

# INVITATION FOR BIDS



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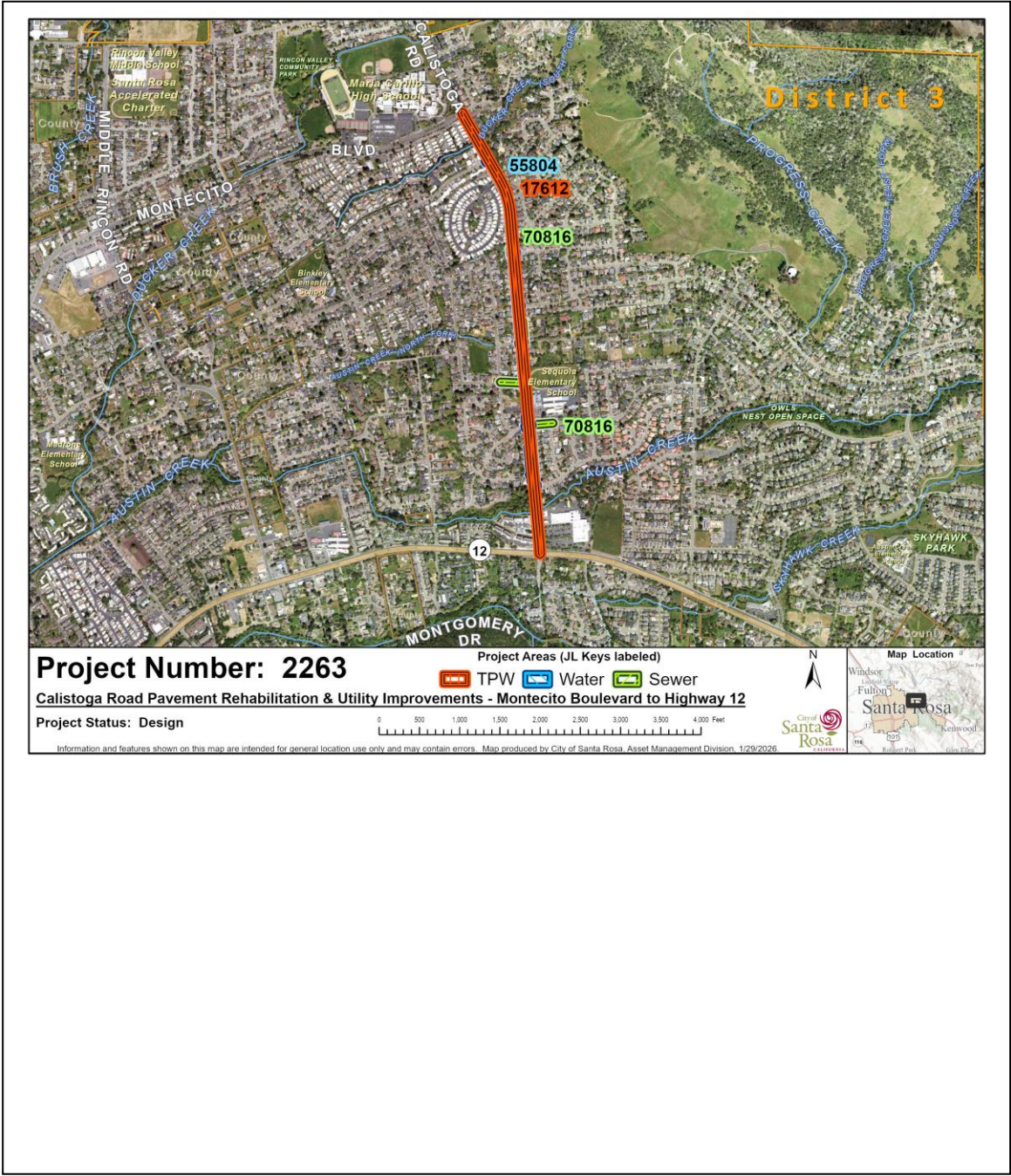
## Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12

**CITY CONTRACT NUMBER  
C02263**

ISSUED BY

**CAPITAL PROJECTS ENGINEERING DIVISION  
CITY OF SANTA ROSA, CALIFORNIA**

2026



LOCATION MAP

City of Santa Rosa

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## Notice Inviting Bids

1. **Bid Submission.** City of Santa Rosa (“City”) will accept sealed bids for its Calistoga Road Pavement Rehabilitation & Utility Improvements - Montecito Boulevard to Highway 12 Project, City Contract Number C02263 (“Project”), before March 10, 2026, at 2:00 p.m., at its Transportation and Public Works office, located at 69 Stony Circle, Santa Rosa, California, at which time the bids will be publicly opened and read aloud. Bidders may attend the public opening in person.
2. **Project Information.**
  - 2.1 **Location and Description.** The Project is located along Calistoga Road from Montecito Boulevard to Highway 12 and is described as follows: This project will rehabilitate approximately 1.1 center line miles of Calistoga Road using a combination of Full Depth Reclamation and mill and fill paving methodologies to address failing and deteriorating pavement conditions. Associated improvements will include but are not limited to adding buffered and protected bike lanes in select locations updating bus stop infrastructure, and upgrading pedestrian curb ramps to current ADA standards.

In addition to the roadway rehabilitation work, the project will include select water and sewer system infrastructure improvements.
  - 2.2 **Time for Final Completion.** The Project must be fully completed within 320 Working Days from the start date set forth in the Notice to Proceed. City anticipates that the Work will begin on or about May 2026, 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): Class A
  - 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”) may be downloaded from the City’s PlanetBids portal, which may be accessed by selecting the “Bid/Proposal Opportunities” link on the City’s website at <https://www.srcity.org/165/Bids-Proposals>. A printed copy of the Contract Documents is not available.
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 Award, the successful bidder will execute the Contract and submit the payment and performance bonds, insurance certificates and endorsements, valid Certificates of Reported Compliance as required under the California Air Resources

Board's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.) ("Off-Road Regulation"), if applicable, and any other submittals required by the Contract Documents and as specified in the Notice of 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 portion of the Work to be performed for each Subcontractor that will perform Work or service, or fabricate and install Work, for the prime contractor in excess of one-half of 1% of the total bid price, using the Subcontractor List form included with the Contract Documents.

**10. Bidders' Conference.** A bidders' conference will be held on February 25, 2026 at 2:00 p.m., at the following location: 69 Stony Circle, Santa Rosa, CA 95401 to acquaint all prospective bidders with the Contract Documents and the Project site. The bidders' conference is not mandatory.

**11. 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.

By:  \_\_\_\_\_ Date: 2/10/2026 \_\_\_\_\_

Gregory Mariscal, Supervising Engineer

Publication Date: February 12, 2026

END OF NOTICE INVITING BIDS

## Instructions to Bidders

Each Bid Proposal submitted to the City of Santa Rosa ("City") for its Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12 Project, City Contract Number C02263 ("Project") must be submitted in accordance with the following instructions and requirements:

### 1. Bid Submission.

- 1.1 General.** Each Bid Proposal must be completed, using the form provided in the Contract Documents, signed, and submitted to City in a sealed envelope, with all required forms and attachments, before the deadline set forth in Section 1 of the Notice Inviting Bids, or as amended by subsequent addendum. Faxed or emailed Bid Proposals will not be accepted, unless otherwise specified. Late submissions (i.e., submissions at or after the exact hour of bid opening) will be returned unopened. The official time clock for accepting bids will be an electric date and time stamping clock located, and available for inspection during normal business hours upon request, at the front public counter in the Transportation and Public Work Department office, 69 Stony Circle, Santa Rosa, CA 95401. 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.
- 1.2 Vendor Registration.** To participate in the bidding process, each bidder must register as a vendor on PlanetBids, download the Contract Documents, and add itself to the "Prospective Bidders" list for the Project. If City issues an addendum, each bidder must log in to PlanetBids and acknowledge the addendum prior to the bid deadline. (See Section 8, below.)
- 1.3 Bid Envelope.** The sealed envelope containing the Bid Proposal and all required forms and attachments must be clearly labeled and addressed as follows:

**BID PROPOSAL:**

Calistoga Road Pavement Rehabilitation & Utility Improvements  
Montecito Boulevard to Highway 12 Project  
Contract No. C02263

Transportation and Public Works Department  
69 Stony Circle  
Santa Rosa, California 95401  
Attn: Peter Porata

The envelope must also be clearly labeled, as follows, with the bidder's name, address, and its registration number with the California Department of Industrial Relations ("DIR") for bidding on public works contracts (Labor Code §§ 1725.5 and 1771.1):

*[Contractor company name]*  
*[street address]*  
*[city, state, zip code]*  
DIR Registration No: \_\_\_\_\_

- 1.4 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).)
- 1.5 Bid Tabulation.** To access the bid tabulation when available, visit the PlanetBids portal or the Project-specific website, available at [cippublic.srcity.org/CIPList.html](http://cippublic.srcity.org/CIPList.html).
- 2. Bid Proposal Form and Enclosures.** Each Bid Proposal must be completed legibly using the Bid Proposal form included with the Contract Documents. The Bid Proposal form must be fully completed without interlineations, alterations, or erasures. Any necessary corrections must be clear and legible, and must be initialed by the bidder's authorized representative. A Bid Proposal submitted with exceptions or terms such as "negotiable," "will negotiate," or similar, will be considered nonresponsive. Each Bid Proposal must be accompanied by bid security, as set forth in Section 4 below, and by a completed Bid Schedule, Subcontractor List, and Noncollusion Declaration using the forms included with the Contract Documents, and any additional forms required by the Notice Inviting Bids or Instructions to Bidders.
- 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 or as otherwise authorized by law.
- 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 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; submit the insurance certificates and endorsements; and submit valid Certificates of Reported Compliance as required by the Off-Road Regulation, if applicable, and any other submittals, if any, required by the Contract Documents or the Notice of Award.
- 5. Requests for Information.** Questions or requests for clarifications regarding the Project, the bid procedures, or any of the Contract Documents must be submitted in writing to City via the PlanetBids portal. 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 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.** Subject to the limitations of Public Contract Code § 4104.5, City reserves the right to issue addenda prior to bid time. Any addenda issued prior to the bid opening are part of the Contract Documents. Bidders should check City’s PlanetBids portal periodically for any addenda or updates on the Project, which may be accessed via City’s website at:

<https://www.srcity.org/165/Bids-Proposals>. Each bidder is solely responsible for ensuring it has received and reviewed all addenda prior to submitting its bid and must acknowledge each addendum in the PlanetBids portal.

- 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 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 69 Stony Circle, Santa Rosa, CA 95401 or sent via email at [pporata@srcity.org](mailto:pporata@srcity.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. 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.** Subject to the provisions of its charter and the Santa Rosa City Code ("City Code"), 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 90 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 issuance of the Notice of Award, the successful 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) and Certificate(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 tax certificate, issued pursuant to Chapter 6.04 of the City Code, within ten days following issuance of the Notice of Award and before performing any Work on the Project. Subcontractors must also obtain a City business tax certificate 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. In-Use Off-Road Diesel-Fueled Fleets.** If the Project involves the use of vehicles subject to the California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.) ("Off-Road Regulation"), then within ten calendar days following City's issuance of the Notice of Award, the successful bidder must submit to City valid Certificates of Reported Compliance for its fleet and its listed Subcontractors, if applicable, in accordance with the Off-Road Regulation, unless exempt under the Off-Road Regulation.
- 17. Community Workforce Agreement.** If checked below, the Project is subject to the City's Community Workforce Agreement ("CWA") and the successful bidder must comply with the requirements therein.
- This Project is subject to the City's CWA, which is available on the City's website at <https://www.srcity.org/165/Bids-Proposals> and incorporated herein by reference. Within three Working Days following a request from City, the apparent low bidder must submit to City an executed Appendix A, Contractor Agreement to be Bound, using the form provided with the Contract Documents. Each bidder must provide a copy of the CWA to its Subcontractors, and the successful bidder and its Subcontractors must comply with the CWA. Entering into the CWA is a condition of award of the Contract for the Project.
- This Project is not subject to the City's CWA.
- 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. For any quantity that the Bid Schedule identifies a Final Pay Quantity, there will be no adjustment to the Contract Price if the actual quantity required to perform the Work is greater or less than the estimated amount.

- 18.3 Bid Item Description.** The descriptions of bid items in the Specifications are not intended as exclusive descriptions of the Work. Each bidder must determine, and include in its unit pricing, all things necessary and incidental for the timely performance and completion of the Work as specified in the Contract Documents, including, but not limited to, all necessary labor, materials, supplies, tools, equipment, transportation, facilities, and utilities, unless otherwise specified.
- 19. Withdrawal.** A Bid Proposal may not be withdrawn for a period of 90 days after the bid opening without forfeiture of the bid security, except as authorized for material error under Public Contract Code § 5100 et seq. In the event that a bid includes a material error, the bidder may request to withdraw its bid in accordance with Public Contract Code § 5100 et seq. The written request must establish the elements set forth in Public Contract Code § 5103.
- 20. 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).
- 21. 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.
- 22. For Reference Only.** The following documents are provided “For Reference Only,” as defined in Section 3.4 of the General Conditions:
1. Phase 1 Environmental Site Assessment by EBA, February 10, 2026
  2. Photometric Study, Fonroche Lighting America, October 31, 2025
  3. Geotech Description of Borings RGH Consultants, December 17, 2021

END OF INSTRUCTIONS TO BIDDERS

## Bid Proposal

Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12

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\_\_\_\_\_ (“Bidder”) hereby submits this Bid Proposal to the City of Santa Rosa (“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”):  
\$ \_\_\_\_\_.
  
2. **Addenda.** Bidder agrees that it has confirmed receipt of or access to, and reviewed, all addenda issued for this bid, as evidenced by its acknowledgement of each addendum on the City’s PlanetBids portal. Bidder waives any claims it might have against the City based on its failure to receive, access, or review any addenda for any reason.
  
3. **Bidder’s Certifications and Warranties.** By signing and submitting this Bid Proposal, Bidder certifies and warrants the following:
  - 3.1 **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.
  
  - 3.2 **Examination of Worksite.** Bidder has had the opportunity to examine the Worksite and local conditions at the Project location.
  
  - 3.3 **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.
  
  - 3.4 **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.
  
  - 3.5 **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.
  
  - 3.6 **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.
  
  - 3.7 **Agreement to be Bound by CWA.** If the Project is subject to the City’s CWA, Bidder will submit an executed Appendix A, Contractor Agreement to be Bound, using the form provided

with the Contract Documents, within three Working Days following a request from City. (See Section 17 of the Instructions to Bidders.)

4. **Award of Contract.** By signing and submitting this Bid Proposal, Bidder agrees that, if City issues the Notice of Award to Bidder, then within ten days following issuance of the Notice of Award, Bidder will do all of the following:
- 4.1 **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;
  - 4.2 **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;
  - 4.3 **Insurance Requirements.** Submit to City the insurance certificate(s) and endorsement(s) as required by the Contract Documents; and
  - 4.4 **Certificates of Reported Compliance.** Submit to City valid Certificates of Reported Compliance for its fleet and its listed Subcontractors, if applicable, if the Project involves the use of vehicles subject to the Off-Road Regulation.
5. **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

BIDDER NAME: \_\_\_\_\_

This Bid Schedule must be completed legibly and included with the sealed Bid Proposal. Pricing must be provided for each item as indicated. If this Bid Schedule requests pricing for Alternates, pricing must be provided for each Alternate Item as indicated. Items marked "(SW)" are Specialty Work that must be performed by a qualified Subcontractor. The lump sum or unit cost for each item must be inclusive of all costs, whether direct or indirect, including profit and overhead.

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)

### BASE BID

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
1	Mobilization/Demobilization	1	LS	\$	\$
2	Traffic Control	1	LS	\$	\$
3	Water Pollution Control	1	LS	\$	\$
4	Groundwater Management Allowance	1	FA	\$	\$
5	Pre-Construction Hazardous Materials Assessment	1	LS	\$	\$
6	Contaminated Soil Disposal	1,210	CY	\$	\$
7	Relocate Existing Streetlight	1	EA	\$	\$
8	Relocate Existing Traffic Signal Box	1	EA	\$	\$
9	Adjust Existing Utility Box to Grade	43	EA	\$	\$
10	Adjust Existing Manhole to Grade	16	EA	\$	\$
11	Lower Manhole and Adjust to Final Grade	10	EA	\$	\$
12	Repair Storm Drain Subsidence (18")	45	LF	\$	\$
13	Utility Clearances	1	LS	\$	\$
14	Utility Conflict Resolution (Allowance)	1	FA	\$	\$
15	Subgrade Stabilization/Digouts	850	SY	\$	\$
16	Roadway Excavation (F)	13,400	CY	\$	\$
17	Geotextile Fabric	15,900	SY	\$	\$

<b>BID ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
18	Geogrid	950	SY	\$	\$
19	Root Barrier	180	LF	\$	\$
20	Class II Aggregate Base	160	CY	\$	\$
21	Full Depth Reclamation - Cement (FDR-C)	21,900	SY	\$	\$
22	Cement (FDR-C)	210	Ton	\$	\$
23	Mix Design (FDR-C)	1	LS	\$	\$
24	Quality Control (FDR-C)	1	LS	\$	\$
25	Hot Mix Asphalt - Surface Course	5,480	Ton	\$	\$
26	Hot Mix Asphalt - Base Course	17,610	Ton	\$	\$
27	Permanent Trench Paving	140	Ton	\$	\$
28	Sidewalk	10,955	SF	\$	\$
29	Cobble Non-Walkable Surface	20	SF	\$	\$
30	Curb Ramp	2,351	SF	\$	\$
31	Curb & Gutter	1,511	LF	\$	\$
32	6" Wide Vertical Curb	203	LF	\$	\$
33	4" Wide Vertical Curb	78	LF	\$	\$
34	Retaining Curb	43	LF	\$	\$
35	Concrete Bus Pad	1,056	SF	\$	\$
36	City Monument	11	EA	\$	\$
37	Remove & Salvage Existing Roadside Sign	17	EA	\$	\$
38	Relocate Existing Roadside Sign	3	EA	\$	\$
39	Remove & Dispose of Existing Pole	9	EA	\$	\$
40	Furnish & Install New Pole	10	EA	\$	\$
41	Furnish & Install New Roadside Sign	21	EA	\$	\$
42	Pavement Marking & Striping	1	LS	\$	\$
43	Pedestrian Push Button	4	EA	\$	\$
44	Modification of Existing Pedestrian Push Button	1	LS	\$	\$

<b>BID ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
45	Rectangular Rapid Flashing Beacon System (RRFB)	4	EA	\$	\$
46	Spare Rectangular Rapid Flashing Beacon System (RRFB)	1	EA	\$	\$
47	Modification of Existing Rectangular Rapid Flashing Beacon System (RRFB)	1	LS	\$	\$
48	Speed Feedback Sign (SFS)	1	EA	\$	\$
49	Type 1B Pole & Foundation	6	EA	\$	\$
50	Solar Street Light & Foundation	1	LS	\$	\$
51	Bus Bench	7	EA	\$	\$
52	Remove and Dispose of Existing Bus Stop Equipment	2	EA	\$	\$
53	Trench Bracing and Shoring	1	LS	\$	\$
54	Tree Removal	5	EA	\$	\$
55	48" Sewer Manhole on New Main (two 12" and one 8" connection)	1	EA	\$	\$
56	48" Sewer Manhole on New Main (two 12" connection)	2	EA	\$	\$
57	Connection to Existing Manhole on Existing Alignment (12" to 12")	6	EA	\$	\$
58	Connection to Existing Manhole on Existing Alignment (6" to 8")	7	EA	\$	\$
59	Connection to Existing Manhole on New Alignment (12" to 12")	3	EA	\$	\$
60	8" Sewer Main	919	LF	\$	\$
61	12" Sewer Main	906	LF	\$	\$
62	4" Sewer Lateral & Cleanout (up to 30 ft)	10	EA	\$	\$
63	4" Sewer Lateral & Cleanout (> 30 ft)	7	EA	\$	\$
64	Remove Existing Sewer Manhole	1	LS	\$	\$
65	8" DR14 PVC Water Main	2,296	LF	\$	\$
66	Additional Cost to Change 8" Water Main Material to Ductile Iron Pipe	459	LF	\$	\$
67	8" Gate Valve	23	EA	\$	\$

<b>BID ITEM NO.</b>	<b>ITEM DESCRIPTION</b>	<b>EST. QTY.</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>EXTENDED TOTAL AMOUNT</b>
68	8" Water Main Full Lowering/Overstructure	5	EA	\$	\$
69	8" Water Main Half Lowering/Overstructure	5	EA	\$	\$
70	12" DIP Water Main	43	LF	\$	\$
71	12" Gate Valve	2	EA	\$	\$
72	14" DIP Water Main	245	LF	\$	\$
73	14" Gate Valve	5	EA	\$	\$
74	14" Water Main Full Lowering/Overstructure	3	EA	\$	\$
75	14" Water Main Half Lowering/Overstructure	2	EA	\$	\$
76	16" DR18 PVC Water Main	5,045	LF	\$	\$
77	Additional Cost to Change 16" Water Main Material to Ductile Iron Pipe	1,009	LF	\$	\$
78	16" Gate Valve	13	EA	\$	\$
79	16" Water Main Half Lowering/Overstructure	2	EA	\$	\$
80	16" Water Main Full Lowering	7	EA	\$	\$
81	28" Steel Casing Installation (Bore & Jack)	40	LF	\$	\$
82	16" Water Main Tie-in Manifold Assbly to 20", 14" & 10" Mains at Hwy 12	1	LS	\$	\$
83	Water Main Tie-In (14"/16")	8	EA	\$	\$
84	Water Main Tie-In (12")	1	EA	\$	\$
85	Water Main Tie-In (8")	11	EA	\$	\$
86	Pressure Zone Interconnection/Tie-In - Standard Tee	3	EA	\$	\$
87	Pressure Zone Interconnection/Tie-In - Tapping Sleeve (14" to 8")	1	EA	\$	\$
88	Backflow Device Re-Certification	4	EA	\$	\$
89	Remove and Salvage Existing Fire Hydrant	9	EA	\$	\$

BID ITEM NO.	ITEM DESCRIPTION	EST. QTY.	UNIT	UNIT COST	EXTENDED TOTAL AMOUNT
90	Fire Hydrant and Lateral Assembly (up to 30 ft)	11	EA	\$	\$
91	Fire Hydrant and Lateral Assembly (>30ft)	5	EA	\$	\$
92	Fire Hydrant and Lateral Assembly - Tapping Sleeve	1	EA	\$	\$
93	Reconnect Existing Fire Hydrant	1	EA	\$	\$
94	1" Single Water Service (up to 30 ft)	20	EA	\$	\$
95	1" Single Water Service (>30ft)	23	EA	\$	\$
96	1-1/2" Dual Water Service	5	EA	\$	\$
97	4" Ductile Iron Multi-Service Manifold	1	EA	\$	\$
98	6" Service Lateral Reconnection to New Main	1	EA	\$	\$
99	Remove Existing 14" Water Main	1	LS	\$	\$
100	Abandon Existing 14" and 16" Water Main (foamed concrete)	1	LS	\$	\$

\* 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.*

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.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

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 Santa Rosa (“City”) for work on the Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12 Project, City Contract Number C02263 (“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 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;
  - 2.4 **Insurance.** The insurance certificate(s) and endorsement(s) required by the Contract Documents;
  - 2.5 **Certificates of Reported Compliance.** Valid Certificates of Reported Compliance for its fleet and its listed Subcontractors, if applicable, in accordance with the In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.) (“Off-Road Regulation”), if the Project involves the use of vehicles subject to the Off-Road Regulation; and
  - 2.6 **Other Submittals.** Any other documents required by the Instructions to Bidders or Notice of Award.
3. **Enforcement.** If Bidder fails to execute the Contract or to submit the bonds, insurance certificates, and valid Certificates of Reported Compliance 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: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

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 90 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.

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**

**CALISTOGA ROAD PAVEMENT REHABILITATION & UTILITY IMPROVEMENTS  
MONTECITIO BOULEVARD TO HIGHWAY 12 PROJECT**

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 debarred from bidding under state or federal law?

\_\_\_\_\_ Yes      \_\_\_\_\_ No

If yes, provide additional information on a separate sheet regarding the disqualification or debarment, 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 debarred, and the month and year in which the disqualification or debarment 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 contractor 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

**Appendix A**

**City of Santa Rosa Community Workforce Agreement  
Contractor Agreement To Be Bound**

The undersigned, as a Contractor or Subcontractor ("Contractor") for the Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12 Project, City Contract Number C02263, (hereinafter the "Covered Project"), for and in consideration of the award to it of a contract to perform work on said Covered Project, and in further consideration of the mutual promises made in the "City of Santa Rosa Community Workforce Agreement" (hereinafter "Agreement"), a copy of which was received and is acknowledged, hereby:

- (1) Accepts and agrees to be bound by the terms and conditions of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.
- (2) Agrees to be bound by the legally established local trust agreements as set forth in Article 17 of this Agreement.
- (3) Authorizes the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratifies and accepts the trustees so appointed as if made by the Contractor;
- (4) Certifies that it has no commitments or agreements which would preclude its full and complete compliance with the terms and conditions of the Agreement.
- (5) Agrees to secure from any Contractor(s) (as defined in said Agreement) which is or becomes a subcontractor (of any tier) to it, a duly executed Agreement to be Bound in form identical to this document.

The obligation to be a party to and bound by the Agreement shall extend to all work for the Covered Project undertaken by the Contractor.

This letter shall constitute a subscription agreement, to the extent of the terms of the letter.

CONTRACTOR/SUBCONTRACTOR: \_\_\_\_\_

California Contractor State License No. or Motor Carrier (CA) Permit No.: \_\_\_\_\_

Name of Authorized Person (print): \_\_\_\_\_

Signature of Authorized Person: \_\_\_\_\_

Title of Authorized Person: \_\_\_\_\_

Telephone Number of Authorized Person: \_\_\_\_\_

Address of Authorized Person: \_\_\_\_\_

State Public Works Registration Number: \_\_\_\_\_

## Contract

This public works contract ("Contract") is entered into by and between the City of Santa Rosa ("City") and \_\_\_\_\_ ("Contractor"), for work on the Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12 Project, City Contract Number C02263 ("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. City has elected to include the following bid alternate(s) in the Contract: No alternates.
2. **Contract Documents.** The Contract Documents incorporated into this Contract include and are comprised of the documents listed below. The definitions provided in Article 1 of the General Conditions apply to all 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 Award;
  - 2.12 Notice to Proceed;
  - 2.13 City Standards and City Specifications, as applicable;
  - 2.14 City's CWA, if applicable;
  - 2.15 Caltrans Standard Specifications (excluding Division I) and Caltrans Standard Plans, as applicable; and
  - 2.16 The following: No other documents.
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 320 Working Days from the start date set forth 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 \$4,500 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:**

Transportation and Public Works Department  
69 Stony Circle  
Santa Rosa, CA 95401

Attn: Peter Porata, Associate Civil Engineer  
pporata@srcity.org

Copy to: Mike Janet, Construction Manager (Coastland | DCCM)  
mj Janet@dccm.com

**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 Sonoma 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 Sonoma 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 Corporations Code § 313 or as otherwise authorized by law.
- 12.9 Electronic Signatures.** In accordance with Government Code § 16.5 and Civil Code § 1633.1 et seq., the parties agree that this Contract may be transmitted and executed electronically and that electronic signatures will have the same force and effect as the use of manual signatures.

*[Signatures are on the following page.]*

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

**CITY:**

Approved as to form:

s/ \_\_\_\_\_

s/ \_\_\_\_\_

\_\_\_\_\_  
Name, Title

\_\_\_\_\_  
Name, Title

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attest:

s/ \_\_\_\_\_

\_\_\_\_\_  
Name, Title

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 Santa Rosa ("City") and \_\_\_\_\_ ("Contractor") have entered into a Contract for work on the Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12 Project, City Contract Number C02263 ("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 sent to Surety as follows:  
  
Attn: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_
  
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 Sonoma 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/ \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Title

END OF PAYMENT BOND

## Performance Bond

The City of Santa Rosa ("City") and \_\_\_\_\_ ("Contractor") have entered into a Contract for work on the Calistoga Road Pavement Rehabilitation & Utility Improvements Montecito Boulevard to Highway 12 Project, City Contract Number C02263 ("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: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

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 Sonoma 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/ \_\_\_\_\_

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name, Title

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.

**Awarding Authority** means the City Council or its authorized delegee(s) unless the Contract is awarded by the Water Department, in which case it means the Board of Public Utilities.

**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 City of Santa Rosa, 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).

**City Specifications** means the City’s Construction Specifications for Public Improvements, which may be accessed on the City’s website at <https://www.srcity.org/2321/Design-Construction-Standards>.

**City Standards** means the City’s Design and Construction Standards, which may be accessed on the City’s website at <https://www.srcity.org/2321/Design-Construction-Standards>.

**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; a written demand by Contractor disputing a unilateral Change Order or a portion thereof; 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 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** (or **You**) means the individual, partnership, corporation, or joint venture that has signed the Contract with City to perform the Work.

**CWA** means the Community Workforce Agreement for the City.

**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 other design professional 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 Santa Rosa and his or her authorized delegates.

**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.

**Materials Lab** means City’s Materials Engineering Laboratory, which may perform quality assurance functions for a Project relating to asphalt and concrete, including inspection and/or testing of workmanship, materials, and the manner of construction.

**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, as modified by any Project alternates elected by City, if any.

**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.

**Water Department** means the City of Santa Rosa Water Department.

**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 the following holidays observed by the City:

- (A) New Year's Day, January 1;
- (B) Martin Luther King Jr. Birthday, the third Monday in January;
- (C) President's Day, the third Monday in February;
- (D) Cesar Chavez Day, March 31;
- (E) Memorial Day, the last Monday in May;
- (F) Juneteenth, June 19;
- (G) Independence Day, July 4;
- (H) Labor Day, the first Monday in September;
- (I) Veterans Day, November 11;
- (J) Thanksgiving Day, the fourth Thursday in November;
- (K) The day after Thanksgiving Day; and
- (L) Christmas Day, December 25.

**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, subject to the limitations of Laws, including Public Contract Code § 7105.

(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, 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 and participate in a pre-construction conference, weekly Project progress meetings, and coordination meetings, as set forth herein.

(1) **Pre-Construction Conference.** City will designate a date and time for a pre-construction conference with Contractor following Contract execution. Project administration procedures and coordination between City and Contractor will be discussed. Contractor must present City with the following information or documents at the conference, unless otherwise specified by City, for City's review and acceptance before the Work commences:

- a. Name, 24-hour contact information, and qualifications of the proposed on-site superintendent;
- b. List of all key Project personnel and their complete contact information, including email addresses and telephone numbers during regular hours and after hours;
- c. Staging plans that identify the sequence of the Work, including any phases and alternative sequences or phases, with the goal of minimizing the impacts on residents, businesses and other operations in the Project vicinity;
- d. If required, traffic control plans associated with the staging plans that are signed and stamped by a licensed traffic engineer;
- e. Draft baseline schedule for the Work as required under Section 5.2, to be finalized within ten days after City issues the Notice to Proceed or as otherwise specified by City;
- f. Breakdown of lump sum bid items, to be used for determining the value of Work completed for future progress payments to Contractor;
- g. Schedule with list of Project submittals that require City review, and list of the proposed material suppliers;
- h. Plan for coordination with affected utility owner(s) and compliance with any related permit requirements;

i. Videotape and photographs recording the conditions throughout the pre-construction Project site, showing the existing improvements and current condition of the curbs, gutters, sidewalks, signs, landscaping, streetlights, structures near the Project such as building faces, canopies, shades and fences, and any other features within the Project area limits;

j. If requested by City, Contractor's cash flow projections; and

k. Any other documents specified by City.

(2) **Progress Meetings.** Contractor, its project manager, superintendent and any primary Subcontractors requested by City, must participate in weekly Project progress meetings scheduled with City.

(3) **Coordination Meetings.** 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 Contract Documents, 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 requested by City in City's notice to correct, Contractor must submit a Work plan for correcting defective Work in advance of Contractor taking corrective action. 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 also 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, copies of the insurance policies and endorsements required by the Contract Documents, 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. Contractor's records may also be subject to examination and audit by the California State Auditor, pursuant to Government Code § 8546.7. 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.

(L) **Quality Control.** Contractor is responsible for developing, implementing, and maintaining a quality control plan that includes sampling, testing, and inspecting the Work to control material quality and to ensure that the Work satisfies the quality characteristics in the Contract Documents. Contractor must submit copies of the quality control plan to City, within two Working Days after the pre-construction conference, and make one copy available at each Worksite.

(1) **Records.** Contractor must prepare and maintain quality control records, including the names and qualifications of samplers, testers, and inspectors; testing laboratories' identification and certifications; testing equipment calibrations and certifications; inspection reports; sampling and testing records organized by date and type of material; test results with comparison of quality characteristic requirements; test results in relation to action and any suspension limits; and records of corrective actions and suspensions. Contractor will submit any quality control test data and test results to the Engineer within two Working Days following test completion. Contractor must immediately notify the Engineer of any noncompliant Work.

(2) **Quality Control Manager.** Unless otherwise specified in the Special Conditions or Specifications, before starting Work, Contractor will designate in writing, and provide complete contact information for, the quality control manager for the Project who will be responsible for receiving, reviewing, and approving all correspondence and submittals prior to submission to the City; signing and implementing Contractor's quality control plan; and maintaining quality control records. The quality control manager must either be an employee of Contractor, or a Subcontractor retained solely to provide quality control services for the Project. The quality control manager must not be employed or compensated by a Subcontractor who will provide other Work for the Project.

(3) **Test Modifications.** The following specific tests are modified as follows: For California Test 216 (Relative Compaction), a mechanical compactor (Ploog Engineering Co. Model M 100 or equal) with a 10-pound hammer and split compaction molds must be used in lieu of the specified manual compaction equipment. For California Test 231 (Nuclear Gage Determination of In-Place Density), in-place density and relative compaction may be determined on the basis of individual test sites in lieu of the area concept at the discretion of the Engineer.

### 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 tax certificate 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 City work forces or 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 City work forces, 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. Contractor must provide submittals in electronic format, unless otherwise specified by the Engineer.

(C) **Required Contents.** Each submittal must be uniquely numbered and 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). Submittal resubmissions must include a revision designation.

(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. Except as required for corrections, Contractor will not make changes to a submittal upon resubmission. City reserves the right to reject a partial resubmission of a 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, Inspector, and Materials Lab.

(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 Material List.** Unless otherwise specified by City, Contractor must submit to the Engineer, at or before the pre-construction conference, a list of all materials proposed for use in the Work and any supporting documentation and samples required by the Contract Documents and source of supply. For a material listed on the "Engineer's List of Approved Items," located in the Sewer and Water sections of the City Standards, Contractor must provide the name of the manufacturer and model and part number for each material proposed for the Work, unless the item has been replaced for the Project, as specifically set forth in the Contract Documents. For all other materials, Contractor must provide the name of the manufacturer, model and part number, and supporting documentation and samples that will enable the Engineer to evaluate the material.
- 2.8 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.
- 2.9 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 the Contractor. If Contractor proceeds with the related Work before obtaining the 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 Articles 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 – Caltrans Contract Requirements (only if used);
- (F) Special Conditions;
- (G) General Conditions;
- (H) Payment and Performance Bonds;
- (I) Specifications;
- (J) Plans;
- (K) Notice of Award;
- (L) Notice Inviting Bids;
- (M) Attachment A – Caltrans Bidding Requirements (only if used);
- (N) Instructions to Bidders;
- (O) Community Workforce Agreement, if applicable;
- (P) Contractor’s Bid Proposal and attachments;
- (Q) City Standards and City Specifications, as applicable; and
- (R) 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, Caltrans Special Provisions, or Caltrans Standard Plans.

**3.3 Caltrans Standard Specifications and Standard Plans.** 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 and revisions as of the date that Contractor’s bid was submitted for this Project. Any reference to or incorporation of Caltrans’ Standard Plans means the most current edition of Caltrans’ Standard Plans, unless otherwise specified (“Caltrans Standard Plans”), including the most current amendments or revisions 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, Special Provisions, or Caltrans Standard Plans:

(A) **Limitations.** The “Division I General Provisions” of the Caltrans Standard Specifications, i.e., Division I (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. Unless otherwise specified in the Specifications, the remaining Divisions of the Caltrans Standard Specifications, i.e., Division II through Division XII, are applicable to the extent relevant to the Work and are subject to any modifications set forth in the Specifications. A specific reference in the Specifications to a section from the Caltrans Standard Specifications will not be construed as excluding other applicable sections from the Caltrans Standard Specifications.

(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” or “Director” 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.

(4) Any reference to "Laboratory" is deemed to mean the Materials Lab, or such other laboratory as may be authorized by the 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 the 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 the 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 on the date that bids were due.
- 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 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, fees and costs of litigation or arbitration, and fees and expenses incurred in enforcing this Section) (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 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. The required insurance 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, except as specified for commercial general liability insurance in subsection (A)(1), below, which requires a longer duration. 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 "VII" or better. Each certificate of insurance must identify this Contract by the Project number and state: "The listed insurance policies include endorsements as required by contract." The City may, but has no obligation to, review insurance policies submitted by Contractor. The City's failure to demand evidence of full compliance with the insurance requirements set forth in this Contract or the City's failure to identify any insurance deficiency will not relieve Contractor from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance in accordance with this Section. 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, or Contractor's failure to procure and maintain the required insurance, will not be construed to limit Contractor's liability under this Contract. The procurement of the required

insurance will not be construed 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 with coverage at least as broad as ISO CG 00 01, 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 protective coverage, contractual liability, products liability, completed operations, and broad form property damage, with limits of at least \$5,000,000 per occurrence and at least \$5,000,000 general aggregate. If insurance applies separately to a project/location, aggregate may be equal to per occurrence amount. 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. The products liability and completed operations coverage must continue for a period of three years following City's acceptance of the Project.

(2) *Automobile Liability Insurance:* The automobile liability insurance policy must provide coverage of at least \$3,000,000 combined single-limit per accident for bodily injury, death, or property damage, including hired, owned, and non-owned auto liability. Coverage must be at least as broad as ISO Form Number CA 00 01 covering any auto (Code 1).

(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 statute, per accident for bodily injury or disease. 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 provide coverage of at least \$1,000,000 per occurrence and \$2,000,000 aggregate for all loss arising out of claims for bodily injury, death, property damage, or environmental damage caused by pollution conditions resulting from the Work. If the Work involves lead-based paint or asbestos identification and/or remediation, the pollution liability insurance policy must not contain lead-based paint or asbestos exclusions. If the Work involves mold identification, the pollution liability policy must not contain a mold exclusion and the definition of "pollution" in the policy must include microbial matter, including mold.

(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, without co-insurance provisions. Contractor must name City as loss payee.

(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 prior written notice to City, unless due to non-payment of premiums, in which case ten days prior 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 of Santa Rosa, 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. Coverage for an Additional Insured will not be limited to the Additional Insured's vicarious liability. The additional insured endorsement must be provided using ISO forms at least as broad as CG 20 10 04 13 or 20 38 04 13 (ongoing operations) and CG 20 37 04 13 (completed operations), or equivalent form(s) 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. This endorsement must be provided using ISO form CG 20 01 04 13 or an equivalent form approved by the City.

(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. Contractor's insurance coverage applies to the full extent of the policies, and nothing contained herein will be construed to limit the application of such coverage.

(F) **Deductibles and Self-Insured Retentions.** Any deductibles or self-insured retentions that apply to the required insurance (collectively, "deductibles") in excess of \$10,000 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. Contractor will diligently prosecute the Work to minimize the public's exposure to construction activities. 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. Contractor must provide the Engineer with a license for use of Contractor's scheduling software, unless otherwise specified 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).

(2) *High Dollar or Long Duration Projects.* In addition to the requirements set forth above, if the Contract Price is \$5,000,000 or more or if the Contract Time is 100 Working Days or more, Contractor's baseline (as-planned) schedule must include the following: the start and completion dates for submittal development, submittal review, milestones and constraints, equipment and plant setup, interfaces with outside entities, erection and removal of falsework and shoring, test periods, major traffic stage change, and final cleanup; logical links between time-scaled Work activities; controlling activities; at least 50 but no more than 500 activities, unless otherwise specified or authorized by the Engineer; alphanumeric activity identification and activity description system for labeling Work activities; identification code for each activity for responsibility, stage, Work shifts, location, and bid items; activity durations of at least one Working Day and no more than 20 Working Days for each activity, unless otherwise authorized by the Engineer; and float as the predecessor activity to Final Completion. Each activity description must indicate its associated scope or location of Work.

(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 five 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 or approved by City. If Contractor wants to perform non-critical Work activities that are out of sequence with the current City-accepted schedule, Contractor must notify and request approval from the Engineer in advance of performance of any such activities. Performance of any such Work must not impact the critical path Work activities. 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, to facilitate City's use of its property, or to minimize the public's exposure to construction activities. 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 observed by City, with noise generating activities limited to 7:00 a.m. to 7:00 p.m. and vehicular traffic impacts limited to 8:30 a.m. to 4:30

p.m., 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, or 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-accepted 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, or 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 Weather Delay Days in excess of normal for a given month, as set forth in Section 5.3(C), 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 14 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 Delay 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 Delay 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 notify the Engineer in writing, within one Working Day following the date the Contractor first encounters the circumstances giving rise to

Contractor's contention that Extra Work is necessary. Contractor's written notice must specifically identify 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, by no later than close of business on that same Working Day, a daily report of the Extra Work performed that day, signed by the City and Contractor, identifying the labor, materials, and equipment used in the Extra Work ("Extra Work Report"). The Engineer may make any adjustments to Contractor's Extra Work Report(s) based on the Engineer's records of the Work. The Extra Work Report enables the parties to document and track the Extra Work, or Work that the Contractor contends is Extra Work. City's signature on the Extra Work Report is intended solely to document City's receipt of the Extra Work Report; it does not constitute any acknowledgement, acceptance, or approval of the Extra Work by City. To request compensation for Extra Work, Contractor must comply with the requirements in Section 6.2, below, including submission of the Extra Work Reports and a breakdown of the costs related to the Extra Work, together with copies of certified payroll, invoices, and other documentation substantiating the costs. Failure to submit the Extra Work Report by close of business on the same Working Day as the Extra Work 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 14 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% (excluding bond or insurance premium markup):

- (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 actual direct labor, material, and equipment costs for Work performed by Subcontractors, plus markup on those costs not to exceed 10% of the cumulative total of those actual direct costs, regardless of the number of subcontract tiers; and
- (5) Increased bond and insurance premium costs computed at 1.5% of the 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.

**6.6 Post-Bid Cost Increases.** The City is not responsible for any post-bid cost increases that were foreseeable at the time of the bid based on generally available information (e.g., scheduled tariffs), or that arose due to Contractor's failure to timely procure materials or equipment.

## **Article 7 - General Construction Provisions**

### **7.1 Permits, Fees, Licenses, Certificates, and Taxes.**

(A) **Fees, Licenses, Certificates, and Permits.** Contractor must obtain and pay for all fees, licenses, and certificates required to perform the Work, including a City business tax certificate. Contractor must obtain all permits required to perform the Work. Contractor is not responsible for the fees associated with obtaining permits unless otherwise specified in the Special Conditions or Specifications. 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 and certificates 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 are set forth in this Article 7 and may also 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 and performance of the Work, including the piping, wiring, internet and Wi-Fi connections, and any related equipment necessary to maintain the temporary facilities. Contractor may obtain water from the City's water system or from a source other than City's water system, if approved in advance by the Engineer. Before obtaining water from the City's water system, Contractor must obtain a Water Use Permit from the Water Department and rent a hydrant or bridge meter. Contractor is responsible for the cost of all water and all related deposits, permits, and fees. Contractor is prohibited from operating gate valves or fire hydrants on the City's water system. The acquisition of water from the City's water system through un-metered hydrants or other facilities is a violation of Laws. Citations and fines may be levied for violation of these and other utility regulations and may be deducted from payment otherwise due Contractor.

(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 72 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. Property owners, tenants, and businesses must have full access to their driveways during non-Work hours. The Engineer may, at any time, direct or approve of opening completed sections of surfacing, pavement, or structure roadway surface for public use.

(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 and obtain a temporary use permit, in accordance with City Code § 20-52.040. 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, and pedestrian traffic.

(D) **Railroad Property.** Sonoma-Marín Area Rail Transit (“SMART”) maintains railroad property within the City. Contractor will not interfere with railroad operations or perform Work on or adjacent to railroad property unless Contractor has obtained an encroachment permit from SMART. Contractor is responsible for obtaining an encroachment permit from SMART if necessary for the Work or for Contractor’s traffic control. Contractor will not be entitled to an extension of time or additional compensation to obtain the SMART permit. For any excavation on or affecting railroad property, Contractor must submit Work plans to the City and SMART, if requested by SMART, showing the system to be used to protect the railroad facilities. Contractor will prevent material, equipment, and debris from falling onto railroad property.

(E) **Third Party Material Sourcing and Disposal.** If Contractor intends to procure materials from or dispose of materials on any property owned by a third party, before procuring material or disposing of material, Contractor must provide City with a copy of the agreement between Contractor and the third party authorizing the use of the property and absolving the City from responsibility in connection with the property. Contractor must obtain authorization from the third party to start sourcing or disposing of material on the property. As a condition precedent to Final Completion, Contractor must submit a document to the City, signed by the third party property owner, stating that the Contractor complied with its agreement with the third party.

**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.

(6) All valves, hydrants, and other appurtenances of the City's water system that are the property of City and removed by Contractor in the performance of the Work must be delivered to City's Municipal Services Center (55 Stony Point Road) as a condition precedent to Final Completion, unless Contractor has obtained specific written approval from the Water Department to dispose of the items.

(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, including damage to City's water system. 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.

(F) **Damage to City's Water System.** Contractor must promptly repair and remediate, at its sole expense, any damage caused by Contractor to the City's water system, in a manner satisfactory to the Water Department. This includes damage to property and facilities resulting from Contractor's failure to make a written request for a markout or starting Work without providing the Water Department a reasonable opportunity to mark facilities; Contractor's destruction of markouts; Contractor's failure to perform hand digging or probing for utilities near markouts; and Contractor's failure to use reasonable caution, regardless of whether markouts are present or clear. Reasonable caution includes any efforts to avoid damaging existing facilities, such as when excavating in the vicinity of water mains. All repairs must be witnessed, inspected, and approved by the Water Department prior to backfilling the excavation. If backfilling occurs prior to inspection and approval, City may require re-excavation by Contractor, at Contractor's sole expense. Acting in its sole discretion, City may elect to have the damage remedied otherwise, including by its own forces, and may deduct the cost thereof from payment otherwise due to Contractor. If City elects to remedy damage to the water system with its own forces, the cost thereof will be in accordance with the emergency repair rate schedule of the Water Department.

## 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. All materials, equipment, and tools furnished or installed by Contractor must meet or exceed applicable Occupational Safety and Health Administration ("OSHA") standards. 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 timely procurement of materials and equipment to avoid delay in Project completion and to avoid incurring additional costs due to known market volatility (e.g., scheduled tariffs). 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. Upon request, Contractor must provide proof of any such authorization or license to City. Contractor's indemnity obligations in Article 4 apply to any claimed violation of intellectual property rights.

(D) **Equipment Labeling and Information.** Contractor must label each piece of equipment, except hand tools, with the following information, at a clearly visible location on each piece of equipment using a stencil or stamp: an identifying number; and for compacting equipment, its make, model number, and empty gross weight that is either the manufacturer's rated weight or the scale weight, or for meters and on the load-receiving element and indicators of each scale, the make, model, serial number, and manufacturer's rated capacity. Upon request, Contractor must submit the manufacturer's information that designates portable vehicle scale capacities.

(E) **Measuring Devices.** For proportioning materials, Contractor must use measuring devices, material plant controllers, and undersupports that comply with 4 CCR § 4000 et seq. and Business and Professions Code § 12001 et seq. Measuring devices must be tested and approved under California Test 109 in the Engineer's presence by any of the following: County Sealer of Weights and Measures; Scale Service Agency; or Official of the Division of Measurement Standards. The indicator over-travel must be at least one-third of the loading travel. The indicators must be enclosed against moisture and dust. Contractor must group the measuring system dials such that the smallest increment for each indicator can be read from the location at which proportioning is controlled.

## 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 at least four weeks in advance of Contractor's proposed order date and sufficiently in advance of the time needed to avoid delay of the Work. A request for substitution must contain a description of any proposed changes to the Work required to accommodate the substitution and drawings and details showing all such changes.

(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 at all locations during construction and/or fabrication, including at any Worksite, shops, and yards. All manufacturers' application or installation instructions must be provided to the Engineer 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. City may record, including by photograph or video, all materials, equipment, and workmanship used in the Work. 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 will coordinate directly with the Engineer when scheduling inspections or tests, unless otherwise specified in the Special Conditions or Specifications. 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. Contractor will not coordinate directly with, or provide direction to, the Materials Lab.

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

- (1) Contractor will be responsible for the costs of any subsequent inspections or 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 or testing of the Work does not in any way relieve Contractor of its obligations to perform the Work as specified. Contractor has an independent duty to test and inspect its Work and perform quality control activities to ensure that the Work and the materials, products, and equipment incorporated into the Work comply with the Contract Documents. City is not responsible for any testing performed by Contractor or a third-party retained by Contractor. Contractor will submit its testing methodology to City for review and acceptance. Any Work done without the inspection(s) or testing required by the Contract Documents will 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, and 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. Contractor must comply with all Laws, including the California Air Resources Board's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR § 2449 et seq.).

(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 wastewater 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 payment otherwise due to Contractor. 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, in accordance with City Standards, all existing improvements that are damaged or removed during the Work, both on and off the Project site, including curbs, sidewalks, driveways, fences, gates, signs, landscaping, drainage ditches, irrigation systems, 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. Concrete surface treatment and score marks must match adjacent existing concrete 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.** The instructions and manuals, along with any required guarantees, must be delivered to City for review prior to requesting final inspection pursuant to Section 11.1(A), unless otherwise specified.

(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.

(C) **Alteration or Relocation of Utilities.** If Contractor wishes to alter or relocate utilities for Contractor's convenience, and not due to a conflict that requires alteration or relocation, Contractor will be solely responsible for the time and cost required for such alteration or relocation, which may not proceed except as specified by the prior written authorization of the utility owner. Any damage to utilities or improvements caused by Contractor must be repaired by Contractor at its sole expense and to the full satisfaction of the utility owner and Engineer. Contractor will not be entitled to an extension of the Contract Time in connection with any such Work.

**7.13 Notice of Excavation.** Contractor must comply with all applicable requirements in Government Code § 4216 et seq., which are incorporated by reference herein, including, but not limited to, the requirement to notify Underground Service Alert ("USA") of a proposed excavation and provide USA all relevant data relating to the excavation, at least two Working Days before starting any excavation Work.

**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 or if the trench is expected to exceed 20 feet, the plan 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 unless otherwise specified in the Special Conditions. All stakes or marks must be set by a California licensed land surveyor or a California registered civil engineer. All survey

monuments that may be disturbed or destroyed during performance of the Work must be tied-out by Contractor prior to the start of Work. Contractor must also file a Pre-Construction Corner Record, prepared by a California licensed land surveyor, with the County of Sonoma Surveyor's Office, prior to the start of Work. Contractor must notify the Engineer of any discrepancies found between Contractor's staking and grading and information provided by the Contract Documents. Contractor must replace any survey monuments that are disturbed, damaged, or destroyed during the Work and must file a Post-Construction Corner Record, prepared by a licensed land surveyor as required by law, with the County of Sonoma Surveyor's Office. 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.

(C) **Pest Management.** Contractor must comply with the City-Wide Integrated Pest Management (“IPM”) Policy, Policy Number 000-74, which is available at <https://www.srcity.org/DocumentCenter/View/41774/Integrated-Pest-Management-Policy-030524>. Contractor will not use pesticides or herbicides in the Work without City’s prior written approval. Contractor may submit a written request for use of pesticides or herbicides to the Engineer. Contractor’s written request must include the location proposed for use, the proposed date and time of application, product specifications, and all other information required by the IPM policy. City reserves the right, in its sole discretion, to approve or reject the use of pesticides or herbicides, for any reason.

**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 Public Contract Code § 20676, Contractor will not purchase any sand, gravel, or other minerals for the Work from an operation subject to the Surface Mining and Reclamation Act of 1975 (Public Resources Code § 2710 et seq.) unless Contractor certifies, under penalty of perjury, that the minerals are from a mining operation included on the AB 3098 List, which may be accessed online at: <https://www.conservation.ca.gov/smgb/Pages/AB-3098-List.aspx>.

**7.22 Water Department Notification.** If Contractor requires the services of the Water Department in connection with the Work, Contractor must request such services at least two Working Days in advance of the time the services are needed. If the requested services require Water Department forces for more than eight hours or an extensive number of City-provided parts, Contractor must request services at least seven calendar days in advance of the time the services are needed.

(A) **Service Shut Down.** Contractor must minimize disruption of utility service to the greatest extent practicable. Contractor must coordinate any shut down or disruption of utility service with the Engineer, Water Department, and affected utility customers. If it is necessary to shut down or disrupt utility service to any customer of the Water Department, Contractor must request the services of the Water Department an additional three Working Days in advance of the time such services are needed, for a total of five Working Days advance notification for a standard service request, to allow affected customers a minimum of three days’ advance notice. If Contractor fails to keep field appointments, Contractor will be billed for scheduled Water Department crew standby time and for costs incurred by the Water Department for re-notification of customers.

(B) **Water Department Scheduling.** Water Department crews work a 9/80 schedule. This schedule may prohibit shutdowns for tie-ins on alternating Fridays. After-hours work or weekend work may be performed if authorized in advance by the Engineer. Requests by Contractor for after-hours or weekend work are to be avoided when possible. Contractor will be responsible for any overtime costs incurred by City for such work and the cost thereof may be deducted from payment otherwise due Contractor.

**7.23 Public Safety and Traffic Control.** Contractor must undertake all required and appropriate measures to ensure public safety during construction of the Project, in accordance with Laws, including, but not limited to, the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101 et seq.). Contractor will ensure the safe passage of pedestrians around the Project site at all times. If Work is within a City-owned right-of-way, Contractor

will ensure the safe passage of public traffic through the Project site at all times, consistent with the requirements of City Code Chapter 13-04. Contractor is solely responsible for the costs of all public safety and traffic control measures.

(A) **Warning Devices.** Contractor must furnish, install, and maintain, at its sole expense, all fences, barricades, signs, lights, and other devices necessary to prevent accidents, injuries, death, and property damage. All such devices must conform to the requirements of the current edition of the California Manual on Uniform Traffic Control Devices ("CA MUTCD") and the directions of the Engineer. Contractor's warning and safety devices will not obscure the visibility of or conflict with existing signs and traffic control devices. Contractor may be required to cover certain signs which regulate or direct public traffic to roadways that are not open to traffic, as directed by the Engineer.

(B) **Flaggers.** Contractor must also furnish, at Contractor's sole expense, trained flaggers as necessary to provide adequate warning to the public of construction conditions that may impact pedestrian or vehicular traffic.

(C) **Project Signage.** Unless otherwise specified in the Special Conditions, Contractor must install and maintain Project identification signs at each boundary of the Project site or as directed by the Engineer. Contractor must install the signs two weeks prior to the start of Work at the Project site, using sign panels furnished by City. To mount sign panels, Contractor must furnish and install 4" X 4" posts or mount by other appropriate methods as approved by the Engineer. Upon completion of the Project, Contractor will remove Project identification signs, in a timely manner, and return the City-furnished sign panels to the City Corporation Yard at 55 Stony Point Road.

(D) **Road Closure Signage.** If the Work requires road closures, Contractor must furnish and install advance notice signs for road closures at each boundary of the Project site. Panel construction and lettering are subject to advance approval of the Engineer. Contractor must install the signs two weeks prior to the start of Work at the Project site. The signs must remain in place for the duration of the road closure and must be removed by Contractor when no longer necessary for the Work.

(E) **Emergency Response Agencies.** Contractor is responsible for notifying emergency response agencies operating in the jurisdiction of the Worksite(s) of obstructions to roads resulting from Contractor's Work.

(F) **Additional Devices.** City reserves the right to require additional warning or safety devices for the Project at the Contractor's sole expense, but no actions by City to add to or improve signage or any other public safety requirements will waive or limit Contractor's duties under the Contract Documents.

(G) **Compliance.** If Contractor fails or refuses to comply with the requirements of this Section, the Engineer may take immediate action to protect the public, including, but not limited to, furnishing the required safety measures at Contractor's expense or suspending the Work, in addition to all other remedies available to City. Any such remedial costs incurred by City may be deducted from payment otherwise due to Contractor as specified in Section 8.3, Adjustment of Payment Application. If there are insufficient Contract funds remaining to cover the remedial costs, City is entitled to recover the balance from Contractor or its performance bond surety.

## 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 deduct or 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. (See, e.g., Sections 7.5, 7.6, 7.9, and 7.12.)

(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 specified or 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 specified or 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 fines, charges, or penalties assessed against the City due to Contractor's acts or omissions, including violations of Laws, City may withhold or deduct such amounts from payment otherwise due to Contractor.

(K) 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 recordation of the Notice of Completion, subject to the terms of Public Contract Code § 7107.

(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 (g) 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 back charges. 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, 1720.3, 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, and Division of Apprenticeship Standards of the DIR, and as further required by the Labor Code.

(C) **Enforcement.** Contractor or Subcontractor has ten days in which to comply with the requirements of Labor Code § 1776 following receipt of a written notice requesting

certified copies of payroll records pursuant to Labor Code § 1776. If Contractor or Subcontractor fails to comply 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.

**10.6 Confined Space Operations.** If the Work requires a confined space entry, including, but not limited to, manhole or water storage tank entry, Contractor must obtain a confined space entry permit pursuant to Cal/OSHA regulations, as set forth in 8 CCR § 5156 et seq. For any confined space entry for construction operations regulated by 8 CCR § 1502, Contractor must comply with 8 CCR § 5158. For any other confined space operations, Contractor must comply with 8 CCR § 5157. With respect to entry to any City-maintained confined space, Contractor is responsible for obtaining any available information regarding hazards and operations for any City-maintained confined spaces, pursuant to 8 CCR § 5157. The City-maintained Confined Space Entry Manual is available for viewing at the Water Department or Transportation and Public Works

Department office. Contractor must immediately notify the Engineer of any previously unidentified hazards confronted or created during confined space entry.

## 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 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 any 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 pursuant to Section 11.1(C) (the "Warranty Period"), except when a longer guarantee is provided by a supplier or manufacturer or is required by the Specifications or Special Conditions. If the City accepts the Project as complete subject to exceptions for incomplete punch list item(s) and the Contractor thereafter completes the punch list item(s), the completed punch list item(s) will be subject to the warranty provisions in this Section 11.2 for a one-year period that begins upon City's acceptance of the completed punch list item(s). 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) **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.

(B) **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.

(C) **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.

(D) **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 by registered or certified mail with return receipt requested and clearly identified as a "Claim" submitted pursuant to this Article 12. The Claim 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 21 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 21 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 21 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. For a Claim subject to Public Contract Code § 20104 et seq., 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) **Duty to Update Estimated Amounts.** 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 for 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.** City does not consent to arbitration unless required by Laws. 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; Contractor's failure to procure, maintain, or renew insurance coverage or provide notice of any modifications or reductions in insurance coverage; 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, or if the City determines that the default is not curable, 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

**Special Conditions**

1. **Insurance Requirements.** The insurance requirements under Section 4.3 of the General Conditions are modified for this Contract, as set forth below. Except as expressly stated below, all other provisions in Section 4.3 are unchanged and remain in full force and effect.

1.1 **Builder’s Risk Insurance Waived.** The builder’s risk insurance policy requirement set forth in subsection 4.3(A)(5) of the General Conditions is hereby waived and does not apply to this Contract.

2. **Normal Weather Delay Days.** This provision is intended to supplement the requirements of General Conditions Section 5.2 on Schedule Requirements and Section 5.3 on Delays and Extensions of Contract Time. Based on historic records for the Project location, Contractor’s schedule should assume the following number of normal Weather Delay Days for each month:

Month	# Normal Weather Delay Days
January	10
February	10
March	12
April	8
May	4
June	2
July	1
August	1
September	2
October	5
November	8
December	13

Weather Delay Days which do not occur during a given month based on the number of days allocated for that month (above) do not carry over to another month.

3. **Milestones.** Pursuant to Section 5.4 of the General Conditions, the following milestone(s) apply to the Project:

3.1 **Milestone No. 1.** Contractor must complete all utility work from STA 23+00 to STA 34+00, all utility work on Dupont Drive, and all utility work from STA 64+00 to STA 67+25 (intersection of Calistoga Road and Montecito Boulevard) to minimize disruptions to local schools, as set forth in the Contract Documents, between the dates of June 8 and August 6, inclusive, which is a period of 43 Working Days. If Contractor fails to complete the Work required for this milestone within the Milestone Deadline, City will assess liquidated damages in the amount of \$4,500 per calendar day for each day of unexcused delay in completing the milestone within the Milestone Deadline, and such liquidated damages may be deducted from City’s payments due or to become due to Contractor under this Contract.

4. **Construction Manager Role and Authority.** DCCM is the Construction Manager for this Project. The Construction Manager will assist City in the management of the

construction of the Project. The Construction Manager may perform services in the areas of supervision and coordination of the work of Contractor and/or other contractors, scheduling the Work, monitoring the progress of the Work, providing City with evaluations and recommendations concerning the quality of the Work, recommending the approval of progress payments to Contractor, or other services for the Project in accordance with the Construction Manager's contract with City.

- 4.1 Communications.** Contractor must submit all notices and communications relating to the Work directly to the Construction Manager in writing, as follows:

Mike Janet  
mj Janet@dccm.com

With a copy to the Engineer:

Peter Porata  
pporata@srcity.org

- 4.2 On-Site Management and Communication Procedures.** The Construction Manager will provide and maintain a management team on the Project site to provide contract administration as an agent of City, and will establish and implement coordination and communication procedures among City, the Design Professional, Contractor, and others.

- 4.3 Contract Administration Procedures.** The Construction Manager will establish and implement procedures for reviewing and processing requests for clarifications and interpretations of the Contract Documents, Shop Drawings, samples, other submittals, schedule adjustments, Change Order proposals, written proposals for substitutions, payment applications, and maintenance of logs.

- 4.4 Pre-Construction Conference.** Contractor will attend the pre-construction conference, during which the Construction Manager will review the Contract administration procedures and Project requirements.

- 4.5 Contractor's Construction Schedule.** The Construction Manager will review Contractor's construction schedules and will verify that each schedule is prepared in accordance with the requirements of the Contract Documents.

- 5. Close Out Requirements.** Contractor's close out requirements include the following, if applicable:

- 5.1** Contractor must replace, with thermoplastic, any existing striping within and adjacent to the Project site that is damaged during the Work. Partially damaged striping must be replaced in its entirety.
- 5.2** Contractor must replace any survey monuments that are damaged or removed during the Work, with a Record of Survey filed by a licensed land surveyor as required by California law.
- 5.3** Before removing any traffic control or street signs on the Project site, Contractor must take photographs showing their original locations. Upon completion of each

phase of construction, Contractor must temporarily reset the signs at those locations. Contractor must then replace the signs permanently upon completion of the Work and the cost of their removal and replacement must be included in the Bid Proposal.

- 5.4** Contractor must maintain any rural mail boxes on the Project site and relocate them to their permanent locations as soon as possible in the course of the Work, to the satisfaction of the affected property owners and the postal service.

END OF SPECIAL CONDITION



## TECHNICAL SPECIFICATIONS

FOR

### CALISTOGA ROAD PAVEMENT REHABILITATION & UTILITY IMPROVEMENTS HIGHWAY 12 TO MONTECITO BOULEVARD

CONTRACT NO. C02263



**FEBRUARY 2026**

# FEBRUARY 2026

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# 10 GENERAL CONSTRUCTION

## **10-1 Definitions of Amendments to Caltrans Standard Specifications:**

Amendments to the Caltrans Standard Specifications throughout these Technical Specifications are identified using the following section headings:

“In Addition” – The language in the section supplements the Caltrans Standard Specifications section.

“Replace With” – The language in the section replaces the Caltrans Standard Specifications.

“Modification” – Only specific portions of the Caltrans Standard Specification section have been modified and the rest remains unchanged.

Where no identification is shown in the subheading it shall be understood to mean that the language in the Technical Specification section is in addition to the Caltrans Standard Specification section.

### **10-1.01 General- In Addition:**

Technical Specifications use definitions per Standard Specifications 1-1.07 and Abbreviations Standard Specification section 1-1.06.

Equipment used shall follow Standard Specification 5-1.33 “Equipment”.

The Engineer may order or consent to your request to open a completed section of surfacing, pavement, or structure roadway surface for public use.

Before Contract acceptance, submit a document signed by the owner of the material source or disposal site, as applicable, stating that the Contractor has complied with the Contractor-owner agreement.

Unless otherwise provided hereafter, when sections and subsections of the Standard Specifications are used or attention is directed to them within the technical specifications, such direction shall not be interpreted as excluding other applicable provisions within the correlating section the Standard Specifications.

**10-5 Dust Control- In Addition:** Sweeping, commercial street sweeping, covering stockpiles, applying water, and/or dust palliative, to control dust even caused by public traffic is included in the bid and not change order work.

All dust-producing work and unpaved construction sites shall require a minimum watering in the middle and ending of each workday. The frequency of watering shall increase if dust is airborne. Watering shall not produce runoff.

You shall maintain dust control to the satisfaction of the Engineer, 7 days a week, 24 hours per day.

At the end of each workday, you shall thoroughly sweep all streets affected by the project to minimize airborne dust.

At the end of each work week, you shall sweep all streets in the work zone with a commercial street sweeping truck equipped with a rear pick up broom and water.

At the Engineer's discretion additional sweeping or watering may be required, including the use of a commercial street sweeping truck equipped with a rear pick up broom, at any time or place.

**10-5.01 Payment:** Full compensation for conforming to the provisions of these specifications shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

**10-7 Mobilization:** Mobilization includes all preparatory work and operations needed to begin construction. This includes, but is not limited to, furnishing labor, tools, incidentals, facilities, equipment, materials, and supplies to the project site, as well as any other tasks or costs that must be completed before starting work on the contract items.

Contractor shall not order materials or mobilize equipment to the job site before the completion of the Pre-Construction Hazardous Materials Assessment and delineation of alternative pipe materials required by the presence of contaminated soil as defined under Section 14-11.07.

**10-7.04 Payment: Mobilization/Demobilization** shall be paid for at the contract unit price per **lump sum**, which price shall not exceed 3% of the total contract price for the work, and which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: doing all preparatory work and operations necessary for the movement of personnel, equipment, supplies and incidentals to the project sites; for the establishment of facilities; submittal of all schedules and work plans; demobilization and final clean-up, and for all other work and operations which must be performed or costs incurred prior to beginning and required for finishing work on the various contract items in the Bid Schedule, and any other work required for Mobilization/Demobilization not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

The first payment for mobilization/demobilization shall be no more than 90% of the bid item amount. The first payment request for mobilization/demobilization may be made after all requirements for mobilization, as indicated herein, have been completed. The second payment request for mobilization/demobilization shall be made after completion of all contract items of work and completion of the final punch list has been completed.

**No additional payment will be made for, including but not limited to, the following:**

- Remobilization due to suspension, sequencing, or other reasons.
- Mobilization of subcontractors occurring after the start of construction.

- Any subsequent mobilizations following the initial mobilization.
- Mobilization due to project phasing, subcontractor scheduling, mobilization of specialized equipment, or delays caused by weather, utilities, or third parties

Any such costs shall be considered included in the original lump sum payment for Mobilization.

[Revised: 05/19/2025-JB2 STD2024]

# 12 TEMPORARY TRAFFIC CONTROL

## **12-1 General**

**12-1.01 General - In Addition:** Construction area traffic control devices shall be installed and maintained in accordance with the applicable sections of these Contract Documents, the current Edition of the California Manual on Uniform Traffic Control Devices (CA MUTCD), the Americans with Disabilities Act (ADA), Public Right-of-Way Accessibility Guideline (PROWAG), and as directed by the Engineer.

Contractor is made aware that the limits of this project are near school grounds and should expect and be prepared for times of heavy vehicle, bicycle and pedestrian traffic of all ages. At times of operation for any of the affected schools, the Contractor shall have personnel dedicated solely to the safe passage of traffic and pedestrians through work zones.

## **12-3 Temporary Traffic Control Devices**

**12-3.01 General:** Prior to commencing construction which will affect existing vehicular and pedestrian traffic, you shall submit for review by the Engineer, Traffic Control Plans on 11" x 17" sheets of paper which contains only information specifically related to work zone vehicular and pedestrian traffic control. Traffic Control Plans shall be prepared, sealed, and signed by a Professional Engineer registered in the State of California. If you propose to use the current edition of the CA MUTCD published by Caltrans in lieu of a traffic control plan, in specific work operations, they shall submit in writing for consideration which Typical Application Diagram will be used and how it will be applied for each work operation. Traffic Control Plans or proposals shall be submitted for review at least two weeks prior to implementation.

Traffic Control Plans shall contain a title block which contains your name, address, phone number, project superintendent's name, contract name, dates and hours traffic control will be in effect, and a space for review acknowledgment.

The content of the Traffic Control Plan shall include, but is not limited to, the following:

1. Show location and limits of the work zone.
2. Give dimensions of lanes affected by traffic control that will be open to traffic.
3. Indicate sign placement, cone placement, and other methods of delineation and reference to appropriate City or Caltrans Standards.
4. Dimension location of signs and cone tapers.
5. Identify side streets and driveways affected by construction and show how they will be handled.

6. Show how pedestrian traffic will be handled through the construction site. Pedestrian pathways through the work zone shall be in compliance with the requirements of ADA during and after work hours.
7. Identify message board locations. A minimum of 2 changeable message boards shall be required. Location to be approved by Engineer.
8. Demonstrate how two-way traffic will be maintained.

No work except for installation of project identification signs will be allowed to commence prior to approval of the Work Zone Traffic Control Plans.

## **12-4 Maintaining Traffic**

### **12-4.01A Maintaining Traffic:**

1. The full width of the traveled way shall be open for use by public traffic on Saturday, Sundays and designated legal holiday(s), after 4:00 p.m. on Fridays and the day preceding designated legal holidays, and when construction operations are not actively in progress; unless work has specifically been authorized by the Engineer.
2. The location of traffic control signing, barricades, and other facilities shall be monitored frequently (four to five times per day) by you to verify their proper location. All traffic signal and other traffic control devices shall be maintained at all times.
3. You shall conduct these operations so as to cause the minimum obstruction and inconvenience to traffic and to places of business, multiple dwelling units and residences adjacent to the work. You shall notify the Engineer of his planned work and utility service interruption at least five working days in advance to allow time to notify residents and businesses.
4. When construction activities will prevent vehicle access to individual driveways you shall notify and receive permission from the affected businesses and residents. Attention is directed to Article 7.3, "Noninterference and Site Management" of the General Conditions. **Full access shall be provided to all driveways during non-working hours.**
5. At locations where traffic is routed perpendicular to trench excavation, the excavation shall be conducted in a manner to provide a surface reasonably satisfactory for traffic at all times. Substructure installation or construction shall be conducted on only one-half the width of the roadway at a time, and that portion of the roadway being used by traffic shall be kept open and unobstructed until the opposite side of the roadway is ready for use. Upon completion of the rough

grading, the surface of the roadbed shall be brought to a smooth, even condition free from humps and depressions and made satisfactory for traffic.

You shall submit a trucking route along with the traffic controls plans for approval by the Engineer. The route must minimize traffic on residential streets that are not part of the project.

Existing pavement damaged by your operations and not shown to be replaced shall be replaced at your expense, per City Standards and to the satisfaction of the Engineer.

**12-4.02A Construction Traffic:** Attention is directed to General Condition section 7.23 "Public Safety and Traffic Control" and Section 5.2 "Schedule Requirements" of this Invitation for Bid.

Exact locations of Project Identification signs and Advance Notice signs (7.23 Public Safety and Traffic Control: (A) Warning Devices and (C) Project Signage) shall be determined in the field by the Engineer.

Lane closures during the day will be permitted between the hours of 8:30 a.m. and 4:00 p.m. only. Lane closures on Calistoga Road and Montecito Boulevard (between STA 61+00 to 67+25) during Maria Carillo High School instructional days will be permitted between the hours of 8:30 a.m. and 2:30 p.m. on Monday and 8:30 a.m. and 3:00 p.m. on Tuesday thru Friday. Lane closures on Calistoga Road and Dupont Drive (between STA 19+00 to 36+00) during Sequoia Elementary School instructional days will be permitted between the hours of 8:30 a.m. and 2:30 p.m. on Monday and 8:30 a.m. and 3:00 p.m. on Tuesday through Friday.

Lane closures within the State Right-of-Way or traffic control which impacts traffic within the State Right-of-Way shall be coordinated with Caltrans and the City.

Road work that affects access to the fire station shall be coordinated with the Fire Department and the Engineer. Whenever possible a minimum of half of a driveway to the fire station shall remain free and accessible 24/7. Contractor to provide metal trench plates on standby when access to the driveway is affected by the construction work.

Only one lane at a time may be closed and no lanes shall be closed at any other hours unless specifically approved by the Engineer. You shall maintain vehicle access to homes and other properties at all times while work is in progress.

Type III barricades are required anywhere there is a lane closure.

You shall not park construction vehicles, contractor employee vehicles, stage materials or stockpiles in front of any business or residential driveway access and you shall maintain access to private parking lots within the block where work is in progress. Construction vehicles shall not be left running for any length of time if parked in front of a business or residential unit.

On identified local/residential streets you will normally be allowed use of each block (between nearest intersections) for their sole use, without the need to provide 2-way traffic through that block. You will be required to maintain vehicle access to homes and other properties within the block where work is in progress.

You shall keep the City of Santa Rosa Fire Department informed regarding the closure of any traveled way. At a minimum, you shall call the Fire Department at 543-3535 **and** the Communications Center at 543-3666 **daily** to report any traveled way closure. This means immediately upon closure for that day and again immediately after removal of the closure. For closures over multiple days, the daily notification still applies. This requirement does not apply for single lane closures on multiple lane streets.

You shall notify Maria Carillo High School at (707) 890-3820, Sequoia Elementary School at (707) 539-3410, Fire Station 6 at (707) 543-3500, Santa Rosa City Bus at (707) 543-3922, Sonoma County Transit at (707) 585-7516, the local Postal Service at (707) 526-0113, and Recology at (800) 243-0291 5 calendar days prior to any lane closures or restrictions in turning movements.

Furthermore, City of Santa Rosa Bus shall be notified at (707) 543-3922 5 calendar days prior to any pedestrian impacts to any sidewalks or access to bus stops within the project area.

Where necessary, and only after receiving written approval from the Engineer, you may temporarily suspend curb side parking in the immediate work zone. Notification to businesses and residents shall be hand delivered at least 72 hours prior to construction in the affected areas.

Notification shall be as follows:

1. A notice placed on the front door of each home or business where curb side parking will be suspended and attempt made to notify each business or resident verbally that work will be underway within the block and that curb side parking will be suspended during stated working hours and request that vehicles be parked out of the roadway by 8:00 a.m. Service of notice shall not bar use of cars within the block, as individual plans change and emergencies arise.
2. Type 1 barricades every 50 feet adjacent to the curb where parking will be suspended with a notice posted on the barricade stating specific dates and times that curb side parking will be temporarily suspended. If work will not take place in the posted area, then Contractor shall remove "No Parking" notices.

You shall maintain vehicle access to all homes and other properties along the work zone. During paving operations, you will be allowed to temporarily suspend vehicle access to a limited number of driveways when approved by the Engineer. When approved by the Engineer and at least 72 hours prior to suspending access to any driveway, you shall give both written and verbal notice to the affected businesses and residents and place

barricades adjacent to the driveways with posted notices stating the specific dates and times of the suspension for that area. The notice shall also indicate an alternate parking location. Suspension of access to driveway will be permitted only as approved by the Engineer and only between the hours of 8:00 am and 4:30 pm.

Cross streets will require maintenance of at least one-half (1/2) width of each street for traffic purposes, unless an alternate route is proposed by the Contractor and approved by the Engineer. Flagging will only be allowed between the hours of 8:30 am and 4:00 pm.

Traffic control devices and flaggers shall be positioned to allow safe turns at intersections and curves.

You shall maintain traffic control as necessary and as directed by the Engineer for any project related operations that require the presence of City Forces. Flaggers, barricades, signing, etc., shall remain in place for protection of City personnel until such time as all temporary lane delineation or any other work required by City Forces is complete.

#### **12-4.04 Temporary Pedestrian Access Routes**

**12-4.04A General:** You are directed to Chapter 6D, Pedestrian and Worker Safety, in the CA MUTCD, the Plans and this Invitation for Bid.

Pedestrians shall be provided with a safe convenient and accessible path that, at a minimum, replicates the most desirable characteristics of the existing sidewalk, path or footpath. At no point along the road shall the sidewalks on both sides of the road be closed at the same time. This includes during the construction of pedestrian curb ramps.

You shall construct and maintain temporary pedestrian pathways through the work zone, where required, that shall be in compliance with the requirements of the Americans with Disabilities Act (ADA), and the CA MUTCD.

Pedestrian routes shall not be impacted for the purposes of any non-construction activities such as parking of vehicles or equipment, or stock piling of materials. Pedestrians shall not be led into conflicts with work site vehicles, equipment or operations.

Pedestrian routes shall be open and accessible at the end of the work day unless an alternate ADA compliant route has been approved by the Engineer. The construction of curb ramps and/or long sections of sidewalk do not alleviate you from this requirement.

**12-8.04 Payment:** **Traffic Control** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: providing, placing, maintaining, and removal of temporary paths and/or ramps, temporary relocation of regulatory signs, changeable message boards, project and public notification signs, flagging, excavation, compaction, furnishing, and placement of asphalt concrete and/or PCC, barricades, toe-rails, hand rails, complying with CA MUTCD Standards for Pedestrian Safety, and all other Traffic Control related coordination efforts, and any other work required for Traffic Control not specifically enumerated in the City

Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions and no additional allowance will be made therefor.

The cost of furnishing all flaggers, including transporting flaggers, to provide for passage of public traffic through the work under the provisions in Section 7-1.03, "Public Convenience" of the Standard Specifications and Article 7.23, "Public Safety and Traffic Control" of the General Conditions shall be considered as included in the contract lump sum price paid for traffic control, and no additional allowance will be made therefor.

[Version: 5/19/2025 JB2 STD2024]

## 13 WATER POLLUTION CONTROL

**13-1.01 General:** Water Pollution Control shall be performed in accordance with Section 13, Water Pollution Control, of the Standard Specifications and these technical specifications. In addition, construction activities shall comply with:

The current California Water Quality Control Board, North Coast Region Order No. National Pollutant Discharge Elimination System Municipal Storm Water Permit, commonly referred to as the “Storm Water Permit”. A copy of the Storm Water Permit is available for review at the City of Santa Rosa Transportation and Public Works Department, 69 Stony Circle, Santa Rosa, CA, and at [www.srcity.org/stormwaterpermit](http://www.srcity.org/stormwaterpermit).

The California Stormwater Quality Association Storm Water BMP Handbook for Construction (CASQA Handbook). BMPs shall be selected, installed and maintained in accordance with the latest edition. A copy of the handbook can be viewed at the City of Santa Rosa Department of Transportation and Public Works office at 69 Stony Circle or downloaded from CASQA, <http://www.casqa.org/>.

In this technical specification the CASQA Handbook BMP numbers are appended to the associated Standard Specification sections. If a conflict occurs the CASQA Handbook BMPs shall govern.

**13-1.01B Definitions - In Addition: Construction phase:** The construction phase starts at the start of job site activities and ends at Contract acceptance.

**13-1.01C(4)(c) Water Quality Monitoring Reports:** The Contractor shall complete and sign the Storm Water Construction Site Inspection form with the City. A copy of the form is included in Section A for reference.

### **13-2 Water Pollution Control Program**

**13-2.01A Summary:** This project will disturb more than one acre and is required to have a Storm Water Pollution Prevention Plan (SWPPP), therefore Section 13-2, Water Pollution Control Program, of the Standard Specifications does not apply to this project, but Section 13-3, Storm Water Pollution Prevention Plan, of the Standard Specifications does.

### **13-3 Storm Water Pollution Prevention Plan**

#### **13-3.01 General**

Section 13-3 includes specifications for developing, implementing and maintaining a Storm Water Pollution Prevention Plan (SWPPP) required by this General Permit.

A Notice of Intent for coverage under the General Permit will be filed by the City. The Contractor shall be responsible for the filling out the draft NOI application for the City's

review and submittal to the Regional Board. This project has been determined to be a risk level 2 traditional construction project. The City will pay the fee associated with the Notice of Intent.

It is the Contractor's responsibility to develop and implement the SWPPP. Included in the SWPPP will be a project description, site map, erosion control plan, construction site monitoring program, reporting and inspection forms, contact list, and all other information necessary to comply with the requirements of the General Permit. The work under this section also includes updating the SWPPP.

The SWPPP shall reference CASQA BMP fact sheets and follow the format suggested in Appendix B of the CASQA handbook. The Contractor may substitute another format if approved by the Engineer and it complies with all requirements of the General Permit.

All discharges of storm water from the project must comply with the General Permit.

A storm water annual report shall be prepared and submitted by the Contractor. The annual report must cover the preceding period from July 1st to June 30th (or Notice of Completion).

This work includes collecting and submitting all required data to SMARTS to comply with the Annual Report requirements of the General Permit and SMARTS.

Do not start job site activities until:

1. The SWPPP is authorized.
2. The waste discharge identification number (WDID) is issued.
3. SWPPP review requirements have been fulfilled. If the RWQCB requires time for review, allow 30 days for the review.

A current copy of the SWPPP shall be kept on site when the Contractor or its subcontractors are working.

### **13-3.01B Definitions**

Active Area: Area where soil-disturbing work activities have occurred at least once within 15 days.

Construction Phase: Includes (1) highway construction phase for building roads and structures, (2) plant establishment and maintenance phase for placing vegetation for final stabilization, and (3) suspension phase for suspension of work activities or winter shutdown. The construction phase continues from the start of work activities to Contract acceptance.

Inactive Area: Area where soil-disturbing work activities have not occurred within 15 days.

Normal Working Hours: Hours specified in the Invitation for Bid.

Qualifying Rain Event: Storm that produces at least 0.5 inch of precipitation with a 48-hour or greater period between rain events.

Storm Event: Storm that produces or is forecasted to produce at least 0.10 inch of precipitation within a 24-hour period.

### **13-3.01C Submittals**

Within 15 days of Contract approval:

1. Submit 1 copy of your SWPPP for review. Allow 10 days for the City's review. The Engineer provides comments and specifies the date when the review stopped if revisions are required.
2. Change and resubmit a revised SWPPP within 5 days of receiving the Engineer's comments. The City's review resumes when a complete SWPPP has been resubmitted.
3. When the Engineer authorizes the SWPPP, upload an electronic copy to the State's Storm Water Multiple Application and Report Tracking System (SMARTS) and submit 2 printed copies of the authorized SWPPP to the City.
4. If the Engineer requests changes to the SWPPP based on the RWQCB's comments, amend the SWPPP within 5 days.
5. The SWPPP that shall be submitted under this section of the Standard Specifications shall include a spill contingency plan that establishes clean-up procedures that will be followed in the event of a spill of potentially hazardous, toxic, or polluting materials.

### **13-3.01C(2) Stormwater Pollution Prevention Plan**

The SWPPP shall be written, amended and certified by a Qualified SWPPP Developer (QSD) as defined in the General Permit, Section VII.B.1.

The Contractor shall provide a Qualified SWPPP Practitioner (QSP), as defined in the General Permit, Section VII.B.3, to ensure full compliance with the General Permit and implementation of all elements of the SWPPP, including all storm water inspections and visual observations, Rain Event Action Plans, sampling and analysis and record keeping. The QSP shall ensure that all BMPs required by this SWPPP are implemented. The QSP shall notify the QSD of needed revisions to the SWPPP to reflect current conditions and all proposed changes.

This work includes gathering and presenting, in an approved format, all information necessary to produce a SWPPP that complies with the General Permit. The SWPPP shall be developed by a QSD and include, but not limited to: project description, site maps, erosion control plans, construction site monitoring program, contact information, monitoring and reporting forms, project specific BMP fact sheets, schedule, training documentation, designated QSD and QSP qualifications, SWPPP amendment log sheet

and all other information necessary to comply with the General Permit and this Invitation for Bid.

The SWPPP shall be updated to reflect current project conditions, personnel, schedule, alterations to plans, BMP modifications or substitutions, relocation of staging and material stockpiling areas and any other changes that are not reflected in the SWPPP.

### **13-3.01C(2)(b) Construction Site Monitoring Program**

The SWPPP includes a Construction Site Monitoring Program containing instructions and forms. Monitoring and inspections will take place during normal working hours.

BMP inspection shall be performed by a QSP and documented on an approved form. A copy of the inspections will be kept in the SWPPP on site. An additional copy shall be given to the City. Noted deficiencies shall be brought to the Project Superintendent or Foreman's attention and Engineer and corrective action taken within 2 working days or before any rain event.

Monitor the National Weather Service's forecast on a daily basis. For the National Weather Service's forecast, go to the website for the National Weather Service. Printed copies of the forecast shall be kept in the SWPPP.

The QSP shall prepare all Rain Event Action Plans (REAP) 48 hours in advance of predicted rain event with a 50% or greater probability. The REAP shall be kept on site. Use the Storm Water Site Inspection Report form for documenting site inspections.

1. Inspections of BMPs identified in SWPPP:
  - a. On a predetermined schedule of at least once a week
  - b. Before a forecasted storm event
  - c. After a qualifying rain event that produces site runoff
  - d. At 24-hour intervals during extended storm events
2. Daily inspections of (if applicable):
  - a. Storage areas for hazardous materials and waste
  - b. Hazardous waste disposal and transporting activities
  - c. Hazardous material delivery and storage activities
3. Inspections of:
  - a. Vehicle and equipment cleaning facilities:
    - i. Daily if vehicle and equipment cleaning occurs daily
    - ii. Weekly if vehicle and equipment cleaning does not occur daily
  - b. Vehicle and equipment maintenance and fueling areas:
    - i. Daily if vehicle and equipment maintenance and fueling occur daily
4. Pre and post rain inspections
  - a. Pre-rain event inspection within 48 hours of predicted qualifying storm to verify the site and the BMPs are ready for the predicted rain.
  - b. Post-rain event inspection within 48 hours after a qualifying storm to observe the discharge locations and the discharge of any stored or

contained rainwater; determine if BMPs functioned as designed; and identify if any additional BMPs are required.

This work includes providing a QSP, performing weekly BMP inspections, documentation, coordinating with Contractor and project inspector, providing QSD with SWPPP update information and all other work necessary to comply with the inspection requirements of the SWPPP.

Qualifying Rain Event Inspections, include both pre-rain and post-rain inspection, include providing a QSP, performing pre-rain inspections and post-rain inspections for qualified rain events as required in the SWPPP, documentation, coordinating with Contractor and project inspector and all other work necessary to comply with the qualifying rain event inspection requirements of the SWPPP.

### **13-3.01D Quality Assurance**

#### **13-3.01D(3) Sampling**

The QSP will sample for pH and turbidity during each qualifying rain event at all locations where runoff from the project is discharged offsite. Samples must be representative of the runoff flow and characteristics of the site's discharges. All locations discharging runoff from the site must be sampled. Additional samples for non-visible pollutants may be collected for lab analysis if required.

Three measurements will be taken at each discharge location for each working day of a qualified rain event. Measurements will be taken at the beginning of the workday or discharge, in the middle and one near the end of the discharge or workday. All measurements will be documented on sampling forms with a copy kept in the SWPPP and one given to the City. Discharge locations shall be marked on the site map in the SWPPP.

Measurements will be made using portable field meters. Each meter shall have been calibrated prior to use. A meter calibration log sheet shall be kept in the SWPPP. Measurements will be made during normal working hours.

This work includes collecting samples, measuring pH and turbidity, documentation, maintaining and calibrating pH and turbidity meters, submitting data to SMARTS and all other work necessary to comply with the sampling requirements of the SWPPP and the General Permit.

#### **13-3.01D(5) Training**

Employees must receive initial water pollution control training before starting work at the job site. For project managers, supervisory personnel, subcontractors, and employees involved in water pollution control work:

1. Provide storm water training in the following subjects:
  - a. Water pollution control rules and regulations

- b. Implementation and maintenance for:
  - i. Temporary soil stabilization
  - ii. Temporary sediment control
  - iii. Tracking control
  - iv. Wind erosion control
  - v. Material pollution prevention and control
  - vi. Waste management
  - vii. Non-storm water management
- 2. Conduct weekly training meetings covering:
  - a. Deficiencies and corrective actions for water pollution control practices
  - b. Water pollution control practices required for work activities during the week
  - c. Spill prevention and control
  - d. Material delivery, storage, usage, and disposal
  - e. Waste management
  - f. Non-storm water management procedures

Storm Water training shall be documented in the SWPPP.

### **13-3.03 Construction**

The SWPPP shall be updated to reflect current project conditions, personnel, schedule, alterations to plans, BMP modifications or substitutions, relocation of staging and material stockpiling areas and any other changes that are not reflected in the SWPPP or on the plans. A printed copy of the authorized SWPPP shall be at the job site whenever there is project related activity at the site.

The Contractor shall:

- 1. Install appropriate BMP materials and devices as listed in the SWPPP, before performing work activities.
- 2. Install soil stabilization materials (BMPs) in all work areas that are inactive or before storm events.
- 3. Repair or replace water pollution control practices within 48 hours of discovering any damage, unless a longer period is authorized by the Engineer.
- 4. The City does not pay for the cleanup, repair, removal, disposal, or replacement of BMP devices due to improper installation or Contractor negligence.

The QSP shall report all non-compliance to the City.

**13-3.04 Payment- Replace With:** A Storm Water Pollution Prevention Plan shall be considered as included in the contract lump sum price paid for Water Pollution Control.

The City does not pay for for the preparation, collection, laboratory analysis, and reporting of stormwater samples for nonvisible pollutants if WPC practices are not implemented before precipitation or if you fail to correct a WPC practice before precipitation.

There shall be no adjustment in the unit price for an increase or decrease in the quantity of:

1. Stormwater sampling and analysis day
2. Stormwater annual report
3. Change in QSD

### **13-4 Job Site Management**

**13-4.03B: Spill Prevention and Control:** You shall comply with CASQA Spill Prevention and Control (BMP WM-4). If a spill occurs at the construction site and you do not take immediate and adequate steps to contain and clean up the spill, especially if rain is threatening or if a discharge to a storm drain or creek could occur, the City shall have the right, in its sole and absolute discretion, to clean up the spill using City forces or an independent contractor. The cost of any such cleanup, in addition to recovery of any penalty or fine imposed upon the City, plus an administrative charge of fifteen percent (15%) of the costs incurred by the City, shall be deducted from any amounts owed to you hereunder.

In the event there are insufficient amounts owed to you hereunder to cover the foregoing costs and charges, the City shall have the right to pursue any other remedy to recover same, including, but not limited to, proceeding against any surety or bond in favor of the City. The City's rights under this section are intended to be in addition to and not in lieu of any imposed by the City against Contractor for violations of City Code Chapter 17-12, "Storm Water".

**13-4.03C(3): Stockpile Management- In Addition:** You shall comply with CASQA Stockpile Management (BMP WM-3). Do not block storm water flows.

**13-4.03D: Waste Management:** You shall comply with Waste Management/CASQA Solid Waste Management (BMP WM-5). You shall dispose of all trash, rubbish, and waste materials of any kind generated by you, subcontractor, or any company hired by you on a daily basis.

**13-4.03D(3 or I): Concrete Waste- In Addition:** You shall comply with CASQA Concrete Waste Management (BMP WM-8). Ensure the containment of concrete washout areas and other washout areas that may contain pollutants so there is no discharge into the underlying soil and onto the surrounding areas.

**13-4.03D(4): Sanitary and Septic Waste- In Addition:** You shall comply with CASQA Sanitary and Septic Waste Management (BMP WM-9). Sanitation facilities must be maintained periodically by a licensed service to keep them in good working order and prevent overflows. Portable toilets are required to have secondary containment.

**13-4.03D(5): Liquid Waste- In Addition:** Liquid waste includes water generated from excavation dewatering. Minimize transfer piping by locating containers near the excavation to be dewatered while protecting the containers from moving vehicles and equipment.

**13-4.03E: Non stormwater Management:** You shall comply with CASQA Water Conservation Practices (BMP NS-1 and NS-2).

**13-4.03E(3): Vehicle and Equipment Cleaning- In Addition:** You shall comply with CASQA Vehicle and Equipment Cleaning (BMP NS-8).

**13-4.03E(4): Vehicle and Equipment Fueling and Maintenance- In Addition:** You shall comply with CASQA Vehicle and Equipment Fueling (BMP NS-9), and CASQA Vehicle and Equipment Maintenance (BMP NS-10).

**13-4.03E(7): Paving, Sealing, Saw cutting, Grooving, and Grinding Activities- In Addition:** As listed in Part 9, sections 4 and 5 of the Storm Water Permit, the following additional BMPs shall be implemented for street paving, repaving, reconstruction, patching, digouts or resurfacing.

1. Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall unless required by emergency conditions
2. Install BMPs at all susceptible storm drain inlets and manholes to prevent paving products and tack coat from entering
3. Prevent the discharge of release agents including soybean oil, other oils, or diesel to the storm water drainage system or watercourses
4. Minimize non-storm water runoff from water use for the roller and for evaporative cooling of the asphalt
5. Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly
6. Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled, or disposed of properly 13-4.03D(5)
7. Collect solid waste by shoveling and vacuuming or sweeping and securing in an appropriate container for transport to a maintenance facility to be reused, recycled, or disposed of properly 13-4.03D(5)
8. "Cold-mix" asphalt (i.e., pre-mixed aggregate and asphalt binder) shall not be stored onsite during a rainstorm.
9. Cover loads with tarp before haul-off to a storage site, ensuring that trucks are not overloaded
10. Minimize airborne dust by using water spray during grinding 14-9.03
11. Protect stockpiles with a cover or sediment barriers during a rain event and
12. Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near storm water drainage system or watercourses 13-4.03C(1)

**13-4.03F: Sweeping- In Addition:** You shall also comply with CASQA Street Sweeping and Vacuuming (BMP SE-7).

**13-4.03G: Dewatering- In Addition:** Groundwater levels may change depending on the time of year and the amount of seasonal rainfall.

It should be anticipated that groundwater will be encountered within deep excavations as part of this project. If groundwater is encountered, the Contractor shall immediately notify the City. The Contractor shall **remove all water** which accumulates in excavations during the progress of work until the subgrade has been prepared and backfilling has progressed to a sufficient height above static groundwater levels. The Contractor shall have a minimum of two working pumps onsite and available for immediate use at all times.

Water accumulated in excavations shall be discharged to the sanitary sewer under the conditions set forth in the City's MS4 permit and City's one time discharge permit. Said water shall be disposed of in a manner as to cause no injury to public or private property or be a menace to public health. Sediment shall be removed from water to be disposed of, prior to discharge, by placing the pump inlet hose into a sump filled with clean gravel, or a perforated bucket filled with clean gravel. The outlet of the pump shall have a filter sock installed to retain residual sediment. An approve air gap shall be maintained at all times when dewatering from a water main trench.

The discharge shall be monitored to verify the lack of contamination. Periodic samples shall be analyzed by the City's Environmental Compliance Laboratory to confirm the acceptability of the discharge. **If any odor, sheen or other visual discrepancy is noted during excavation or discharge, stop pumping and immediately notify the Engineer.**

Pumped groundwater will not be allowed into any watercourse or storm drain system.

Contractor shall be responsible for constructing, operating, and maintaining all necessary features to complete the work, including furnishing, installing, and maintaining all pumping and other equipment required to dewater any excavations containing water as may be encountered during performance of the work. Dewatering plan for each occurrence shall be approved by the Engineer prior to implementation.

### **13-6 Temporary Sediment Control**

**13-6.03C Temporary Drainage Inlet Protection- In Addition:** You shall comply with CASQA Storm Drain Inlet Protection (BMP SE-10).

### **13-7 Temporary Tracking Control**

**13-7.01A: General- In Addition:** You shall comply with Stabilized Construction Entrance and Exit (BMP TC-1), Entrance Outlet Tire Wash (BMP TC-3).

**13-7.01C Construction- In Addition:** You shall comply with CASQA Stabilized Construction Site Entrance / Exit (BMP TC-1).

### **13-10 Temporary Linear Sediment Barrier**

**13-10.01 General:** You shall comply with CASQA Silt Fence and Sandbag Barrier (BMP SE-1 and SE-8).

**13-12.04 Payment: Water Pollution Control** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water pollution control, including preparation and implementation of the stormwater pollution prevention plan prepared for the project, providing a QSP and QSD, completing all required monitoring and reporting, and any other work required for Water Pollution Control not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

90% of the lump sum item total will be paid over the life of the Contract. The remaining 10% of the lump sum item total will be paid upon Contract acceptance and submittal of the completed and signed Notice of Termination.

As necessary and if directed by the City, you will be responsible for the total cost of maintaining a temporary construction entrance or roadway. Maintaining a temporary construction entrance or roadway shall be considered as included in the contract lump sum price paid for Water Pollution Control. The Department does not pay for the relocation of temporary construction entrances or roadways during work progress.

Job Site Management shall be considered as included in the contract lump sum price for Water Pollution Control.

Temporary soil stabilization shall be considered as included in the contract lump sum price paid for Water Pollution Control.

### **13-8 Temporary Active Treatment System**

**13-8.01 General: Water** removed from excavations may contain contaminants at levels requiring treatment prior to discharge. If contamination is anticipated based on the Pre-Construction Hazardous Materials Assessment, you will design the treatment system to treat the water to levels compliant with Section 13-8.01D(5) of the Standard Specifications and discharge requirements of the City Staff.

**13-8.01C(2) Active Treatment System Plan- In Addition:** You are responsible for having suitably sized “closed top” type mobile storage tank(s) delivered to the site if contaminated groundwater is encountered and ensure it is secure from public access. The storage tank(s) shall be filled to the manufacturer’s recommended maximum water surface level prior to filling any additional tanks. Unused tanks brought to the site shall be at your expense.

Once water in any given tank has been sampled, no further uncharacterized water shall be pumped into the tank. You shall furnish a sufficient number of tanks on site at any given time to facilitate groundwater storage for continuous excavation operations. You shall assume 3 working days turnaround time for analytical test results.

The tanks shall not encroach into any travel lanes and shall be restricted to no more than a period of 5 days at the same location.

Allow 20 days for review. If revisions are required, the Engineer notifies you of the date the review stopped and provides comments. Submit a revised ATS plan within 15 days of receiving the comments. The Department's review resumes when a complete plan has been resubmitted.

Submit an electronic copy on a read-only CD, DVD, or other Engineer-authorized data storage device and 4 printed copies of the authorized ATS plan. Allow 15 days for the Engineer to submit the plan to the SWRCB and the RWQCB. If the Engineer requests revisions based on comments from the SWRCB or RWQCB, submit a revised plan within 5 business days.

**13-8.01D Quality Assurance:** The City will collect samples and perform the analytical testing of stored water.

**13-8.01D(5) Quality Control – In Addition:** Water removed from excavations shall be discharged to the publicly owned sanitary sewer under the conditions set forth in the one-time discharge permit issued by the City, a copy of which is included in Section A, Fees and Permits, of these technical specifications.

**13-8.04 Payment:** If groundwater is encountered, **Groundwater Management Allowance** will be paid on a **Force Account (FA)** basis up to the contract allowance price and shall include full compensation for furnishing all labor, materials, permits, tools and equipment, for doing all the work involved in providing groundwater management, including, but not limited to, all necessary removal, storage, treatment, pumping equipment, and transportation, for disposal of all groundwater encountered from excavations and trenches at the site, and no additional compensation will be made therefor. Disposal location of groundwater will be determined and directed by the Engineer. The City will pay discharge fees for the necessary disposal of water, if required. The estimated cost designated by the City on a Force Account basis is noted in the Bid Schedule as Groundwater Management Allowance.

This bid item does not include water removed from existing water mains that must be dewatered as part of the other work. Contractor shall ensure provisions are in place to prevent contamination of water to be removed from existing water mains.

[Revised: 5/19/2025 JB2 STD2024]

# 14 ENVIRONMENTAL STEWARDSHIP

## **14-1.00 General Environmental Protections:**

You shall dispose of all Portland cement concrete and asphalt concrete, generated from removal or demolition activities on the project, at a recycler for these materials.

All other excess materials from the project shall become the property of you and shall be disposed of by you, at your expense.

**14-10.02 Solid Waste Disposal and Recycling Report - In Addition:** You shall provide a monthly recycling report for each quantity (in tons) of asphalt concrete and portland cement concrete with receipts verifying delivery to a material recycler.

For each failure to submit a completed report, the City deducts \$1,000.

Submit a Solid Waste Disposal and Recycling Report prior to final acceptance of work performed under the Contract. Show the types and amounts of project-generated solid waste taken to or diverted from landfills or reused on the project.

Submit a Solid Waste Disposal and Recycling Report prior to Contract acceptance. Show the types and amounts of project-generated solid waste taken to or diverted from landfills or reused on the project.

## **14-11 Hazardous Waste and Contamination**

**14-11.02 Discovery of Unanticipated Asbestos and Hazardous Substances:** Should contamination be discovered during construction, the Contractor shall develop a plan for handling and disposal of potentially contaminated soil and groundwater.

**14-11.03 Hazardous Waste Management - In Addition:** Should contamination be discovered during construction the Contractor shall develop a plan for handling and disposal of potentially contaminated soils and groundwater.

In general, the Contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the City immediately upon discovery of any potential soil or groundwater contamination.

The Contractor shall provide 40-hour OSHA-HAZWOPER certified workers in the contaminated area and provide a field Site Safety Officer that is also an 8-hour OSHA-HAZWOPER Supervisor trained to directly oversee the contaminated materials removal and handling operation. All workers in this circumstance must have their initial and annual refresher training, medical clearance, and personal protection equipment in accordance with 8CCR Section 5192.

## **14-11.07: Department Generated Hazardous Waste**

**14-11.07A General:** Based on communications with the Regional Water Quality Control Board, the proposed project is located in an area that contains no **known** subsurface petroleum hydrocarbon contamination.

However, the project runs adjacent to multiple known closed sites and the open-inactive site T10000002496. Should contamination be discovered during construction, the Contractor shall develop a plan for handling and disposing of potentially contaminated soils and groundwater.

EBA Consulting has completed a Phase I Environmental Site Assessment between Highway 12 and Montecito Boulevard (dated 2/10/2026). A copy of the report is available and is included in the reference materials. The Contractor should review this report, particularly Appendix H, for known areas of possible contamination. Contractor should not assume the unconditional reuse of soil in all areas.

In general, you shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the City immediately upon discovery of any potential soil or groundwater contamination.

Contractor shall be responsible for soil sampling and completion of a Pre-Construction Hazardous Materials Assessment, as needed to dispose of soil. Pipe material changes may be required based on evidence of soil contamination (see additive payment under Section 132-1.30 Payment). Contractor shall submit results to the Engineer and anticipate two weeks of review time to determine the extent of pipe material change, if any. Contractor shall not order PVC water main materials before the extent of contamination has been determined, and the Engineer has determined the extent of pipe material changes that may be necessary.

Contaminated soil shall be defined as soil containing constituents of concern exceeding the Tier 1 Environmental Screening Levels of the San Francisco Regional Water Quality Control Board. The anticipated limits of contaminated soils shall be marked out in the field by the qualified environmental consultant who completed the Pre-Construction Hazardous Materials Assessment. The Contractor should be aware that there may be contaminated soil outside of the delineated areas. If the Contractor suspects contaminated soils outside the anticipated limits, the Contractor shall test the soil and notify the City and the Engineer. Work within affected area(s) shall cease until confirmation of the presence of contamination has been completed and extents of alternative pipe materials has been delineated by the Engineer.

Upon discovery of suspected contaminated materials, Contractor shall immediately provide 40-hour OSHA-HAZWOPER certified workers in the contaminated area(s) and provide a field Site Safety Officer that is also an 8-hour OSHA-HAZWOPER Supervisor

trained to directly oversee the contaminated materials removal and handling operation. All workers in this circumstance must have their initial and annual renewal refresher training, medical clearance and personal protection equipment in accordance with 8CCR Section 5192.

**14-11.07C Transport and Disposal of Department-Generated Hazardous Waste- In**

**Addition:** Soil from excavations on this project may be considered contaminated. All soil from excavations in the limits of contamination determined by the procedures outlined in Section 14-11.07A shall be transported to and disposed of at an approved landfill.

Contractor will furnish filled-out hazardous waste manifests ready for the Engineer's signature.

Contractor is responsible for disposal of contaminated soil, including trucking, disposal site fees, and additional testing if required by disposal sites. You shall comply with all disposal regulations, such as City, County, and/or State permits and licenses, as may be required.

Prior to disposal of any excess material from the work site, submit to the Engineer written authorization for such disposal and entry permission signed by an approved disposal site. Contractor shall disclose in landfill applications the existing conditions and the written disposal and entry permission shall include acknowledgement of such disclosure.

Contractor shall be responsible for obtaining conditional letters of landfill acceptance and shall be aware of disposal limitations at the landfills based on weather, time of year, etc.

Contractor shall be responsible for separating asphalt, concrete, base rock, asbestos cement pipe, and other non-contaminated debris from the soil prior to loading the soil for transport to disposal sites. Dispose of asphalt, concrete, and base rock at a recycler of these materials as specified in Section 124 of these Special Provisions. Dispose of asbestos cement pipe as specified in Section 15-1.03E of these Technical Specifications.

Within 5 business days of transporting Department-generated hazardous waste, submit documentation of proper disposal from the receiving landfill.

**OTHER AGENCY REGULATORY REQUIREMENTS**

**14-12.05 City Wide Integrated Pest Management (IPM) Policy:** Comply with City Policy number 000-074. This includes the management pesticides for pests, including unwanted plants, insects, rodents, and fungus. Pest are controlled for assorted reasons including public safety, public health, plant health, aesthetic, and control of invasive plants, pathogenic organisms and/or insects.

**14-13 Payment:**

**Pre-Construction Hazardous Materials Assessment** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: excavation, sawcutting, sampling, testing, restoration of hardscaping including temporary trench paving, analysis by a qualified consultant, delineation of expected contaminated soil limits by the qualified environmental consultant, and any additional testing required outside of the delineated contaminated areas due to suspected contamination, as specified herein, any other work required for Pre-Construction Hazardous Materials Assessment not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Contaminated Soil Disposal** shall be paid for at the contract unit price per **cubic yard** as measured in the field, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: monitoring, qualified staffing, testing, disposal, hauling, and doing all work involved in contaminated soil disposal as specified herein including labor, materials, tools and equipment, excavation, any other work required for Contaminated Soil Disposal not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

The quantity of Contaminated Soil Disposal is unknown. The quantity listed in the bid schedule is based on approximately 20% of the anticipated quantity of trenching excavation.

In the event of an increase or a decrease in the amount of the Engineer's estimated quantity of Contaminated Soil Disposal, such increase or decrease shall not be considered an alteration in excess of the 25 percent of the contract amount of such items under provisions of Section 4-1.05 of the Standard Specifications and no adjustment of the contract price for Contaminated Soil Disposal will be made.

No additional compensation will be made for excavation and disposal beyond the limits of the areas marked by the Engineer or for excavation and disposal of locations other than those marked by the Engineer. Any excavation for contaminated soil disposal done by Contractor to accommodate equipment width beyond the limits of the areas marked by the Engineer shall be at his own expense.

Any material excavated from trenches in the project area that exhibit signs of contamination (including, but not limited to staining and/or odor) shall be considered property of the City and shall only be disposed of at the direction of the City. Under such conditions, costs beyond normal disposal costs for uncontaminated material will be paid on a per **cubic yard** basis. Prior to disposal of any excess material from the work site, the Contractor shall submit to the Engineer written authorization for such disposal and entry permission signed by the approved disposal site. The Contractor shall comply with

all disposal regulations such as City, County, and/or State permits and licenses, as may be required.

Full compensation for conforming to the other provisions of these specifications shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed, therefore.

[Revised 5/19/2025-JB2 STD2024]

## 15 EXISTING FACILITIES

**15-1.03 Construction:** All existing active utilities found to reside in excavated areas shall be supported in place with service maintained during construction. You shall be responsible for any damage caused by your operations and any needed repairs shall be completed to the Engineer's satisfaction.

Existing storm drains found to reside in excavated areas shall be supported, removed, or replaced at your option and at no additional cost to the City. You shall be responsible for maintaining the existing line and grade of the storm drains. If you elect to remove and replace, it shall be done per applicable City Standards and Specifications.

Existing utility trenches and/or structures that are in close proximity to proposed trenches shall be safeguarded in an appropriate manner from damage.

With the exception of trenching, all existing street, street light base, curb and gutter, storm drain, water line, and sewer line work shall be completed before any existing street paving is removed.

**15-1.03C Traffic Stripes and Pavement Markings:** All traffic stripes, pavement markings or any other traffic markings shall be removed by you to the satisfaction of the Engineer and in accordance with Sections 84 of the Standards, and the Plans.

**15-1.03D Pavement Markers:** All raised pavement markers shall be removed by you to the satisfaction of the Engineer and in accordance with Sections 82 of the Standard Specifications, City Standards, and the Plans.

**15-1.03E Asbestos Cement Pipe:** You are advised that asbestos cement pipe (ACP) will likely be encountered on the project and must be cut, handled, and disposed of according to your State Licensing Law and all other applicable laws and regulations.

**15-1.03F Reconstruct Drain:** Reconstruct sidewalk drain shall be done in conformance with requirements of Section 73 of the City Specifications, City STD-406 and as directed by the Engineer.

You shall remove portions of existing curb, gutter, and sidewalk, and the existing sidewalk drain and install new sidewalk drain, curb, gutter and sidewalk at the location designated and as directed by the Engineer.

If subsidence of existing sidewalk is occurring, that in the opinion of the Engineer is due to material transport around the storm drain. You shall expose the storm drain to the extent of the damaged sidewalk and backfill the trench per City Standards. If the required compaction is not possible, pipe shall be backfilled with a cement slurry.

**15-1.03G Adjust Existing Facilities:** Existing manhole frames and covers, valve boxes, grates, pullboxes, mainline cleanouts, and monuments adjusted to grade shall conform to

City Standards. Contractor to be aware that valve boxes, monuments, and manholes located within the portion of the Project subject to Full Depth Reclamation must be lowered below the bottom of the Full Depth Reclamation section to avoid damage to the structures before pavement rehabilitation work begins. After the completion of the pavement rehabilitation the structure rims shall be raised to the final grade as described above.

Adjust existing City facility boxes and lids to grade. The City will furnish new material to replace existing boxes and lids that do not comply with current City Standards or damaged prior to Contractor's operations. Notify the City 10 working days before the new boxes are needed to ensure the item is available or the City can provide an arrival date for the new box. If the new boxes need to be ordered and do not arrive on time, you will adjust the work schedule at no extra charge to the City.

You shall accurately locate and record the location of existing and new manholes, valve boxes, mainline cleanouts, and monuments to be adjusted to grade and shall furnish the Engineer a copy of said record prior to starting construction.

All facilities on active systems shall always be labeled with white paint and accessible to City personnel unless otherwise stated in these General Conditions and Technical Specifications or approved by the Engineer.

After placement of the finish course of asphalt concrete, you shall mark all overlaid manholes, valve boxes, mainline cleanouts and monuments, whether new or existing, with white paint by the end of that working day.

All new and existing manholes, valve boxes, mainline cleanouts and monuments shall be accessible within 48 hours after they are covered.

Final grade adjustments and installation of concrete collars shall be done on the same working day. Final paving around manholes, valve boxes, mainline cleanouts and monuments shall be completed the following working day.

All silt and debris shall be removed from finished structures. This shall include all existing silt and debris plus material caused by Your operation.

If new or existing water valve riser pipe needs to be extended after paving to conform to City STD-877, you shall use either a slip x slip glued PVC coupling or a transition coupling with shear bands as directed by the Engineer. Upsizing the existing riser pipe to 8-inch will not be required unless otherwise directed by the Engineer. Any added extension must be a minimum of 12 inches. The lower section of riser pipe shall be adjusted to accommodate this requirement.

If you encounter water valve boxes with round lids, sanitary sewer frame and covers with open pick holes, nonstandard storm system features, monuments, or items damaged before construction which must be adjusted to grade, you are to provide a count to the Engineer a minimum of 10 days prior to paving to obtain replacements that complies with current City Standards. The City will provide replacements provided You are not required to replace them as part of the contract or due to damage by Your operations. Valve boxes

and frames and covers on facilities to be abandoned shall not be included in the count provided to the Engineer. You shall be responsible for delivery of new frames, boxes, and covers from the City warehouse to the job site. Prior to removal, demolition around, or adjustment of an existing manhole frame, a platform shall be constructed in the manhole above the top of the sewer and storm drain to prevent any dirt or debris from falling into the sewer. The platform shall remain in place until all work on the manhole has been completed and the asphalt concrete has been placed around the manhole. Prior to the removal of the platform from the manhole, all dirt and debris shall be removed.

All grade rings shall be set in cement mortar the same day they are placed. All joints shall be smoothly plastered inside and out.

Existing grade rings removed in the adjustment of manhole frames shall become the property of You and if undamaged and thoroughly cleaned of mortar may be reused in the work. If not so used, they shall be disposed of away from the site of work at your expense.

Manhole frames shall be reinstalled to align directly over the grade rings. Any frames misaligned by more than ½ inch shall be removed and reinstalled.

Existing Monuments adjusted shall conform to City Standards 280 to 284 and Section 78 City Monuments of the Technical Specifications. The Contractor shall be responsible for preservation and/or perpetuation of existing survey monuments (iron pipes on lot lines and corners, centerline well monuments, etc.). Damaged or disturbed monumentation shall be replaced and reset in accordance with the business and professions code and the requirements of the Sonoma County Surveyor. A corner record shall be submitted to the Sonoma County Surveyor for any replacement or resetting of existing survey monuments.

**15-1.03H Concrete Removal:** All removed concrete shall become the property of You and shall be immediately off hauled. None of the removed concrete shall be dumped or stockpiled on the work site. You shall dispose of all removed concrete at a recycler for this material. Burying of broken concrete within the limits of the project will not be allowed.

All concrete which is to be removed from sidewalk, curb, gutter and driveway areas shall be removed to the nearest score mark or construction joint as directed by the Engineer unless otherwise noted on Project Plans. The edge of existing concrete to remain shall be neat and free of defects. Saw cutting may be required to achieve this.

Concrete removal includes removal of any reinforcing steel embedded in the concrete and no additional allowance will be made for the removal of such steel.

Where new concrete is to join existing concrete, remove enough concrete to allow splicing of new reinforcement. Protect existing reinforcement to be incorporated into the new work from damage.

Irrigation facilities may be encountered during concrete removal and replacement. You shall exercise care in this area and repair any damage done by their operations at no additional cost to the City.

Keep existing irrigation facilities in place that are described to be removed, relocated, or modified until the Engineer determines they are no longer needed.

Maintain the existing water supply. If the existing water supply is interrupted for more than 3 consecutive days, provide an alternative water supply. Water the existing plants in the area irrigated from that water supply, including those maintained by the City, as necessary to maintain healthy plant growth.

Furnish enough water for watering plantings affected from construction activities as necessary to maintain a healthy condition through Contract acceptance.

If you damage irrigation facilities not to be removed:

1. Remove and dispose of them.
2. Repair and replace damaged facilities within 10 days.
3. Use similar commercial-quality components from the same manufacturer or components that are compatible with the existing irrigation system if authorized.
4. After completing the repair or replacement of the facilities, perform an operational test in the presence of the Engineer. If you repair or replace the remote-control valves, conduct the test with the irrigation controller in automatic mode.

Notify the Engineer:

1. At least 4 working days before shutting off the water supply to any portion of the existing irrigation system
2. Immediately after restoring the water supply to any portion of the existing irrigation system

Landscaping and other surfaces or structures damaged or destroyed during the removal of existing concrete or asphalt concrete shall be restored to original conditions at no additional cost to the City.

If you damage plants not to be removed:

1. Dispose of them unless the Engineer authorizes you to reduce them to chips and spread the chips within locations designated by the Engineer
2. Replace them
  - a. Replace plants with plants of the same species.
  - b. Replace trees with 24-inch-box trees.
  - c. Replace shrubs with no. 15-container shrubs.
  - d. Replace ground cover plants with plants from flats. Replace Carpobrotus ground cover plants with plants from cuttings. Plant ground cover plants 1 foot on center.
3. If a plant establishment or permanent erosion control establishment period is specified, replace plants before the start of the plant establishment or permanent erosion control establishment period; otherwise, replace plants at least 30 days before Contract acceptance.

4. Water each plant immediately after planting. Saturate the backfill soil around and below the roots or the ball of earth around the roots of each plant. Water as necessary to maintain plants in a healthy condition until Contract acceptance.

The City may rearrange a third-party utility during the Contract. Rearrangement of a third-party utilities or City facilities includes installation, relocation, alteration, or removal of the facility. The City may authorize third-party utilities or City facilities and their agents to enter the project limits to perform rearrangement work for their facilities or to make connections or repairs to their property. Coordinate activities to avoid delays.

**15-1.03I Utility Clearances:** *All items noted in this Section shall take place prior to any other construction activities.*

Any pothole information provided on the Project Plans shall be for reference use only and shall not be considered as accurate information for any other areas within the project limits.

Contractor shall investigate, confirm and/or determine the exact locations of existing utilities, and verify clearances between existing and proposed utilities at crossings and/or known potential conflicts. You shall determine elevations and alignments of existing utilities at connection points for proposed utilities. The extent of potholing shall be limited to 16 feet square.

You shall determine elevations and alignments of existing sewer laterals, at the back of sidewalk before the new main is started. If a new proposed sewer main is at the same or higher elevation than the existing sewer main, *you shall provide all relevant information in writing to the Engineer immediately upon discovery of any conflict.* Any delay in notification to the Engineer may delay direction and/or corrective action and a delay claim due to this reason shall not be considered by the City. You shall not proceed with any work that is in conflict until direction is provided by the Engineer and shall redirect crews to other contract work. All the information required to be obtained per this Section and any other information not noted but relative to the project shall be provided to the Engineer on a set of Plans when the investigative effort is complete.

If you want infrastructure rearrangement different from that described in the Contract:

1. Notify the Engineer
2. Make an arrangement with the infrastructure owner
3. Obtain authorization for the rearrangement
4. Pay the infrastructure owner any additional cost

The City does not adjust time or payment for a rearrangement different from that described the Contract.

#### **15-1.04A Payment**

**Relocate Existing Streetlight** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: relocating the existing streetlight, removal and disposal of existing foundation and wiring, required excavation, concrete foundation, backfill, disconnection, transportation, reinstallation at new location, and reconnection to power supply as specified herein, and any other work required for Relocate Existing Streetlight not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Relocate Existing Traffic Signal Box** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: relocating existing boxes, required excavation and backfill, coordination for replacement boxes, removing silt and debris, and adjusting to finished grade as specified herein, any other work required for Relocate Existing Traffic Signal Box not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Adjust Existing Utility Box to Grade** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: adjusting existing valve boxes to grade, required excavation and backfill, coordination for replacement boxes, and removing silt and debris, as specified herein, any other work required for Adjust Existing Utility Box to Grade not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Adjust Existing Manhole to Grade** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: adjusting manholes to grade, including but not limited to: required excavation and backfill; furnishing additional grade rings *if required*; furnishing manholes and transporting new frames and covers to job site, and concrete collars as specified herein, any other work required for Adjust Existing Manhole to Grade not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Lower Manhole and Adjust to Final Grade** shall be paid for at the contract unit price per **each** which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: lowering and adjusting manholes to grade, including but not limited to: removal

and disposal of existing cone section and grade rings *if required*, excavation and backfill; additional grade rings *if required*; furnishing manholes and transporting new frames and covers to job site and concrete collars, as specified herein, any other work required for Lower Manhole and Adjust to Final Grade not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Repair Storm Drain Subsidence (18")** shall be paid for on at the contract unit price per **linear foot** which price shall include full compensation for furnishing all labor, materials, tools and equipment and doing all the work involved in reconstructing storm drain trench including but not limited to: required excavation and backfill, compaction, cement slurry backfill *if needed*, and inspection as specified herein, any other work required for Repair Storm Drain Subsidence (18") not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Utility Clearances** shall be paid for at the contract **lump sum** price, which price shall not exceed 5% of the contract amount and shall include full compensation for furnishing all labor, materials, tools and equipment, and doing all the work involved in verifying utility clearances, including but not limited to: potholing to verify potential conflicts, grades and alignments of existing facilities to be connected to; excavation; backfill; notification; and coordination and redirection of crews to other contract work *if required*, as specified herein, any other work required for Utility Clearances not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Utility Conflict Resolution (Allowance)** shall be paid for on a **force account (FA)** basis, and no additional allowance will be made therefor. The estimated cost designated by the City on a Force Account basis is noted in the Bid Schedule as Utility Conflict Resolution (Allowance).

[Revised: 5/19/2025-JB2 STD2024]

# 19 EARTHWORK

**19-1.01 General:** Earthwork shall conform to the applicable provisions of Section 19 of the Standard Specifications, with the following modifications and additional requirements. Earthwork shall include performing all operations necessary to excavate, earth and rock, regardless of character and subsurface condition; prepare foundation and subgrade materials for the placement of other material thereon; transport, place, compact and finish fill materials; mix, blend and moisture condition materials as required; remove and replace unsuitable materials; remove, transport and dispose of surplus excavated material in accordance with Section 19-2.03B, Surplus Material, of these Technical Specifications.

Where tree roots are encountered during excavation, the Contractor shall cut the roots off six inches below the planned subgrade. Each cut shall be clean with no torn bark or splintered wood remaining on the root and shall be accomplished by use of a saw appropriate for the size of the root to be cut.

**19-1.01A Summary - In Addition:** Earthwork shall also include excavation for trenching.

**19-1.03B Unsuitable Material - In Addition:** Stabilization of unsuitable material shall comply with the following provisions:

- A. Unsuitable material may be processed in place, may be excavated and placed on the grade or other locations suitable for further processing, or may be partially excavated and partially processed in place.
- B. Processing may consist of drying to provide a stable replacement material.
- C. Stabilized material shall be placed and compacted in layers as hereinafter specified for constructing embankments.

Backfill the space resulting from excavating unsuitable material with material suitable for the planned use. Place and compact suitable material under section 19-5.

**19-1.03B(1) Subgrade Stabilization/Digouts** Any area of the subgrade determined by the Engineer to be unsuitable shall be removed to the limits marked in the field by the Engineer and to a depth below the subgrade plane in accordance with the detail indicated on the Project Plans. Soil stabilization fabric shall be placed and asphalt base shall be placed and compacted to fill the excavation in accordance with the detail indicated on the Project Plans.

**19-1.03C Grade Tolerance- In Addition:** When aggregate subbase or aggregate base are to be placed on the grading plane, the grading plane shall not vary more than 0.05' above or 0.1' below the grade established by the Engineer.

In the event of an increase or a decrease in the amount of the Engineer's estimated quantity of Subgrade Stabilization, such increase or decrease shall not be considered an alteration in excess of the 25 percent of the contract amount of such items under

provisions of Section 4-1.05 of the Standard Specifications and no adjustment of the contract price for Subgrade Stabilization will be made.

No additional compensation will be made for excavation and stabilization beyond the limits of the areas marked by the Engineer or for excavation and stabilization of locations other than those marked by the Engineer. Any excavation for subgrade stabilization done by You to accommodate equipment width beyond the limits of the areas marked by the Engineer shall be at your expense.

Quantities of Stabilization Fabric to be paid for shall be computed on the basis of the exact amount of area covered in the field.

**19-2.03 Construction:** The Engineer shall provide reference points and cut sheets for the excavation of the roadway. You shall furnish an excavation and paving plan and a qualified grade setter to ensure the subgrade conforms to the lines and grades established by the Engineer.

For roadway reconstruction, Roadway Excavation shall be performed with a pavement grinder. No other construction equipment including rubber-tired equipment shall be allowed on the subgrade.

The Contractor shall select equipment and perform construction using means and methods which does not cause any damage the existing subgrade, existing facilities, and/or new improvements.

Roadway excavation and asphalt concrete base paving, including Stabilization Fabric per section 19-8.02, paving shall be completed for half the street width before beginning excavation of the remaining street.

You shall note that there are street trees near areas intended for roadway excavation. Your operation, including the size of the grinding equipment, shall be such, so as to ensure that existing street trees are not damaged. Where limited clearance under the street trees prevents the use of a grinder, excavation shall be performed by an alternate method as approved by the Engineer. Alternate methods may include jackhammering and removal of existing pavement and base materials by hand, or by use of smaller grinding equipment.

Where tree roots are encountered during roadway excavation, you shall cut the roots off six inches below the planned subgrade. Each cut shall be clean with no torn bark or splintered wood remaining on the root and shall be accomplished by use of a saw appropriate for the size of the root to be cut.

**19-2.03B Surplus Material- In Addition:** Unless otherwise indicated on the Project Plans or in these General Conditions or Technical Specifications, the Contractor shall load, haul from the site of work and properly dispose of all surplus excavated material including, but not limited to, rock, concrete, asphalt, debris and soil. You shall be responsible for the removal and disposal of surplus materials. You shall notify the City of the disposal location before the start of construction. Surplus material, including removal of existing bituminous pavement and base materials will be paid for as roadway excavation. The Contractor shall

comply with all disposal regulations such as City, County, and/or State permits and licenses, as may be required

### **19-5 Compaction**

**19-5.03B Relative Compaction - In Addition:** Relative compaction of not less than 95 percent shall be obtained for a minimum depth of 0.5-foot below the grading plane for the full width of the planned pavement structural section, whether in excavation or embankment.

Relative compaction of not less than 95 percent shall be obtained for embankment under bridge and retaining wall footings without pile foundations within the limits established by inclined planes sloping 1.5:1 out and down from lines one foot outside the bottom edges of the footing.

### **19-10 Subgrade Enhancement Geosynthetic**

**19-10.02(A) Geotextile Materials:** Subgrade enhancement geotextile (aka soil stabilization fabric) shall be installed per manufacturer's recommendations and shall meet or exceed the following specifications:

Grab Tensile Strength (ASTM D4632)	290 lb.
Mullin Burst Strength (ASTM D3786)	500 psi
Trapezoid Tearing Strength (ASTM D4533)	113 lb.
Modulus (Load at 10% Elongation) (ASTM D4632)	120 lb.
Apparent Opening Size (ASTM D4751)	40-70 sieve
Permittivity (ASTM D4491)	0.05 sec <sup>-1</sup>

Soil stabilization fabric shall be Mirafi 600-X, GeoTex 315ST, Carthage Mills FX-66, TerraTex HD, or approved equivalent.

Prior to placement of soil stabilization fabric, you shall remove all loose dirt left from excavation operations.

Soil stabilization fabric shall be placed over the entire subgrade area. The soil stabilization fabric shall be held in place with wooden stakes driven through the fabric into the subgrade at the beginning and the end of the fabric and at 50-foot intervals. A minimum of three stakes shall be placed across the width of the fabric roll at each interval. The stakes shall be a minimum length of 8-inches and shall be driven at an angle opposite to the direction of pull exerted on the fabric by the paving machine.

**19-10.02(B) Geogrid Materials:** Subgrade enhancement geotextile (aka soil stabilization fabric) shall be installed per manufacturer's recommendations and shall be Tensar NX750/850 or approved equal.

### **19-12 Root Barrier Fabric**

**19-12.01 Shipping and Storage:** Product labels shall clearly show the manufacturer or supplier name, style number, and roll number and shall include a compliance statement certifying that all ingredients and inspection standards for this product have been met.

Each root control product roll shall be wrapped with a protective EVOH bag and placed in a box that will protect the product from damage due to shipment, water, sunlight, and contaminants and to prevent premature release of herbicide. The protective wrapping shall be maintained during periods of shipment and storage.

During storage, root control product shall be elevated off the ground and out of direct sunlight. It shall remain sealed in EVOH protective bag inside shipping box at a temperature of not more than 110°F.

**19-12.02 Physical and Chemical Requirements:** Fibers used in the manufacture of root control barrier substrate fabric shall consist of long chain synthetic polyolefins (at least 95% by weight) and a UV stabilizer. They shall be formed into a stable network such that the filaments or yarns retain their dimensional stability relative to each other.

Nodules consisting of trifluralin, carbon black, and polyethylene compounded in a patented method utilizing time-released characteristics are permanently attached to the substrate fabric on 1-1/2" centers by a through injection molding process.

All substrate property values, with the exception of apparent opening size (AOS), in these specifications represent minimum average roll values (MARV) in the weakest principal direction (i.e., average test results of any roll in a lot sampled for conformance or quality assurance testing shall meet or exceed the minimum values provided herein). Values for AOS represent maximum average roll values.

Property values for the trifluralin are average run values.

	<b>Overall Product Major Composition and Ingredients</b>	<b>Typical</b>
<b>Active Chemical*:</b>	Trifluralin (a,a,a-Trufluro 2,6 - dinitro - N,N, - Dipropyl - p - toluidine)	17.5%
<b>Inert Ingredients</b>	100% Spunbonded Polypropylene, Polyethylene and Carbon	82.5%

<b>Trifluralin Characteristics</b>	<b>Minimum Values</b>		
	<b>English</b>	<b>Metric</b>	<b>Test Method*</b>
Unit Weight	3.9 oz/yd <sup>2</sup>	130 g/m <sup>2</sup>	ASTM D-5261
Grab Tensile Strength	130 lbs.	575 N	ASTM D-4632
Elongation at Break	60%	60%	ASTM D-4632

Puncture Strength	40 lbs.	175 N	ASTM D-4833
Trap Tear	60 lbs	265 N	ASTM D-4533
Permittivity	0.7 sec.	0.7 sec.	ASTM D-4491
AOS (Max Value)	0.21 mm	0.21 mm	ASTM D-4751
Ultraviolet Stability	70% @ 500 hrs	70% @ 500 hrs	ASTM D-4355

\*Test methods or revision numbers available on request (17.5% Average trifluralin in total composite, Min. of 20% trifluralin in nodules)

<sup>1</sup>Available from ASTM, 1916 Race Street, Philadelphia, PA 19103

**19-12.03 Sampling, Testing, and Acceptance:** Root control substrate product shall be subject to sampling and testing to verify conformance with this specification. Acceptance shall be based on manufacturer’s certifications.

Testing shall be performed in accordance with the methods referenced in this specification for the indicated application. The number of specimens to test per sample is specified by each test method.

**19-12.04 Installation:** Install root barrier per Manufacturer’s instructions. Root barrier shall be installed for a sufficient length adjacent to hardscaping to encompass the entirety of the landscaping rootball.

**19-12.05 Payment: Subgrade Stabilization/Digouts** shall be paid for at the contract unit price per **square yard** as measured in the field, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: stabilization fabric, asphalt concrete base, compaction, doing all work involved in stabilizing the subgrade as specified herein including labor, materials, tools and equipment, excavation, any other work required for Subgrade Stabilization/Digouts not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

The quantity of Subgrade Stabilization/Digouts is unknown. The quantity listed in the bid schedule is based on approximately 5% of the of the anticipated quantity of Geotextile Fabric.

In the event of an increase or a decrease in the amount of the Engineer’s estimated quantity of Subgrade Stabilization, such increase or decrease shall not be considered an alteration in excess of the 25 percent of the contract amount of such items under provisions of Section 4-1.05 of the Standard Specifications and no adjustment of the contract price for Subgrade Stabilization will be made.

No additional compensation will be made for excavation and stabilization beyond the limits of the areas marked by the Engineer or for excavation and stabilization of locations other than those marked by the Engineer. Any excavation for subgrade stabilization done by

You to accommodate equipment width beyond the limits of the areas marked by the Engineer shall be at your expense.

Quantities of Stabilization Fabric to be paid for shall be computed on the basis of the exact amount of area covered in the field.

The cost for the asphalt concrete base shall be included with the contract unit price for subgrade stabilization.

**Roadway Excavation (F)** shall be paid for at the contract unit price per **cubic yard**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: grinding, premilling, excavation, removal, hauling, and disposal of existing bituminous pavement and base materials, and any other work required for Roadway Excavation not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

The work associated with micro-milling, removal, hauling, and disposal of micromillings prior to Hot Mix Asphalt placement shall be included in the unit price paid for Full Depth Reclamation and no additional payment for Roadway Excavation will be made therefor.

**Geotextile Fabric** shall be paid for at the contract unit price per **square yard** as measured in the field, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: placing the fabric including root pruning, labor, materials, tools and equipment, and any other work required for Geotextile Fabric not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Areas to receive geotextile fabric may be adjusted in the field based on the Engineer's evaluation of the subgrade condition in the non-Full Depth Reclamation areas. In the event of an increase or a decrease in the amount of the Engineer's estimated quantity of Geotextile Fabric, such increase or decrease shall not be considered an alteration in excess of the 25 percent of the contract amount of such items under provisions of Section 4-1.05 of the Standard Specifications and no adjustment of the contract price for Geotextile Fabric will be made.

**Geogrid** shall be paid for at the contract unit price per **square yard** as measured in the field, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: placing the fabric including root pruning, labor, materials, tools and equipment, and any other work required for Geogrid not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Root Barrier** shall be paid for at the contract unit price per **linear foot** as measured in the field, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: placing the fabric including trench excavation, root pruning, cutting and placement of root barrier to the specified depth and alignment, overlapping or sealing of the joints *as required*, backfilling, compaction, and restoration of the disturbed surface, labor, materials, tools and equipment, and any other work required for Root Barrier not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

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## 26 AGGREGATE BASE

**26-1.01 General:** Aggregate base shall be Class 2 conforming to and placed in accordance with the requirements of Section 26 of the City Specifications.

Recycled material cannot be used below the designed structural section within the roadway and never for structural fill outside of the roadway structural section.

Compacting shall commence immediately after spreading the damp material and before the material has dried sufficiently to allow separation between the fine and coarse particles.

### **26-1.02 Materials**

**26-1.02B Class 2 Aggregate Base-In Addition:** The minimum sand equivalent shall be 31 for any individual test.

### **26-1.03 Construction**

**26-1.03E Compacting-In Addition:** The surface of the finished aggregate base shall be firm and unyielding. Any visible movement vertically or horizontally of the aggregate base under the action of construction equipment or other maximum legal axle loads shall be considered as evidence that the aggregate base does not meet this requirement.

**26-1.04 Payment: Class II Aggregate Base** shall be paid for at the contract unit price per **cubic yard**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: placing the Class II Aggregate Base, excavation, hauling, and disposal as *required*, backfilling, compaction, labor, materials, tools and equipment, and any other work required for Class II Aggregate Base not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

The work associated with placing Class II Aggregate Base underneath concrete work such as sidewalk, curb and gutter, etc., shall be included in the unit price paid for these various contract items and no additional payment for Class II Aggregate Base will be made therefor.

The estimated quantity of Class II Aggregate Base is for bidding purposes only and is measured as the amount of Class II Aggregate Base underlying the pavement in the Montecito intersection as shown on project plans.

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# 30 RECYCLED PAVING – FULL DEPTH RECLAMATION (FDR)

## **30-4.01 GENERAL**

### **30-4.01A Summary**

The Caltrans 2024 Standard Specifications apply to this section of this Invitation for Bid.

Sampling and the Mix Design for this work is developed by the Contractor. The percentage of cement is reflected in the mix design (as a percentage of dry unit weight) and quantity tables for cement.

The Contractor will provide Quality Control testing. Acceptance testing will also be performed by the City of Santa Rosa Materials Laboratory (SRML). All testing will be coordinated with the SRML.

The final surface course (asphalt concrete) shall be placed within 3 days of micro-milling and proof rolling as long as smoothness requirements are met and the FDR is sufficiently stable to support the required construction equipment without marring or permanent distortion of the surface.

Section 30-4 includes specifications for constructing a base using full-depth recycling-cement (FDR-C).

FDR-C consists of:

1. Pulverizing existing asphalt concrete pavement and underlying materials
2. Mixing with water, cement, and if specified, supplementary aggregate
3. Grading and compacting the mixture
4. Applying asphaltic emulsion or Maintain and moisture condition finished FDR surface

### **30-4.01B Definitions**

**FDR-C:** Full Depth Reclamation - Cement

**OMC:** Optimum moisture content determined under California Test 216

**QC:** Quality Control

**Lot:** 1,000 sq yd of FDR-C

**30-4.01C Submittals:** At least 20 days before starting FDR-C work, submit:

1. Quality Control (QC) plan
2. Mix Design(s)
3. Asphaltic Emulsions

**30-4.01C(1) General:** The QC plan must describe the organization, responsible parties, and procedures you will use for:

1. QC, including sampling, testing, and reporting.
2. Determining action limits when corrective actions are needed.
3. Implementing corrective actions.
4. Ensuring FDR-C pulverizing, mixing, compacting, grading, and finishing activities are coordinated.

The QC plan must include copies of the forms that will be used to provide the required inspection records and sampling and testing results. The form for recording and reporting the QC measurements must show the cement and water proportions.

The QC plan must include a contingency plan that describes the corrective actions you will take in the event of equipment break down. The corrective actions must include repairing and reopening the roadway to traffic using minor HMA under section 39.

**30-4.01C(2) Quality Assurance Submittals:** For each lot, submit a report daily that includes the following items based on the frequencies specified in section 30-4.01D(4):

1. General Information:
  - 1.1. Lot number
  - 1.2. Location description
  - 1.3. Beginning and ending stations
  - 1.4. Lane number and offset from centerline
  - 1.5. Weather:
    - 1.5.1. Ambient air temperature before starting daily FDR-C activities including time of temperature reading
    - 1.5.2. Road surface temperature before starting daily FDR-C activities including time of temperature reading
2. Calculated cement application rate in lb/sq yd and percent of dry weight of FDR-C
3. Calculated supplementary aggregate application rate in lb/sq yd and percent of dry weight of FDR-C if supplementary aggregate is specified
4. For FDR-C processing:
  - 4.1. Depth of cut
  - 4.2. Average forward speed
5. FDR-C quality control test results for:
  - 5.1. Gradation
  - 5.2. Moisture content
  - 5.3. Unconfined compressive strength
  - 5.4. In-place wet density
  - 5.5. Relative compaction
6. For asphalt emulsion used on finished FDR-C surface:
  - 6.1. Emulsion type
  - 6.2. Emulsion application rate in gal/sq yd
  - 6.3. Emulsion dilution as the weight ratio of added water to asphaltic emulsion

7. Note on the daily report the postmile or station limits of any unsuitable materials locations and when the Engineer was notified

Update each day's submitted report within 24 hours of obtaining test results. Consolidate all lots completed in a day in one report with each lot reported separately.

#### **4.01C(2)(b) Mix Design**

Submit each FDR-C mix design on a form you create specifically for FDR-C. Each mix design submittal must be signed and sealed by an engineer who is registered as a civil engineer in the State of California.

You may submit multiple mix designs to optimize the cement content and adjust for varying underlying materials.

Each mix design submittal must include:

1. Area represented by the mix design by beginning and ending stations.
2. Gradation of the mixture before addition of cement.
3. Cement content in percent by weight of the dry mixture and in lb/sq yd surface application rate.
4. Supplementary aggregate in percent by weight of the dry mixture, if supplementary aggregate is specified.
5. Moisture content of the material at the time of mixing, relative to OMC.
6. Test results and any worksheets, photographs, and graphs Test Strip.
7. Submit a summary of the determinations made from the test strip.

#### **4.01C(2)(e) Asphaltic Emulsion**

With each dilution of asphaltic emulsion used for finishing under section 30-4.03G, submit:

1. Weight ratio of water to bituminous material in the original asphaltic emulsion
2. Weight of asphaltic emulsion before diluting
3. Weight of added water
4. Final dilution weight ratio of water to asphaltic emulsion

#### **30-4.01D Quality Assurance**

**30-4.01D(1) General:** Schedule a preoperation conference at a mutually agreed time at the job site to meet with the Engineer a minimum of 5 days prior to start of work on a

particular road. Discuss the project specifications and methods of performing each item of the work. Items discussed must include the processes for:

1. Production and cement content
2. Compacting
3. Grading
4. Finishing
5. Implementing the approved QC plan
6. Implementing the contingency plan
7. QC sampling and testing
8. Acceptance criteria

Preoperation conference attendees must sign an attendance sheet provided by the Engineer. The preoperation conference must be attended by your:

1. Project superintendent
2. Project manager
3. QC manager
4. Workers and your subcontractor's workers, including:
  - 4.1. Foremen
  - 4.2. Ground supervisors
  - 4.3. Representative from testing lab

Do not start FDR-C activities until the listed personnel have attended a preoperation conference. Relative compaction must be determined under California Test 231 and the following:

1. Test in 0.50-foot depth intervals from the bottom of the FDR-C layer regardless of the layer thickness
2. A sample must contain no more than 5 percent retained on the 2-inch sieve and 15 percent retained on the 1-1/2 inch sieve.
3. Use the laboratory wet test maximum density closest in proximity to the lot to determine relative compaction. If the relative compaction for a lot is less than 97 percent, perform California Test 216 and California Test 226 for each noncompliant lot and recalculate the relative compaction.

Divide the area to receive FDR-C into lots of FDR-C produced except the test strip is the 1st lot and must be at least 2,000 sq yd. A quantity of FDR-C placed at the end of a work shift greater than 500 sq yd is considered 1 lot. If a quantity of FDR-C placed at the end of a work shift is less than 500 sq yd, you may either count this quantity as 1 lot or include the test results for quality control in the previous lot.

For any lot, stop FDR-C activities and immediately inform the Engineer whenever:

1. Any test result shown in the QC Requirements table or the FDR-C Acceptance Criteria Testing table does not comply with the specifications
2. Visual inspection shows evidence of:
  - 2.1. Poor dispersion or dry spots
  - 2.2. Segregation, raveling, and loose material
  - 2.3. Variance of more than 0.05 foot measured from the lower edge of a 12-foot straightedge
  - 2.4. Nonuniform surface texture throughout the work limits
  - 2.5. Repaired areas

If FDR-C activities are stopped, before resuming activities:

1. Notify the Engineer of the adjustments you will make
2. Remedy or replace the noncompliant lot until it complies with specifications
3. Engineer's approval of changes required prior to proceeding

**30-4.01D(2) Mix Design:** Cement content percentage, as described in these Technical Specifications, is percentage maximum by dry weight of FDR-C, based upon the mix design developed by the QC for each road, except a decrease in the cement content may be determined by the Engineer. During progress of the work, if you encounter an isolated area that requires more cement than described in the mix design for that area, obtain Engineer's approval before applying the cement.

Perform a mix design for each materials sampling location. The mix design must produce FDR-C with an unconfined compressive strength minimum 500 psi and maximum of 600 psi, determined at 7 days under ASTM D 1633, Method A, except:

1. Test specimens must be compacted under ASTM D 1557, Method A or B.
2. Test specimens must be cured by sealing each specimen with 2 layers of plastic at least 4-mil thick. The plastic must be tight around the specimen. Seal all seams with duct tape to prevent moisture loss. Sealed specimens must be placed in an oven for 7 days at  $100 \pm 5$  degrees F.
3. At the end of the cure period, specimens must be removed from the oven and air-cooled. Duct tape and plastic wrap must be removed before capping. Specimens must not be soaked before testing.

The mix design must include 7-day unconfined compressive strength tests on specimens with 3 cement contents using the proposed cement and optimum mixing moisture

content. The cement contents must be -1 percent of specified content, specified content, and + 1 percent of specified content by dry weight of FDR-C. Manufacture 3 specimens for each cement content and average the results for each. Plot the average 7-day compressive strengths on the ordinate versus the cement contents in percent on the abscissa on a graph. Indicate the cement contents from the line corresponding to the minimum and maximum 7-day compressive strengths from the specified range.

Based on the mix design test results, you may propose a cement content different from the specified cement content. If you propose a different cement content, your mix design submittal must include data to support (1) the specified cement content will not produce FDR-C that complies with the specifications or (2) there is variability in the FDR-C materials resulting in risk of not complying with the specifications. The revised cement content must be authorized. Compensation or deductions for an ordered increase or decrease is specified in section 30-4.04.

Notify the Engineer at least 2 business days before sampling. Testing must be performed by an authorized laboratory. Testing personnel for QC must be qualified under the Department's Independent Assurance Program.

Obtain and test material from at least 3 sampling locations from the existing pavement structure by coring. You may perform additional sampling and testing to optimize the cement content and adjust for varying underlying materials. Determine the exact locations of the sampling locations between wheel paths. Do not sample in the shoulders. Sampling locations must provide sufficient representative material for the mix design.

Use materials from the specified FDR-C mixing depth. If any portion of existing asphalt concrete pavement is to be removed before pulverizing, remove that portion of asphalt concrete pavement from the samples used in the mix design. If additional samples of subgrade material are needed, sampling locations can be excavated outside the edge of pavement to variable dimensions. Characterize and record sampling location features such as layer thicknesses and types, distresses, interlayers, thin or thick areas, digouts, and adhesion to the base. Use the sampled material to determine the mix design represented by the sampling location, according to the proportions of the pavement structure shown.

Before opening the mix design sampling locations to traffic, backfill sampling locations by replacing and compacting with an authorized material or minor HMA that complies with section 39. Backfill and compact to the existing grade and thickness of asphalt concrete pavement, in the Engineer's or Inspector's presence.

Before opening the mix design sampling locations to traffic, backfill sampling locations by replacing and compacting with an authorized material or minor asphalt concrete that complies with Section 39. Backfill and compact to the existing grade and thickness of asphalt concrete pavement, in the Engineers presence.

### Test Strip

On the 1st day of FDR-C activities and using the same equipment, operational

crew/employees and materials that will be used during production, construct a test strip of at least 1,500 feet in a single lane width to determine the:  
Equipment, materials, and processes can produce FDR-C in compliance with the specifications

1. Effect of varying the FDR-C machine's forward speed and drum rotation rate on the consistency of the pulverized material
2. Optimal proportions of supplementary cement, and water. Changes to the mix design must be authorized.
3. Rolling method and sequence can comply with the compaction and finishing specifications
4. Application rate of asphaltic emulsion for opening to traffic.

Contractor shall submit list of FDR-C operational crew/employees with a list of alternative staff to account for vacations/sicknesses. The list shall include relevant experience for each employee listed. The Engineer tests each test strip under section 30-4.01D(5). Do not proceed with FDR-C activities until the Engineer informs you the test strip is acceptable. If QC or Engineer's acceptance test results are not available, you may proceed at your own risk.

### **30-4.01D(3) Quality Control**

**30-4.01D(3)(b) Sampling and Testing:** The contractor's provided QC will designate a ground supervisor whose sole purpose is to monitor the FDR-C activities, advise project personnel, and interface with the quality control testing personnel. The ground supervisor must not have any sampling or testing duties. The ground supervisor must be onsite whenever FDR-C activities are proceeding. All FDR-C activities shall cease when the QC leaves the site unless there is an equally qualified deputy designee who can proceed with the QC duties.

Take samples under California Test 125.

Perform sampling and testing for each test strip and at the specified frequency for the quality characteristics shown in table in 30-4.02A, "FDR – Cement Quality Characteristic Requirements".

**30-4.01D(4) Department Acceptance:** FDR-C acceptance is based on:

1. Visual inspection for the following:
  - 1.1 Segregation, raveling, and loose material
  - 1.2 Variance of more than 0.05 foot measured from the lower edge of a 12-foot straightedge
  - 1.3 Uniform surface texture throughout the work

limits 1.4 Repaired areas  
 2. Compliance with the quality characteristics shown in the following table:

**FDR-C Acceptance Criteria Testing**

Quality Characteristic	Test Method	Requirement
Cement application rate (lb/sq yd)	Calibrated tray or equal	Mix design rate ± 3-5% variable
Relative compaction (% min, wet density)	California Test 231	<b>97</b>
Smoothness	12-foot straight edge (longitudinal/transverse)	0.05 ft per 12 foot (at Engineer's discretion)

**30-4.02 MATERIALS**

**30-4.02A General**

## FDR – Cement Quality Characteristic Requirements

Quality characteristic	Test method	Minimum sampling and testing frequency	Requirement	Sampling location	Maximum reporting time allowance
Water sulfates <sup>a</sup> (ppm, max)	California Test 417	1 per source	1,300	Source	Before work starts
Water chlorides <sup>a</sup> (ppm, max)	California Test 422	1 per source	650	Source	
Gradation (% passing) <sup>b</sup> Sieve Size 3 inch 2 inch 1-1/2 inch	California Test 202	Test strip and 1 per lot	100 95-100 85-100	Loose mix after pulverizing and mixing	24 hours
Moisture content (%)	California Test 226	Test strip and 2 per day <sup>c</sup>	Mix design +/- 2 percentage points	Loose mix after pulverizing and mixing <sup>d</sup>	24 hours
Unconfined compressive strength (psi)	ASTM D 1633e	Test strip and 1 per 2 lots	Specified in Section 30-4.01D(2)	Loose mix after pulverizing and mixing <sup>d</sup>	24 hours after testing specimens
Laboratory maximum wet density (lf/cu ft)	California Test 216	Test strip and 2 per day	Use for relative compaction calculation	Same location as a California Test 231 test	24 hours
Relative compaction (% min) (wet density) <sup>f</sup>	California Test 231	Test strip and 1 per lot	<b>97</b>	Compacted mix	24 hours
Smoothness	12 foot Straight-Edge	At Engineer's discretion	.05' per 12'	Finished Micro-Milled Surface	24 ours

- a. Only required for non-potable water sources.
- b. Remove solids larger than 3 inches.
- c. If test fails, minimum test frequency is 1 per lot.
- d. Sample immediately after mixing is complete.

- e. *Method A, except:*
1. *Test specimens must be compacted under ASTM D1557 or CT 216, Method A or B.*
  2. *Test specimens must be cured by sealing each specimen with 2 layers of plastic at least 4- mil thick. The plastic must be tight around the specimen. Seal all seams with duct tape to prevent moisture loss. Sealed specimens must be placed in an oven for 7 days at 100 ± 5 degrees F. At the end of the cure period, specimens must be removed from the oven and aircooled. Duct tape and plastic wrap must be removed before capping. Specimens must not be soaked before testing.*
- f. *Verify the moisture content reading made under California Test 231 with California Test 226.*

Measure and record the actual cut depth at both ends of the pulverizing drum at least once every 300 feet along the cut length. Take measurements in the Engineer's presence.

**30-4.02B Cement:** Cement must be Type II Portland cement specified in ASTM C150/C150M.

**30-4.02C Water:** Notify the Engineer 7 days in advance of work if a water source other than potable water is used and perform testing for chlorides and sulfates.

**30-4.02E Asphaltic Emulsion:** Asphaltic emulsion must be Grade SSIh or CSSIh. For dilution, the weight ratio of water added to asphaltic emulsion must not exceed 1 to 1.

**30-4.02H Core Backfill Material:** Material to fill cored holes for thickness measurements must be packaged rapid-hardening cementitious material under ASTM C928, Type R2 or R3.

**30-4.02I Mixed Material:** The pulverized mixture of asphalt concrete and underlying material, and cement must comply with the grading requirements for the sieve sizes shown in the following table:

**FDR-C Gradation**

Sieve Size	Percentage Passing
3"	100
2"	95-100
1.5"	85-100

**30-4.03 Construction**

**30-4.03A General:** Do not start FDR-C activities if the ambient air temperature is below 40 degrees or if the road surface is below 40 degrees F. If the ambient air temperature falls below 40 degrees F during FDR-C activities, you may only compact and finish FDR-C.

Prior to the start of FDR activities, contractor will provide reference of existing facilities to Engineer for approval.

Reference plan shall show existing cross slope grades for each road as well as locations of any changes in cross slope. It shall show locations by station or post mile of all changes in crown cross slope and super-elevated curves.

Before starting daily FDR-C activities, sweep the FDR-C area constructed the previous day to remove loose material and remove pavement markers. Maintain existing pavement footprint and do not infringe upon roadside ditches.

**30-4.03B Equipment:** Do not interrupt traffic while servicing FDR-C equipment.

The FDR-C machine must have independent and interlocked systems for water and must include the following:

1. Digital electronic controller system
2. Pumping system
3. Spray bar system

Storage equipment for water must not leak and must be attached to the FDR-C machine with a tow bar and hose.

Grading and compacting equipment must be self-propelled and reversible. The frequency and amplitude of vibrating rollers must be adjustable and exceed a force of 15 tons in vibratory mode.

Grading equipment must be a motor grader with automatic grade controls for profile elevation and cross slope.

**Surface Preparation:**

Before FDR-C activities start, prepare the existing roadway surface by:

1. Clearing foreign matter including vegetation
2. Removing standing water
3. Reference plan shall show existing cross slope grades and proposed new cross slope grades. new cross slopes will be between 2%-5% unless otherwise authorized by Engineer, for each road as well as locations of any changes in cross slope. It shall show locations by station or post mile of all changes in crown cross slope and super-elevated curves. Place reference stakes along road at minimum every 200 LF to reference road edge of pavement and centerline. Marking the proposed longitudinal cut lines on the existing pavement as follows:

- 3.1. Cut lines must coincide with points where the existing cross slope changes, approximately at the centerline and edge of traveled way
- 3.2. Cut lines must indicate the sequence of the cuts

If excess material is to be stored adjacent to the shoulder, clear and dispose of the weeds, grass, and debris from the area.

#### **30-4.03C Pulverizing**

1. Pulverize the roadway to a depth of 12" prior to spreading cement or mixing.
2. Compact pulverized roadway with a minimum of 3 coverages by a sheep's foot compactor, and a steel drum compaction might be required.
3. Do not pulverize more material than can be mixed with cement and compacted in one day.
4. Contractor will plan his operation such that only one lane width will be pulverized at one time.

Do not leave a wedge where the pulverizing drum cuts into the existing material. The cut width must use the full width of the pulverizing drum. Subsequent cuts must overlap at least 4 inches. Do not leave a gap of unpulverized material between cuts. If an overlap is more than 4 inches, immediately adjust. If an overlap is less than 4 inches, immediately back up and pulverize the deviation along the correct cut line.

Mark the existing pavement where the center of the pulverizing drum stops. Start the following cut on this alignment at least 2 feet behind the mark.

If you encounter unstable sub grade or rocks greater than 4 inches in the roadway section, notify the Engineer. The Engineer determines the extent of the problem and the corrective measures to be taken.

**30-4.03D Spreading Materials:** Spread cement uniformly over the processed roadway surface width. Do not spread cement more than 30 minutes before mixing. Do not apply dry cement in windy conditions that will result in dust outside the FDR-C area. The spread rate must be the mix design rate or the ordered rate in lb/sq yd± 5 percent.

Do not spread cement and supplementary aggregate before pulverizing and compacting pulverized road section.

**30-4.03E Mixing:** Mix the pulverized roadway section and cement to the depth described in this section of the Technical Specifications and shown in the Project Plans.

The overlap requirements in section 30-4.03C Pulverizing apply to mixing. With each cut, adjust the amount of water proportionally to the actual cut width. If an overlap is less than 4 inches, immediately back up and pulverize the deviation along the correct line without adding water or cement.

Water must be injected through the pulverizing machine. The injection rate of mixing water must be sufficient to produce the FDR-C material.

Mark where the center of the pulverizing drum stops. Start the following cut on this alignment at least 2 feet behind the mark.

Before compacting, remove solids larger than 3 inches in any dimension by and.

**30-4.03F Compacting and Grading:** Immediately after pulverizing and mixing, compact FDR-C to the minimum relative compaction, as listed in the Acceptance Criteria of this section of the Technical Specifications. Do not allow more than 2 hours between final mixing of the pulverized material with cement and completion of compaction with vibratory steel drum rollers.

During grading and final compaction with vibratory steel drum rollers, add water to maintain the mixing moisture content.

If the established grade will cause noncompliance with the thickness requirements, notify the Engineer.

**30-4.03G Finishing:** The finished FDR-C surface must not vary more than 0.05 foot from the lower edge of a 12-foot straight edge laid in directions parallel and perpendicular to the centerline.

Immediately after compaction, apply water and roll with **steel drum roller with no vibration**. The finished surface must be free of ruts, bumps, indentations, segregation, raveling, and any loose material.

Keep the compacted surface damp by lightly watering until tack coat is applied. During the period from 48 to 72 hours after compaction, microcrack the surface by applying 3 single passes with a 12-ton vibratory steel drum roller at maximum amplitude travelling from 2 to 3 mph, regardless of whether asphaltic emulsion has been applied.

Apply a coat of diluted asphaltic emulsion to the finished surface when it is damp but free of standing water. The application rate of asphaltic emulsion must be from 0.13 to 0.25 gal/sq yd. Do not water after applying asphaltic emulsion. Do not open to traffic without authorization.

Contractor will maintain and moisture condition the finished surface before and after microcracking. Do not open to traffic until authorization from Engineer.

While open to traffic and before placing HMA, maintain the FDR-C surface free of ruts, bumps, indentations, raveling, and segregation. Repair damaged FDR-C material with minor HMA.

After micro-cracking has been completed, the FDR-C surface shall be micro-milled a

minimum depth of 1/8-inch across entire FDR-C surface to remove surface irregularities. The finished smoothness shall not vary longitudinally or transversely more than 0.05' from a 12-foot straight edge placed on the surface. Following this micro-milling, the first lift of Asphalt Base shall be applied to the surface of the FDR-C material.

Prior to HMA Paving contractor shall proof-roll finished FDR-C surface with City of Santa Rosa Materials Lab present to identify yielding FDR-C areas. Yielding FDR-C areas shall be identified and repaired as directed by Engineer. Proof rolling shall be done with a fully loaded water truck or other method approved by Engineer.

If requested by Engineer, take (AM) cores to determine the finished FDR-C thickness before placing HMA.

If a core indicates FDR-C thickness is less than the specified thickness by more than 0.05 foot, core in the vicinity of the noncompliant core to determine the extent of the deficient thickness. Remove the FDR-C material deficient in thickness by cold planing to a depth of 0.2 foot below the finished FDR-C grade. Replace the planed FDR-C with the AC specified for the project and compact under the method compaction specifications in section 39-1.03.

Immediately before placing HMA, apply tack coat at a rate of 0.03 to 0.05 percent residual binder content.

The final surface course (HMA) shall be placed within 3 days of (AM) micro-milling and proof rolling as long as smoothness requirements are met and the FDR is sufficiently stable to support the required construction equipment without marring or permanent distortion of the surface.

**30-4.04 Payment: Full Depth Reclamation – Cement (FDR-C)** shall be paid for at the contract unit price per **square yard**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: test strip, pulverizing the existing asphalt pavement and underlying base or subgrade material, moisture conditioning, compaction, uniform blending, rolling, curing, micro-cracking, micro-milling, brooming, and sealing, as specified herein, and any other work required for Full Depth Reclamation – Cement (FDR-C) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Premilling/removal and disposal of existing pavement will be measured and paid for as a part of the final payment item Roadway Excavation (F).

Measurement of dilution water will be by one or more of the following methods: calibrated flow meters installed on water trucks or mixing equipment, calibrated tank volume measurements (based on beginning and ending tank levels), weighing of water (when water is added by weight) via calibrated scales, and/or use of water meters from water districts, cities, or counties. Calibration records for all measuring devices shall be submitted to the engineer prior to the start of work. For water measured by volume, a conversion factor must be applied to determine the weight.

**Cement (FDR-C)** shall be paid at the contract price per **ton**, which price shall include full compensation for furnishing all labor, materials, tools, and equipment and doing all work involved in supplying Portland cement for the full depth reclamation process, and any other work required for Cement (FDR-C) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

If an increase or decrease in the specified cement content is ordered, payment for the increase or decrease in cement will be the cost of cement per ton, f.o.b. the cement mill including sales tax plus the freight cost per ton for delivery from the mill to the job site. In determining payment, any cash or trade discount offered or available regardless of whether it was taken by the purchaser will be credited to the Department.

Submit evidence of the cost of cement used for an ordered increase or decrease. Maintain records that allow a clear determination of the cement costs associated with the increase or decrease.

If your records show an excessive price for the increase or decrease of cement or you furnish inadequate evidence for the cost, the Engineer determines the price to be the lowest wholesale cost that the cement was available in the quantities delivered to the point of production, less any available discounts.

The quantity of cement subject to increased or decreased compensation will be the difference between the specified theoretical quantity of cement and the quantity of cement ordered.

**Mix Design (FDR-C)** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: Sample gathering, testing, FDR-C mix design development, design testing, and any other work required for Mix Design (FDR-C) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Quality Control (FDR-C)** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: Recycling plan preparation, inspection, testing, thickness control, testing coordination, and any other work required for Quality Control (FDR-C) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

# 39 HOT MIX ASPHALT

## **39-2.02 Type A Hot Mix Asphalt (HMA)**

**39-2.02A General:** Section 39 includes specific specifications for producing and placing Hot Mix Asphalt by mixing aggregate and asphalt binder at a mixing plant and spreading and compacting the HMA mixture.

HMA shall be placed in separate lifts as shown on the Project Plans. Roadway excavation and HMA base paving shall be completed for half the street width before beginning excavation of the remaining street.

Asphalt concrete surface shall be placed no more than five days after the placement of the asphalt concrete base.

All existing HMA that is adhered to the top of gutters shall be removed prior to placement of new HMA surface in a manner satisfactory to the Engineer and that does not damage the gutter.

HMA base shall be placed on the same day the area is excavated so that all areas will either have existing asphalt surface or new asphalt concrete base by the end of each working day. No subgrade areas shall be exposed or open to traffic during non-working hours.

HMA base paving shall be accomplished by use of a paving machine. The HMA mix shall be transferred from the trucks to the hopper of the paving machine by means of a tracked material transfer vehicle similar to the Vogele MT3000-2I. Any equipment used to transfer asphalt concrete to the paving machine shall not exceed the load capacity of any surface it is driven over and shall not produce rutting or pumping of the existing roadway surface or newly placed asphalt concrete base at any time.

Construction vehicles/equipment shall not be allowed on the newly placed HMA base until the day after it is placed. Super Dumps or other trucks with liftable trailing load bearing axles shall not be allowed on the newly placed asphalt concrete base at any time. All trucks or other construction equipment to be driven on the newly placed HMA base shall not exceed the surface load bearing capacity and shall not produce rutting or pumping at any time.

All longitudinal surface paving joints shall fall on a lane line. Longitudinal Subsurface paving joints shall be offset by at least 6 inches.

No longitudinal vertical drop offs will be allowed between the lanes when the roadway is opened to traffic. Where a longitudinal vertical drop off occurs along the roadway crown between the existing street surface and the new HMA base, you shall grind a 10:1 taper in the existing surface to make a temporary conform to accommodate traffic. The

temporary taper shall be ground after the HMA base paving has been completed each day.

Where a vertical drop off will occur between the top of the new HMA base and a valley gutter, driveway, or side street conform, you shall install a temporary 10:1 asphalt taper.

Where a vertical drop off would occur between the asphalt concrete base and a pedestrian ramp, you shall install a temporary 12:1 asphalt taper.

All ground edges adjacent to curb ramps and driveways shall have temporary HMA ramps (tapers) installed if the asphalt concrete surfacing cannot be placed back the same day the existing pavement is removed. Kraft paper or other bond breaker shall be placed under the conform ramps to facilitate removal when paving operations start. Kraft paper or other bond inhibitor shall be placed under the temporary HMA taper to facilitate removal when paving operations resume.

Temporary asphalt tapers and associated bond breaker material shall be removed prior to placement of the HMA surface lift. Where the bond breaker material adheres to the HMA base course it shall be fully removed with a method, approved by the Engineer that will in no way degrade the quality of the final product.

The Engineer shall provide reference points and cut sheets for the placing of HMA base and HMA surface.

You shall furnish an excavation and paving plan which shall include the following:

1. Requested location for survey staking of reference points
2. HMA plant supplying mix including aggregate source
3. Disposal site for spoils
4. Type of trucks and equipment to be used
5. Haul routes through adjacent residential streets
6. Staging locations
7. Sequencing
8. Taper grind locations

You shall set a string line based on the reference points to control the grade of the paving machine along the crown line. A rotary laser level may be used in lieu of a string line provided the level can be accurately set to the design centerline slope, and the detector is directly mounted to the paving machine screed to control the grade of the paving along the crown line. You shall also furnish a grade setter to ensure that the HMA base and HMA surface paving conforms to the lines and grades established by the Engineer.

A tack coat of SS-1h or SS-1 emulsified asphalt shall be applied to all HMA and concrete surfaces and allowed to break immediately in advance of placing all lifts of HMA. Tack coat applied to horizontal surfaces shall be applied with a tack truck, at a minimum residual rate of 0.02 gal/sqyd. Unless otherwise shown on the Plans, tack coat shall also be applied to all vertical mating surfaces and conforms to existing pavement, curbs, gutters, and construction joints, and allowed to break immediately in advance of placing all lifts of HMA. The tack coat shall be reapplied 1) where it becomes contaminated, and 2) where it is significantly tracked (removed) from the surface.

Asphalt concrete surface must be placed and compacted at ambient temperatures of 50°F or greater.

Asphalt concrete base must be placed and compacted at ambient temperatures of 40°F or greater.

Asphalt concrete will not be placed during any form of precipitation.

The HMA base and asphalt concrete surface courses shall be allowed to cool to 160° F at mid depth before the roadway is opened to traffic each day.

At the end of each working day you shall place retro reflectorized signs and delineators, as required for nighttime use in accordance with the Standard Specifications and Section 12 of these Technical Specifications to warn the public of the existing conditions.

At the end of each work day during paving operations the location of all valves, manholes, monuments and any other facility overlaid with asphalt concrete and required to be raised to grade shall be marked in white paint.

Asphalt concrete conform will be used where shown on the Plans and as directed by the Engineer, and shall conform to these Technical Specifications. Asphalt Concrete Conform shall consist of removal of existing asphalt concrete and aggregate base as required to provide an asphalt concrete conform a minimum two feet in width and a minimum six inches thick.

Existing asphalt concrete pavement and aggregate base course shall be removed to accommodate the asphalt concrete conform and disposed of as specified in these Technical Specifications. Existing asphalt concrete shall be sawcut and removed at the locations and to the dimensions shown on the Project Plans. Any removal performed by the Contractor beyond the limits of the asphalt concrete conform shown on the Project Plans shall be replaced to match existing.

**39-2.02A(2) Definitions:** For these specifications, Hot Mix Asphalt HMA, asphalt, and asphalt concrete shall be the same.

At your option, and at no additional expense to the City, a Cal-trans approved Warm Mix Asphalt (WMA) technology may be added to the HMA. However, the HMA shall be

manufactured at HMA temperatures (300F +/- 25F) at a dosage rate approved by the Engineer. All other HMA project specifications shall be adhered to.

Use Section 39-3 Method construction process of these specifications for HMA production and construction.

**39-2.02B Materials**

**39-2.02B(3) Asphalt Binder:** Asphalt binder in HMA must comply with the specifications for asphalts.

Asphalt binder to be mixed with aggregate for HMA surface, leveling and base shall be PG64-16 grade paving asphalt.

The amount of asphalt binder to be mixed with the aggregate shall be specified by the Engineer at the time of paving. Different asphalt binder content may be specified for each lift and each location.

Liquid anti-stripping agent (LAS) shall be added to the asphalt binder at a rate of 0.4 to 1.0% by weight of asphalt binder as specified by the Engineer at the time of paving. The LAS shall be AD-here LOF 65-00 or equivalent, and shall be stored, measured, and blended with the asphalt binder in accordance with the anti-stripping agent manufacture's recommended practice. The LAS can be added at the asphalt plant or at the refinery. When added at the HMA plant, the equipment shall indicate and record the amount of LAS added. If added at the refinery, the shipping ticket from the refinery shall certify the type and amount of LAS added.

**39-2.02B(4) Aggregates**

**39-2.02B(4)(a) General- In Addition:** The aggregate grading of the various types of HMA shall conform to one of the following as directed by the Engineer:

Surface or Leveling Course.....	3/4-inch HMA Type A, or 1/2-inch Coarse HMA Type A, or 1/2-inch Medium HMA Type A
Base Course.....	3/4-inch HMA Type A

Aggregates should be of high abrasion resistance and durability. Excessively soft and friable aggregates are not allowed.

The specified aggregate gradation must be determined before the addition of asphalt binder and includes supplemental fine aggregate.

Before the addition of asphalt binder and lime treatment, aggregate must have the values for the quality characteristics shown in the following table:

Quality characteristic	Test method	HMA Type A
Percent of crushed particles Coarse aggregate (% min.) One fractured face	California Test 205	90
Two fractured faces		75
Fine aggregate (% min) (Passing no. 4 sieve and retained on no. 8 sieve.) One fractured face		70
Los Angeles Rattler (% max.) Loss at 100 rev.	California Test 211	10
Loss at 500 rev.		45
Sand Equivalent (min.) <sup>a</sup>	California Test 217	50 <sup>b</sup>
Fine aggregate angularity (% min.)	California Test 234	45
Flat and elongated particles (% max. by weight @ 5:1)	California Test 235	10

<sup>a</sup> Reported value must be the average of 3 tests from a single sample.

<sup>b</sup> Minimum Sand Equivalent of 45 for asphalt concrete base.

**39-2.02B(4)(b) Aggregate Gradations- In Addition:** The proposed aggregate gradation must be within the TV limits for the specified sieve sizes shown in the following tables:

**Aggregate Gradation  
(Percentage Passing)  
HMA Types A**

**3/4-inch HMA Type A**

Sieve sizes	TV limits	Allowable tolerance
1"	100	--
3/4"	95–100	TV ± 5
3/8"	65–80	TV ± 5
No. 4	49–54	TV ± 5
No. 8	36–40	TV ± 5
No. 30	18–21	TV ± 5
No. 200	2.0–8.0	--

**1/2-inch Coarse HMA Type A**

Sieve sizes	TV limits	Allowable tolerance
3/4"	100	—
1/2"	94–100	--
3/8"	70–90	--
No. 4	55–61	TV ± 5
No. 8	40–45	TV ± 5
No. 30	20–25	TV ± 5
No. 200	2.0–8.0	--

**1/2-inch Medium HMA Type A**

Sieve sizes	TV limits	Allowable tolerance
3/4"	100	--

1/2"	95-100	--
3/8"	80-95	--
No. 4	59-66	TV ± 5
No. 8	43-49	TV ± 5
No. 30	22-27	TV ± 5
No. 200	2.0–8.0	--

**39-2.02B(5) Reclaimed Asphalt Pavement- In Addition:** Reclaimed Asphalt Pavement (RAP) may be used at your option. If RAP is used, you shall provide the proposed mix design and the quality control for all HMA that includes RAP, in accordance with the following requirements:

1. Contractor shall provide City with a mix design per California Test 384 for the proposed RAP HMA.
2. As part of City’s evaluation of RAP HMA, Contractor and City shall perform bitumen ratio tests on at least six split samples of Contractor’s RAP to establish correlation between respective binder ignition ovens.
3. RAP shall be processed from reclaimed Asphalt Concrete pavement only.
4. RAP pile(s) shall be separate from the stacker pile, not intermingled with other materials, and stored on smooth surfaces free from debris and organic material.
5. The project RAP pile shall be processed and mixed, identified, and of adequate quantity for the proposed project. “Live” piles shall not be permitted.
6. Contractor shall sample the RAP pile and determine the bitumen ratio (using same binder ignition oven used in #2 above) and provide the test results to the City at least one week prior to producing RAP HMA.
7. A minimum of three samples shall be tested for bitumen ratio for RAP pile of 1500 tons, or portion thereof.
8. RAP pile shall be mixed such that individual bitumen ratio test results of RAP pile so not vary more than +/- 0.5%.
9. During RAP HMA production, RAP shall be sampled by you off of the belt (into the batch plant), per method established by the City, and samples provided to the City.
10. Bitumen ratio of RAP sampled off of the belt shall be 4.0% minimum, as determined by City binder ignition oven. City shall select binder content for RAP HMA mix per Specifications.
11. RAP content shall be no more than 20% by dry aggregate mass in the HMA. If proposing a change in the RAP content, you shall notify the Engineer. If the content changes more than 5%, you shall submit a new mix design.
12. Moisture content of RAP pile shall be 4.0% maximum and shall be tested the day prior to the day of paving and tested/monitored during each day of HMA production.
13. RAP pile(s) shall be protected from exposure to moisture.
14. RAP HMA shall comply with all the specifications for HMA.

15. If batch mixing is used, RAP shall be kept separate from the virgin aggregate until both ingredients enter the weigh hopper or pugmill. After introduction to the pugmill and before asphalt binder is added, the mixing time for the virgin aggregate and RAP shall not be less than five seconds. After asphalt binder is added, the mixing time shall not be less than 30 seconds.
16. If continuous mixing is used, the RAP shall be protected from direct contact with the burner flame with a device such as a shield, separator, or second drum.
17. If any of the above criteria are not satisfied, or if the RAP HMA test result determined by the City are inconsistent, RAP HMA production shall stop for City projects until the issue(s) are corrected.

**39-2.02B(6) Smoothness:** Determine HMA smoothness with a straightedge or a profilograph. The completed surfacing shall be thoroughly compacted, smooth and free from ruts, humps, depressions or irregularities. Any ridges, indentations or other objectionable marks left in the surface of the asphalt concrete by blading or other equipment shall be eliminated by rolling or other means. The use of any equipment that leaves ridges, indentations or other objectionable marks in the asphalt concrete shall be discontinued, and acceptable equipment shall be furnished by you.

**39-2.02B(7) Straightedge:** The HMA pavement top layer must not vary from the lower edge of a 12-foot long straightedge:

1. More than 0.01 foot when the straight edge is laid parallel with the centerline
2. More than 0.02 foot when the straightedge is laid perpendicular to the centerline and extends from edge to edge of a traffic lane
3. More than 0.02 foot when the straightedge is laid within 24 feet of a pavement conform

**39-2.02B(8) Profilograph:** Under California Test 526, determine the zero (null) blanking band Profile Index (PI0) and must-grinds on the top layer of HMA Type A pavement. Take 2 profiles within each traffic lane, 3 feet from and parallel with the edge of each lane. A must-grind is a deviation of 0.3 inch or more in a length of 25 feet. You must correct must-grinds. Profile pavement in the Engineer's presence. Choose the time of profiling. On tangents and horizontal curves with a centerline radius of curvature 2,000 feet or more, the PI0 must be at most 3 inches per 0.1-mile section. On horizontal curves with a centerline radius of curvature between 1,000 feet and 2,000 feet including pavement within the super elevation transitions, the PI0 must be at most 6 inches per 0.1-mile section. Before the Engineer accepts HMA pavement for smoothness, submit written final profilograms. Submit 1 electronic copy of profile information in Microsoft Excel and 1 electronic copy of longitudinal pavement profiles in "erd" format or other ProVAL compatible format to the Engineer.

**39-2.02B(9) Smoothness Correction:** If the top layer of HMA Type A pavement does not comply with the smoothness specifications, grind the pavement to within tolerances,

remove and replace it, or place a layer of HMA. The Engineer must authorize your choice of correction before the work begins.

Corrected HMA pavement areas must be uniform rectangles with edges:

1. Parallel to the nearest HMA pavement edge or lane line
2. Perpendicular to the pavement centerline

Measure the corrected HMA pavement surface with a profilograph or a 12-foot straightedge and correct the pavement to within specified tolerances. If a must-grind area or straight edged pavement cannot be corrected to within specified tolerances, remove and replace the pavement. On all ground areas, apply fog seal coat per Standard Specifications Section 37-1, "Seal Coats."

**39-2.02B(10) Acceptance Criteria Testing:** The acceptance testing requirement for Sand Equivalent shall be 50 (minimum) for HMA surface and 45 (minimum) for HMA base. HMA shall meet the following requirements.

Aggregate Micro-Deval (ASTM D6928-10) <sup>1</sup>	Tensile Strength Ratio, TSR (ASTM D7870) <sup>2</sup>
≤16.0%	Not Required
16.1-18.0%	70 (minimum)
18.1-21.0%	80 (minimum)

<sup>1</sup> Asphalt concrete with an aggregate Micro-Deval loss greater than 21.0% shall be removed and replaced at your expense. In addition, no single source of HMA aggregate shall have a Micro-Deval loss greater than 21.0%.

<sup>2</sup> TSR testing shall be performed on re-compacted HMA (per ASTM D7870), obtained from field cores, and tested within 30 days of HMA placement. Specimens tested shall include 1 unconditioned sample, and 2 conditioned samples as follows:

- a) 20.0 hour Adhesion cycle @ 60°C
- b) 3500 cycles @ 40 psi and 60°C

A single TSR test shall not represent more than 750 tons of HMA.

HMA not meeting the above requirements shall be removed and replaced at your expense.

Test sections shall be approved based on the attainment of 97% relative compaction and a satisfactory surface condition following final rolling. The number of coverages required shall be the minimum number required to obtain 97% relative compaction. Relative density shall be the ratio of in-place density (ASTM Test Method D2950) to test maximum density (California Test 309, Method of Test for Determining Theoretical Maximum Specific Gravity and Density of Hot Mix Asphalt) determined during production paving.

The HMA may be cored during paving of the test sections, and the in-place density for each test section shall be the average of three core densities determined per California Test 308.

**39-2.02D Payment: Hot Mix Asphalt – Surface Course** shall be paid for at the contract unit price per **ton**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: placing asphalt concrete surface and overlay, including tack coat and overlay conforms, and any other work required for Hot Mix Asphalt – Surface Course not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Hot Mix Asphalt – Base Course** shall be paid for at the contract unit price per **ton**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: placing asphalt concrete base, including tack coat and temporary tapers, and any other work required for Hot Mix Asphalt – Base Course not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Full compensation for installing and removing temporary asphalt tapers shall be included in the contract price for asphalt concrete surface, and no additional allowance will be made therefor.

Asphalt Concrete Base used per Note 1 of City Standard 215 shall be considered as included in the prices paid for various contract items of work, and no additional allowance will be made therefor.

[Version 5/19/2025 JB2 STD2024]

## 39A HOT MIX ASPHALT CONCRETE TRENCH PAVING

**39A-1.01 Description:** Hot mix asphalt concrete (HMA) trench paving shall be per City STD-215. Trench surface shall be per the Trench AC Paving Table on sheet 1 of City STD-215. Trench base shall be 6" of HMA per note 1 on sheet 1 of City STD-215. 12" aggregate base may be used with a no cost change order and written approval from the Engineer. Trench paving shall be placed in areas outside of reconstruction and overlay limits, or as shown on the Plans. HMA base paving and surface shall be included in the prices paid for various contract items and no additional allowance will be made therefor.

Temporary paving on all utility trenches and any other excavated areas shall be 1/2-inch maximum, medium grade aggregate hot mix asphalt concrete installed a minimum of two inches thick placed each day over the work. Temporary Paving is included in the prices paid for various contract items and no additional allowance will be made therefor.

Temporary paving around edges of steel plates shall be a hot mix 1/2-inch maximum, medium graded aggregate and SC 3000 asphalt binder for use the same day or SC 250 asphalt binder for use over a one week period. Temporary Paving is included in the prices paid for various contract items and no additional allowance will be made therefor.

The amount of asphalt binder to be mixed with the aggregate will be specified by the Engineer at the time of paving. Different asphalt binder content may be specified for each lift and each location. Asphalt concrete trench paving shall be per Section 39-2.02B for surface and base requirements.

Cutback shall not be used or stockpiled anywhere on the job site.

**39A-5.01 Spreading Equipment:** When trench width is three feet or less, the asphalt concrete used for trench paving may be deposited directly from the haul vehicle into the trench. The asphalt shall then be raked smooth prior to compaction.

**39A-6.01 General Requirements:** Areas outside of reconstruction or overlay limits shall receive permanent trench paving per City STD-215, or as specified herein. The Engineer may require additional paving beyond the minimum dimensions shown in STD-215.

Areas requiring permanent trench paving per City STD-215 shall have a minimum A.C. thickness as indicated on the Plans and shall use the 6-inch-thick AC alternative in Note 1, Sheet 1 of STD-215. Quantities listed are based on the 6-inch thick AC alternative in Note 1, Sheet 1 of STD-215.

You shall provide compaction of backfill and base material as the job progresses. Temporary paving, as specified in Section 39A-2.01, shall be placed over the work each day, leaving not more than 25 feet unpaved. This temporary paving shall be removed for final street reconstruction and/or trench paving. The 25 feet of unpaved trench shall be covered with skid resistant steel plates (with a coefficient of friction of 0.35 or greater per CTM342), capable of sustaining normal (H2O) traffic loads without shifting or bouncing

and shall be secured per Caltrans requirements. Plates that have areas where the skid resistant material is missing shall not be used and must be removed from the job site. Hot mix asphalt concrete shall be placed and compacted around all edges of steel plates with a sufficient width and gradual slope in order to provide a smooth transition to existing pavement. The Contractor shall only be allowed to plate one lateral trench at a time.

Temporary and permanent asphalt trench paving shall be even and smooth riding.

You shall monitor and maintain all temporary paving to the satisfaction of the Engineer.

Asphalt concrete used for temporary trench paving shall be removed and disposed of in accordance with Section 124 "Material Recycling" of these Technical Specifications.

Any existing manholes or valves that are encountered within the trench paving limits must be adjusted to grade per the requirements of Section 15 of these Technical Specifications. You are responsible for all coordination with the various utility company owners and their representatives, as well as the cost to adjust the various utilities to grade.

**39A-6.03 Compacting:** Compaction shall be in accordance with Section 39-6.03 of the City Specifications except as modified below.

The basis for approval shall be the attainment of 97% relative compaction and satisfactory surface condition following final rolling. The number of coverages required shall be the minimum number required to obtain 97% relative compaction in accordance with Section 39-2.02B(10) in these Technical Specifications.

**39A-8.02 Payment: Permanent Trench Paving** shall be paid for at the contract unit price per **ton** of asphalt surface course, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: saw cutting, tack coat, compaction, asphalt concrete base, and any other work required for permanent trench paving not specifically enumerated in the City Standards, General Conditions, Special Conditions, Technical Specifications, or on the Project Plans, and any other work required for Permanent Trench Paving not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Asphalt Concrete Base used per Note 1, Sheet 1 of City Standard 215 will be paid for at the unit price provided for Permanent Trench Paving and no additional allowance will be made therefor.

The estimated quantity of Permanent Trench Paving is for bidding purposes only and is measured as the permanent trench paving outside of the roadway reconstruction limits as shown on project plans. This quantity includes the 0.25' asphalt concrete surfacing and the 0.50' of asphalt concrete base per Note 1, Sheet 1 of City STD 215. This quantity may be increased, decreased or eliminated in its entirety based on field condition evaluation by the Engineer and no adjustment in the contract bid price or other contract items shall

be made therefor. The provisions in Section 9-1.06(B)(C) of the Standard Specifications shall not apply.

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## 73 CONCRETE CURBS AND SIDEWALKS

**73-1.01 General- In Addition:** This work shall consist of curbs, gutters, sidewalks, driveways, curb ramps, and valley gutters and shall be constructed in accordance with the details and at the location shown on the Plans, City Standards, and in conformance to the requirements of Section 73 of the City Specifications, and the Standard Specifications.

Soft or spongy material shall be removed and replaced with suitable material as required by the Engineer.

All new concrete construction joints shall be of the same type as those removed with the existing concrete unless otherwise stated herein or on the Plans.

All oil, paint, tire marks, and other discoloring due to the Contractor's operations shall be removed from concrete by power washing or other approved method that will not cause damage prior to acceptance by the Engineer. Cement mortar will not be an acceptable substitute for power washing. Vandalism to uncured concrete surface shall be removed. If it cannot be removed from the surface, then the vandalized concrete shall be removed and replaced to the nearest score-mark.

Curb ramps will be evaluated using a 4 foot smart level. Newly constructed curb ramps with slopes exceeding those allowed by ADA standards shall be removed and replaced in their entirety including the detectable warning surface and no additional compensation will be provided. Grinding or the application of a cement mortar grout will not be an acceptable alternative to correct unacceptable grades. A single curb ramp shall be constructed for review and approval by the Engineer prior to construction of additional curb ramps.

Provide control and weakened plane joint layout submittal to the Engineer for each curb ramp shown on the Plans with squares or 1 to 1.5 or less ratio, 2 weeks prior to construction of the curb ramp.

**73-1.02D Color:** A colored pigment designed for the integral coloring of concrete shall be added to the concrete mix. The pigment shall contain pure concentrated mineral pigments specifically processed for mixing into concrete and complying with ASTM C979. The colored pigment shall be Davis Colors color #860, applied in a dosage of 1/3 pound per 94 pound sack of cement (approximately 2 pounds per cubic yard of concrete for a 6 sack mix), or L. M. Scofield color #SG860 applied in a dosage to produce an equivalent color, or an approved equal.

**73-2.03 Curb Construction:** Curb construction shall be in accordance with Section 73-1.05 of the City Standards.

Curb and gutter shall be constructed per City STD-241, and per the details and at the locations shown on the Plans, and in accordance with the City Specifications.

Curb without gutter shall be constructed per Caltrans Standard A-16, and per the details and at the locations shown on the Plans.

Expansion joint material shall be installed on at least one side of new curb and gutter when length of the new install is over ten feet, and on both sides when over 15 feet.

When length of new curb and gutter is 7 feet or less, both sides shall be dowelled to the adjacent existing curb and gutter. Dowels shall be 8-inch long # 4 dowels with two equally spaced in the curb (vertical) and two in the gutter (horizontal).

Where new curb is installed adjacent to existing trees, root barrier, "Biobarrier" manufactured by Typar or approved equivalent, shall be installed a minimum of 14" deep in accordance with City Standard 101-A and as directed by the Engineer.

Where noted on Plans, native backfill shall be placed behind new curb. Native backfill shall be suitable material for planting and shall be free from stones larger than 1 in. in size, refuse, plants or roots, clods, weeds, sticks, or other extraneous material. Soil shall be compacted to 85% relative compaction.

All concrete which is to be removed from curb and gutter, areas shall be removed to the nearest transverse score mark or construction joint or as directed by the Engineer.

**73-3.01D(2) Warranties- In Addition:**

The manufacturer shall provide a written 5-year warranty for prefabricated detectable warning surfaces, guaranteeing replacement when there is a defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience, or attachment. The warranty period shall begin upon acceptance of the contract.

**73-3.03 Sidewalk, Valley Gutter, Curb Ramp, Driveway, and Bus Pad Construction:**

Sidewalk, valley gutter depression, valley gutter, curb ramp, driveway and bus pad shall be constructed in accordance with the details and at the locations shown on the Plans and in conformance with the requirements of Section 73-1.07 of the City Specifications.

PG&E, SBC and AT&T utility vaults, new racks, manholes and/or valves that conflict with the construction and/or use of the curb ramp shall be identified ahead of time by you and coordinated with the appropriate agencies for adjustment in a timely manner to avoid impact on the progress and completion of the project. Additionally, 1/4-inch expansion material with thickened edges of 8-inches shall be applied surrounding all vertical poles and base plates.

Curb ramps shall be constructed at the locations specified in the Project Plans and Technical Specifications, in full compliance with the most stringent requirements of the ADA, California Building Code sections 11B-302.3, 11B-406.2, 11B-406.3, and 11B-406.5, as well as Caltrans Standard Plan A88A, with the exception that the ramp thickness shall be a minimum of 4 inches, and the ramp width shall be 48 inches. Sidewalk and curb ramp control/weakened plane joints shall be scored with a 1/4" radius with no finished joint larger than 1/2" wide by 1/4" deep.

Trees overhanging the public right-of-way within proposed curb ramp and adjacent sidewalk areas shall be trimmed in accordance with Section 112 to provide a minimum 7 feet of vertical clearance above the finished walking surface.

Notify the Engineer 10 days prior to removal of the ramp of all anticipated conflicts at specific locations. Scheduling a “pre-curb ramp installation walk through” with the Engineer is recommended and can be requested or required by the City at the Preconstruction Meeting.

You are to confirm that the bottom of the traffic signal pole base plates are exposed and the grades of the ramp do not require raising or lowering of the traffic signal poles unless specifically noted on the Project Plans.

You are to confirm that the Fire Hydrant flange bottom bolts are exposed and the grades of the ramp do not require raising or lowering of the Fire Hydrant unless specifically noted on the Project Plans.

Replacement of Curb Ramps require flush transitions to the existing sidewalk. Dowels are required at the cold joints to existing concrete.

Unless noted otherwise on the Project Plans, Sidewalk conform areas are to be a minimum of 5 foot long or to the next control joint by the width of the existing sidewalk.

Curb ramp detectable warning surfaces shall consist of prefabricated raised truncated domes constructed with curb ramps in conformance with the details shown on the Plans and Caltrans Standard Plan A88 and these Technical Specifications. The detectable warning surface shall be Armor-Tile cast-in-place and surface applied detectable warning surface or approved equal. The color of the detectable warning surface shall be yellow conforming to the Federal Standard 595C, Co. No. 33538. Prefabricated detectable warning surfaces shall be installed in accordance with the manufacturer’s recommendations.

The detectable warning surface tiles shall be protected from concrete splatter while installing the cast-in-place detectable warning surface into the PCC sidewalk by a temporary 4 mil plastic sheeting or approved equal. Fire hydrants and poles shall be cleaned of concrete splatter and curing compound within 24 hours. City shall have the right to impose a charge against Contractor in an amount equal to \$100.00 per violation per day.

The finished surfaces of the detectable warning surface shall be free from blemishes. No cutting of the tiles shall be allowed. Installation shall be per manufacturer’s instructions or as directed by the Engineer.

Expansion joint material shall be installed full width from gutter to back of sidewalk on both sides of the curb ramp structure.

All concrete which is to be removed from sidewalk and driveway areas shall be removed to the nearest transverse score mark across the full width of sidewalk or construction joint or as directed by the Engineer.

Soft or spongy base or subgrade material shall be removed and replaced with suitable material as required by the Engineer.

Sidewalks, gutter depression, median curb, curb ramps, and driveways shall be cured in accordance with the requirements of Section 90-1.03B of the Standard Specifications except that you may substitute other than pigmented sealer upon approval in writing of such substituted sealer by the Engineer.

All oil, paint, tire marks, and other discoloring shall be removed from the Sidewalks, gutter depression, median curb, curb ramps, and driveways by sandblasting prior to acceptance by the Engineer. Cement mortar will not be an acceptable substitute for sandblasting. Vandalism to uncured concrete surface shall be removed. If it cannot be removed from the surface, then the vandalized concrete shall be removed and replaced to the nearest scoremark.

Concrete with surface cracking exceeding a depth of 0.5 inches or 0.03 inches wide or a level change of 0.25 inches shall be removed and replaced at no additional cost to the City. Patching or any joint fillers are not allowed for repairs to damaged concrete.

Gutter Depression shall be constructed in accordance with City STD-243 Standard Valley Gutter.

Valley Gutter shall be constructed in accordance with City STD-243 the details and locations shown on the Plans and in accordance with the City Specifications.

Bus pad will be constructed in accordance with City STD 220, 221, and 222, as applicable. Payment for bus pads will include Class II base, as shown per City Standard.

**73-3.04 Payment: Sidewalk** shall be paid for at the contract unit price per **square foot**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: constructing sidewalk complete in place as specified, sawcutting, excavating, removal and disposal of existing sidewalk, curb ramp and curb and gutter, sand base, concrete, concrete coloring, backfilling, furnishing and placing expansion joint filler, constructing weakened plane joints, and backfilling applying curing materials and removing discoloring, and any other work required for Sidewalk not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

No separate payment will be made for backfilling and compaction of native soil that is used to surround and conform with the surrounding conditions.

**Cobble Non-Walkable Surface** shall be paid for at the contract price per **square foot**, which price shall include full compensation for furnishing all labor, materials, tolls and equipment, and doing all work involved in constructing cobbles embedded in concrete complete in place as specified, including furnishing a cobble sample, sawcutting, excavating and disposal of existing sidewalk, curb ramp, and curb & gutter, backfill furnishing and placing expansion joint filler, aggregate base, cobbles, concrete, constructing weakened plan joints, backfilling, furnishing and applying curing materials, and removing discoloring, and any other work required for Cobble Non-Walkable Surface not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Curb Ramp** shall be paid for at the contract unit price per **square foot**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: constructing curb ramp complete in place as specified, including but not limited to, sawcutting, excavating, removal and disposal of existing sidewalk, curb & gutter, and curb ramp, including furnishing and placing expansion joint filler, sand base layer, Class II Aggregate Base, detectable warning surface, removal and restoration of irrigation and landscaping, constructing weakened plane joints, and backfilling furnishing and applying curing materials and removing discoloring, and any other work required for Curb Ramp not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

For purposes of payment, curb ramp will be measured between the outside border of the ramp, landing, and integral curb areas but will exclude the curb and gutter. The area of concrete beneath the detectable warning surface shall be paid for at the contract price per square foot of curb ramp.

No separate payment will be made for backfilling and compaction of native soil that is used to surround and conform with the surrounding conditions.

**Curb & Gutter** shall be paid for at the contract unit price per **linear foot**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: sawcutting excavating, removal, hauling, and disposal of existing curb and gutter, sidewalk, compaction, Class II Aggregate base, forming, concrete, finishing, furnishing and placing expansion joint filler, root barrier, native backfill *if required*, constructing weakened plane joints, furnishing and applying curing materials, and removing discoloring, and any other work required for Curb & Gutter not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

No deduction in the measured length of curb and gutter to be paid for will be made for curb openings for driveways or depressing curbs for curb ramps and tapers.

**6" Wide Vertical Curb** shall be paid for at the contract unit price per **linear foot**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: constructing 6-inch wide vertical curb as specified, sawcutting, excavating, removal and disposal of existing sidewalk, compaction, Class II Aggregate base, forming, concrete, finishing, furnishing and placing expansion joint filler, root barrier, native backfill *if required*, constructing weakened plane joints, furnishing and applying curing materials, and removing discoloring, and any other work required for 6" Wide Vertical Curb not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**4" Wide Vertical Curb** shall be paid for at the contract unit price per **linear foot**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: furnishing and applying curing materials, forming and constructing curb opening for driveways, removing discoloring, furnishing all labor, materials, tools and equipment and doing all the work involved in constructing curb and gutter 4-inch wide vertical curb complete in place as specified, sawcutting, excavating, removal and disposal of existing sidewalk, compaction, Class II Aggregate base, forming, concrete, finishing, furnishing and placing expansion joint filler, Class II Aggregate base, root barrier, native backfill *if required*, constructing weakened plane joints, excavating, and backfilling, furnishing and applying curing materials, and removing discoloring, and any other work required for 4" Wide Vertical Curb not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Retaining Curb** shall be paid for at the contract unit price per **linear foot**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: sawcutting, excavating, removal and disposal of existing sidewalk, backfilling, compaction, Class II Aggregate base, forming, rebar, concrete, finishing, furnishing and placing expansion joint filler, root barrier, native backfill *if required*, constructing weakened plane joints, furnishing and applying curing materials, removing discoloring, and any other work required for Retaining Curb not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Concrete Bus Pad** shall be paid for at the contract unit price per **square foot**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: constructing concrete bus pad complete in place as specified, including but not limited to: sawcutting, excavating, removal and disposal of existing pavement, sidewalk, and curb and gutter, Class II Aggregate base, forming, rebar, concrete, finishing, furnishing and placing expansion joint filler, reinforcement constructing weakened plane joints, excavating, and native backfill *if required*, furnishing and applying curing materials,

removing discoloring, and any other work required for Concrete Bus Pad not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

[Version: 5/20/2025 JB2 STD2024]

## 78 CITY MONUMENTS

**78-2.01 General:** City monuments shall conform to City Standards 280 to 282. The exact location of the monument will be established by the Engineer. The monument will be approved after it is constructed then center point stamped by the Engineer.

Damaged Monuments will be replaced in their entirety per City Standards.

**78-2.04 Payment- Replace With: City Monument** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: demolition, excavation, off hauling, disposal, backfilling, hot mix asphalt, concrete, brass disc, monument box and cover and doing all the work involved in constructing City Monuments complete in place, including removal of existing monuments disturbed during construction which shall be replaced with new monuments, and any other work required for City Monument not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

## 82 SIGNS AND MARKERS

**82-1.01 General:** This work shall consist of installation, removal, and relocation of roadside signs as shown on the Plans, where directed by the Engineer, and shall conform to the City Standards and Specifications, Sections 56 and 82 of the Standard Specifications, and the current edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD).

Signs and hardware which are not to be mounted on traffic signal mastarms or traffic signal poles shall be provided and installed by the Contractor at the locations shown on the Plans per Part II of the City Traffic Standards.

Existing signs which are not on traffic signal mastarms or traffic signal poles shall be relocated as shown on the Plans by the Contractor.

New signs and brackets to be mounted on traffic signal mastarms and traffic signal poles shall be provided and installed by the City.

Existing signs on traffic signal mast arms and traffic signal poles will be relocated by the City.

Where signs are shown on the Plans as relocated or removed, the sign post and foundation shall be removed if no longer in use. Existing sign posts removed from sidewalks shall be ground flush with the existing sidewalk surface, and the void filled with grout.

Salvaged signs shall be returned to the City of Santa Rosa Sign Shop at 55 Stony Point Road. All poles being removed and not relocated shall become the property of the Contractor.

Where traffic regulatory signs (i.e. STOP and crosswalk warning) are removed for construction, Temporary Signs shall be placed and maintained on barricades at stop controlled intersections and the crosswalk until permanent traffic regulatory signs are installed. Temporary stop bars and crosswalks shall be installed in accordance with Section 84 of the Technical Specifications.

**82-3.03 Construction:** Where 2-inch sign poles are shown on the plans to be installed, you shall provide and install threaded sign poles couplers and extensions (as needed) and core sidewalk or excavate foundations.

Where new street signs are shown on the plans to be installed on existing sign poles, you shall provide and install couplers, extensions (as needed) and mounting hardware to accommodate new signs at your expense. Where new street signs are shown on the plans to be installed on existing streetlight poles, you shall provide banding mounts for the signs to be installed. Streetlight poles shall not be drilled.

Where signs are shown on the plans as relocated or removed, the sign post and foundation shall be removed if no longer in use. Existing sign posts removed from sidewalks shall be ground flush with the existing sidewalk surface, and the void filled with grout. When existing sign posts and foundation are removed from a planter strip, the void shall be back filled with native material compacted to match the existing grade.

Existing pole extensions shall be replaced (as needed) with new 2-inch threaded pole extension and coupling, cut to length required to install or relocate signs, and/or to reset sign configuration.

Removed signs shall be returned to the City of Santa Rosa Sign Shop at 55 Stony Point Road. All poles being removed and not relocated shall become your property.

When required to install new or relocate existing signs, you shall trim tree branches as directed by the Engineer.

**82-3.04 Payment- Replace with: Remove & Salvage Existing Roadside Sign** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: removing existing roadside sign, delivering sign in good condition to the City, removal and disposal of mounting hardware, restoration of the pole *as needed*, and any other work required for Remove & Salvage Existing Roadside Sign not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Relocate Existing Roadside Sign** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: removing existing roadside sign, removal and disposal of mounting hardware, restoration of the pole *as needed*, and re-installing sign in new specified location, and any other work required for Remove and Relocate of Roadside Sign not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Remove & Dispose of Existing Pole** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: removal and disposal of pole and mounting hardware, sawcutting, excavating, coring sidewalk, backfill, removal and disposal of adjacent hardscaping and or sign foundation *as needed*, restoration of surrounding hardscaping and landscaping *as needed*, and any other work required for Remove & Dispose of Existing Pole not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Furnish & Install New Pole** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: installation of new pole, including furnishing new pole, sawcutting, excavating, coring sidewalk, backfill, materials and forming of foundation, removal and disposal of adjacent hardscaping *as needed*, restoration of adjacent hardscaping and or landscaping *as needed*, and any other work required for Furnish & Install New Pole not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Furnish & Install New Roadside Sign** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: procurement and installation of new roadside signs, and all required hardware for mounting signs, and any other work required for Furnish & Install New Roadside Sign not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Full compensation for installing and maintaining temporary sign, including all labor, materials, tools and equipment, complete as herein specified, shall be included in the prices paid for various contract items of work, and no additional allowance will be made therefor.

[Updated: 5/20/2025 JB2 STD2018]

# 84 MARKINGS

## **84-2 Traffic Stripes and Pavement Markings**

**84-2.01 General:** Attention is directed to Section 12 “Temporary Traffic Control” and Section 15 “Existing Facilities” of these Technical Specifications. Traffic stripes and pavement markings shall conform to the applicable provisions of Section 84 of the Standard Specifications, The City Traffic Standards, and these Technical Specifications and shall be placed at the locations shown on the Plans.

Contractor shall provide and install temporary retro-reflective traffic stripes and pavement markings on the same day as the existing traffic stripes and pavement markings are removed or destroyed, or as directed by the Engineer, and maintain them until the new, permanent traffic stripes and pavement markings are in place.

Temporary striping on all ground surfaces shall be paint (white and/or yellow) with retro-reflective glass beads or an approved equivalent and shall be installed the same day as the existing permanent traffic striping is removed, or as directed by the Engineer. Temporary traffic striping shall be maintained until new permanent traffic striping is in place.

Existing pavement markings, including crosswalks, disturbed by construction activities shall be replaced in their entirety.

All traffic striping to be replaced shall match existing sections in kind unless approved by the Engineer.

Contractor shall remove all existing traffic striping and pavement marking in conflict with proposed improvements, as shown on the Plans, and as directed by the Engineer, and shall be responsible for the proper disposal of their grindings away from site work.

Permanent traffic stripes and pavement markings shall be installed after all iron has been raised for that particular street section, but no more than five days after final paving for that section of roadway or a 15% pay deduction may be leveled.

Existing traffic stripes and pavement markings to remain, which are damaged by the work shall be replaced at the contractor’s expense. This includes areas outside the immediate project limits.

Painted curbs which are damaged or replaced as part of the work shall be repainted to match existing conditions.

**84-2.01D Quality Assurance – In Addition To:** The Engineer shall inspect completed lines and markings as conditions may require and may inform the Contractor of any faulty methods or unsatisfactory results.

**84-2.03B(2)(b) Extruded Thermoplastic – in addition:** 4-Inch, 6-Inch, and 8-Inch Traffic

Lines, Double Yellow Centerline, Two-Way Left Turn Lane, Median Island Traffic Lines, 12-Inch Crosswalk, and Pavement Markings shall be extruded thermoplastic. Extruded thermoplastic material shall be PTH-02ALKYD. The entire width of pavement marking shall fit inside the lanes and centered as shown on the Plans. No additional compensation shall be made for yellow thermoplastic.

**84-2.03B(8) Green Preformed Thermoplastic Bike Lane:** Green Preformed Thermoplastic Bike Lane markings shall meet requirements of FHWA Interim Approval IA-14 and Chromaticity Requirements for Green-Colored Pavement as outlined in FHWA Interpretation Letter 9(09)-86(I). Green Bike Lane Markings shall have a minimum thickness of 90mil and skid resistance of greater than 45 BPN when tested according to ASTM E 303. Green Bike Lane Markings shall be installed in 5' by 4' rectangles, centered within the dashed bike lane markings, with the 5' dimension perpendicular to the direction of travel and the 4' dimension parallel to the direction of travel. Install Green Preformed Thermoplastic Bike Lane marking per the manufacturer recommendations.

#### **84-4 Pavement Markers:**

**84-4.01 General:** Raised pavement markers shall be placed at the locations shown on the Plans and in accordance with the applicable provisions of Section 84 of the Standard Specifications, these General Conditions, these Technical Specifications, and the City of Santa Rosa Traffic Standards. Attention is directed to Section 15 "Existing Facilities" of these Technical Specifications.

**84-4.02 Materials:** All raised pavement markers (RPMs) shall conform to the most current State Specifications.

**84-4.02B Nonreflective Pavement Markers:** All non-reflective pavement markers shall be ceramic.

**84-4.02C Retroreflective Pavement Markers:** Blue reflective raised pavement markers are to be placed per City STD -857 for each fire hydrant within the construction limits of the project. Where a hydrant, whether existing or new, is located at the corner of two streets, a blue RPM shall be placed in each street.

**84-4.03 Construction:** Existing raised pavement markers to remain, which are damaged by the Contractor, shall be replaced as determined by the Engineer, at the Contractor's expense. This includes areas outside the immediate project limits.

The exact locations and limits of raised pavement markers will be determined in the field by the Engineer.

The Contractor shall provide, install and maintain temporary markers on the same day that the existing permanent markers are removed, or as directed by the Engineer, and maintain this delineation until new permanent markers are in place. Temporary markers on non-ground surfaces shall be plastic adhesive retroreflective delineators.

Existing raised pavement markers conflicting with the proposed striping shall be removed immediately prior to placement of new markers.

Holes left in the pavement due to the removal of raised pavement markers shall be filled with enough adhesive to replace any asphalt which comes off with the removal of the pavement marker, leaving a level driving surface.

Permanent raised pavement markers shall be installed within 5 days following final pavement operations. Temporary markings shall be in place the same day of pavement operations.

### **84-5 Bicycle Vertical Separation Elements**

**84-5.01 General:** Bicycle Vertical Separation Elements shall be placed at the locations shown on the Plans and in accordance with the applicable recommendations by NACTO and Caltrans design bulletins.

**84-5.02 Materials:** The vertical separation elements shall be K71 traffic posts as manufactured by US Reflector or approved equal.

Vertical separation elements shall consist of flexible posts that shall consist of a channelizer, rubber base, and single point anchoring system. Flexible posts shall be designed to withstand impacts up to 55 miles per hour. Flexible posts shall consist of an inner core and outer sheath that shall be green with a reflective band. The diameter shall be a minimum of seven inches. Flexible posts shall be self re-erecting.

**84-6.01 Payment: Pavement Marking & Striping** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: pavement surface preparation, layout, thermoplastic material, glass beads, removal of existing and temporary stripes and pavement markings, replacement of damaged stripes and markings, raised pavement markers, painted striping and markings, K71 traffic posts (or approved equal), all temporary traffic measures, and any other work required to install thermoplastic and painted stripes, pavement markings, and raised pavement markers not specifically enumerated in the City Standards, the Project Plans, and these Technical Specifications, and any other work required for Pavement Marking & Striping not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

[Updated: 5/20/2025 JB2 STD2024]

# 86 ELECTRICAL MATERIALS

## **86-1 General**

**86-1.01A Summary:** The Contractor shall remove, salvage, furnish and install, or modify traffic signal system(s) and street lighting system(s) at the location(s) shown on the plans in conformance with the applicable provisions of Section 86, "Electrical Work", of the Standard Specifications, Standard Plans, the City Traffic Standards, these Technical Specifications, and as directed by the Engineer. Text listed below indicates variations from the Caltrans 2018 Standard Specification within the associated section.

Not all existing wires or interconnect may be shown on the plans and may be shallow. Depths must be verified by Contractor by means of potholing, as needed, prior to any work.

**86-1.01D(3) Department Acceptance:** The functional test for each traffic signal system and lighting system shall consist of not less than 48 hours of continuous, satisfactory operation. If unsatisfactory performance of the system develops, the conditions shall be corrected, and the test shall be repeated until the 48 hours of continuous, satisfactory operation is obtained.

## **86-1.02 Materials**

### **86-1.02C Pull Boxes**

**86-1.02(1) General:** Delete "The cover marking must include CALTRANS".

Add: Pull boxes shall conform to STD 730 of the City Traffic Standards, these Technical Specification, and the Caltrans Standard Specifications, and the details on the Plans.

All existing pull boxes to receive new conducts and/or conduits shall be cleaned out, all existing grout removed, and the bottoms regouted with a drain hole or the boxes replaced to meet current City Standards.

Pull boxes shall be labeled depending on their purpose:

1. Service
2. Traffic Signal
3. Street Lights
4. Interconnect
5. Fiber

### **86-1.02C(4) Tamper Resistant Pull Boxes**

Street Light pull boxes shall use tamper resistant bolts that are button head socket cap with 6 lobe security head, 18-8 Stainless Steel, 3/8" x 2.5"

The Contractor shall supply and install McCain Tamper Resistant Inserts or approved

equal in all new number 5 and number 6 pull boxes. Installation of the tamper resistant insert shall be per manufacturer's recommendation and instructions.

The Contractor shall submit the proposed type of Tamper resistant device to the Engineer for approval before ordering.

The City shall supply locks for the tamper resistant inserts. Keys for the City supplied locks shall not be given or loaned to the Contractor at any time. The Contractor may use their own locks during construction or opt not to lock the pull boxes for ease of access. The City will install City locks on the inserts the day of the signal activation. Once the City locks are installed the Contractor shall coordinate with the City inspector to have access to the pull boxes. The proposed final payment will not be paid until all Contractor locks are removed.

If a pull box is not fully surrounded by concrete or asphalt, a concrete pad shall be installed around the pull box. The concrete pad shall be four inches thick and two feet wide on all edges of the pull box at a minimum.

### **86-1.02F Conductors and Cables**

All conductors for traffic signal or street lighting systems shall conform to Section 86 and Section 87 of the Standard Specifications, Part IV-G of the City Traffic Standards, as shown on the Plans, or as specified herein.

### **86-1.02F(2)(b) Aluminum Conductors**

Aluminum conductors shall not be used for street light or traffic signal installation.

### **86-1.02F(2)(c) Copper Conductors**

Copper conductors according to the Santa Rosa City Standards shall be used.

The color of the conductors for the future Flashing Yellow Arrow (FYA) shall be yellow with a white stripe. The future FYA conductor shall be labeled and grouped with the corresponding future left turn phase.

### **86-102F(2)(c)(ii) Bonding Jumpers and Equipment Grounding Conductors**

Grounding jumper shall be attached by a 3/16-inch or larger brass bolt in the standard and shall be run to the ground. Grounding jumper shall be visible after cap has been poured on foundation.

### **86-1.02S Pedestrian Signal Faces:**

**86-1.02S(3) Pedestrian Signal Faces:** Pedestrian signal heads shall be countdown LED in accordance with Part IV-E.1 of the City of Santa Rosa Traffic Standards. Gelcore PS7-CFF1-01A-18 are known to meet this specification, or approved equal.

### **86-1.02T Accessible Pedestrian Signals**

Accessible pedestrian signals shall be Polara Navigator iN3 or approved equal.

The accessible pedestrian signals shall be Polara Navigator Accessible Pedestrian Signals, IN2 2-wire unit, with a rack mounted CCU. This equipment shall be installed at the locations shown on the Plans and in accordance with the manufacturer's recommendations.

The Contractor shall program walk speech messages into all audible pedestrian signals. Submit the message and phonetic spelling to the Engineer prior to programming. The walk speech message must be activated from the beginning of the walk interval and repeated for its duration. An example of the message is "Montgomery Avenue. Walk sign is on to cross Montgomery Avenue." The pushbutton information message must play when the pushbutton is activated. The pushbutton information message must say, "Wait."

The minimum volumes will be adjusted by the Contractor as directed by the Engineer. The body housing and button shall be powder coated the color green.

The face plate for the pedestrian push button shall be a R10-3e (MUTCD 2014 Edition) with the appropriate (left or right) arrow representing the direction of the pedestrian crossing that the push button serves.

#### **86-1.02U Push Button Assemblies**

Structural plastic housing assemblies will not be accepted.

Switch for the push button shall be a piezo switch type, Polara Bulldog or equal.

Pedestrian push button shall be Polara Engineering Bull Dog, manufactured with LED in the housing that shall flash at the same rate as the RRFB beacons, or approved equal. The push button model shall be modified to operate with JSF Technologies DC powered flashing beacons.

Pedestrian push button frame shall be Type B frame per Caltrans STD ES-5C. The sign shall be R62E signs per the California MUTCD. Each sign shall have an arrow in the appropriate direction.

Pedestrian push button frames shall mount to Type 1-B standards, existing streetlights, or push button posts depending on application, per these Technical Specifications, and per the Project Plans.

The push button and frame color shall be black.

**86-1.04 Payment: Pedestrian Push Button** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: installing a complete audible pedestrian push button assembly, mounting on a new or existing pole, furnishing and installing wiring and conduit *as required* for connection to the traffic signal system, programming of audible features and locator tones, testing, and

ensuring full compliance with the current Americans with Disabilities Act (ADA) standards, including height, location, orientation, reach range, clear space, and audible performance requirements, and any other work required for Pedestrian Push Button not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Modification of Existing Pedestrian Push Buttons** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: relocation or extension of an existing pedestrian push button, including but not limited to dislocation, storage, reinstallation on a new or existing pole, welding and fabrication of a extension, rewiring, reconnection to the signal system, surface restoration and ensuring compliance with ADA standards for the height, location, orientation, and clear space requirements, and any other work required to modify existing pedestrian push buttons not specifically enumerated in the City Standards, the Project Plans, and these Technical Specifications, and any other work required for Modification of Existing Pedestrian Push Buttons not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

[Version: 5-11-22 DS 2018]

## 87 ELECTRICAL SYSTEMS – INSTALLATION

**87-1.01A Summary:** You shall remove existing traffic signal equipment as shown on the plans, including delivery to the Municipal Services Center at 55 Stony Point Road.

Text listed below indicates variations from the Caltrans 2018 Standard Specification within the associated section.

**87-1.01E Scheduling of Work:** No traffic signal system turn-on shall be scheduled for Monday, Friday, or the day before or after a legal State holiday.

### **87-1.03E Excavating and Backfill for Electrical Systems**

**87-1.03E(1) General:** Dispose of surplus excavated material from the work area as they are generated.

Native material shall not be used as trench backfill.

### **87-1.03B Conduit Installation**

#### **87-1.03B(1) General:**

Minimum size of conduit shall be 2-inches with the following exceptions

1. 1-inch conduit from a pedestrian push button post to the adjacent pull box
2. 3-inch from the controller cabinet to the adjacent pull box
3. 3-inch for all street crossings
4. 3-inch for all commercial driveways at intersections

**87-1.03B(3)(a) General:** Where conduit containing conductors of 100 volts or less is installed parallel and adjacent to the existing gutter lip, the trench shall be approximately two inches wider than the outside diameter of the conduit and shall not exceed six inches in width. Conduits shall be installed with a minimum 18 inches of cover.

At pull boxes the trench may be hand dug to required depth. The conduit shall be placed in the bottom of the trench with the top of the conduit a minimum of 18 inches below finish grade.

When conduit containing conductors of 100 volts or less is not installed adjacent to the lip of gutter it shall be installed with a minimum of 24 inches of cover.

All conduit containing conductors of more than 100 volts shall be installed with a minimum of 24 inches of cover.

Where existing facilities prevent installing conduit with the minimum 18 or 24 inches of cover, You shall depress the new conduit under the existing facilities without exception.

Trench backfill and surfacing for trenches shall conform to City STD.-215 or as shown on the Plans.

Conduit shall conform to the Standard Specifications and Part IV-F of the City Traffic Standards.

### **87-1.03E Excavating and Backfilling for Electrical Systems**

**87-1.03E(1) General:** Concrete removal shall conform to the applicable provisions of Section 15 of the Standard Specifications.

All concrete to be removed shall be disposed of by the Contractor away from the site of the work. Burying of broken concrete within the limits of the project will not be allowed.

All concrete which is to be removed from sidewalk, curb, gutter, and driveway slab areas shall be removed to the nearest score mark or construction joint as directed by the Engineer.

Reinforcing steel may be encountered in portions of concrete to be removed and no additional allowance will be made for the removal of such steel.

All sidewalk and curb and gutter which are removed shall be reconstructed in accordance with Section 73 of the City of Santa Rosa Construction Specifications CalTrans Standard Plans, Caltrans Standard Specifications, and this Invitation for Bid.

Trenching depths shall be per Section 87-1.03B(3)(a) of these Technical Specifications and as shown on the Plans.

**87-1.03E(3) Concrete Pads, Foundations, and Pedestals:** The Contractor shall construct foundations for street lights at the locations shown on the Plans per City STD.-620A of the Caltrans Standard Specifications and this Invitation for Bid.

Minor portland cement concrete shall be produced from commercial quality aggregates and cement and shall contain not less than six sacks of cement per cubic yard and with a minimum 28 day compressive strength of 3000 psi.

### **87-1.03C Installation of Pull Boxes**

**87-1.03C(1) General:** Pull boxes shall conform to STD 730 of the City Traffic Standards and this Invitation for Bid.

All existing pull boxes to receive new conductors and/or conduits shall be cleaned out, all existing grout removed, and the bottoms re-grouted with a drain hole or the boxes replaced to meet current City Standards.

### **87-1.03F Conductors and Cable Installations**

**87-1.03F(1) General:** All conductors for traffic signal or street lighting systems shall conform to Part IV-G of the City Traffic Standards.

Wiring shall conform to the Standard Specifications and PART IV-G of the City Traffic Standards.

### **87-1.03 Construction**

**87-1.03A General:** All exposed metal signal housings, doors, visors, back plates, and framework parts shall be powder coated by a City approved process.

## **87-2 Lighting Systems**

**87-2.01C Submittals:** Contractor shall include the following:

- Product Data documenting conformance to these Technical Specifications
- IES electronic files of lamp output and photometric plots on a surface from a defined lamp height compliant with IES LM-79, including winter light levels.
- L-79 testing and report
- Effective Projected Area (EPA of the lighting system)
- Weight of the solar lighting system
- System Calculation including photovoltaic array sizing, luminaire load, and depth of discharge
- Wiring diagrams
- Line drawing of lighting system
- References of at least 10 installation sites for the submitted manufacturer.

**87-2.01D Quality Assurance:** Manufacturer shall have a minimum of 10 years of experience in the manufacture of solar powered lighting systems. The manufacturer shall provide a non-prorated 8 year warranty for parts and labor on the entire solar lighting system including the battery. The solar voltaic panel shall be covered for 25 years for power output.

### **87-2.02B High Mast Lighting Assemblies**

The streetlight shall be Fonroche Lighting America or approved equal. The streetlight shall be solar powered and capable of providing 40W of nighttime lighting (see Photometric Study, Section B) 365 days a year.

## **87-7 Flashing Beacon Systems**

### **87-7.01 General**

### **87-7.02 Materials**

#### **87-7.02B Rectangular Rapid Flashing Beacon System (RRFB)**

RRFB shall be Carmanah R920-E Solar-Powered Rectangular Rapid Flashing Beacon, or approved equal.

Pedestrian activated crosswalk beacons shall be Rectangular Rapid Flashing Beacons (RRFB) using the technologies of Light Emitting Diodes (LED's), solar power, and radio communication. Each beacon unit shall be double sided, two amber LED faces per side, amber LED side marker, solar panel and radio communications. The components constitute one (1) complete RRFB unit.

The beacon systems shall be CE and UL certified electrical components, NEMA TS-2-2003 certified, SAE J595 (class 1) & J578 certified LED's, FHWA MUTCD compliant and FCC EMC Class A verified.

Solar panels shall be 32-40 W nominal 12 V, CE and TUV certified. Battery storage shall be AGM 2 V, 36 Ah, UL certified, and field replaceable.

The Contractor shall provide one additional complete unit. The spare RRFB components shall be delivered to the City's Electrical Shop at the Municipal Services Center at 55 Stony Point Road. The delivered components will serve as replacement stock to ensure uninterrupted flasher service due to a unit failure, vandalism, auto collision, etc.

### **87-14 Radar Speed Feedback Sign Systems (SFS)**

**87-14.01A Summary (In Addition)** The Contractor shall provide and install solar-powered radar speed feedback sign system (SFS) as shown on the plans and as specified. The system shall include radar detection, LED display, self contained solar power, battery storage, charge controller, mounting assembly, wiring, control software, and all other appurtenant devices to provide a complete working system.

**87-21.04 Payment Rectangular Rapid Flashing Beacon System (RRFB)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: furnish and install complete pedestrian warning system, LED flashing beacon assemblies, pushbuttons, control cabinets, solar panel, batteries, frame & sign testing, wiring, mounting hardware, and all necessary electrical connections, as herein specified, and any other work required for Rectangular Rapid Flashing Beacon System (RRFB) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Spare Rectangular Rapid Flashing Beacon System (RRFB)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing and delivering to the City all equipment and materials, and doing all the work involved as herein specified, including but not limited to: furnish complete pedestrian warning system, LED flashing beacon assemblies, pushbuttons, control cabinets, solar panel, batteries, frame & sign, mounting hardware, and all necessary electrical equipment, as herein specified, and any other work required for Spare Rectangular Rapid Flashing Beacon System (RRFB) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Modification of Existing Rectangular Rapid Flashing Beacon System (RRFB)** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: relocation or extension of existing pedestrian push buttons, including but not limited to dislocation, storage, reinstallation on a new or existing pole, rewiring, reconnection to the signal system, surface restoration and ensuring compliance with ADA standards for the height, location, orientation, and clear space requirements, and any other work required to modify existing pedestrian push buttons not specifically enumerated in the City Standards, the Project Plans, and any other work required for Modification of Existing Rectangular Rapid Flashing Beacon System not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Speed Feedback Sign (SFS)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: LED display, LED flashing beacon assemblies, radar speed detection system, control cabinets, solar panel, batteries, frame & sign testing and calibration, wiring, mounting hardware, and all necessary electrical connections, and any other work required for Speed Feedback Sign (SFS) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Type 1B Pole & Foundation** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: furnishing new pole, sawcutting, excavating, coring sidewalk, backfill, materials and forming of foundation, removal and disposal of adjacent hardscaping *as needed*, restoration of adjacent hardscaping and or landscaping *as needed*, and any other work required for Type 1B Pole & Foundation not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Solar Street Light & Foundation** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: street light, solar panel complaint with City photometric study, installation of streetlight and solar power, required excavation, concrete foundation, backfill, electrical wiring, testing as specified herein, restoration of adjacent hardscaping or landscaping *as needed*, and any other work required for Installation of City Provided Street Light & Foundation not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

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## 90 CONCRETE

**90-1.01C(6) Mix Design- In Addition:** The proportions of the water, sand and aggregate shall be regulated so as to produce a plastic, workable and cohesive mixture.

**90-1.01D(2) Cementitious Material Content- In Addition:** Concrete shall contain a minimum of 564 pounds of cementitious material per cubic yard. The amount of cement by weight of the specified cementitious material shall be 75 to 85 percent.

**90-1.01D(5) Compressive Strength:** The 28 day compressive strength of concrete shall be 4000 pounds per square inch (psi) or greater.

**90-1.01D(6) Curing Compound- In Addition:** Concrete shall be cured per Section 90-1.03B of the Standard Specifications. Pigmented curing compound or any other material that will leave a noticeable residue shall not be allowed.

**90-1.02E(2) Chemical Admixtures- Replace With:** An admixture shall not be used to reduce the amount of cementitious material content.

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## 104 BUS STOP EQUIPMENT

**104-1.01 General:** Bus Bench will be per detail on Project Plans by Tolar Manufacturing Company Inc or approved equal.

You will provide all material, labor, equipment, and services necessary for furnishing and installation of Bus Bench complete as shown on the Plans and specified herein.

**104-1.02B Submittals:** You will submit the manufacturer's shop drawings for the products specified to the Engineer for review and acceptance. Include profiles, sizes, and connections; method of fabrication and erection, including connectors and welds. Approval by the Engineer is required prior to ordering the bus bench and commencement of work.

**104-1.02 Materials:** The bus bench be made of 100% steel, powder-coated color RAL 5017 – Traffic Blue and will not require any chemical cleaners for maintenance.

The bench will be 48" long perforated metal bench with one anti-vagrant bar.

The bus bench will be surface mount with corrosion resistant anchors appropriate for the surface.

**104-1.03 Construction:** All component products will be delivered and unloaded at the job site in such a manner that no damage occurs to the products during hauling, handling, or unloading, storage, and installation.

**104-12.03 Payment: Bus Bench** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: installing the bus bench, including but not limited to site preparation, excavation, anchoring hardware, surface restoration, ensuring compliance with Americans with Disabilities Act (ADA) requirements for location, orientation, and adjacent clear space, and any other work required install the bus bench not specifically enumerated in the City Standards, the Project Plans, and these Technical Specifications, and any other work required for Bus Bench not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Remove & Dispose of Existing Bus Stop Equipment** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: removal and disposal of the existing bench and or shelter, restoration of adjacent hardware, and any other work required Remove & Dispose of Existing Bus Stop Equipment not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

## 106 TRENCH BRACING AND SHORING

**106-1.01 General:** All bracing and shoring shall conform to Article 7.5(D) and Article 7.15 of these General Conditions, Section 7-1.02K(6)(a and b) of the Standard Specifications, and the Division of Industrial Safety Construction Safety Orders which are currently in use.

The Contractor shall provide adequate sheeting, shoring and bracing of trenches and other excavations, and/or equipment method, for the protection of life or limb as required by the State of California Construction Safety Orders, the Safety Regulations of the Federal Occupational Safety and Health Administration and by these General Conditions and Technical Specifications.

All safety orders, rules and regulations of Cal/OSHA and/or the Federal OSHA applicable to the work to be done under this Contract shall be obeyed and enforced by the Contractor.

The Contractor shall obtain a permit from Cal/OSHA before starting work.

The Contractor shall ensure that employees entering excavations are protected from cave-ins, failure of protective systems, hazardous atmospheres, vehicular traffic, falling loads, and any other hazardous conditions.

The Contractor shall provide a **positive pressure shoring system** where adjacent structures, roadways, concrete, pavements, utilities, trees, or private property to remain are located within a 1.5(H):1(V) projection from the planned bottom of an excavation. If sheeting is used, it shall be installed with the use of vibratory type pile drivers as opposed to impact type. The width of sheeted trenches as measured between the faces of the sheeting in contact with the trench walls shall not exceed the maximum trench width indicated by City Standard 215 unless approved by the Engineer. The installation of walers, struts, and other shoring support structures shall be designed and installed to present no obstructions to proper placement of the pipe, structure, bedding, backfill, or proposed improvements.

The Contractor shall have a competent person on-site who will make daily inspections of excavations, adjacent areas, and protective systems. The competent person will be responsible for ensuring that the protective system is based upon soil classifications, and that it provides the required protection in accordance with CCT, Title 8, and Section 1541.1.

**106-1.02 Submittals:** At least 15 working days before beginning excavation on a trench 5 feet or more in depth, the Contractor shall submit to the Engineer a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker, adjacent structure, and adjacent utility protection from caving ground hazards.

The plan(s) shall be prepared and signed by a registered Professional Civil or Structural Engineer.

The excavation and shoring analysis for positive shoring systems and design shall be fully coordinated with the dewatering plan.

**106-1.03 Execution:** Shoring shall be removed in such a manner as to prevent caving at the walls of excavations or damage to piping or other structures. Positive shoring systems shall be incrementally removed as the trench is backfilled. No backfill shall be installed against the shoring system before it is removed.

Excavations shall be braced and supported so that they will be safe, and the ground alongside the excavation will not slide or settle, and all existing improvements of any kind, either on public or private property will be fully protected from damage. If any damage does result to such improvements, the Contractor shall make the necessary repairs or reconstruction at his own expense and as directed by the Engineer.

All excavations shall have barricading, fall protection handrails, and access ladders in accordance with Cal/OSHA requirements.

**Trench Bracing and Shoring** shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: furnish and install sheeting, shoring and bracing for the protection of adjacent existing improvements, and the protection of life and limb conforming to applicable safety orders, including but not limited to a bracing and shoring plan, securing Cal/OSHA permits, and in accordance with the Project Plans, applicable Federal, State and Local Regulations, permits, and any other work for Trench Bracing and Shoring not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

[Version: 4/14/09]

# 111 TREE SURGERY

**111-1.01 General:** Tree work may be necessary, requiring work ranging from minor root pruning and top thinning to complete removal. Each tree and stump will be evaluated and the necessary work determined by the Engineer.

The successful bidder or the successful bidder's subcontractor must be able to demonstrate knowledge and abilities to perform the required work by possessing a valid California D49 Tree Service Contractor's License and possess the tools and equipment necessary to perform the required work.

Contractors shall provide all safety devices, traffic control, and be totally responsible for the safe execution of all required tree work.

Attention is directed to Article 7.23 "Public Safety and Traffic Control" of these General Conditions.

All debris from tree and stump removal, root pruning and top thinning shall become the property of the contractor and shall be disposed of by him at a site away from the work area.

**111-1.02 Method of Measurement:** For the purposes of this contract, all trees requiring removal, root pruning, top thinning, stump removal or root work only will be measured as set forth below.

Trees requiring work under the terms of this contract shall be measured at a point 1.0 foot above top of curb to determine trunk diameter. Where tree limbs or projections are located in such a manner as to interfere with the measurement of the tree circumference, then, at the discretion of the Engineer, the measurement of the tree circumference will be taken at a lower point to be determined by the Engineer. Trunk diameter shall be determined by the following formula:

$$D = \frac{C}{3.1416} \text{ where } D = \text{trunk diameter at 1.0 foot above top of curb or as directed.}$$

C = trunk circumference at 1.0 foot above top of curb or as directed.

Trees will be grouped as follows:

- 2" - 6" Diameter = Group A
- 7" - 12" Diameter = Group B
- 13" - 24" Diameter = Group C
- Over 24" Diameter = Group D

Any fractional measurement will be rounded down to the next lower group.

**111-1.03 Tree and Stump Removal:** The workmanship shall be performed to the best general standards in the industry. All precautions shall be taken to ensure the protection of existing adjacent public or private property.

The trees and stumps to be removed will be designated on the Project Plans and identified in the field by the Engineer.

Stumps and roots in the planter area shall be removed to a full 16-inch depth below the top of curb or finish grade, whichever is applicable.

The stump and root holes shall be backfilled and compacted with approved fill material.

**111-1.04 Root Pruning with Top Thinning or Pollarding:** The workmanship shall be performed to the best general standards in the industry. Materials shall be of first quality. All precautions shall be taken to ensure the protection of existing adjacent public or private property.

Roots in the sidewalk area shall be removed to clear a full 6-inch depth below top of sidewalk. In areas of curb and gutter removal, tree roots shall be removed to a full 12-inch depth below the lip of gutter.

All root pruning shall be accomplished by use of sharp tools appropriate for the size of root to be cut. Each cut shall be clean with no torn bark or splintered wood remaining on the tree. All cuts shall be sealed with an approved wound dressing.

When digging within the drip line of trees, you shall exercise extreme caution to avoid pulling on roots with excavation equipment. Hand dig around all roots greater than one inch in diameter. You shall notify the Engineer when encountering roots within the drip line of trees which are greater than one inch.

In all cases where root pruning is done, symmetrical top pruning shall be done so as to maintain a balance between root system and above ground branching. Above ground cuts do not require sealing.

**111-1.05 Root Work Only:** The workmanship shall be performed to the best general standards in the industry. All precautions shall be taken to ensure the protection of existing adjacent public or private property.

Where no top thinning is required, or where prior tree removal has been done, the contractor shall prune roots, or remove roots per applicable provisions of these Technical Specifications.

All tree roots two inches and greater which are encountered during excavation must be pruned by hand. The root shall be cut cleanly with a saw to avoid splits. When digging within the drip line of trees, you shall exercise extreme caution to avoid pulling on roots

with excavation equipment. Hand dig around all roots greater than one inch in diameter. You shall notify the Engineer when encountering roots within the drip line of trees which are greater than one inch. If the Engineer elects to get direction from an arborist You shall redirect crews to other contract work after safeguarding the area.

**111-1.06 Payment: Tree Removal** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: tree and stump removal as specified herein, and any other work required for Tree Removal not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Tree Root Pruning** shall be considered as included in various contract items of work and no additional allowance will be made therefore.

[Revision: 11/6/14CDA STD2010]

## 121 NOTIFICATION

**121-1.01:** The Contractor shall notify the Engineer of any work to be performed on any given work day either on the afternoon of the prior working day or before 8:30 a.m. on the given working day. Any work completed for which the Engineer has not received prior notification of its scheduling MAY NOT BE ACCEPTED FOR PAYMENT.

Per City Water Construction Specifications any hot tap shall be done by City Personnel and all scheduling requirements outlined in 132-1.21 of the City Specifications shall be adhered to. Delay in work due to City scheduling needs shall not be reimbursable.

The Contractor shall provide a written notice of pending construction to, and attempt to make personal contact with all businesses and residents in the vicinity of the project 5 working days prior to mobilizing to the site. The notice shall inform the recipients of the type of work, the scheduled date(s) and work hours, and the potential impacts for the neighborhood, such as road closures and/or detours. Provide a map for any approved detour. The notice shall inform all recipients that they will be allowed access to their property at all times. The notice shall also request that cars be parked out of the roadway by 7:30am and shall have contact information for the following personnel: Contractor's onsite Supervisor, Contractor's Project Manager, and the City of Santa Rosa's onsite Inspector.

If loading or unloading of equipment and/or materials has the possibility to impact access to private property, the Contractor shall notify and coordinate this work with the business or resident.

The Contractor shall keep the City of Santa Rosa Fire Department, City Bus, Postal Service, Recology and other related City services, informed of any roadway and lane closures in accordance with Section 12-4.02 of these Technical Specifications.

If unanticipated work requires the Contractor to access private property the Contractor shall first notify the business or resident and the Engineer, and all work shall be coordinated through the Engineer or their Representative.

All written notices to residents or businesses shall be submitted to the Engineer for approval prior to distribution. The Engineer shall be allowed two working days to review notices.

A notice of not less than 7 days shall be provided to the City prior to commencement of interconnection work occurring at the intersection of Calistoga Road and Highway 12, and prior to interconnection work occurring at the intersection of Calistoga Road and Monte Verde Drive.

**121-3.01 Payment:** Full compensation for conforming to the provisions of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor. [Version: 10/13/14-CDA STD2010]

## 124 MATERIAL RECYCLING

**124-1.01 Description:** The Contractor shall dispose of all Portland cement concrete and asphalt concrete, generated from removal or demolition activities on the project, at a recycler for these materials. The Contractor shall provide receipts verifying delivery and approximate quantity (in tons) of the material delivered to a material recycler.

All other excess materials from the project shall become the property of the Contractor and shall be disposed of by him, at his expense.

**124-1.02 Payment:** Full compensation for material recycling as specified herein shall be considered as included in the contract prices paid for various items of work, and no additional compensation will be allowed therefor.

[Version: 11/6/14CDA STD2010]

# 130 SANITARY SEWER SYSTEM

**130-1 General:** Sanitary sewer system components and related appurtenances shall conform to all applicable City of Santa Rosa standards. Contractor's attention is specifically directed to the requirements as specified in the City of Santa Rosa Sanitary Sewer Standards Specifications Section 130, the Project Plans, and modifications herein.

**130-1.02 Materials:** Sewer pipe 18" in diameter and larger shall be PC235 DR18 PVC meeting AWWA C900 and shall conform to the provisions of Section 132-1.02B of the City Standard Specifications and these Technical Specifications. SDR 26 PVC pipe and fittings shall be used on mains 18" in diameter and larger only where specifically indicated on the Project Plans.

Sewer pipe smaller than 18" in diameter shall comply with the City of Santa Rosa Sanitary Sewer System Design and Construction Standards and Specifications.

Couplings used to join plain end pieces of C900 PVC, C900 PVC with SDR 26 PVC, or C900 PVC with RCP shall be shielded sewer repair couplings consisting of stainless steel worm drive clamps, stainless steel nut & bolt clamps, and a heavy duty stainless steel shield over a molded one-piece elastomeric sealing gasket. Couplings shall be Flex-Seal ARC Couplings as manufactured by Mission Rubber Company LLC or approved equal.

Precast manhole components including risers, cones, grade rings and manhole base sections shall be constructed of polymer concrete as described herein. Polymer concrete manhole components shall be manufactured by Armorock LLC or an approved equivalent.

**130-1.02A Material Submittals:** The Contractor shall submit the manufacturer's installation instructions for all sewer main pipe and sewer main fittings approved for use on this project. Instructions shall include proper procedures for laying and bedding, field cutting, and joint assembly (insertion).

**130-1.03 Excavation. Backfill. and Resurfacing:** The Contractor shall remove and replace sidewalk and planter strips as required for all sewer work to the nearest transverse score mark on both sides and full sidewalk width. All areas of sidewalk removed for construction shall be backfilled and compacted level with temporary asphalt concrete or covered with 1-inch thick

**130-1.05A Abandon or Remove Existing Sewer System Components:** Abandonment of existing sewer components shall conform to applicable City Standards, specifically Standards 507 & 508, any modifications specified herein and according to the details shown on the Project Plans.

Foam concrete shall be used to abandon the existing trunk sewer pipes and manhole bases in place of flowable fill. Pipes abandoned with foam concrete do not need to be broken into every 50' as indicated by City Standard 507. Abandonment with foam

concrete shall occur prior to removal of manhole frames, covers, and concrete collars per City Standard 508.

Foam concrete should be a high slump, non-segregating, self-consolidating, low shrink slurry which includes a mixture of water, portland cement, and a foaming agent. The average compressive strength of the cellular-concrete mix shall be between 50 and 150 psi at 28 days.

An abandonment plan and mix design shall be supplied by the Contractor for review by the Engineer. The Engineer shall approve the abandonment plan before commencing any abandonment work.

At locations where existing sewer system components are shown to remain or be removed, the adjoining sewer main to be abandoned shall be excavated and plugged with concrete per City Standard 507. Vent pipes may be needed at these locations to verify complete abandonment of the trunk sewer with foam concrete.

Existing sewer system components shall be removed where shown on the Project Plans or to facilitate the progress of work. The Contractor must receive written Engineer approval prior to removing or abandoning any component, fully or in part, that is active during construction.

The ground surface around manholes to be removed or abandoned shall be restored to match existing adjacent ground conditions or as indicated on the Project Plans.

**130-1.05 Pipe Laying:** Prior to pipe laying operations, the Contractor shall have a hard copy of each pipe and fitting manufacturer's installation procedures on hand at the jobsite. The Contractor's pipe installation crew shall be informed of the proper installation methods and have access to the hard copy documentation in the field.

As noted in Section 130-1.09 of the Sanitary Sewer System Construction Standard Specifications, bell and spigot joints, including field cut pipe, shall be prepared and assembled (inserted) per the pipe and fitting manufacturer's written instructions. Any joint deemed to be either over inserted or under inserted, per the Engineer or their designee, shall be corrected by the Contractor at no additional cost to the City, and to the satisfaction of the Engineer. Joint observation and correction may take place during pipe laying or post CCTV inspection by the City.

Immediately prior to backfilling, the Contractor shall allow time for the on-site inspector to record the stationing, visually observe the installation condition, and photo document each sewer main joint.

At no additional cost to the City, the Contractor may be issued a Stop Work Notice by the Engineer or their designee if a significant deviation from the manufacturer's written installation procures or these technical specifications is noted that could, in the opinion of the Engineer, compromise the integrity of the installation. The Stop Work Notice will include the specific non-compliance issue(s) identified and the required corrective action(s) necessary before work can resume. Corrective actions may include training of

all on-site personnel responsible for pipe laying by a material manufacturer or a third-party organization (PVC Pipe Association, American Water Works Association, Plastic Pipe Institute, National Association of Sewer Service Companies, or approved equivalent) as deemed necessary by the Engineer.

**130-1.06 Sewer Laterals:** If the proposed sewer main invert(s) are at a higher elevation than the existing invert(s), the Contractor shall submit a temporary connection plan to the Engineer for approval a minimum of 5 working days prior to start of work. The temporary connection plan shall include a schedule of work. The Contractor shall continuously monitor the upstream manhole of any temporary connection.

**130-1.07 Sewer Structures:** The entire interior surface of all new manhole sections and existing manholes being connected to with the new sewer main lining system shall be coated including the base section after the lining work has occurred and all manhole joints, cracks, and/or chips have been re-grouted or patched. Coating, grouting, and patching materials shall be per the Engineer's List of Approved Items and shall be applied in accordance with the manufacturer's recommendations.

Re-grouting of existing manhole joints and re-coating of interior manhole surfaces shall be considered included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

**130-1.09 Television Inspection:** CCTV television inspection shall be performed in accordance with these General Conditions, Technical Specifications and Section 130-1.09 of the City Standards and NASSCO PACP version 7.0. All pre- and post-inspection CIPP CCTV videos and associated data files shall be transmitted to the City at the completion of the project.

CCTV Inspection shall occur for all sewer mains to be lined at the following stages:

1. Prior to liner procurement (and before the bypass pumping system has been installed). CCTV shall be performed during times of low flows between the hours of 3 AM to 7 AM.
2. After the bypass system has been set up, is operating and the sewer main segment to be lined has been cleaned, but prior to the start of any lining operations.
3. After a new sewer main lining segment has been completed, including all cutting and sealing of the new liner and any manhole base work has been completed.

**130-1.12 Payment: 48" Sewer Manhole on New Main (two 12" and one 8" connection)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: installation of sewer manholes, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; bypass pumping *if needed*; contamination awareness; couplings and; water tight sealing of penetrations; coating and patching; supporting or removal and

disposal of existing utilities in the same trench, *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates as needed; temporary trench paving; concrete collar; installing and adjusting the cast iron frame and cover to grade after final paving is complete; testing; as specified herein, and any other work required for 48" Sewer Manhole not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**48" Sewer Manhole on New Main (two 12" connection)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: installation of sewer manholes, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; bypass pumping *if needed*; contamination awareness; cutting and removal of existing pipe; couplings and fittings; water tight sealing of penetrations; coating and patching; supporting or removal and disposal of existing utilities in the same trench, *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates as needed; temporary trench paving; concrete collar; installing and adjusting the cast iron frame and cover to grade after final paving is complete; testing; as specified herein, and any other work required for 48" Sewer Manhole on Existing Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Connection to Existing Manhole on Existing Alignment (12" to 12")** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: saw cutting, excavation, contamination awareness, bypass pumping *if needed*, sealing, grouting, and restoring the manhole to a watertight condition as specified herein, and any other work required for Connection to Existing Manhole on Existing Alignment (12" to 12") not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Connection to Existing Manhole on Existing Alignment (6" to 8")** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: installing the manhole connection including but not limited to saw cutting, excavation, contamination awareness, bypass pumping *if needed*, core drilling, expansion of existing wall penetration, deepening of existing channel *if needed*, sealing, grouting, and restoring the manhole to a watertight condition as specified herein, and any other work required for Connection to Existing Manhole on Existing Alignment (Upsizing 6" to 8") not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical

Specification, and these General Conditions, and no additional allowance will be made therefor.

**Connection to Existing Manhole on New Alignment (12" to 12")** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: installing the manhole connection including but not limited to saw cutting, excavation, contamination awareness, bypass pumping *if needed*, core drilling, filling abandoned connections, sealing, grouting, and restoring the manhole to a watertight condition as specified herein, and any other work required for Connection to Existing Manhole on New Alignment (12" to 12") not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**8" Sewer Main** shall be paid for at the contract price unit price per **linear foot**, (as determined by measuring the total horizontal length of pipe installed and including tie-ins), price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: sewer main installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; bypass pumping *if needed*; contamination awareness; fittings/couplings; felt expansion joint material *if required*; temporary connections; modifications to existing manholes to accept new mains; connections to new or existing manholes or mains, including sealing of penetrations water tight; supporting or removal and disposal of existing utilities in the same trench *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; cleaning and flushing; testing; video inspection; as specified herein, and any other work required for 8" Sewer Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

The actual quantity of sewer main to be paid for will be the length measured from center of manhole to center of manhole/mainline cleanout along the finished grade to the nearest foot, excluding the sweep and the portion of pipe used for constructing the mainline cleanout. Pipe purchased by the Contractor in excess of the measured amount will not be paid for by the City.

**12" Sewer Main** shall be paid for at the contract unit price per **linear foot**, (as determined by measuring the total horizontal length of pipe installed and including tie-ins), which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: sewer main installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; bypass pumping *if needed*; contamination awareness; fittings/couplings; felt expansion joint material *if required*; temporary connections;

modifications to existing manholes to accept new mains; connections to new or existing manholes or mains, including sealing of penetrations water tight; supporting or removal and disposal of existing utilities in the same trench *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; cleaning and flushing; testing; video inspection; as specified herein, and any other work required for 12" Sewer Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

The actual quantity of sewer main to be paid for will be the length measured from center of manhole to center of manhole/mainline cleanout along the finished grade to the nearest foot, excluding the sweep and the portion of pipe used for constructing the mainline cleanout. Pipe purchased by the Contractor in excess of the measured amount will not be paid for by the City.

**4" Sewer Lateral & Cleanout (up to 30 ft)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: sewer lateral installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; investigation for existing cleanout within three feet of back of walk; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; fittings/couplings; temporary connections; connection to main and existing lateral; manhole connection with inside drop *if required*; supporting or removal and disposal of existing utilities in the same trench, *if required*; tracer wire *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of curb, gutter, sidewalk and driveways *if needed*; setting cleanout to grade and installing concrete collars *as required*; restoration of irrigation and landscaping; cleaning and flushing; testing; video inspection; as specified herein, and any other work required for 4" Sewer Lateral & Cleanout not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**4" Sewer Lateral & Cleanout (>30 ft)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; investigation for existing cleanout within three feet of back of walk; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; fittings/couplings; temporary connections; connection to main and existing lateral; manhole connection with inside drop *if required*; supporting or removal and disposal of existing utilities in the same trench, *if required*; tracer wire *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of curb, gutter, sidewalk and driveways *if needed*; setting cleanout to grade and installing concrete collars *as required*; restoration of

irrigation and landscaping; cleaning and flushing; testing; video inspection; as specified herein, and any other work required for 4" Sewer Lateral & Cleanout not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Remove Existing Sewer Manhole** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: abandon or remove existing sewer manhole, including but not limited to: excavation and disposal of excavated materials; hand digging *if needed*; contamination awareness; supporting or removal and disposal of existing utilities in the same trench, *if required*; abandonment or removal and disposal of existing sewer system components; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of concrete curb, gutter and sidewalk *as needed*; bypass pumping *if needed*; as specified herein, and any other work required for Abandon Existing Sewer Manhole not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Version Date: 2/12/25

## 130-3 BYPASS PUMPING

**130-3.01 Description:** If bypass pumping is required based on the Contractor's means and methods of construction, the provisions and requirements in this section shall be followed. The Contractor shall provide bypass pumping and/or diversion system(s), when required, for installation of the sewer system. Bypass pumping shall consist of designing, furnishing, installing, and maintaining all equipment, tools, power, dams, plugs, piping and anything else required to maintain existing flows and services without interruption.

All provisions of City of Santa Rosa noise ordinance shall apply.

### Assumption of Wastewater Flow (Dry Weather) – Per Manhole

Upstream Manhole	Downstream Manhole	Average Dry Weather Flow
II-29-05 SSMH 2	II-29-05 SSMH 1	0.009
II-29-05 SSMH1	HH-29-25 SSMH30	0.01
HH-29-25 SSMH30	HH-29-25 SSMH76	0.011
HH-29-25 SSMH29	HH-29-25 SSMH76	0.172
HH-29-25 SSCO29	HH-29-25 SSMH46	0.0003
HH-29-25 SSMH76	HH-29-25 SSMH31	0.184
HH-29-25 SSMH31	HH-29-25 SSMH32	0.185
HH-29-25 SSMH32	HH-29-25 SSMH33	0.185
HH-29-25 SSMH77	HH-29-24 SSMH75	0.004
HH-29-25 SSC032	HH-29-25-SSMH77	0.0005
HH-29-24 SSMH76	HH-29-24 SSMH73	0.0005

The Contractor shall size the collector sewer bypass pumping systems to handle PDWF, which may be multiple times the ADWF. If the Contractor opts to complete work during the wet weather season, bypass pumping shall be sized appropriately.

Wet weather flows are defined as those occurring between October 15<sup>th</sup> and April 15<sup>th</sup>. The Contractor shall use due diligence to complete the work on time and within schedule (outside of the wet weather period). If the Contractor's work goes beyond the October 15<sup>th</sup> deadline, then the Contractor shall be liable for any additional costs associated with handling wet weather peak flows which are anticipated to be many times greater than PDWF. If unanticipated rain results in increased flows during the bypass pumping operation within dry weather period between April 15 and October 15, the Contractor shall be responsible for modifying the bypass system to accommodate all increased flows. Bypass pumping operations should be modified such that bypass pumping does not occur during unanticipated rain during dry weather periods by actively monitoring weather forecasts and adjusting bypass pumping operations well in advance of inclement weather.

Unavoidable augmentations to the bypass pumping operation to accommodate flows in excess of those specified above due to unanticipated rain during dry weather periods will be paid for as extra work.

The Contractor shall provide and operate all temporary facilities to intercept the sewage flows, bypass flows around the work area, and maintain traffic control in the work areas. The Contractor shall be liable for all cleanup, damages and resultant fines in the event of a spill.

**130-3.02 Bypass Pumping Plan Submittals:** The Contractor shall submit a Bypass Pumping Plan for each planned trunk sewer and collector sewer bypass pumping operation for review by the Engineer at least 10 working days prior to commencement. The Engineer shall approve the bypass pumping plan before commencing any bypass pumping work. The Contractor shall notify the Engineer 2 working days prior to commencing with the bypass pumping operation.

Bypass Pumping Plans and or Diversion plans shall be designed by a California registered professional engineer. Bypass pumping system provided by the Contractor shall be a depiction of the proposed bypass system to be constructed in the field including all suction elevations, grade changes, fitting locations, air release valve locations, etc.

The plans shall include an emergency discharge response plan to be followed in the event of a failure of a bypass pumping system.

The Contractor shall provide a sewer spill prevention plan for disassembling, handling and removal of bypass pumping system which shall include flushing prior to disassembling.

The following requirements shall be incorporated into each Bypass Pumping Plan:

1. Staging areas for pumps;
2. Number, size, location, manufacturer, type, and method of installation and removal of sewer plugs;
3. Number, size, material, location and method of installation of suction pipes;
4. Number, size, material, method of installation and location of installation of discharge pipes;

5. Assumed design flows;
6. Bypass pump sizes, manufacturer, age, capacity, power requirements, and number of each size to be on site;
7. Calculations of static lift, NPSH, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted);
8. Standby power generator size, location;
9. Downstream discharge plan;
10. Method of protecting discharge manholes or structures from erosion and damage;
11. Sections showing suction and discharge pipe depth, embedment, select fill and special backfill;
12. Method of noise control for each pump and/or generator;
13. Any temporary pipe supports, thrust bocks, and/or anchoring required, including calculations for thrust pressure and restraint;
14. Design plans and computation for access to bypass pumping locations indicated on the Project Plans;
15. Location of existing lateral cleanouts and collector sewers, and how they will be monitored or bypassed;
16. Address of all parcels along with name and operating hours of all businesses located upstream of blockage to the next upstream manhole.
17. Air release valves and their locations.
18. Detail for removal of temporary plugs.
19. All devices and material proposed for spill containment use.

The Contractor shall also provide name and cell phone number of the employee(s) that will have the sole duty of monitoring all active blockages. If multiple lines are simultaneously blocked, the Contractor's submittal must show how each blockage is to be continuously monitored. For multiple blockages, the Engineer may also require devices for each blockage to give audible and/or visual alarm of a pending overflow at the Contractor's expense.

The City will contract with a third-party California registered professional engineer to review the bypass pumping plan.

**130-3.03 Bypass Pumping System Description:** Bypass pumping shall consist of furnishing, installing, and maintaining all power, plugs, pumps, appurtenances and bypass piping required to maintain maximum anticipated flows and services. While the facility is operating on electrical power, a redundant electrical power source shall be provided.

The allowable velocity in bypass pumping discharge piping shall not exceed 5 ft / sec without prior approval of the Engineer.

Bypass pumping shall be done in such a manner as not to damage private or public property or create a nuisance or public menace. The pumped sewage shall be in an

enclosed hose or pipe system that is adequately protected from traffic and shall be redirected into the sewer system.

Bypass piping shall be laid above ground unless otherwise approved by the Engineer.

Provide onsite portable lights to be used in emergency situations only.

100% redundancy is required for all temporary pneumatic plug applications. Plugs shall be provided with a retrieval tag line. Redundant plugs shall be tethered together by a chain; the chain must be shorter than the inflation hoses between the two plugs such that it prevents the inflation hoses from being stretched apart during inflation. The chain shall be rated to withstand the thrust pressures in the system. The inflation line for the first plug must pass through the second plug. Inflation hoses shall be long enough to reach the surface and shall be furnished with gauges located such that they are easily visible. Plugs shall be installed in accordance with the manufacturer's recommendations. Plugs shall be installed in the downstream (outgoing) pipe unless otherwise noted on the Project Plans.

The Contractor shall be responsible for determining the required quantity, location and types of temporary pneumatic plugs to fulfill the requirements of the Specifications.

When plugging or blocking is no longer needed for performance and acceptance of work, plugs shall be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.

Surcharge of existing sewer manholes shall not exceed three feet above the highest incoming sewer pipe crown of the plugged manhole. The Contractor shall provide a mark on the inside of the manhole visible from the surface for monitoring the surcharge. Any proposed flow diversion plant that includes a temporary connection to existing sewer components shall also comply with section 130 of these Technical Specifications.

The Contractor shall supply traffic control in accordance with Section 12 of these Technical Specifications. A minimum of one-way traffic or appropriate detours shall be maintained along all roadways during bypass pumping operations unless specifically indicated otherwise on the Project Plans. At no point along the bypass pumping operation shall sidewalks along both sides of the road be closed at the same time. Maintain driveway access for each property in the vicinity of the bypass areas unless otherwise specified on the Project Plans.

All pumps shall be set into or surrounded by spill containment devices. Existing drain inlets adjacent to the proposed bypass pumping route shall be protected by sandbags to prevent flow into the storm drain system.

Air release valves shall be surrounded by a double spill containment system.

All components of the bypass pumping system including standby pumps and generators, shall be sound-attenuated and shall produce noise emissions less than 60 decibels as measured 50-feet away. Additional noise attenuation systems may consist of an exterior

sound blanket containment system or exterior sound fence system. All other provisions of the City's noise ordinance shall apply.

The Contractor shall take all necessary precautions including continuous manned constant monitoring of the bypass pumping to ensure that no private residences or properties are subjected to sewage backup or spills. The Contractor shall be responsible for providing the appropriate and required amount of personnel for monitoring of the entire bypass system. Monitoring personnel shall be qualified with a minimum 3 years of experience in the specified bypass pumping operations. The Contractor shall immediately notify the City should a sanitary sewer overflow (SSO) occur. The Contractor shall be liable for all cleanup, damages, and resultant fines in the event of a spill.

The Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to the actual operation. The pressure and leakage test shall be conducted at one-and-a-half times the maximum pressure the system will experience based on the approved Bypass Pumping Plan for a period of two hours. No leakage is permitted during this test.

The Contractor shall flush bypass pumping system prior to disassembling bypass pumping system.

Subsequent to removal of bypass pumping system, the Contractor shall verify existing gravity sewer flows are restored to pre-existing condition.

The Contractor shall remove manhole sections only as may be required to provide adequate suction conduits or otherwise indicated on the Project Plans.

**130-3.02 Materials:** Bypass pumping materials shall generally conform to the following requirements:

1. Discharge and suction pipes shall be sized according to flow calculations, system operation, pump size and manhole depths following manufacturer's specifications and recommendations.
2. Collector Sewer Bypass pipe shall be accomplished with flexible hoses. Flexible hoses, couplings and connectors, shall be abrasion resistant and rated for external and internal loads anticipated, including pressure tests.
3. Plugs shall be selected and installed according to size of line to be plugged, pipe and manhole configurations. Plugs shall be pressure rated and installed such that they withstand 30 feet of head or the anticipated pressure head in the system, whichever is greater. Plugs shall be as manufactured by Plug-It Products, Lansas Products or approved equal.
4. Pumps shall be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in priming system.
5. Provide necessary start/stop controls for each pump. Pumps shall be able to allow dry running for long periods of time to accommodate cyclical nature of effluent flows.

**130-3.01 Payment:** Full compensation for conforming to the provisions of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefor.

# 132 WATER DISTRIBUTION SYSTEM

**132-1.01 Description:** Water Distribution System and related appurtenances shall conform to all applicable City of Santa Rosa standards. Contractor's attention is specifically directed to the requirements as specified in the City of Santa Rosa Water Distribution System Construction Standard Specifications Section 132, the Project Plans, and modifications herein.

**132-1.01B Material Submittals – In Addition To:** The contractor shall submit a sequencing plan for the interconnection located in the intersection of Calistoga Road and Highway 12.

In addition to this submittal, a notice of not less than 7 days shall be provided to the City prior to commencement of interconnection work occurring at the intersection of Calistoga Road and Highway 12, and prior to interconnection work occurring at the intersection of Calistoga Road and Monte Verde Drive.

The contractor shall not order PVC pipe materials prior to submitting the results of the pre-construction hazardous material assessment per Section 14-11.07. Areas of contamination identified in the assessment may result in the Engineer directing the Contractor to use ductile iron pipe in specific areas.

**132-1.02 Pipe:** 16" Polyvinyl Chloride (PVC) pipe, shall be new pipe, pressure class (PC) rating of PC235, DR 18 conforming to the requirements of AWWA C900 "Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4" through 60".

Where shown on the Plans and as required by the City of Santa Rosa Blanket Waiver 2, 3 or 4, water distribution pipe shall be Polyvinyl Chloride (PVC) Pipe with a minimum pressure class (PC) rating of PC305, DR 14 conforming to the requirements of AWWA C900 "Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4" through 60" for Water Transmission and Distribution."

Ductile iron pipe, where used, shall be ordered with nitrile butadiene rubber (NBR) gaskets.

**132-1.03B Backflow Device Re-Certification:** The Contractor shall coordinate their work to provide minimum out of service time to the customer.

After service installation, if existing backflow prevention device is present, device must be re-certified. Certifications shall be completed by a certified tester off the Approved List of Backflow Contractors herein. All necessary paperwork shall be completed by the Tester and one copy given to the property owner and one to the City within 72 hours after connection to the service line.

Submittals are required for all backflow device related materials.

**132-1.05 Gate Valves – In Addition To:** Gate valves with a diameter equal to or greater than 14” shall include a side mounted resistant wedge gate valve per AWWA C509/515 with a bypass sized and located per Section 24 of AWWA C500.

**132-1.09 Fire Hydrants and Lateral Assembly:** Existing fire hydrants on existing mains shall be kept operational until the new main is pressurized, and new water services have been pressurized. New fire hydrants shall be operational the day following old main shut down. Notify the City Fire Department prior to any hydrant shut down.

**132-1.11 Excavation, Backfill, and Resurfacing:** The Contractor shall remove and replace sidewalk and planter strips as required for all water work to the nearest transverse score mark on both sides and full sidewalk width. All areas of sidewalk removed for construction shall be backfilled and compacted level with temporary asphalt concrete or covered with 1 inch thick plywood, laid flat with ADA compliant temporary asphalt concrete taper on both ends.

**132-1.12 Laying and Handling Pipe Materials:** If the Contractor installs a highpoint in the water system not shown on the Project Plans the Engineer may require the installation of a new combination air and vacuum valve, per City Standards, at no additional cost to the City.

Prior to pipe laying operations, Contractor shall have a copy of the pipe manufacturer’s installation instructions on hand at the jobsite. Instructions shall include, at a minimum, proper methods for laying and bedding, field cutting and joint assembly (insertion). Contractor’s pipe installation crew shall be informed of the proper installation methods and have access to the documentation.

Bell and spigot joints, including field cut pipe, shall be assembled (inserted) per the pipe manufacturer’s instructions and AWWA C605-21. Any joint deemed to be either over inserted or under inserted, per the Engineer or their designee, shall be corrected by the Contractor at no additional cost to the City, and to the satisfaction of the Engineer. Contractor’s attention is also directed to Section 132-1.12 “Laying and Handling Pipe Materials” located in the City Standards and Specifications for additional direction and information on proper installation.

Immediately prior to backfilling, the Contractor shall allow time for the on-site inspector to record the stationing, visually observe the installation condition, and photo document each water main joint.

At no additional cost to the City, the Contractor may be issued a Stop Work Notice by the Engineer or their designee if a significant deviation from the manufacturer’s written installation procures or these technical specifications is noted that could, in the opinion of the Engineer, compromise the integrity of the installation. The Stop Work Notice will include the specific non-compliance issue(s) identified and the required corrective action(s) necessary before work can resume. Corrective actions may include training of all on-site personnel responsible for pipe laying by a material manufacturer or a third-party organization (PVC Pipe Association, American Water Works Association, Plastic Pipe

Institute, National Association of Sewer Service Companies, or approved equivalent) as deemed necessary by the Engineer.

**132-1.15A Water Services:** New service laterals shall be installed with a minimum horizontal clearance of 3 feet from gas laterals and a minimum of 5 feet from sewer laterals. Water services shall be installed via 'open trench' construction methods only, unless otherwise specified herein.

All existing meter box lids to be removed shall be salvaged and delivered to the City's Corporation Yard located at 55 Stony Point Road.

**132-1.20 Boring and Jacking:** Installation of bore and jack facilities shall be constructed in accordance with City Standard 872 "Water Main Encasement and End Seal" and as specified in these Technical Specifications.

The Contractor shall submit a jacking and boring plan for review by the Engineer at least 15 working days prior to beginning jack and bore operations. The plan shall include a safety plan for the jack and bore operations. Unless otherwise specified, the methods and equipment used in jacking casing shall be optional with the Contractor, provided that the proposed method is approved by the Engineer. Such approval, however, shall in no way relieve the Contractor of the responsibility for making a satisfactory installation meeting the criteria set forth herein. Only workers experienced in jacking operations shall be used in performing the work.

The Contractor shall confirm location of all existing utilities within and adjacent to the proposed location of the bored and jacked casing by potholing prior to excavating the boring/jacking and receiving pits. Where a utility goes through a boring or receiving pit it shall be adequately supported and protected. The Contractor shall be aware that underground utilities such as electrical, gas, sewer, and water lines may exist near the drill path.

Contractor shall have all materials and equipment on site prior to beginning bore and jack operations.

The Contractor shall apply for an underground classification for the jack and bore operation from Department of Industrial Relations, Mining and Tunneling Unit, 2211 Park Towne Circle, Sacramento, CA 95825, Telephone: 916-574-2540.

The provisions in this section will not relieve the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Article 7.23 "Public Safety and Traffic Control," of the General Conditions.

The boring pit shall have a minimum of 10 inches of crushed rock base and a sump to provide a safe dry working area and prevent deterioration of the subgrade soils. All boring pits, receiving pits, and shored structure excavations shall have barricading from traffic, fall protection handrail and access ladders in accordance with OSHA requirements.

The drilling shall be performed only with equipment adequate for the length and diameter of the bore.

The leading section of casing shall be equipped with a jacking head securely anchored thereto to prevent any wobble or variation in alignment during the jacking operation.

Casing shall be jacked true to line and grade and the Contractor shall modify the jacking operation to correct any deviation.

The driving ends of the casing shall be properly protected against spalling and other damage, and intermediate joints shall be similarly protected by the installation of sufficient bearing shims to properly distribute the jacking stresses. Any section of the casing showing signs of failure shall be removed and replaced with a new section that is adequate to carry the loads imposed upon it.

Excavation of boring and receiving pits shall be the minimum size necessary to complete the work. The excavations for the boring or jacking operations shall be adequately shored to ensure against ground movement in the vicinity of the jack supports. Boring and receiving pits shall be kept dry at all times.

Excavation shall not be made in excess of the outer dimensions of the casing being jacked unless approved by the Engineer. Every effort shall be made to avoid any loss of earth outside the jacking head. Excavated material shall be removed from the casing as excavation progresses, and no accumulation of such material within the casing will be permitted.

Steel casings shall be in accordance with ASTM A53, Grade B or ASTM A139, Grade B with a minimum yield strength of 35,000 psi. The minimum casing inside diameter shall be at 24 inches, and the minimum casing wall thickness shall be 0.375 inch. The joints of sections of casing to be jacked shall be welded with a continuous circumferential weld. It shall be the Contractor's responsibility to provide stress transfer across the joints that are capable of resisting the jacking forces involved. Welding shall be performed by a certified welder with at least three years experience in continuous circumferential welds.

Contact grouting shall commence immediately once the casing is installed and the auger boring equipment has been removed from the tunnel. The Contractor shall inject the approved eight sack sand slurry grout mix through the 2-inch threaded steel grout ports in such a manner as to completely fill all voids outside the casing pipe resulting from the boring or jacking operations.

The 2-inch ports shall be regularly spaced at 10 feet on center alternating at 30 degrees from plumb each side of the vertical centerline. Longitudinal spacing between the grout connections may be decreased to provide more frequent grouting, but in no case shall the spacings specified be exceeded. Grout pressure shall be controlled at 5-psi so as to avoid deformation of the steel casing and avoid movement of the surrounding ground. In subsequent order, each port shall be connected and pumped to 5-psi or until grout is exposed in subsequent open port. If pressure exceeds 5-psi the pump hose will be moved to the next open port. Each grout port shall be closed with a cast-iron threaded plug prior to moving on to the next grout port. This process shall be repeated until every grout port has been closed. Grout pressure shall be monitored and controlled by the pump operator who is positioned so that all gauges on the pump are clearly visible.

The Contractor shall provide casing spacers per City Standard 872. Casing spacers shall be installed in accordance with City Standard 872 and the manufacturer's recommendations.

Casing end seals shall be standard wrap around end seals, Model "W" as manufactured by Calpico or approved equal. End seals shall be installed as shown on City Standard 872 and in accordance with the manufacturer's recommendations.

Testing of the carrier pipe shall be performed in accordance with these Technical Specifications. After jacking equipment and excavated materials from boring or jacking operations have been removed from the jacking pit, the Contractor shall remove all loose and disturbed materials below pipe grade to undisturbed earth. Backfill for boring pits and trench shall be Class 2 aggregate base<sup>3/4</sup>" maximum conforming to Section 26, "Aggregate Base," of these Technical Specifications. Backfill for boring pits shall be compacted to not less than 90 percent relative compaction, except that when placed under roadbed, relative compaction shall not be less than 95 percent within three feet of finished grade, as determined by California Test 216 and 231.

Upon completion of the pipeline installation work, all rubbish, excess materials, temporary structures and equipment are to be removed, and the area cleaned and restored to pre-construction condition.

**132-1.21 Water Main Connection Work:** The Contractor shall install hot tap connections to the 20", 14", and 10" water mains at the intertie at Highway 12 for the purpose of dewatering the mains. The dewatering shall be made directly and cleanly without risk of comingling with groundwater that may be present in the trenches.

### **132-1.30 Payment**

**8" DR14 PVC Water Main** shall be paid for at the contract unit price per **linear foot** (as determined by measuring the total horizontal length of pipe installed and including tie-ins), which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; construction water and all work involved in its obtainment, development and distribution; testing and chlorination of the new water system and appurtenances; purging lines prior to bacteria sampling; disposal of all chlorinated water by the contractor; cleaning, swabbing and flushing of water main and appurtenances; as specified herein, and any other work required for 8" water Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Payment for the "8" DR14 PVC Water Main" bid item will be made regardless of piping material. If any of the piping material is directed by the Engineer to be changed to ductile iron pipe, the additive cost of the change in material and additional labor and equipment cost will be paid for at the unit price for "Additional Cost to Change 8" Water Main Material to Ductile Iron Pipe" in addition to this payment item.

**Additional Cost to Change 8" Water Main Material to Ductile Iron Pipe** shall be paid for at the contract unit price per **linear foot** (as determined by measuring the total horizontal length of pipe installed), which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, to change 8" DR14 PVC Water Main to 8" ductile iron pipe including any other work required but not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

This bid item is additive only, and will always be paid with an equal quantity of the "8" DR14 PVC Water Main" bid item.

The quantity of "Additional Cost to Change 8" Water Main Material to Ductile Iron Pipe" listed in the bid schedule is based on approximately 20% of the of the anticipated quantity of 8" DR14 PVC water main. The actual quantity is unknown.

The quantity listed in the bid schedule is included for bidding purposes only. In the event of an increase or a decrease in the amount of the Engineer's estimated quantity of Additional Cost to Change 8" Water Main Material to Ductile Iron Pipe, such increase or decrease shall not be considered an alteration in excess of the 25 percent of the contract amount of such items under provisions of Section 4-1.05 of the Standard Specifications and no adjustment of the contract price for Additional Cost to Change 8" Water Main Material to Ductile Iron Pipe will be made.

**8" Gate Valve** installed on a new main or as part of a cut-in tee or cross assembly shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: gate valve installation, including but not limited to: excavation and disposal of excavated materials; contamination awareness; valve; valve box and riser set to grade; concrete collar; valve stem riser *if required*; pier blocks; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; as specified herein, and any other work required for 8" Gate Valve not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**8" Water Main Full Lowering/Overstructure** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main lowering or overstructure installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation

and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; pipe in excess of horizontal distance between beginning and end of lowered or raised section for lowering; connecting to non-lowered or raised portion of water mains; fittings *as required*; air release valves *as required*; installing restrained joints, thrust blocking and harnesses; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; as specified herein, and any other work required for 8" Water Main Full Lowering/Overstructure not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**8" Water Main Half Lowering/Overstructure** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: half water main lowering installation or overstructure, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; pipe in excess of horizontal distance between beginning and end of lowered section for lowering or overstructure; connecting to non-lowered portion of water mains; fittings *as required*; air release valves *as required*; installing restrained joints, thrust blocking and harnesses; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; as specified herein, and any other work required for 8" Water Main Half Lowering/Overstructure not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**8" Gate Valve Replacement with Water Main Full Lowering** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: valve replacement and lowering assembly, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; pipe in excess of horizontal distance between beginning and end of lowered or raised section for lowering; connecting to non-lowered or raised portion of water mains; fittings *as required*; air release valves *as required*; installing restrained joints, thrust blocking and harnesses; valve; valve box and riser set to grade; concrete collar; valve stem riser *if required*; pier blocks; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; as specified herein, and any other work required for 8" Gate

Valve Replacement with Water Main Full Lowering not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**12" DIP Water Main** shall be paid for at the contract unit price per **linear foot** (as determined by measuring the total horizontal length of pipe installed and including tie-ins), which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; construction water and all work involved in its obtainment, development and distribution; testing and chlorination of the new water system and appurtenances; purging lines prior to bacteria sampling; disposal of all chlorinated water by the contractor; cleaning, swabbing and flushing of water main and appurtenances; as specified herein, and any other work required for 12" DIP Water Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**12" Gate Valve** installed on a new main or as part of a cut-in tee or cross assembly shall be paid for at the contract unit price **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: excavation and disposal of excavated materials; contamination awareness; valve; valve box and riser set to grade; concrete collar; valve stem riser *if required*; pier blocks; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; as specified herein, and any other work required for 12" Valve not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**14" DIP Water Main** shall be paid for at the contract unit price per **linear foot** (as determined by measuring the total horizontal length of pipe installed and including tie-ins), which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of valley

gutter, median curb and island *as needed*; construction water and all work involved in its obtainment, development and distribution; testing and chlorination of the new water system and appurtenances; purging lines prior to bacteria sampling; disposal of all chlorinated water by the contractor; cleaning, swabbing and flushing of water main and appurtenances; as specified herein, and any other work required for 14" DIP Water Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**14" Gate Valve** installed on a new main or as part of a cut-in tee or cross assembly shall be paid for at the contract unit price **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: gate valve installation, including but not limited to: excavation and disposal of excavated materials; contamination awareness; valve with bypass; valve box and riser set to grade; concrete collar; valve stem riser *if required*; pier blocks; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; as specified herein, and any other work required for 14" Gate Valve not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**14" Water Main Full Lowering/Overstructure** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main lowering installation or overstructure, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; pipe in excess of horizontal distance between beginning and end of lowered section for lowering or overstructure; connecting to non-lowered portion of water mains; fittings *as required*; air release valves *as required*; installing restrained joints, thrust blocking and harnesses; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; as specified herein, and any other work required for 14" Water Main Full Lowering/Overstructure not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**14" Water Main Half Lowering/Overstructure** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main lowering installation or overstructure, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if*

*required*; pipe in excess of horizontal distance between beginning and end of lowered section for lowering or overstructure; connecting to non-lowered portion of water mains; fittings *as required*; air release valves *as required*; installing restrained joints, thrust blocking and harnesses; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; as specified herein, and any other work required for 14" Water Main Full Lowering/Overstructure not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**16" DR18 PVC Water Main** shall be paid for at the contract unit price per **linear foot** (as determined by measuring the total horizontal length of pipe installed and including tie-ins), price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; construction water and all work involved in its obtainment, development and distribution; testing and chlorination of the new water system and appurtenances; purging lines prior to bacteria sampling; disposal of all chlorinated water by the contractor; cleaning, swabbing and flushing of water main and appurtenances; as specified herein, and any other work required for 16" DR18 PVC Water Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Payment for "16" DR18 PVC Water Main" will be made regardless of piping material. If any of the piping material is directed by the Engineer to be changed to 16" DIP, the additive cost of the change in material and additional labor and equipment cost will be paid for at the unit price for "Additional Cost to Change 16" DR18 PVC Water Main Material to Ductile Iron Pipe" in addition to this payment item.

**Additional Cost to Change 16" DR18 PVC Water Main Material to Ductile Iron Pipe** shall be paid for at the contract unit price per **linear foot** (as determined by measuring the total horizontal length of pipe installed), which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, to change 16" DR18 PVC C900 to 8" DIP including any other work required but not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

This bid item is additive only and will always be paid with an equal quantity of the "16" DR18 PVC Water Main" bid item.

The quantity of "Additional Cost to Change 16" DR18 PVC Water Main Material to Ductile Iron Pipe" listed in the bid schedule is based on approximately 20% of the of the anticipated quantity of 16" DR18 PVC water main. The actual quantity is unknown.

The quantity listed in the bid schedule is included for bidding purposes only. In the event of an increase or a decrease in the amount of the Engineer's estimated quantity of Additional Cost to Change 16" DR18 PVC Water Main Material to 16" Ductile Iron Pipe, such increase or decrease shall not be considered an alteration in excess of the 25 percent of the contract amount of such items under provisions of Section 4-1.05 of the Standard Specifications and no adjustment of the contract price for Additional Cost to Change 16" DR18 PVC Water Main Material to Ductile Iron Pipe will be made.

**16" Gate Valve** installed on a new main or as part of a cut-in tee or cross assembly shall be paid for at the contract unit price **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: excavation and disposal of excavated materials; contamination awareness; valve; valve box and riser set to grade; concrete collar; valve stem riser *if required*; pier blocks; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; as specified herein, and any other work required for 16" Gate Valve not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**16" Water Main Half Lowering/Overstructure** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; pipe in excess of horizontal distance between beginning and end of lowered section for lowering or overstructure; connecting to non-lowered portion of water mains; fittings *as required*; air release valves *as required*; installing restrained joints, thrust blocking and harnesses; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; as specified herein, and any other work required for 16" Water Main Half Lowering/Overstructure not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**16" Water Main Full Lowering** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and

labor, and doing all the work involved as herein specified, including but not limited to: water main lowering installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation. and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; pipe in excess of horizontal distance between beginning and end of lowered section for lowering; connecting to non-lowered portion of water mains; fittings *as required*; air release valves *as required*; installing restrained joints, thrust blocking and harnesses; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; as specified herein, and any other work required for 16" Water Main Full Lowering not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**28" Steel Casing Installation (Bore & Jack)** shall be paid for at the contract unit price per **linear foot** (as determined by measuring the total horizontal length of pipe installed and including tie-ins), which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: steel casing installation, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; steel pipe and fittings *as required*; grout; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of valley gutter, median curb and island *as needed*; construction water and all work involved in its obtainment as specified herein, and any other work required for 28" Steel Casing Installation (Bore & Jack) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Gravel as part of backfill for bore pits shall be paid for under the 28" Steel Casing Installation (Bore & Jack) pay item.

**16" Water Main Tie-In Manifold Assembly to 20", 14", 10" Mains at Hwy 12** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; dewatering of existing water mains; water main and fittings *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; partial water main lowerings at tie-in locations; valves; welding *as needed*; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; pressure testing large scope tie ins *if required*; temporary trench paving; as

specified herein, and any other work required for 16" Water Main Tie-In Manifold Assembly to 20", 14", 10" Mains at Hwy 12 not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Water Main Tie-In (14"/16")** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; partial water main lowerings at tie-in locations; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; pressure testing large scope tie ins *if required*; temporary trench paving; as specified herein, and any other work required for Water Main Tie-In (14"/16") not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Work under Water Main Tie-In (14"/16") excludes that portion of pipe paid for under the Water Main pay item for the specified size.

**Water Main Tie-In (12")** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; partial water main lowerings at tie-in locations; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; pressure testing large scope tie ins *if required*; temporary trench paving; as specified herein, and any other work required for Water Main Tie-In (12") not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Work under Water Main Tie-In (12") excludes that portion of pipe paid for under the 12" Water Main pay item.

**Water Main Tie-In (8")** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main tie-in installation, including but not limited to: scheduling and notifications; excavation and

disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; partial water main lowerings at tie-in locations; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; pressure testing large scope tie ins *if required*; temporary trench paving; as specified herein, and any other work required for Water Main Tie-In (8" to 8" or 8" to 6") not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Work under Water Main Tie-In (8" to 8" or 8" to 6") excludes that portion of pipe paid for under the Water Main pay item for the specified size.

**Pressure Zone Interconnection/Tie-In - Standard Tee** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main tie-in installation, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; pipe in excess of horizontal distance between beginning and end of lowered section for lowering; connecting to non-lowered portion of water mains; fittings *as required*; installing restrained joints, thrust blocking and harnesses; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; pressure testing large scope tie ins *if required*; temporary trench paving; as specified herein, and any other work required for Pressure Zone Interconnection/Tie-In – Standard Tee not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Work under the Pressure Zone Interconnection/Tie-In - Standard Tee excludes that portion of pipe paid for under the Water Main pay item for specified size.

**Pressure Zone Interconnection/Tie-In - Tapping Sleeve (14" to 8")** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main tie-in installation, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; connecting to water mains; fittings *as required*, thrust blocking and harnesses; thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as*

*needed*; pressure testing large scope tie ins *if required*; inspection *if required*; temporary trench paving; as specified herein, and any other work required for Pressure Zone Interconnection/Tie-In – Tapping Sleeve (14” to 8”) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Work under Pressure Zone Interconnection/Tie-In – Tapping Sleeve (14” to 8”) excludes that portion of pipe paid for under the Water Main pay item for specified sizes.

Contractor to be made aware that per City Standards City Personnel will make the hot tap. Contractor to be aware that City Staff work a 9/80 schedule and may not be available on alternating Fridays. Delay in work due to City scheduling needs will not be eligible for change orders and the costs for the delay in work shall be borne by the Contractor.

**Backflow Device Re-Certification** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: perform backflow device testing, including but not limited to: coordination, notification, preparatory work, testing, and all paperwork as specified herein, and any other work required for Backflow Device Re-Certification not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Remove and Salvage Existing Fire Hydrant** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: removing and salvaging existing fire hydrant, including but not limited to: excavation and disposal of excavated material; contamination awareness; removal and salvage of existing fire hydrant; removal and separating existing hydrant barrels from risers and buries; removal and disposal of riser, break-off check valve, bury and associated appurtenances; transporting existing fire hydrant barrels to the City Municipal Services Center; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; removal and replacement of curb, gutter, and sidewalk *as needed*; temporary trench paving; as specified herein, and any other work required for Remove and Salvage Existing Fire Hydrant not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Fire Hydrant and Lateral Assembly (up to 30 ft)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: install fire hydrant and lateral assemblies, including but not limited to: excavation and disposal of excavated materials; contamination awareness; tee; valve; fire hydrant and lateral assembly; fittings *as required*; restrained joints, thrust blocking and harnesses *as required*; connection to tee; valve box to grade; placing and compacting all

required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of median curb and island, curb, gutter, and sidewalk *as needed*; restoration/reconstruction of landscaping/irrigation and fencing *as needed*; as specified herein, and any other work required for Fire Hydrant and Lateral Assembly (up to 30 ft) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Fire Hydrant and Lateral Assembly (>30ft)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: install fire hydrant and lateral assemblies, including but not limited to: excavation and disposal of excavated materials; contamination awareness; tee; valve; fire hydrant and lateral assembly; fittings *as required*; restrained joints, thrust blocking and harnesses *as required*; connection to tee; valve box to grade; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of median curb and island, curb, gutter, and sidewalk *as needed*; restoration/reconstruction of landscaping/irrigation and fencing *as needed*; as specified herein, and any other work required for Fire Hydrant and Lateral Assembly (>30ft) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Fire Hydrant and Lateral Assembly – Tapping Sleeve** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water main tie-in installation, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; water main and fittings *as required*; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; connecting to water mains; fittings *as required*, thrust blocking and harnesses; thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; pressure testing large scope tie ins *if required*; inspection *if required*; temporary trench paving; as specified herein, and any other work required for Fire Hydrant and Lateral Assembly – Tapping Sleeve not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

Contractor to be made aware that per City Standards City Personnel will make the hot tap. Contractor to be aware that City Staff work a 9/80 schedule and may not be available on alternating Fridays. Delay in work due to City scheduling needs will not be eligible for change orders and the costs for the delay in work shall be borne by the Contractor.

**Reconnect Existing Fire Hydrant** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: scheduling and notifications; excavation and disposal of excavated materials; hand digging *if needed*; root pruning; contamination awareness; supporting or removal and disposal of existing utilities in the same trench *if required*; pipe and fittings *as required*; temporary restrained caps or plugs required to facilitate tie-in operations; connecting to existing lateral or new water mains; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; trench plates *as needed*; inspection *if required*; temporary trench paving; and any other work required for Reconnect Existing Fire Hydrant not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**1" Single Water Service (up to 30 ft)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: excavation and disposal of excavated materials; contamination awareness; saddle and valve; proper size penetration in main; water service tubing and fittings *as required*; meter box and lid to grade; meter shut off valves; tie-in at back of sidewalk; meter transfer; placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of median curb and island, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and any other work required for 1" Single Water Service (up to 30 ft) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**1" Single Water Service (> 30 ft)** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water service installation, including but not limited to: excavation and disposal of excavated materials; contamination awareness; saddle and valve; proper size penetration in main; water service tubing and fittings *as required*; meter box and lid to grade; meter shut off valves; tie-in at back of sidewalk; meter transfer; placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of median curb and island, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and any other work required for 1" Single Water Service not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**1-1/2" Dual Water Service** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: water

service installation, including but not limited to: excavation and disposal of excavated materials; contamination awareness; saddle and valve; proper size penetration in main; water service tubing and fittings *as required*; meter box and lid to grade; meter shut off valves; tie-in at back of sidewalk; meter transfer; placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of median curb and island, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and any other work required for 1 1/2" Dual Water Service not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**4" Ductile Iron Multi-Service Manifold** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: ductile iron manifold, including but not limited to: excavation and disposal of excavated materials; contamination awareness; pipe; water service tubing and fittings *as required*; piping from the meter to the valve; restrained joints, thrust blocking and harnesses *as required*; tapping saddle or tee; gate valve; proper size service penetrations; service saddles and corporation stops; meter boxes and lids to grade; meter shut off valves; tie-ins at back of sidewalk; meter transfers; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of median curb and island, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and any other work required for 4" Ductile Iron Multi-Service Manifold specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**6" Service Lateral Reconnection to New Main** shall be paid for at the contract unit price per **each**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: excavation and disposal of excavated materials; contamination awareness; saddle and valve; proper size penetration in main; water service tubing and fittings *as required*; tie-in; removal of temporary blow-offs; temporary restrained caps or plugs required to facilitate tie-in operations; partial water main lowerings at tie-in locations; restrained joints, thrust blocking and harnesses *as required*; placing and compacting all required bedding and backfill; trench plates *as needed*; testing and chlorination; temporary trench paving; removal and replacement of median curb and island, curb, gutter, sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation *as needed*; as specified herein, and any other work required for 6" Service Lateral Reconnection to New Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Remove Existing 14" Water Main** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools,

materials, and labor, and doing all the work involved as herein specified, including but not limited to: removal of water system components, including but not limited to: potholing other than as specified in Section 15 to facilitate the progress of work; excavation and disposal of excavated materials; contamination awareness; abandonment and/or removal and disposal of old sections of main and fittings; removal of valves; removal of old tees and installing like size ductile iron pipe with couplers when water main is to remain active; removal of valve boxes and risers; removal of thrust blocks; removal and disposal of abandoned blow offs and appurtenances; abandoning unused or replaced water services on existing main; removing and disposing of meter boxes and lids, valves, saddles, curb stops and installing a full circle clamp; installing blind flanges *if required*; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of sidewalk and driveways *as needed*; restoration/reconstruction of landscaping/irrigation and fencing *as needed*; as specified herein, and any other work required for Remove Existing 14" Water Main not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

**Abandon Existing 14" and 16" Water Main (foamed concrete)** shall be paid for at the contract unit price per **lump sum**, which price shall include full compensation for furnishing all equipment, tools, materials, and labor, and doing all the work involved as herein specified, including but not limited to: abandoning existing water main including but not limited to: excavation and disposal of excavated materials; hand digging *if needed*, contamination awareness; supporting or removal and disposal of existing utilities in the same trench, *if required*; abandonment of existing water main and components; placing and compacting all required bedding and backfill including control density fill *if required*; trench plates *as needed*; temporary trench paving; removal and replacement of concrete curb, gutter and sidewalk *as needed*; bypass pumping *if needed*; as specified herein, and any other work required for Abandon Existing 14" and 16" Water Main (foamed concrete) not specifically enumerated in the City Standards, and other work incidental thereto, complete in accordance with the Project Plans, these Technical Specification, and these General Conditions, and no additional allowance will be made therefor.

[Version Date: 11/28/17]

**APPROVED LIST OF BACKFLOW CONTRACTORS  
INSTALLATION, TESTING & REPAIR**

<b>ACCO ENGINEERED SYSTEMS</b> 1111 ALADDIN AVE. SAN LEANDRO, CA 94577 PHONE: (510) 346-4300 LICENSE #: 120696	<b>AIR SYSTEMS SERVICE</b> 1900 BATES AVE., SUITE E CONCORD, CA 94520 PHONE: (888) 504-2772 LICENSE#: 406794	<b>ALL OUT PLUMBERS/C. CROSS</b> P.O. BOX 599 CLOVERDALE, CA 95425 PHONE: (707) 894-8434 LICENSE #: 812540
<b>ALL PRO BACKFLOW/J.LOTITO</b> P.O. BOX 2193 FOLSOM, CA 95763 PHONE: (916) 276-7162 FAX: (916) 435-4167 LICENSE #: 934557	<b>APB BACKFLOW, INC.</b> 1599 FELTA RIDGE ROAD HEALDSBURG, CA 95448 PHONE: (888) 356-7761 LICENSE: 1032328	<b>ASTI SERVICES/M.DESCHLER</b> 102 COUCH ST. VALLEJO, CA 94590 PHONE: (707) 645-1782 FAX: (707) 645-1807 LICENSE #: 742693
<b>C.V. PLUMBING/C. VINE</b> P.O. BOX 219 CLOVERDALE, CA 95425 PHONE: (707) 894-8580 FAX: (707) 894-9642 LICENSE #: 843366	<b>CAGWIN &amp; DORWARD</b> P.O. BOX 1600 NOVATO, CA 94948-1600 PHONE: (800) 891-7710 FAX: (415) 897-7864 LICENSE #: 202399	<b>CARRIER CORPORATION</b> 600 MCCORMICK ST., SUITE B SAN LEANDRO, CA 94577 PHONE: (510) 347-2000 FAX: (510) 347-2099 LICENSE #: 499642
<b>CHECKRITE BACKFLOW SERV.</b> 3618 CHANATE RD. SANTA ROSA, CA 95404 PHONE: (707) 575-5296 FAX: (707) 578-6595 LICENSE #: 836022	<b>DEVOTO PLUMBING*</b> 1345 TRIPLE OAK WAY FULTON, CA 95439 PHONE: (707) 545-0734 LICENSE #: 824608	<b>ECONOMY PLUMBING</b> 1058 N. DUTTON AVE. SANTA ROSA, CA 95401 PHONE: (707) 545-4455 FAX: (707) 543-8111 LICENSE #: 748220
<b>GROUND HOG CONSTRUCTION</b> 5353 HESSEL RD. SEBASTOPOL, CA 95472 PHONE: (707) 529-2085 FAX: (707) 823-9389 LICENSE #: 723766	<b>JV PLUMBING &amp; BACKFLOW*</b> 2911 MONTECITO AVE. SANTA ROSA, CA 95404 PHONE: (707) 799-2692 LICENSE #: 955698	<b>LEDUC &amp; DEXTER PLUMBING</b> 2833 DOWD DR., SUITE A SANTA ROSA, CA 95407 PHONE: (707) 575-1500 FAX: (707) 527-0281 LICENSE #: 651401
<b>NORTHBAY BACKFLOW</b> P.O. BOX 2765 PETALUMA, CA 94953 PHONE: (707) 484-3949 LICENSE #: 878332	<b>NORTHWOOD BACKFLOW</b> 911 LAKEVILLE ST., #369 PETALUMA, CA 94952 PHONE: (800) 750-4547 LICENSE #: 749187	<b>ONGARO AND SONS PLUMBING</b> 2995 DUTTON AVE. SANTA ROSA, CA 95407 PHONE: (707) 579-3511 LICENSE #: 215233
<b>PUMPMAN NORCAL</b> 4000 S. MOORLAND AVE. SANTA ROSA, CA 95407 PHONE: (707) 584-9191 LICENSE: 200068	<b>RH &amp; SONS WATER SERVICES</b> 225 GOLDEN RIDGE AVE. SEBASTOPOL, CA 95472 PHONE: (800) 675-3569 LICENSE #: 698774	<b>ROBERTS MECHANICAL &amp; ELECTRICAL, INC.</b> 39 LARK CENTER DR. SANTA ROSA, CA 95403 PHONE: (707) 584-5880 LICENSE #: 556014

<b>ROBERTSON'S BACKFLOW</b> 3170 DEEP HAVEN RD. POLLOCK PINES, CA 95726 PHONE: (530) 306-1056 FAX: (530) 303-1497 LICENSE #: 972547	<b>SCOTT CRAMER PLUMBING</b> P.O. BOX 750084 PETALUMA, CA 94975 PHONE: (707) 778-8789 FAX: (707) 658-1043 LICENSE #: 889152	<b>STEAD BACKFLOW PREVENTIO</b> 2715 W. KETTLEMAN LN., #203-321 LODI, CA 95242 PHONE: (209) 327-3900 LICENSE #: 848490
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**NOTE: These contractors have a C-16 or C-36 State Contractor's License or an A-General Engineering License. They are licensed and certified to test, repair, and install any type of backflow device. They are also licensed to work on fire protection backflow devices or fire protection systems. When installing a backflow device, a City Plumbing Permit is required, and if working in the City right-of-way, an Encroachment Permit is needed. All testers are required to have a City Business License.**

*\*Spanish speaking*

(Updated List Only: 10/2/2020)

## Section A - Fees and Permits

The Contractor shall obtain all necessary and required permits for the project. All permits issued by the City Building Department will be issued at no cost to the Contractor; these fees will be paid by an appropriate City department. All other required permits shall be obtained at the Contractor's expense.

The City has obtained a permit from the City of Santa Rosa Water Department for a one-time groundwater discharge permit into the City sewer system. A copy of the Authorization to Discharge is included herein. Any required water sampling will be the responsibility of the City. The phone number for the Environmental Compliance Section is (707) 543-3369.

A copy of the Storm Water Construction Site Inspection form is included herein.

The City has *not* obtained an encroachment permit for the project from the State of California Department of Transportation (Caltrans). The Contractor shall submit and obtain an encroachment permit issued in the Contractor's name prior to any work in the State Right-of-Way. Any additional permit fees will be reimbursed by the City. The Contractor shall provide all necessary pre-construction documents, traffic control plans, submittals, coordinate with Caltrans for a pre-job meeting, and receive approval prior to beginning any work within the State Right-Of-Way. The Contractor shall be fully informed of all requirements of the permit including working hours, permit riders and shall conduct it's work accordingly.

The Contractor shall obtain a permit from the State of California Division of Industrial Safety.

[Version: 2/2/15CDA STD2010]



**COPI**

**ONE-TIME DISCHARGE PERMIT  
SR-1X10001**

**Issued To:**  
Peter Porata  
City of Santa Rosa Public Works  
69 Stony Circle  
Santa Rosa, CA 95401

**Located At:**  
- Calistoga Rd from Montecito Blvd to Hwy 12  
Santa Rosa, CA 95409

**EFFECTIVE DATE: 08/25/2025**

**EXPIRATION DATE: Notice of Completion Date**

**CIP Project Name:** 1x-CIP Calistoga Rd from Montecito Blvd to Hwy 12

The contractor to be awarded the City of Santa Rosa Capital Improvement Project (CIP) project referenced above is authorized to discharge any generated non-contaminated groundwater and/or trench water to the City of Santa Rosa's sewer collection system. This discharge will be in accordance with the City of Santa Rosa's Most Current Sewer Code and/or Ordinance, any applicable provisions of federal or state law or regulation, and in accordance with discharge point(s), effluent limitations, monitoring requirements, and other conditions set forth herein.

**PERMITTEE SHALL COMPLY WITH ALL ITEMS BELOW:**

1. Sediment must be removed prior to any discharge to the sanitary sewer.
2. The permittee shall be responsible for all liability imposed by law for personal injury or property damage caused by work done by permittee under this permit, including work beyond the scope of this permit. If any claim of such liability is made against the City, its officers or employees, permittee shall defend, indemnify and hold them, and each of them, harmless from such claim and liability insofar as permitted by law.
3. The discharge rate to the sanitary sewer shall be at a discharge rate that will not result in any spillage or surcharging of the sewer system.
4. Permit does not cover accumulated stormwater on construction site unless prior approval is granted by City Quality Control Associates and Senior Environmental Specialist.

Peter Porata  
1x-CIP Calistoga Rd from Montecito Blvd to Hwy 12  
#SR-1X10001

8/21/2025  
Page 2 of 2

5. Any wastewater not meeting local limits shall either be disposed through a licensed hazardous waste treatment, storage, and disposal or recycling facility or alternatively be treated on-site to meet the local limits prior to being discharged to the sanitary sewer.

Environmental Compliance Supervisor:

*Mark H. George*

Date:

*8/21/2025*

**SUBREGIONAL WATER RECLAMATION SYSTEM**

Environmental Compliance Section, 4300 Llano Road, Santa Rosa, CA 95407  
PH (707) 543-3369 FX (707) 543-3398 email: envcompliance@srcity.org



# Storm Water Construction Site Inspection

- Storm Water Inspection
- Warning Notice
- Re-Inspection Fee Warning
- Correction Notice
- Stop Work Notice
- Re-Inspection Fee Required
- Notice of Violation



Project Name:		Date of Inspection:	
Permit Number/Contract Number:		Current Weather Conditions:	
Location:		Next Forecasted Rain Event:	
Site Contact:	Inspector:	Contact Info:	
Follow-Up Weather Conditions:		Follow-Up Date of Inspection:	

*\*Note: All deficiencies must be noted in the "deficiency" section.*

*\*\*Note: Required year round regardless of current or forecasted weather conditions.*

		Yes	No*	N/A
1	<b>Are all Best Management Practices (BMPs) in place and functioning?</b>			
	a) Are all areas of disturbed soil protected from erosion through the implementation of acceptable soil stabilization practices? (straw, seed, mulch, blanket, plastic, track walking, etc.)			
**	b) Are perimeter controls (wattles, silt fence) in place and properly installed (on contour, dug in, overlapping, no gaps)?			
	c) Are all materials, stockpiles, dumpsters, and concrete washout areas properly covered or protected?			
	d) Is all heavy equipment properly covered or protected?			
**	e) Are all on-site storm drain inlets properly protected?			
**	f) Are all portable toilets secured, located away from drainage, and have secondary containment tray?			
	g) Are all access, exit, and egress points protected through the use of a stabilized construction entrance and/or a tire wash?			
**	h) Are all public streets, curbs, and gutters adequately swept of sediment, mud, and debris and all material collected and properly disposed of?			
	i) Is all storm water run-on onto the site adequately addressed?			
**	j) Are spill kits and/or supplies on site and available to staff?			
		Yes	No*	N/A
** 2	Are all BMPs properly maintained (accumulated material removed, no tears, continuous, secured, replaced if needed)?			
3	Have all off-site BMPs placed in gutters or at storm drain inlets been removed prior to forecasted rain and any accumulated debris removed?			
** 4	Are emergency and after hours contacts, spill procedures, and containment BMPs easily available and on-site at all times?			
** 5	Are all storm drain inlets, drainages, and waterways free of visible impacts and pollutants?			

**FOR PROJECTS THAT DISTURB AN ACRE OR MORE OF SOIL**

		Yes	No*	N/A
6	<b>Does this project disturb an acre or more of soil? If yes, SWPPP is required.</b>			
**	a) If yes, is contact info provided for: Site Contact, SWPPP Preparer & Inspector, and 24 HR BMP Implementation & Maintenance Contact?			
**	b) If yes, does the SWPPP reflect the current site condition?			
**	c) If yes, does the SWPPP include all inspection documentation?			
	d) If yes, are all Rain Event Action Plans (REAP) prepared and implemented on site within 48 hours prior to forecasted rain?			
		Yes*	No	N/A
7	<b>Is runoff leaving the project site? -If yes, the Qualified SWPPP Practitioner (QSP) needs to provide:</b>			
	a) What is the pH of the runoff? _____ Is the pH less than 6.5 or greater than 8.5?			
	b) What is the turbidity of the runoff? _____ Is the turbidity greater than 250 NTU?			

**Note: If these levels are exceeded, the contractor and QSP are required to implement immediate corrective actions.**

THE FOLLOWING DEFICIENCIES AND CORRECTIONS HAVE BEEN IDENTIFIED AND REQUIRE CORRECTIVE ACTION:		
DEFICIENCY / CORRECTION	DATE Required (see note)***	DATE Correction Observed
<b>***ALL DEFICIENCIES <u>MUST</u> BE CORRECTED <u>PRIOR TO NEXT RAIN EVENT</u> OR NO LATER THAN DUE DATE, WHICHEVER IS SOONER.</b>		

**VERIFICATION OF RECEIPT**

Upon signing this, I acknowledge that I have received a copy of this notice. I certify that I am either the person identified below or am authorized to sign on their behalf. I understand that all work must comply with all applicable conditions, regulations, and requirements whether or not they are listed on this correction notice. Any discharge shall be in accordance with applicable conditions, regulations, and requirements and shall not exceed turbidity greater than or equal to 250 NTU and pH levels between 6.5 – 8.5 as required by the General Construction Permit or other governing requirement, whichever is more stringent.

Contact Name and Company	Contact Signature	Date
Inspector Name	Inspector Signature	Date

<p><input type="checkbox"/> Permit Holder or Representative <b>Not Present</b> on Site: _____</p> <p><i>Correction Notice provided via:</i></p> <p><input type="checkbox"/> Email</p> <p><input type="checkbox"/> Phone Call    Phone number: _____</p> <p><input type="checkbox"/> Fax</p> <p><input type="checkbox"/> Mail</p> <p><input type="checkbox"/> Other</p> <p style="text-align: center;"><b>Re-Inspection Summary</b></p> <p><input type="checkbox"/> ALL Deficiencies Addressed / Completed    <input type="checkbox"/> Not Corrected - See Other Notes for Enforcement Action</p> <p><input type="checkbox"/> STOP WORK Issued for Incomplete Items</p> <p><input type="checkbox"/> Other: _____</p>	<p><b>Inspection Type (check all that apply):</b></p> <p>After Start of Work (within 2 weeks) <input type="checkbox"/></p> <p>Prior to Rainy Season (Sept 1st-Oct 1st) <input type="checkbox"/></p> <p>Following first 0.25" of rain in a 24 hour period (within 2 business days) <input type="checkbox"/></p> <p>Monthly (Oct 1st-April 30th) <input type="checkbox"/></p> <p>Deficiency Re-inspection <input type="checkbox"/></p>
<p><b>Date:</b> _____</p> <p><b>Total # of Open Correction Notices:</b> _____</p>	

L:\WPDS Permit\Construction Inspection\Storm Water Construction Notices