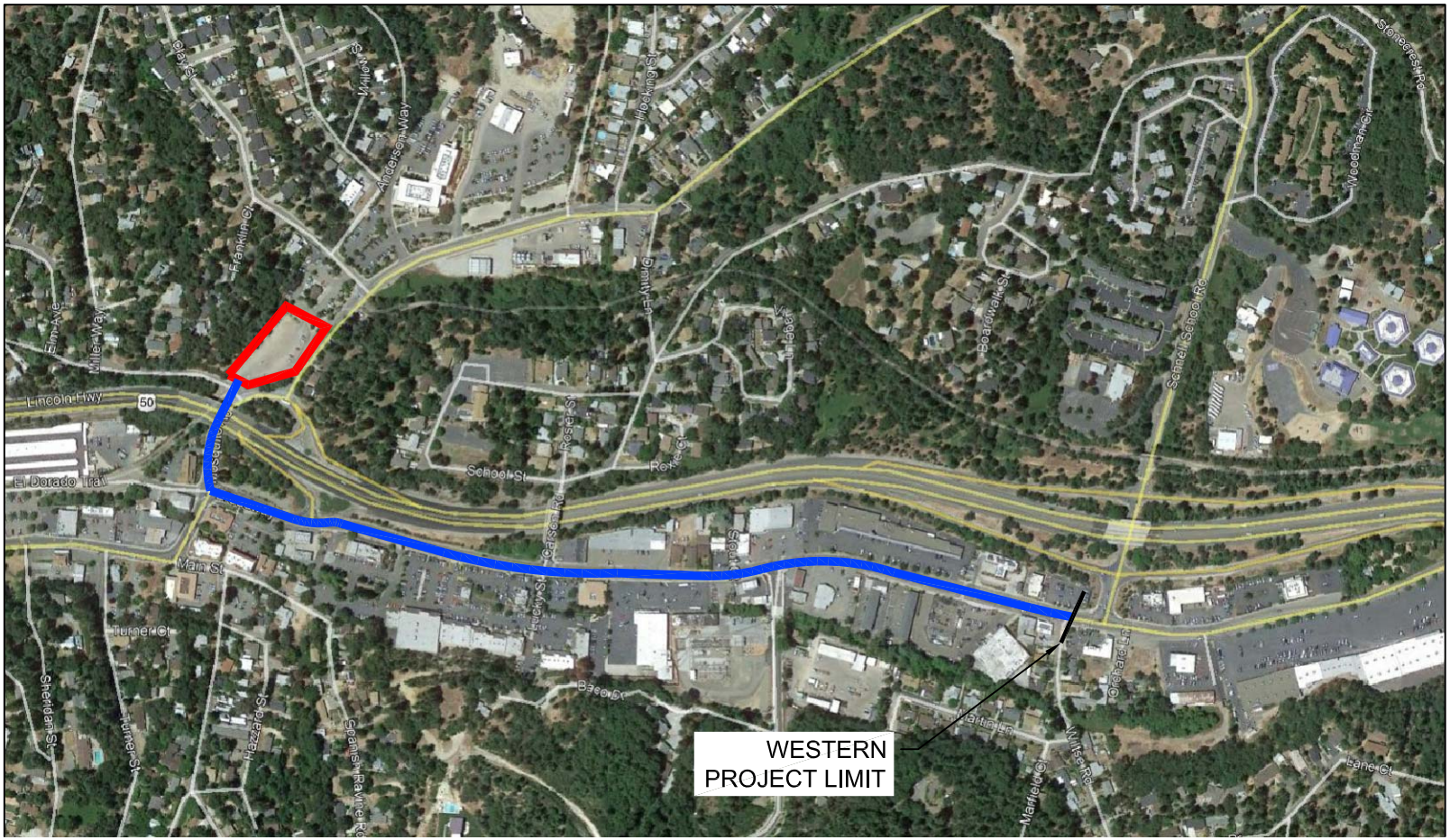
Allow 15 days for review.

UPPER BROADWAY BIKE LANES
(INCLUDING BROADWAY PEDESTRIAN CONNECTION)
ATTACHMENT A - POTENTIAL STAGING AREA

LEGEND:

POTENTIAL STAGING AREA

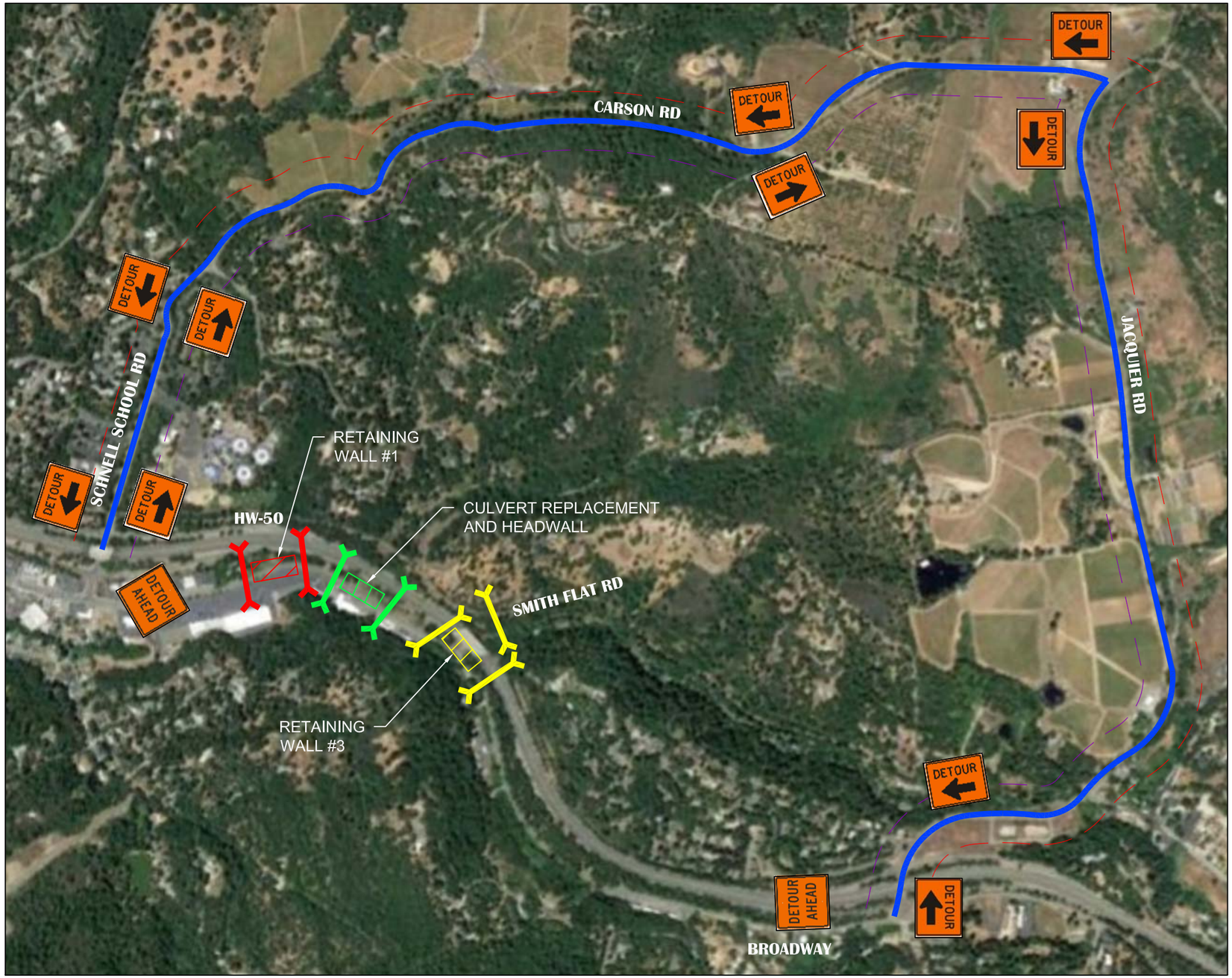
POTENTIAL ROUTE OF TRAVEL TO PROJECT



UPPER BROADWAY BIKE LANES PROJECT CIP #41508
(INCLUDING BROADWAY PEDESTRIAN CONNECTION), PROJECT NO. 5015 (027 & 029)

R.E.Y. ENGINEERS, INC.
Civil Engineers | Land Surveyors | LiDAR
905 Sutter Street, Suite 200 Folsom, CA 95630
Phone: (916) 366-3040 Fax: (916) 366-3303

UPPER BROADWAY BIKE LANES
(INCLUDING BROADWAY PEDESTRIAN CONNECTION)
ATTACHMENT B - FULL ROAD CLOSURE EXHIBIT



LEGEND:

- DETOUR ROUTE
- ROAD CLOSED DURING CONSTRUCTION OF RETAINING WALL #1
- ROAD CLOSED DURING CONSTRUCTION OF RETAINING WALL #3
- ROAD CLOSED DURING CONSTRUCTION OF CULVERT REPLACEMENT AND HEADWALL
- POTENTIAL DETOUR SIGN LOCATIONS
- EASTBOUND DIRECTION OF TRAVEL
- WESTBOUND DIRECTION OF TRAVEL
- TRAFFIC BARRICADE FOR RETAINING WALL #1
- TRAFFIC BARRICADE FOR CULVERT REPLACEMENT AND HEADWALL
- TRAFFIC BARRICADE FOR RETAINING WALL #3

NOTES:
-LAYOUT OF ALL DETOUR SIGNAGE MUST BE DETERMINED AND PROVIDED BY THE CONTRACTOR. SIGNAGE MUST COMPLY WITH CALTRANS TRAFFIC OPERATIONS MANUAL, CALIFORNIA MANUAL ON UNIFORM TRAFFIC DEVICES (CAMUTCD), AND CALTRANS STANDARD PLANS.

-ACCESS TO RESIDENCES AND BUSINESSES MUST BE AVAILABLE AT ALL TIME.

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