

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR

PAVEMENT MAINTENANCE PROJECT FY 2024/25

JULY 3, 2024

BID OPENING: JULY 24, 2024

CITY PROJECT NO. 11454

CITY FILE NO. 16.06.101





DEPARTMENT OF PUBLIC WORKS

PAVEMENT MAINTENANCE PROJECT FY 2024/25 City Project No. 11454

ACCEPTED BY CITY OF SAN RAFAEL:

Joanna Kwok

Joanna Kwok
Assistant Public Works Director/City Engineer

Jul 3, 2024

Date

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Notice Inviting Bids

- 1. Bid Submission.** The City of San Rafael (“City”) will accept electronic bid submittals for its Pavement Maintenance Project FY 2024/25 (“Project”), by or before JULY 24, 2024 AT 3PM PDT at which time the bids will be publicly opened and read aloud on a Microsoft Teams Meeting (see link below). Information including the project documents and a how-to guide for first-time Bid Express users can be found on the San Rafael Bid Express home page at <https://www.bidexpress.com/businesses/39341/home>. Please note that you will have to register for a free Bid Express account to view project solicitations and download documents.

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2. Project Information.

2.1 Location and Description. The Project is located in the Sun Valley, West End and Gerstle Park neighborhoods of San Rafael and is described as follows: the removal of existing striping; the placement of crack seal, slurry seal, and fiberized micro-surfacing on various roadways; and the installation of new striping.

2.2 Time for Final Completion. The Project must be fully completed within **35 working days** from the start date set forth in the Notice to Proceed. City anticipates that the Work will begin on or about **September 3, 2024**, but the anticipated start date is provided solely for convenience and is neither certain nor binding.

3. License and Registration Requirements.

3.1 License. This Project requires a valid California contractor’s license for the following classification(s): A (General Engineering Contractor), C-12 (Earthwork and Paving Contractors), and C-33 (Painting and Decorating Contractor).

3.2 DIR Registration. City may not accept a Bid Proposal from or enter into the Contract with a bidder, without proof that the bidder is registered with the California Department of Industrial Relations (“DIR”) to perform public work pursuant to Labor Code § 1725.5, subject to limited legal exceptions.

- 4. Contract Documents.** The plans, specifications, bid forms, and contract documents for the Project, and any addenda thereto (“Contract Documents”) can be found on the Bid Express San Rafael home page at <https://www.bidexpress.com/businesses/39341/home> under the project solicitation’s Attachment List. A how-to guide for first time Bid Express users can also be found on the home page. Please note that you will have to register for a

free Bid Express account to view project solicitations and download documents. Copies of the Contract Documents are not available from the City.

5. **Bid Security.** The Bid Proposal must be accompanied by bid security of ten percent of the maximum bid amount, in the form of a cashier's or certified check made payable to City, or a bid bond executed by a surety licensed to do business in the State of California on the Bid Bond form included with the Contract Documents. The bid security must guarantee that within ten days after City issues the Notice of Potential Award, the successful bidder will execute the Contract and submit the payment and performance bonds, insurance certificates and endorsements, and any other submittals required by the Contract Documents and as specified in the Notice of Potential Award.
6. **Prevailing Wage Requirements.**
 - 6.1 **General.** Pursuant to California Labor Code § 1720 et seq., this Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes.
 - 6.2 **Rates.** The prevailing rates are on file with the City and are available online at <http://www.dir.ca.gov/DLSR>. Each Contractor and Subcontractor must pay no less than the specified rates to all workers employed to work on the Project. The schedule of per diem wages is based upon a working day of eight hours. The rate for holiday and overtime work must be at least time and one-half.
 - 6.3 **Compliance.** The Contract will be subject to compliance monitoring and enforcement by the DIR, under Labor Code § 1771.4.
7. **Performance and Payment Bonds.** The successful bidder will be required to provide performance and payment bonds, each for 100% of the Contract Price, as further specified in the Contract Documents.
8. **Substitution of Securities.** Substitution of appropriate securities in lieu of retention amounts from progress payments is permitted under Public Contract Code § 22300.
9. **Subcontractor List.** Each Subcontractor must be registered with the DIR to perform work on public projects. Each bidder must submit a completed Subcontractor List form with its Bid Proposal, including the name, location of the place of business, California contractor license number, DIR registration number, and percentage of the Work to be performed (based on the base bid price) for each Subcontractor that will perform Work or service or fabricate or install Work for the prime contractor in excess of one-half of 1% of the bid price, using the Subcontractor List form included with the Contract Documents.
10. **Instructions to Bidders.** All bidders should carefully review the Instructions to Bidders for more detailed information before submitting a Bid Proposal. The definitions provided in Article 1 of the General Conditions apply to all of the Contract Documents, as defined therein, including this Notice Inviting Bids.
11. **Estimated Cost.** The estimated construction cost is \$1.4 million.

By: 
Grey Shankel Melgard, Associate Civil Engineer

Publication Date: July 3, 2024

END OF NOTICE INVITING BIDS

Instructions to Bidders

Each Bid Proposal submitted to the City of San Rafael ("City") for its Pavement Maintenance Project FY 2024/25 ("Project") must be submitted in accordance with the following instructions and requirements:

1. Bid Submission.

- 1.1 General.** Each Bid Proposal must be signed and submitted to City, using BidExpress, by or before the date and time set forth in Section 1 of the Notice Inviting Bids, or as amended by subsequent addendum. Late submissions will be returned unopened. City reserves the right to postpone the date or time for receiving or opening bids. Each bidder is solely responsible for all of its costs to prepare and submit its bid and by submitting a bid waives any right to recover those costs from City. The bid price(s) must include all costs to perform the Work as specified, including all labor, material, supplies, and equipment and all other direct or indirect costs such as applicable taxes, insurance and overhead.

All bids must be submitted electronically using the BidExpress platform. This supersedes any language in the contract documents that may be interpreted as the City requiring paper bid submittals.

- 1.2 Electronic Submission using Bid Express.** The Bid Express San Rafael home page can be found at <https://www.bidexpress.com/businesses/39341/home>. Project solicitations and a how-to guide for first-time users can be found on this home page. Please note that you will have to register for a free Bid Express account to view project solicitations and download documents.
- 1.3 DIR Registration.** Subject to limited legal exceptions for joint venture bids and federally-funded projects, City may not accept a Bid Proposal from a bidder without proof that the bidder is registered with the DIR to perform public work under Labor Code § 1725.5. If City is unable to confirm that the bidder is currently registered with the DIR, City may disqualify the bidder and return its bid unopened. (Labor Code §§ 1725.5 and 1771.1(a).)

- 2. Bid Proposal Form and Enclosures.** Each Bid Proposal must be completed using the Bid Proposal form included within the BidExpress solicitation for this project. Each Bid Proposal must be accompanied by bid security, as set forth in Section 4 below, and by a completed Subcontractor List and Non-Collusion Declaration using the forms included with the Contract Documents.
- 3. Authorization and Execution.** Each Bid Proposal must be signed by the bidder's authorized representative. A Bid Proposal submitted by a partnership must be signed in the partnership name by a general partner with authority to bind the partnership. A Bid Proposal submitted by a corporation must be signed with the legal name of the corporation, followed by the signature and title of two officers of the corporation with full authority to bind the corporation to the terms of the Bid Proposal, under California Corporations Code § 313.
- 4. Bid Security.** Each Bid Proposal must be accompanied by bid security of ten percent of the maximum bid amount, in the form of a cashier's check or certified check, made payable to the City, or bid bond using the form included in the Contract Documents and executed by a surety licensed to do business in the State of California. The bid security must guarantee that, within ten days after issuance of the Notice of Potential Award, the bidder will: execute and submit the enclosed Contract for the bid price; submit payment and performance

bonds for 100% of the maximum Contract Price; and submit the insurance certificates and endorsements and any other submittals, if any, required by the Contract Documents or the Notice of Potential Award. A Bid Proposal may not be withdrawn for a period of 60 days after the bid opening without forfeiture of the bid security, except as authorized for material error under Public Contract Code § 5100 et seq.

A scanned copy or electronic copy of the bond forms should be uploaded to the BidExpress website. Only the apparent low bidder will be required to mail the original forms to the Public Works Department.

- 5. Requests for Information.** Questions or requests for clarifications regarding the Project, the bid procedures, or any of the Contract Documents must be submitted using the BidExpress platform. Oral responses are not authorized and are not binding on the City. Bidders should submit any such written inquiries at least five Working Days before the scheduled bid opening. Questions received any later might not be addressed before the bid deadline. An interpretation or clarification by City in response to a written inquiry will be issued in an addendum.
- 6. Pre-Bid Investigation.**
 - 6.1 General.** Each bidder is solely responsible at its sole expense for diligent and thorough review of the Contract Documents, examination of the Project site, and reasonable and prudent inquiry concerning known and potential site and area conditions prior to submitting a Bid Proposal. Each bidder is responsible for knowledge of conditions and requirements which reasonable review and investigation would have disclosed. However, except for any areas that are open to the public at large, bidders may not enter property owned or leased by the City or the Project site without prior written authorization from City.
 - 6.2 Document Review.** Each bidder is responsible for review of the Contract Documents and any informational documents provided "For Reference Only," e.g., as-builts, technical reports, test data, and the like. A bidder is responsible for notifying City of any errors, omissions, inconsistencies, or conflicts it discovers in the Contract Documents, acting solely in its capacity as a contractor and subject to the limitations of Public Contract Code § 1104. Notification of any such errors, omissions, inconsistencies, or conflicts must be submitted in writing to the City no later than five Working Days before the scheduled bid opening. (See Section 5, above.) City expressly disclaims responsibility for assumptions a bidder might draw from the presence or absence of information provided by City.
 - 6.3 Project Site.** Questions regarding the availability of soil test data, water table elevations, and the like should be submitted to the City in writing, as specified in Section 5, above. Any subsurface exploration at the Project site must be done at the bidder's expense, but only with prior written authorization from City. All soil data and analyses available for inspection or provided in the Contract Documents apply only to the test hole locations. Any water table elevation indicated by a soil test report existed on the date the test hole was drilled. The bidder is responsible for determining and allowing for any differing soil or water table conditions during construction. Because groundwater levels may fluctuate, difference(s) in elevation between ground water shown in soil boring logs and ground water actually encountered during Project construction will not be considered changed Project site conditions. Actual locations and depths must be determined by bidder's field investigation. The bidder may request access to underlying or background information on the Project site in City's possession that is necessary for the bidder

to form its own conclusions, including, if available, record drawings or other documents indicating the location of subsurface lines, utilities, or other structures.

- 6.4 Utility Company Standards.** The Project must be completed in a manner that satisfies the standards and requirements of any affected utility companies or agencies (collectively, “utility owners”). The successful bidder may be required by the third party utility owners to provide detailed plans prepared by a California registered civil engineer showing the necessary temporary support of the utilities during coordinated construction work. Bidders are directed to contact the affected third party utility owners about their requirements before submitting a Bid Proposal.
- 7. Bidders Interested in More Than One Bid.** No person, firm, or corporation may submit or be a party to more than one Bid Proposal unless alternate bids are specifically called for. However, a person, firm, or corporation that has submitted a subcontract proposal or quote to a bidder may submit subcontract proposals or quotes to other bidders.
- 8. Addenda.** Any addenda issued prior to the bid opening are part of the Contract Documents. Subject to the limitations of Public Contract Code § 4104.5, City reserves the right to issue addenda prior to bid time. Each bidder is solely responsible for ensuring it has received and reviewed all addenda prior to submitting its bid. Addenda will be located on the BidExpress website with the other contract documents for this solicitation.
- 9. Brand Designations and “Or Equal” Substitutions.** Any specification designating a material, product, thing, or service by specific brand or trade name, followed by the words “or equal,” is intended only to indicate quality and type of item desired, and bidders may request use of any equal material, product, thing, or service. All data substantiating the proposed substitute as an equal item must be submitted with the written request for substitution. A request for substitution must be submitted within 35 days after Notice of Potential Award unless otherwise provided in the Contract Documents. This provision does not apply to materials, products, things, or services that may lawfully be designated by a specific brand or trade name under Public Contract Code § 3400(c).
- 10. Bid Protest.** Any bid protest against another bidder must be submitted in writing and received by City at its Department of Public Works at 111 Morphew Street, San Rafael, California 94901, ATTN: Grey Melgard, Associate Civil Engineer, or sent via email at Grey.Melgard@cityofsanrafael.org before 5:00 p.m. no later than two Working Days following bid opening (“Bid Protest Deadline”) and must comply with the following requirements:
- 10.1 General.** Only a bidder who has actually submitted a Bid Proposal is eligible to submit a bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest. If required by City, the protesting bidder must submit a non-refundable fee in the amount specified by City, based upon City’s reasonable costs to administer the bid protest. Any such fee must be submitted to City no later than the Bid Protest Deadline, unless otherwise specified. For purposes of this Section 10, a “Working Day” means a day that City is open for normal business, and excludes weekends and holidays observed by City. Pursuant to Public Contract Code § 4104, inadvertent omission of a Subcontractor’s DIR registration number on the Subcontractor List form is not grounds for a bid protest, provided it is corrected within 24 hours of the bid opening or as otherwise provided under Labor Code § 1771.1(b).
- 10.2 Protest Contents.** The bid protest must contain a complete statement of the basis for the protest and must include all supporting documentation. Material submitted

after the Bid Protest Deadline will not be considered. The protest must refer to the *specific* portion or portions of the Contract Documents upon which the protest is based. The protest must include the name, address, email address, and telephone number of the protesting bidder and any person submitting the protest on behalf of or as an authorized representative of the protesting bidder.

- 10.3 Copy to Protested Bidder.** Upon submission of its bid protest to City, the protesting bidder must also concurrently transmit the protest and all supporting documents to the protested bidder, and to any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest, by email or hand delivery to ensure delivery before the Bid Protest Deadline.
- 10.4 Response to Protest.** The protested bidder may submit a written response to the protest, provided the response is received by City before 5:00 p.m., within two Working Days after the Bid Protest Deadline or after actual receipt of the bid protest, whichever is sooner (the "Response Deadline"). The response must attach all supporting documentation. Material submitted after the Response Deadline will not be considered. The response must include the name, address, email address, and telephone number of the person responding on behalf of or representing the protested bidder if different from the protested bidder.
- 10.5 Copy to Protesting Bidder.** Upon submission of its response to the bid protest to the City, the protested bidder must also concurrently transmit by email or hand delivery, by or before the Response Deadline, a copy of its response and all supporting documents to the protesting bidder and to any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.
- 10.6 Exclusive Remedy.** The procedure and time limits set forth in this Section are mandatory and are the bidder's sole and exclusive remedy in the event of a bid protest. A bidder's failure to comply with these procedures will constitute a waiver of any right to further pursue a bid protest, including filing a Government Code Claim or initiation of legal proceedings.
- 10.7 Right to Award.** City reserves the right, acting in its sole discretion, to reject any bid protest that it determines lacks merit, to award the Contract to the bidder it has determined to be the responsible bidder submitting the lowest responsive bid, and to issue a Notice to Proceed with the Work notwithstanding any pending or continuing challenge to its determination.
- 11. Reservation of Rights.** City reserves the unfettered right, acting in its sole discretion, to waive or to decline to waive any immaterial bid irregularities; to accept or reject any or all bids; to cancel or reschedule the bid; to postpone or abandon the Project entirely; or to perform all or part of the Work with its own forces. The Contract will be awarded, if at all, within 60 days after opening of bids or as otherwise specified in the Special Conditions, to the responsible bidder that submitted the lowest responsive bid. Any planned start date for the Project represents the City's expectations at the time the Notice Inviting Bids was first issued. City is not bound to issue a Notice to Proceed by or before such planned start date, and it reserves the right to issue the Notice to Proceed when the City determines, in its sole discretion, the appropriate time for commencing the Work. The City expressly disclaims responsibility for any assumptions a bidder might draw from the presence or absence of information provided by the City in any form. Each bidder is solely responsible for its costs to prepare and submit a bid, including site investigation costs.

12. **Bonds.** Within ten calendar days following City's issuance of the Notice of Potential Award to the apparent low bidder, the bidder must submit payment and performance bonds to City as specified in the Contract Documents using the bond forms included in the Contract Documents. All required bonds must be calculated on the maximum total Contract Price as awarded, including additive alternates, if applicable.
13. **License(s).** The successful bidder and its Subcontractor(s) must possess the California contractor's license(s) in the classification(s) required by law to perform the Work. The successful bidder must also obtain a City business license within 10 days following City's issuance of the Notice of Potential Award. Subcontractors must also obtain a City business license before performing any Work.
14. **Ineligible Subcontractor.** Any Subcontractor who is ineligible to perform work on a public works project under Labor Code §§ 1777.1 or 1777.7 is prohibited from performing work on the Project.
15. **Safety Orders.** If the Project includes construction of a pipeline, sewer, sewage disposal system, boring and jacking pits, or similar trenches or open excavations, which are five feet or deeper, each bid must include a bid item for adequate sheeting, shoring, and bracing, or equivalent method, for the protection of life or limb, which comply with safety orders as required by Labor Code § 6707.
16. **Subcontractor Work Limits.** The prime contractor must perform at least 30% of the Work on the Project, calculated as a percentage of the base bid price, with its own forces, except for any Work identified as "Specialty Work" in the Contract Documents. The total bid amount for any such Specialty Work, as shown on the Bid Schedule, may be deducted from the base bid price before computing the 30% self-performance requirement. The remaining Work may be performed by qualified Subcontractor(s).
18. **Bid Schedule.** Each bidder must complete the Bid Schedule form with unit prices as indicated, and submit the completed Bid Schedule with its Bid Proposal.
 - 18.1 **Incorrect Totals.** In the event a computational error for any bid item (base bid or alternate) results in an incorrect extended total for that item, the submitted base bid or bid alternate total will be adjusted to reflect the corrected amount as the product of the estimated quantity and the unit cost. In the event of a discrepancy between the actual total of the itemized or unit prices shown on the Bid Schedule for the base bid, and the amount entered as the base bid on the Bid Proposal form, the actual total of the itemized or unit prices shown on the Bid Schedule for the base bid will be deemed the base bid price. Likewise, in the event of a discrepancy between the actual total of the itemized or unit prices shown on the Bid Schedule for any bid alternate, and the amount entered for the alternate on the Bid Proposal form, the actual total of the itemized prices shown on the Bid Schedule for that alternate will be deemed the alternate price. Nothing in this provision is intended to prevent a bidder from requesting to withdraw its bid for material error under Public Contract Code § 5100 et seq.
 - 18.2 **Estimated Quantities.** Unless identified as a "Final Pay Quantity," the quantities shown on the Bid Schedule are estimated and the actual quantities required to perform the Work may be greater or less than the estimated amount. The Contract Price will be adjusted to reflect the actual quantities required for the Work based on the itemized or unit prices provided in the Bid Schedule, with no allowance for anticipated profit for quantities that are deleted or decreased, and no increase in the unit price, and without regard to the percentage increase or decrease of the estimated quantity and the actual quantity.

19. **Bidder's Questionnaire.** A completed, signed Bidder's Questionnaire using the form provided with the Contract Documents and including all required attachments must be submitted within 48 hours following a request by City. A bid that does not fully comply with this requirement may be rejected as nonresponsive. A bidder who submits a Bidder's Questionnaire which is subsequently determined to contain false or misleading information, or material omissions, may be disqualified as non-responsible.

END OF INSTRUCTIONS TO BIDDERS

Bid Proposal

Pavement Maintenance Project FY 2024/25

_____ (“Bidder”) hereby submits this Bid Proposal to the City of San Rafael (“City”) for the above-referenced project (“Project”) in response to the Notice Inviting Bids and in accordance with the Contract Documents referenced in the Notice.

1. Base Bid. Bidder proposes to perform and fully complete the Work for the Project as specified in the Contract Documents, within the time required for full completion of the Work, including all labor, materials, supplies, and equipment and all other direct or indirect costs including, but not limited to, taxes, insurance and all overhead for the following price (“Base Bid”):
\$ _____.

3. Addenda. Bidder agrees that it has confirmed receipt of or access to, and reviewed, all addenda issued for this bid. Bidder waives any claims it might have against the City based on its failure to receive, access, or review any addenda for any reason. Bidder specifically acknowledges receipt of the following addenda:

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

4. Bidder’s Certifications and Warranties. By signing and submitting this Bid Proposal, Bidder certifies and warrants the following:

- 4.1 Examination of Contract Documents.** Bidder has thoroughly examined the Contract Documents and represents that, to the best of Bidder’s knowledge, there are no errors, omissions, or discrepancies in the Contract Documents, subject to the limitations of Public Contract Code § 1104.
- 4.2 Examination of Worksite.** Bidder has had the opportunity to examine the Worksite and local conditions at the Project location.
- 4.3 Bidder Responsibility.** Bidder is a responsible bidder, with the necessary ability, capacity, experience, skill, qualifications, workforce, equipment, and resources to perform or cause the Work to be performed in accordance with the Contract Documents and within the Contract Time.
- 4.4 Responsibility for Bid.** Bidder has carefully reviewed this Bid Proposal and is solely responsible for any errors or omissions contained in its completed bid. All statements and information provided in this Bid Proposal and enclosures are true and correct to the best of Bidder’s knowledge.
- 4.5 Nondiscrimination.** In preparing this bid, the Bidder has not engaged in discrimination against any prospective or present employee or Subcontractor on grounds of race, color, ancestry, national origin, ethnicity, religion, sex, sexual orientation, age, disability, or marital status.
- 4.6 Iran Contracting Act.** If the Contract Price exceeds \$1,000,000, Bidder is not identified on a list created under the Iran Contracting Act, Public Contract Code § 2200 et seq. (the “Act”), as a person engaging in investment activities in Iran, as defined in the Act, or is otherwise expressly exempt under the Act.

- 5. Award of Contract.** By signing and submitting this Bid Proposal, Bidder agrees that if Bidder is awarded the Contract for the Project, within ten days following issuance of the Notice of Potential Award to Bidder, Bidder will do all of the following:
- 5.1 Execute Contract.** Enter into the Contract with City in accordance with the terms of this Bid Proposal, by signing and submitting to City the Contract prepared by City using the form included with the Contract Documents;
 - 5.2 Submit Required Bonds.** Submit to City a payment bond and a performance bond, each for 100% of the Contract Price, using the bond forms provided and in accordance with the requirements of the Contract Documents; and
 - 5.3 Insurance Requirements.** Submit to City the insurance certificate(s) and endorsement(s) as required by the Contract Documents.
- 6. Bid Security.** As a guarantee that, if awarded the Contract, Bidder will perform its obligations under Section 4 above, Bidder is enclosing bid security in the amount of ten percent of its maximum bid amount in one of the following forms (check one):

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

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

This Bid Proposal is hereby submitted on _____, 20__.

s/ _____

Name and Title

s/ _____
[See Section 3 of Instructions to Bidders]

Name and Title

Company Name

License #, Expiration Date, and Classification

Address

DIR Registration #

City, State, Zip

Phone

Contact Name

Contact Email

END OF BID PROPOSAL

Bid Schedule

This Bid Schedule must be completed electronically and included with the Electronic Bid Proposal. Pricing must be provided for each Bid Item as indicated. The lump sum or unit cost for each item must be inclusive of all costs, whether direct or indirect, including profit and overhead. The sum of all amounts entered in the "Extended Total Amount" column must be identical to the Base Bid price entered in Section 1 of the Bid Proposal form.

AL = Allowance CF = Cubic Feet CY = Cubic Yard EA = Each LB = Pounds
 LF = Linear Foot LS = Lump Sum SF = Square Feet TON = Ton (2000 lbs)

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
1	Mobilization	1.0	LS	\$	\$
2	Signs and Traffic Control	1.0	LS	\$	\$
3	Crack Seal	1.0	LS	\$	\$
4	Accelerated Curing Slurry Seal, Type II	190,000	SY	\$	\$
5	Micro-Surfacing, Type III with Fiber Additive	46,000	SY	\$	\$
6	Micro-Surfacing, Type II	46,000	SY	\$	\$
7	Install Detail 1 (Thermoplastic)	3,000	LF	\$	\$
8	Install Detail 22 (Thermoplastic)	8,500	LF	\$	\$
9	Install Solid Yellow Centerline (Thermoplastic)	600	LF	\$	\$
10	Install Pavement Markings (Thermoplastic)	2,000	SY	\$	\$
11	Install Ladder Crosswalk (Thermoplastic)	50	EA	\$	\$
12	Install Solid White Parking Line (Thermoplastic)	500	LF	\$	\$

* Final Pay Quantity

TOTAL BASE BID: Items 1 through _____ inclusive: \$ _____

Note: The amount entered as the "Total Base Bid" should be identical to the Base Bid amount entered in Section 1 of the Bid Proposal form.

BIDDER NAME: _____

END OF BID SCHEDULE

Noncollusion Declaration

TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the _____ [title] of _____
[business name], the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid and will not pay, any person or entity for such purpose.

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

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

s/ _____

Name [print]

END OF NONCOLLUSION DECLARATION

Bid Bond

_____ (“Bidder”) has submitted a bid, dated _____, 20____ (“Bid”), to the City of San Rafael (“City”) for work on the Pavement Maintenance Project FY 2024/25 (“Project”). Under this duly executed bid bond (“Bid Bond”), Bidder as Principal and _____, its surety (“Surety”), are bound to City as obligee in the penal sum of ten percent of the maximum amount of the Bid (the “Bond Sum”). Bidder and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, as follows:

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

Attn: Grey Shankel Melgard, Associate Civil Engineer
Address: 111 Morpew Street
City/State/Zip: San Rafael, CA 94901
Phone: 415-256-5501
Email: Grey.Melgard@cityofsanrafael.org
4. **Duration and Waiver.** If Bidder fulfills its obligations under Section 2, above, then this obligation will be null and void; otherwise, it will remain in full force and effect for 60 days following the bid opening or until this Bid Bond is returned to Bidder, whichever occurs first. Surety waives the provisions of Civil Code §§ 2819 and 2845.

[Signatures are on the following page.]

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

SURETY:

Business Name

s/ _____

Date

Name, Title

(Attach Acknowledgment with Notary Seal and Power of Attorney)

BIDDER:

Business Name

s/ _____

Date

Name, Title

END OF BID BOND

Bidder's Questionnaire

PAVEMENT MAINTENANCE PROJECT FY 2024/25

Within 48 hours following a request by City, a bidder must submit to City a completed, signed Bidder's Questionnaire using this form and all required attachments, including clearly labeled additional sheets as needed. City may request the Questionnaire from one or more of the apparent low bidders following the bid opening, and may use the completed Questionnaire as part of its investigation to evaluate a bidder's qualifications for this Project. The Questionnaire must be filled out completely, accurately, and legibly. Any errors, omissions, or misrepresentations in completion of the Questionnaire may be grounds for rejection of the bid or termination of a Contract awarded pursuant to the bid.

Part A: General Information

Bidder Business Name: _____ ("Bidder")

Check One: Corporation (State of incorporation: _____)
 Partnership
 Sole Proprietorship
 Joint Venture of: _____
 Other: _____

Main Office Address and Phone: _____

Local Office Address and Phone: _____

Website address: _____

Owner of Business: _____

Contact Name and Title: _____

Contact Phone and Email: _____

Bidder's California Contractor's License Number(s): _____

Bidder's DIR Registration Number: _____

Part B: Bidder Experience

1. How many years has Bidder been in business under its present business name? _____ years
2. Has Bidder completed projects similar in type and size to this Project as a general contractor?
_____ Yes _____ No
3. Has Bidder ever been disqualified from a bid on grounds that it is not responsible, or otherwise disqualified or disbarred from bidding under state or federal law?
_____ Yes _____ No

If yes, provide additional information on a separate sheet regarding the disqualification or disbarment, including the name and address of the agency or owner of the project, the type and size of the project, the reasons that Bidder was disqualified or disbarred, and the month and year in which the disqualification or disbarment occurred.

4. Has Bidder ever been terminated for cause, alleged default, or legal violation from a construction project, either as a general contractor or as a subcontractor?

_____ Yes _____ No

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

5. Provide information about Bidder’s past projects performed as general contractor as follows:

- 5.1 Six most recently completed public works projects within the last three years;
- 5.2 Three largest completed projects within the last three years; and
- 5.3 Any project which is similar to this Project including scope and character of the work.

6. Use separate sheets to provide all of the following information for each project identified in response to the above three categories:

- 6.1 Project name, location, and description;
- 6.2 Owner (name, address, email, and phone number);
- 6.3 Prime contractor, if applicable (name, address, email, and phone number);
- 6.4 Architect or engineer (name, email, and phone number);
- 6.5 Project and/or construction manager (name, email, and phone number);
- 6.6 Scope of work performed (as general or as subcontractor);
- 6.7 Initial contract price and final contract price (including change orders);
- 6.8 Original scheduled completion date and actual date of completion;
- 6.9 Time extensions granted (number of days);
- 6.10 Number and amount of stop notices or mechanic’s liens filed;
- 6.11 Amount of any liquidated damages assessed against Bidder; and
- 6.12 Nature and resolution of any project-related claim, lawsuit, mediation, or arbitration involving Bidder.

Part C: Safety

1. Provide Bidder’s Experience Modification Rate (EMR) for the last three years:

Year	EMR

2. Complete the following, based on information provided in Bidder’s CalOSHA Form 300 or Form 300A, Annual Summary of Work-Related Illnesses and Injuries, from the most recent past calendar year:

- 2.1 Number of lost workday cases: _____
- 2.2 Number of medical treatment cases: _____
- 2.3 Number of deaths: _____

3. Has Bidder ever been cited, fined, or prosecuted by any local, state, or federal agency, including OSHA, CalOSHA, or EPA, for violation of any law, regulation, or requirements pertaining to health and safety?

_____ Yes _____ No

If yes, provide additional information on a separate sheet regarding each such citation, fine, or prosecution, including the name and address of the agency or owner of the project, the type and size of the project, the reasons for and nature of the citation, fine, or prosecution, and the month and year in which the incident giving rise to the citation, fine, or prosecution occurred.

4. Name, title, and email for person responsible for Bidder's safety program:

Name Title Email

Part D: Verification

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

Signature: _____ Date: _____

By: _____
Name and Title

END OF BIDDER'S QUESTIONNAIRE

Contract

This public works contract ("Contract") is entered into by and between the City of San Rafael ("City") and _____ ("Contractor"), for work on the Pavement Maintenance Project FY 2024/25 ("Project").

The parties agree as follows:

1. **Award of Contract.** In response to the Notice Inviting Bids, Contractor has submitted a Bid Proposal to perform the Work to construct the Project. On _____, 20____, City authorized award of this Contract to Contractor for the amount set forth in Section 4, below.
2. **Contract Documents.** The Contract Documents incorporated into this Contract include and are comprised of all of the documents listed below. The definitions provided in Article 1 of the General Conditions apply to all of the Contract Documents, including this Contract.
 - 2.1 Notice Inviting Bids;
 - 2.2 Instructions to Bidders;
 - 2.3 Addenda, if any;
 - 2.4 Bid Proposal and attachments thereto;
 - 2.5 Contract;
 - 2.6 Payment and Performance Bonds;
 - 2.7 General Conditions;
 - 2.8 Special Conditions;
 - 2.9 Project Plans and Specifications;
 - 2.10 Change Orders, if any;
 - 2.11 Notice of Potential Award;
 - 2.12 Notice to Proceed; and
 - 2.13 The following: Appendix A – City of San Rafael Pollution Prevention, Appendix B – City of San Rafael Barricade Policy, Appendix C – Caltrans Signing and Delineation Materials Document, Appendix D – Map of Streets
3. **Contractor's Obligations.** Contractor will perform all of the Work required for the Project, as specified in the Contract Documents. Contractor must provide, furnish, and supply all things necessary and incidental for the timely performance and completion of the Work, including all necessary labor, materials, supplies, tools, equipment, transportation, onsite facilities, and utilities, unless otherwise specified in the Contract Documents. Contractor must use its best efforts to diligently prosecute and complete the Work in a professional and expeditious manner and to meet or exceed the performance standards required by the Contract Documents.
4. **Payment.** As full and complete compensation for Contractor's timely performance and completion of the Work in strict accordance with the terms and conditions of the Contract Documents, City will pay Contractor \$ _____ ("Contract Price") for all of Contractor's direct and indirect costs to perform the Work, including all labor, materials, supplies, equipment, taxes, insurance, bonds and all overhead costs, in accordance with the payment provisions in the General Conditions.
5. **Time for Completion.** Contractor will fully complete the Work for the Project, meeting all requirements for Final Completion, within 35 working days from the commencement date given in the Notice to Proceed ("Contract Time"). By signing below, Contractor expressly waives any claim for delayed early completion.

- 6. Liquidated Damages.** As further specified in Section 5.4 of the General Conditions, if Contractor fails to complete the Work within the Contract Time, City will assess liquidated damages in the amount of \$4,200 per day for each day of unexcused delay in achieving Final Completion, and such liquidated damages may be deducted from City's payments due or to become due to Contractor under this Contract.
- 7. Labor Code Compliance.**
- 7.1 General.** This Contract is subject to all applicable requirements of Chapter 1 of Part 7 of Division 2 of the Labor Code, including requirements pertaining to wages, working hours and workers' compensation insurance, as further specified in Article 9 of the General Conditions.
- 7.2 Prevailing Wages.** This Project is subject to the prevailing wage requirements applicable to the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the Work, including employer payments for health and welfare, pension, vacation, apprenticeship and similar purposes. Copies of these prevailing rates are available online at <http://www.dir.ca.gov/DLSR>.
- 7.3 DIR Registration.** City may not enter into the Contract with a bidder without proof that the bidder and its Subcontractors are registered with the California Department of Industrial Relations to perform public work pursuant to Labor Code § 1725.5, subject to limited legal exceptions.
- 8. Workers' Compensation Certification.** Pursuant to Labor Code § 1861, by signing this Contract, Contractor certifies as follows: "I am aware of the provisions of Labor Code § 3700 which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the Work on this Contract."
- 9. Conflicts of Interest.** Contractor, its employees, Subcontractors and agents, may not have, maintain or acquire a conflict of interest in relation to this Contract in violation of any City ordinance or requirement, or in violation of any California law, including Government Code § 1090 et seq., or the Political Reform Act, as set forth in Government Code § 81000 et seq. and its accompanying regulations. Any violation of this Section constitutes a material breach of the Contract.
- 10. Independent Contractor.** Contractor is an independent contractor under this Contract and will have control of the Work and the means and methods by which it is performed. Contractor and its Subcontractors are not employees of City and are not entitled to participate in any health, retirement, or any other employee benefits from City.
- 11. Notice.** Any notice, billing, or payment required by or pursuant to the Contract Documents must be made in writing, signed, dated and sent to the other party by personal delivery, U.S. Mail, a reliable overnight delivery service, or by email as a PDF file. Notice is deemed effective upon delivery, except that service by U.S. Mail is deemed effective on the second working day after deposit for delivery. Notice for each party must be given as follows:

City:

Department of Public Works
111 Morphew Street
San Rafael, CA 94901

Attn: Joanna Kwok, Assistant Public Works Director/City Engineer
Joanna.Kwok@cityofsanrafael.org

Copy to: Grey Shankel Melgard, Associate Civil Engineer
Grey.Melgard@cityofsanrafael.org

Contractor:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____
Attn: _____
Email: _____
Copy to: _____

12. General Provisions.

- 12.1 Assignment and Successors.** Contractor may not assign its rights or obligations under this Contract, in part or in whole, without City’s written consent. This Contract is binding on Contractor’s and City’s lawful heirs, successors and permitted assigns.
- 12.2 Third Party Beneficiaries.** There are no intended third party beneficiaries to this Contract.
- 12.3 Governing Law and Venue.** This Contract will be governed by California law and venue will be in the Marin County Superior Court, and no other place. Contractor waives any right it may have pursuant to Code of Civil Procedure § 394, to file a motion to transfer any action arising from or relating to this Contract to a venue outside of Marin County, California.
- 12.4 Amendment.** No amendment or modification of this Contract will be binding unless it is in a writing duly authorized and signed by the parties to this Contract.
- 12.5 Integration.** This Contract and the Contract Documents incorporated herein, including authorized amendments or Change Orders thereto, constitute the final, complete, and exclusive terms of the agreement between City and Contractor.
- 12.6 Severability.** If any provision of the Contract Documents is determined to be illegal, invalid, or unenforceable, in whole or in part, the remaining provisions of the Contract Documents will remain in full force and effect.
- 12.7 Iran Contracting Act.** If the Contract Price exceeds \$1,000,000, Contractor certifies, by signing below, that it is not identified on a list created under the Iran Contracting Act, Public Contract Code § 2200 et seq. (the “Act”), as a person engaging in investment activities in Iran, as defined in the Act, or is otherwise expressly exempt under the Act.
- 12.8 Authorization.** Each individual signing below warrants that he or she is authorized to do so by the party that he or she represents, and that this Contract is legally binding on that party. If Contractor is a corporation, signatures from two officers of the corporation are required pursuant to California Corporation Code § 313.

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

CITY:

Approved as to form:

s/ _____
CRISTINE ALILOVICH, City Manager

s/ _____
ROBERT F. EPSTEIN, City Attorney

Date: _____

Date: _____

Attest:

s/ _____
LINDSAY LARA, City Clerk

Date: _____

CONTRACTOR: _____
Business Name

s/ _____

Seal:

Name, Title

Date: _____

Second Signature (See Section 12.8):

s/ _____

Name, Title

Date: _____

Contractor's California License Number(s) and Expiration Date(s)

END OF CONTRACT

Payment Bond

The City of San Rafael ("City") and _____ ("Contractor") have entered into a contract for work on the Pavement Maintenance Project FY 2024/25 ("Project"). The Contract is incorporated by reference into this Payment Bond ("Bond").

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

Attn: Grey Shankel Melgard, Associate Civil Engineer
Address: 111 Morphew Street
City/State/Zip: San Rafael, CA 94901
Phone: 415-256-5501
Email: Grey.Melgard@cityofsanrafael.org
6. **Law and Venue.** This Bond will be governed by California law, and venue for any dispute pursuant to this Bond will be in the Marin County Superior Court, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.

[Signatures are on the following page.]

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

SURETY:

Business Name

s/ _____

Date

Name, Title

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

Business Name

s/ _____

Date

Name, Title

APPROVED BY CITY:

s/ _____

ROBERT F. EPSTEIN, City Attorney

Date

END OF PAYMENT BOND

Performance Bond

The City of San Rafael ("City") and _____ ("Contractor") have entered into a contract for work on the Pavement Maintenance Project FY 2024/25 ("Project"). The Contract is incorporated by reference into this Performance Bond ("Bond").

1. **General.** Under this Bond, Contractor as principal and _____, its surety ("Surety"), are bound to City as obligee for an amount not less than \$_____ to ensure Contractor's faithful performance of its obligations under the Contract. This Bond is binding on the respective successors, assigns, owners, heirs, or executors of Surety and Contractor.
2. **Surety's Obligations.** Surety's obligations are co-extensive with Contractor's obligations under the Contract. If Contractor fully performs its obligations under the Contract, including its warranty obligations under the Contract, Surety's obligations under this Bond will become null and void. Otherwise, Surety's obligations will remain in full force and effect.
3. **Waiver.** Surety waives any requirement to be notified of and further consents to any alterations to the Contract made under the applicable provisions of the Contract Documents, including changes to the scope of Work or extensions of time for performance of Work under the Contract. Surety waives the provisions of Civil Code §§ 2819 and 2845.
4. **Application of Contract Balance.** Upon making a demand on this Bond for completion of the Work prior to acceptance of the Project, City will make the Contract Balance available to Surety for completion of the Work under the Contract. For purposes of this provision, the Contract Balance is defined as the total amount payable by City to Contractor as the Contract Price minus amounts already paid to Contractor, and minus any liquidated damages, credits, or backcharges to which City is entitled under the terms of the Contract.
5. **Contractor Default.** Upon written notification from City of Contractor's termination for default under Article 13 of the Contract General Conditions, time being of the essence, Surety must act within the time specified in Article 13 to remedy the default through one of the following courses of action:
 - 5.1 Arrange for completion of the Work under the Contract by Contractor, with City's consent, but only if Contractor is in default solely due to its financial inability to complete the Work;
 - 5.2 Arrange for completion of the Work under the Contract by a qualified contractor acceptable to City, and secured by performance and payment bonds issued by an admitted surety as required by the Contract Documents, at Surety's expense; or
 - 5.3 Waive its right to complete the Work under the Contract and reimburse City the amount of City's costs to have the remaining Work completed.
6. **Surety Default.** If Surety defaults on its obligations under the Bond, City will be entitled to recover all costs it incurs due to Surety's default, including legal, design professional, or delay costs.
7. **Notice.** Any notice to Surety may be given in the manner specified in the Contract and sent to Surety as follows:

Attn: Grey Shankel Melgard, Associate Civil Engineer
Address: 111 Morphew Street
City/State/Zip: San Rafael, CA 94901
Phone: 415-256-5501
Email: Grey.Melgard@cityofsanrafael.org

8. **Law and Venue.** This Bond will be governed by California law, and venue for any dispute pursuant to this Bond will be in the Marin County Superior Court, and no other place. Surety will be responsible for City's attorneys' fees and costs in any action to enforce the provisions of this Bond.
9. **Effective Date; Execution.** This Bond is entered into and effective on _____, 20____.

SURETY:

Business Name

s/ _____

Date

Name, Title

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

Business Name

s/ _____

Date

Name, Title

APPROVED BY CITY:

s/ _____

ROBERT F. EPSTEIN, City Attorney

Date

END OF PERFORMANCE BOND

General Conditions

Article 1 - Definitions

Definitions. The following definitions apply to all of the Contract Documents unless otherwise indicated, e.g., additional definitions that apply solely to the Specifications or other technical documents. Defined terms and titles of documents are capitalized in the Contract Documents, with the exception of the following (in any tense or form): “day,” “furnish,” “including,” “install,” “work day” or “working day.”

Allowance means a specific amount that must be included in the Bid Proposal for a specified purpose.

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

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

City means the municipality which has entered into the Contract with Contractor for performance of the Work, acting through its City Council, officers, employees, City Engineer, and any other authorized representatives.

City Engineer means the City Engineer for City and his or her authorized delegee(s).

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

Contract means the signed agreement between City and Contractor for performing the Work required for the Project, and all documents expressly incorporated therein.

Contract Documents means, collectively, all of the documents listed as such in Section 2 of the Contract, including the Notice Inviting Bids; the Instructions to Bidders; addenda, if any; the Bid Proposal, and attachments thereto; the Contract; the Notice of Potential Award and Notice to Proceed; the payment and performance bonds; the General Conditions; the Special Conditions; the Project Plans and Specifications; any Change Orders; and any other documents which are clearly and unambiguously made part of the Contract Documents. The Contract Documents do not include documents provided “For Reference Only,” or documents that are intended solely to provide information regarding existing conditions.

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

Contract Time means the time specified for complete performance of the Work, as set forth in the Contract and as may be amended by Change Order.

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

Day means a calendar day unless otherwise specified.

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

DIR means the California Department of Industrial Relations.

Drawings has the same meaning as Plans.

Engineer means the City Engineer for the City of San Rafael and his or her authorized delegees.

Excusable Delay is defined in Section 5.3(B), Excusable Delay.

Extra Work means new or unforeseen work added to the Project, as determined by the Engineer in his or her sole discretion, including Work that was not part of or incidental to the scope of the Work when the Contractor's bid was submitted; Work that is substantially different from the Work as described in the Contract Documents at bid time; or Work that results from a substantially differing and unforeseeable condition.

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

Final Payment means payment to Contractor of the unpaid Contract Price, including release of undisputed retention, less amounts withheld or deducted pursuant to the Contract Documents.

Furnish means to purchase and deliver for the Project.

Government Code Claim means a claim submitted pursuant to California Government Code § 900 et seq.

Hazardous Materials means any substance or material identified now or in the future as hazardous under any Laws, or any other substance or material that may be considered hazardous or otherwise subject to Laws governing handling, disposal, or cleanup.

Including, whether or not capitalized, means "including, but not limited to," unless the context clearly requires otherwise.

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

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

Laws means all applicable local, state, and federal laws, regulations, rules, codes, ordinances, permits, orders, and the like enacted or imposed by or under the auspices of any governmental entity with jurisdiction over any of the Work or any performance of the Work, including health and safety requirements.

Non-Excusable Delay is defined in Section 5.3(D), Non-Excusable Delay.

Plans means the City-provided plans, drawings, details, or graphical depictions of the Project requirements, but does not include Shop Drawings.

Project means the public works project referenced in the Contract.

Project Manager means the individual designated by City to oversee and manage the Project on City's behalf and may include his or her authorized delegee(s) when the Project Manager is unavailable. If no Project Manager has been designated for this Project, any reference to Project Manager is deemed to refer to the Engineer.

Recoverable Costs is defined in Section 5.3(F), Recoverable Costs.

Request for Information or **RFI** means Contractor's written request for information about the Contract Documents, the Work or the Project, submitted to City in the manner and format specified by City.

Section, when capitalized in these General Conditions, means a numbered section or subsection of the General Conditions, unless the context clearly indicates otherwise.

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

Specialty Work means Work that must be performed by a specialized Subcontractor with the specified license or other special certification, and that the Contractor is not qualified to self-perform.

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

Subcontractor means an individual, partnership, corporation, or joint-venture retained by Contractor directly or indirectly through a subcontract to perform a specific portion of the Work. The term Subcontractor applies to subcontractors of all tiers, unless otherwise indicated by the context. A third party such as a utility performing related work on the Project is not a Subcontractor, even if Contractor must coordinate its Work with the third party.

Technical Specifications has the same meaning as Specifications.

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

Work Day or **Working Day**, whether or not capitalized, means a weekday when the City is open for business, and does not include holidays observed by the City.

Worksite means the place or places where the Work is performed, which includes, but may extend beyond the Project site, including separate locations for staging, storage, or fabrication.

Article 2 - Roles and Responsibilities

2.1 City.

(A) **City Council.** The City Council has final authority in all matters affecting the Project, except to the extent it has delegated authority to the Engineer.

(B) **Engineer.** The Engineer, acting within the authority conferred by the City Council, is responsible for administration of the Project on behalf of City, including authority to provide directions to the Design Professional and to Contractor to ensure proper and timely completion of the Project. The Engineer's decisions are final and

conclusive within the scope of his or her authority, including interpretation of the Contract Documents.

(C) **Project Manager.** The Project Manager assigned to the Project will be the primary point of contact for the Contractor and will serve as City's representative for daily administration of the Project on behalf of City. Unless otherwise specified, all of Contractor's communications to City (in any form) will go to or through the Project Manager. City reserves the right to reassign the Project Manager role at any time or to delegate duties to additional City representatives, without prior notice to or consent of Contractor.

(D) **Design Professional.** The Design Professional is responsible for the overall design of the Project and, to the extent authorized by City, may act on City's behalf to ensure performance of the Work in compliance with the Plans and Specifications, including any design changes authorized by Change Order. The Design Professional's duties may include review of Contractor's submittals, visits to any Worksite, inspecting the Work, evaluating test and inspection results, and participation in Project-related meetings, including any pre-construction conference, weekly meetings, and coordination meetings. The Design Professional's interpretation of the Plans or Specifications is final and conclusive.

2.2 Contractor.

(A) **General.** Contractor must provide all labor, materials, supplies, equipment, services, and incidentals necessary to perform and timely complete the Work in strict accordance with the Contract Documents, and in an economical and efficient manner in the best interests of City, and with minimal inconvenience to the public.

(B) **Responsibility for the Work and Risk of Loss.** Contractor is responsible for supervising and directing all aspects of the Work to facilitate the efficient and timely completion of the Work. Contractor is solely responsible for and required to exercise full control over the Work, including the construction means, methods, techniques, sequences, procedures, safety precautions and programs, and coordination of all portions of the Work with that of all other contractors and Subcontractors, except to the extent that the Contract Documents provide other specific instructions. Contractor's responsibilities extend to any plan, method or sequence suggested, but not required by City or specified in the Contract Documents. From the date of commencement of the Work until either the date on which City formally accepts the Project or the effective date of termination of the Contract, whichever is later, Contractor bears all risks of injury or damage to the Work and the materials and equipment delivered to any Worksite, by any cause including fire, earthquake, wind, weather, vandalism or theft.

(C) **Project Administration.** Contractor must provide sufficient and competent administration, staff, and skilled workforce necessary to perform and timely complete the Work in accordance with the Contract Documents. Before starting the Work, Contractor must designate in writing and provide complete contact information, including telephone numbers and email address, for the officer or employee in Contractor's organization who is to serve as Contractor's primary representative for the Project, and who has authority to act on Contractor's behalf. A Subcontractor may not serve as Contractor's primary representative.

(D) **On-Site Superintendent.** Contractor must, at all times during performance of the Work, provide a qualified and competent full-time superintendent acceptable to City, and assistants as necessary, who must be physically present at the Project site while any aspect of the Work is being performed. The superintendent must have full authority to act and communicate on behalf of Contractor, and Contractor will be bound by the

superintendent's communications to City. City's approval of the superintendent is required before the Work commences. If City is not satisfied with the superintendent's performance, City may request a qualified replacement of the superintendent. Failure to comply may result in temporary suspension of the Work, at Contractor's sole expense and with no extension of Contract Time, until an approved superintendent is physically present to supervise the Work. Contractor must provide written notice to City, as soon as practicable, before replacing the superintendent.

(E) **Standards.** Contractor must, at all times, ensure that the Work is performed in an efficient, skillful manner following best practices and in full compliance with the Contract Documents and Laws and applicable manufacturer's recommendations. Contractor has a material and ongoing obligation to provide true and complete information, to the best of its knowledge, with respect to all records, documents, or communications pertaining to the Project, including oral or written reports, statements, certifications, Change Order requests, or Claims.

(F) **Meetings.** Contractor, its project manager, superintendent and any primary Subcontractors requested by City, must attend a pre-construction conference, if requested by City, as well as weekly Project progress meetings scheduled with City. If applicable, Contractor may also be required to participate in coordination meetings with other parties relating to other work being performed on or near the Project site or in relation to the Project, including work or activities performed by City, other contractors, or other utility owners.

(G) **Construction Records.** Contractor will maintain up-to-date, thorough, legible, and dated daily job reports, which document all significant activity on the Project for each day that Work is performed on the Project. The daily report for each day must include the number of workers at the Project site; primary Work activities; major deliveries; problems encountered, including injuries, if any; weather and site conditions; and delays, if any. Contractor will take date and time-stamped photographs to document general progress of the Project, including site conditions prior to construction activities, before and after photographs at offset trench laterals, existing improvements and utilities, damage and restoration. Contractor will maintain copies of all subcontracts, Project-related correspondence with Subcontractors, and records of meetings with Subcontractors. Upon request by the City, Contractor will permit review of and/or provide copies of any of these construction records.

(H) **Responsible Party.** Contractor is solely responsible to City for the acts or omissions of any Subcontractors, or any other party or parties performing portions of the Work or providing equipment, materials or services for or on behalf of Contractor or the Subcontractors. Upon City's written request, Contractor must promptly and permanently remove from the Project, at no cost to City, any employee or Subcontractor or employee of a Subcontractor who the Engineer has determined to be incompetent, intemperate or disorderly, or who has failed or refused to perform the Work as required under the Contract Documents.

(I) **Correction of Defects.** Contractor must promptly correct, at Contractor's sole expense, any Work that is determined by City to be deficient or defective in any way, including workmanship, materials, parts or equipment. Workmanship, materials, parts or equipment that do not conform to the requirements under the Plans, Specifications and every other Contract Document, as determined by City, will be considered defective and subject to rejection. Contractor must also promptly correct, at Contractor's sole expense, any Work performed beyond the lines and grades shown on the Plans or established by City, and any Extra Work performed without City's prior written approval. If Contractor fails to correct or to take reasonable steps toward correcting defective Work within five days following notice from City, or within the time specified in City's notice to correct, City

may elect to have the defective Work corrected by its own forces or by a third party, in which case the cost of correction will be deducted from the Contract Price. If City elects to correct defective Work due to Contractor's failure or refusal to do so, City or its agents will have the right to take possession of and use any equipment, supplies, or materials available at the Project site or any Worksite on City property, in order to effectuate the correction, at no extra cost to City. Contractor's warranty obligations under Section 11.2, Warranty, will not be waived nor limited by City's actions to correct defective Work under these circumstances. Alternatively, City may elect to retain defective Work, and deduct the difference in value, as determined by the Engineer, from payments otherwise due to Contractor. This paragraph applies to any defective Work performed by Contractor during the one-year warranty period under Section 11.2.

(J) **Contractor's Records.** Contractor must maintain all of its records relating to the Project in any form, including paper documents, photos, videos, electronic records, approved samples, and the construction records required pursuant to paragraph (G), above. Project records subject to this provision include complete Project cost records and records relating to preparation of Contractor's bid, including estimates, take-offs, and price quotes or bids.

(1) Contractor's cost records must include all supporting documentation, including original receipts, invoices, and payroll records, evidencing its direct costs to perform the Work, including, but not limited to, costs for labor, materials and equipment. Each cost record should include, at a minimum, a description of the expenditure with references to the applicable requirements of the Contract Documents, the amount actually paid, the date of payment, and whether the expenditure is part of the original Contract Price, related to an executed Change Order, or otherwise categorized by Contractor as Extra Work. Contractor's failure to comply with this provision as to any claimed cost operates as a waiver of any rights to recover the claimed cost.

(2) Contractor must continue to maintain its Project-related records in an organized manner for a period of five years after City's acceptance of the Project or following Contract termination, whichever occurs first. Subject to prior notice to Contractor, City is entitled to inspect or audit any of Contractor's records relating to the Project during Contractor's normal business hours. The record-keeping requirements set forth in this subsection 2.2(J) will survive expiration or termination of the Contract.

(K) **Copies of Project Documents.** Contractor and its Subcontractors must keep copies, at the Project site, of all Work-related documents, including the Contract, permit(s), Plans, Specifications, Addenda, Contract amendments, Change Orders, RFIs and RFI responses, Shop Drawings, as-built drawings, schedules, daily records, testing and inspection reports or results, and any related written interpretations. These documents must be available to City for reference at all times during construction of the Project.

2.3 Subcontractors.

(A) **General.** All Work which is not performed by Contractor with its own forces must be performed by Subcontractors. City reserves the right to approve or reject any and all Subcontractors proposed to perform the Work, for reasons including the subcontractor's poor reputation, lack of relevant experience, financial instability, and lack of technical ability or adequate trained workforce. Each Subcontractor must obtain a City business license before performing any Work.

(B) **Contractual Obligations.** Contractor must require each Subcontractor to comply with the provisions of the Contract Documents as they apply to the Subcontractor's portion(s) of the Work, including the generally applicable terms of the Contract Documents, and to likewise bind their subcontractors. Contractor will provide that the rights that each Subcontractor may have against any manufacturer or supplier for breach of warranty or guarantee relating to items provided by the Subcontractor for the Project, will be assigned to City. Nothing in these Contract Documents creates a contractual relationship between a Subcontractor and City, but City is deemed to be a third-party beneficiary of the contract between Contractor and each Subcontractor.

(C) **Termination.** If the Contract is terminated, each Subcontractor's agreement must be assigned by Contractor to City, subject to the prior rights of any surety, but only if and to the extent that City accepts, in writing, the assignment by written notification, and assumes all rights and obligations of Contractor pursuant to each such subcontract agreement.

(D) **Substitution of Subcontractor.** If Contractor requests substitution of a listed Subcontractor under Public Contract Code § 4107, Contractor is solely responsible for all costs City incurs in responding to the request, including legal fees and costs to conduct a hearing, and any increased subcontract cost to perform the Work that was to be performed by the listed Subcontractor. If City determines that a Subcontractor is unacceptable to City based on the Subcontractor's failure to satisfactorily perform its Work, or for any of the grounds for substitution listed in Public Contract Code § 4107(a), City may request removal of the Subcontractor from the Project. Upon receipt of a written request from City to remove a Subcontractor pursuant to this paragraph, Contractor will immediately remove the Subcontractor from the Project and, at no further cost to City, will either (1) self-perform the remaining Work to the extent that Contractor is duly licensed and qualified to do so, or (2) substitute a Subcontractor that is acceptable to City, in compliance with Public Contract Code § 4107, as applicable.

2.4 Coordination of Work.

(A) **Concurrent Work.** City reserves the right to perform, have performed, or permit performance of other work on or adjacent to the Project site while the Work is being performed for the Project. Contractor is responsible for coordinating its Work with other work being performed on or adjacent to the Project site, including by any utility companies or agencies, and must avoid hindering, delaying, or interfering with the work of other contractors, individuals, or entities, and must ensure safe and reasonable site access and use as required or authorized by City. To the full extent permitted by law, Contractor must hold harmless and indemnify City against any and all claims arising from or related to Contractor's avoidable, negligent, or willful hindrance of, delay to, or interference with the work of any utility company or agency or another contractor or subcontractor.

(B) **Coordination.** If Contractor's Work will connect or interface with work performed by others, Contractor is responsible for independently measuring and visually inspecting such work to ensure a correct connection and interface. Contractor is responsible for any failure by Contractor or its Subcontractors to confirm measurements before proceeding with connecting Work. Before proceeding with any portion of the Work affected by the construction or operations of others, Contractor must give the Project Manager prompt written notification of any defects Contractor discovers which will prevent the proper execution of the Work. Failure to give notice of any known or reasonably discoverable defects will be deemed acknowledgement by Contractor that the work of others is not defective and will not prevent the proper execution of the Work. Contractor must also promptly notify City if work performed by others, including work or activities performed by City's own forces, is operating to hinder, delay, or interfere with Contractor's timely

performance of the Work. City reserves the right to backcharge Contractor for any additional costs incurred due to Contractor's failure to comply with the requirements in this Section 2.4.

2.5 Submittals. Unless otherwise specified, Contractor must submit to the Engineer for review and acceptance, all schedules, Shop Drawings, samples, product data, and similar submittals required by the Contract Documents, or upon request by the Engineer. Unless otherwise specified, all submittals, including Requests for Information, are subject to the general provisions of this Section, as well as specific submittal requirements that may be included elsewhere in the Contract Documents, including the Special Conditions or Specifications. The Engineer may require submission of a submittal schedule at or before a pre-construction conference, as may be specified in the Notice to Proceed.

(A) **General.** Contractor is responsible for ensuring that its submittals are accurate and conform to the Contract Documents.

(B) **Time and Manner of Submission.** Contractor must ensure that its submittals are prepared and delivered in a manner consistent with the current City-accepted schedule for the Work and within the applicable time specified in the Contract Documents, or if no time is specified, in such time and sequence so as not to delay the performance of the Work or completion of the Project.

(C) **Required Contents.** Each submittal must include the Project name and contract number, Contractor's name and address, the name and address of any Subcontractor or supplier involved with the submittal, the date, and references to applicable Specification section(s) and/or drawing and detail number(s).

(D) **Required Corrections.** If corrections are required, Contractor must promptly make and submit any required corrections as specified in full conformance with the requirements of this Section, or other requirements that apply to that submittal.

(E) **Effect of Review and Acceptance.** Review and acceptance of a submittal by City will not relieve Contractor from complying with the requirements of the Contract Documents. Contractor is responsible for any errors in any submittal, and review or acceptance of a submittal by City is not an assumption of risk or liability by City.

(F) **Enforcement.** Any Work performed or any material furnished, installed, fabricated or used without City's prior acceptance of a required submittal is performed or provided at Contractor's risk, and Contractor may be required to bear the costs incident thereto, including the cost of removing and replacing such Work, repairs to other affected portions of the Work or material, and the cost of additional time or services required of City, including costs for the Design Professional, Project Manager, or Inspector.

(G) **Excessive RFIs.** A RFI will be considered excessive or unnecessary if City determines that the explanation or response to the RFI is clearly and unambiguously discernable from the Contract Documents. City's costs to review and respond to excessive or unnecessary RFIs may be deducted from payments otherwise due to Contractor.

2.6 Shop Drawings. When Shop Drawings are required by the Specifications or requested by the Engineer, they must be prepared according to best practices at Contractor's expense. The Shop Drawings must be of a size and scale to clearly show all necessary details. Unless otherwise specified by City, Shop Drawings must be provided to the Engineer for review and acceptance at least 30 days before the Work will be performed. If City requires changes, the corrected Shop Drawings must be resubmitted to the Engineer for review within the time specified by the Engineer. For all Project components

requiring Shop Drawings, Contractor will not furnish materials or perform any Work until the Shop Drawings for those components are accepted by City. Contractor is responsible for any errors or omissions in the Shop Drawings, shop fits and field corrections; any deviations from the Contract Documents; and for the results obtained by the use of Shop Drawings. Acceptance of Shop Drawings by City does not relieve Contractor of Contractor's responsibility.

- 2.7 Access to Work.** Contractor must afford prompt and safe access to any Worksite by City and its employees, agents, or consultants authorized by City; and upon request by City, Contractor must promptly arrange for City representatives to visit or inspect manufacturing sites or fabrication facilities for items to be incorporated into the Work.
- 2.8 Personnel.** Contractor and its Subcontractors must employ only competent and skillful personnel to perform the Work. Contractor and its Subcontractor's supervisors, security or safety personnel, and employees who have unescorted access to the Project site must possess proficiency in English sufficient to read, understand, receive, and implement oral or written communications or instructions relating to their respective job functions, including safety and security requirements. Upon written notification from the Engineer, Contractor and its Subcontractors must immediately discharge any personnel who are incompetent, disorderly, disruptive, threatening, abusive, or profane, or otherwise refuse or fail to comply with the requirements of the Contract Documents or Laws, including Laws pertaining to health and safety. Any such discharged personnel may not be re-employed or permitted on the Project in any capacity without City's prior written consent.

Article 3 - Contract Documents

3.1 Interpretation of Contract Documents.

(A) **Plans and Specifications.** The Plans and Specifications included in the Contract Documents are complementary. If Work is shown on one but not on the other, Contractor must perform the Work as though fully described on both, consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results. The Plans and Specifications are deemed to include and require everything necessary and reasonably incidental to completion of the Work, whether or not particularly mentioned or shown. Contractor must perform all Work and services and supply all things reasonably related to and inferable from the Contract Documents. In the event of a conflict between the Plans and Specifications, the Specifications will control, unless the drawing(s) at issue are dated later than the Specification(s) at issue. Detailed drawings take precedence over general drawings, and large-scale drawings take precedence over smaller scale drawings. Any arrangement or division of the Plans and Specifications into sections is for convenience and is not intended to limit the Work required by separate trades. A conclusion presented in the Plans or Specifications is only a recommendation. Actual locations and depths must be determined by Contractor's field investigation. Contractor may request access to underlying or background information in City's possession that is necessary for Contractor to form its own conclusions.

(B) **Duty to Notify and Seek Direction.** If Contractor becomes aware of a changed condition in the Project, or of any ambiguity, conflict, inconsistency, discrepancy, omission, or error in the Contract Documents, including the Plans or Specifications, Contractor must promptly submit a Request for Information to the Engineer and wait for a response from City before proceeding further with the related Work. The RFI must notify City of the issue and request clarification, interpretation or direction. The Engineer's clarification, interpretation or direction will be final and binding on Contractor. If Contractor proceeds with the related Work before obtaining City's response, Contractor will be responsible for any resulting costs, including the cost of correcting any incorrect or

defective Work that results. Timely submission of a clear and complete RFI is essential to avoiding delay. Delay resulting from Contractor's failure to submit a timely and complete RFI to the Engineer is Non-Excusable Delay. If Contractor believes that City's response to an RFI justifies a change to the Contract Price or Contract Time, Contractor must perform the Work as directed, but may submit a timely Change Order request in accordance with the Contract Documents. (See Article 5 and 6.)

(C) **Figures and Dimensions.** Figures control over scaled dimensions.

(D) **Technical or Trade Terms.** Any terms that have well-known technical or trade meanings will be interpreted in accordance with those meanings, unless otherwise specifically defined in the Contract Documents.

(E) **Measurements.** Contractor must verify all relevant measurements in the Contract Documents and at the Project site before ordering any material or performing any Work, and will be responsible for the correctness of those measurements or for costs that could have been avoided by independently verifying measurements.

(F) **Compliance with Laws.** The Contract Documents are intended to comply with Laws and will be interpreted to comply with Laws.

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

- (A) Change Orders;
- (B) Addenda;
- (C) Contract;
- (D) Notice to Proceed;
- (E) Attachment B – Federal Contract Requirements (only if used);
- (F) Special Conditions;
- (G) General Conditions;
- (H) Payment and Performance Bonds;
- (I) Specifications;
- (J) Plans;
- (K) Notice of Potential Award;
- (L) Notice Inviting Bids;
- (M) Attachment A – Federal Bidding Requirements (only if used);
- (N) Instructions to Bidders;
- (O) Contractor's Bid Proposal and attachments;
- (P) the City's standard specifications, as applicable; and
- (Q) Any generic documents prepared by and on behalf of a third party, that were not prepared specifically for this Project, such as the Caltrans Standard Specifications or Caltrans Special Provisions.

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

(A) **Limitations.** The “General Provisions” of the Caltrans Standard Specifications, i.e., sections 1 through 9, do not apply to these Contract Documents with the exception of any specific provisions, if any, which are expressly stated to apply to these Contract Documents.

(B) **Conflicts or Inconsistencies.** If there is a conflict or inconsistency between any provision in the Caltrans Standard Specifications or Special Provisions and a provision of these Contract Documents, as determined by City, the provision in the Contract Documents will govern.

(C) **Meanings.** Terms used in the Caltrans Standard Specifications or Special Provisions are to be interpreted as follows:

(1) Any reference to the “Engineer” is deemed to mean the City Engineer.

(2) Any reference to the “Special Provisions” is deemed to mean the Special Conditions, unless the Caltrans Special Provisions are expressly included in the Contract Documents listed in Section 2 of the Contract.

(3) Any reference to the “Department” or “State” is deemed to mean City.

3.4 For Reference Only. Contractor is responsible for the careful review of any document, study, or report provided by City or appended to the Contract Documents solely for informational purposes and identified as “For Reference Only.” Nothing in any document, study, or report so appended and identified is intended to supplement, alter, or void any provision of the Contract Documents. Contractor is advised that City or its representatives may be guided by information or recommendations included in such reference documents, particularly when making determinations as to the acceptability of proposed materials, methods, or changes in the Work. Any record drawings or similar final or accepted drawings or maps that are not part of the Contract Documents are deemed to be For Reference Only. The provisions of the Contract Documents are not modified by any perceived or actual conflict with provisions in any document that is provided For Reference Only.

3.5 Current Versions. Unless otherwise specified by City, any reference to standard specifications, technical specifications, or any City or state codes or regulations means the latest specification, code or regulation in effect at the time the Contract is signed.

3.6 Conformed Copies. If City prepares a conformed set of the Contract Documents following award of the Contract, it will provide Contractor with two hard copy (paper) sets and one copy of the electronic file in PDF format. It is Contractor’s responsibility to ensure that all Subcontractors, including fabricators, are provided with the conformed set of the Contract Documents at Contractor’s sole expense.

3.7 Ownership. No portion of the Contract Documents may be used for any purpose other than construction of the Project, without prior written consent from City. Contractor is deemed to have conveyed the copyright in any designs, drawings, specifications, Shop Drawings, or other documents (in paper or electronic form) developed by Contractor for the Project, and City will retain all rights to such works, including the right to possession.

Article 4 - Bonds, Indemnity, and Insurance

4.1 Payment and Performance Bonds. Within ten days following issuance of the Notice of Potential Award, Contractor is required to provide a payment bond and a performance bond, each in the penal sum of not less than 100% of the Contract Price, and each

executed by Contractor and its surety using the bond forms included with the Contract Documents.

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

(B) **Supplemental Bonds for Increase in Contract Price.** If the Contract Price increases during construction by five percent or more over the original Contract Price, Contractor must provide supplemental or replacement bonds within ten days of written notice from City pursuant to this Section, covering 100% of the increased Contract Price and using the bond forms included with the Contract Documents.

4.2 Indemnity. To the fullest extent permitted by law, Contractor must indemnify, defend, and hold harmless City, its Council, officers, officials, employees, agents, volunteers, and consultants (individually, an "Indemnitee," and collectively the "Indemnitees") from and against any and all liability, loss, damage, claims, causes of action, demands, charges, fines, costs, and expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, "Liability") of every nature arising out of or in connection with the acts or omissions of Contractor, its employees, Subcontractors, representatives, or agents, in bidding or performing the Work or in failing to comply with any obligation of Contractor under the Contract, except such Liability caused by the active negligence, sole negligence, or willful misconduct of an Indemnitee. This indemnity requirement applies to any Liability arising from alleged defects in the content or manner of submission of Contractor's bid for the Contract. Contractor's failure or refusal to timely accept a tender of defense pursuant to this Contract will be deemed a material breach of the Contract. City will timely notify Contractor upon receipt of any third-party claim relating to the Contract, as required by Public Contract Code § 9201. Contractor waives any right to express or implied indemnity against any Indemnitee. Contractor's indemnity obligations under this Contract will survive the expiration or any early termination of the Contract.

4.3 Insurance. No later than ten days following issuance of the Notice of Potential Award, Contractor must procure and provide proof of the insurance coverage required by this Section in the form of certificates and endorsements acceptable to City. The required insurance must cover the activities of Contractor and its Subcontractors relating to or arising from the performance of the Work, and must remain in full force and effect at all times during the period covered by the Contract, through the date of City's acceptance of the Project. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best's financial strength rating of "A" or better and a financial size rating of "VIII" or better. If Contractor fails to provide any of the required coverage in full compliance with the requirements of the Contract Documents, City may, at its sole discretion, purchase such coverage at Contractor's expense and deduct the cost from payments due to Contractor, or terminate the Contract for default. The procurement of the required insurance will not be construed to limit Contractor's liability under this Contract or to fulfill Contractor's indemnification obligations under this Contract.

(A) **Policies and Limits.** The following insurance policies and limits are required for this Contract, unless otherwise specified in the Special Conditions:

(1) *Commercial General Liability ("CGL") Insurance:* The CGL insurance policy must be issued on an occurrence basis, written on a comprehensive general

liability form, and must include coverage for liability arising from Contractor's or its Subcontractor's acts or omissions in the performance of the Work, including contractor's protected coverage, contractual liability, products and completed operations, and broad form property damage, with limits of at least \$2,000,000 per occurrence and at least \$4,000,000 general aggregate. The CGL insurance coverage may be arranged under a single policy for the full limits required or by a combination of underlying policies with the balance provided by excess or umbrella policies, provided each such policy complies with the requirements set forth in this Section, including required endorsements.

(2) *Automobile Liability Insurance*: The automobile liability insurance policy must provide coverage of at least \$2,000,000 combined single-limit per accident for bodily injury, death, or property damage, including hired and non-owned auto liability.

(3) *Workers' Compensation Insurance and Employer's Liability*: The workers' compensation and employer's liability insurance policy must comply with the requirements of the California Labor Code, providing coverage of at least \$1,000,000 or as otherwise required by the statute. If Contractor is self-insured, Contractor must provide its Certificate of Permission to Self-Insure, duly authorized by the DIR.

(4) *Pollution Liability Insurance*: The pollution liability insurance policy must be issued on an occurrence basis, providing coverage of at least \$2,000,000 for all loss arising out of claims for bodily injury, death, property damage, or environmental damage caused by pollution conditions resulting from the Work.

(5) *Builder's Risk Insurance*: The builder's risk insurance policy must be issued on an occurrence basis, for all-risk or "all perils" coverage on a 100% completed value basis on the insurable portion of the Project for the benefit of City.

(B) **Notice**. Each certificate of insurance must state that the coverage afforded by the policy or policies will not be reduced, cancelled or allowed to expire without at least 30 days written notice to City, unless due to non-payment of premiums, in which case ten days written notice must be made to City.

(C) **Waiver of Subrogation**. Each required policy must include an endorsement providing that the carrier will waive any right of subrogation it may have against City.

(D) **Required Endorsements**. The CGL policy, automobile liability policy, pollution liability policy, and builder's risk policy must include the following specific endorsements:

(1) The City, including its Council, officials, officers, employees, agents, volunteers and consultants (collectively, "Additional Insured") must be named as an additional insured for all liability arising out of the operations by or on behalf of the named insured, and the policy must protect the Additional Insured against any and all liability for personal injury, death or property damage or destruction arising directly or indirectly in the performance of the Contract. The additional insured endorsement must be provided using ISO form CG 20 10 11 85 or an equivalent form approved by the City.

(2) The inclusion of more than one insured will not operate to impair the rights of one insured against another, and the coverages afforded will apply as though separate policies have been issued to each insured.

(3) The insurance provided by Contractor is primary and no insurance held or owned by any Additional Insured may be called upon to contribute to a loss.

(4) This policy does not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.

(E) **Contractor's Responsibilities.** This Section 4.3 establishes the minimum requirements for Contractor's insurance coverage in relation to this Project, but is not intended to limit Contractor's ability to procure additional or greater coverage. Contractor is responsible for its own risk assessment and needs and is encouraged to consult its insurance provider to determine what coverage it may wish to carry beyond the minimum requirements of this Section. Contractor is solely responsible for the cost of its insurance coverage, including premium payments, deductibles, or self-insured retentions, and no Additional Insured will be responsible or liable for any of the cost of Contractor's insurance coverage.

(F) **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions that apply to the required insurance (collectively, "deductibles") in excess of \$100,000 are subject to approval by the City's Risk Manager, acting in his or her sole discretion, and must be declared by Contractor when it submits its certificates of insurance and endorsements pursuant to this Section 4.3. If the City's Risk Manager determines that the deductibles are unacceptably high, at City's option, Contractor must either reduce or eliminate the deductibles as they apply to City and all required Additional Insured; or must provide a financial guarantee, to City's satisfaction, guaranteeing payment of losses and related investigation, claim administration, and legal expenses.

(G) **Subcontractors.** Contractor must ensure that each Subcontractor is required to maintain the same insurance coverage required under this Section 4.3, with respect to its performance of Work on the Project, including those requirements related to the Additional Insureds and waiver of subrogation, but excluding pollution liability or builder's risk insurance unless otherwise specified in the Special Conditions. A Subcontractor may be eligible for reduced insurance coverage or limits, but only to the extent approved in writing in advance by the City's Risk Manager. Contractor must confirm that each Subcontractor has complied with these insurance requirements before the Subcontractor is permitted to begin Work on the Project. Upon request by the City, Contractor must provide certificates and endorsements submitted by each Subcontractor to prove compliance with this requirement. The insurance requirements for Subcontractors do not replace or limit the Contractor's insurance obligations.

Article 5 - Contract Time

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

(A) **General.** Contractor must commence the Work on the date indicated in the Notice to Proceed and must fully complete the Work in strict compliance with all requirements of the Contract Documents and within the Contract Time. Contractor may not begin performing the Work before the date specified in the Notice to Proceed.

(B) **Authorization.** Contractor is not entitled to compensation or credit for any Work performed before the date specified in the Notice to Proceed, with the exception of any schedules, submittals, or other requirements, if any, that must be provided or performed before issuance of the Notice to Proceed.

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

5.2 Schedule Requirements. Contractor must prepare all schedules using standard, commercial scheduling software acceptable to the Engineer, and must provide the schedules in electronic and paper form as requested by the Engineer. In addition to the general scheduling requirements set forth below, Contractor must also comply with any scheduling requirements included in the Special Conditions or in the Technical Specifications.

(A) **Baseline (As-Planned) Schedule.** Within ten calendar days following City's issuance of the Notice to Proceed (or as otherwise specified in the Notice to Proceed), Contractor must submit to City for review and acceptance a baseline (as-planned) schedule using critical path methodology showing in detail how Contractor plans to perform and fully complete the Work within the Contract Time, including labor, equipment, materials and fabricated items. The baseline schedule must show the order of the major items of Work and the dates of start and completion of each item, including when the materials and equipment will be procured. The schedule must also include the work of all trades, reflecting anticipated labor or crew hours and equipment loading for the construction activities, and must be sufficiently comprehensive and detailed to enable progress to be monitored on a day-by-day basis. For each activity, the baseline schedule must be dated, provided in the format specified in the Contract Documents or as required by City, and must include, at a minimum, a description of the activity, the start and completion dates of the activity, and the duration of the activity.

(1) **Specialized Materials Ordering.** Within five calendar days following issuance of the Notice to Proceed, Contractor must order any specialized material or equipment for the Work that is not readily available from material suppliers. Contractor must also retain documentation of the purchase order date(s).

(B) **City's Review of Schedules.** City will review and may note exceptions to the baseline schedule, and to the progress schedules submitted as required below, to assure completion of the Work within the Contract Time. Contractor is solely responsible for resolving any exceptions noted in a schedule and, within seven days, must correct the schedule to address the exceptions. City's review or acceptance of Contractor's schedules will not operate to waive or limit Contractor's duty to complete the Project within the Contract Time, nor to waive or limit City's right to assess liquidated damages for Contractor's unexcused failure to do so.

(C) **Progress Schedules.** After City accepts the final baseline schedule with no exceptions, Contractor must submit an updated progress schedule and three-week look-ahead schedule, in the format specified by City, for review and acceptance with each application for a progress payment, or when otherwise specified by City, until completion of the Work. The updated progress schedule must: show how the actual progress of the Work as constructed to date compares to the baseline schedule; reflect any proposed changes in the construction schedule or method of operations, including to achieve Project milestones within the Contract Time; and identify any actual or potential impacts

to the critical path. Contractor must also submit periodic reports to City of any changes in the projected material or equipment delivery dates for the Project.

(1) *Float*. The progress schedule must show early and late completion dates for each task. The number of days between those dates will be designated as the "float." Any float belongs to the Project and may be allocated by the Engineer to best serve timely completion of the Project.

(2) *Failure to Submit Schedule*. Reliable, up-to-date schedules are essential to efficient and cost-effective administration of the Project and timely completion. If Contractor fails to submit a schedule within the time periods specified in this Section, or submits a schedule to which City has noted exceptions that are not corrected, City may withhold up to ten percent from payment(s) otherwise due to Contractor until the exceptions are resolved, the schedule is corrected and resubmitted, and City has accepted the schedule. In addition, Contractor's failure to comply with the schedule requirements in this Section 5.2 will be deemed a material default and a waiver of any claims for Excusable Delay or loss of productivity arising during any period when Contractor is out of compliance, subject only to the limits of Public Contract Code § 7102.

(D) **Recovery Schedule**. If City determines that the Work is more than one week behind schedule, within seven days following written notice of such determination, Contractor must submit a recovery schedule, showing how Contractor intends to perform and complete the Work within the Contract Time, based on actual progress to date.

(E) **Effect of Acceptance**. Contractor and its Subcontractors must perform the Work in accordance with the most current City-accepted schedule unless otherwise directed by City. City's acceptance of a schedule does not operate to extend the time for completion of the Work or any component of the Work, and will not affect City's right to assess liquidated damages for Contractor's unexcused delay in completing the Work within the Contract Time.

(F) **Posting**. Contractor must at all times prominently post a copy of the most current City-accepted progress or recovery schedule in its on-site office.

(G) **Reservation of Rights**. City reserves the right to direct the sequence in which the Work must be performed or to make changes in the sequence of the Work in order to facilitate the performance of work by City or others, or to facilitate City's use of its property. The Contract Time or Contract Price may be adjusted to the extent such changes in sequence actually increase or decrease Contractor's time or cost to perform the Work.

(H) **Authorized Working Days and Times**. Contractor is limited to working Monday through Friday, excluding holidays, during City's normal business hours, except as provided in the Special Conditions or as authorized in writing by City. City reserves the right to charge Contractor for additional costs incurred by City due to Work performed on days or during hours not expressly authorized in the Contract Documents, including reimbursement of costs incurred for inspection, testing, and construction management services.

5.3 Delay and Extensions of Contract Time.

(A) **Notice of Delay**. If Contractor becomes aware of any actual or potential delay affecting the critical path, Contractor must promptly notify the Engineer in writing, regardless of the nature or cause of the delay, so that City has a reasonable opportunity to mitigate or avoid the delay.

(B) **Excusable Delay.** The Contract Time may be extended if Contractor encounters "Excusable Delay," which is an unavoidable delay in completing the Work within the Contract Time due to causes completely beyond Contractor's control, and which Contractor could not have avoided or mitigated through reasonable care, planning, foresight, and diligence, provided that Contractor is otherwise fully performing its obligations under the Contract Documents. Grounds for Excusable Delay may include fire, natural disasters including earthquake or unusually severe weather, acts of terror or vandalism, epidemic, unforeseeable adverse government actions, unforeseeable actions of third parties, encountering unforeseeable hazardous materials, unforeseeable site conditions, or suspension for convenience under Article 13. The Contract Time will not be extended based on circumstances which will not unavoidably delay completing the Work within the Contract Time based on critical path analysis.

(C) **Weather Delays.** A "Weather Delay Day" is a Working Day during which Contractor and its forces, including Subcontractors, are unable to perform more than 40% of the critical path Work scheduled for that day due to adverse weather conditions which impair the ability to safely or effectively perform the scheduled critical path Work that day. Adverse weather conditions may include rain, saturated soil, and Project site clean-up required due to adverse weather. Determination of what constitutes critical path Work scheduled for that day will be based on the most current, City-approved schedule. Contractor will be entitled to a non-compensable extension of the Contract Time for each Weather Delay Day in excess of the normal Weather Delay Days within a given month as determined by reliable records, including monthly rainfall averages, for the preceding ten years (or as otherwise specified in the Special Conditions or Specifications).

(1) Contractor must fully comply with the applicable procedures in Articles 5 and 6 of the General Conditions regarding requests to modify the Contract Time.

(2) Contractor will not be entitled to an extension of time for a Weather Delay Day to the extent Contractor is responsible for concurrent delay on that day.

(3) Contractor must take reasonable steps to mitigate the consequences of Weather Delay Days, including prudent workforce management and protecting the Work, Project Site, materials, and equipment.

(D) **Non-Excusable Delay.** Delay which Contractor could have avoided or mitigated through reasonable care, planning, foresight and diligence is "Non-Excusable Delay." Contractor is not entitled to an extension of Contract Time or any compensation for Non-Excusable Delay, or for Excusable Delay that is concurrent with Non-Excusable Delay. Non-Excusable Delay includes delay caused by:

(1) weather conditions which are normal for the location of the Project, as determined by reliable records, including monthly rainfall averages, for the preceding ten years;

(2) Contractor's failure to order equipment and materials sufficiently in advance of the time needed for completion of the Work within the Contract Time;

(3) Contractor's failure to provide adequate notification to utility companies or agencies for connections or services necessary for completion of the Work within the Contract Time;

- (4) foreseeable conditions which Contractor could have ascertained from reasonably diligent inspection of the Project site or review of the Contract Documents or other information provided or available to Contractor;
- (5) Contractor's failure, refusal, or financial inability to perform the Work within the Contract Time, including insufficient funds to pay its Subcontractors or suppliers;
- (6) performance or non-performance by Contractor's Subcontractors or suppliers;
- (7) the time required to respond to excessive RFIs (see Section 2.5(G));
- (8) delayed submission of required submittals, or the time required for correction and resubmission of defective submittals;
- (9) time required for repair of, re-testing, or re-inspection of defective Work;
- (10) enforcement of Laws by City, or outside agencies with jurisdiction over the Work; or
- (11) City's exercise or enforcement of any of its rights or Contractor's duties pursuant to the Contract Documents, including correction of defective Work, extra inspections or testing due to non-compliance with Contract requirements, safety compliance, environmental compliance, or rejection and return of defective or deficient submittals.

(E) **Compensable Delay.** Pursuant to Public Contract Code § 7102, in addition to entitlement to an extension of Contract Time, Contractor is entitled to compensation for costs incurred due to delay caused solely by City, when that delay is unreasonable under the circumstances involved and not within the contemplation of the parties ("Compensable Delay"). Contractor is not entitled to an extension of Contract Time or recovery of costs for Compensable Delay that is concurrent with Non-Excusable Delay. Delay due to causes that are beyond the control of either City or Contractor, including Weather Delay Days, discovery of Historic or Archeological Items pursuant to Section 7.18, or the actions or inactions of third parties or other agencies, is not Compensable Delay, and will only entitle Contractor to an extension of time commensurate with the time lost due to such delay.

(F) **Recoverable Costs.** Contractor is not entitled to compensation for Excusable Delay unless it is Compensable Delay, as defined above. Contractor is entitled to recover only the actual, direct, reasonable, and substantiated costs ("Recoverable Costs") for each working day that the Compensable Delay prevents Contractor from proceeding with more than 50% of the critical path Work scheduled for that day, based on the most recent progress schedule accepted by City. Recoverable Costs will not include home office overhead or lost profit.

(G) **Request for Extension of Contract Time or Recoverable Costs.** A request for an extension of Contract Time or any associated Recoverable Costs must be submitted in writing to City within ten calendar days of the date the delay is first encountered, even if the duration of the delay is not yet known at that time, or any entitlement to the Contract Time extension or to the Recoverable Costs will be deemed waived. In addition to complying with the requirements of this Article 5, the request must be submitted in compliance with the Change Order request procedures in Article 6 below. Strict compliance with these requirements is necessary to ensure that any delay or consequences of delay may be mitigated as soon as possible, and to facilitate cost-

efficient administration of the Project and timely performance of the Work. Any request for an extension of Contract Time or Recoverable Costs that does not strictly comply with all of the requirements of Article 5 and Article 6 will be deemed waived.

(1) *Required Contents.* The request must include a detailed description of the cause(s) of the delay and must also describe the measures that Contractor has taken to mitigate the delay and/or its effects, including efforts to mitigate the cost impact of the delay, such as by workforce management or by a change in sequencing. If the delay is still ongoing at the time the request is submitted, the request should also include Contractor's plan for continued mitigation of the delay or its effects.

(2) *Delay Days and Costs.* The request must specify the number of days of Excusable Delay claimed or provide a realistic estimate if the duration of the delay is not yet known. If Contractor believes it is entitled to Recoverable Costs for Compensable Delay, the request must specify the amount and basis for the Recoverable Costs that are claimed or provide a realistic estimate if the amount is not yet known. Any estimate of delay duration or cost must be updated in writing and submitted with all required supporting documentation as soon as the actual time and cost is known. The maximum extension of Contract Time will be the number of days, if any, by which an Excusable Delay or a Compensable Delay exceeds any concurrent Non-Excusable Delay. Contractor is entitled to an extension of Contract Time, or compensation for Recoverable Costs, only if, and only to the extent that, such delay will unavoidably delay Final Completion.

(3) *Supporting Documentation.* The request must also include any and all supporting documentation necessary to evidence the delay and its actual impacts, including scheduling and cost impacts with a time impact analysis using critical path methodology and demonstrating the unavoidable delay to Final Completion. The time impact analysis must be submitted in a form or format acceptable to City.

(4) *Burden of Proof.* Contractor has the burden of proving that: the delay was an Excusable or Compensable Delay, as defined above; Contractor has fully complied with its scheduling obligations in Section 5.2, Schedule Requirements; Contractor has made reasonable efforts to mitigate the delay and its schedule and cost impacts; the delay will unavoidably result in delaying Final Completion; and any Recoverable Costs claimed by Contractor were actually incurred and were reasonable under the circumstances.

(5) *Legal Compliance.* Nothing in this Section 5.3 is intended to require the waiver, alteration, or limitation of the applicability of Public Contract Code § 7102.

(6) *No Waiver.* Any grant of an extension of Contract Time, or compensation for Recoverable Costs due to Compensable Delay, will not operate as a waiver of City's right to assess liquidated damages for Non-Excusable Delay.

(7) *Dispute Resolution.* In the event of a dispute over entitlement to an extension of Contract Time or compensation for Recoverable Costs, Contractor may not stop Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work. Contractor's sole recourse for an unresolved dispute based on City's rejection of a Change Order request for an extension of Contract Time or compensation for Recoverable Costs is to comply with the dispute resolution provisions set forth in Article 12 below.

5.4 Liquidated Damages. It is expressly understood that if Final Completion is not achieved within the Contract Time, City will suffer damages from the delay that are difficult to determine and accurately specify. Pursuant to Public Contract Code § 7203, if Contractor fails to achieve Final Completion within the Contract Time due to Contractor's Non-Excusable Delay, City will charge Contractor in the amount specified in the Contract for each calendar day that Final Completion is delayed beyond the Contract Time, as liquidated damages and not as a penalty. Any waiver of accrued liquidated damages, in whole or in part, is subject to approval of the City Council or its authorized delegee.

(A) **Liquidated Damages.** Liquidated damages will not be assessed for any Excusable or Compensable Delay, as set forth above.

(B) **Milestones.** Liquidated damages may also be separately assessed for failure to meet milestones specified elsewhere in the Contract Documents.

(C) **Setoff.** City is entitled to deduct the amount of liquidated damages assessed against any payments otherwise due to Contractor, including progress payments, Final Payment, or unreleased retention. If there are insufficient Contract funds remaining to cover the full amount of liquidated damages assessed, City is entitled to recover the balance from Contractor or its performance bond surety.

(D) **Occupancy or Use.** Occupancy or use of the Project in whole or in part prior to Final Completion does not constitute City's acceptance of the Project and will not operate as a waiver of City's right to assess liquidated damages for Contractor's Non-Excusable Delay in achieving Final Completion.

(E) **Other Remedies.** City's right to liquidated damages under this Section applies only to damages arising from Contractor's Non-Excusable Delay or failure to complete the Work within the Contract Time. City retains its right to pursue all other remedies under the Contract for other types of damage, including damage to property or persons, costs or diminution in value from defective materials or workmanship, costs to repair or complete the Work, or other liability caused by Contractor.

Article 6 - Contract Modification

6.1 Contract Modification. Subject to the limited exception set forth in subsection (D) below, any change in the Work or the Contract Documents, including the Contract Price or Contract Time, will not be a valid and binding change to the Contract unless it is formalized in a Change Order, including a "no-cost" Change Order or a unilateral Change Order. Changes in the Work pursuant to this Article 6 will not operate to release, limit, or abridge Contractor's warranty obligations pursuant to Article 11 or any obligations of Contractor's bond sureties.

(A) **City-Directed Changes.** City may direct changes in the scope or sequence of Work or the requirements of the Contract Documents, without invalidating the Contract. Such changes may include Extra Work as set forth in subsection (C) below, or deletion or modification of portions of the Work. Contractor must promptly comply with City-directed changes in the Work in accordance with the original Contract Documents, even if Contractor and City have not yet reached agreement as to adjustments to the Contract Price or Contract Time for the change in the Work or for the Extra Work. Contractor is not entitled to extra compensation for cost savings resulting from "value engineering" pursuant to Public Contract Code § 7101, except to the extent authorized in advance by City in writing, and subject to any applicable procedural requirements for submitting a proposal for value engineering cost savings.

(B) **Disputes.** In the event of a dispute over entitlement to or the amount of a change in Contract Time or a change in Contract Price related to a City-directed change in the Work, Contractor must perform the Work as directed and may not delay its Work or cease Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute. Likewise, in the event that City and Contractor dispute whether a portion or portions of the Work are already required by the Contract Documents or constitute Extra Work, or otherwise dispute the interpretation of any portion(s) of the Contract Documents, Contractor must perform the Work as directed and may not delay its Work or cease Work pending resolution of the dispute, but must continue to comply with its duty to diligently prosecute the performance and timely completion of the Work, including the Work in dispute, as directed by City. If Contractor refuses to perform the Work in dispute, City may, acting in its sole discretion, elect to delete the Work from the Contract and reduce the Contract Price accordingly, and self-perform the Work or direct that the Work be performed by others. Alternatively, City may elect to terminate the Contract for convenience or for cause. Contractor's sole recourse for an unresolved dispute related to changes in the Work or performance of any Extra Work is to comply with the dispute resolution provisions set forth in Article 12, below.

(C) **Extra Work.** City may direct Contractor to perform Extra Work related to the Project. Contractor must promptly perform any Extra Work as directed or authorized by City in accordance with the original Contract Documents, even if Contractor and City have not yet reached agreement on adjustments to the Contract Price or Contract Time for such Extra Work. If Contractor believes it is necessary to perform Extra Work due to changed conditions, Contractor must promptly notify the Engineer in writing, specifically identifying the Extra Work and the reason(s) the Contractor believes it is Extra Work. This notification requirement does not constitute a Change Order request pursuant to Section 6.2, below. Contractor must maintain detailed daily records that itemize the cost of each element of Extra Work, and sufficiently distinguish the direct cost of the Extra Work from the cost of other Work performed. For each day that Contractor performs Extra Work, or Work that Contractor contends is Extra Work, Contractor must submit no later than the following Working Day, a daily report of the Extra Work performed that day and the related costs, together with copies of certified payroll, invoices, and other documentation substantiating the costs ("Extra Work Report"). The Engineer will make any adjustments to Contractor's Extra Work Report(s) based on the Engineer's records of the Work. When an Extra Work Report(s) is agreed on and signed by both City and Contractor, the Extra Work Report(s) will become the basis for payment under a duly authorized and signed Change Order. Failure to submit the required documentation by close of business on the next Working Day is deemed a full and complete waiver for any change in the Contract Price or Contract Time for any Extra Work performed that day.

(D) **Minor Changes and RFIs.** Minor field changes, including RFI replies from City, that do not affect the Contract Price or Contract Time and that are approved by the Engineer acting within his or her scope of authority, do not require a Change Order. By executing an RFI reply from City, Contractor agrees that it will perform the Work as clarified therein, with no change to the Contract Price or Contract Time.

(E) **Remedy for Non-Compliance.** Contractor's failure to promptly comply with a City-directed change is deemed a material breach of the Contract, and in addition to all other remedies available to it, City may, at its sole discretion, hire another contractor or use its own forces to complete the disputed Work at Contractor's sole expense, and may deduct the cost from the Contract Price.

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

(A) **Time for Submission.** Any request for a change in the Contract Price or the Contract Time must be submitted in writing to the Engineer within ten calendar days of the date that Contractor first encounters the circumstances, information or conditions giving rise to the Change Order request, even if the total amount of the requested change in the Contract Price or impact on the Contract Time is not yet known at that time. If City requests that Contractor propose the terms of a Change Order, unless otherwise specified in City's request, Contractor must provide the Engineer with a written proposal for the change in the Contract Price or Contract Time within five working days of receiving City's request, in a form satisfactory to the Engineer.

(B) **Required Contents.** Any Change Order request or proposal submitted by Contractor must include a complete breakdown of actual or estimated costs and credits, and must itemize labor, materials, equipment, taxes, insurance, subcontract amounts, and, if applicable, Extra Work Reports. Any estimated cost must be updated in writing as soon as the actual amount is known.

(C) **Required Documentation.** All claimed costs must be fully documented, and any related request for an extension of time or delay-related costs must be included at that time and in compliance with the requirements of Article 5 of the General Conditions. Upon request, Contractor must permit City to inspect its original and unaltered bidding records, subcontract agreements, subcontract change orders, purchase orders, invoices, or receipts associated with the claimed costs.

(D) **Required Form.** Contractor must use City's form(s) for submitting all Change Order requests or proposals, unless otherwise specified by City.

(E) **Certification.** All Change Order requests must be signed by Contractor and must include the following certification:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Change Order request are true and correct. Contractor warrants that this Change Order request is comprehensive and complete as to the Work or changes referenced herein, and agrees that any known or foreseeable costs, expenses, or time extension requests not included herein, are deemed waived."

6.3 Adjustments to Contract Price. The amount of any increase or decrease in the Contract Price will be determined based on one of the following methods listed below, in the order listed with unit pricing taking precedence over the other methods. Markup applies only to City-authorized time and material Work, and does not apply to any other payments to Contractor. For Work items or components that are deleted in their entirety, Contractor will only be entitled to compensation for those direct, actual, and documented costs (including restocking fees), reasonably incurred before Contractor was notified of the City's intent to delete the Work, with no markup for overhead, profit, or other indirect costs.

(A) **Unit Pricing.** Amounts previously provided by Contractor in the form of unit prices, either in a bid schedule or in a post-award schedule of values pursuant to Section 8.1, Schedule of Values, will apply to determine the price for the affected Work, to the extent applicable unit prices have been provided for that type of Work. No additional markup for overhead, profit, or other indirect costs will be added to the calculation.

(B) **Lump Sum.** A mutually agreed upon, all-inclusive lump sum price for the affected Work with no additional markup for overhead, profit, or other indirect costs.

(C) **Time and Materials.** On a time and materials basis, if and only to the extent compensation on a time and materials basis is expressly authorized by City in advance of Contractor's performance of the Work and subject to any not-to-exceed limit. Time and materials compensation for increased costs or Extra Work (but not decreased costs or deleted Work), will include allowed markup for overhead, profit, and other indirect costs, calculated as the total of the following sums, the cumulative total of which may not exceed the maximum markup rate of 15%:

- (1) All direct labor costs provided by the Contractor, excluding superintendence, project management, or administrative costs, plus 15% markup;
- (2) All direct material costs provided by the Contractor, including sales tax, plus 15% markup;
- (3) All direct plant and equipment rental costs provided by the Contractor, plus 15% markup;
- (4) All direct additional subcontract costs plus 10% markup for Work performed by Subcontractors; and
- (5) Increased bond or insurance premium costs computed at 1.5% of total of the previous four sums.

6.4 Unilateral Change Order. If the parties dispute the terms of a proposed Change Order, including disputes over the amount of compensation or extension of time that Contractor has requested, the value of deleted or changed Work, what constitutes Extra Work, or quantities used, City may elect to issue a unilateral Change Order, directing performance of the Work, and authorizing a change in the Contract Price or Contract Time for the adjustment to compensation or time that the City believes is merited. Contractor's sole recourse to dispute the terms of a unilateral Change Order is to submit a timely Claim pursuant to Article 12, below.

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

Article 7 - General Construction Provisions

7.1 Permits, Fees, Business License, and Taxes.

(A) **Permits, Fees, and City Business License.** Contractor must obtain and pay for all permits, fees, or licenses required to perform the Work, including a City business license. Contractor must cooperate with and provide notifications to all government agencies with jurisdiction over the Project, as may be required. Contractor must provide City with copies of all records of permits and permit applications, payment of required fees, and any licenses required for the Work.

(B) **Taxes.** Contractor must pay for all taxes on labor, material and equipment, except Federal Excise Tax to the extent that City is exempt from Federal Excise Tax.

7.2 Temporary Facilities. Contractor must provide, at Contractor's sole expense, any and all temporary facilities for the Project, including an onsite staging area for materials and equipment, a field office, sanitary facilities, utilities, storage, scaffolds, barricades, walkways, and any other temporary structure required to safely perform the Work along with any incidental utility services. The location of all temporary facilities must be

approved by the City prior to installation. Temporary facilities must be safe and adequate for the intended use and installed and maintained in accordance with Laws and the Contract Documents. Contractor must fence and screen the Project site and, if applicable, any separate Worksites, including the staging area, and its operation must minimize inconvenience to neighboring properties. Additional provisions pertaining to temporary facilities may be included in the Specifications or Special Conditions.

(A) **Utilities.** Contractor must install and maintain the power, water, sewer and all other utilities required for the Project site, including the piping, wiring, internet and wifi connections, and any related equipment necessary to maintain the temporary facilities.

(B) **Removal and Repair.** Contractor must promptly remove all such temporary facilities when they are no longer needed or upon completion of the Work, whichever comes first. Contractor must promptly repair any damage to City's property or to other property caused by the installation, use, or removal of the temporary facilities, and must promptly restore the property to its original or intended condition.

7.3 Noninterference and Site Management. Contractor must avoid interfering with City's use of its property at or adjacent to the Project site, including use of roadways, entrances, parking areas, walkways, and structures. Contractor must also minimize disruption of access to private property in the Project vicinity. Contractor must coordinate with affected property owners, tenants, and businesses, and maintain some vehicle and pedestrian access to their residences or properties at all times. Temporary access ramps, fencing or other measures must be provided as needed. Before blocking access to a private driveway or parking lot, Contractor must provide effective notice to the affected parties at least 48 hours in advance of the pending closure and allow them to remove vehicles. Private driveways, residences and parking lots must have access to a roadway during non-Work hours.

(A) **Offsite Acquisition.** Unless otherwise provided by City, Contractor must acquire, use and dispose of, at its sole expense, any Worksites, licenses, easements, and temporary facilities necessary to access and perform the Work.

(B) **Offsite Staging Area and Field Office.** If additional space beyond the Project site is needed, such as for the staging area or the field office, Contractor may need to make arrangements with the nearby property owner(s) to secure the space. Before using or occupying any property owned by a third party, Contractor must provide City with a copy of the necessary license agreement, easement, or other written authorization from the property owner, together with a written release from the property owner holding City harmless from any related liability, in a form acceptable to the City Attorney.

(C) **Traffic Management.** Contractor must provide traffic management and traffic controls as specified in the Contract Documents, as required by Laws, and as otherwise required to ensure public and worker safety, and to avoid interference with public or private operations or the normal flow of vehicular, bicycle, or pedestrian traffic.

7.4 Signs. No signs may be displayed on or about City's property, except signage which is required by Laws or by the Contract Documents, without City's prior written approval as to size, design, and location.

7.5 Project Site and Nearby Property Protections.

(A) **General.** Contractor is responsible at all times, on a 24-hour basis and at its sole cost, for protecting the Work, the Project site, and the materials and equipment to be incorporated into the Work, until the City has accepted the Project, excluding any exceptions to acceptance, if any. Except as specifically authorized by City, Contractor

must confine its operations to the area of the Project site indicated in the Plans and Specifications. Contractor is liable for any damage caused by Contractor or its Subcontractors to the Work, City's property, the property of adjacent or nearby property owners and the work or personal property of other contractors working for City, including damage related to Contractor's failure to adequately secure the Work or any Worksite.

(1) Subject to City's approval, Contractor will provide and install safeguards to protect the Work; any Worksite, including the Project site; City's real or personal property and the real or personal property of adjacent or nearby property owners, including plant and tree protections.

(2) City wastewater systems may not be interrupted. If the Work disrupts existing sewer facilities, Contractor must immediately notify City and establish a plan, subject to City's approval, to convey the sewage in closed conduits back into the sanitary sewer system. Sewage must not be permitted to flow in trenches or be covered by backfill.

(3) Contractor must remove with due care, and store at City's request, any objects or material from the Project site that City will salvage or reuse at another location.

(4) If directed by Engineer, Contractor must promptly repair or replace any property damage, as specified by the Engineer. However, acting in its sole discretion, City may elect to have the property damage remedied otherwise, and may deduct the cost to repair or replace the damaged property from payment otherwise due to Contractor.

(5) Contractor will not permit any structure or infrastructure to be loaded in a manner that will damage or endanger the integrity of the structure or infrastructure.

(B) **Securing Project Site.** After completion of Work each day, Contractor must secure the Project site and, to the extent feasible, make the area reasonably accessible to the public unless City approves otherwise. All excess materials and equipment not protected by approved traffic control devices must be relocated to the staging area or demobilized. Trench spoils must be hauled off the Project site daily and open excavations must be protected with steel plates. Contractor and Subcontractor personnel may not occupy or use the Project site for any purpose during non-Work hours, except as may be provided in the Contract Documents or pursuant to prior written authorization from City.

(C) **Unforeseen Conditions.** If Contractor encounters facilities, utilities, or other unknown conditions not shown on or reasonably inferable from the Plans or apparent from inspection of the Project site, Contractor must immediately notify the City and promptly submit a Request for Information to obtain further directions from the Engineer. Contractor must avoid taking any action which could cause damage to the facilities or utilities pending further direction from the Engineer. The Engineer's written response will be final and binding on Contractor. If the Engineer's subsequent direction to Contractor affects Contractor's cost or time to perform the Work, Contractor may submit a Change Order request as set forth in Article 6 above.

(D) **Support; Adjacent Properties.** Contractor must provide, install, and maintain all shoring, bracing, and underpinning necessary to provide support to City's property and adjacent properties and improvements thereon. Contractor must provide notifications to adjacent property owners as may be required by Laws. See also, Section 7.15, Trenching of Five Feet or More.

(E) **Notification of Property Damage.** Contractor must immediately notify the City of damage to any real or personal property resulting from Work on the Project. Contractor must immediately provide a written report to City of any such property damage in excess of \$500 (based on estimated cost to repair or replace) within 24 hours of the occurrence. The written report must include: (1) the location and nature of the damage, and the owner of the property, if known; (2) the name and address of each employee of Contractor or any Subcontractor involved in the damage; (3) a detailed description of the incident, including precise location, time, and names and contact information for known witnesses; and (4) a police or first responder report, if applicable. If Contractor is required to file an accident report with another government agency, Contractor will provide a copy of the report to City.

7.6 Materials and Equipment.

(A) **General.** Unless otherwise specified, all materials and equipment required for the Work must be new, free from defects, and of the best grade for the intended purpose, and furnished in sufficient quantities to ensure the proper and expeditious performance of the Work. Contractor must employ measures to preserve the specified quality and fitness of the materials and equipment. Unless otherwise specified, all materials and equipment required for the Work are deemed to include all components required for complete installation and intended operation and must be installed in accordance with the manufacturer's recommendations or instructions. Contractor is responsible for all shipping, handling, and storage costs associated with the materials and equipment required for the Work. Contractor is responsible for providing security and protecting the Work and all of the required materials, supplies, tools and equipment at Contractor's sole cost until City has formally accepted the Project as set forth in Section 11.1, Final Completion. Contractor will not assign, sell, mortgage, or hypothecate any materials or equipment for the Project, or remove any materials or equipment that have been installed or delivered.

(B) **City-Provided.** If the Work includes installation of materials or equipment to be provided by City, Contractor is solely responsible for the proper examination, handling, storage, and installation in accordance with the Contract Documents. Contractor must notify City of any defects discovered in City-provided materials or equipment, sufficiently in advance of scheduled use or installation to afford adequate time to procure replacement materials or equipment as needed. Contractor is solely responsible for any loss of or damage to such items which occurs while the items are in Contractor's custody and control, the cost of which may be offset from the Contract Price and deducted from any payment(s) due to Contractor.

(C) **Intellectual Property Rights.** Contractor must, at its sole expense, obtain any authorization or license required for use of patented or copyright-protected materials, equipment, devices or processes that are incorporated into the Work. Contractor's indemnity obligations in Article 4 apply to any claimed violation of intellectual property rights in violation of this provision.

7.7 Substitutions.

(A) **"Or Equal."** Any Specification designating a material, product, or thing (collectively, "item") or service by specific brand or trade name, followed by the words "or equal," is intended only to indicate the quality and type of item or service desired, and Contractor may request use of any equal item or service. Unless otherwise stated in the Specifications, any reference to a specific brand or trade name for an item or service that is used solely for the purpose of describing the type of item or service desired, will be deemed to be followed by the words "or equal." A substitution will only be approved if it is a true "equal" item or service in every aspect of design, function, and quality, as

determined by City, including dimensions, weight, maintenance requirements, durability, fit with other elements, and schedule impacts.

(B) **Request for Substitution.** A post-award request for substitution of an item or service must be submitted in writing to the Engineer for approval in advance, within the applicable time period provided in the Contract Documents. If no time period is specified, the substitution request may be submitted any time within 35 days after the date of award of the Contract, or sufficiently in advance of the time needed to avoid delay of the Work, whichever is earlier.

(C) **Substantiation.** Any available data substantiating the proposed substitute as an equal item or service must be submitted with the written request for substitution. Contractor's failure to timely provide all necessary substantiation, including any required test results as soon as they are available, is grounds for rejection of the proposed substitution, without further review.

(D) **Burden of Proving Equality.** Contractor has the burden of proving the equality of the proposed substitution at Contractor's sole cost. City has sole discretion to determine whether a proposed substitution is equal, and City's determination is final.

(E) **Approval or Rejection.** If the proposed substitution is approved, Contractor is solely responsible for any additional costs or time associated with the substituted item or service. If the proposed substitution is rejected, Contractor must, without delay, install the item or use the service as specified by City.

(F) **Contractor's Obligations.** City's approval of a proposed substitution will not relieve Contractor from any of its obligations under the Contract Documents. In the event Contractor makes an unauthorized substitution, Contractor will be solely responsible for all resulting cost impacts, including the cost of removal and replacement and the impact to other design elements.

7.8 Testing and Inspection.

(A) **General.** All materials, equipment, and workmanship used in the Work are subject to inspection and testing by City at all times and locations during construction and/or fabrication and at any Worksite, including at shops and yards as well as at the Project site. All manufacturers' application or installation instructions must be provided to the Inspector at least ten days prior to the first such application or installation. Contractor must, at all times, make the Work available for testing or inspection. Neither City's inspection or testing of Work, nor its failure to do so, operate to waive or limit Contractor's duty to complete the Work in accordance with the Contract Documents.

(B) **Scheduling and Notification.** Contractor must cooperate with City in coordinating the inspections and testing. Contractor must submit samples of materials, at Contractor's expense, and schedule all tests required by the Contract Documents in time to avoid any delay to the progress of the Work. Contractor must notify the Engineer no later than noon of the Working Day before any inspection or testing and must provide timely notice to the other necessary parties as specified in the Contract Documents. If Contractor schedules an inspection or test beyond regular Work hours, or on a Saturday, Sunday, or recognized City holiday, Contractor must notify the Engineer at least two Working Days in advance for approval. If approved, Contractor must reimburse City for the cost of the overtime inspection or testing. Such costs, including the City's hourly costs for required personnel, may be deducted from payments otherwise due to Contractor.

(C) **Responsibility for Costs.** City will bear the initial cost of inspection and testing to be performed by independent testing consultants retained by City, subject to the following exceptions:

- (1) Contractor will be responsible for the costs of any subsequent tests which are required to substantiate compliance with the Contract Documents, and any associated remediation costs.
- (2) Contractor will be responsible for inspection costs, at City's hourly rates, for inspection time lost because the Work is not ready or Contractor fails to appear for a scheduled inspection.
- (3) If any portion of the Work that is subject to inspection or testing is covered or concealed by Contractor prior to the inspection or testing, Contractor will bear the cost of making that portion of the Work available for the inspection or testing required by the Contract Documents, and any associated repair or remediation costs.
- (4) Contractor is responsible for properly shoring all compaction test sites deeper than five feet below grade, as required under Section 7.15 below.
- (5) Any Work or material that is defective or fails to comply with the requirements of the Contract Documents must be promptly repaired, removed, replaced, or corrected by Contractor, at Contractor's sole expense, even if that Work or material was previously inspected or included in a progress payment.

(D) **Contractor's Obligations.** Contractor is solely responsible for any delay occasioned by remediation of defective or noncompliant Work or material. Inspection of the Work does not in any way relieve Contractor of its obligations to perform the Work as specified. Any Work done without the required inspection(s) will also be subject to rejection by City.

(E) **Distant Locations.** If required off-site testing or inspection must be conducted at a location more than 100 miles from the Project site, Contractor is solely responsible for the additional travel costs required for testing and/or inspection at such locations.

(F) **Final Inspection.** The provisions of this Section 7.8 also apply to final inspection under Article 11, Completion and Warranty Provisions.

7.9 Project Site Conditions and Maintenance. Contractor must at all times, on a 24-hour basis and at its sole cost, maintain the Project site and staging and storage areas in clean, neat, and sanitary condition and in compliance with all Laws pertaining to safety, air quality, and dust control. Adequate toilets must be provided, and properly maintained and serviced for all workers on the Project site, located in a suitably secluded area, subject to City's prior approval. Contractor must also, on a daily basis and at its sole cost, remove and properly dispose of the debris and waste materials from the Project site.

(A) **Air Emissions Control.** Contractor must not discharge smoke or other air contaminants into the atmosphere in violation of any Laws.

(B) **Dust and Debris.** Contractor must minimize and confine dust and debris resulting from the Work. Contractor must abate dust nuisance by cleaning, sweeping, and immediately sprinkling with water excavated areas of dirt or other materials prone to cause dust, and within one hour after the Engineer notifies Contractor that an airborne nuisance exists. The Engineer may direct that Contractor provide an approved water-spraying truck for this purpose. If water is used for dust control, Contractor will only use

the minimum necessary. Contractor must take all necessary steps to keep waste water out of streets, gutters, or storm drains. See Section 7.19, Environmental Control. If City determines that the dust control is not adequate, City may have the work done by others and deduct the cost from the Contract Price. Contractor will immediately remove any excess excavated material from the Project site and any dirt deposited on public streets.

(C) **Clean up.** Before discontinuing Work in an area, Contractor must clean the area and remove all debris and waste along with the construction equipment, tools, machinery, and surplus materials.

(1) Except as otherwise specified, all excess Project materials, and the materials removed from existing improvements on the Project site with no salvage value or intended reuse by City, will be Contractor's property.

(2) Hauling trucks and other vehicles leaving the Project site must be cleaned of exterior mud or dirt before traveling on City streets. Materials and loose debris must be delivered and loaded to prevent dropping materials or debris. Contractor must immediately remove spillage from hauling on any publicly traveled way. Streets affected by Work on the Project must be kept clean by street sweeping.

(D) **Disposal.** Contractor must dispose of all Project debris and waste materials in a safe and legal manner. Contractor may not burn or bury waste materials on the Project site. Contractor will not allow any dirt, refuse, excavated material, surplus concrete or mortar, or any associated washings, to be disposed of onto streets, into manholes or into the storm drain system.

(E) **Completion.** At the completion of the Work, Contractor must remove from the Project site all of its equipment, tools, surplus materials, waste materials and debris, presenting a clean and neat appearance. Before demobilizing from the Project site, Contractor must ensure that all surfaces are cleaned, sealed, waxed, or finished as applicable, and that all marks, stains, paint splatters, and the like have been properly removed from the completed Work and the surrounding areas. Contractor must ensure that all parts of the construction are properly joined with the previously existing and adjacent improvements and conditions. Contractor must provide all cutting, fitting and patching needed to accomplish that requirement. Contractor must also repair or replace all existing improvements that are damaged or removed during the Work, both on and off the Project site, including curbs, sidewalks, driveways, fences, signs, utilities, street surfaces and structures. Repairs and replacements must be at least equal to the previously existing improvements, and the condition, finish and dimensions must match the previously existing improvements. Contractor must restore to original condition all property or items that are not designated for alteration under the Contract Documents and leave each Worksite clean and ready for occupancy or use by City.

(F) **Non-Compliance.** If Contractor fails to comply with its maintenance and cleanup obligations or any City clean up order, City may, acting in its sole discretion, elect to suspend the Work until the condition(s) is corrected with no increase in the Contract Time or Contract Price, or undertake appropriate cleanup measures without further notice and deduct the cost from any amounts due or to become due to Contractor.

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

(A) **Submittal Requirements.** All manufacturers' application or installation instructions must be provided to City at least ten days prior to the first such application. The instructions and manuals, along with any required guarantees, must be delivered to City for review.

(B) **Training.** Contractor or its Subcontractors must train City's personnel in the operation and maintenance of any complex equipment or systems as a condition precedent to Final Completion, if required in the Contract Documents.

7.11 As-built Drawings. Contractor and its Subcontractors must prepare and maintain at the Project site a detailed, complete and accurate as-built set of the Plans which will be used solely for the purpose of recording changes made in any portion of the original Plans in order to create accurate record drawings at the end of the Project.

(A) **Duty to Update.** The as-built drawings must be updated as changes occur, on a daily basis if necessary. City may withhold the estimated cost for City to have the as-built drawings prepared from payments otherwise due to Contractor, until the as-built drawings are brought up to date to the satisfaction of City. Actual locations to scale must be identified on the as-built drawings for all runs of mechanical and electrical work, including all site utilities installed underground, in walls, floors, or otherwise concealed. Deviations from the original Plans must be shown in detail. The exact location of all main runs, whether piping, conduit, ductwork or drain lines, must be shown by dimension and elevation. The location of all buried pipelines, appurtenances, or other improvements must be represented by coordinates and by the horizontal distance from visible above-ground improvements.

(B) **Final Completion.** Contractor must verify that all changes in the Work are depicted in the as-built drawings and must deliver the complete set of as-built drawings to the Engineer for review and acceptance as a condition precedent to Final Completion and Final Payment.

7.12 Existing Utilities.

(A) **General.** The Work may be performed in developed, urban areas with existing utilities, both above and below ground, including utilities identified in the Contract Documents or in other informational documents or records. Contractor must take due care to locate identified or reasonably identifiable utilities before proceeding with trenching, excavation, or any other activity that could damage or disrupt existing utilities. This may include excavation with small equipment, potholing, or hand excavation, and, if practical, using white paint or other suitable markings to delineate the area to be excavated. Except as otherwise provided herein, Contractor will be responsible for costs resulting from damage to identified or reasonably identifiable utilities due to Contractor's negligence or failure to comply with the Contract Documents, including the requirements in this Article 7.

(B) **Unidentified Utilities.** Pursuant to Government Code § 4215, if, during the performance of the Work, Contractor discovers utility facilities not identified by City in the Contract Documents, Contractor must immediately provide written notice to City and the utility. City assumes responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Project site if those utilities are not identified in the Contract Documents. Contractor will be compensated in accordance with the provisions of the Contract Documents for the costs of locating, repairing damage not due to Contractor's failure to exercise reasonable care, and removing or relocating utility facilities not indicated in the Plans or Specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such work. Contractor will not be

assessed liquidated damages for delay in completion of the Work, to the extent the delay was caused by City's failure to provide for removal or relocation of the utility facilities.

7.13 Notice of Excavation. Contractor must comply with all applicable requirements in Government Code §§ 4216 through 4216.5, which are incorporated by reference herein. Government Code § 4216.2 requires that, except in an emergency, Contractor must contact the appropriate regional notification center, or Underground Services Alert, at least two working days, but not more than 14 calendar days, before starting any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations. Contractor may not begin excavation until it has obtained and submitted to Engineer an inquiry identification number from Underground Services Alert.

7.14 Trenching and Excavations of Four Feet or More. As required by Public Contract Code § 7104, if the Work includes digging trenches or other excavations that extend deeper than four feet below the surface, the provisions in this Section apply to the Work and the Project.

(A) **Duty to Notify.** Contractor must promptly, and before the following conditions are disturbed, provide written notice to City if Contractor finds any of the following conditions:

(1) Material that Contractor believes may be a hazardous waste, as defined in § 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with the provisions of existing Laws;

(2) Subsurface or latent physical conditions at the Project site differing from those indicated by information about the Project site made available to bidders prior to the deadline for submitting bids; or

(3) Unknown physical conditions at the Project site of any unusual nature, materially different from those ordinarily encountered and generally recognized as inherent in work of the character required by the Contract Documents.

(B) **City Investigation.** City will promptly investigate the conditions and if City finds that the conditions materially differ from those indicated, apparent, or reasonably inferred from information about the Project site made available to bidders, or involve hazardous waste, and cause a decrease or increase in Contractor's cost of, or the time required for, performance of any part of the Work, City will issue a Change Order.

(C) **Disputes.** In the event that a dispute arises between City and Contractor regarding any of the conditions specified in subsection (B) above, or the terms of a Change Order issued by City, Contractor will not be excused from completing the Work within the Contract Time, but must proceed with all Work to be performed under the Contract. Contractor will retain any and all rights provided either by the Contract or by Laws which pertain to the resolution of disputes between Contractor and City.

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

sloping, or protective system less effective than that required by the Construction Safety Orders is prohibited.

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

7.17 Lines and Grades. Contractor is required to use any benchmark provided by the Engineer. Unless otherwise specified in the Contract Documents, Contractor must provide all lines and grades required to execute the Work. Contractor must also provide, preserve, and replace if necessary, all construction stakes required for the Project. All stakes or marks must be set by a California licensed surveyor or a California registered civil engineer. Contractor must notify the Engineer of any discrepancies found between Contractor's staking and grading and information provided by the Contract Documents. Upon completion, all Work must conform to the lines, elevations, and grades shown in the Plans, including any changes directed by a Change Order.

7.18 Historic or Archeological Items.

(A) **Contractor's Obligations.** Contractor must ensure that all persons performing Work at the Project site are required to immediately notify the Project Manager, upon discovery of any potential historic or archeological items, including historic or prehistoric ruins, a burial ground, archaeological or vertebrate paleontological site, including fossilized footprints or other archeological, paleontological or historical feature on the Project site (collectively, "Historic or Archeological Items").

(B) **Discovery; Cessation of Work.** Upon discovery of any potential Historic or Archeological Items, Work must be stopped within an 85-foot radius of the find and may not resume until authorized in writing by City. If required by City, Contractor must assist in protecting or recovering the Historic or Archeological Items, with any such assistance to be compensated as Extra Work on a time and materials basis under Article 6, Contract Modification. At City's discretion, a suspension of Work required due to discovery of Historic or Archeological Items may be treated as Excusable Delay pursuant to Article 5, or as a suspension for convenience under Article 13.

7.19 Environmental Control. Contractor must not pollute any drainage course or its tributary inlets with fuels, oils, bitumens, acids, insecticides, herbicides or other harmful materials. Contractor must prevent the release of any hazardous material or hazardous waste into the soil or groundwater, and prevent the unlawful discharge of pollutants into City's storm drain system and watercourses as required below. Contractor and its Subcontractors must at all times in the performance of the Work comply with all Laws concerning pollution of waterways.

(A) **Stormwater Permit.** Contractor must comply with all applicable conditions of the State Water Resources Control Board National Pollutant Discharge Elimination System General Permit for Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activity ("Stormwater Permit").

(B) **Contractor's Obligations.** If required for the Work, a copy of the Stormwater Permit is on file in City's principal administrative offices, and Contractor must comply with it without adjustment of the Contract Price or the Contract Time. Contractor must timely and completely submit required reports and monitoring information required by the conditions of the Stormwater Permit. Contractor also must comply with all other Laws

governing discharge of stormwater, including applicable municipal stormwater management programs.

- 7.20 Noise Control.** Contractor must comply with all applicable noise control Laws. Noise control requirements apply to all equipment used for the Work or related to the Work, including trucks, transit mixers or transient equipment that may or may not be owned by Contractor.
- 7.21 Mined Materials.** Pursuant to the Surface Mining and Reclamation Act of 1975, Public Resources Code § 2710 et seq., any purchase of mined materials, such as construction aggregate, sand, gravel, crushed stone, road base, fill materials, and any other mineral materials must originate from a surface mining operation included on the AB 3098 List, which is available online at:
<ftp://ftp.consrv.ca.gov/pub/omr/AB3098%20List/AB3908List.pdf>.

Article 8 - Payment

- 8.1 Schedule of Values.** Prior to submitting its first application for payment, Contractor must prepare and submit to the Project Manager a schedule of values apportioned to the various divisions and phases of the Work, including mobilization and demobilization. If a Bid Schedule was submitted with Contractor's bid, the amounts in the schedule of values must be consistent with the Bid Schedule. Each line item contained in the schedule of values must be assigned a value such that the total of all items equals the Contract Price. The items must be sufficiently detailed to enable accurate evaluation of the percentage of completion claimed in each application for payment, and the assigned value consistent with any itemized or unit pricing submitted with Contractor's bid.
- (A) **Measurements for Unit Price Work.** Materials and items of Work to be paid for on the basis of unit pricing will be measured according to the methods specified in the Contract Documents.
- (B) **Deleted or Reduced Work.** Contractor will not be compensated for Work that City has deleted or reduced in scope, except for any labor, material or equipment costs for such Work that Contractor reasonably incurred before Contractor learned that the Work could be deleted or reduced. Contractor will only be compensated for those actual, direct and documented costs incurred, and will not be entitled to any mark up for overhead or lost profits.
- 8.2 Progress Payments.** Following the last day of each month, or as otherwise required by the Special Conditions or Specifications, Contractor will submit to the Project Manager a monthly application for payment for Work performed during the preceding month based on the estimated value of the Work performed during that preceding month.
- (A) **Application for Payment.** Each application for payment must be itemized to include labor, materials, and equipment incorporated into the Work, and materials and equipment delivered to the Project site, as well as authorized and approved Change Orders. Each payment application must be supported by the unit prices submitted with Contractor's Bid Schedule and/or schedule of values and any other substantiating data required by the Contract Documents.
- (B) **Payment of Undisputed Amounts.** City will pay the undisputed amount due within 30 days after Contractor has submitted a complete and accurate payment application, subject to Public Contract Code § 20104.50. City will deduct a percentage from each progress payment as retention, as set forth in Section 8.5, below, and may withhold additional amounts as set forth in Section 8.3, below.

8.3 Adjustment of Payment Application. City may adjust or reject the amount requested in a payment application, including application for Final Payment, in whole or in part, if the amount requested is disputed or unsubstantiated. Contractor will be notified in writing of the basis for the modification to the amount requested. City may also deduct or withhold from payment otherwise due based upon any of the circumstances and amounts listed below. Sums withheld from payment otherwise due will be released when the basis for that withholding has been remedied and no longer exists.

(A) For Contractor's unexcused failure to perform the Work as required by the Contract Documents, including correction or completion of punch list items, City may withhold or deduct an amount based on the City's estimated cost to correct or complete the Work.

(B) For loss or damage caused by Contractor or its Subcontractors arising out of or relating to performance of the Work or any failure to protect the Project site, City may deduct an amount based on the estimated cost to repair or replace.

(C) For Contractor's failure to pay its Subcontractors and suppliers when payment is due, City may withhold an amount equal to the total of past due payments and may opt to pay that amount separately via joint check pursuant to Section 8.6(B), Joint Checks.

(D) For Contractor's failure to timely correct rejected, nonconforming, or defective Work, City may withhold or deduct an amount based on the City's estimated cost to correct or complete the Work.

(E) For any unreleased stop notice, City may withhold 125% of the amount claimed.

(F) For Contractor's failure to submit any required schedule or schedule update in the manner and within the time specified in the Contract Documents, City may withhold an amount equal to five percent of the total amount requested until Contractor complies with its schedule submittal obligations.

(G) For Contractor's failure to maintain or submit as-built documents in the manner and within the time specified in the Contract Documents, City may withhold or deduct an amount based on the City's cost to prepare the as-builts.

(H) For Work performed without Shop Drawings that have been accepted by City, when accepted Shop Drawings are required before proceeding with the Work, City may deduct an amount based on the estimated cost to correct unsatisfactory Work or diminution in value.

(I) For fines, payments, or penalties assessed under the Labor Code, City may deduct from payments due to Contractor as required by Laws and as directed by the Division of Labor Standards Enforcement.

(J) For any other costs or charges that may be withheld or deducted from payments to Contractor, as provided in the Contract Documents, including liquidated damages, City may withhold or deduct such amounts from payment otherwise due to Contractor.

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

8.5 Retention. City will retain five percent of the full amount due on each progress payment (i.e., the amount due before any withholding or deductions pursuant to Section 8.3, Adjustment of Payment Application), or the percentage stated in the Notice Inviting Bids, whichever is greater, as retention to ensure full and satisfactory performance of the Work.

Contractor is not entitled to any reduction in the rate of withholding at any time, nor to release of any retention before 35 days following City's acceptance of the Project.

(A) **Substitution of Securities.** As provided by Public Contract Code § 22300, Contractor may request in writing that it be allowed, at its sole expense, to substitute securities for the retention withheld by City. Any escrow agreement entered into pursuant to this provision must fully comply with Public Contract Code § 22300 and will be subject to approval as to form by City's legal counsel. If City exercises its right to draw upon such securities in the event of default pursuant to section (7) of the statutory Escrow Agreement for Security Deposits in Lieu of Retention, pursuant to subdivision (f) of Public Contract Code § 22300 ("Escrow Agreement"), and if Contractor disputes that it is in default, its sole remedy is to comply with the dispute resolution procedures in Article 12 and the provisions therein. It is agreed that for purposes of this paragraph, an event of default includes City's rights pursuant to these Contract Documents to withhold or deduct sums from retention, including withholding or deduction for liquidated damages, incomplete or defective Work, stop payment notices, or backcharges. It is further agreed that if any individual authorized to give or receive written notice on behalf of a party pursuant to section (10) of the Escrow Agreement are unavailable to give or receive notice on behalf of that party due to separation from employment, retirement, death, or other circumstances, the successor or delegee of the named individual is deemed to be the individual authorized to give or receive notice pursuant to section (10) of the Escrow Agreement.

(B) **Release of Undisputed Retention.** All undisputed retention, less any amounts that may be assessed as liquidated damages, retained for stop notices, or otherwise withheld pursuant to Section 8.3, Adjustment of Payment Application, will be released as Final Payment to Contractor no sooner than 35 days following recordation of the notice of completion, and no later than 60 days following acceptance of the Project by City's governing body or authorized designee pursuant to Section 11.1(C), Acceptance, or, if the Project has not been accepted, no later than 60 days after the Project is otherwise considered complete pursuant to Public Contract Code § 7107(c).

8.6 Payment to Subcontractors and Suppliers. Each month, Contractor must promptly pay each Subcontractor and supplier the value of the portion of labor, materials, and equipment incorporated into the Work or delivered to the Project site by the Subcontractor or supplier during the preceding month. Such payments must be made in accordance with the requirements of Laws pertaining to such payments, and those of the Contract Documents and applicable subcontract or supplier contract.

(A) **Withholding for Stop Notice.** Pursuant to Civil Code § 9358, City will withhold 125% of the amount claimed by an unreleased stop notice, a portion of which may be retained by City for the costs incurred in handling the stop notice claim, including attorneys' fees and costs, as authorized by law.

(B) **Joint Checks.** City reserves the right, acting in its sole discretion, to issue joint checks made payable to Contractor and a Subcontractor or supplier, if City determines this is necessary to ensure fair and timely payment for a Subcontractor or supplier who has provided services or goods for the Project. As a condition to release of payment by a joint check, the joint check payees may be required to execute a joint check agreement in a form provided or approved by the City Attorney's Office. The joint check payees will be jointly and severally responsible for the allocation and disbursement of funds paid by joint check. Payment by joint check will not be construed to create a contractual relationship between City and a Subcontractor or supplier of any tier beyond the scope of the joint check agreement.

- 8.7 Final Payment.** Contractor's application for Final Payment must comply with the requirements for submitting an application for a progress payment as stated in Section 8.2, above. Corrections to previous progress payments, including adjustments to estimated quantities for unit priced items, may be included in the Final Payment. If Contractor fails to submit a timely application for Final Payment, City reserves the right to unilaterally process and issue Final Payment without an application from Contractor in order to close out the Project. For the purposes of determining the deadline for Claim submission pursuant to Article 12, the date of Final Payment is deemed to be the date that City acts to release undisputed retention as final payment to Contractor, or otherwise provides written notice to Contractor of Final Payment or that no undisputed funds remain available for Final Payment due to offsetting withholdings or deductions pursuant to Section 8.3, Adjustment of Payment Application. If the amount due from Contractor to City exceeds the amount of Final Payment, City retains the right to recover the balance from Contractor or its sureties.
- 8.8 Release of Claims.** City may, at any time, require that payment of the undisputed portion of any progress payment or Final Payment be contingent upon Contractor furnishing City with a written waiver and release of all claims against City arising from or related to the portion of Work covered by those undisputed amounts subject to the limitations of Public Contract Code § 7100. Any disputed amounts may be specifically excluded from the release.
- 8.9 Warranty of Title.** Contractor warrants that title to all work, materials, or equipment incorporated into the Work and included in a request for payment will pass over to City free of any claims, liens, or encumbrances upon payment to Contractor.

Article 9 - Labor Provisions

- 9.1 Discrimination Prohibited.** Discrimination against any prospective or present employee engaged in the Work on grounds of race, color, ancestry, national origin, ethnicity, religion, sex, sexual orientation, age, disability, or marital status is strictly prohibited. Contractor and its Subcontractors are required to comply with all applicable Laws prohibiting discrimination, including the California Fair Employment and Housing Act (Govt. Code § 12900 et seq.), Government Code § 11135, and Labor Code §§ 1735, 1777.5, 1777.6, and 3077.5.
- 9.2 Labor Code Requirements.**
- (A) **Eight Hour Day.** Pursuant to Labor Code § 1810, eight hours of labor constitute a legal day's work under this Contract.
- (B) **Penalty.** Pursuant to Labor Code § 1813, Contractor will forfeit to City as a penalty, the sum of \$25.00 for each day during which a worker employed by Contractor or any Subcontractor is required or permitted to work more than eight hours in any one calendar day or more than 40 hours per calendar week, except if such workers are paid overtime under Labor Code § 1815.
- (C) **Apprentices.** Contractor is responsible for compliance with the requirements governing employment and payment of apprentices, as set forth in Labor Code § 1777.5, which is fully incorporated by reference.
- (D) **Notices.** Pursuant to Labor Code § 1771.4, Contractor is required to post all job site notices prescribed by Laws.

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

(A) **Penalties.** Pursuant to Labor Code § 1775, Contractor and any Subcontractor will forfeit to City as a penalty up to \$200.00 for each calendar day, or portion thereof, for each worker paid less than the applicable prevailing wage rate. Contractor must also pay each worker the difference between the applicable prevailing wage rate and the amount actually paid to that worker.

(B) **Federal Requirements.** If this Project is subject to federal prevailing wage requirements in addition to California prevailing wage requirements, Contractor and its Subcontractors are required to pay the higher of the currently applicable state or federal prevailing wage rates.

9.4 Payroll Records. Contractor must comply with the provisions of Labor Code §§ 1771.4, 1776, and 1812 and all implementing regulations, which are fully incorporated by this reference, including requirements for monthly electronic submission of payroll records to the DIR.

(A) **Contractor and Subcontractor Obligations.** Contractor and each Subcontractor must keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed in connection with the Work. Each payroll record must contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct; and

(2) Contractor or the Subcontractor has complied with the requirements of Labor Code §§ 1771, 1811, and 1815 for any Work performed by its employees on the Project.

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

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

9.5 Labor Compliance. Pursuant to Labor Code § 1771.4, the Contract for this Project is subject to compliance monitoring and enforcement by the DIR.

Article 10 - Safety Provisions

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

(A) **Reporting Requirements.** Contractor must immediately notify the City of any death, serious injury or illness resulting from Work on the Project. Contractor must immediately provide a written report to City of each recordable accident or injury occurring at any Worksite within 24 hours of the occurrence. The written report must include: (1) the name and address of the injured or deceased person; (2) the name and address of each employee of Contractor or of any Subcontractor involved in the incident; (3) a detailed description of the incident, including precise location, time, and names and contact information for known witnesses; and (4) a police or first responder report, if applicable. If Contractor is required to file an accident report with a government agency, Contractor will provide a copy of the report to City.

(B) **Legal Compliance.** Contractor's safety program must comply with the applicable legal and regulatory requirements. Contractor must provide City with copies of all notices required by Laws.

(C) **Contractor's Obligations.** Any damage or loss caused by Contractor arising from the Work which is not insured under property insurance must be promptly remedied by Contractor.

(D) **Remedies.** If City determines, in its sole discretion, that any part of the Work or Project site is unsafe, City may, without assuming responsibility for Contractor's safety program, require Contractor or its Subcontractor to cease performance of the Work or to take corrective measures to City's satisfaction. If Contractor fails to promptly take the required corrective measures, City may perform them and deduct the cost from the Contract Price. Contractor agrees it is not entitled to submit a Claim for damages, for an increase in Contract Price, or for a change in Contract Time based on Contractor's compliance with City's request for corrective measures pursuant to this provision.

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

10.3 Material Safety. Contractor is solely responsible for complying with § 5194 of Title 8 of the California Code of Regulations, including by providing information to Contractor's employees about any hazardous chemicals to which they may be exposed in the course of the Work. A hazard communication program and other forms of warning and training about such exposure must be used. Contractor must also maintain Safety Data Sheets ("SDS") at the Project site, as required by Laws, for materials or substances used or consumed in the performance of the Work. The SDS will be accessible and available to Contractor's employees, Subcontractors, and City.

(A) **Contractor Obligations.** Contractor is solely responsible for the proper delivery, handling, use, storage, removal, and disposal of all materials brought to the Project site and/or used in the performance of the Work. Contractor must notify the Engineer if a specified product or material cannot be used safely.

(B) **Labeling.** Contractor must ensure proper labeling on any material brought onto the Project site so that any persons working with or in the vicinity of the material may be informed as to the identity of the material, any potential hazards, and requirements for proper handling, protections, and disposal.

10.4 Hazardous Condition. Contractor is solely responsible for determining whether a hazardous condition exists or is created during the course of the Work, involving a risk of bodily harm to any person or risk of damage to any property. If a hazardous condition exists or is created, Contractor must take all precautions necessary to address the condition and ensure that the Work progresses safely under the circumstances. Hazardous conditions may result from, but are not limited to, use of specified materials or equipment, the Work location, the Project site condition, the method of construction, or the way any Work must be performed.

10.5 Emergencies. In an emergency affecting the safety or protection of persons, Work, or property at or adjacent to any Worksite, Contractor must take reasonable and prompt actions to prevent damage, injury, or loss, without prior authorization from the City if, under the circumstances, there is inadequate time to seek prior authorization from the City.

Article 11 - Completion and Warranty Provisions

11.1 Final Completion.

(A) **Final Inspection and Punch List.** When the Work required by this Contract is fully performed, Contractor must provide written notification to City requesting final inspection. The Engineer will schedule the date and time for final inspection, which must include Contractor's primary representative for this Project and its superintendent. Based on that inspection, City will prepare a punch list of any items that are incomplete, missing, defective, incorrectly installed, or otherwise not compliant with the Contract Documents. The punch list to Contractor will specify the time by which all of the punch list items must be completed or corrected. The punch list may include City's estimated cost to complete each punch list item if Contractor fails to do so within the specified time. The omission of any non-compliant item from a punch list will not relieve Contractor from fulfilling all requirements of the Contract Documents. Contractor's failure to complete any punch list item within the time specified in the punch list will not waive or abridge its warranty obligations for any such items that must be completed by the City or by a third party retained by the City due to Contractor's failure to timely complete any such outstanding item.

(B) **Requirements for Final Completion.** Final Completion will be achieved upon completion or correction of all punch list items, as verified by City's further inspection, and upon satisfaction of all other Contract requirements, including any commissioning required under the Contract Documents and submission of all final submittals, including instructions and manuals as required under Section 7.10, and complete, final as-built drawings as required under Section 7.11, all to City's satisfaction.

(C) **Acceptance.** The Project will be considered accepted upon City Council action during a public meeting to accept the Project, unless the Engineer is authorized to accept

the Project, in which case the Project will be considered accepted upon the date of the Engineer's issuance of a written notice of acceptance. In order to avoid delay of Project close out, the City may elect, acting in its sole discretion, to accept the Project as complete subject to exceptions for punch list items that are not completed within the time specified in the punch list.

(D) **Final Payment and Release of Retention.** Final Payment and release of retention, less any sums withheld pursuant to the provisions of the Contract Documents, will not be made sooner than 35 days after recordation of the notice of completion. If Contractor fails to complete all of the punch list items within the specified time, City may withhold up to 150% of City's estimated cost to complete each of the remaining items from Final Payment and may use the withheld retention to pay for the costs to self-perform the outstanding items or to retain a third party to complete any such outstanding punch list item.

11.2 Warranty.

(A) **General.** Contractor warrants that all materials and equipment will be new unless otherwise specified, of good quality, in conformance with the Contract Documents, and free from defective workmanship and materials. Contractor further warrants that the Work will be free from material defects not intrinsic in the design or materials required in the Contract Documents. Contractor warrants that materials or items incorporated into the Work comply with the requirements and standards in the Contract Documents, including compliance with Laws, and that any Hazardous Materials encountered or used were handled as required by Laws. At City's request, Contractor must furnish satisfactory evidence of the quality and type of materials and equipment furnished. Contractor's warranty does not extend to damage caused by normal wear and tear, or improper use or maintenance.

(B) **Warranty Period.** Contractor's warranty must guarantee its Work for a period of one year from the date of Project acceptance (the "Warranty Period"), except when a longer guarantee is provided by a supplier or manufacturer or is required by the Specifications or Special Conditions. Contractor must obtain from its Subcontractors, suppliers and manufacturers any special or extended warranties required by the Contract Documents.

(C) **Warranty Documents.** As a condition precedent to Final Completion, Contractor must supply City with all warranty and guarantee documents relevant to equipment and materials incorporated into the Work and guaranteed by their suppliers or manufacturers.

(D) **Subcontractors.** The warranty obligations in the Contract Documents apply to Work performed by Contractor and its Subcontractors, and Contractor agrees to be co-guarantor of such Work.

(E) **Contractor's Obligations.** Upon written notice from City to Contractor of any defect in the Work discovered during the Warranty Period, Contractor or its responsible Subcontractor must promptly correct the defective Work at its own cost. Contractor's obligation to correct defects discovered during the Warranty Period will continue past the expiration of the Warranty Period as to any defects in Work for which Contractor was notified prior to expiration of the Warranty Period. Work performed during the Warranty Period ("Warranty Work") will be subject to the warranty provisions in this Section 11.2 for a one-year period that begins upon completion of such Warranty Work to City's satisfaction.

(F) **City's Remedies.** If Contractor or its responsible Subcontractor fails to correct defective Work within ten days following notice by City, or sooner if required by the circumstances, City may correct the defects to conform with the Contract Documents at Contractor's sole expense. Contractor must reimburse City for its costs in accordance with subsection (H), below.

(G) **Emergency Repairs.** In cases of emergency where any delay in correcting defective Work could cause harm, loss or damage, City may immediately correct the defects to conform with the Contract Documents at Contractor's sole expense. Contractor or its surety must reimburse City for its costs in accordance with subsection (H), below.

(H) **Reimbursement.** Contractor must reimburse City for its costs to repair under subsections (F) or (G), above, within 30 days following City's submission of a demand for payment pursuant to this provision. If City is required to initiate legal action to compel Contractor's compliance with this provision, and City is the prevailing party in such action, Contractor and its surety are solely responsible for all of City's attorney's fees and legal costs expended to enforce Contractor's warranty obligations herein, in addition to any and all costs City incurs to correct the defective Work.

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

(A) **Non-Waiver.** Occupation or use of the Project, in whole or in part, prior to Final Completion will not operate as acceptance of the Work or any portion of it, nor will it operate as a waiver of any of City's rights or Contractor's duties pursuant to these Contract Documents, and will not affect nor bear on the determination of the time of substantial completion with respect to any statute of repose pertaining to the time for filing an action for construction defect.

(B) **City's Responsibility.** City will be responsible for the cost of maintenance and repairs due to normal wear and tear with respect to those portions of the Project that are being occupied or used before Final Completion. The Contract Price or the Contract Time may be adjusted pursuant to the applicable provisions of these Contract Documents if, and only to the extent that, any occupation or use under this Section actually adds to Contractor's cost or time to complete the Work within the Contract Time.

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

Article 12 - Dispute Resolution

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

(A) **Definition.** "Claim" means a separate demand by Contractor, submitted in writing by registered or certified mail with return receipt requested, for a change in the Contract Time, including a time extension or relief from liquidated damages, or a change in the Contract Price, when the demand has previously been submitted to City in accordance with the requirements of the Contract Documents, and which has been

rejected or disputed by City, in whole or in part. A Claim may also include that portion of a unilateral Change Order that is disputed by the Contractor.

(B) **Limitations.** A Claim may only include the portion of a previously rejected demand that remains in dispute between Contractor and City. With the exception of any dispute regarding the amount of money actually paid to Contractor as Final Payment, Contractor is not entitled to submit a Claim demanding a change in the Contract Time or the Contract Price, which has not previously been submitted to City in full compliance with Article 5 and Article 6, and subsequently rejected in whole or in part by City.

(C) **Scope of Article.** This Article is intended to provide the exclusive procedures for submission and resolution of Claims of any amount and applies in addition to the provisions of Public Contract Code § 9204 and § 20104 et seq., which are incorporated by reference herein.

(D) **No Work Delay.** Notwithstanding the submission of a Claim or any other dispute between the parties related to the Project or the Contract Documents, Contractor must perform the Work and may not delay or cease Work pending resolution of a Claim or other dispute, but must continue to diligently prosecute the performance and timely completion of the Work, including the Work pertaining to the Claim or other dispute.

(E) **Informal Resolution.** Contractor will make a good faith effort to informally resolve a dispute before initiating a Claim, preferably by face-to-face meeting between authorized representatives of Contractor and City.

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

(A) **Substantiation.** The Claim must be submitted to City in writing, clearly identified as a "Claim" submitted pursuant to this Article 12 and must include all of the documents necessary to substantiate the Claim including the Change Order request that was rejected in whole or in part, and a copy of City's written rejection that is in dispute. The Claim must clearly identify and describe the dispute, including relevant references to applicable portions of the Contract Documents, and a chronology of relevant events. Any Claim for additional payment must include a complete, itemized breakdown of all known or estimated labor, materials, taxes, insurance, and subcontract, or other costs. Substantiating documentation such as payroll records, receipts, invoices, or the like, must be submitted in support of each component of claimed cost. Any Claim for an extension of time or delay costs must be substantiated with a schedule analysis and narrative depicting and explaining claimed time impacts.

(B) **Claim Format and Content.** A Claim must be submitted in the following format:

(1) Provide a cover letter, specifically identifying the submission as a "Claim" submitted under this Article 12 and specifying the requested remedy (e.g., amount of proposed change to Contract Price and/or change to Contract Time).

(2) Provide a summary of each Claim, including underlying facts and the basis for entitlement, and identify each specific demand at issue, including the specific Change Order request (by number and submittal date), and the date of City's rejection of that demand, in whole or in part.

(3) Provide a detailed explanation of each issue in dispute. For multiple issues included within a single Claim or for multiple Claims submitted concurrently, separately number and identify each individual issue or Claim, and include the following for each separate issue or Claim:

- a. A succinct statement of the matter in dispute, including Contractor's position and the basis for that position;
- b. Identify and attach all documents that substantiate the Claim, including relevant provisions of the Contract Documents, RFIs, calculations, and schedule analysis (see subsection (A), Substantiation, above);
- c. A chronology of relevant events; and
- d. Analysis and basis for claimed changes to Contract Price, Contract Time, or any other remedy requested.

(4) Provide a summary of issues and corresponding claimed damages. If, by the time of the Claim submission deadline (below), the precise amount of the requested change in the Contract Price or Contract Time is not yet known, Contractor must provide a good faith estimate, including the basis for that estimate, and must identify the date by which it is anticipated that the Claim will be updated to provide final amounts.

(5) Include the following certification, executed by Contractor's authorized representative:

"The undersigned Contractor certifies under penalty of perjury that its statements and representations in this Claim submittal are true and correct. Contractor warrants that this Claim submittal is comprehensive and complete as to the matters in dispute, and agrees that any costs, expenses, or delay not included herein are deemed waived."

(C) ***Submission Deadlines.***

(1) A Claim disputing rejection of a request for a change in the Contract Time or Contract Price must be submitted within 15 days following the date that City notified Contractor in writing that a request for a change in the Contract Time or Contract Price, duly submitted in compliance with Article 5 and Article 6, has been rejected in whole or in part. A Claim disputing the terms of a unilateral Change Order must be submitted within 15 days following the date of issuance of the unilateral Change Order. These Claim deadlines apply even if Contractor cannot yet quantify the total amount of any requested change in the Contract Time or Contract Price. If the Contractor cannot quantify those amounts, it must submit an estimate of the amounts claimed pending final determination of the requested remedy by Contractor.

(2) With the exception of any dispute regarding the amount of Final Payment, any Claim must be filed on or before the date of Final Payment or will be deemed waived.

(3) A Claim disputing the amount of Final Payment must be submitted within 15 days of the effective date of Final Payment, under Section 8.7, Final Payment.

(4) Strict compliance with these Claim submission deadlines is necessary to ensure that any dispute may be mitigated as soon as possible, and to facilitate cost-efficient administration of the Project. ***Any Claim that is not submitted within the specified deadlines will be deemed waived by Contractor.***

12.3 City's Response. City will respond within 45 days of receipt of the Claim with a written statement identifying which portion(s) of the Claim are disputed, unless the 45-day period is extended by mutual agreement of City and Contractor or as otherwise allowed under Public Contract Code § 9204. However, if City determines that the Claim is not adequately substantiated pursuant to Section 12.2(A), Substantiation, City may first request in writing, within 30 days of receipt of the Claim, any additional documentation supporting the Claim or relating to defenses to the Claim that City may have against the Claim.

(A) **Additional Information.** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor. If Contractor's Claim is based on estimated amounts, Contractor has a continuing duty to update its Claim as soon as possible with information on actual amounts in order to facilitate prompt and fair resolution of the Claim.

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

12.4 Meet and Confer. If Contractor disputes City's written response, or City fails to respond within the specified time, within 15 days of receipt of City's response or within 15 days of City's failure to respond within the applicable 45-day time period under Section 12.3, respectively, Contractor may notify City of the dispute in writing sent by registered or certified mail, return receipt requested, and demand an informal conference to meet and confer for settlement of the issues in dispute. If Contractor fails to notify City of the dispute and demand an informal conference to meet and confer in writing within the specified time, Contractor's Claim will be deemed waived.

(A) **Schedule Meet and Confer.** Upon receipt of the demand to meet and confer, City will schedule the meet and confer conference to be held within 30 days, or later if needed to ensure the mutual availability of each of the individuals that each party requires to represent its interests at the meet and confer conference.

(B) **Location for Meet and Confer.** The meet and confer conference will be scheduled at a location at or near City's principal office.

(C) **Written Statement After Meet and Confer.** Within ten working days after the meet and confer has concluded, City will issue a written statement identifying which portion(s) of the Claim remain in dispute, if any.

(D) **Submission to Mediation.** If the Claim or any portion remains in dispute following the meet and confer conference, within ten working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute, the Contractor may identify in writing disputed portion(s) of the Claim, which will be submitted for mediation, as set forth below.

12.5 Mediation and Government Code Claims.

(A) **Mediation.** Within ten working days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute following the meet and confer, City and Contractor will mutually agree to a mediator, as provided under Public Contract Code § 9204. Mediation will be scheduled to ensure the mutual availability of the selected mediator and all of the individuals that each party requires to represent its interests. If there are multiple Claims in dispute, the parties may agree to schedule the mediation to address all outstanding Claims at the same time. The parties will share the costs of the mediator and mediation fees equally, but each party is otherwise solely and separately

responsible for its own costs to prepare for and participate in the mediation, including costs for its legal counsel or any other consultants.

(B) **Government Code Claims.**

(1) Timely presentation of a Government Code Claim is a condition precedent to filing any legal action based on or arising from the Contract. Compliance with the Claim submission requirements in this Article 12 is a condition precedent to filing a Government Code Claim.

(2) The time for filing a Government Code Claim will be tolled from the time Contractor submits its written Claim pursuant to Section 12.2, above, until the time that Claim is denied in whole or in part at the conclusion of the meet and confer process, including any period of time used by the meet and confer process. However, if the Claim is submitted to mediation, the time for filing a Government Code Claim will be tolled until conclusion of the mediation, including any continuations, if the Claim is not fully resolved by mutual agreement of the parties during the mediation or any continuation of the mediation.

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

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

12.8 Burden of Proof and Limitations. Contractor bears the burden of proving entitlement to and the amount of any claimed damages. Contractor is not entitled to damages calculated on a total cost basis, but must prove actual damages. Contractor is not entitled to speculative, special, or consequential damages, including home office overhead or any form of overhead not directly incurred at the Project site or any other Worksite; lost profits; loss of productivity; lost opportunity to work on other projects; diminished bonding capacity; increased cost of financing for the Project; extended capital costs; non-availability of labor, material or equipment due to delays; or any other indirect loss arising from the Contract. The Eichleay Formula or similar formula will not be used for any recovery under the Contract. The City will not be directly liable to any Subcontractor or supplier.

12.9 Legal Proceedings. In any legal proceeding that involves enforcement of any requirements of the Contract Documents, the finder of fact will receive detailed instructions on the meaning and operation of the Contract Documents, including conditions, limitations of liability, remedies, claim procedures, and other provisions bearing on the defenses and theories of liability. Detailed findings of fact will be requested to verify enforcement of the Contract Documents. All of the City's remedies under the Contract Documents will be construed as cumulative, and not exclusive, and the City reserves all rights to all remedies available under law or equity as to any dispute arising from or relating to the Contract Documents or performance of the Work.

12.10 Other Disputes. The procedures in this Article 12 will apply to any and all disputes or legal actions, in addition to Claims, arising from or related to this Contract, including disputes regarding suspension or early termination of the Contract, unless and only to the extent that compliance with a procedural requirement is expressly and specifically waived by City. Nothing in this Article is intended to delay suspension or termination under Article 13.

Article 13 - Suspension and Termination

13.1 Suspension for Cause. In addition to all other remedies available to City, if Contractor fails to perform or correct Work in accordance with the Contract Documents, including non-compliance with applicable environmental or health and safety Laws, City may immediately order the Work, or any portion of it, suspended until the circumstances giving rise to the suspension have been eliminated to City's satisfaction.

(A) **Notice of Suspension.** Upon receipt of City's written notice to suspend the Work, in whole or in part, except as otherwise specified in the notice of suspension, Contractor and its Subcontractors must promptly stop Work as specified in the notice of suspension; comply with directions for cleaning and securing the Worksite; and protect the completed and in-progress Work and materials. Contractor is solely responsible for any damages or loss resulting from its failure to adequately secure and protect the Project.

(B) **Resumption of Work.** Upon receipt of the City's written notice to resume the suspended Work, in whole or in part, except as otherwise specified in the notice to resume, Contractor and its Subcontractors must promptly re-mobilize and resume the Work as specified; and within ten days from the date of the notice to resume, Contractor must submit a recovery schedule, prepared in accordance with the Contract Documents, showing how Contractor will complete the Work within the Contract Time.

(C) **Failure to Comply.** Contractor will not be entitled to an increase in the Contract Time or Contract Price for a suspension occasioned by Contractor's failure to comply with the Contract Documents.

(D) **No Duty to Suspend.** City's right to suspend the Work will not give rise to a duty to suspend the Work, and City's failure to suspend the Work will not constitute a defense to Contractor's failure to comply with the requirements of the Contract Documents.

13.2 Suspension for Convenience. City reserves the right to suspend, delay, or interrupt the performance of the Work in whole or in part, for a period of time determined to be appropriate for City's convenience. Upon notice by City pursuant to this provision, Contractor must immediately suspend, delay, or interrupt the Work and secure the Project site as directed by City except for taking measures to protect completed or in-progress Work as directed in the suspension notice, and subject to the provisions of Section 13.1(A) and (B), above. If Contractor submits a timely request for a Change Order in compliance with Articles 5 and 6, the Contract Price and the Contract Time will be equitably adjusted by Change Order pursuant to the terms of Articles 5 and 6 to reflect the cost and delay impact occasioned by such suspension for convenience, except to the extent that any such impacts were caused by Contractor's failure to comply with the Contract Documents or the terms of the suspension notice or notice to resume. However, the Contract Time will only be extended if the suspension causes or will cause unavoidable delay in Final Completion. If Contractor disputes the terms of a Change Order issued for such equitable adjustment due to suspension for convenience, its sole recourse is to comply with the Claim procedures in Article 12.

13.3 Termination for Default. City may declare that Contractor is in default of the Contract for a material breach of or inability to fully, promptly, or satisfactorily perform its obligations under the Contract.

(A) **Default.** Events giving rise to a declaration of default include Contractor's refusal or failure to supply sufficient skilled workers, proper materials, or equipment to perform the Work within the Contract Time; Contractor's refusal or failure to make prompt

payment to its employees, Subcontractors, or suppliers or to correct defective Work or damage; Contractor's failure to comply with Laws, or orders of any public agency with jurisdiction over the Project; evidence of Contractor's bankruptcy, insolvency, or lack of financial capacity to complete the Work as required within the Contract Time; suspension, revocation, or expiration and nonrenewal of Contractor's license or DIR registration; dissolution, liquidation, reorganization, or other major change in Contractor's organization, ownership, structure, or existence as a business entity; unauthorized assignment of Contractor's rights or duties under the Contract; or any material breach of the Contract requirements.

(B) **Notice of Default and Opportunity to Cure.** Upon City's declaration that Contractor is in default due to a material breach of the Contract Documents, if City determines that the default is curable, City will afford Contractor the opportunity to cure the default within ten days of City's notice of default, or within a period of time reasonably necessary for such cure, including a shorter period of time if applicable.

(C) **Termination.** If Contractor fails to cure the default or fails to expediently take steps reasonably calculated to cure the default within the time period specified in the notice of default, City may issue written notice to Contractor and its performance bond surety of City's termination of the Contract for default.

(D) **Waiver.** Time being of the essence in the performance of the Work, if Contractor's surety fails to arrange for completion of the Work in accordance with the Performance Bond within seven calendar days from the date of the notice of termination pursuant to paragraph (C), City may immediately make arrangements for the completion of the Work through use of its own forces, by hiring a replacement contractor, or by any other means that City determines advisable under the circumstances. Contractor and its surety will be jointly and severally liable for any additional cost incurred by City to complete the Work following termination, where "additional cost" means all cost in excess of the cost City would have incurred if Contractor had timely completed Work without the default and termination. In addition, City will have the right to immediate possession and use of any materials, supplies, and equipment procured for the Project and located at the Project site or any Worksite on City property for the purposes of completing the remaining Work.

(E) **Compensation.** Within 30 days of receipt of updated as-builts, all warranties, manuals, instructions, or other required documents for Work installed to date, and delivery to City of all equipment and materials for the Project for which Contractor has already been compensated, Contractor will be compensated for the Work satisfactorily performed in compliance with the Contract Documents up to the effective date of the termination pursuant to the terms of Article 8, Payment, subject to City's rights to withhold or deduct sums from payment otherwise due pursuant to Section 8.3, and excluding any costs Contractor incurs as a result of the termination, including any cancellation or restocking charges or fees due to third parties. If Contractor disputes the amount of compensation determined by City, its sole recourse is to comply with the Claim Procedures in Article 12, by submitting a Claim no later than 30 days following notice from City of the total compensation to be paid by City.

(F) **Wrongful Termination.** If Contractor disputes the termination, its sole recourse is to comply with the Claim procedures in Article 12. If a court of competent jurisdiction or an arbitrator later determines that the termination for default was wrongful, the termination will be deemed to be a termination for convenience, and Contractor's damages will be strictly limited to the compensation provided for termination for convenience under Section 13.4, below. Contractor waives any claim for any other damages for wrongful termination including special or consequential damages, lost

opportunity costs, or lost profits, and any award of damages is subject to Section 12.8, Burden of Proof and Limitations.

13.4 Termination for Convenience. City reserves the right, acting in its sole discretion, to terminate all or part of the Contract for convenience upon written notice to Contractor.

(A) **Compensation to Contractor.** In the event of City's termination for convenience, Contractor waives any claim for damages, including for loss of anticipated profits from the Project. The following will constitute full and fair compensation to Contractor, and Contractor will not be entitled to any additional claim or compensation:

(1) *Completed Work.* The value of its Work satisfactorily performed as of the date notice of termination is received, based on Contractor's schedule of values and unpaid costs for items delivered to the Project site that were fabricated for incorporation in the Work;

(2) *Demobilization.* Demobilization costs specified in the schedule of values, or if demobilization costs were not provided in a schedule of values pursuant to Section 8.1, then based on actual, reasonable, and fully documented demobilization costs; and

(3) *Termination Markup.* Five percent of the total value of the Work performed as of the date of notice of termination, including reasonable, actual, and documented costs to comply with the direction in the notice of termination for convenience, and demobilization costs, which is deemed to cover all overhead and profit to date.

(B) **Disputes.** If Contractor disputes the amount of compensation determined by City pursuant to paragraph (A), above, its sole recourse is to comply with the Claim procedures in Article 12, by submitting a Claim no later than 30 days following notice from City of total compensation to be paid by City.

13.5 Actions Upon Termination for Default or Convenience. The following provisions apply to any termination under this Article, whether for default or convenience, and whether in whole or in part.

(A) **General.** Upon termination, City may immediately enter upon and take possession of the Project and the Work and all tools, equipment, appliances, materials, and supplies procured or fabricated for the Project. Contractor will transfer title to and deliver all completed Work and all Work in progress to City.

(B) **Submittals.** Unless otherwise specified in the notice of termination, Contractor must immediately submit to City all designs, drawings, as-built drawings, Project records, contracts with vendors and Subcontractors, manufacturer warranties, manuals, and other such submittals or Work-related documents required under the terms of the Contract Documents, including incomplete documents or drafts.

(C) **Close Out Requirements.** Except as otherwise specified in the notice of termination, Contractor must comply with all of the following:

(1) Immediately stop the Work, except for any Work that must be completed pursuant to the notice of termination and comply with City's instructions for cessation of labor and securing the Project and any other Worksite(s).

(2) Comply with City's instructions to protect the completed Work and materials, using best efforts to minimize further costs.

(3) Contractor must not place further orders or enter into new subcontracts for materials, equipment, services or facilities, except as may be necessary to complete any portion of the Work that is not terminated.

(4) As directed in the notice, Contractor must assign to City or cancel existing subcontracts that relate to performance of the terminated Work, subject to any prior rights, if any, of the surety for Contractor's performance bond, and settle all outstanding liabilities and claims, subject to City's approval.

(5) As directed in the notice, Contractor must use its best efforts to sell any materials, supplies, or equipment intended solely for the terminated Work in a manner and at market rate prices acceptable to City.

(D) **Payment Upon Termination.** Upon completion of all termination obligations, as specified herein and in the notice of termination, Contractor will submit its request for Final Payment, including any amounts due following termination pursuant to this Article 13. Payment will be made in accordance with the provisions of Article 8, based on the portion of the Work satisfactorily completed, including the close out requirements, and consistent with the previously submitted schedule of values and unit pricing, including demobilization costs. Adjustments to Final Payment may include deductions for the cost of materials, supplies, or equipment retained by Contractor; payments received for sale of any such materials, supplies, or equipment, less re-stocking fees charged; and as otherwise specified in Section 8.3, Adjustment of Payment Application.

(E) **Continuing Obligations.** Regardless of any Contract termination, Contractor's obligations for portions of the Work already performed will continue and the provisions of the Contract Documents will remain in effect as to any claim, indemnity obligation, warranties, guarantees, submittals of as-built drawings, instructions, or manuals, record maintenance, or other such rights and obligations arising prior to the termination date.

Article 14 - Miscellaneous Provisions

- 14.1 Assignment of Unfair Business Practice Claims.** Under Public Contract Code § 7103.5, Contractor and its Subcontractors agree to assign to City all rights, title, and interest in and to all causes of action it may have under section 4 of the Clayton Act (15 U.S.C. § 15) or under the Cartwright Act (Chapter 2 (commencing with § 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the Contract or any subcontract. This assignment will be effective at the time City tenders Final Payment to Contractor, without further acknowledgement by the parties.
- 14.2 Provisions Deemed Inserted.** Every provision of law required to be inserted in the Contract Documents is deemed to be inserted, and the Contract Documents will be construed and enforced as though such provision has been included. If it is discovered that through mistake or otherwise that any required provision was not inserted, or not correctly inserted, the Contract Documents will be deemed amended accordingly.
- 14.3 Waiver.** City's waiver of a breach, failure of any condition, or any right or remedy contained in or granted by the provisions of the Contract Documents will not be effective unless it is in writing and signed by City. City's waiver of any breach, failure, right, or remedy will not be deemed a waiver of any other breach, failure, right, or remedy, whether or not similar, nor will any waiver constitute a continuing waiver unless specified in writing by City.

- 14.4 Titles, Headings, and Groupings.** The titles and headings used and the groupings of provisions in the Contract Documents are for convenience only and may not be used in the construction or interpretation of the Contract Documents or relied upon for any other purpose.
- 14.5 Statutory and Regulatory References.** With respect to any amendments to any statutes or regulations referenced in these Contract Documents, the reference is deemed to be the version in effect on the date that bids were due.
- 14.6 Survival.** The provisions that survive termination or expiration of this Contract include Contract Section 11, Notice, and subsections 12.1, 12.2, 12.3, 12.4, 12.5, and 12.6, of Section 12, General Provisions; and the following provisions in these General Conditions: Section 2.2(J), Contractor's Records, Section 2.3(C), Termination, Section 3.7, Ownership, Section 4.2, Indemnity, Article 12, Dispute Resolution, and Section 11.2, Warranty.

END OF GENERAL CONDITIONS

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18-1 GENERAL

All construction shall be in accordance with the 2023 Caltrans State Standard Plans and Standard Specifications, and the most recent editions of the Marin County Uniform Construction Standards, Marin County Standard Specifications, and the City of San Rafael codes and ordinances unless noted otherwise on the plans.

Hours of work shall be between 8:00 A.M. to 4:00 P.M. on weekdays, or as directed by the Engineer and these Technical Specifications. The Contractor shall not perform any work, including warming up and servicing equipment, receiving deliveries, and other related work prior to 8:00 A.M. The contractor will be assessed a \$10,000 fine for starting work before 8:00 A.M.

Lane Closures shall only be permitted between 9:00 A.M. and 3:00 P.M.
Closure of parking lanes shall be permitted between 8:00 A.M. and 4:00 P.M.

The streets where work is to be done are listed below:

- Alpine St.
- Elizabeth Wy.
- Fairhills Dr.
- Hillside Ave.
- La Loma Ct.
- Los Altos Dr.
- Maywood Wy.
- Ridgewood Dr.
- Valley View Ave.
- Oakwood Dr.
- Alexander Ave.
- Alvina Ave.
- Antonette Ave.
- Bayo Vista Wy.
- Belloreid Ave.
- Bonnie Brae Dr.
- Bryn Mawr. Dr.
- Cala Vista Dr.
- California Ave.
- Center St.
- Cayton St.
- Clorinda Ave.
- Crestwood Dr.
- E Crescent Dr.
- Espalda Ct.
- E St.
- Estates Ct.
- Eva St.
- Eye St.
- First St.
- Forbes Ave.
- Foster Ln.
- Frances St.
- Glen Ave.
- Gloria Dr.
- Greenfield Ave.
- Greenwood Ave.
- Grove St.
- Harcourt St.
- Hayes St.
- Idlewood Pl.
- J St.
- Knoll Rd.
- Madrona St.
- Moody Ct.
- Oak Ave.
- Pepper Wy.
- Picnic Ave.
- Pleasant Ln.
- Reservoir Rd.
- River Oaks Ct.
- River Oaks Rd.
- Roberts Ave.
- Ross Valley Dr.
- San Rafael Ave.
- Santa Margarita Dr.
- Scenic Ave.
- Seibel St.
- Shaver St.
- Southern Heights Blvd.
- Spring Grove Ave.
- Terrace Ave.
- Tierra Vista Wy.
- Twin Oaks Ave.
- Vistawood Wy.
- W Crescent Dr.
- Welch St.
- Westwood Dr.
- Windsor Ave.
- Wolfe Ave.

The contractor shall split the work on each street to keep ½ of the street open at all times for traffic.

18-1.01 ORDER OF WORK

Order of work shall conform to these Technical Specifications.

- First order of work shall be to prepare and submit a work plan, progress schedule for all items of work, material submittals, and traffic and pedestrian control plans in a form provided by or

acceptable to the Engineer. The work plan and schedule shall be updated weekly to reflect all items of work performed at the site and shall clearly indicate the proposed completion date. **No work may begin under contract until the Progress Schedule and Traffic Control Plan have been approved by the Engineer.** Time required for review and approval of these items shall not constitute a basis for time extension.

- Second order of work shall be to prepare and submit a Water Pollution Control Plan prepared and signed by a qualified Stormwater Pollution Prevention Plan Developer (QSD) per these Technical Specifications.
- Third order of work shall be Crack Sealing that shall be completed prior to slurry seal.
- Fourth order of work shall be applying the slurry seal and fiberized micro-surfacing to the roadways (see **APPENDIX D** for map of work to be done).

The above item(s) shall clearly disclose the Contractor's proposed procedures and methods of operation, including identifying any special equipment intended for use on the project and their method of handling traffic. It is the responsibility of the Contractor to arrange for the towing and removal of any vehicles which have not been removed by the owner and which interfere with any operations.

18-1.02 OBSTRUCTIONS

Attention is directed to Section 5-1.36C, "Non-highway Facilities," and Section 15, "Existing Facilities," of the State Standard Specifications and these Technical Specifications.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public.

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

**Notification Center
Underground Service Alert - Northern California (USA)
1(800)227-2600**

It is not the intent of the plans to show the exact location of existing or relocated utilities, and the Engineer assumes no responsibility therefore. Whenever any such utilities are indicated thereon, the Contractor shall be responsible for verifying their actual location and depth in the field.

If needed, the Contractor shall pothole all locations identified by USA prior to any digging to positively verify the location of all utilities. All costs for potholing shall be considered as included in the contract prices for various items of work and no additional compensation will be allowed therefore. The Contractor shall provide the City with the results of potholing activity.

The Contractor shall backfill and replace the street section in place following potholing activity in a manner acceptable to the City and the utility. The precise location of the potholing shall be marked in the field by the Engineer with the utility's concurrence.

It is the Contractor's responsibility to coordinate any potholing work with the necessary utilities.

The Contractor will not be entitled to damages or additional payment for delays, mobilization or demobilization caused by a utility conflict with any of the proposed improvements or the utility company's failure to appear on site at the designated date and time whether for potholing, relocating a fire hydrant, adjusting utility boxes/vaults to grade, or any other utility work.

18-1.03 EXISTING HIGHWAY FACILITIES

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Facilities," of the State Standard Specifications and these Technical Specifications.

Except as otherwise provided for damaged materials in Section 15-1.03C, "Salvaging Facilities," of the State Standard Specifications, the materials to be salvaged shall remain the property of the City, and shall be cleaned, packaged, bundled, tagged, and hauled to the City storage, or as directed by the Engineer. Notify the Engineer a minimum of 48 hours prior to hauling salvaged material to the storage area. All salvaged material shall be hauled to the City Corporation Yard located at 111 Morphew Street by the Contractor unless another location is specified.

Unless otherwise specified, all materials as shown on the plans to be removed, or as field marked and as directed by the Engineer to be removed shall be disposed of outside the project limits. The contract work area shall be left with a neat and finished appearance. At the end of each work day the project site shall be swept clean or washed to the satisfaction of the Engineer at no additional cost to the City.

Do not store or permit debris to accumulate on site. If Contractor fails to remove excess debris promptly by the end of the workday, the City reserves right to cause same to be removed at Contractor's expense.

18-1.04 WATER POLLUTION CONTROL

The Contractor shall submit to the Engineer a Water Pollution Control Plan (WPCP) for filtering storm water runoff from the construction site. The Contractor shall be responsible for implementing and managing these systems during the life of the project. The WPCP shall conform to all applicable requirements in Section 13, "Water Pollution Control," of the State Standard Specifications and the Appendices of these Technical Specifications. **The WPCP shall be prepared by a Qualified SWPPP Developer (QSD).** Submittal of BMPs by themselves will not be accepted. **A WPCP shall be submitted to and approved by the Engineer 10 days prior to construction activity.** The Contractor shall use the WPCP template available on Caltrans web site at:

<https://dot.ca.gov/programs/construction/storm-water-and-water-pollution-control/>.

All water encountered in constructing roadway improvements or storm drain pipes, manholes and catch basins shall be disposed of by the Contractor in such manner as will not damage the public or private property or create a nuisance or health menace. The Contractor shall furnish, install, and operate pumps, pipes, appliances, and equipment of sufficient capacity to keep all excavations and accesses free from water until the excavation is backfilled, unless otherwise authorized by the Engineer. The Contractor shall provide all means or facilities necessary to conduct water to the pumps. Filtered water, if odorless and stable, may be discharged into an existing storm drain, channel, or street gutter in a manner approved by the Engineer. When required by the Engineer, a means shall be provided for desilting the water before discharge. Any discharge water containing soluble or volatile pollutants in excess of environmental regulatory thresholds shall be collected and disposed of by legal means at the expense of the Contractor.

18-1.05 SUBMITTALS

Contractor shall submit a progress schedule for all work. The schedule shall include mobilization, the sequence of operation, and a project completion date. No work shall commence until a progress schedule and methods have been approved. **Once the work begins, the Contractor shall submit an updated weekly schedule every Thursday by noon.** The Contractor shall submit a schedule in a format acceptable to the Engineer. The schedule shall show the controlling item of work. If, in the opinion of the Engineer, the work being performed does not match the schedule or there is a discrepancy in the schedule the Contractor shall revise the schedule to represent the work being performed including the controlling item of work and the proposed completion date.

The Contractor shall submit via email one electronic PDF of each submittal for review by the City. Except as otherwise provided in the Technical Specifications, the Contractor shall allow five (5) working days after submittals are furnished to the Engineer for review. See individual sections for submittal requirements included in, but not limited to the following sections:

1. Progress Schedule
2. Traffic Control Detour, and Signing Plan
3. Pedestrian Access, Detour, and Signing Plan
4. Water Pollution Control Plan (WPCP)
5. Slurry Seal Mix Design and Samples for testing
6. Fiberized Type III Micro-surfacing Mix Design and Samples for testing
7. Type II Micro-surfacing Mix Design and Samples for testing
8. Crack Seal Rubber Design and Samples for testing
9. Striping and Pavement Markings Specifications
10. Log or Map of utility covers Referenced, Taped, and Bagged
11. As-built Plans
12. Any other items required by the City

Prior to the start of construction, the Contractor shall submit to the Engineer a well-defined, written Traffic Control and Pedestrian Access (including sketches), Detour and Signing Plan to the Engineer for approval ten (10) working days prior to commencement of work. The plan shall illustrate the locations of traffic control and pedestrian access devices and the contents and locations of traffic control, pedestrian access, and detour signs. The traffic control plan shall include existing signs to remain, existing signs to be covered or removed, new temporary signs, Changeable Message Signs locations and messages, arrow boards, and other items as required. The traffic control and pedestrian access signage shall include complete directions and detour signs in advance of the construction zone and throughout the entire detour route. The plan should also consider the traffic control needed to accommodate higher volume streets to avoid interference with public or private operations or the normal flow of vehicular, bicycle, or pedestrian traffic.

If, during construction, in the opinion of the Engineer, the Traffic Control and Pedestrian Access, Detour, and Signing Plan is inadequate for normal flow conditions, the Contractor shall provide the necessary measures at no additional cost to the City to remedy the inadequacies. It shall be understood by the Contractor that field modifications are needed to fit field conditions which sometimes change during the project.

Additional submittals may be required as necessary and as the construction conditions change. The working drawing shall be stamped by an Engineer who is registered as a Civil Engineer in the State of California. One (1) set of working drawings shall be submitted to the Engineer. Except as otherwise provided in the Special Provisions, the Contractor shall allow five (5) working days after completed drawings are submitted for the review of such drawings. The Contractor shall not close sidewalks,

traffic lanes, or the roadway until the traffic control plan has been approved by the City of San Rafael.

18-1.06 AS-BUILT PLANS

Upon completion of the work, the Contractor shall furnish to the City a complete set of as-built plans showing all changes or deviations from the plans taking care to note the location of objects not installed at the location shown on the plans. Improvements will not be accepted by the City for permanent maintenance until the Contractor has submitted all as-built plans to the Engineer. The as-built plans shall conform to the following:

- A. The plans must be stamped or otherwise noted "AS-BUILT," be 22"x34" in size, and be neat, clear, and readable.
- B. On the signing and striping plan sheet, the dates of signing/striping removal, relocations, or installations must be shown on the as-built.
- C. As-built plans must contain the encroachment permit number, County, Route, and Post Mile on each sheet. Additionally, as-built plans must contain the contractor's name, permanent address, date prepared, and signature.
- D. Disclaimer statements of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code must not be included on the as-built plans. Such statements constitute non-compliance with the encroachment permit requirements.

18-1.07 WORK INCLUDED UNDER PAY ITEMS

Where an item is listed as a pay item in the Prices of Items, the lump sum or unit price quoted shall be considered as full compensation for furnishing all labor, materials, tools, equipment, incidentals and doing all the work necessary, including final cleanup, to construct the pay item complete in place as shown on the plans and specified in these specifications.

It is the intention herein that all items of work required by these plans and specifications are included in the Prices of Items. Items of work not so included will be deemed fully compensated for in the price quoted for each respective item set forth that is most closely associated with the work required and no additional compensation will be allowed therefore.

18-1.08 MEASUREMENT AND PAYMENT

Full compensation for all requirements of this section including but not limited to schedule preparation and updates, utility coordination, potholing all utilities, backfilling potholed areas, working around existing obstructions, dewatering, submittals and all other items considered in this section shall be considered as included in the prices paid for the various items of work involved and no additional payment will be allowed therefore.

18-2 MOBILIZATION

Mobilization shall conform to California Public Contracts Code 10264 and the provisions in Section 9-1.16D, "Mobilization," of the State Standard Specifications, and these Specifications. The Contractor lump price cannot exceed 5% of the total project cost.

The work to be performed under this item includes, but is not limited to, furnishing all labor, equipment, and materials necessary to bring a construction force to full operation on the job site. Work includes, but is not limited to, preparation of access routes to the job site, protection of existing facilities, movement of personnel, equipment, supplies, incidentals, and coordination with the City. This section also includes all necessary permits required by the Contractor.

MEASUREMENT AND PAYMENT

"Mobilization" shall be measured and paid for on a lump sum (LS) basis.

Compensation for Mobilization shall be limited to a maximum of five percent (5%) of the total bid. The lump sum price paid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for doing all work involving mobilization and Water Pollution Control as specified in these Technical Specifications, the State Standard Plans and Specifications and as directed by the Engineer, and no additional payment will be allowed therefore. The rate of payout of mobilization is set forth in the Public Contract Code.

18-3 SIGNS AND TRAFFIC CONTROL

Signs and Traffic Control shall consist of closing traffic lanes, sidewalks and paths in accordance with the provisions of Section 12, "Temporary Traffic Control," of the State Standard Specifications, the provisions under "Maintaining Traffic" of the Standard Plans, these Technical Specifications, and the latest edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD).

It is the Contractor's responsibility to provide safety with the least possible inconvenience to vehicular and pedestrian traffic during construction. **The Contractor shall provide a continuous path of travel for pedestrians at all times.**

Contractor shall be responsible for all warning and detour signs. An adequate number of flag persons shall be employed to direct traffic around construction zones and to respond to unexpected traffic problems. If in the opinion of the Engineer additional flag persons or traffic control devices are needed at the site, the Contractor shall provide the necessary measures at no additional cost to the City. It shall be understood by the Contractor that field modifications are needed to fit field conditions which sometimes change during the project.

Contractor shall assume for the purposes of bidding that four (4) changeable message signs may be deployed concurrently beginning at least one week prior to the commencement of construction activity until project completion. Up to two (2) Additional changeable message signs may be required by the City and shall be included in the contract at the Contractor's expense.

If during the construction operation, the closure of one lane of traffic is approved by the Engineer, then the contractor shall utilize the necessary construction zone signage, including changeable message signs, during the lane closure operation.

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

The Contractor shall be solely responsible for pedestrian and vehicular movement through the project area and shall assume full liability for any and all claims arising out of the construction of the project, including but not limited to claims for personal injury, damage to existing structures, loss of business, etc. The Contractor shall agree to hold the City and all its employees, representatives, and consultants harmless from any and all such claims. No additional compensation shall be paid for any work that has to be performed outside normal working hours as a result of these Technical Specifications.

All Traffic Plans shall have a professional wet stamp by a registered Civil Engineer in the State of California.

PUBLIC ACCESSIBILITY

The Contractor shall provide access to the public through the project site at all times. The Contractor shall provide access to adjacent properties at all times. The Contractor shall maintain access to properties and pedestrian access even after hours for the life of the construction. Temporary access ramps shall be installed to maintain access and shall be shown on the Contractor's staging plan.

The Contractor shall be responsible for designing working drawings and constructing and providing a safe and adequate, continuous, and accessible path of travel around or through

localized construction work zones and to each building, business, and property utilized by the public. The Contractor shall use temporary asphalt, aggregate base, wood/metal ramps, signs, cones, barricades, flashers, and flaggers to direct and channel the public during and after construction. All proposed closures of a pedestrian access path shall be submitted in writing to the Engineer for review and approval. Advance warning shall be provided to the public should an access path be closed. All safe paths of travel shall be in compliance with applicable Americans with Disabilities Act Accessibility Guidelines (ADAAG), Americans with Disabilities Act (ADA) regulations, and the California Manual on Uniform Traffic Control Devices (CAMUTCD).

Maintenance of a Clear and Accessible Public Corridor

The Contractor shall maintain a four-foot accessible corridor that provides at least one safe path of travel for the public at all times for the duration of the project. Conversely, if a safe path of travel is not available, the Contractor shall post the sidewalk as being closed, however, access must still be maintained to each business. Signage shall be placed at the location of closure as well as the next intersection in both directions advising of the closure but noting that access is still available to all businesses. All proposed closures of a pedestrian access path shall be submitted in writing to the Engineer for review and approval.

Installation of Barricades

Barricades, which will provide protection for the public from traffic or construction operations, shall be installed in the following locations:

- Between the access route and any adjacent construction site.
- Between the alternate circulation path and any adjacent construction site.
- Between the alternate circulation path and the vehicular way, if the alternate circulation path is diverted into the street.
- Between the alternate circulation path and any protruding objects, drop-offs, or other hazards to the public.
- At the down curb ramp of an intersection, if opposite up curb ramp is temporarily or completely blocked, and no adjacent alternative circulation path is provided.

Surfacing of Public Corridors

During construction, tripping hazards and barriers must be removed to maintain an accessible safe path of travel. The surface of the path of travel shall be skid resistant and free of irregularities.

Opened crosswalks, ramps, and walkways in general shall be kept free of debris and obstructions.

Identification of Safe Path of Travel

If alternate circulation routes are provided for the public to bypass the construction site, the route shall be clearly defined, and advance warning shall be provided to clearly delineate the alternate circulation route. Any change of level in a path of travel that is over $\frac{1}{4}$ inch ($\frac{1}{2}$ " maximum) height must be beveled at 45 degrees to provide a smooth, non-tripping transition. The Engineer shall review and approve any public access limitations and notification requirements for pedestrians with mobility or vision impairments.

When using A-frames for defining a path of travel, A-frames shall be placed end to end (no spacing between barricades) to provide a continuous guide for individuals using canes. A-frames shall be connected with 2x4's that are continuous and are attached at the base of the barricade system between two to four-inches from the ground.

Caution tapes shall not be used as barricades or to define a path of travel but may be used to highlight danger or in conjunction with barricades. Excavated areas shall be secured by means of barricades or temporary fences.

The Contractor shall review and adhere to the City of San Rafael Construction Barricade Policy dated June 6, 2023. See **Appendix B** for more information.

The bottom three-inches of any fencing material used shall be made solid to act as a guide for canes used by the visually impaired. Wood, sheet metal, railings, or other approved material may be used at the bottom portion of the fence.

Curb ramps leading to closed crosswalks shall be appropriately barricaded. Temporary ramps shall be provided at temporary crosswalks and shall be able to direct blind pedestrians to and through the temporary path of travel. R9-3a and R9-3b signs shall be mounted on the barricade to advise pedestrians of closed sidewalk and directed routes.

No trucks or equipment shall be parked or obstructing the public path of travel at any time.

Warning Signs

The Contractor shall provide warning signs for temporary ramps and barricades. Warning signs shall be located at both the near side and the far side of the intersection preceding a temporarily completely blocked public way.

Restoration of Public Routes

After construction is complete, the site shall be restored to its former condition, or new condition as required.

NO PARKING SIGNS

The Contractor shall be provided with temporary, City-furnished, "NO PARKING" signs, which the Contractor must post in the construction zone seventy-two (72) hours prior to commencing operations. The posting must be witnessed by the San Rafael Police Department twenty-four (24) hours prior to towing. It shall be the Contractor's responsibility to ensure the signs and barricades are maintained overnight and on weekends. The signs shall be preserved and re-used throughout the duration of the project. Dates and times of parking restrictions shall be clearly indicated on the signs.

Availability

Upon approval of materials and before commencement of work, the City shall furnish the Contractor with twenty-five (25) "No Parking-Tow Away" signs. The Contractor shall make necessary copies for posting on streets. The Contractor shall take steps to protect and preserve these signs so that they will remain usable throughout the full term of the job. Additional signs shall be provided as needed.

Only City-issued signs, or approved equals, may be used.

Placement

While the minimum distance between signs shall be 200 feet, the signs shall be placed so that they are:

- Easily visible/readable to any individual standing within 100 feet of a sign;
- Visible/readable from any vehicle parked within 100 feet of a sign; or
- As directed by the Engineer or San Rafael Police Department.

Signs, once posted, shall be maintained until no longer required and then salvaged. It shall be the responsibility of the Contractor to make sure that the signs remain posted until no longer required and are protected from vandalism or removal. If time between construction phases exceeds two days, including non-working days, all no parking signs shall be removed.

Authority and Enforcement

Once posted, the Contractor shall notify the Engineer who in turn will notify the San Rafael Police Department as to the location and limits of such signs.

The Police Department will then, at their earliest convenience, dispatch an officer who will verify and log the location and limits. No less than twenty-four (24) hours after said entry is made, autos may be towed from the location, under the immediate direction of a Police Officer, provided that the signs have been properly maintained.

Costs - Payment - For Signs

All costs (except purchase or charges related to lost signs), labor, equipment charges, etc., incurred in accordance with this section shall be considered to be included in the lump sum price paid for Traffic Control.

CONSTRUCTION AREA SIGNS

Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Temporary Traffic Control," of the State Standard Specifications, the latest edition of the California Manual on Uniform Traffic Control Devices, and these Technical Specifications.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least two working days, but not more than fourteen calendar days, prior to commencing any excavation for construction area sign posts. The regional notification centers include but are not limited to the following:

**Notification Center
Underground Service Alert - Northern California (USA)
1(800)227-2600**

All excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes.

Sign substrates for stationary mounted construction area signs may be fabricated from fiberglass reinforced plastic as specified under "Alternative Sign Substrates" in the Caltrans document titled "Authorization Requirements for New Signing and Delineation Materials" provided in **Appendix C**.

Type-IV reflective sheeting for sign panels for portable construction area signs shall conform to the requirements specified under "Retroreflective Sheeting – Signs" in the Caltrans document titled "Authorization Requirements for New Signing and Delineation Materials" provided in **Appendix C**.

PUBLIC CONVENIENCE AND SAFETY

Adequate lighting shall be provided throughout the construction period in areas open to the public.

The Contractor shall be fully responsible for accidents to the public and or damage to public and private property on the site of the work.

The Contractor shall give special attention to provide continuous and uninterrupted traffic flow to and from the businesses on and adjacent to the work. The Contractor shall schedule and pursue operations in such a manner that undesirable construction conditions will be minimized.

The Contractor shall provide watchpersons and flagpersons as well as provide and maintain fences, barriers, guardrails, and other safety devices adjacent to and on the site at or near all barriers as may be necessary to control traffic and prevent accidents to the public. The Contractor shall furnish, place, and maintain such devices as set forth in the current "Manual of Traffic Control for Construction and Maintenance Work Zones," issued by the California Department of Transportation. Flagpersons, while on duty, shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Flagging Instruction Handbook" issued by the California Department of Transportation.

The Contractor shall maintain private entrances and sidewalk areas and shall construct such detours as may be necessary to properly conduct the work and to provide entrances to private properties at all times. All temporary walking areas shall meet the Americans with Disabilities (ADA) requirements for clearances and obstructions. Any temporary paving, covers, etc. shall be constructed and installed in such a manner so as to meet the ADA requirements. In the event the Contractor fails to meet the ADA requirements, the City of San Rafael may make modifications to the walking areas at the Contractor's expense.

All trenches shall be backfilled at the end of the day or temporary covers shall be maintained during non-working hours to avoid any safety issues for vehicles or pedestrians travelling in the project areas.

The Contractor shall make all arrangements with the property owners for the use of private land for detours and for any other purpose and shall save the City of San Rafael free from any liability incurred through the use or non-use of such private property.

Upon favorable completion of the work, the Contractor shall remove all signs and traffic control devices from within the project limits to the satisfaction of the Engineer. At the end of the job, all signs, lights, barriers, etc. shall be removed from the construction sites. All sites shall be left clean and orderly.

CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the formal acceptance of the work by the City of San Rafael, the Contractor shall have charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or for any other cause, whether arising from the execution or from non-execution of the work.

Existing streets, including haul routes, either public or private, within the work area shall be maintained in safe and orderly conditions at all times. When ordered to do so by the Engineer, any deficiencies shall be immediately corrected to the satisfaction of the Engineer. If the Contractor fails to correct such deficiencies in a timely fashion, the City of San Rafael may have the necessary work performed at the Contractor's expense and/or stop any further work on the project until a safe and orderly condition has been restored. Before completion and acceptance of the work, the Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work required under the contract and shall bear the cost thereof. Inability to obtain labor, materials and/or equipment will not be considered an exception.

MEASUREMENT AND PAYMENT

"Signs and Traffic Control" shall be measured and paid for on a lump sum (LS) basis. The lump sum price paid for Signs and Traffic Control shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, including but not limited to, temporary striping and pavement markings, private property coordination as necessary, preparing and maintaining an adequate traffic control plan stamped by a registered Civil Engineer, placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of the components of the

temporary traffic control measures for pedestrians and vehicular traffic, as specified in the State Standard Specifications, these Technical Specifications, and as directed by the Engineer.

Full compensation for flagging cost shall be considered as included in Signs and Traffic Control and no additional compensation will be allowed therefore. The shared cost for providing flagging as specified in Section 12-1.03, "Construction," of the State Standard Specifications, shall not apply to the item of Signs and Traffic Control.

The adjustment provisions in Section 4-1.05 "Changes and Extra Work," of the State Standard Specifications, shall not apply to the item of Signs and Traffic Control. Adjustments in the compensation for Signs and Traffic Control will be made only for increased or decreased traffic control system required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary.

Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account", of the State Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

18-5 DEMOLITION AND REMOVAL

CLEARING AND GRUBBING

The work shall consist of removing all objectionable materials from within the project limits, as specified in Section 15, "Existing Facilities" and Section 17-2, "Clearing and Grubbing" of the State Standard Specifications.

The Contractor shall remove and dispose of trash from the site work area. Objectionable materials removed shall be disposed of outside the street Right-of-Way in accordance with the applicable sections of the State Standard Specifications and applicable laws.

The Contractor shall exercise caution when working around existing facilities. Any damage to existing street trees, to private properties, to public utilities, and/or other public facilities not identified on the plans for removal shall be repaired or replaced in kind at the Contractor's expense. The repair or replacement shall be to the satisfaction of the Engineer and no additional compensation will be allowed therefore.

Existing irrigation facilities within the limits of work shall remain in place unless noted otherwise on the plans. Irrigation facilities that are damaged by the Contractor's operation shall be reported immediately to the Engineer. The Contractor shall locate and mark all irrigation facilities. The Contractor shall be responsible for relocation and or repair of all irrigation lines and utilities that are in conflict with the proposed improvements in a way that ensures all previously irrigated area not encompassed by the proposed improvements will continue to receive irrigation. All irrigation repair and relocation shall be to the satisfaction of the Engineer and any affected property owners.

There shall be no removal of existing structures beyond the Right-of-Way property boundary to include irrigation systems. Structures that include planter boxes and have irrigation systems that encroach into the City Right-of-Way shall be cut and capped at the property boundary. The Contractor shall coordinate with property owners to ensure that irrigation systems are temporarily shut-off before excavation/removal of irrigation systems. All irrigation systems within private property boundaries shall remain functional or made functional post-construction.

Nothing herein shall be construed as relieving the Contractor of the Contractor's responsibility for final cleanup of the project site. Removal and disposal of existing roadside signs and posts shall be included in Clearing and Grubbing.

Nothing herein shall be construed as relieving the Contractor of the Contractor's responsibility for final cleanup of the roadway as provided in Section 4-1.13, "Cleanup," of the State Standard Specifications.

DEMOLITION AND REMOVAL

Demolition and Removal shall conform to the applicable provisions of State Standard Specifications and these Specifications.

Demolition and Removal shall include, but not be limited to, the removal from the area of work miscellaneous pavement markings and striping, vegetation, and all other items conflicting with the work as shown on the plans, as necessary to accommodate construction operations, or as directed by the Engineer.

The Contractor shall protect from damage all existing improvements, drainage facilities, utility facilities, traffic signal facilities, landscaped areas, trees, and shrubbery that are not required to be removed during construction. Any existing improvements, drainage facilities, utility facilities, traffic signal facilities, landscaped areas, etc., damaged as a result of the Contractor's

construction activities shall be replaced by the Contractor at no cost to the City.

All demolition materials shall be removed from the site by the Contractor and disposed of offsite by the Contractor. All hazardous wastes shall be disposed of according to applicable regulations. If hazardous materials are encountered, the Contractor shall inform the Engineer immediately.

The Contractor shall regularly clean up the work site to maintain safety for access and to avoid fire hazards. All scrap material shall be regularly hauled away. The Contractor shall keep the construction site neat at all times.

TREE TRIMMING/VEGETATION REMOVAL

The Contractor shall coordinate with the City Engineer for overhanging limbs and tree roots which may conflict with construction activities. The Contractor shall verify and obtain approval from the City Arborist prior to any trimming and/or disturbance of existing tree roots and branches.

All shrubs, plants, trees, tree stumps, and other landscaping which is necessary to accomplish the crack sealing, fiberized microsurfacing, slurry sealing, and striping shown on the plans and described in the specifications shall be included in this item of work. The Contractor shall make a site visit prior to bidding to understand existing conditions at the time of bid. All landscaping to be removed shall be removed and disposed of outside of the Right-of-Way in accordance with relevant State Standard Specifications.

MEASUREMENT AND PAYMENT

Full compensation for completing the requirements of this section shall be considered as included in the prices paid for the various items of work involved and no additional payment will be allowed therefore.

18-6 CRACK SEALING

This work shall consist of placing asphalt rubber crack sealant in pavement cracks as specified by the Contract or as directed by the Engineer.

Cracks designated to be repaired shall be cleaned to a minimum depth of 3/4" by routing, blast cleaning, and/or other hand methods, followed by high pressure air jets of at least 90psi, to remove all vegetation, residues, moisture and foreign matter. Air jets used for cleaning shall not have oil residues. Exposed surfaces shall be dry at the time the sealant is applied.

Summary of Crack Fill Requirements				
Type of Crack	Routing Required	Tack ⁽¹⁾ Coat	Sand Filler ⁽²⁾ To 1" of Grade	Type of Filler
1/8" or less	No Repair	No Repair	No Repair	No Repair
Greater than 1/8" but less than 3/8"	Yes, 1"	No	No	Sealant
Greater than 3/8" but less than 1"	No	No	No	Sealant
1" or greater in width and-- less than 3" in depth over 3" in depth	No	Yes	No	Sealant
	No	Yes	Yes	3/8" AC ⁽³⁾

- Notes: (1) Tack Coat in accordance with these Technical Specifications.
 (2) Sand shall be ±1% saturated dry at the time it is places and compacted.
 (3) Asphalt concrete shall be well compacted by hang tamping and shall be flush with adjacent pavement.

The sealant shall conform to Caltrans 2022 Standard Specifications Section 37-6.02B for Crack Sealant Materials and shall be a Type 2.

The Contractor shall submit certificates from suppliers stating compliance of materials with the requirements of this section. Crack sealing shall be performed after pavement repairs are completed and prior to chip or slurry sealing or micro-surfacing.

Heat and apply hot-applied crack treatment material under with the manufacturer's instructions. Sealant material may be added to the mix as long as the minimum temperature of 325°F is maintained.

Apply crack treatment with a nozzle inserted into the crack. Fill the crack flush. If after 2 days the crack treatment is more than 1/4 inch below the specified level, the sealant fails, or the crack re-opens, re-treat the crack. Immediately remove crack treatment material that is spilled or deposited on the pavement surface. All cracks shall be leveled and excess crack sealant removed immediately after placing. Before opening to traffic, crack sealant shall be dry. If sealant is not dry, sand may be applied or the manufacturer's recommended detackifying agent. Sealed cracks in the finished condition shall not protrude above the adjacent surface.

The finished crack sealant shall bond to the faces of the crack. There shall be no separation or opening between the sealant and the faces, and there shall be no crack, separation, or other opening in the sealant. If after 2 days the crack treatment is more than 1/4 inch below the specified level, the sealant fails, or the crack re-opens, re-treat the crack.

Cracks greater than 1 inch in width shall be repaired with fine hot-mix asphalt Type B, No. 4 filler conforming to State Standard Specifications. **The Contractor shall submit a mix design for this material for approval prior to use.**

MEASUREMENT AND PAYMENT

The lump sum (LS) Contract Price paid for “Crack Seal” shall be considered as full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in crack sealing, including, but not limited to, routing, blowing, crack filling, sanding and clean-up, and all other work, as shown on the Plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer and no additional compensation shall be allowed therefor.

18-7 ACCELERATED CURING SLURRY SEAL

GENERAL

Work includes:

- Site Preparation
- Placement of accelerated curing slurry seal

QUALITY ASSURANCE

Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the method needed for proper performance of the work of this Section.

SUBMITTALS

Within 14 calendar days after the Notice to Proceed, the Contractor shall submit:

- Materials list of items proposed to be provided under this Section.
- Manufacturer's recommended installation procedures which, when approved by the Engineer, will become the basis for accepting or rejecting actual installation procedures used on the work.

At least ten (10) working days before accelerated curing slurry seal placement commences, the Contractor shall submit to the Engineer:

- 1.1. A laboratory report of tests and proposed mix design covering the specific materials to be used on the project. Mix design shall be provided by a laboratory accredited by AASHTO for asphalt emulsions and pavement preservation. The laboratory must sign the laboratory report and mix design. The percentage of asphaltic emulsion proposed in the mix design shall be within the percentage range specified in these Technical Specifications.
- 1.2. Polymer modified asphaltic emulsion data as follows:
 - 1.2.1. Supplier and Type/Grade of asphaltic emulsion
 - 1.2.2. Type of modifier polymer for polymer modified asphaltic emulsion
 - 1.2.3. Copy of the specified test results for asphaltic emulsion, polymer modified asphaltic emulsion, or micro-surfacing emulsion
- 1.3. Aggregate test results for the followings:
 - 1.3.1. Gradation
 - 1.3.2. Los Angeles Rattler
 - 1.3.3. Percent of crushed particles
 - 1.3.4. Sand equivalent
 - 1.3.5. Durability

ACCELERATED CURING SLURRY SEAL EMULSION

Asphalt emulsion shall be homogenous and shall be a quick setting polymer-modified cationic asphalt emulsion conforming to the requirements of Section 94-1.02J "Asphalt Emulsions" and these Technical Specifications. The polymer material shall be milled or blended into the asphalt or blended into the emulsifier solution prior to the emulsification process. The asphalt emulsion manufacturer shall certify that the emulsion contains a minimum of 3.5% polymer solids based on the mass of asphalt (asphalt residual) within the emulsion. The emulsion, upon standing undisturbed for a period of twenty-four (24) hours, shall show no white or milky colored substance on its surface, and shall be a homogeneous brown color throughout.

The polymer modified quick-setting quick-traffic asphalt emulsion shall conform to the following requirements when tested in accordance with the specified test method.

Tests on Emulsion and Residue

Tests on Emulsion		
Test	Test Method	Requirement
Viscosity SSF @ 25° C	AASHTO T 59	15 - 90 sec
Sieve	AASHTO T 59	0.30 % max
Storage Stability, 1 day	AASHTO T 59	1 % max
Residue by distillation	California Test 331	62 % min
Tests on Residue		
Test	Test Method	Requirement
Penetration @ 25°C 100 gm, 5 sec.	AASHTO T 51	40-90 mm
Softening Point	AASHTO T 53	135°F min

Water and Additives

Water shall be of such quality that the asphalt will not separate from the emulsion before the slurry seal is in place on the pavement. If necessary for workability, a set-control agent that will not adversely affect the slurry seal may be used.

Mineral Filler

Mineral filler shall be any recognized brand of non-air entrained Portland cement or hydrated lime that is free of lumps. The type and amount of mineral filler needed shall be determined by the laboratory mix design. An increase or decrease of less than one percent may be permitted when the slurry seal is being placed if it is found to be necessary for better consistency or set times.

Aggregate

The mineral aggregate used shall be of the type and grade specified for the particular use of the slurry seal. It shall consist of 100% crushed material with no rounded particles. The material shall be free from vegetable matter and other deleterious substances. All aggregate shall be free of caked lumps and oversize particles. **Aggregate should be volcanic in origin and black in color.**

The aggregate, prior to the addition of emulsion shall conform to the requirements of this section. If aggregates are blended, each component aggregate shall meet the sand equivalency and abrasion resistance and shall be 100% crushed as tested in accordance with California Test 205. The definition of a crushed particle in California Test 205 Section D, is amended to read: "Any particle having 2 or more fresh mechanically fractured faces shall be considered a crushed particle."

The percentage composition by mass of the aggregate shall meet the following grading requirements when tested in conformance with California Test 202:

TYPE II GRADING	
Sieve Size	Percentage Passing
3/8" (9.5-mm)	100
No. 4 (4.75-mm)	94 - 100
No. 8 (2.36-mm)	65 - 90
No. 16 (1.18-mm)	40 - 70
No. 30 (600-m)	25 - 50
No. 200 (75-m)	5 - 15

Test	California Test	Requirement
Sand Equivalent (Min.)	217	65
Durability Index (Min.)	229	60
Percentage of Crushed Particles (Min.) 1	205	100%
Los Angeles Rattler Loss at 500 Rev. (Max.) 2	211	35%

Accelerated Curing Slurry Seal Mix Design

The mix design, using project source aggregate, an asphaltic emulsion, and set-control agents if any, must comply with the requirements shown in the following table:

Test	ISSA Test	Requirement
Wet Cohesion	TB* 139 @ 30 min. (set)	12 kg-cm minimum
	@ 60 min. (traffic)	20 kg-cm minimum (or near spin)
Excess Asphalt	TB 109	540 g/m ² maximum
Wet Stripping	TB 114	Pass (90% minimum)
Wet Track Abrasion	TB 100 Six day soak	810 g/m ² loss
Torsional Recovery	California Test 332	20
<u>Displacement</u>		
Lateral	TB 147A	Report
Specific Gravity after 1000 cycles of 57 kg	TB 147A	Report
Classification Compatibility	TB 144**	(AAA,BAA) 11 grade points minimum
Mix Time @ 25°C	TB 113	Controllable to 120 seconds minimum
* TB = Technical Bulletin		

The original laboratory report shall be signed by the laboratory that performed the tests and mix design and shall show the results of the test on individual materials, comparing their values to those required by the specifications. The report shall clearly show the proportions of aggregate, filler, water (minimum and maximum), set control additive, and asphalt solids content (minimum and maximum) based on the dry mass of aggregate. The laboratory shall also report the quantitative effects of moisture content on the unit mass of the aggregate (bulking effect).

All the component materials used in the mix design shall be representative of the materials proposed by the contractor to be used on the project.

Proportioning

Aggregate, mineral filler, asphalt emulsion, water, and additives, including set-control agent if used, shall be proportioned in compliance with the mix design approved by the Engineer.

The percentages of each individual material required shall be shown in the laboratory report.

Adjustments may be required during the construction, based on field conditions. The component materials shall be within the following limits:

Residual Asphalt	7.5% to 13.5% by dry mass of aggregate
Mineral Filler	0% to 3% by dry mass of aggregate
Additive	As needed
Water	As required to produce proper mix consistency

The completed mixture, after addition of water and any set-control agent, shall be such that the accelerated curing slurry seal mixture has proper workability and (a) will permit a traffic flow without pilot-car-assisted traffic control on the slurry seal within one hour after placement, and (b) will prevent development of bleeding, raveling, separation, or other distress within 15 days after placing the slurry seal. However, when ambient temperatures are below 55°F traffic may not be permitted on the slurry seal until it has sufficiently cured. The time for sufficient curing shall be mutually agreed upon between the contractor and the Engineer.

The aggregate shall be proportioned using a belt feeder operated with an adjustable cutoff gate. The height of the gate opening shall be readily determinable. The emulsion shall be proportioned by a positive displacement pump. Any variable rate emulsion pump, if used, shall be calibrated and sealed in its calibrated condition in accordance with California Test 109 prior to usage.

The delivery rate of aggregate and emulsion per revolution of the aggregate feeder shall be calibrated at the appropriate gate settings for each mixer-spreader truck used on the project in accordance with California Test 109 and the requirements of these Technical Specifications.

The aggregate belt feeder shall deliver aggregate to the pugmill with such volumetric consistency that the deviation for any individual aggregate delivery rate check-run shall not exceed 2.0 percent of the mathematical average of three runs of at least 3 tons in duration each. The emulsion pump shall deliver emulsion to the pugmill with such volumetric consistency that the deviation for any individual delivery rate check-run shall be within 2.0 percent of the mathematical average of three runs of at least 1135 liters each in duration. The water pump shall deliver water to the pugmill with such volumetric consistency that the deviation for any individual delivery rate check-run shall be within 2.0 percent of the mathematical average of three runs of at least 1135 liters each in duration.

The emulsion storage located immediately before the emulsion pump shall be equipped with a device which will automatically shut down the power to the emulsion pump and aggregate belt feeder when the emulsion level is lowered sufficiently to expose the pump suction line.

The belt delivering the aggregate to the pugmill shall be equipped with a device to monitor the depth of aggregate being delivered to the pugmill. Said device for monitoring depth of aggregate shall automatically shut down the power to the aggregate belt feeder whenever the depth of aggregate is less than the target depth of flow. A second device shall be located where it will monitor movement of the aggregate belt by detecting revolutions of the belt feeder. The device for monitoring no flow or belt movement, as the case may be, shall automatically shut down the power to the aggregate belt when aggregate belt movement is interrupted. This second device will not be required where the aggregate delivery belt is an integral part of its drive chain. To avoid erroneous shutdown by normal fluctuation, a delay of 3 seconds between sensing and shutdown of the operation will be permitted.

All equipment used for mixing must be CT MPQP Certified using CT 109 in the past 6 months. Calibration sheets, showing vehicle identification numbers, for each piece of equipment shall be provided to the Engineer

Equipment

The self-propelled mixing machine shall be equipped with a continuous flow pug mill capable of accurately delivering and automatically proportioning the aggregate, emulsified asphalt, water and additives to a double shafted, multi-blade pug mill mixer capable of minimum speeds of 200 revolutions per minute.

A minimum of three operational mixing machines of 12 Ton capacity, or larger, shall be maintained on the project. The mixed material retention time in the pug mill shall be less than three seconds. No retention of mixed material shall be allowed within the pug mill by gate shut-off or other mechanical means. Any machines with pugmill retention or shut-off gates shall have them removed prior to being used on this project. The mixing machine shall have sufficient storage capacity of aggregate, emulsified asphalt, and water to maintain an adequate supply to the proportioning controls. All indicators required in the section entitled "Proportioning" shall be in working order prior to commencing mixing and spreading operations.

Mixer-spreader trucks shall be equipped to proportion emulsion, water, aggregate, and set-control additives by volume. All rotating and reciprocating equipment on mixer-spreader trucks shall be covered with metal guards.

The mixer-spreader truck shall not be operated unless all low-flow and no-flow devices and revolution counters are in good working condition and functioning and all metal guards are in place. All indicators required by these Technical Specifications shall be visible while walking alongside the mixer-spreader truck.

Aggregate feeders shall be connected directly to the drive on the emulsion pump. The drive shaft of the aggregate feeder shall be equipped with a revolution counter reading to the nearest one-tenth of a revolution.

In addition to the requirements of the fourth paragraph of Section 5-1.33, "Equipment" of the Standard Specifications, the identifying number of mixer-spreader trucks shall be at least 2 inches in height, located on the front and rear of the vehicle.

Spreader Box

The spreader box shall be capable of spreading a traffic lane width and shall have strips of flexible rubber belting or similar material on each side of the spreader box and in contact with the pavement to positively prevent loss of accelerated curing slurry seal from the ends of the box. All spreader boxes over 8 feet in application width shall have baffles, reversible motor driven augers, or other suitable means, to insure uniform application on super elevated sections and shoulder slopes. Spreader box skids shall be maintained in such manner as to prevent chatter (wash boarding) in the finished mat. Rear flexible strike-off blades shall make close contact with the pavement. The applicator box shall be designed and operated such that a uniform texture is achieved in the finished surface of the slurry seal.

Flexible fabric drags attached to the rear of the box will be allowed but shall be cleaned or changed throughout the day if problems with cleanliness and/or longitudinal scouring occur.

The completed mixture, after addition of water and set control agent, if used, shall be such that the slurry seal mixture has proper workability. At the expiration of the road closure hours, in conformance

with the provisions in "Maintaining Traffic" of the Standard Plans, the slurry seal mixture shall be sufficiently cured to support unrestricted traffic.

EXECUTION

General Requirement

The application of accelerated curing slurry seal shall conform to Caltrans Standard Specifications with the exceptions noted in these Specifications.

The complete mixture shall be such that the slurry seal mixture has proper workability and will permit traffic flow by the expiration of the road closure hours without the occurrence of bleeding, raveling, polishing, separation, or other distress within 30 days after its placement.

The quantity of asphaltic emulsion to be used in the slurry seal mixture will be determined by the design asphalt binder content, as approved by the Engineer, and the asphalt solid content of the asphaltic emulsion furnished.

See Section 18-1 GENERAL of these Technical Specifications for restrictions on times and days of operations.

Surface Preparation

The Contractor shall remove all existing striping and pavement markers prior to the application of the slurry seal.

The complete street surface shall be power swept from face of curb to face of curb prior to the application of accelerated curing slurry seal. The Contractor shall provide cleaning method necessary to remove all dirt, vegetation, and loose materials from the pavement.

All material gathered shall be properly disposed of by the Contractor.

Immediately preceding the accelerated curing slurry seal application, the Contractor shall cover all grates, slotted manholes, and other appurtenances on the pavement that would allow the entry of slurry; cover all manhole covers, water and gas valve box covers, monuments boxes, etc., with a heavy plastic bag. The Contractor prior to the final set of the slurry shall uncover all covered grates and manhole. All uncovered items shall be clean and meet the requirement of the Project Inspector.

Sand Blotter

A sand/aggregate blotter shall be spread at selected driveways, intersections, and where required by the Engineer to accommodate pedestrian or vehicular traffic until the slurry seal is set.

Application Of Accelerated Curing Slurry Seal

Slurry Seal shall be applied at a **minimum of 10 lbs/SY** by weight of dry aggregate. The accelerated curing slurry seal mixture shall be uniformly spread on the existing surfacing within the rate specified without spotting, rehandling or otherwise shifting of the mixture.

Handwork shall be kept to a minimum and done in a manner to prevent segregation of the mix. The completed surface shall be a uniform texture consistent with the material placed by the spreader and free from ruts, humps, depressions, or irregularities.

Adequate means shall be provided to protect the slurry seal from damage by traffic until such time that the mixture has cured sufficiently so that the slurry seal will not adhere to or be picked up by the tires of vehicles.

The surface may be fogged with water directly preceding the spreader. The mixture shall be of the desired consistency when deposited on the surface. Total time of mixing shall not exceed four (4) minutes. A sufficient amount of accelerated curing slurry seal shall be carried in all parts of the spreader at all times so that complete coverage is obtained. No lumping, balling, or unmixed aggregate shall be permitted. No segregation of the emulsion and aggregate fines from the coarse aggregate will be permitted. If coarse aggregate settles to the bottom of the mix, the slurry will be removed from the pavement. No excessive breaking of the emulsion will be allowed in the spread box. No streaks such as those caused by oversize aggregate will be left in the finished pavement.

Transverse and longitudinal joints shall be:

- Uniform
- Straight
- Neat in appearance
- Without excess buildup
- Without gaps or uncovered areas
- Transverse joints must be butt-type and shall not overlap with previous joints.
- Longitudinal joints shall be placed on centerlines, lane lines, edge lines or shoulder lines unless approved by the Engineer and shall not overlap more than four (4) inches.

Prior to opening to traffic and prior to complete set of material, accelerated slurry seal shall be rolled with a pneumatic tire roller to seat it.

All gutter spills must be cleaned immediately.

Immediately before commencing the accelerated curing slurry seal operations, all surface metal utility covers (including survey monuments) shall be protected by thoroughly covering the surface with an appropriate adhesive and paper or plastic. No adhesive material shall be permitted to cover, seal, or fill the joint between the frame and cover of the structure. Covers are to be uncovered and cleaned by the end of the same workday.

Test Strip

The Contractor shall construct a test strip for evaluation by the Engineer. The test strip shall be 300 feet (100 m) to 500 feet (150 m) long and shall consist of the application courses specified. The test strip shall be constructed at the same time of day or night that the full production of accelerated curing slurry seal will be placed and may be constructed in 2 days or nights when multiple course applications are specified.

The Engineer will evaluate the completed test strip after 1 hour to determine if it is ready for straight rolling traffic. If the mix is not ready the engineer may evaluate after an additional hour. If the test strip is determined to be acceptable, work may commence immediately. If the mix design or the placement procedure is determined by the Engineer to be unacceptable, the test strip will be rejected, the Contractor shall make modifications, and a new test strip shall be constructed on the next available working day and evaluated by the Engineer using the same criteria.

The cost of materials and placement of the test strips, which have been rejected, shall be borne by the Contractor and will not be considered as part of the contract work. If ordered by the Engineer, rejected test strips shall be removed at the Contractor's expense.

Weather Limitations

The accelerated curing slurry seal mixture shall not be placed when the ambient temperature is below 50°F or during unsuitable weather. Accelerated curing slurry seal shall not be placed if rain is imminent or if there is the possibility that there will be freezing temperatures within 24 hours. Ambient

temperatures should be forecasted to reach above 65°F with suitable weather conditions before applying accelerated cure slurry seal.

Striping

Permanent striping shall be installed after seven (7) days but no later than ten (10) days after the accelerated curing slurry seal is complete.

POST SWEEPING

Self-propelled power brooms shall be used that are capable of removing loose aggregates generated by the slurry seal. Nylon gutter brooms shall be the only brooms used. On the day of the actual seal coat operations, no sweeping shall take place. Three (3) sweepings shall be performed after placement of the slurry seal to remove all loose aggregates. The Contractor must remove all loose aggregates as required by the Engineer. During the sweeping, the sweeper shall use only the rear broom, the front brooms shall not be used during this sweeping operation.

The initial sweeping shall be performed no sooner than three (3) and no more than five (5) calendar days after the slurry has been applied to the street. The two (2) remaining sweepings shall be performed no sooner than two (2) weeks and no later than five (5) weeks after the slurry has been applied to the street. The final sweeping on cul-de-sacs shall be performed no sooner than four (4) weeks and no later than six (6) weeks after the slurry has been applied to the street.

The self-propelled power broom may not be able to pick up loose aggregates in some locations, thus the Contractor shall remove the loose aggregates in these locations using a vacuum sweeper or other acceptable means, as approved by the Engineer. At the time of each sweeping, all loose materials shall likewise be removed from the sidewalks, driveways, landscaped areas, and properties adjacent to the work area either manually or by any other means acceptable to the Engineer. The Contractor shall use water on these sweepings to achieve dust removal and the aggregates shall be salvaged and removed from the job site.

Up to three (3) additional sweepings shall be performed as directed by the Engineer to remove all loose aggregates from sidewalks, driveways, adjacent private property areas, and the street gutter, and the excess aggregates shall be salvaged and stockpiled at a designated location or removed from the job site.

MEASUREMENT AND PAYMENT

“Accelerated Curing Slurry Seal, Type II” shall be based upon the estimated quantity in square yards (SY) indicated in the Bid Schedule. Slurry Seal, installed outside of the design measurements as marked in the field will be at the Contractor’s expense. Should the City remove a street from the resurfacing project, an agreed upon estimated quantity of slurry seal shall be deducted from the bid item.

Accelerated Curing Slurry Seal, Type II bid item shall include full compensation for furnishing all labor, materials, tools, equipment, incidentals, and for doing all the work involved in installation of slurry seal complete in place, including cleaning the pavement, protecting all street hardware and appurtenances, protecting raised pavement markers, vegetation removal, sweeping, oil spots removal, materials, and protecting the Slurry Seal, Type II until it has set, all as specified in the State Standard Specifications, these Technical Specifications, and as directed by the Engineer, and no additional compensation will be allowed therefore. The quantity of asphaltic emulsion used as paint binder (tack coat) is to be included in the cost of the accelerated curing slurry seal. This includes the use of a pneumatic tire roller on all streets receiving a Slurry Seal, Type II coat.

18-8 MICRO SURFACING (INCLUDING FIBERIZED)

GENERAL

The first layer of micro surfacing, or leveling course, shall be a Type III with fiber. The second, or finish course, of micro surfacing will be a Type II and will not include fiber. The micro surfacing shall be placed as specified herein and as shown on the plans and conform to the requirements of Section 37-3, "Slurry Seals and Micro Surfacing," of the Standard Specifications which section is hereby incorporated as if set forth in full, the Plans, and these Technical Specifications. Micro surfacing emulsion shall be used and mineral filler shall be Portland cement in accordance with Section 37-3.03 B (4).

SUBMITTALS

Within 14 calendar days after the Notice to Proceed, the Contractor shall submit:

- Materials list of all items proposed to be provided under this Section.
- Manufacturer's recommended installation procedures which, when approved by the Engineer, will become the basis for accepting or rejecting actual installation procedures used on the work.

At least ten (10) working days before micro surfacing placement commences, the Contractor shall submit to the Engineer:

- 1.1. A laboratory report, or reports, of tests and proposed mix design(s) covering the specific materials to be used on the project. Mix design(s) shall be provided by a laboratory accredited by AASHTO for asphalt emulsions and pavement preservation. The laboratory must sign the laboratory report(s) and mix design. The percentage of asphaltic emulsion proposed in the mix design shall be within the percentage range specified in these Technical Specifications.
- 1.2. Polymer modified asphaltic emulsion data as follows:
 - 1.2.1. Supplier and Type/Grade of asphaltic emulsion
 - 1.2.2. Type of modifier polymer for polymer modified asphaltic emulsion
 - 1.2.3. Copy of the specified test results for asphaltic emulsion, polymer modified asphaltic emulsion, or micro-surfacing emulsion
- 1.3. Aggregate test results showing the following:
 - 1.3.1. Gradation
 - 1.3.2. Los Angeles Rattler
 - 1.3.3. Percent of crushed particles
 - 1.3.4. Sand equivalent
 - 1.3.5. Durability

MATERIALS

Micro Surfacing Emulsions (MSE)

Asphalt emulsion shall be homogenous and shall be a micro surfacing emulsion (MSE) conforming to the requirements of Caltrans 2022 Standard Specifications Section 94-1.02K "Asphalt Emulsions" and these Technical Specifications. The polymer material shall be milled or blended into the asphalt or blended into the emulsifier solution prior to the emulsification process. The asphalt emulsion manufacturer shall certify that the emulsion contains a **minimum of 4.0% polymer** solids based on the mass of asphalt (asphalt residual) within the emulsion. The emulsion, upon standing undisturbed for a period of twenty-four (24) hours, shall show no white or milky colored substance on its surface, and shall be a homogeneous brown color throughout.

The MSE shall conform to the following requirements when tested in accordance with the specified test method.

Quality characteristic	Test method	Requirement Grade MSE
Saybolt Furol viscosity, at 25 °C (Saybolt Furol seconds)	AASHTO T 59 ^c	15–90
Storage stability test, 1 day (max, %)		1
Sieve test (max, %)		0.30
Particle charge ^a		Positive
Residue from distillation or evaporation test (min, %) ^b		62
Tests on residue: Penetration, 25 °C (dmm) Softening point (min, °C) Torsional recovery (min, %) ^d or Elastic recovery, 25 °C (min, %) ^d	AASHTO T 49 AASHTO T 53 California Test 332 AASHTO T 301	40–90 62 20 65

Mineral Aggregate

The mineral aggregate shall be in accordance with Caltrans Standard Specifications Section 37-3.03 B and the tables below and shall be of the type and grade specified for the particular use of the slurry seal. It shall consist of 100% crushed material with no rounded particles. The material shall be free from vegetable matter and other deleterious substances. All aggregate shall be free of caked lumps and oversize particles. Aggregate should be volcanic in origin and black in color.

Type II Grading	
Sieve Size	Percentage Passing
3/8"	100
No. 4	94-100
No. 8	65-90
No. 16	40-70
No. 30	25-50
No. 200	5-15

Type III Grading	
Sieve Size	Percentage Passing
3/8"	100
No. 4	70-90
No. 8	45-70
No. 16	28-50
No. 30	19-34
No. 200	5-15

Test	Test Method	Requirements
Sand Equivalent (Min.)	AASHTO T 176	65
Durability Index (Min.)	AASHTO T 210	60
Percentage of Crushed Particles (min.)	ASTM D 5821	100%
Loss Angeles Rattler ¹ Loss at 500 rev. (Max.)	AASHTO T 96	35%

Notes:

1. Los Angeles Rattler shall be performed on the parent aggregate before crushing.

Fiber

Fiber shall be added to the first lift of micro surfacing ONLY. The first lift will be a Type III leveling course. Fiber used shall be FORTA Surface-EXT fiber, or equivalent alkali and acid resistant fiber, meeting the following specifications. It shall be cut to ¼" to ½" in length by an automated fiber cutter system installed on truck. The fiber shall be added to the micro surfacing mix at the rates outlined below. The fiber shall meet the following requirements:

TEST	REQUIREMENT
Linear Weight of Roving (tex.) ISO 1889	4,500 min
Linear Weight of Strand (tex.) ISO 1889	82 min
Moisture Content (%) ISO 3344	0.35 max
Specific Gravity (g/cm ³)	2.68
Softening Point (°C)	860 min
TENSILE STRENGTH (MPA)	1,700 MIN

Water and Additives

Water shall be of such quality that the asphalt will not separate from the emulsion before the slurry seal is in place on the pavement. If necessary for workability, a set-control agent that will not adversely affect the slurry seal may be used.

Mineral Filler

Mineral filler shall be any recognized brand of non-air entrained Portland cement or hydrated lime that is free of lumps. The type and amount of mineral filler needed shall be determined by the laboratory mix design. An increase or decrease of less than one percent may be permitted when the slurry seal is being placed if it is found to be necessary for better consistency or set times.

MIX DESIGN

The mix design shall be proportioned such that the final micro-surfacing, whether leveling or finish course, is drivable to normal traffic without rutting or shedding within one hour of application.

The percentage of asphalt emulsion proposed in the mix design shall be within the percentage range specified in the Proportion Limits table in Section 37.3.03 B (5) "Micro-Surfacing Mix Designs." The tests and mix design shall be performed by a laboratory capable of performing the applicable International Slurry Seal Association (ISSA) tests. The proposed mixture shall conform to the requirements specified when tested in accordance with 37-3.03 B (5), "Micro-Surfacing Mix Designs."

The laboratory that performed the tests and designed the mixture shall sign the laboratory report. The report shall show the results of the tests on individual materials and shall compare their values to those required by these Technical Specifications. The report shall clearly show the proportions of aggregate, fiber (where applicable), filler (minimum and maximum), water (minimum and maximum), set control additive, and MSE solids content (minimum and maximum) based on the dry weight of aggregate. The laboratory shall report the quantitative effects of moisture content on the unit weight of the aggregate (bulking effect) in conformance with the requirements of ASTM Designation C 29M. Previous laboratory reports covering the same materials may be accepted provided the material test reports were completed within the previous 12 months.

The component materials used in the mix design shall be representative of the materials proposed by the Contractor for use on the project.

Once the mix design is approved by the Engineer, no substitution of other material will be permitted unless the materials proposed for substitution are first tested and a laboratory report is submitted for the substituted design in conformance with the provisions of these Technical Specifications. Substituted materials shall not be used until the mix design for those materials has been approved by the Engineer.

The completed mixture, after addition of water and set control agent, if used, shall be such that the micro-surfacing mixture has proper workability. At the expiration of the road closure hours, in conformance with the provisions in "Maintaining Traffic" of the Standard Plans, the micro-surfacing

mixture shall be sufficiently cured to support unrestricted traffic.

For the fiberized mix design, the percentages of each individual material proposed in the mix design shall be within the following limits:

MATERIAL	LIMITS
Residual Asphalt	6.5% to 13.5% by dry weight of aggregate
Mineral Filler	0.5% to 3% by dry weight of aggregate
Glass Fiber Bottom Lift	0.20% to 0.40% by dry weight of aggregate
ADDITIVE AND WATER	AS NEEDED

PROPORTIONING

Aggregate, mineral filler, MSE, fiber (if required), water, and additives, including the set-control agent, if used, shall be proportioned by volume utilizing the mix design approved by the Engineer. If more than one kind of aggregate is used, the correct amount of each kind of aggregate to produce the required grading shall be proportioned separately, prior to adding the other materials of the mixture, in a manner that will result in a uniform and homogeneous blend.

The aggregate shall be proportioned using a belt feeder operated with an adjustable cut off gate. The height of the gate opening shall be determinable. The MSE shall be proportioned by a positive displacement pump. Variable rate emulsion pumps, if used, shall be calibrated and sealed in the pump's calibrated condition in conformance with the ISSA Inspector's Manual MA-1 prior to usage.

The delivery rate of aggregate and MSE per revolution of the aggregate feeder shall be calibrated at the appropriate gate settings for each mixer-spreader truck used on the project in conformance with ISSA Inspector's Manual MA-1 and in conformance with the provisions of these Technical Specifications.

The aggregate belt feeder shall deliver aggregate to the pug-mill with such volumetric consistency that the deviation for any individual aggregate delivery rate check-run shall not exceed 2.0 percent of the mathematical average of 3 runs of at least three tons each. The emulsion pump shall deliver MSE to the pug-mill with such volumetric consistency that the deviation for any individual delivery rate check-run shall be within 2.0 percent of the mathematical average of 3 runs of at least 300 gallons each. The water pump shall deliver water to the pug-mill with such volumetric consistency that the deviation for any individual delivery rate check-run shall be within 2.0 percent of the mathematical average of 3 runs of at least 300 gallons each.

The MSE storage tank shall be located immediately before the emulsion pump and shall be equipped with a device which will automatically shut down the power to the emulsion pump and aggregate belt feeder when the MSE level is lowered to a point where the pump suction line is exposed.

A temperature-indicating device shall be installed in the emulsion storage tank at the pump suction level. The device shall indicate the temperature of the MSE and shall be accurate to within 10°F.

If fiber is to be added, the mixer-spreader trucks shall be equipped with a fiber chopper, fiber storage and control systems for injecting fibers into the micro-surfacing mix. It shall be capable of providing up to 7 lbs./min. of fiber injection. The chopper shall cut from 3 to 4 bobbins of fiber into 3/8 +/- 1/8-inch-long pieces and feed them into the aggregate as it enters the inlet hopper. The

system shall turn on and off with the main start of the mixer-spreader truck. The system shall be powered by the main hydraulic system of the mixer-spreader truck. The mixer-spreader truck shall be capable of providing 3 to 5 cu. ft./min. of air from the truck air compressor for nozzle cooling and chopper flushing. The mixer-spreader truck shall include an enclosure/mounting and feed system for up to 4 bobbins of fiber roving.

The belt delivering the aggregate to the pug-mill shall be equipped with a device to monitor the depth of aggregate being delivered to the pug-mill. The device for monitoring the depth of aggregate shall automatically shut down the power to the aggregate belt feeder whenever the depth of aggregate is less than the target depth of flow. A second device shall be located where the device will monitor the movement of the aggregate belt by detecting revolutions of the belt feeder. The devices for monitoring no flow or belt movement shall automatically shut down the power to the aggregate belt when the aggregate belt movement is interrupted. The device to detect revolutions of the belt feeder will not be required where the aggregate delivery belt is an integral part of the drive chain. To avoid erroneous shutdown by normal fluctuation, a delay of 3 seconds will be permitted between sensing and shutdown of the operation.

MIXING AND SPREADING EQUIPMENT

The micro-surfacing mixture shall be mixed in continuous pug-mill mixers of adequate size and power for the type of micro-surfacing to be placed. All indicators shall be in conformance with the provisions of these Technical Specifications and shall be in working order prior to commencing mixing and spreading operations.

Mixer-spreader trucks shall be equipped to proportion all required mix design elements by volume. Rotating and reciprocating equipment on mixer-spreader trucks shall be covered with metal guards.

The mixer-spreader truck shall not be operated unless low-flow and no-flow devices and revolution counters are in good working condition and functioning and metal guards are in place. Indicators required by these Technical Specifications shall be visible while walking alongside the mixer-spreader truck.

Aggregate feeders shall be connected directly to the drive on the emulsion pump. The drive shaft of the aggregate feeder shall be equipped with a revolution counter reading to the nearest one-tenth of a revolution. In addition to the requirements of Section 5-1.33, "Equipment" of the State Standard Specifications, the identifying number of mixer-spreader trucks shall be at least three inches in height, located on the front and rear of the vehicle.

All micro-surfacing mixtures shall be spread by means of a spreader box conforming to the requirements in the "Spreader Box" section of these specifications.

The Engineer or authorized representative shall be present during any equipment calibration or testing prior to the application of micro surfacing.

Handwork shall be kept to a minimum and done in a manner to prevent segregation of the mix. The completed surface shall be a uniform texture consistent with the material placed by the spreader and free from ruts, humps, depressions, or irregularities.

Spreader Box

Micro-surfacing the spreader box shall be capable of spreading to a width of one travel lane and equipped with a material such as flexible rubber belting on each side and in contact with the pavement. If the spreader box is less than 7.5 feet wide, it shall be equipped with a means, such as

baffles or reversible motor-driven augers, to uniformly apply micro-surfacing mixture on wider areas, superelevated sections, shoulder slopes, etc. The spreader box shall be equipped with rear flexible strike-off blades making close contact with the pavement and adjustable to various crown shapes in order to apply a uniform micro-surfacing mixture. The spreader box shall be equipped with flexible drags attached to the rear and cleaned daily and changed if longitudinal scouring occurs. The spreader box shall be clean and free of excess micro-surfacing mixture at the start of each work shift.

Wheel Path Depression (Rut) Box

The wheel path depression (rut) box shall be designed to have adjustable strike-off devices to regulate the depth and shall have a width of between five feet and six feet. Hydraulic augers, or similar devices, shall be installed and shall be capable of moving the mixed material from the rear to the front of the filling chamber. These devices shall also be capable of guiding the larger aggregate into the center, deeper section of the wheel path depression, and forcing the finer material toward the outer edges of the spreader box.

TACK COAT

If required, the Contractor may apply an approved tack coat conforming to Section 94, "Asphaltic Emulsions" of the Standard Specifications which section is hereby incorporated in these Technical Specifications as if set forth in full, to the entire existing asphalt surface to be micro-surfaced prior to the application of the micro-surfacing. The grade shall be SS-1 unless otherwise approved by the Engineer. The asphalt emulsion may be mixed with additional water before applying a micro-surfacing. The maximum ratio of water to asphaltic emulsion must be 2 to 1. Tack coat shall be applied at a rate from 0.10 to 0.15 gal/sq yd with the exact rate to be authorized by the Engineer. Tack coat shall be applied using a truck mounted sprayer system capable of a uniform application rate capable of achieving a minimum width of 12-feet in a single pass.

PREPARATORY WORK

The Contractor shall remove all existing striping and pavement markers, and the complete street surface shall be power swept from face of curb to face of curb prior to the application of micro-surfacing. The Contractor shall provide cleaning method necessary to remove all dirt, vegetation, and loose materials from the pavement. All material gathered shall be properly disposed of by the Contractor.

Immediately preceding the micro-surfacing application, the Contractor shall cover all grates, slotted manholes, and other appurtenances on the pavement that would allow the entry of slurry; cover all manhole covers, water and gas valve box covers, monuments boxes, etc., with a heavy plastic bag. The Contractor prior to the final set of the micro-surfacing shall uncover all covered grates and manhole. All uncovered items shall be clean and meet the requirement of the Project Inspector.

All valve boxes, manholes, utility covers, and monument covers shall be covered with heavy paper or roofing felt prior to placement of the surfacing and shall be uncovered after the surfacing has set. All drainage inlets shall have adequate protection and coverings to prevent any surfacing materials from entering the storm drain system.

TEST STRIP

The Contractor shall construct a test strip for evaluation by the Engineer. **Test 1 shall be provided for both the Type III WITH Fiber and the Type II WITHOUT fiber micro-surfacing.** The test strip shall be 300 feet to 500 feet long and shall consist of the application courses specified. The test strip shall be constructed at the same time of day or night that the full production of fiberized micro-surfacing will be placed and may be constructed in 2 days or nights when multiple course applications are specified. To be considered acceptable, the test strip shall be drivable and opened

to traffic within one hour of application of the fiberized micro-surfacing.

The Engineer will evaluate the completed test strip after 1 hour to determine if it is ready for straight rolling traffic. If the mix is not ready the engineer may evaluate after an additional hour. If the test strip is determined to be acceptable, work may commence immediately. If the mix design or the placement procedure is determined by the Engineer to be unacceptable, the test strip will be rejected, the Contractor shall make modifications, and a new test strip shall be constructed on the next available working day and evaluated by the Engineer using the same criteria.

The cost of materials and placement of the test strips, which have been rejected, shall be borne entirely by Contractor and will not be considered as part of the contract work. If ordered by the Engineer, rejected test strips shall be removed at the Contractors expense. If proposed by the Contractor and approved by the Engineer, the Contractor may continue with production work after placement of the test strip at their own risk. If the test strip is rejected, all production work shall be stopped and evaluated by the Engineer. The production work will be evaluated in the same manner as the placement of the test strip and shall conform to the same requirements for the test strip material.

PLACING

Type III fiberized micro-surfacing shall be spread at a rate of 25 to 30 pounds of dry aggregate per square yard.

Type II micro-surfacing shall be spread at a rate of 12-15 pounds of dry aggregate per square yard.

Micro-surfacing mixture shall not be placed when the ambient temperature is below 50°F, there is any surface moisture on the pavement, or during unsuitable weather. Micro-surfacing shall not be placed if rain is imminent or if there is the possibility that there will be freezing temperatures within 24 hours.

Longitudinal joints shall correspond with the edges of the traffic lanes. The Engineer may permit other patterns of longitudinal joints if the patterns will not adversely affect the quality of the finished product.

Through traffic lanes shall be spread in full lane widths only. Longitudinal joints common to 2 traffic lanes shall be butt joints with overlaps not to exceed 3 inches. Building paper shall be placed at the transverse joints to avoid double placement of the fiberized slurry seal. Other suitable methods to avoid double placement of the fiberized micro-surfacing will be allowed. Hand tools shall be available to remove spillage.

The surface may be fogged with water directly preceding the spreader. The mixture shall be of the desired consistency when deposited on the surface. Total time of mixing shall not exceed four (4) minutes. A sufficient amount of micro surfacing shall be carried in all parts of the spreader at all times so that complete coverage is obtained. No lumping, balling, or unmixed aggregate shall be permitted. No segregation of the emulsion and aggregate fines from the coarse aggregate will be permitted. If coarse aggregate settles to the bottom of the mix, the micro surfacing will be removed from the pavement. No excessive breaking of the emulsion will be allowed in the spread box. No streaks such as those caused by oversize aggregate will be left in the finished pavement.

Transverse and longitudinal joints shall be :

- Uniform
- Straight
- Neat in appearance
- Without excess buildup
- Without gaps or uncovered areas
- Transverse joints must be butt-type and shall not overlap with previous joints.
- G. Longitudinal joints shall be placed on centerlines, lane lines, edge lines or shoulder lines unless approved by the Engineer and shall not overlap more than four (4) inches.

All gutter spills must be cleaned immediately.

At the expiration of the road closure hours, in conformance with the provisions in “Maintaining Traffic” of the Standard Plans, the micro-surfacing mixture shall be sufficiently cured to support unrestricted traffic.

After the initial break of the micro surfacing and within a minimum of 2 hours after placement the micro surfacing shall be rolled with a pneumatic tire roller. Surfacing areas shall be rolled with a pneumatic rubber tire roller, not to exceed 7 tons and non-ballasted. Roller shall travel slowly, not more than 5 mph.

POST SWEEPING

Self-propelled power brooms shall be used that are capable of removing loose aggregates generated by the micro surfacing. Nylon gutter brooms shall be the only brooms used. On the day of the actual operations, no sweeping shall take place. Three (3) sweepings shall be performed after placement of the micro surface to remove all loose aggregates. The Contractor must remove all loose aggregates as required by the Engineer.

During the sweeping, the sweeper shall use only the rear broom, the front brooms shall not be used during this sweeping operation. The initial sweeping shall be performed no sooner than three (3) and no more than five (5) calendar days after the slurry has been applied to the street. The two (2) remaining sweepings shall be performed no sooner than two (2) weeks and no later than five (5) weeks after the micro surface has been applied to the street. The final sweeping on cul-de-sacs shall be performed no sooner than four (4) weeks and no later than six (6) weeks after the micro surface has been applied to the street. The self-propelled power broom may not be able to pick up loose aggregates in some locations, thus the Contractor shall remove the loose aggregates in these locations using a vacuum sweeper or other acceptable means, as approved by the Engineer.

At the time of each sweeping, all loose materials shall likewise be removed from the sidewalks, driveways, landscaped areas, and properties adjacent to the work area either manually or by any other means acceptable to the Engineer. The Contractor shall use water on these sweepings to achieve dust removal and the aggregates shall be salvaged and removed from the job site.

Up to three (3) additional sweepings shall be performed as directed by the Engineer to remove all loose aggregates from sidewalks, driveways, adjacent private property areas, and the street gutter, and the excess aggregates shall be salvaged and stockpiled at a designated location or removed from the job site.

REPAIR OF EARLY DISTRESS

If bleeding, raveling, delamination, rutting, excessive shedding, or wash-boarding occurs within 60 days after placing micro-surfacing, the Contractor shall diligently pursue repairs by methods approved by the Engineer. The Contractor shall not be relieved from maintenance until repairs have been completed to the satisfaction of the Engineer.

MEASUREMENT AND PAYMENT

“Micro-Surfacing, Type III with Fiber Additive” bid item will be measured and paid for at the contract price per square yard (SY).

“Micro-Surfacing, Type II” bid item will be measured and paid for at the contract price per square yard (SY).

Payment for micro-surfacing shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in furnishing and applying the micro-surfacing, including, but not limited to surface preparation, placing the surfacing, protecting the surfacing until it has set, rolling, post sweeping, placement of test strip, and all other work described herein, as directed by the Engineer, or involved in placing Micro Surfacing, not specifically enumerated in the Plans or Technical Specifications, and no additional compensation will be allowed therefore.

18-9 STRIPING, MARKINGS, AND FLEXIBLE MARKERS

The work consists of installation of traffic stripes and pavement markings in conformance with the provisions in Section 84, "Markings," of the State Standard Specifications and these Technical Specifications. Traffic stripes and pavement markings shall be removed at the locations shown on the plans and as directed by the Engineer. All conflicting striping and pavement markings shall be removed.

THERMOPLASTIC STRIPING

Thermoplastic material shall be free of lead and chromium and shall conform to the requirements in State Specification PTH-02ALKYD.

Retroreflectivity of the thermoplastic traffic stripes and pavement markings shall conform to the requirements in ASTM Designation: D 6359-99. White thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of 250 mcd·m⁻²·lx⁻¹. Yellow thermoplastic traffic stripes and pavement markings shall have a minimum initial retroreflectivity of 150 mcd·m⁻²·lx⁻¹.

Where striping joins existing striping, the Contractor shall begin and end the transition from the existing striping pattern into or from the new striping pattern a sufficient distance to ensure continuity of the striping pattern. The minimum application rate is based on a solid stripe of 100 mm in width. Thermoplastic traffic stripes shall be applied at the minimum thickness and application rate as specified below. The minimum application rate is based on a solid stripe of 100 mm in width.

Minimum Stripe Thickness (mm)	Minimum Application Rate (kg/m)
2.0	0.4
2.5	0.5

Thermoplastic traffic stripes and pavement markings shall be free of runs, bubbles, craters, drag marks, stretch marks, and debris.

PAVEMENT MARKERS

Pavement markers shall be placed in conformance with the provisions in Section 81-35, "Pavement Markers," of the State Standard Specifications and these Technical Specifications.

Thermoplastic roadway markings such as parking stalls, etc., shall be in accordance with Section 84-2.03C, "Application of Stripes and Markings," of the State Standard Specifications.

Existing pavement markers to be removed shall be removed in accordance with Section 81-8.03B, "Remove Pavement Markers," of the State Standard Specifications.

MEASUREMENT AND PAYMENT

Payments for pavement striping shall be paid by linear foot (LF) for "Install Detail 1 (Thermoplastic)", "Install Detail 22 (Thermoplastic)", "Install Solid Yellow Center Line (Thermoplastic)", and "Install Solid White Parking Line (Thermoplastic)", and shall include furnishing all labor, materials and equipment to install new thermoplastic traffic stripes, as shown on the plans, including pavement markers, blue reflective markers at fire hydrants, and all other miscellaneous incidental work involved as directed by the Engineer and as specified by these Technical Specifications, and no additional payments will be allowed therefor.

The contract unit prices paid per square foot (SF) for “Install Pavement Markings (Thermoplastic)” shall include furnishing all labor, materials and equipment to install new thermoplastic pavement markings and all other miscellaneous incidental work involved, as directed by the Engineer and as specified by these Technical Specifications, and no additional payments will be allowed therefor.

The contract unit prices paid per instance (EA) for “Install Ladder Crosswalk (Thermoplastic)” shall include furnishing all labor, materials and equipment to install new thermoplastic ladder crosswalks, as shown on the plans, and all other miscellaneous incidental work involved, as directed by the Engineer and as specified by these Technical Specifications, and no additional payments will be allowed therefor.

The cost to remove all striping that is in conflict with the plans and specs and all striping on the streets slurry seal or micro-surfacing is going to be applied shall be imbedded into the bid cost for the individual bid items where removal of traffic striping is needed. Full compensation for furnishing all labor, materials, including tools, equipment, and incidentals necessary to complete the work (including traffic control, grinding, cleanup, and disposal) as shown on the Plans, directed by the Engineer and as specified by these Technical Specifications shall be considered as included in the prices paid for the various items of work involved and no additional payment will be allowed therefore.

APPENDIX A

CITY OF SAN RAFAEL POLLUTION PREVENTION REQUIREMENTS

CITY OF SAN RAFAEL

POLLUTION PREVENTION: IT'S PART OF THE PLAN

MAKE SURE YOUR CREWS AND SUBS DO THE JOB RIGHT!

RUNOFF FROM STREETS AND OTHER PAVED AREAS IS A MAJOR SOURCE OF POLLUTION IN SAN FRANCISCO BAY. CONSTRUCTION ACTIVITIES CAN DIRECTLY AFFECT THE HEALTH OF THE BAY UNLESS CONTRACTORS AND CREWS PLAN AHEAD TO KEEP DIRT, DEBRIS, AND OTHER CONSTRUCTION WASTE AWAY FROM STORM DRAINS AND LOCAL CREEKS. FOLLOWING THESE GUIDELINES WILL ENSURE YOUR COMPLIANCE WITH CITY OF SAN RAFAEL ORDINANCE REQUIREMENTS.

CITY OF SAN RAFAEL
STORM WATER PROGRAM
(415) 485-3355

MATERIALS STORAGE & SPILL CLEANUP

NON-HAZARDOUS MATERIALS MANAGEMENT

- SAND, DIRT, AND SIMILAR MATERIALS MUST BE STORED AT LEAST 10 FEET FROM CATCH BASINS, AND COVERED WITH A TARP DURING WET WEATHER OR WHEN RAIN IS FORECAST
- USE (BUT DON'T OVERUSE) RECLAIMED WATER FOR DUST CONTROL AS NEEDED
- SWEEP STREETS AND OTHER PAVED AREAS DAILY. DO NOT WASH DOWN STREETS OR WORK AREAS WITH WATER!
- RECYCLE ALL ASPHALT, CONCRETE, AND AGGREGATE BASE MATERIAL FROM DEMOLITION ACTIVITIES.
- CHECK DUMPSTERS REGULARLY FOR LEAKS AND TO MAKE SURE THEY DON'T OVERFLOW. REPAIR OR REPLACE LEAKING DUMPSTERS PROMPTLY.

HAZARDOUS MATERIALS MANAGEMENT

- LABEL ALL HAZARDOUS MATERIALS AND HAZARDOUS WASTES (SUCH AS PESTICIDES, PAINTS, THINNERS, SOLVENTS, FUEL, OIL, AND ANTIFREEZE) IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS.
- STORE HAZARDOUS MATERIALS AND WASTES IN SECONDARY CONTAINMENT AND COVER THEM DURING WET WEATHER
- FOLLOW MANUFACTURER'S APPLICATION INSTRUCTIONS FOR HAZARDOUS MATERIALS AND BE CAREFUL NOT TO USE MORE THAN NECESSARY. DO NOT APPLY CHEMICALS OUTDOORS WHEN RAIN IS FORECAST WITHIN 24 HOURS.
- BE SURE TO ARRANGE FOR APPROPRIATE DISPOSAL OF ALL HAZARDOUS WASTES.

SPILL PREVENTION AND CONTROL

- KEEP A STOCKPILE OF SPILL CLEANUP MATERIALS (RAGS, ABSORBENTS, ETC.) AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- WHEN SPILLS OR LEAKS OCCUR, CONTAIN THEM IMMEDIATELY AND BE PARTICULARLY CAREFUL TO PREVENT LEAKS AND SPILLS FROM REACHING THE GUTTER, STREET, OR STORM DRAIN. NEVER WASH SPILLED MATERIAL INTO A GUTTER, STREET, STORM DRAIN OR CREEK!
- REPORT ANY HAZARDOUS MATERIALS SPILLS IMMEDIATELY! CALL CITY OF SAN RAFAEL FIRE DEPARTMENT AT (415) 485-3308.

VEHICLE AND EQUIPMENT MAINTENANCE & CLEANING

- INSPECT VEHICLES AND EQUIPMENT FOR LEAKS FREQUENTLY. USE DRIP PANS TO CATCH LEAKS UNTIL REPAIRS ARE MADE; REPAIR LEAKS PROMPTLY.
- FUEL AND MAINTAIN VEHICLES ON SITE ONLY IN A BERMED AREA OR OVER A DRIP PAN THAT IS BIG ENOUGH TO PREVENT RUNOFF
- IF YOU MUST CLEAN VEHICLES OR EQUIPMENT ON SITE, CLEAN WITH WATER ONLY IN A BERMED AREA THAT WILL NOT ALLOW RINSEWATER TO RUN INTO GUTTERS, STREETS, STORM DRAINS, OR CREEKS!
- DO NOT CLEAN VEHICLES OR EQUIPMENT ON-SITE USING SOAPS, SOLVENTS, DEGREASERS, STEAM CLEANING EQUIPMENT, ETC.

EARTHWORK & CONTAMINATED SOILS

- KEEP EXCAVATED SOIL ON THE SITE WHERE IT IS LEAST LIKELY TO COLLECT IN THE STREET. TRANSFER TO DUMP TRUCKS SHOULD TAKE PLACE ON THE SITE, NOT IN THE STREET.
- USE HAY BALES, SILT FENCES, OR OTHER CONTROL MEASURES TO MINIMIZE THE FLOW OF SILT OFF THE SITE.
- AVOID SCHEDULING EARTH MOVING ACTIVITIES DURING THE RAINY SEASON IF POSSIBLE. IF GRADING ACTIVITIES DURING WET WEATHER ARE ALLOWED IN YOUR PERMIT, BE SURE TO IMPLEMENT ALL CONTROL MEASURES NECESSARY TO PREVENT EROSION.
- MATURE VEGETATION IS THE BEST FORM OF EROSION CONTROL. MINIMIZE DISTURBANCE TO EXISTING VEGETATION WHENEVER POSSIBLE.
- IF YOU DISTURB A SLOPE DURING CONSTRUCTION, PREVENT EROSION BY SECURING THE SOIL WITH EROSION CONTROL FABRIC, OR SEED WITH FAST-GROWING GRASSES AS SOON AS POSSIBLE. PLACE HAY BALES DOWN-SLOPE UNTIL SOIL IS SECURE.
- IF YOU SUSPECT CONTAMINATION (FROM SITE HISTORY, DISCOLORATION, ODOR, TEXTURE, ABANDONED UNDERGROUND TANKS OR PIPES, OR BURIED DEBRIS), CALL THE FIRE DEPT., (415) 485-3308, FOR HELP IN DETERMINING WHAT TESTING SHOULD BE DONE.
- MANAGE DISPOSAL OF CONTAMINATED SOIL ACCORDING TO FIRE DEPARTMENT INSTRUCTIONS.

DEWATERING OPERATIONS

- REUSE WATER FOR DUST CONTROL, IRRIGATION, OR ANOTHER ON-SITE PURPOSE TO THE GREATEST EXTENT POSSIBLE.
- BE SURE TO CALL THE CITY'S STORMWATER MANAGER BEFORE DISCHARGING WATER TO A STREET, GUTTER, OR STORM DRAIN. CALL THE STORMWATER MANAGER AT (415) 485-3355. FILTRATION OR DIVERSION THROUGH A BASIN, TANK, OR SEDIMENT TRAP MAY BE REQUIRED.
- IN AREAS OF KNOWN CONTAMINATION, TESTING IS REQUIRED PRIOR TO REUSE OR DISCHARGE OF GROUNDWATER. CONSULT WITH THE CITY FIRE DEPT. TO DETERMINE WHAT TESTING TO DO AND TO INTERPRET RESULTS. CONTAMINATED GROUNDWATER MUST BE TREATED OR HAULED OFF-SITE FOR PROPER DISPOSAL.

SAW CUTTING

- ALWAYS COMPLETELY COVER OR BARRICADE STORM DRAIN INLETS WHEN SAW CUTTING. USE FILTER FABRIC, HAY BALES, SAND BAGS, OR FINE GRAVEL DAMS TO KEEP SLURRY OUT OF THE STORM DRAIN SYSTEM.
- SHOVEL, ABSORB, OR VACUUM SAW-CUT SLURRY AND PICK UP ALL WASTE AS SOON AS YOU ARE FINISHED IN ONE LOCATION OR AT THE END OF EACH WORK DAY (WHICHEVER IS SOONER).
- IF SAW CUT SLURRY ENTERS A CATCH BASIN, CLEAN IT UP IMMEDIATELY.

PAVING/ASPHALT WORK

- DO NOT PAVE DURING WET WEATHER OR WHEN RAIN IS FORECAST.
- ALWAYS COVER STORM DRAIN INLETS AND MANHOLES WHEN PAVING OR APPLYING SEAL COAT, TACK COAT, SLURRY SEAL, OR FOG SEAL.
- PLACE DRIP PANS OR ABSORBENT MATERIAL UNDER PAVING EQUIPMENT WHEN NOT IN USE.
- PROTECT GUTTERS, DITCHES, AND DRAINAGE COURSES WITH HAY BALES, SAND BAGS, OR EARTHEN BERM.
- DO NOT SWEEP OR WASH DOWN EXCESS SAND FROM SAND SEALING INTO GUTTERS, STORM DRAINS, OR CREEKS. COLLECT SAND AND RETURN IT TO THE STOCKPILE, OR DISPOSE OF IT AS TRASH.
- DO NOT USE WATER TO WASH DOWN FRESH ASPHALT CONCRETE PAVEMENT.

CONCRETE, GROUT, AND MORTAR STORAGE & WASTE DISPOSAL

- BE SURE TO STORE CONCRETE, GROUT AND MORTAR UNDER COVER AND AWAY FROM DRAINAGE AREAS. THESE MATERIALS MUST NEVER REACH A STORM DRAIN.
- WASH OUT CONCRETE EQUIPMENT/TRUCKS OFF-SITE OR DESIGNATE AN ON-SITE AREA FOR WASHING WHERE WATER WILL FLOW ONTO DIRT OR INTO A TEMPORARY PIT IN A DIRT AREA. LET THE WATER SEEP INTO THE SOIL AND DISPOSE OF HARDENED CONCRETE WITH TRASH.
- IF A SUITABLE DIRT AREA IS NOT AVAILABLE, COLLECT THE WASH WATER AND REMOVE IT FOR APPROPRIATE DISPOSAL OFF SITE.
- DIVERT WATER FROM WASHING EXPOSED AGGREGATE CONCRETE TO A DIRT AREA WHERE IT WILL NOT RUN INTO A GUTTER, STREET, OR STORM DRAIN. IF A SUITABLE DIRT AREA IS NOT AVAILABLE, FILTER THE WASH WATER THROUGH HAY BALES BEFORE DISCHARGING TO A STORM DRAIN.

PAINTING

- NEVER RINSE PAINT BRUSHES OR MATERIALS IN A GUTTER OR STREET.
- PAINT OUT EXCESS WATER-BASED PAINT BEFORE RINSING BRUSHES, ROLLERS, OR CONTAINERS IN A SINK. IF YOU CAN'T USE A SINK, DIRECT WASH WATER TO A DIRT AREA AND SPADE IT IN.
- PAINT OUT EXCESS OIL-BASED PAINT BEFORE CLEANING BRUSHES IN THINNER.
- FILTER PAINT THINNERS AND SOLVENTS FOR REUSE WHENEVER POSSIBLE. DISPOSE OF OIL-BASED PAINT SLUDGE AND UNUSABLE THINNER AS HAZARDOUS WASTE.

STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO \$500 PER DAY

APPENDIX B: CITY OF SAN RAFAEL BARRICADE POLICY



DATE: June 6, 2023

TO: Don Jeppson, ADA Coordinator and Chief Building Official

FROM: April Miller, Public Works Director

SUBJECT: **DEPARTMENT OF PUBLIC WORKS
GUIDELINES FOR THE PLACEMENT OF BARRICADES AT
CONSTRUCTION SITES**

It is the policy of the Department of Public Works that a safe and accessible path of travel be provided for all pedestrians, including those with disabilities, around and/or through construction sites.

Standard Construction Process for Approval in Public Right-of-Way:

1. Contractor shall submit construction plans to the City for review.
2. Contractor shall submit Traffic Control Plans to the City for review.
3. Contractor to submit site specific Pedestrian Routing Plans to City. Plans shall include pedestrian routing, detours, and barricade plan for the duration of the project schedule and pedestrian & bicycle detour plans compliant with current ADA standards and MUTCD (CA).
4. Contractor to call for city inspection after construction barricades are in place, but before the start of any construction or demolition of path of travel or walking surface.

Guidelines:

When erecting barricades, the Contractor shall be conscious of the special needs of pedestrians with physical disabilities. Discretion is given to the contractor to provide protection for pedestrians consistent with all current local, state, and federal codes, including the Americans with Disabilities Act and the California Building Code, Title 24.

The bottom 3 inches minimum of barrier material should be solid. This base will act as a cane guide to blind pedestrians using canes. Walking canes used by blind pedestrians could get caught in plastic snow fence or metal fencing. A safe design can be achieved by attaching a solid, continuous material (i.e., wood, header bender board, sheet metal, solid rod or rail, etc.) to the bottom portion of the fence. Chosen material should have a high visual contrast to the street/sidewalk surface.

When selecting a barricade, it is important that the barricade itself does not create tripping hazards within the path of travel. Some barrier systems are supported by feet

that extend into the path of travel. Any change of level in a path-of-travel which is over 1/4" in. height must be beveled at 45 degree to provide a smooth, non-tripping transition.

Use barricade system with "Flat feet" below:

Not "Obstructing Feet" below:



It is recognized that there are various types of construction activities, including both short-term and long-term projects. Some barricading systems are more appropriate for certain types of construction than others.

The following barricading systems described below are examples of systems which can be used to provide a safe and accessible path of-travel around and through a construction site. They are not intended to be all-inclusive. Any barricading system meeting accessibility standards and the MUTCD (CA) may be considered.

BARRICADING METHODS AND MATERIALS

Waterfilled Barriers

Water filled barriers are preferred solution for closing roads or sidewalks. When interlocked, the barriers provide a continuous detection to those pedestrians traveling with the aid of a long cane or who have low vision. Waterfilled barriers are useful for providing separation between vehicles and pedestrians. Water filled barriers may be interlocked to make curves as well as straight lines. Full connectivity reduces the probability of accidental or purposeful alteration of the barriers by vehicles or pedestrians.



Plastic Pedestrian Barricades

Plastic Pedestrian Barricades are useful for channelizing pedestrian when there is already clear separation from the vehicle travelled way.

Example of Plastic Pedestrian Barricade with no feet or feet tucked away



A-Frames

A-Frames are useful for provided signage or marking a potential tripping hazard but are not recommended for defining the pedestrian path of travel.

Barrier Caution Tape

Caution tape cannot be used as part of the barricade system since it does not create an adequate and safe structure and cannot be used as a barricade or used to delineate path-of-travel (but can be used in other areas to highlight danger. It can be used in conjunction with other approved barriers, but not as part of a path-of-travel).

Examples of what not to do: No sign, No Barrier, No Accessible & detectable path.



Closed Crosswalks

If a crosswalk is closed due to construction, then curb ramps leading into that crosswalk should also be appropriately barricaded. Either temporary curb ramps must be installed in the direction of the crosswalk to replace barricaded ramps, or an alternate (detour)

route of travel shall be implemented with MUTCD approved signage. It should be noted that curb ramps are not used solely by persons in wheelchairs. They are also indicators to persons who are blind that a crosswalk exists and that there is a safe path-of-travel to cross the street. Temporary curb ramps should direct blind pedestrians to and through the temporary path-of-travel.



Open Crosswalks

If crosswalks are to remain open during the project then curb ramp areas should be kept free of debris, staging material, equipment, etc.

NOTE: With the unique nature of each project, certain issues may arise which have not been covered in the above guidelines. Each project will have to be reviewed on a case by case basis, to ensure that complete, safe, usable and accessible paths-of-travel are maintained during construction.

References:

CBC 3306.3 Directional Barricades

Pedestrian traffic shall be protected by a directional barricade where the walkway extends into the street. The directional barricade shall be of sufficient size and construction to direct vehicular traffic away from the pedestrian path.

CA MUTCD 2014 Chapter 6D

E. Blocked routes, alternate crossings, and sign and signal information should be communicated to pedestrians with visual disabilities by providing devices such as audible information devices, accessible pedestrian signals, or barriers and channelizing devices that are detectable to the pedestrians traveling with the aid of a long cane or who have low vision. Where pedestrian traffic is detoured to a TTC signal, engineering judgment should be used to determine if pedestrian signals or accessible pedestrian signals should be considered for crossings along an alternate route. F. When channelization is used to delineate a pedestrian pathway, a continuous detectable

edging should be provided throughout the length of the facility such that pedestrians using a long cane can follow it. These detectable edgings should comply with the provisions of Section 6F.74.

Caltrans Temp Pedestrian Access Route Handbook

"Peds must be channelized when routed off existing pedestrian routes" (see figure on page 15).

City and County of San Francisco Public Works Guidelines

For the Placement of Barricades at Construction Sites. 2008 Order No. 167,840.
Referenced in Document 00813.

APPENDIX C: CALTRANS SIGNING AND DELINEATION MATERIALS DOCUMENT

10. Retroreflective Sheeting – Signs

Type VIII, Super High Intensity (Typically Unmetallized Microprismatic Element)

Type IX, Very High Intensity (Typically Unmetallized Microprismatic Element)

Type XI, Very High Intensity (Typically Unmetallized Microprismatic Element)

A. For new materials the manufacturer must provide:

- a. Authorized Materials List Submittal Form TL-9502,
<http://cefs2.dot.ca.gov/v2Forms/servlet/FormRenderer?frmId=TL9502>
- b. Material/system data sheet with detailed performance information, properties and installation instructions. Data in this document must indicate that the system meets the performance acceptance criteria.
- c. NTPEP data for 3 years of outdoor exposure

B. Performance acceptance criteria: References

Caltrans Standard Specifications, Section 82

California Manual on Uniform Traffic Control Devices (CA MUTCD), Part 2

ASTM D4956 Standard Specification for Retroreflective Sheeting for Traffic Control

Laboratory and Field Evaluation

NTPEP data will indicate that the sheeting will meet the specification requirements in ASTM D4956 for sheeting type and color.

C. Send the submittal and sample to the Chemical Testing Branch:

Caltrans Transportation Laboratory
Attention: Chemical Testing Branch, Retroreflective Sheeting
5900 Folsom Boulevard
Sacramento, CA 95819

When the submittal package has been evaluated and reviewed, the Department will notify the manufacturer of the findings. When any

discrepancies are resolved to the satisfaction of the Department the material will be placed on the AML.

Final Report: By Chief, Chemical Testing Branch provides report to Traffic Devices New Products Committee (TDNPC).

Approval/Rejection: By Chief, Office of Safety Programs based on recommendation by TDNPC.

The Department reserves the right to sample, test and to remove the product from the AML at any time.

D. Processing Requirements

Incomplete Submittal Packages will not be considered and will be discarded after 30 calendar days from the day of initial submittal.

E. Reauthorization criteria:

Manufacturer will submit its package to the Chemical Testing Branch at least 3 months prior to the listed reauthorization date with current information that indicates that no changes have been made to the material.

11. Alternative Sign Substrates

Fiberglass Reinforced Plastic (FRP) and Expanded Foam (PVC)

Aluminum Composite, Temporary Construction Signs and Permanent Signs up to 4 foot, 7 inches

A. For new materials the manufacturer must provide:

- a. Authorized Materials List Submittal Form TL-9502,
<http://cefs2.dot.ca.gov/v2Forms/servlet/FormRenderer?frmId=TL9502>
- b. Material/system data sheet with detailed performance information, properties and installation instructions. Data in this document must indicate that the system meets the performance acceptance criteria.

B. Performance acceptance criteria:

References

Provide data that alternative signs substrate must perform as well as aluminum substrate.

Provide data that sheeting will adhere and the durability will be the same as aluminum substrate.

Laboratory and Field Evaluation

Once all documentation has been submitted and the initial assessment has been completed one representative from Chemical Testing Branch will contact the vendor to request samples and/or additional supporting documentation.

C. Send the submittal and sample to the Chemical Testing Branch:

Caltrans Transportation Laboratory
Attention: Chemical Testing Branch, Alternative Signs Substrate
5900 Folsom Boulevard
Sacramento, CA 95819

When the submittal package has been evaluated and reviewed, the Department will notify the manufacturer of the findings. When any

discrepancies are resolved to the satisfaction of the Department the material will be placed on the AML.

Final Report: By Chief, Chemical Testing Branch provides report to Traffic Devices New Products Committee (TDNPC).

Approval/Rejection: By Chief, Office of Safety Programs based on recommendation by TDNPC.

The Department reserves the right to sample, test and to remove the product from the AML at any time.

D. Processing Requirements

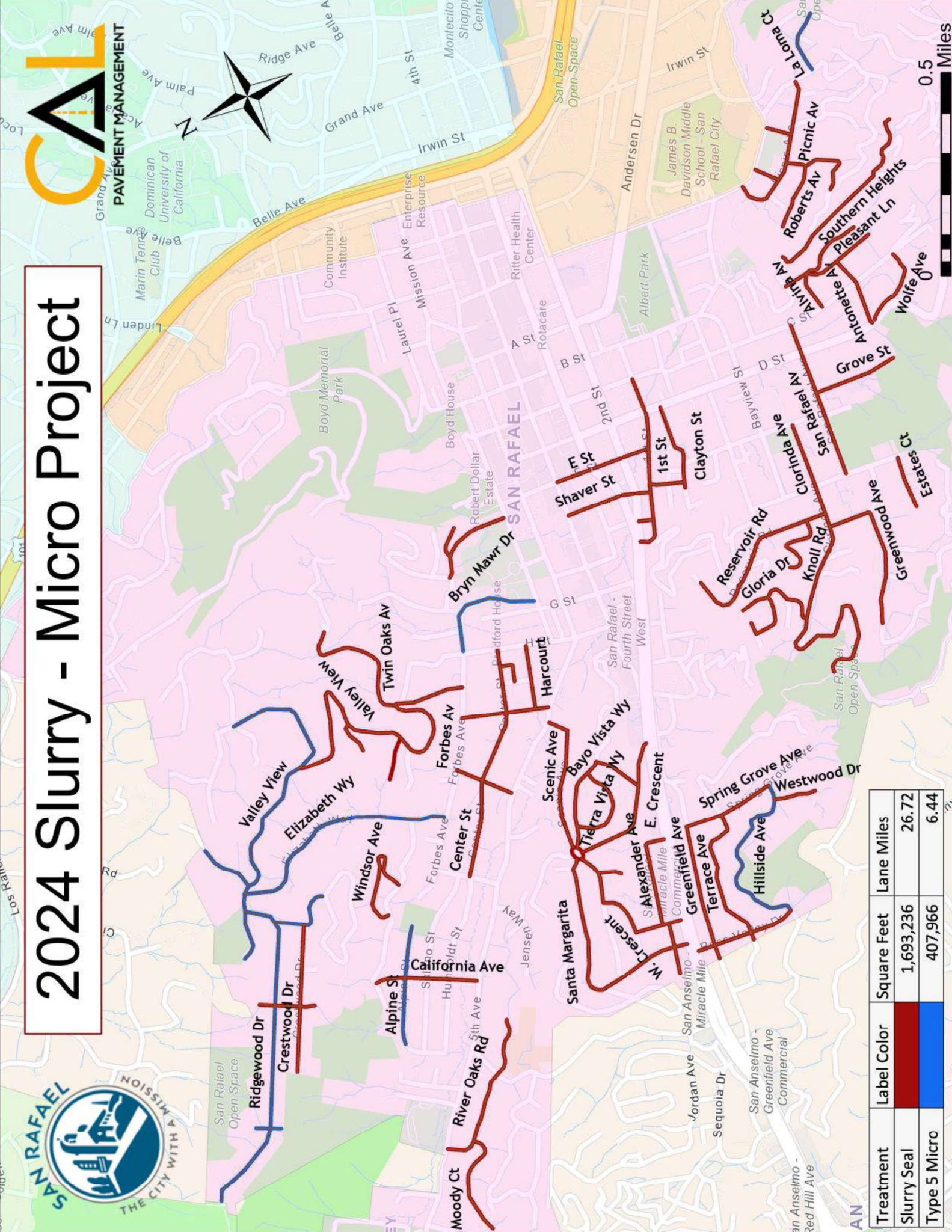
Incomplete Submittal Packages will not be considered and will be discarded after 30 calendar days from the day of initial submittal.

E. Reauthorization criteria:

Manufacturer will submit its package to the Chemical Testing Branch at least 3 months prior to the listed reauthorization date with current information that indicates that no changes have been made to the material.

APPENDIX D: MAP OF STREETS

2024 Slurry - Micro Project



Treatment	Label Color	Square Feet	Lane Miles
Slurry Seal	Red	1,693,236	26.72
Type 5 Micro	Blue	407,966	6.44

Pages from 2024.07.03_Specifications and Contract Documents-2

Final Audit Report

2024-07-03

Created:	2024-07-03
By:	Jeannine Fuller (jeannine.fuller@cityofsanrafael.org)
Status:	Signed
Transaction ID:	CBJCHBCAABAAOhPc_cjUU4RRU2Hct71If7a7QB5ro_1X


"Pages from 2024.07.03_Specifications and Contract Documents-2" History

 Document created by Jeannine Fuller (jeannine.fuller@cityofsanrafael.org)

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 Document e-signed by Joanna Kwok (joanna.kwok@cityofsanrafael.org)

Signature Date: 2024-07-03 - 9:39:26 PM GMT - Time Source: server- IP address: 199.88.89.34

 Agreement completed.

2024-07-03 - 9:39:26 PM GMT