SPECIFICATION and CONTRACT DOCUMENTS

FOR

EAST MAIN AVENUE BIKE LANES AND SIDEWALK PROJECT

Revised May 2020

CITY OF MORGAN HILL

MORGAN HILL, CALIFORNIA
PUBLIC WORKS DEPARTMENT

PREPARED BY

PUBLIC WORKS DEPARTMENT

MAY 2020

NOTICE INVITING BIDS

1. **Bid Acceptance.** The City of Morgan Hill ("City"), will accept sealed bids for its East Main Avenue Bike Lanes and Sidewalk Project ("Project"), by or before April 2, 2020, 2020, at 3:30 p .m., at its DEVELOPMENT SERVICES CENTER, located at 17575 PEAK AVENUE MORGAN HILL, California, at which time the bids will be publicly opened and read aloud.

2. **Project Information.**

   2.1 Location and Description. The Project is located along East Main Avenue, between Butterfield Boulevard and Condit Road, Morgan Hill, CA 95037, and the Scope of Work is described as follows: Widen roadway, install rapid flashing crosswalk beacons, storm drain modifications, construct bulb-outs, cold in-place recycled asphalt (CIR), asphalt over-lay, slurry seal, street lights, street trees, and striping.

   2.2 Time for Completion. The planned timeframe for commencement and completion of construction of the Project is: 150 Calendar Days

3. **License and Registration Requirements.**

   3.1 License. This Project requires a valid California contractor's license for the following classification(s): A-General Engineering.

   3.2 DIR Registration. City will not accept a Bid Proposal from or enter into the Contract with a bidder, without proof that the bidder and its Subcontractors are registered with the California Department of Industrial Relations ("DIR") to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.

4. **Contract Documents.** The plans, specifications, bid and contract documents for the Project ("Contract Documents") may be obtained from the City of Morgan Hill, at 17575 Peak Avenue, Morgan Hill, CA, (408) 778-6480. **Electronic copies of the Contract Documents are available on CD for ten dollars ($10.00). If mailing by USPS, a five dollar ($5.00) charge will be added. To download plans and specifications at no charge, register at www.publicpurchase.com.**

5. **Bid Proposal and Security.**

   5.1 Bid Proposal Form. Each Bid must be submitted using the Bid Proposal form provided with the Contract Documents.

5.2 Bid Security. The Bid Proposal must be accompanied by bid security of ten percent (10%) of the maximum bid amount, in the form of a cashier's or certified check made payable to City of Morgan Hill, 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 upon award of the bid, the bidder will execute the Contract and submit payment and performance bonds and insurance certificates as required by the Contract Documents within ten (10) days after issuance of the notice of award.

6. Prevailing Wage Requirements.

6.1 General. 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. These prevailing rates 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 (8) hours. The rate for holiday and overtime work must be at least time and one-half (1/2).

6.3 Compliance. The Contract will be subject to compliance monitoring and enforcement by the California Department of Industrial Relations, under Labor Code Section 1771.4.

7. Performance and Payment Bonds. The successful bidder will be required to provide performance and payment bonds for one hundred percent (100%) of the Contract Price.

8. Substitution of Securities. Substitution of appropriate securities in lieu of retention amounts from progress payments is permitted under Public Contract Code Section 22300.

9. Subcontractor List. Each bidder must submit the name, location of the place of business, and California contractor license number and DIR registration number for each Subcontractor who will perform work or service or fabricate or install work for the prime contractor in excess of one-half (1/2) of one percent (1%) of the bid price, using the Subcontractor List form included with the Contract Documents.

10. Instructions to Bidders. Additional and more detailed information is provided in the Instructions for Bidders, which should be carefully reviewed by all bidders before submitting a Bid Proposal.

By: Irma Torrez, City Clerk Date: March 6, 2020

Publication Dates: 1) March 13, 2020 2) March 20, 2020

END OF NOTICE INVITING BIDS

INSTRUCTIONS TO BIDDERS

Each Bid Proposal submitted to the City of Morgan Hill ("City") for its East Main Avenue Bike Lanes and Sidewalk Project ("Project") must be submitted in accordance with the following instructions and requirements:

1. Bid Submission.

1.1 General. Each bid ("Bid Proposal") must be signed, sealed and submitted to City, using the form provided in the Contract Documents, by or before the date and time set forth in the Notice Inviting Bids, or as amended by subsequent addendum. Faxed or emailed Bid Proposals will not be accepted, unless otherwise specified. Late submissions will be returned unopened. City reserves the right to postpone the date and 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 indirect costs such as applicable taxes, insurance and field offices.

1.2 Bid Envelope. The envelope containing the sealed Bid Proposal and required attachments must be clearly labeled as follows:

BID PROPOSAL
Morgan Hill DSC
East Main Avenue Bike Lanes and Sidewalk Project
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037
Attention: Bid Opening
Bid Date:_____
Bid Time: _____

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 sections 1725.5 and 1771.1):

[Contractor company name]
[Street address]
[City, state, zip code]
DIR Registration No._____

Please note: If City is unable to confirm that the bidder's DIR registration is current, City must disqualify the bidder and return its bid unopened (Labor Code section 1725.5).

2. **Examination of Contract Documents and Project Site.** Each bidder is solely responsible for diligent and thorough review of the Contract Documents (as defined in the General Conditions), examination of Project site, and reasonable and prudent inquiry concerning known and potential site conditions prior to submitting a Bid Proposal. However, bidders should not enter onto City's property or the Project site without prior written authorization from City. Bidders are responsible for reporting any errors or omissions in the Contract Documents to City prior to submitting a Bid Proposal, subject to the limitations of Public Contract Code Section 1104. City expressly disclaims responsibility for assumptions the bidder might draw from the presence or absence of information provided by City.

3. **Requests for Information.** Questions regarding the Project, the bid procedures or any of the Contract Documents must be submitted in writing to David Gittleson, Project Engineer at the Development Services Center, 17575 Peak Avenue, Morgan Hill, CA 95037.

4. **Addenda.** Any addenda issued prior to the bid opening are part of the Contract Documents. Subject to the limitations of Public Contract Code section 4104.5, City reserves the right to issue addenda prior to bid time.

5. **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. 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 Section 3400(c).

   5.1 Pre-Bid Requests. Any request for submission made before the Contract is awarded must be submitted to the City Engineer at least ten (10) days before the opening of bids so that all interested bidders may be notified of any approved alternative.

   5.2 Post-Award Requests. After the Contract is awarded, Contractor may submit a substitution within fourteen (14) days after the date of award of the Contract, or as specified in the Special Conditions.

6. **Bidders Interested in More Than One Bid.** No person, firm, or corporation may submit or be a party to more than one (1) 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.

7. **Bid Proposal Form and Enclosures.** Each Bid Proposal must be completed in ink using the Bid Proposal form included in the Contract Documents. The Bid Proposal form should 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 terms such as "negotiable," "will negotiate," or similar, will be considered non-responsive. Each Bid Proposal must be accompanied by bid security, as set forth in Section 9 below, and by the completed Subcontractor List, and Non-Collusion Declaration using the forms included in the Contract Documents.

8. **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 (2) officers of the corporation with full authority to bind the corporation to the terms of the Bid Proposal, under California Corporation Code section 313.

9. **Bid Security.** Each Bid Proposal must be accompanied by bid security of ten percent (10%) of the maximum bid amount, in the form of a cashier's check, a certified check, or a bid bond, using the form included in the Contract Documents, executed by a surety licensed to do business in the State of California, made payable to City. The bid security must guarantee that upon award of the bid, the bidder will execute and submit the Contract on the form included in the Contract Documents, will submit payment and performance bonds one hundred percent (100%) of the maximum Contract Price, and will submit the insurance certificates and endorsements as required by the Contract Documents within ten (10) days after issuance of the notice of award.

10. **Withdrawal of Bid Proposals.** A Bid Proposal may not be withdrawn for a period of ninety (90) days after the bid opening without forfeiture of the bid security, except as authorized for material error under Public Contract Code Section 5100 et seq.

11. **Bid Protest.** Any bid protest must be in writing and received by City at the City Attorney's Office at 17575 Peak Avenue, Morgan Hill, CA, (Fax: (408) 779-1592), before 5:00 p.m. no later than two (2) working days following bid

opening (the “Bid Protest Deadline”) and must comply with the following requirements:

11.1 General. Only a bidder who has actually submitted a Bid Proposal is eligible to submit a bid protest against another bidder. Subcontractors are not eligible to submit bid protests. A bidder may not rely on the bid protest submitted by another bidder, but must timely pursue its own protest. If required by City, the protesting bidder must submit a non-refundable fee in the amount specified by City, based upon City’s reasonable costs to administer the bid protest. Any such fee must be submitted to City no later than the Bid Protest Deadline, unless otherwise specified. For purposes of this Section 11, a “working day” means a day that City is open for normal business, and excludes weekends and holidays observed by City.

11.2 Protest Contents. The bid protest must contain a complete statement of the basis for the protest and 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 person representing the protesting bidder if different from the protesting bidder.

11.3 Copy to Protested Bidder. A copy of the protest and all supporting documents must be concurrently transmitted by fax or by email, by or before the Bid Protest Deadline, to the protested bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

11.4 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 (2) working days after the Bid Protest Deadline or after actual receipt of the bid protest, whichever is sooner (the “Response Deadline”). The response must include 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 representing the protested bidder if different from the protested bidder.

11.5 Copy to Protesting Bidder. A copy of the response and all supporting documents must be concurrently transmitted by fax or by email, by or before the Response Deadline, to the protesting bidder and any other bidder who has a reasonable prospect of receiving an award depending upon the outcome of the protest.

11.6 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 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.

11.7 Right to Award. City reserves the right 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.

12. Rejection of Bids; Award of Contract. City reserves the right, acting in its sole discretion, to waive immaterial bid irregularities, the right to accept or reject any and all bids, or to abandon the Project entirely. The Contract will be awarded, if at all, within ninety (90) days after opening of bids or as otherwise specified in the Special Conditions, to the responsible bidder that submitted the lowest responsive bid.

13. Bonds. The successful bidder is required to submit payment and performance bonds 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.

14. Evidence of Responsibility. Within twenty four (24) hours following a request by City, a bidder must submit to City satisfactory evidence showing the bidder's financial resources, the bidder's experience in the type of work being required by City, the bidder's organization available for the performance of the Contract and any other required evidence of the bidder's qualifications to perform the proposed Contract. City may consider such evidence before making its decision awarding the proposed Contract.

15. License(s). The successful bidder and its Subcontractor(s) must possess the California contractor's license(s) in the classification(s) required by law to perform the Work.

16. Taxes. The bid price must include all applicable federal, state, and local taxes.

17. Ineligible Subcontractor. Any Subcontractor who is ineligible to perform work on a public works project under Labor Code Sections 1777.1 or 1777.7 is prohibited from performing work on this Project.

18. Subcontract Limitation. The successful bidder may not subcontract out more than fifty percent (50%) of the original total contract price, except that

any items of work in the Engineer's Estimate designated "Specialty Items" may be performed by subcontract and the value of the work may be deducted from the original total contract price before computing the amount of work required to be performed by Contractor's own forces. When items of work in the Engineer's Estimate are preceded by the letters (S) or (S-F), those items are designated as "Specialty Items." Where an entire item is subcontracted, the value of work subcontracted will be based on the contract item bid price. When a portion of an item is subcontracted, the value of work subcontracted will be determined by the Engineer based on the estimated percentage of the contract item bid price.

19. DIR Registration. City will not accept a Bid Proposal from or enter into the Contract with a bidder, without proof that the bidder and its Subcontractors are registered with the DIR to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.

20. Bid Schedule. Bidders are required to fully complete the Bid Schedule form accompanying the Bid Proposal form with unit prices as indicated, and to submit the completed Bid Schedule with their Bid Proposal.

20.1 Incorrect Totals. In the event of a computational error for any bid item (base bid or alternate) resulting in an incorrect extended total for that item, the submitted base bid or bid alternate total will be adjusted to reflect the corrected amount (estimated quantity X unit cost), unless the cumulative amount of correction changes the total amount of the base bid or bid alternate by more than five percent (5%). 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 Section 5100 et seq.

20.2 Estimated Quantities. 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.

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.

END OF INSTRUCTIONS TO BIDDERS

BID PROPOSAL

East Main Avenue Bike Lanes and Sidewalk Project

_____ ("Bidder") hereby submits this Bid Proposal to the City of Morgan Hill ("City") for the above-referenced project ("Project") in response to the Notice Inviting Bids and in accordance with the Contract Documents referenced therein.

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, for the following price ("Base Bid"):
   $ _____.

2. **Addenda.** Bidder acknowledges receipt of the following addenda:

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

3. **Bidder's Warranties.** By signing and submitting this Bid Proposal, Bidder 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 Section 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 is Qualified. Bidder is fully qualified to perform the Work.

   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.

4. **Award of Contract** . By signing and submitting this Bid Proposal, Bidder agrees that if Bidder is awarded the Contract for the Project, that within ten (10) days following issuance of the notice of award to Bidder, 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 one hundred percent (100%) of the Contract Price, using the bond forms provided and in accordance with the requirements of the Contract Documents; and

4.3 Insurance Requirements. Submit to City the insurance certificate(s) and endorsement(s) as required by the Contract Documents.

5. Wage Theft Prevention. All Bidders are expected to have read and understand the "Wage Theft Prevention Policy" adopted by the City Council on July 26, 2017.

The undersigned Bidder certifies that neither Bidder nor its principals have been found by a final court judgement or final administrative action of an investigatory agency to have violated federal, state or local wage and hour laws within the past five years from the date of the submitted bid. Bidder or its principals who are unable to so certify, must disclose wage and hour violations, and shall provide a copy of (i) the court order and judgment and/or final administrative decision; and (ii) documents demonstrating either that the order/judgment has been satisfied, or if the order/judgment has not been fully satisfied, a written and signed description of Bidder's efforts to date to satisfy the order/judgment. Signing this bid shall constitute signature of this Certification.

The City, at its sole discretion, may disqualify a bidder based on one or more disclosed judgments consistent with the criteria set forth in the Policy.

6. Bid Security. As a guarantee that if awarded the Contract, it will perform its obligations under Section 4, above, Bidder is enclosing bid security in the amount of ten percent (10%) of its maximum bid amount in the following form:

____ A cashier's check or certified check payable to City of Morgan Hill and issued by _____ Bank in the amount of $_____.

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

7. **Iran Contracting Act.** Bidder certifies 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.

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

s/ _____ _____
Name and Title [print]

_____ _____
Company Name License # and Classification

_____
DIR Registration #

_____ _____
Address Phone

_____ _____
City, State, Zip Fax

END OF BID PROPOSAL

REVISED BID SCHEDULE I – GENERAL

East Main Avenue Bike Lanes and Sidewalk Project

This Bid Schedule must be completed in ink and must be included with the sealed Bid Proposal. The unit cost for each item must be inclusive of all costs, whether direct or indirect, including profit and overhead. The sum of all amounts entered in the "Extended Total" column must be identical to the Base Bid price entered in Section 1 of the Bid Proposal Form. Quantities shown are required for bid purposes and may or may not be final pay quantities. Actual quantities, if different, must be substantiated during the Project by the Contractor (either by field measurement, trucking tags, or other means acceptable to the Engineer).

Third Addendum Changes are highlighted in yellow

Bid Item	Description of Bid Item	Approximate Quantity/Unit of Measure	Unit Price	Extended Total
1	Mobilization	Lump Sum		
2	Water Pollution Control (BMP's)	Lump Sum		
3	Traffic Control	Lump Sum		
4	Clearing and Grubbing	Lump Sum		
5	Curb and Gutter	670 LF		
6	Sidewalk/Driveway/Approaches	4,700 SF		
7	ADA Ramps	4 Each		
8	Storm Drain System	Lump Sum		
9	Asphalt Overlay (2 inch)	510 tons		
10	Full Depth AC Pavement Repair	4,000 SF		
11	Crack Seal	1,000 LF		
12 (S)	6 inch Cold In-Place Recycled Asphalt Concrete (CIR), includes wedge grinds	37,000 SF		
13	Street Pavement Section (6"AC on 12" AB)	12,500 SF		
13a	Unsuitable Material	1,000 SF		
14	Misc. Utility Improvements	Lump Sum		
15	1 Inch Water Service	1 each		
16	2 Inch Water Service	1 Each		
17	Slurry Seal	250,000 SF		
18	Rectangular Rapid Flashing Beacon (RRFB) Assembly/signage	4 Each		

19	Street Lights and Conduits	2 Each		
20	Street Light Relocation	1 Each		
21	Remove Existing Striping/symbols	Lump Sum		
22	Detail 22 Stripe	2,000 LF		
23	Detail 27B Stripe	2,790 LF		
24	Detail 29 Stripe	1,840 LF		
25	Detail 32 Stripe	250 LF		
26	Detail 38 Stripe	1,100 LF		
27	Detail 39 Stripe	5,225 LF		
28	Type IV Arrow Marking	29 Each		
29	Type I Arrow Marking (10')	8 Each		
30	Crosswalk Stripe 12" White	175 LF		
31	Crosswalk Ladder Stripe (Yellow)	370 LF		
32	Yield Pavement Markings	50 LF		
33	"STOP" Pavement Markings	2 Each		
34	"SLOW" Pavement Markings	2 Each		
35	"SCHOOL" Pavement Markings	2 Each		
36	"XING" Pavement Markings	2 Each		
37	Bike Lane Symbol and Arrow Caltrans A24C	20 Each		
38	Green Bike Lane Symbol Detail A	15 Each		
39	Green Dashed Markings Detail B	1,100 LF		
40	Pavement Marking Detail C	4,700 LF		
41	Pavement Marking Detail D	250 LF		
42	Signage	Lump Sum		
43	Street Trees	8 Each		
44	Supplemental	$50,000	N/A	$50,000

S=SPECIALTY BID ITEM

Bid Schedule I Total	

END OF BID SCHEDULE

SUBCONTRACTOR LIST

East Main Avenue Bike Lanes and Sidewalk Project

For each Subcontractor who will perform a portion of the Work in an amount in excess of one-half of 1% of the Bidder's total Contract Price,[1] the bidder must list a description of the work, the name of the Subcontractor, its California contractor license number, the location of its place of business, and DIR registration number. **Bidders: Please print legibly. Illegible forms may be rejected.**

DESCRIPTION OF WORK	SUBCONTRACTOR NAME	CALIFORNIA CONTRACTOR LICENSE NUMBER	DIR REG. NO.	LOCATION OF BUSINESS	LOCAL VENDOR[2] YES/NO

END OF SUBCONTRACTOR LIST

[1] For street or highway construction this requirement applies to any subcontract of $10,000 or more.
[2] A Subcontractor is considered local if its principle place of business is within the city limits of Morgan Hill.

NONCOLLUSION DECLARATION

(To be executed by bidder and submitted with bid)

State of California County of _____	)))	ss.

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 no paid and will not pay, any person or entity for such purpose.

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

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT CIVIL CODE ' 1189

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document, to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of **CALIFORNIA**)

County of SANTA CLARA)

On _____, before me, _____

a Notary Public in and for said County and State, personally appeared

_____

_____

proved to me on the basis of satisfactory evidence to be the person/s whose name/s is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity/ies, and that by his/her/their signature/s on the instrument the person/s, or the entity upon behalf of which the person/s acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

_____

SIGNATURE OF NOTARY PUBLIC

Place Notary Seal Above

BID BOND

_____ ("Bidder") has submitted a bid, dated _____, 20_____ ("Bid"), to the City of Morgan Hill ("City") for work on the East Main Avenue Bike Lanes and Sidewalk Project ("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 (10%) 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 (10) 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 one hundred percent (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 one hundred percent (100%) of the maximum Contract Price, executed by a surety licensed to do business in the State of California using the Performance Bond form included with the Contract Documents; and

2.4 Insurance. The insurance certificate(s) and endorsement(s) required by the Contract Documents, and any other documents required under the Instructions for Bidders.

3. Enforcement. If Bidder fails to execute the Contract and to submit the bonds and insurance certificates as required by the Contract Documents, Surety guarantees that Bidder forfeits the Bond Sum to City. Any notice to Surety may be given in the manner specified in the Contract and delivered or transmitted to Surety as follows:

Attn: _____
Address: _____
City/State/Zip: _____

Phone: _____
Fax: _____
Email: _____

4. Duration; 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 ninety (90) days following award of the Contract or until this Bid Bond is returned to Bidder, whichever occurs first. Surety waives the provisions of Civil Code Sections 2819 and 2845.

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

SURETY:

_____

s/ _____

Name: _____

Title: _____

(Attach Acknowledgement, Notary Seal, and Attorney-In-Fact Certificate)

CONTRACTOR:

_____

s/ _____

Name: _____

Title: _____

APPROVED AS TO FORM:

By:_____
Donald A. Larkin, City Attorney

Date:_____

BIDDER'S QUESTIONNAIRE

EAST MAIN AVENUE BIKE LANES AND SIDEWALK PROJECT

Within forty eight (48) hours following a request by City, a bidder must submit to City a completed, signed Bidder's Questionnaire using this form and including all required attachments. City may request the Questionnaire from one (1) or more of the apparent low bidders following the bid opening, and may use the completed Questionnaire 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 1: General Information

Bidder Business Name: _____ ("Bidder")

Check One: ___ Corporation
___ Partnership
___ Sole Proprietorship
___ Joint Venture of:_____
___ Other:_____

Address: _____

_____

Phone: _____

Fax: _____

Owner of Company: _____

Contact Person: _____

Email:_____

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

Part 2: Bidder Experience

1. How many years has Bidder been in business under its present business name? _____

2. Has Bidder completed projects similar in type and size to this Project as a general contractor? _____

3. Has Bidder ever been disqualified on grounds that it is not responsible? If yes, provide additional information on a separate sheet of paper regarding the disqualification, including the name and address of the agency or owner of the subject project, the type and size of the project, the reasons that Bidder was disqualified as not responsible, and the month and year in which the disqualification occurred.

4. Has Bidder ever been terminated from a construction project, either as a general contractor or as a subcontractor? If yes, provide additional information on a separate sheet of paper 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 (6) most recently completed public works projects within the last three (3) years;

5.2 Three (3) largest completed projects within the last three (3) years; and

5.3 Any project which is similar to this Project.

6. Use separate sheets of paper provide all of the following information for <u>each</u> project identified in response to the above three (3) categories:

6.1 Project name
6.2 Location
6.3 Owner
6.4 Owner contact (name and current phone number)
6.5 Architect or engineer name
6.6 Architect or engineer contact (name and current phone number)
6.7 Project manager (name and current phone number)
6.8 Description of project, scope of work performed
6.9 Initial contract value (at time of bid award)
6.10 Final cost of construction (including change orders)
6.11 Original scheduled completion date
6.12 Time extensions granted (number of days)
6.13 Actual date of completion
6.14 Number and amount of stop notices or mechanic's liens filed

6.15 Amount of liquidated damages assessed against Bidder
6.16 Nature and resolution of any claim, lawsuit, and/or arbitration between Bidder and the owner.

Part 3: 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, title]: _____

END OF BIDDER'S QUESTIONNAIRE

CONTRACT

This public works contract ("Contract") is entered into by and between the City of Morgan Hill ("City") and _____ ("Contractor") for work on the East Main Avenue Bike Lanes and Sidewalk project ("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 work on the Project, and on _____, 20___, (contract date) City authorized award of this Contract to Contractor for the amount of Contractor's bid.

2. **Contract Documents**. The Contract Documents incorporated into this Contract include and are comprised of all of the following:

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 Drawings and Specifications;
2.10 Change Orders, if any;
2.11 Notice of Award;
2.12 Notice to Proceed;

3. **Contractor's Obligations.** Contractor agrees to 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, equipment, transportation, and utilities, unless otherwise specified in the Contract Documents. Contractor must use its best efforts to 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 _____ Dollars ($_____) (the "Contract Price"), in accordance with the payment provisions in the General Conditions. The Contract Price includes all applicable federal, state, and local taxes.

5. **Time for Completion.** Contractor will fully complete the Work for the Project within 150 calendar days from the commencement date given in the Notice to Proceed ("Contract Time"). By signing below, Contractor expressly waives any claim for delayed early completion.

6. **Liquidated Damages.** If Contractor fails to complete the Work within the Contract Time, City will assess liquidated damages in the amount of One Thousand Dollars ($1,000.00) for each day of unexcused delay in completion, and the Contract Price will be reduced accordingly.

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.

   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 will 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 ("DIR") to perform public work under Labor Code Section 1725.5, subject to limited legal exceptions.

8. **Workers' Compensation Certification.** Under Labor Code Section 1861, by signing this Contract, Contractor certifies as follows: "I am aware of the provisions of Labor Code Section 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. Notice. Any notice required by the Contract Documents must be made in writing, and sent to the other party by personal delivery, U.S. Mail, a reliable overnight delivery service, facsimile, or by email as a PDF (or comparable) file. Notice is deemed effective upon delivery unless otherwise specified. Notice for each party must be given as follows:

City:

City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037
Phone: (409) 779-7259
Attn: City Clerk
Email: michelle.bigelow@morganhill.ca.gov
Copy to: David Gittleson, P.E.

Contractor:

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

10. General Provisions.

10.1 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 successors and permitted assigns.

10.2 Third Party Beneficiaries. There are no intended third party beneficiaries to this Contract except as expressly provided in the General Conditions or Special Conditions.

10.3 Governing Law and Venue. This Contract will be governed by California law and venue will be in the Superior Court of Santa Clara County, and no other place.

10.4 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.

10.5 Integration; Severability. 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. If any provision of the Contract Documents, or portion of a provision, is determined to be illegal, invalid, or unenforceable, the remaining provisions of the Contract Documents will remain in full force and effect.

10.6 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 (2) officers of the corporation are required pursuant to California Corporation Code Section 313.

[Signatures are on the following page.]

AS SET FORTH IN CA. CORP. CODE § 313, TWO SIGNATURES ARE REQUIRED FOR CALIFORNIA CORPORATIONS:
(1) CHAIRPERSON OF THE BOARD, PRESIDENT, OR VICE PRESIDENT; AND
2) SECRETARY, ASSISTANT SECRETARY, CHIEF FINANCIAL OFFICER OR ASSISTANT TREASURER.

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

CITY OF MORGAN HILL:

_____
Christina J. Turner
City Manager

Date: _____

Attest:

_____
Michelle Bigelow
Deputy City Clerk

Date: _____

Approved as to Form:

_____
Donald A. Larkin
City Attorney

Date: _____

CONTRACTOR:
[NAME OF CONTRACTOR]

_____
Signature

_____
Name/Title [print]

Date: _____

Corporate entities must provide a second signature:

_____
Signature

_____
Name/Title [print]

Date: _____

_____
Contractor's License Number(s)

_____
Expiration Date(s)

Seal:

_____
Contractor's DIR Registration Number(s)

_____
Expiration Date

END OF CONTRACT

PAYMENT BOND

The City of Morgan Hill ("City") and _____ ("Contractor") have entered into a contract, dated _____, 20___ ("Contract") for work on the East Main Avenue Bike Lanes and Sidewalk Project ("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 _____ Dollars ($_____) ("Bond Sum"), under California Civil Code Sections 9550, et seq.

2. **Surety's Obligation.** If Contractor or any of its Subcontractors fails to pay any of the persons named in California Civil Code Section 9100 amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or for 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 Section 13020, with respect to the work and labor, then Surety will pay for the same.

3. **Beneficiaries.** This Bond inures to the benefit of any of the persons named in California Civil Code Section 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 Sections 2819 and 2845. City waives requirement of a new bond for any supplemental contract under Civil Code Section 9550. 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: _____

6. **Law and Venue.** This Bond will be governed by California law, and any dispute pursuant to this Bond will be venued in the Superior Court of Santa Clara County, 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.

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

SURETY:	CONTRACTOR:
s/ _____	s/ _____
Name: _____	Name: _____
Title: _____	Title: _____

(Attach Acknowledgment with Notary Seal and Power of Attorney)

APPROVED AS TO FORM:

By:_____
Donald A. Larkin, City Attorney

Date:_____

END OF PAYMENT BOND

PERFORMANCE BOND

The City of Morgan Hill ("City") and
_____ ("Contractor")
have entered into a contract, dated _____, 20____ ("Contract") for work on the East Main Avenue Bike Lanes and Sidewalk Project ("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 _____ Dollars ($_____) (the "Bond Sum"). By executing this Bond, Contractor and Surety bind themselves and their respective heirs, executors, administrators, successors and assigns, jointly and severally, to the provisions of this Bond.

2. **Surety's Obligations; Waiver.** 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 under this bondwill remain in full force and effect. 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 Sections 2819 and 2845.

3. **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.

4. **Contractor Default.** Upon written notification from City that Contractor is in 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 (1) of the following courses of action:

   4.1 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;

4.2 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

4.3 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.

5. **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.

6. **Notice.** 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: _____

7. **Law and Venue.** This Bond will be governed by California law, and venue for any dispute pursuant to this Bond will be in the Superior Court of Santa Clara County, 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.

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

[Signatures are on the following page.]

SURETY:

s/ _____

Name: _____

Title: _____

(Attach Acknowledgment with Notary Seal and Power of Attorney)

CONTRACTOR:

s/ _____

Name: _____

Title: _____

APPROVED AS TO FORM:

By:_____
Donald A. Larkin, City Attorney

Date:_____

END OF PERFORMANCE BOND

GENERAL CONDITIONS

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Article 1
Definitions

1.1 Definitions. The following definitions apply to all of the Contract Documents unless otherwise indicated. Defined terms and titles of documents are capitalized in the Contract Documents, with the exception of the words “day,” “furnish,” “including,” “install,” “work day” or “working day.”

Allowance means an amount included in the Bid Proposal for Work that may or may not be included in the Project, depending on conditions that will not become known until after bids are opened. If the Contract Price includes an Allowance and the cost of performing the Work covered by that Allowance is greater or less than the Allowance, the Contract Price will be increased or decreased accordingly.

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

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

City means the City of Morgan Hill, acting through its City Council, officers, employees, and authorized representatives.

City Engineer means the City Engineer for City and his or her authorized delegee(s) designated to oversee and manage the Project on City's behalf.

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

Contract means the signed agreement between City and Contractor.

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 Drawings and Specifications; any Change Orders; and any other documents expressly made part of the Contract Documents.

Contract Price means the total compensation to be paid to Contractor for performance of the Work, as set forth in the Contract and as 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, or equipment following submission of the Bid Proposal. The Contract Price is deemed to include all applicable federal, state, and local taxes

Contract Time means the number of calendar days for performance of the Work, as set forth in the Contract and as amended by Change Order.

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

Day means a calendar day unless otherwise specified.

Design Professional means the licensed individual(s) or firm(s) retained by City to provide architectural or engineering 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.

Drawings means City-provided plans and graphical depictions of the Project requirements, and does not include Shop Drawings.

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

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

Final Payment means payment to Contractor of the unpaid Contract Price, including release of undisputed retention, less amounts withheld pursuant to the Contract Documents, including liquidated damages, up to one hundred twenty five percent (125%) of the amount of any unreleased stop notice, amounts subject to setoff, up to one hundred fifty percent (150%) of any unresolved third-party claim for which Contractor is required to indemnify City, and up to one hundred fifty percent (150%) of any amount in dispute as authorized by Public Contract Code Section 7107.

Furnish means to purchase and deliver to the Worksite designated for installation.

Hazardous Materials means any substance or material identified now or in the future as hazardous under any federal, state, or local law or regulation, or any other substance or material that may be considered hazardous or otherwise subject to statutory or regulatory requirements governing handling, disposal, or cleanup.

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

Inspector means the individual(s) or firm(s) retained 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 applicable codes, regulations, and permits.

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

Project means the public works project referenced in the Contract.

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

RFI means a written request from Contractor for information from City or its Design Professional.

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

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

Specifications means the technical, text specifications describing the Project requirements, which are prepared for and incorporated into this Project 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, suppliers, fabricators, and equipment lessors of all tiers, unless otherwise indicated by the context.

Technical Specifications means Specifications.

Work means all of the construction and services necessary 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 which is not a holiday observed by City.

Worksite means the place or places where the Work is performed.

Article 2
Roles and Responsibilities

2.1 Design Professional.

(A) ***General.*** Design Professional, as City's representative, 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 Contract Documents.

(B) ***Interpretation.*** Design Professional will decide all questions pertaining to interpretation of the Drawings or Specifications. The Design Professional's decision regarding interpretation of the Drawings or Specifications is final and conclusive.

2.2 Contractor.

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

(B) ***Responsibility for the Work.*** 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, construction means, methods, techniques, sequences, procedures, 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.

(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 phone 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. Failure to comply may result in temporary suspension of the Work, at Contractor's sole expense and with no extension of

Contract Time, until the 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; Compliance.*** Contractor must, at all times, ensure that the Work is performed in a good workmanlike manner following best practices and in full compliance with the Contract Documents and all applicable laws, regulations, codes, standards, and permits.

(F) ***Responsible Party.*** Contractor is solely responsible to City for the acts or omissions of any party or parties performing portions of the Work or providing equipment, materials or services for or on behalf of Contractor or its Subcontractors. If any person employed by Contractor fails or refuses to comply with the Engineer's directions regarding the performance of the Work, or is determined by the Engineer to be incompetent to perform the Work, or acts in a disorderly or improper manner at the Worksite, that person may be permanently dismissed from the Project at the request of the Engineer.

(G) ***Correction of Defects.*** Contractor must promptly correct, at Contractor's sole expense, any Work that is determined by City, Project Manager, or the Inspector to be deficient or defective in workmanship, materials, and equipment.

(H) ***Contractor's Records.*** Contractor must maintain all of its records relating to the Project in any form, including paper documents, photos, videos and electronic records. Project records subject to this provision include, but are not limited to, Project cost records and records relating to preparation of Contractor's bid.

(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 records in an organized manner for a period of four (4) years after City's

acceptance of the Project or following termination, whichever occurs first. Subject to prior notice to Contractor, City is entitled to inspect or audit any of Contractor's Project records relating to the Project or to investigate Contractor's plant or equipment during Contractor's normal business hours.

2.3 Subcontractors.

(A) ***General.*** All Work which is not performed by Contractor with its own forces must be performed by Subcontractors, subject to the fifty percent (50%) limitation set forth in the Instructions to Bidders. City reserves the right to approve or reject any and all Subcontractors proposed to perform the Work.

(B) ***Contractual Obligations.*** Contractor must require every Subcontractor to be bound to the provisions of the Contract Documents as they apply to the Subcontractor's portion(s) of the Work, and to likewise bind their subcontractors or suppliers. 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.

Copies of subcontracts must be available to the Engineer upon request. Before a Subcontractor commences Work on the Project, Contractor must provide the Engineer a written statement with the name of the Subcontractor, a description of each portion of the Work performed by the Subcontractor, and the percentage of the overall Work to be performed by the 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, provided that City accepts 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 Section 4107, Contractor is solely responsible for all costs City incurs in responding to the request, including legal fees and costs to conduct a hearing. 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 or to have performed other work on or adjacent to the Project site while the Work is being performed. Contractor is responsible for coordinating its Work with other work being performed on or adjacent to the Project site, and must avoid hindering, delaying, or interfering with the work of other contractors and subcontractors. To the full extent permitted by law, Contractor must hold harmless and indemnify City, Design Professional, and Project Manager 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 another contractor or subcontractor.

(B) ***Defects.*** Before proceeding with any portion of the Work affected by the construction or operations of others, Contractor must give 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 such known 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.

2.5 Submittals. Unless otherwise specified, Contractor must submit to Project Manager for review and approval, all schedules, Shop Drawings, samples, product data and similar submittals required by the Contract Documents, or upon request by Project Manager. Unless otherwise specified, all submittals, including requests for information (RFIs) are subject to the provisions of this Section.

(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 approved schedule for the Work and within the applicable time specified elsewhere in the Contract Documents, or if no time is specified, in such time and sequence so as not to delay the performance of the Work or completion of the Project.

(C) ***Required Contents.*** Each submittal must include the Project name and contact number, Contractor's name and address, the name and address of any Subcontractor or supplier involved with the submittal, the

date, and references to applicable Specification section(s) and/or drawing and detail number(s).

(D) ***Required Corrections.*** If corrections are required, Contractor must promptly make and submit any required corrections in full conformance with the requirements of this Section.

(E) ***Effect of Review and Approval.*** Review and approval 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 approval of a submittal by City is not an assumption of risk or liability by City.

(F) ***Enforcement.*** Any Work performed or material used without prior approval of a required submittal will be performed 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, and the cost of additional time or services required of the Design Professional, Project Manager, or Inspector.

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

Article 3
Contract Documents

3.1 Interpretation of Contract Documents.

(A) ***Drawings and Specifications.*** The Drawings and Specifications included in the Contract Documents are complementary. If Work is shown on one (1) 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 Drawings 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 Drawings and Specifications, the Specifications will control.

(B) ***Duty to Notify.*** If Contractor becomes aware of any ambiguity, discrepancy, omission, or error in the Drawings or Specifications,

Contractor must immediately notify the Design Professional and request clarification of such, by submitting a written request for information (RFI) in the manner specified by City. The Design Professional's clarifications or interpretations will be final and binding.

(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 at the Worksite before ordering any material or performing any Work, and will be responsible for the correctness of those measurements.

3.2 Order of Precedence. Information included in one (1) 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:

(A) Change Orders;
(B) Addenda;
(C) Contract;
(D) Notice to Proceed;
(E) Notice of Award;
(F) Special Conditions;
(G) General Conditions;
(H) Payment and Performance Bonds;
(I) Specifications; including City Standard Details
(J) Drawings;
(K) Contractor's Bid Proposal and attachments;
(L) Notice Inviting Bids;
(M) Instructions to Bidders; and
(N) Caltrans Standard Specifications

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

(A) ***Limitations.*** None of the "General Provisions" of the Standard Specifications, i.e., Sections 1 through 9, applies to these Contract Documents with the exception of any specific provisions, if any, which are expressly stated to apply to these Contract Documents.

(B) ***Conflicts or Inconsistencies.*** If there is a conflict or inconsistency between any provision in the Standard Specifications 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 Standard Specifications are to be interpreted as follows:

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

(2) Any reference to the "Special Provisions" is deemed to mean the Special Conditions.

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

3.4 For Reference Only. Contractor is responsible for the careful review of any document, study, or report 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. However, Contractor is advised that City or its representatives may be guided by information or recommendations included in such reference documents, particularly when making determinations as to the acceptability of proposed materials, methods, or changes in the Work. Contractor must promptly notify City of any perceived or actual conflict between the Contract Documents and any document provided For Reference Only.

Article 4
Bonds, Indemnity, and Insurance

4.1 Payment and Performance Bonds. Within ten (10) 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 one hundred percent (100%) of the Contract Price, using the bond forms included with the Contract Documents. Each bond must be issued by a surety admitted in California. If an issuing surety cancels the bond or becomes insolvent, within seven (7) 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.

4.2 **Indemnity.** To the fullest extent permitted by law, Contractor must indemnify, defend, and hold harmless City, its agents and consultants, and Design Professional (individually, an "Indemnitee," and collectively the "Indemnitees") from and against any and all liability, loss, damage, claims, expenses (including, without limitation, attorney fees, expert witness fees, paralegal fees, and fees and costs of litigation or arbitration) (collectively, "Liability") of every nature arising out of or in connection with the acts or omissions of Contractor, its employees, Subcontractors, representatives, or agents, in bidding or performing the Work or its failure to comply with any of its obligations 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 provision will be deemed a material breach of this Contract. City will timely notify Contractor upon receipt of any third-party claim relating to the Contract, as required by Public Contract Code Section 9201.

4.3 **Insurance.** No later than ten (10) days following issuance of the notice of award, Contractor is required to procure and provide proof of the insurance coverage required by this section in the form of certificates and endorsements. The required insurance must cover the activities of Contractor and its Subcontractors relating to or arising from the performance of the Work, and must remain in full force and effect at all times during the period covered by the Contract until the date of recordation of the notice of completion. The coverages 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 herein. Any deductibles or self-insured retentions must be declared to and approved by City. All required insurance must be issued by a company licensed to do business in the State of California, and each such insurer must have an A.M. Best's financial strength rating of "A" or better and a financial size rating of "VIII" or better. If Contractor fails to provide any of the required coverage in full compliance with the requirements of the Contract Documents, City may, at its sole discretion, purchase such coverage at Contractor's expense and deduct the cost from payments due to Contractor, or terminate the Contract for default. Contractor further understands that City reserves the right to modify the insurance requirements set forth herein, with thirty (30) days' notice provided to

Contractor, at any time as deemed necessary to protect the interests of City.

(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 Insurance ("CGL").** Contractor shall maintain CGL and must include coverage for liability arising from Contractor's or its Subcontractor's acts or omissions in the performance of the Work against claims and liabilities for personal injury, death, or property damage providing protection in the minimum amount of: (i) two million dollars ($2,000,000.00) combined single limit each occurrence and either a general aggregate limit of four million dollars ($4,000,000.00) or a general aggregate limit of two million dollars ($2,000,000.00) as applied on a "per project" or "per location" basis, or (ii) the maximum amount of such insurance available to Contractor under Contractor's combined insurance policies (including any excess or "umbrella" policies), whichever is greater.

a. CGL policy may not exclude explosion, collapse, underground excavation hazard, or removal of lateral support.

b. CGL policy must include contractor's protected coverage, blanket contractual, and completed operations.

(2) **Deleted**

(3) **Workers' Compensation Insurance and Employer's Liability***:* Contractor shall maintain Workers Compensation coverage, as required by law. The policy must comply with the requirements of the California Workers' Compensation Insurance and Safety Act and provide protection in the minimum amount of: (i) One Million Dollars ($1,000,000.00) for any one accident or occurrence, or (ii) the maximum amount of such insurance available to Contractor under Contractor's combined insurance policies (including any excess or "umbrella" policies), whichever is greater.. If Contractor is self-insured, Contractor must provide its Certificate of Permission to Self-Insure, duly authorized by the Department of Industrial Relations.

(4) **Automobile Liability**: Contractor shall maintain Automobile Liability covering all owned, non-owned and hired automobiles (if Contractor does not own automobiles, then Contractor shall maintain Hired/Non-owned Automobile Liability) against claims and liabilities for personal injury, death, or property damage providing protection in the minimum amount of: (i) One Million Dollars ($1,000,000.00) combined single limit, or (ii) the maximum amount of such insurance available to Contractor under Contractor's combined insurance policies (including any excess or "umbrella" policies), whichever is greater.

(5) **Pollution (Environmental) Liability**: Because the performance of Contractor's work or service under this Contract involves hazardous materials, contaminated soil disposal, and/or a risk of accidental release of fuel oil, chemicals or other toxic gases or hazardous materials, Contractor shall procure and maintain Pollution Liability covering Contractor's liability for bodily injury, property damage and environmental damage resulting from pollution and related cleanup costs arising out of the work or services to be performed under this Contract. Coverage shall be provided for both work performed on site, as well as during the transport of hazardous materials. Such coverage shall be in the minimum amount of: (i) One Million Dollars ($1,000,000.00) for any one accident or occurrence, or (ii) the maximum amount of such insurance available to Contractor under Contractor's combined insurance policies (including any excess or "umbrella" policies), whichever is greater.

(6) **Professional Liability**:

a. Because the performance of Contractor's work or service under this Contract involves professional and/or technical services (examples include, but are not limited to, architects, engineers, land surveyors, legal services, and appraisers), Contractor shall procure and maintain either a claims made or occurrence Errors and Omission liability insurance in the minimum amount of: (i) One Million Dollars ($1,000,000.00) each claim, or (ii) the maximum amount of such insurance available to Contractor under Contractor's combined insurance policies (including any excess or "umbrella" policies), whichever is greater. Further, if Contractor maintains a claims-made policy, Contractor shall provide written evidence of such insurance to City for at least five (5) years after the completion of work performed under this Contract.

(B) **Required Endorsements.** Contractor must provide proof of the following endorsements, listed for each policy for which endorsements are required, as outlined below:

(1) For all Policies except Builder's Risk and Professional Liability:

a. "Waiver of Subrogation" endorsements providing that the carrier agrees to waive any right of subrogation it may have against the City of Morgan Hill and the City's elected or appointed officials, boards, agencies, officers, agents, employees, and volunteers.

(2) General Liability, Automobile, and Pollution Liability:

a. "Additionally Insured" endorsements naming the City of Morgan Hill, its elected or appointed officials, boards, agencies, officers, agents, employees, and volunteers as additional insureds;

b. "Primary and Non-Contributing" endorsements stating that the policy is primary non-contributing;

(3) General Liability:

a. "Separation of Insureds" endorsements stating that 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.

(C) **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.

(D) **Certificates**. Contractor must furnish City with copies of all policies or certificates as outlined herein, whether new or modified, promptly upon receipt. No policy subject to Contractor's Contract with City shall be reduced, canceled, allowed to expire, or materially changed except after thirty (30) days' notice by the insurer to City, unless due to non-payment of premiums, in which case ten (10) days written notice must be made to City. Certificates, including renewal certificates, may be mailed

electronically to riskmgmt@morganhill.ca.gov or delivered to the Certificate Holder address as follows:

City of Morgan Hill
Attn: Risk Management
17575 Peak Avenue
Morgan Hill, CA 95037

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.

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

5.2 Schedule Requirements. All schedules must be prepared using standard scheduling software acceptable to City, and must provide schedules in electronic and paper form as requested.

(A) ***As-Planned (Baseline) Schedule.*** Within fifteen (15) calendar days following issuance of the notice of award (or as otherwise specified in the Special Conditions), Contractor must submit to City for review and approval an as-planned (baseline) schedule showing in detail how Contractor plans to perform and fully complete the Work within the Contract Time using critical path methodology. The as-planned schedule must include the work of all trades required for the Work, and must be sufficiently comprehensive and detailed to enable progress to be

monitored on a day-by-day basis. For each activity, the as-planned 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, and the duration.

(B) ***Progress Schedules.*** Contractor must submit an updated progress schedule and three (3) week look-ahead schedule, in the format specified by City, for review and approval with each application for a progress payment. The progress schedule must show how the actual progress of the Work to date compared to the as-planned schedule, and must identify any actual or potential impacts to the critical path.

(C) ***Recovery Schedule.*** If City determines that the Work is more than one (1) week behind schedule, within seven (7) 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.

(D) ***Effect of Approval.*** Contractor and its Subcontractors must perform the Work in accordance with the most current approved schedule unless otherwise directed by City. City approval 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.

(E) ***Posting.*** Contractor must at all times maintain a copy of the most current approved progress or recovery schedule posted prominently in its on-site office.

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

(G) ***Authorized Working Days and Times.*** Contractor is limited to working Monday through Friday, excluding City of Morgan Hill-observed holidays, during City's normal business hours, except as expressly 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 these Contract Documents, including reimbursement of costs incurred for inspection, testing, and construction management services.

5.3 Delay and Extensions of Contract Time.

(A) ***Excusable Delay.*** The Contract Time may be extended if Contractor encounters 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 planning, foresight, and diligence ("Excusable Delay"). Grounds for Excusable Delay may include fire, earthquake, acts of terror or vandalism, epidemic, unforeseeable adverse government actions, unforeseeable actions of third parties, encountering unforeseeable hazardous materials, unforeseeable site conditions, suspension for convenience under Article 13, or unusually severe weather.

(B) ***Non-Excusable Delay****.* Excusable Delay does not include delay that is concurrent with non-Excusable Delay, and does not include 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 (10) years;

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

(3) Contractor's failure to provide adequate notification to utility companies for connections or services necessary for the timely performance and completion of the Work;

(4) foreseeable conditions Contractor could have ascertained from reasonably diligent inspection of the Worksite or review of the Contract Documents; or

(5) Contractor's financial inability to perform the Work, including insufficient funds to pay its Subcontractors or suppliers.

(C) ***Request for Extension of Contract Time.*** A request for an extension of time and associated delay costs must be submitted in writing to City within ten (10) 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 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 delay costs 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 time or delay costs that does not strictly comply with 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, e.g., by workforce management, change in sequencing, etc. 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. The request must specify the amount of any delay-related 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.

(3) *Supporting Documentation.* The request must also include any and all supporting documentation necessary to evidence the delay and its actual impacts, including schedule and cost impacts, including a time impact analysis using critical path methodology, and demonstrating 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 1) that the delay was an Excusable Delay, as defined above, 2) that Contractor has made reasonable efforts to mitigate the delay and its schedule and cost impacts, 3) that the delay will unavoidably result in delaying Final Completion, and 4) that any delay costs claimed by Contractor were actually incurred and were reasonable under the circumstances.

(5) *Recoverable Costs.* If Contractor is granted an extension of time for Excusable Delay, recompense for delay costs will be limited to actual, direct, reasonable, and substantiated costs, and will not include home office overhead, or markup for overhead and profit.

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

(7) *No Waiver.* Any grant of an extension of time or delay costs due to an Excusable Delay will not operate as a waiver of City's right to assess liquidated damages for unexcused delay.

(8) *Dispute Resolution.* In the event of a dispute over entitlement to an extension of time or delay costs, Contractor may not stop working 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 time or delay 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 which are difficult to determine and accurately specify. Pursuant to Public Contract Code section 7203, if Contractor fails to achieve Final Completion within the Contract Time, City will charge Contractor in the amount specified in the Contract for each day that Final Completion is delayed beyond the Contract Time, as liquidated damages and not as a penalty.

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

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

(C) ***Setoff.*** City is entitled to set off the amount of liquidated damages assessed against any payments otherwise due to Contractor, including setoff against release of 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 unexcused delay in achieving Final Completion.

Article 6
Contract Modification

6.1 Changes in Work. City reserves the right to make changes in the Work without invalidating the Contract. City may direct or Contractor may request changes in the Work, and any such changes will be formalized in a Change Order, which may include commensurate changes in the Contract Price or Contract Time as applicable. Contractor must promptly comply with City-directed changes in the Work in accordance with the intent of the original Contract Documents, even if Contractor and City have not yet reached agreement as to adjustments to the Contract Price or Contract Time.

(A) ***City-Directed Change.*** 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 an City-directed change, 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.

(B) ***Contractor's Obligations.*** In the event that City and Contractor dispute whether a portion or portions of the Work are already required by the Contract Documents as opposed to changed or extra 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.

(C) ***Remedy for Non-Compliance.*** Contractor's failure to promptly comply with an 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.

(D) ***Dispute Resolution.*** Contractor's sole recourse for an unresolved dispute related to changes in the Work is to comply with the dispute resolution provisions set forth in Article 12, below.

(E) 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. Contractor must maintain detailed daily records that itemize the cost

of each element of Extra Work, and sufficiently distinguish the direct cost of the Extra Work from the cost of other Work performed. For each day that Contractor performs Extra Work, or Work that Contractor contends is Extra Work, Contractor must submit no later than the following Working Day, a daily report of the Extra Work performed that day and the related costs, together with copies of certified payroll, invoices, and other documentation substantiating the costs ("Extra Work Report"). The Engineer will make any adjustments to Contractor's Extra Work Report(s) based on the Engineer's records of the Work. When an Extra Work Report(s) is agreed on and signed by both City and Contractor, the Extra Work Report(s) will become the basis for payment under a duly authorized and signed Change Order. Failure to submit the required documentation by close of business on the next Working Day is deemed a full and complete waiver for any change in the Contract Price or Contract Time for any Extra Work performed that day.

6.2 Contractor Change Order Requests. Contractor must submit a request or proposal for a change in the 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 must be submitted in writing to Project Manager within ten (10) 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.

(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, and subcontract amounts. 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.

(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, and agrees that any costs, expenses, or time extension request not included herein is deemed waived. Contractor understands that submission of claims which have no basis in fact or which Contractor knows to be false may violate the False Claims Act, as set forth in Government Code Sections 12650 et seq."

6.3 Adjustments to Contract Price. The amount of any increase or decrease to the Contract Price will be determined based on one (1) of the following methods in the order provided:

(A) ***Unit Pricing.*** Amounts previously provided by Contractor in the form of unit prices, either in a bid schedule or schedule of values, will apply if unit pricing has previously been provided in Contractor's accepted bid schedule or schedule of values for the affected Work;

(B) ***Lump Sum.*** A mutually agreed upon lump sum;

(C) ***Time and Materials.*** On a time and materials basis, which may include a not-to-exceed limit, calculated as the total of the following sums:

(1) All direct labor costs plus fifteen percent (15%) for overhead and profit;

(2) All direct material costs, including sales tax, plus fifteen percent (15%) for overhead and profit;

(3) All direct plant and equipment rental costs, plus fifteen percent (15%) for overhead and profit;

(4) All direct subcontract costs plus ten percent (10%) for overhead and profit; and

(5) Increased bond or insurance premium costs computed at one and one half percent (1½%) of total of the previous four (4) sums.

6.4 Unilateral Change Order. If City disagrees with the amount of compensation or extension of time that Contractor has requested, 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 in the amount 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 full comply with the provisions of this Article. Contractor will not be paid for unauthorized extra work.

Article 7
General Construction Provisions

7.1 Permits and Taxes.

(A) ***General.*** Contractor must obtain and pay for any and all permits, fees, or licenses required to perform the Work, unless otherwise indicated in the Contract Documents. Contractor must cooperate with and provide notifications to government agencies with jurisdiction over the Project, as may be required. Contractor must provide City with copies of all notices, permits, licenses, and renewals required for the Work.

**** The contractor will be responsible for securing the necessary City and County encroachment permit for this project (no cost to the contractor). Contractor shall be responsible to adhere to all of the County encroachment permit requirements, see attachment A, (Addendum #3).****

(B) ***Federal Excise Tax.*** 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, including onsite office, sanitary facilities, storage, scaffolds, barricades, walkways, and any other temporary structure required to safely perform the Work along with any utility services incidental thereto.

(A) ***Standards.*** Such structures must be safe and adequate for the intended use, and installed and maintained in accordance with all applicable federal, state, and local laws, codes, and regulations.

(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 caused by the installation, use, or removal of the temporary facilities, and must promptly restore the property to its original or intended condition.

(C) ***Additional Requirements.*** Additional provisions pertaining to temporary facilities may be included in the Specifications or Special Conditions.

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

7.4 Protection of Work and Property.

(A) ***General.*** Contractor is responsible at all times for protecting the Work and materials and equipment to be incorporated into the Work from damage until the Notice of Completion has been recorded. Except as specifically authorized by City, Contractor must confine its operations to the area of the Project site indicated in the Drawings. Contractor is liable for any damage caused to City's real or personal property, the real or personal property of adjacent property owners, or the work or personal property of other contractors working for City.

(B) ***Unforeseen Conditions.*** If Contractor encounters facilities, utilities, or other unknown conditions not shown on or reasonably inferable from the Drawings or apparent from inspection of the Project site, Contractor must promptly notify Project Manager, and must avoid taking any action which could cause damage to the facilities or utilities pending further direction from Project Manager. If Project Manager'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.

(C) ***Support; Adjacent Properties.*** Contractor must provide, install, and maintain all shoring, bracing, underpinning, etc., 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 law.

7.5 Noninterference. Contractor must take reasonable measures to 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.

7.6 Materials and Equipment.

(A) ***General.*** Unless otherwise specified, all materials and equipment required for the Work must be new and of the best grade for the intended purpose, and furnished in sufficient quantities to ensure the proper and expeditious performance of the Work. 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 recommendation. Contractor is responsible for all shipping, handling, and storage costs associated with the materials and equipment required for the Work, and is responsible for protecting the Work and all of the required materials, supplies, tools and equipment at Contractor's sole cost until City accepts the Project.

(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 of such items in accordance with the Contract Documents. Contractor must promptly notify City of any defects discovered in City-provided materials or equipment. 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 required for use of patented or copyright protected materials, equipment, devices or processes that are incorporated into the Work. Contractor's indemnity obligation in Article 4, applies to any claimed violation of intellectual property rights in violation of this provision.

7.7 Substitutions.

(A) ***"Or Equal."*** Any specification designating a material, product, 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 Contractor may request use of any equal material, product, thing, or service.

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

(C) ***Substantiation.*** All data substantiating the proposed substitute as an "equal" item must be submitted with the written request for substitution. Contractor's failure to timely provide necessary substantiation is ground 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. 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 associated with the substituted item(s). If the proposed substitution is rejected, Contractor must, without delay, install the item specified.

(F) ***Contractor's Obligations.*** City's review 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 by Inspector at all times and locations during construction and/or fabrication. All manufacturers' application or installation instructions must be provided to the Inspector at least ten (10) days prior to the first such application or installation. Contractor must, at all times, make the Work available for inspection.

(B) ***Scheduling and Notification.*** Contractor must schedule all tests required by the Contract Documents in time to avoid any delay to the progress of the Work. Contractor must provide timely notice to all necessary parties as specified in the Contract Documents.

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

(1) Contractor will be responsible for the costs of any subsequent tests which are required to substantiate compliance with the Contract Documents, and any associated remediation costs.

(2) Contractor will be responsible for inspection costs, at City's established rates, for inspection time lost because the Work is not ready or Contractor fails to appear for a scheduled inspection.

(3) In addition, if any portion of the Work which is subject to testing is covered or concealed by Contractor prior to testing, Contractor will bear the cost of making that portion of the Work available for

the testing required by the Contract Documents, and any associated repair or remediation costs.

(D) ***Contractor's Obligations.*** Any Work that fails to comply with the requirements of the Contract Documents must be promptly repaired, replaced, or corrected by Contractor, at Contractor's sole expense, even if that Work was previously inspected or included in a progress payment. Contractor is solely responsible for any delay occasioned by remediation of noncompliant Work. Inspection of the Work does not in any way relieve Contractor of its obligations to perform the Work as specified.

(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 apply to final inspection under Article 11, Completion and Warranty Provisions.

7.9 Clean up. Contractor must regularly remove debris and waste materials and maintain the Worksite in clean and neat condition.

(A) ***General.*** Prior to discontinuing work in an area, Contractor must clean the area and remove all rubbish along with its construction equipment, tools, machinery, waste and surplus materials. Contractor must, at all times, minimize and confine dust and debris resulting from construction activities.

(B) ***Completion.*** At the completion of the Work, Contractor must remove from the Worksite all of its equipment, tools, surplus materials, waste materials and debris. Before demobilizing from the Worksite, 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.

(C) ***Non-Compliance.*** If Contractor fails to commence compliance with its cleanup obligations within two (2) business days following written notification from City or its representative, City may undertake appropriate cleanup measures without further notice and the cost will be deducted from any amounts due or to become due Contractor.

7.10 Instructions and Manuals. Contractor must provide three (3) copies each of all instructions and manuals required by the Contract Documents, unless otherwise specified. These must be complete as to drawings, details, parts lists, performance data, and other information that may be

required for City to easily maintain and service the materials and equipment installed for this Project.

(A) ***Submittal Requirements.*** All manufacturers' application or installation instructions must be provided to the Inspector at least ten (10) days prior to the first such application. The instructions and manuals, along with any required guarantees, must be delivered to City for review.

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

7.11 As-built Drawings. Contractor and its Subcontractors must maintain on the Worksite a separate complete set of the Drawings which will be used solely for the purpose of recording changes made in any portion of the Work 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. Progress payments may be delayed, in whole or in part, 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, etc., installed underground, in walls, floors, or otherwise concealed. Deviations from the original Drawings must be shown in detail. The location of all main runs, whether piping, conduit, ductwork, drain lines, etc., must be shown by dimension and elevation.

(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 City for review and approval as a condition precedent to Final Completion.

7.12 Existing Utilities. As required by Government Code Section 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 such utility facilities not indicated in the Drawings 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 such delay was caused by City's failure to provide for removal or relocation of the utility facilities.

7.13 Notice of Excavation. Government Code Section 4216.2, requires that except in an emergency, Contractor must contact the appropriate regional notification center, or Underground Services Alert at 800-642-2444 (for Northern California), at least two (2) working days, but not more than fourteen (14) calendar days before starting any excavation if the excavation will be conducted in an area that is known, or reasonably should be known, to contain subsurface installations, and if practical, Contractor must delineate with white paint or other suitable markings the area to be excavated. The Contractor is responsible to keep these markings up to date and visible at all times during the work.

7.14 Trenching and Excavations.

(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 Section 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 law;

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

(3) Unknown physical conditions at the Worksite 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 do materially differ or do 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 (A) above, Contractor will not be excused from any scheduled completion date provided for in the Contract Documents, 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 law which pertain to the resolution of disputes between Contractor and City.

7.15 Trenching of Five Feet or More. As required by Labor Code Section 6705, if the Contract Price exceeds Twenty Five Thousand Dollars ($25,000.00) and the Work includes the excavation of any trench or trenches of five (5) feet or more in depth, a detailed plan must be submitted to City or its civil or structural engineer, for acceptance in advance of the excavation. The detailed plan must show the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation. If the plan varies from the shoring system standards, it must be prepared by a 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. 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.

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 Project Manager, upon discovery of any potential historic or archeological items, including historic or prehistoric ruins, burial grounds, 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 eighty five (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, any such assistance to be compensated as extra work on a time and materials basis under Article 6, Contract Modification. Any suspension of Work required due to discovery

of Historic or Archeological Items will be treated 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 and its Subcontractors must at all times in the performance of the Work comply with all applicable federal, state, and local laws and regulations 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 the same 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 must comply with all other applicable state, municipal or regional laws, ordinances, rules or regulations governing discharge of stormwater, including applicable municipal stormwater management programs.

Article 8
Payment

8.1 Schedule of Values. Prior to submitting its first application for payment, Contractor must prepare and submit to Project Manager a schedule of values apportioned to the various divisions and phases of the Work. 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.

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 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 Worksite, as well as authorized and approved Change Orders. Each pay application must be supported by Contractor's schedule of values and any other substantiating data required by the Contract Documents.
Each application for payment shall be accompanied by completed "Contract Balance Form," a copy of which is provided at the end of Article 8.

(B) ***Payment of Undisputed Amounts.*** City will pay the undisputed amount due, as certified the Design Professional, within thirty (30) days after Contractor has submitted a complete and accurate payment application, subject to Public Contract Code Section 20104.50. City will deduct a percentage from each progress payment as retention, as set forth in Section 8.5, below, and may deduct additional amounts as set forth in Section 8.3, below.

8.3 Adjustment of Payment Application. City may adjust or reject a payment application, including application for Final Payment, in whole or in part, based upon any of the circumstances listed below. Contractor will be notified in writing of the basis for the adjustment, and will be promptly paid once the basis for that adjustment has been remedied and no longer exists.

(A) Contractor's unexcused failure to perform the Work as required by the Contract Documents, including correction or completion of punch list items;

(B) Loss or damage caused by Contractor or its Subcontractor(s) arising out of or relating to performance of the Work;

(C) Contractor's failure to pay its Subcontractors and suppliers when payment is due;

(D) Failure to timely correct rejected, nonconforming, or defective Work;

(E) Unexcused delay in performance of the Work;

(F) Any unreleased stop notice, retained as one hundred twenty five percent (125%) of the amount claimed;

(G) Failure to submit any required schedule or schedule update in the manner and within the time specified in the Contract Documents:

(H) Failure to maintain or submit as-built documents in the manner and within the time specified in the Contract Documents;

(I) Work performed without approved Shop Drawings, when approved Shop Drawings are required before proceeding with the Work;

(J) Contractor's payroll records are delinquent or inadequate; and

(K) Any other costs or charges that may be offset against payments due, as provided in the Contract Documents, including liquidated damages.

8.4 Acceptance of Work. 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 (5%) of the amount due on each progress payment, or the percentage stated in the Notice Inviting Bids, whichever is greater, as retention to ensure full and satisfactory performance of the Work.

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

(B) ***Release of Undisputed Retention.*** All undisputed retention, less any amounts that may be assessed as liquidated damages, retained for stop notices, or otherwise withheld under Section 8.3 or 8.6 will be

released as Final Payment to Contractor no sooner than thirty five (35) days following recordation of the notice of completion, and no later than sixty (60) days following acceptance of the Project by City's governing body or authorized designee, or, if the Project has not been accepted, no later than sixty (60) days after the Project is otherwise considered complete under Public Contract Code Section 7107(c).

8.6 Setoff. City is entitled to set off any amounts due from Contractor against any payments due to Contractor. City's entitlement to setoff includes progress payments as well as Final Payment and release of retention.

8.7 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 Worksite by the Subcontractor or supplier during the preceding month. Such payments must be made in accordance with the requirements of the law, and those of the Contract Documents and applicable subcontract or supplier contract.

(A) ***Withholding for Stop Notice.*** City will withhold one hundred twenty five percent (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 to issue joint checks made payable to Contractor and its Subcontractors or suppliers. 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 City. 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.

8.8 Final Payment. Final Completion, acceptance of the Work by City, and recordation of the Notice of Completion, and any release required by the Contract Documents are conditions precedent to Final Payment and release of undisputed retention, as set forth above. 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. The date of Final Payment is deemed to be effective on the date that City acts to release retention as final payment to Contractor, or otherwise provides written notice to Contractor of Final Payment. 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.

8.9 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 release of all claims against City arising from or related to the portion of Work covered by those undisputed amounts. Any disputed amounts may be specifically excluded from the release.

8.10 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.

CONTRACT BALANCE FORM

East Main Avenue Bike Lanes and Sidewalk Project

Note: A detailed invoice MUST be attached to this Contract Balance Form.

CONTRACTOR NAME: _____ DATE: _____

MAILING ADDRESS: _____ TELEPHONE NO.: _____

_____ FAX NO.: _____

_____ PROJECT NO.: _____

INVOICE NO.: _____

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1. ORIGINAL CONTRACT AMOUNT: $_____

2. APPROVED CHANGE ORDERS TOTAL: $_____

3. REVISED CONTRACT AMOUNT: (1+2) $_____

4. PREVIOUS BALANCE PAID: $_____

5. REMAINING BALANCE: (3-4) $_____

6. CURRENT PROGRESS PAYMENT DUE: $_____
   (before retention)

7. 5% RETENTION FROM WORK DONE: (-)$_____

8. CURRENT BALANCE DUE: (6-7) $_____

9. REMAINING BALANCE OF REVISED CONTRACT AMOUNT: (5-8) $_____
   (including retention)

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 Federal and California laws including the California Fair Employment and Housing Act (Government Code Sections 12900 et seq.), Government Code Section 11135, and Labor Code Sections 1735, 1777.5, 1777.6, and 3077.5.

9.2 Labor Code Requirements.

(A) ***Eight Hour Day.*** Under Labor Code Section 1810, eight (8) hours of labor constitute a legal day's work under this Contract.

(B) ***Penalty.*** Under Labor Code Section 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 (8) hours in any one (1) calendar day or more than forty (40) hours per calendar week, except if such workers are paid overtime under Labor Code Section 1815.

(C) ***Apprentices.*** Contractor is responsible for compliance with the requirements governing employment and payment of apprentices, as set forth in Labor Code Section 1777.5, which is fully incorporated by reference.

(D) ***Notices.*** Under Labor Code Section 1771.4, Contractor is required to post all job site notices prescribed by law or regulation.

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

(A) ***Penalties.*** Under Labor Code Section 1775, Contractor and any Subcontractor will forfeit to City as a penalty up to Two Hundred Dollars ($200.00) for each calendar day, or portion a day, 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 current applicable prevailing wage rates under federal law, available online at http://www.access.gpo.gov/davisbacon/ca.html.

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

(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.

(2) Contractor or Subcontractor has complied with the requirements of Labor Code Sections 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, or to the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations, and as further provided by the Labor Code.

(C) ***Enforcement.*** Upon notice of noncompliance with Labor Code Section 1776, Contractor or Subcontractor has ten (10) days in which to comply with requirements of this section. If Contractor or Subcontractor fails to do so within the ten (10) day period, Contractor or Subcontractor will forfeit a penalty of One Hundred Dollars ($100.00) per day, or portion a day, 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 progress payments then due.

9.5 Labor Compliance. Under Labor Code section 1771.4, the Contract for this Project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

9.6 Wage Theft Prevention. Compliance with Wage and Hour Laws: Contractor, and any subcontractor it employs to complete work under this Agreement, shall comply with all applicable federal, state and local wage and hour laws. Applicable laws may include, but are not limited to, the Federal Fair Labor Standards Act and the California Labor Code.

Final Judgments, Decisions, and Orders: For purposes of this Section, a "final judgment, decision, or order" refers to one for which all appeals have been exhausted or the time to appeal has expired. Relevant investigatory government agencies include: the federal Department of Labor, the California Division of Labor Standards Enforcement, or any other governmental entity or division tasked with the investigation and enforcement of wage and hour laws.

Prior Judgments against Contractor and/or its Subcontractors: BY SIGNING THIS AGREEMENT, CONTRACTOR AFFIRMS THAT IT HAS DISCLOSED ANY FINAL JUDGMENTS, DECISIONS OR ORDERS FROM A COURT OR INVESTIGATORY GOVERNMENT AGENCY FINDING – IN THE FIVE (5) YEARS PRIOR TO EXECUTING THIS AGREEMENT – THAT CONTRACTOR OR ITS SUBCONTRACTOR(S) HAS VIOLATED ANY APPLICABLE WAGE AND HOUR LAWS. CONTRACTOR FURTHER AFFIRMS THAT IT OR ITS SUBCONTRACTOR(S) HAS SATISFIED AND COMPLIED WITH – OR HAS REACHED AGREEMENT WITH THE CITY REGARDING THE MANNER IN WHICH IT WILL SATISFY – ANY SUCH JUDGMENTS, DECISIONS OR ORDERS.

Judgments or Decisions During Term of Contract: If at any time during the term of this Agreement, a court or investigatory government agency issues a final judgment, decision or order finding that Contractor or an subcontractor it employs to perform work under this Agreement has violated any applicable wage and hour law, or Contractor learns of such a judgment, decision, or order that was not previously disclosed, Contractor shall inform the City Attorney, no more than fifteen (15) days after the judgment, decision or order becomes final or of learning of the final judgment, decision or order. Contractor and its subcontractors shall promptly satisfy and comply with any such judgment, decision, or order, and shall provide the City Attorney with documentary evidence of compliance with the final judgment, decision or order within five (5) days of satisfying the final judgment, decision or order. The City reserves the right to require Contractor to enter into an agreement with the City regarding the manner in which any such final judgment, decision, or order will be satisfied.

City's Right to Withhold Payment: Where Contractor or any subcontractor it employs to perform work under this Agreement has been found in violation of any

applicable wage and hour law by a final judgment, decision or order of a court or government agency, the City reserves the right to withhold payment to Contractor until such judgment, decision or order has been satisfied in full.

Material Breach: Failure to comply with any part of this Section constitutes a material breach of this Agreement. Such breach may serve as a basis for immediate termination of this Agreement and/or any other remedies available under this Agreement and/or law.

Notice to City Related to Wage Theft Prevention: Notice provided to the City Attorney as required under this Section shall be addressed to: City Attorney, City of Morgan Hill, 17575 Peak Avenue, Morgan Hill, CA 95037. The Notice provisions of this Section are separate from any other notice provisions in this Agreement and, accordingly, only notice provided to the above address satisfies the notice requirements in this Section.

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 comply with all applicable safety laws, rules and regulations and seek to avoid injury, loss, or damage to persons or property by taking reasonable steps to protect its employees and other persons at the Worksite, materials and equipment stored on or off site, and property at or adjacent to the Worksite.

(A) ***Reporting Requirements.*** Contractor must immediately provide a written report to City of all recordable accidents and injuries occurring at the Worksite. 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 law or regulation.

(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 Worksite 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, this Contract does not include the removal, handling, or disturbance of any asbestos or other Hazardous Materials. If Contractor encounters materials on the Worksite 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 must maintain Material Safety Data Sheets ("MSDS") at the Worksite, as required by law, for materials or substances used or consumed in the performance of the Work. The MSDS 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 Worksite and/or used in the performance of the Work.

(B) ***Labeling.*** Contractor must ensure proper labeling on any material brought onto the Worksite 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.

Article 11
Completion and Warranty Provisions

11.1 Final Completion.

(A) ***Final Inspection.*** When the Work required by this Contract is fully performed, Contractor must provide written notification to Project Manager requesting final inspection. Based on this inspection, the Design Professional will prepare a punch list of items that are incomplete, incorrectly installed, or not operating as required by the Contract Documents. The omission of any such item from this punch list will not

relieve Contractor from fulfilling all requirements of the Contract Documents.

(B) ***Punch List.*** City will promptly deliver the punch list to Contractor and 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.

(C) ***Requirements for Final Completion.*** Final Completion will be achieved upon completion or correction of all punch list items, as verified by 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 as-built drawings as required under Section 7.11, all to City's satisfaction. Once Final Completion is achieved, and the Project has been formally accepted by City, City will file a notice of completion with the County Recorder.

(D) ***Final Payment.*** Final Payment and release of retention, less any sums withheld pursuant to the provisions of the Contract Documents, will not be made sooner than thirty five (35) days after recordation of the notice of completion. If Contractor fails to complete all of the punch list items within the specified time, City may elect to accept the Project and record the notice of completion, and withhold up to one hundred fifty percent (150%) of City's estimated cost to complete the remaining items from Final Payment.

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. 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 (1) year from the date of recordation of the notice of completion (the "Warranty Period"), except when a longer guarantee is provided by a supplier or manufacturer or is required by the Specifications or Special Conditions. Contractor must obtain from its Subcontractors,

suppliers and manufacturers any special or extended warranties required by the Contract Documents.

(C) ***Warranty Documents.*** As a condition precedent to acceptance, 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 expressly agrees to act as 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.

(F) ***City's Remedies.*** If Contractor and/or its responsible Subcontractor fails to correct defective Work within ten (10) days following notice by City, or sooner, if required by the circumstances, Contractor expressly agrees that City may correct the defects to conform with Contract Documents at Contractor's sole expense, and Contractor agrees to reimburse City for its costs within thirty (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 is 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 incurred by City 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. City will notify Contractor in writing of its intent to occupy or make use of the Project or any portions of the Project, pursuant to this provision.

(A) ***Non-Waiver.*** Occupation or use 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 perform the Work.

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 recordation of the Notice of Completion, except for warranty work performed under this Article.

Article 12
Dispute Resolution

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

(A) ***Definition.*** "Claim" means a separate demand by Contractor, submitted in writing, for 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.

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

(C) ***Scope of Article.*** This Article is intended to provide the exclusive procedures for submission and resolution of Claims of any amount, and applies in addition to the provisions of Public Contract Code Section 9204 and Sections 20104 et seq.

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

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

(A) ***Substantiation.*** The Claim must be submitted to City in writing, clearly identified as a "Claim" submitted pursuant to this Article 12, and must include all of the documents necessary to substantiate the Claim including the Change Order request that was rejected in whole or in part, and copy of the 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 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 claimed cost. Any Claim for an extension of time or delay costs must be substantiated with schedule analysis and narrative depicting and explaining claimed time impacts.

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

(1) General introduction, specifically identifying the submission as a "Claim" submitted under this Article 12.

(2) Relevant background information, including identification of the specific demand at issue, and the date of City's rejection of that demand.

(3) Detailed explanation of the issue(s) in dispute. For multiple issues, separately number and identify each issue and include the following for each separate issue:

(a) The background of the issue, including references to relevant provisions of the Contract Documents;

(b) A succinct statement of the matter in dispute, including Contractor's position and the basis for that position;

(c) A chronology of relevant events;

(d) The identification and attachment of all supporting documents (see subsection (A), above, on Substantiation); and

(e) Use of a separate page for each issue.

(4) Summary of issues and damages.

(5) 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 are true and correct. Contractor warrants that this Claim is comprehensive and complete as to the matters in dispute, and agrees that any costs, expenses, or delay claim not included herein are deemed waived. Contractor understands that submission of a Claim which has no basis in fact or which Contractor knows to be false may violate the False Claims Act (Government Code Section 12650 et seq.)."

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

(1) A Claim must be submitted within fifteen (15) days following the date that City notified Contractor in writing that a request for a change in the Contract Time or Contract Price, duly submitted in compliance with Article 5 and Article 6, has been rejected in whole or in part.

(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 fifteen (15) days of the effective date of Final Payment, under Section 8.8, above.

(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 forty five (45) days of receipt of the Claim with a written statement identifying which portion(s) of the Claim are disputed, unless the forty five (45)-day period is extended by mutual

agreement of City and Contractor. However, the City may first request, in writing, within thirty (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 Contractor. If Contractor fails to submit the additional documentation to City within fifteen (15) days of receipt of City's request, the Claim will be deemed waived.

(A) ***Additional Information.*** If additional information is thereafter required, it may be requested and provided upon mutual agreement of City and Contractor.

(B) ***City's Response.*** City's written response to the Claim, as further documented, will be submitted to Contractor within fifteen (15) days after receipt of the further documentation or within a period of time no greater than that taken by Contractor in producing the additional information, whichever is greater.

(C) ***Non-Waiver.*** Any failure by City to respond within the times specified above may 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, Contractor must notify City in writing, either within fifteen (15) days of receipt of City's response, or within fifteen (15) days of City's failure to respond within the specified time, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. If Contractor fails to dispute City's response, in writing, within the specified times, 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 thirty (30) days, or later if needed to ensure the mutual availability of all 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 (10) 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 (10) working

days after the City issues the written statement identifying any portion(s) of the Claim remaining in dispute, the disputed portion(s) will be submitted for mediation as set forth below.

12.5 Mediation and Government Code Claims.

(A) ***Mediation.*** Mediation under this Article will be scheduled within sixty (60) days following conclusion of the meet and confer process, with a mediator that the parties mutually agreed upon. The mediation itself may take place more than sixty (60) days following conclusion of the meet and confer process to ensure the mutual availability of the selected mediator and all of the individuals that each party requires to represent its interests. The parties must share the costs of mediation equally, except costs incurred by each party for representation by legal counsel or any other consultant.

(B) ***Government Code Claims***.

(1) Timely presentment of a Government Code Claim is a condition precedent to filing any legal action based on or arising from the Contract.

(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 as a result of the meet and confer process, including any period of time used by the meet and confer process. If the parties agree to mediation, the time for filing a Government Code Claim will be tolled until conclusion of the mediation if the Claim is not fully resolved by mutual agreement of the parties during the mediation or any continuation of the mediation.

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

12.7 Arbitration. It is expressly agreed, under California Code of Civil Procedure Section 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 Damages. 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 recovery of any alleged home office overhead. The Eichleay Formula or similar formula may not be used for any recovery

under the Contract. Contractor is not entitled to consequential damages, including home office overhead or any form of overhead not directly incurred at the 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.

12.9 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, 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, City may immediately order the Work, or any portion of it, suspended until the cause for the suspension has been eliminated to City's satisfaction.

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

(B) ***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, and not due to any act or omission by Contractor or its Subcontractors. Upon notice by City pursuant to this provision, Contractor must immediately suspend, delay, or interrupt the Work as directed by City. The Contract Price and the Contract Time will be equitably adjusted by Change Order to reflect the cost and delay impact occasioned by such suspension for convenience.

13.3 Termination for Default. Contractor may be deemed in default for a material breach of or inability to perform the Contract, including Contractor's refusal or failure to supply sufficient skilled workers, proper materials, or equipment to perform the Work within the Contract Time;

refusal or failure to make prompt payment to its employees, Subcontractors, or suppliers or to correct rejected work; disregard of laws, regulations, ordinances, rules, or orders of any public agency with jurisdiction over the Project; or if Contractor lacks financial capacity to complete the Work within the Contract Time; or is otherwise responsible for a material breach of the Contract requirements.

(A) ***Notice.*** Upon City's determination that Contractor is in default, City may provide Contractor and its surety written notice of default and intent to terminate the Contract.

(B) ***Termination.*** Within seven (7) calendar days after notice of intent to terminate for default has been given, unless the default is cured or arrangements to cure the default have been made and memorialized in writing, to City's satisfaction, City may terminate the Contract by written notice to Contractor with a copy to Contractor's surety.

(C) ***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 (7) calendar days from the date of the notice of termination, Contractor's surety will be deemed to have waived its right to complete the Work under the Contract, and 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. In addition, City will have the right to use any materials, supplies, and equipment belonging to Contractor and located at the Worksite for the purposes of completing the remaining Work.

(D) ***Wrongful Termination.*** 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, in Section 13.4, below. Contractor waives any claim for any other damages for wrongful termination including consequential damages, lost opportunity costs or lost profits.

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. Upon receipt of such notice, Contractor must immediately stop the Work, comply with City's instructions to protect the completed Work and materials, and use its best efforts to minimize further costs. In the event of termination for convenience, the parties agree that

the following will constitute full and fair compensation to Contractor, and that Contractor will not be entitled to any additional compensation:

(A) ***Completed Work.*** The value of its Work satisfactorily performed to date, including Project overhead and profit based on Contractor's schedule of values;

(B) ***Demobilization.*** Actual and substantiated demobilization costs; and

(C) ***Markup.*** Five percent (5%) of the total value of the Work performed as of the date of notice of termination or five percent (5%) of the value of the Work yet to be completed, whichever is less.

13.5 Provisions Remaining in Effect. Upon termination pursuant to this Article, the provisions of the Contract Documents remain in effect as to any claim, indemnity obligation, warranties, guarantees, submittals of as-built drawings, instructions, or manuals, 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 Section 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. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 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 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 amended accordingly.

14.3 Waiver. No 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 be effective unless it is in writing and signed by the party waiving the breach, failure, right, or remedy. No waiver of any breach,

failure, right, or remedy will 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 the waiving party.

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 that bids were due.

END OF GENERAL CONDITIONS

SPECIAL CONDITIONS

1.0 **Shop Drawings.** Whenever Shop Drawings are required by the Contract Documents or by the Engineer, Contractor must submit five (5) prints of each shop drawing to the Engineer.

(A) If three (3) prints of the drawing are returned to Contractor marked "NO EXCEPTIONS TAKEN," further revision of the drawings will not be required. If one (1) print of the drawing is returned to Contractor marked "REVISE AND RESUBMIT," Contractor must revise the drawing and resubmit five (5) copies of the revised drawing to the Engineer. City reserves the right to withhold payment due Contractor to cover additional costs of the Engineer's review beyond the second submission.

(B) Fabrication of an item may not commence before the Engineer has reviewed the pertinent shop drawings and returned copies to Contractor marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED."

(C) Revisions indicated on shop drawings are deemed necessary to meet the existing requirements of the Contract Documents and may not be taken as the basis of claims for extra Work. Contractor is not entitled to claim for damages or extension of time due to any delay resulting from making the required revisions to shop drawings. The Engineer's review of the shop drawings does not relieve Contractor of responsibility for any errors or omissions contained in the shop drawings nor will such review operate to waive or modify any provision contained in the Contract Documents.

2.0 ***Waste Water.*** City will provide water required for performance of the Work. Contractor is responsible for the appropriate disposal of waste water in coordination with City personnel. Contractor must provide a backflow preventer on all point of connections to City's Water System. All backflow preventers must be checked and approved by City's Public Works Water Division. Contractor must provide a deposit (refundable) and make necessary arrangements to pick up a hydrant meter at City's Public Works Office. At the completion of the Project, if the hydrant meter is not returned promptly or if it is damaged, Contractor shall forfeit its deposit.

3.0 ***Equipment.*** Contractor must provide and use equipment and plants suitable to produce the quality of Work and materials required by the Contract Documents. Contractor may be required to remove equipment which the Engineer deems unsuitable for the Work. Contractor must ensure that equipment is operated by trained, experienced operators, and at a speed or rate of production not to exceed that recommended by the

manufacturer. Any vehicles used to haul materials over existing streets and highways must be equipped with pneumatic tires.

4.0 **Daily Site Clean-Up**
Contractor shall clean/sweep the roadway surface daily or/as needed or as directed by the City engineer/inspector to keep the travel-way safe for vehicles, bicyclists and pedestrians throughout the duration of the project.

5.0 **Construction Staking.** City/Consultant shall perform construction staking for this project. Contractor shall submit staking requests (on City form) 48 hours in advance. If Contractor damages the stakes or markings, replacement costs will be born by the Contractor.

6.0 **Disposal of Materials Outside of Street Right-of-Way.** Unless otherwise specified in the Specifications or Special Conditions, Contractor is solely responsible for disposing of materials outside the street right-of-way and for all associated costs. Before disposing materials outside the street right-of-way, Contractor must 1) obtain a written release from the property owner releasing City from any and all responsibility in connection with the disposal of material on that property; and 2) obtain permission from the Engineer to dispose of the material at the permitted location.

7.0 **Emergency Contact.** Prior to the commencement of Work on the Project, Contractor must provide contact information to the Engineer for the person designated by Contractor to respond to any emergency that arises on the Worksite during the course of the Project. That person will be responsible for responding to the Worksite within thirty (30) minutes following notification of an emergency by City's Police or Fire Department, regardless of the time of day.

8.0 **Right-of-Way.** City will provide the right-of-way for performance of the Work. Contractor is solely responsible for any additional area required outside of the designated the right-of-way, unless otherwise provided in the Contract Documents.

(A) ***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 and its subcontractors shall at all times in the performance of the Work comply with all applicable federal, state, and local laws and regulations concerning pollution of waterways.

9.0 **Authorized Work Days and Hours.**

(A) ***Authorized Work Days.*** Except as expressly authorized in writing by City, Contractor is limited to performing Work on the Project on the following days of the week, excluding holidays observed by City:
Monday through Friday

(B) ***Authorized Work Hours.*** Except as expressly authorized in writing by City, Contractor is limited to performing Work on the Project during the following hours:
8am to 4pm

10.0 **Weather Delays.** 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.

(A) ***Weather Delay Day***. A Weather Delay Day is a Working Day during which Contractor and its forces, including Subcontractors, are unable to perform more than forty percent (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 Worksite clean-up required due to adverse weather. Determination of what constitutes critical path Work scheduled for that day will be based on the most current, City-approved schedule.

(B) ***Normal Weather Delay Days.*** 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	11
February	11
March	10
April	6
May	4
June	2
July	1
August	1
September	1
October	4
November	7
December	10

(C) ***Extension of Time.*** 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 set

forth in Section 5.3 above, subject to the following limitations:

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

(2) Normal Weather Delay Days which do not occur during a given month do not carry over to another month.

(3) 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.

END OF SPECIAL CONDITIONS

PART D - TECHNICAL PROVISIONS

D1 GENERAL REQUIREMENTS

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27.00	“Green” Bike Lane Striping
28.00	Street Trees
29.00	Supplemental

1.00 Scope of Work

Scope of the work for this project includes the following improvements, but not limited to:

a) Street widening along the northerly frontage of APN 726-21-003 and 726-21-006 for an approximate length of 325 feet. This work shall include, but not limited to city standard curb, gutter, sidewalk, roadway construction, aggregate baserock, asphalt, compaction, demolition and tree removal, new street trees, and driveway aprons. There is some minor conform grading and paving of onsite driveway/yard, plantings, irrigation, two new domestic water services, mailbox relocations, and new driveway aprons. A new storm drain system, two new street lights and one street light relocation, are also proposed on this frontage.

b) Demolition of existing curb returns at the intersection of Grand Prix Way and East main Avenue and reconstruction of street corners with bulb-outs. This work shall encompass necessary conforms to existing curb, gutter, sidewalk and asphalt pavement. Two new catch basins and a manhole are also proposed to capture drainage around the bulb-outs. The intersection (East Main and Grand Prix) also requires four ADA ramps and new crosswalk striping.

c) Installation of Rectangular Rapid Flashing Beacon assemblies (2) at the intersection of East Main and Grand Prix.

d) Buffered bike lane improvements between Butterfield Boulevard to the west and Condit Road to the east. This improvement will require shifting of existing lane striping, modification of existing striping, pavement markers, green bike lane symbols and other related traffic delineations as shown on the Plans. Removal of existing striping and traffic delineations shall follow specification included in this document. Prior to restriping of the street, the entire traveled way including shoulders shall be prepared and slurry sealed to conform to the specifications in this document, excluding all areas overlayed with new asphalt concrete.

e) Cold In-place Recycled asphalt concrete (CIR) with a 2 inch asphalt overlay at the US101 overpass ramps.

2.00 Mobilization

a. Description: Mobilization shall consist of preparatory work and operations, including but not limited to, that necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, and for all other work and operations which must be performed or for costs incurred prior to beginning work and in the course of work on various contract items at the project site. Mobilization shall be in accordance with Section 11 "Mobilization" of the Standard Specifications of the State of California, Department of Transportation (CSS).

b. Measurement and Payment: Mobilization shall be measured on a lump sum basis. The contract lump sum price paid for "Mobilization" shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in compliance with the CSS and these Technical Provisions including, but not limited to, all mobilization, remobilization, demobilization, moving to new locations, and replacing and disposing of material, as specified in the CSS and these Technical Provisions, and as directed by the Engineer. The contract lump sum price paid for "Mobilization" shall not exceed 5% of the total of all other bid items and shall be listed in the Bid Schedule under **Bid Item 1** in the bid schedule.

3.00 Water Pollution Control

a. Description: Water pollution control work shall conform to the provisions in Section 7-1.01G, "Water Pollution," of the CSS and these Technical Provisions. **Contractor shall prepare and provide to the City a Storm Water Pollution Prevention Plan (SWPPP) for review and approval prior to construction activities.**

Water pollution control work shall conform to the requirements in the "Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) Preparation Manual" and the "Construction Site Best Management Practices (BMPs) Manual," and addenda thereto issued up to, and including, the date of advertisement of the project. These manuals are hereinafter referred to respectively as the "Preparation Manual" and the "Construction Site BMPs Manual," and collectively, as the "Manuals." Copies of the Manuals may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520, and from the Department's Internet website at: http://www.dot.ca.gov/hq/construc/stormwater.html.

The Contractor shall know and fully comply with applicable provisions of the Manuals, and Federal, State, and local regulations and requirements that govern the Contractor's operations and storm water and non-storm water discharges from both the project site and areas of disturbance outside the project limits during construction. Attention is directed to Sections 7-1.01, "Laws to be Observed," and 7-1.12, "Indemnification and Insurance," of the CSS.

Water pollution control requirements shall apply to storm water and non-storm water discharges from areas outside the project site which are directly related to construction activities for this contract including, but not limited to, asphalt batch plants, material borrow areas, concrete plants, staging areas, storage yards and access roads. The Contractor shall comply with the Manuals for those areas and shall implement, inspect and maintain the required water pollution control practices.

The Contractor shall be responsible for penalties assessed or levied on the Contractor or the City as a result of the Contractor's failure to comply with the provisions in this section "Water Pollution Control" including, but not limited to, compliance with the applicable

provisions of the Manuals, and Federal, State and local regulations and requirements as set forth therein.

Penalties as used in this section shall include fines, penalties and damages, whether proposed, assessed, or levied against the City or the Contractor, including those levied under the Federal Clean Water Act and the State Porter-Cologne Water Quality Control Act, by governmental agencies or as a result of citizen suits. Penalties shall also include payments made or costs incurred in settlement for alleged violations of the Manuals, or applicable laws, regulations, or requirements. Costs incurred could include sums spent instead of penalties, in mitigation or to remediate or correct violations

b. Measurement and Payment: Full compensation for preparing the SWWPP, furnishing, installing and maintaining all water pollution control measures complete in place shall be paid as a lump sum and shall be included in Bid Schedule under **Bid Item 2** of the bid schedule and no additional compensation will be allowed therefor.

4.00 Resident Notifications

a. Description: The Contractor shall post "No Parking" signs on affected streets indicating the date of work at least three (3) calendar days prior to the actual work. The Contractor shall also notify individual residents who will be adversely affected by the work in writing via fliers or door hangers one (1) week prior to work. The Contractor shall submit for approval by the Engineer a sample of the written notification to be supplied to residents.

b. Measurement and Payment: Full compensation for "Resident Notification" shall be considered as included in the contract price paid for various items of work involved and no additional compensation will be allowed therefor.

5.00 Obstructions-Existing Facilities

a. Description: Attention is directed to Section 8-1.10, "Utility and Non-Highway Facilities," and Section 15, "Existing Highway Facilities," of the CSS and these Technical Provisions.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 2 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include, but are not limited to, the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	811

b. Measurement and Payment: Full compensation for notifications is included in the contract items of work involved in this technical section, "Obstructions," and no additional payment will be allowed therefor.

6.00 Construction Area Traffic Control Devices

a. Description: Flagging, signs, and all other traffic control devices furnished, installed, maintained, and removed when no longer required shall conform to the provisions in Section 12, "Construction Area Traffic Control Devices," of the CSS and these Technical Provisions.

Contractor shall submit a Traffic Control Plan, signed and stamped by a "Traffic Engineer" (TE) for City's approval prior to commencing with any site work as a submittal. No Exceptions or deviations will be allowed.

Category 1 traffic control devices are defined as those devices that are small and lightweight (less than 45 kg {100 pounds}), and have been in common use for many years. The devices shall be known to be crashworthy by crash testing, crash testing of similar devices, or years of demonstrable safe performance. Category 1 traffic control devices include traffic cones, plastic drums, portable delineators, and channelizers.

If requested by the Engineer, the Contractor shall provide written self-certification for crashworthiness of Category 1 traffic control devices. Self-certification shall be provided by the manufacturer or Contractor and shall include the following: date, Federal Aid number (if applicable), expenditure authorization, district, county, route and kilometer post {post mile} of project limits; company name of certifying vendor, street address, city, state and zip code; printed name, signature and title of certifying person; and an indication of which Category 1 traffic control devices will be used on the project. The Contractor may obtain a standard form for self-certification from the Engineer.

Category 2 traffic control devices are defined as those items that are small and lightweight (less than 45 kg {100 pounds}), and that are not expected to produce significant vehicular velocity change, but may otherwise be potentially hazardous. Category 2 traffic control devices include: barricades and portable sign supports.

Category 2 devices purchased on or after October 1, 2000 shall be on the Federal Highway Administration (FHWA) Acceptable Crashworthy Category 2 Hardware for Work Zones list. This list is maintained by FHWA and can be located at the following internet address:
http://safety.fhwa.dot.gov/fourthlevel/hardware/listing.cfm?code=workzone.

The Department maintains a secondary list at the following internet address:
http://www.dot.ca.gov/hq/traffops/signtech/signdel/pdf.htm.

Category 2 devices that have not received FHWA acceptance, and were purchased before October 1, 2000, shall not be used on the project. Category 2 devices in use that have received FHWA acceptance shall be labeled with the FHWA acceptance letter number and the name of the manufacturer by the start of the project. The label shall be readable. All Category 2 devices without a label shall not be used on the project.

If requested by the Engineer, the Contractor shall provide a written list of Category 2 devices to be used on the project at least 5 days prior to beginning any work using the

devices. For each type of device, the list shall indicate the FHWA acceptance letter number and the name of the manufacturer.

b. Measurement and Payment: The contract lump sum price paid for "Construction Area Traffic Control Devices" shall be included in the Bid Schedule under **Bid item 3,** for full compensation for construction area traffic control devices and Traffic Control Plan (TCP) shall be considered as included in the contract price paid for various items of work involved and no additional compensation will be allowed therefor.

7.00 Traffic Control Systems

a. Description: A traffic control system shall consist of closing traffic lanes in conformance the provisions in Section 12, "Construction Area Traffic Control Devices," of the CSS, the provisions under "Traffic Control Systems" and "Construction Area Signs" of these Technical Provisions. Attention is also directed to Sections 7-1.08, "Public Convenience," and 7-1.09, "Public Safety," of the CSS.
Contractor shall submit a Traffic Control Plan, signed and stamped by a "Traffic Engineer" (TE) for City's approval prior to commencing with any site work as a submittal. No Exceptions or deviations will be allowed.

The Contractor shall notify local authorities of the Contractor's intent to begin work at least five (5) days before work is begun. The Contractor shall cooperate with local authorities relative to handling traffic through the area and shall make all arrangements relative to keeping the working area clear of parked vehicles.

Whenever vehicles or equipment are parked on the shoulder within 6' (1.8 m) of a traffic lane, the shoulder area shall be closed with fluorescent traffic cones or portable delineators placed on a taper in advance of the parked vehicles or equipment and along the edge of the pavement at 25' (7.5 m) intervals to a point not less than 25' (7.5 m) past the last vehicle or piece of equipment. A minimum of 9 cones or portable delineators shall be used for the taper. A C23 (Road Work Ahead) or C24 (Shoulder Work Ahead) sign shall be mounted on a portable sign stand with flags. The sign shall be placed where directed by the Engineer.

Construction operations requiring the closure of one or more lanes on East Main Avenue shall be limited to the hours between 9 AM to 4 PM. All other construction operations shall be limited to the hours between 7 AM to 6 PM. Contractor must maintain one lane of traffic at all times on East Main Avenue. The Contractor may close residential and low traffic volume streets only with advance approval of the Engineer. Minor deviations from the requirements of this section concerning hours of work, which do not significantly change the cost of the work, may be permitted upon the written request of the Contractor if, in the opinion of the Engineer, public traffic will be better served and the work expedited. These deviations shall not be adopted by the Contractor until the Engineer has approved them in writing. All other modifications will be made by contract change order.

Traffic Control for Lane Closures:

The provisions in this section will not relieve the Contractor of responsibility for providing additional devices or taking measures as may be necessary to comply with the provisions in Section 7−1.09, "Public Safety," of the CSS.

During traffic stripe operations and pavement marker placement operations using bituminous adhesive, traffic shall be controlled, at the option of the Contractor, with either stationary or moving lane closures. During other operations, traffic shall be controlled with stationary lane closures. Attention is directed to the provisions in Section 84−1.04, "Protection from Damage," and Section 85−1.06, "Placement," of the CSS.

If components in the traffic control system are displaced or cease to operate or function as specified from any cause during the progress of the work, the Contractor shall immediately repair the components to the original condition or replace the components and shall restore the components to the original location.

1. Stationary Lane Closure: When lane closures are made for work periods only, at the end of each work period, components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way shall be removed from the traveled way and shoulder. If the Contractor so elects, the components may be stored at selected central locations, designated by the Engineer within the limits of the City right of way.

2. Moving Lane Closure: Flashing arrow signs used in moving lane closures shall be truck-mounted. Changeable message signs used in moving lane closure operations shall conform to the provisions in Section 12-3.12, "Portable Changeable Message Signs," of the CSS, except the signs shall be truck-mounted and the full operation height of the bottom of the sign may be less than 2.1 m {7 feet} above the ground, but should be as high as practicable.

Truck-mounted attenuators (TMA) for use in moving lane closures shall be any of the following approved models, or equal:

- Hexfoam TMA Series 3000, Alpha 1000 TMA Series 1000 and Alpha 2001 TMA Series 2001, manufactured by Energy Absorption Systems, Inc., One East Wacker Drive, Chicago, IL 60601-2076, Telephone (312) 467-6750.
    - Distributor (Northern): Traffic Control Service, Inc., 8585 Thys Court, Sacramento, CA 95828, Telephone 1-800-884-8274, FAX (916) 387-9734.
    - Distributor (Southern): Traffic Control Service, Inc., 1881 Betmor Lane, Anaheim, CA 92805, and Telephone 1-800-222-8274.

- Cal T-001 Model 2 or Model 3, manufacturer and distributor: Hexcel Corporation, 11711 Dublin Boulevard, P.O. Box 2312, Dublin, CA 94568, Telephone (510) 828-4200.

- Renco Rengard Model Nos. CAM 8-815 and RAM 8-815, manufacturer and distributor: Renco Inc., 1582 Pflugerville Loop Road, P.O. Box 730, Pflugerville, TX 78660-0730, Telephone 1-800-654-8182.

Each TMA shall be individually identified with the manufacturer's name, address, TMA model number, and a specific serial number. The names and numbers shall each be a minimum 13 mm {1/2 inch} high and located on the left (street) side at the lower front corner. The TMA shall have a message next to the name and model number in 13 mm {1/2 inch} high letters which states, "The bottom of this TMA shall be 305 mm ± 153 mm {12 inches ± 6 inches} above the ground at all points for proper impact performance." Any TMA which is damaged or appears to be in poor condition shall not be used unless recertified by the manufacturer. The Engineer shall be the sole judge as to whether used TMAs supplied under this contract need recertification. Each unit shall be certified by the manufacturer to meet the requirements for TMA in conformance with the standards established by the Transportation Laboratory.

Approvals for new TMA designs proposed as equal to the above approved models shall be in conformance with the procedures (including crash testing) established by the Transportation Laboratory. For information regarding submittal of new designs for evaluation contact: Transportation Laboratory, 5900 Folsom Boulevard, Sacramento, California 95819.

New TMAs proposed as equal to approved TMAs or approved TMAs determined by the Engineer to need recertification shall not be used until approved or recertified by the Transportation Laboratory.

b. Measurement and Payment: Full compensation for "Traffic Control Systems" shall be considered as included in the contract price paid for various items of work involved and no additional compensation will be allowed therefor. Traffic Control System shall include full compensation for furnishing all labor, materials (including signs), tools, equipment, and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control system, as specified in the CSS and these Technical Provisions, and as directed by the Engineer. Flagging costs shall be fully the responsibility of the Contractor.

The adjustment provisions in Section 4-1.03, "Changes," of the CSS shall not apply to the item of traffic control system for lane closures.

8.00 Prequalified and Tested Signing and Delineation Materials

a. Description: The Department of Transportation (Caltrans) maintains the following list of Prequalified and Tested Signing and Delineation Materials. The Engineer shall not be precluded from sampling and testing products on the list of Prequalified and Tested Signing and Delineation Materials.

The manufacturer of products on the list of Prequalified and Tested Signing and Delineation Materials shall furnish the Engineer a Certificate of Compliance in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the CSS for each type of traffic product supplied.

For those categories of materials included in the list of Prequalified and Tested Signing and Delineation Materials, only those products shown within the listing may be used in the work. Other categories of products, not included in the list of Prequalified and Tested Signing and Delineation Materials, may be used in the work provided they conform to the requirements of the CSS.

Materials and products may be added to the list of Prequalified and Tested Signing and Delineation Materials if the manufacturer submits a New Product Information Form to the New Product Coordinator at the Transportation Laboratory. Upon a Departmental request for samples, sufficient samples shall be submitted to permit performance of required tests. Approval of materials or products will depend upon compliance with the specifications and tests the Department may elect to perform.

PAVEMENT MARKERS, PERMANENT TYPE

Retroreflective With Abrasion Resistant Surface (ARS)

a. Apex, Model 921AR (100 mm x 100 mm)
b. Avery Dennison (formerly Stimsonite), Models C88 (100 mm x 100 mm), 911 (100 mm x 100 mm) and 953 (70 mm x 114 mm)
c. Ray-O-Lite, Model "AA" ARS (100 mm x 100 mm)
d. 3M Series 290 (89 mm x 100 mm)

Retroreflective With Abrasion Resistant Surface (ARS)
(For recessed applications only)

a. Avery Dennison (formerly Stimsonite), Model 948 (58 mm x 119 mm)
b. Avery Dennison (formerly Stimsonite), Model 944SB (51 mm x 100 mm)*
c. Ray-O-Lite, Model 2002 (58 mm x 117 mm)
d. Ray-O-Lite, Model 2004 ARS (51 mm x 100 mm)*
e. *For use only in 114 mm wide (older) recessed slots

Non-Reflective For Use With Epoxy Adhesive, 100 mm Round

a. Apex Universal (Ceramic)

Non-Reflective For Use With Bitumen Adhesive, 100 mm Round

a. Alpine Products, "D-Dot" and "ANR" (ABS)
b. Apex Universal (Ceramic)
c. Apex Universal, Models 929 (ABS) and 929PP (Polypropylene)
d. Elgin Molded Plastics, "Empco-Lite" Model 900 (ABS)
e. Hi-Way Safety, Inc., Models P20-2000W and 2001Y (ABS)
f. Interstate Sales, "Diamond Back" (ABS) and (Polypropylene)

g. Novabrite Models Adot-w (White) Adot-y (Yellow), (ABS)
h. Road Creations, Model RCB4NR (Acrylic)
i. Zumar Industries, "Titan TM40A" (ABS)

PAVEMENT MARKERS, TEMPORARY TYPE

Temporary Markers For Long Term Day/Night Use (6 months or less)

a. Apex Universal, Model 924 (100 mm x 100 mm)
b. Elgin Molded Plastics, "Empco-Lite" Model 901 (100 mm x 100 mm)
c. Road Creations, Model R41C (100 mm x 100 mm)
d. Vega Molded Products "Temporary Road Marker" (75 mm x 100 mm)

Temporary Markers For Short Term Day/Night Use (14 days or less)
(For seal coat or Scrub seal applications, clear protective covers are required)

a. Apex Universal, Model 932
b. Bunzl Extrusion, Models T.O.M., T.R.P.M., and "HH" (High Heat)
c. Hi-Way Safety, Inc., Model 1280/1281

STRIPING AND PAVEMENT MARKING MATERIAL

Permanent Traffic Striping and Pavement Marking Tape

a. Advanced Traffic Marking, Series 300 and 400
b. Brite-Line, Series 1000
c. Brite-Line, "DeltaLine XRP"
d. Swarco Industries, "Director 35" (For transverse application only)
e. Swarco Industries, "Director 60"
f. 3M, "Stamark" Series 380 and 5730
g. 3M, "Stamark" Series 420 (For transverse application only)

Temporary (Removable) Striping and Pavement Marking Tape (6 months or less)

a. Advanced Traffic Marking, Series 200
b. Brite-Line, Series 100
c. Garlock Rubber Technologies, Series 2000
d. P.B. Laminations, Aztec, Grade 102
e. Swarco Industries, "Director-2"
f. Trelleborg Industri, R140 Series
g. 3M, Series 620 "CR", and Series A750
h. 3M, Series A145, Removable Black Line Mask
i. Advanced Traffic Marking Black "Hide-A-Line"
j. Brite-Line "BTR" Black Removable Tape

Preformed Thermoplastic (Heated in place)

a. Avery Dennison, "Hotape"
b. Flint Trading, "Premark" and "Premark 20/20 Flex"

Ceramic Surfacing Laminate, 150 mm x 150 mm

a. Safeline Industries/Highway Ceramics, Inc.

CLASS 1 DELINEATORS

One Piece Drivable Flexible Type, 1700 mm

a. Bunzl Extrusion, "Flexi-Guide Models 400 and 566"
b. Carsonite, Curve-Flex CFRM-400
c. Carsonite, Roadmarker CRM-375
d. FlexStake, Model 654 TM
e. GreenLine Models HWD1-66 and CGD1-66
f. J. Miller Industries, Model JMI-375 (with soil anchor)

Special Use Flexible Type, 1700 mm

a. Bunzl Extrusion, Model FG 560 (with 450 mm U-Channel base)
b. Carsonite, "Survivor" (with 450 mm U-Channel base)
c. Carsonite, Roadmarker CRM-375 (with 450 mm U-Channel base)
d. FlexStake, Model 604
e. GreenLine Models HWDU and CGD (with 450 mm U-Channel base)
f. Safe-Hit with 200 mm pavement anchor (SH248-GP1)
g. Safe-Hit with 380 mm soil anchor (SH248-GP2) and with 450 mm soil anchor (SH248-GP3)

Surface Mount Flexible Type, 1200 mm

a. Bent Manufacturing Company, Masterflex Model MF-180EX-48
b. Carsonite, "Super Duck II"
c. FlexStake, Surface Mount, Models 704 and 754 TM

CHANNELIZERS

Surface Mount Type, 900 mm

a. Bent Manufacturing Company, Masterflex Models MF-360-36 (Round) and MF-180-36 (Flat)
b. Bunzl Extrusion, Flex-Guide Models FG300LD and FG300UR
c. Carsonite, "Super Duck" (Flat SDF-436, Round SDR-336)
d. Carsonite, "Super Duck II" Model SDCF203601MB "The Channelizer"
e. FlexStake, Surface Mount, Models 703 and 753 TM
f. GreenLine, Model SMD-36
g. Hi-Way Safety, Inc. "Channel Guide Channelizer" Model CGC36
h. Repo, Models 300 and 400
i. Safe-Hit, Guide Post, Model SH236SMA
j. The Line Connection, "Dura-Post" Model DP36-3 (Permanent)
k. The Line Connection, "Dura-Post" Model DP36-3C (Temporary)

CONICAL DELINEATORS, 1070 mm

(For 700 mm Traffic Cones, see Standard Specifications)

a. Bent Manufacturing Company "T-Top"
b. Plastic Safety Systems "Navigator-42"
c. Radiator Specialty Company "Enforcer"
d. Roadmaker Company "Stacker"
e. TrafFix Devices "Grabber"

OBJECT MARKERS

Type "K", 450 mm

a. Carsonite, Model SMD 615
b. FlexStake, Model 701 KM
c. Repo, Models 300 and 400
d. Safe-Hit, Model SH718SMA
e. The Line Connection, Model DP21-4K

Type "K-4" / "Q" Object Markers, 600 mm

a. Bent Manufacturing "Masterflex" Model MF-360-24
b. Bunzl Extrusion, Model FG324PE
c. Carsonite, Super Duck II
d. FlexStake, Model 701KM
e. Repo, Models 300 and 400
f. Safe-Hit, Models SH8 24SMA_WA and SH8 24GP3_WA
g. The Line Connection, Model DP21-4Q

CONCRETE BARRIER MARKERS AND TEMPORARY RAILING (TYPE K) REFLECTORS

Impactable Type

a. ARTUK, "FB"
b. Bunzl Extrusion, Model PCBM-12
c. Duraflex Corp., "Flexx 2020" and "Electriflexx"
d. Hi-Way Safety, Inc., Model GMKRM100
e. Sun-Lab Technology, "Safety Guide Light Model TM-5"

Non-Impactable Type

a. ARTUK, JD Series
b. Vega Molded Products, Models GBM and JD

THRIE BEAM BARRIER MARKERS

(For use to the left of traffic)

a. Bunzl Extrusion, "Mini" (75 mm x 254 mm)
b. Duraflex Corp., "Railrider"

CONCRETE BARRIER DELINEATORS, 400 mm

(For use to the right of traffic)

a. Bunzl Extrusion, Model PCBM T-16
b. Safe-Hit, Model SH216RBM
c. Sun-Lab Technology, "Safety Guide Light, Model TM16," 75 mm x 300 mm

CONCRETE BARRIER-MOUNTED MINI-DRUM (260 mm x 360 mm x 570 mm)

a. Stinson Equipment Company "SaddleMarker"

SOUND WALL DELINEATOR

(Applied vertically. Place top of 75 mm x 300 mm reflective element at 1200 mm above roadway)

a. Bunzl Extrusion, PCBM S-36
b. Sun-Lab Technology, "Safety Guide Light, Model SM12," 75 mm x 300 mm

GUARD RAILING DELINEATOR

(Place top of reflective element at 1200 mm above plane of roadway)

Wood Post Type, 686 mm

a. Bunzl Extrusion, FG 427 and FG 527
b. Carsonite, Model 427
c. FlexStake, Model 102 GR
d. GreenLine GRD 27
e. J. Miller Model JMI-375G
f. Safe-Hit, Model SH227GRD

Steel Post Type

a. Carsonite, Model CFGR-327 with CFGRBK300 Mounting Bracket

RETROREFLECTIVE SHEETING

Channelizers, Barrier Markers, and Delineators

a. Avery Dennison T-6500 Series (Formerly Stimsonite, Series 6200) (For rigid substrate devices only)
b. Nippon Carbide, Flexible Ultralite Grade (ULG) II
c. Reflexite, PC-1000 Metalized Polycarbonate
d. Reflexite, AC-1000 Acrylic
e. Reflexite, AP-1000 Metalized Polyester
f. Reflexite, Conformalight, AR-1000 Abrasion Resistant Coating
g. 3M, High Intensity

Traffic Cones, 330 mm Sleeves

a. Reflexite SB (Polyester), Vinyl or “TR” (Semi-transparent)

Traffic Cones, 100 mm and 150 mm Sleeves

a. Nippon Carbide, Flexible Ultralite Grade (ULG) II
b. Reflexite, Vinyl, “TR” (Semi-transparent) or “Conformalight”
c. 3M Series 3840

Barrels and Drums

a. Avery Dennison W-6100
b. Nippon Carbide, Flexible Ultralite Grade (ULG) II
c. Reflexite, “Conformalight”, “Super High Intensity” or “High Impact Drum Sheeting”
d. 3M Series 3810

Barricades: Type I, Medium-Intensity (Typically Enclosed Lens, Glass-Bead Element)

a. American Decal, Adcolite
b. Avery Dennison, T-1500 and T-1600 series
c. 3M Engineer Grade, Series 3170

Barricades: Type II, Medium-High-Intensity (Typically Enclosed Lens, Glass Bead Element)

a. Avery Dennison, T-2500 Series
b. Kiwalite Type II
c. Nikkalite 1800 Series

Signs: Type II, Medium-High-Intensity (Typically Enclosed Lens, Glass-Bead Element)

a. Avery Dennison, T-2500 Series
b. Kiwalite, Type II
c. Nikkalite 1800 Series

Signs: Type III, High-Intensity (Typically Encapsulated Glass-Bead Element)

a. Avery Dennison, T-5500 Series
b. Nippon Carbide, Nikkalite Brand Ultralite Grade II
c. 3M Series 3870

Signs: Type IV, High-Intensity (Typically Unmetallized Microprismatic Element)

a. Avery Dennison, T-6500 Series (Formerly Stimsonite Series 6200)

Signs: Type VI, Elastomeric (Roll-Up) High-Intensity, without Adhesive

a. Reflexite “Vinyl” (Orange)
b. Reflexite “SuperBright” (Fluorescent orange)
c. Reflexite “Marathon” (Fluorescent orange)
d. 3M Series RS34 (Orange) and RS20 (Fluorescent orange)

Signs: Type VII, Super-High-Intensity (Typically Unmetallized Microprismatic Element)

a. 3M LDP Series 3970

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

a. Avery Dennison, T-7500 Series

SPECIALTY SIGNS

All Sign Products, STOP Sign (All Plastic), 750 mm

a. Relexite "Endurance" Work Zone Sign

SIGN SUBSTRATE

Fiberglass Reinforced Plastic (FRP)

a. Fiber-Brite
b. Sequentia, "Polyplate"

b. Measurement and Payment: Full compensation for Prequalified and Tested Signing and Delineation Materials shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation be allowed therefor.

9.00 Construction Area Signs

a. Description: Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Construction Area Traffic Control Devices," of the CSS.

b. Materials and Installation: The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least two (2) working days, but not more than fourteen (14) calendar days, prior to commencing any excavation for construction area signposts. The regional notification centers include but are not limited to the following:

Notification Center	Telephone Number
Underground Service Alert-Northern California (USA)	811

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

Sign substrates for stationary mounted construction area signs may be fabricated from fiberglass-reinforced plastic.

The term "construction area signs" shall also include temporary object markers required for the direction of public traffic through or around the work during construction. Object markers listed or designated on the plans as construction area signs shall be considered to be signs and shall be furnished, erected, maintained, and removed by the Contractor in the same manner specified for construction area signs and the following:

- Object markers shall be stationary mounted on wood or metal posts in accordance with the requirements in Section 82, "Markers and Delineators," of the CSS.

- Marker panels for Type N, Type P, and Type R object markers shall conform to the requirements for sign panels for stationary mounted signs.

- Target plates for Type K and Type L object markers, and posts, reflectors, and hardware shall conform to the requirements in Section 82 "Markers and Delineators" of the CSS, but need not be new.

c. Measurement and Payment: Full compensation for "Construction Area Signs" shall be considered as included in the contract price paid for various items of work involved and no additional compensation will be allowed therefor. The work shall include full compensation for furnishing all labor, materials (including signs), tools, equipment, and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, and moving to new locations.

10.00 Project Appearance

a. Description: The Contractor shall maintain a neat appearance at the work site in all areas visible to the public. Broken concrete, asphalt concrete, soil, and debris developed during construction shall be disposed of concurrently with its removal. Stockpiling shall be permitted only with the approval of the Engineer and only in approved locations.

The Contractor shall provide ingress/egress 24 hours a day for all property owners along East Main Avenue.

The Contractor shall sweep the streets daily within the project area as directed by the Engineer for the duration of the project. The Contractor shall not sweep construction materials or other debris onto private properties.

The Contractor shall be responsible for any and all damage to public and private property (including trees, plants, shrubs, fences, etc.) and shall replace with new material or correct any damaged property to the satisfaction of the Engineer.

b. Measurement and Payment: Full compensation for maintaining an acceptable project appearance and provided ingress/egress for property owners shall be considered as included in the contract prices paid for the various items of work involved and additional compensation will be allowed therefor.

11.00 Clearing and Grubbing

a. Description: Clearing and grubbing shall conform to the requirements of the City of Morgan Hill and to the provisions of Section 15.3 and 16 of the CSS and these Technical Provisions, and the plans.

This work shall consist of removing and disposing of all existing facilities shown on the Plans, including all objectionable material, asphalt, concrete, sidewalk, curb/gutters, planter materials, irrigation, trees and shrubs, fences, gates, mailboxes, curb and gutter, sidewalk and driveway/approaches from within the limits of the project as specified. The limits of clearing and grubbing shall be of sufficient area and depth to complete the work as shown on the plans or described in these Technical Provisions, and will include excavation and grading as necessary to complete the work. Work shall also include removal and disposal of existing weeds, brush and other unsuitable material within and along the edge of pavement, and trimming of trees as needed for operation of equipment.

Contractor shall **carefully** remove/salvage and protect existing fence and gate at 465 East Main Avenue, wrap, bundle, and deliver to City maintenance yard located at 100 Edes Court.

Tree roots may need to be cut as part of curb and gutter, planter surfacing, sidewalk, and driveway removal work. An arborist employed by the City will be present during excavation of these areas to ensure tree roots will not be damaged to the extent of jeopardizing tree health. Contractor shall notify City five (5) days prior to removal operations for furnishing of an arborist.

Contractor shall allow seven (7) days after spray of weeds within or at edges of pavement to ensure successful eradication prior to chip, scrub and/or cape scrub seal operations. If unsuccessful, Contractor shall respray.

All striping, markings/symbols or pavement markers within areas to be removed by grinding, base repair or slurry as specified on the plans shall be removed and disposed of as part of the contract items of work involved.

b. Measurement and Payment - The contract lump sum price paid for "Clearing and Grubbing" shall be included in the Bid Schedule under **Bid item 4,** for Full compensation for clearing, grubbing, removal, hauling and disposal of items is included in the contract items of work involved and no additional compensation will be allowed therefor. This includes but not limited to asphalt, concrete, driveways, irrigation, mailboxes, curb/gutter,

fences, landscaping, irrigation, and tree root trimming, and root ball removal as directed by arborist during curb and gutter removal/installation or sidewalk installation operations.

12.00 Minor Concrete (Curb and Gutter, Bulb-Outs, ADA Ramps, Sidewalk, and Driveway)

a. Description. This work shall include providing all materials, equipment, labor and performing all operations necessary to construct all minor concrete work, such as; curb and gutter, sidewalk, ADA ramps with truncated domes, bulb-outs, driveway, conforms, and all incidental related items such as saw cutting, excavation, disposal, aggregate base, compaction and formwork, all in accordance with the plans, City Standard Details, these Technical Provisions, and Section 73, "Concrete Curbs and Sidewalks," of the CSS.

b. Materials. Portland cement concrete, formwork and reinforcement shall be provided and placed in accordance with Sections 90, 73, and 51 of the CSS.

Expansion joints shall be one-half inch pre-molded joint fillers.

The concrete shall have a minimum strength of 3,000 psi at 28 days.

6" of aggregate base shall be placed under curb/gutter, and driveways and 4" of aggregate base shall be placed under sidewalk.

c. Installation. Curb and gutter, sidewalk, ADA Ramps, and driveway shall be constructed and installed in accordance with the plans and Section 73 of the CSS and City Standard Details.

1. Filler joints shall be installed at 20-foot intervals or at joints with existing sidewalk, curb and gutter, cross gutter and curb ramps. Expansion joint filler shall be installed for full concrete section thickness.

2. All joints and score marks shall be tool rounded, straight and true to line.

3. All exposed surfaces shall be trowel finished, and then lightly brushed to match surface texture of existing adjacent sidewalk, and curb and gutter.

4. Existing concrete curb and gutter, and sidewalk shall be removed as indicated on the plans and as directed by the Engineer to the following limits:

i. Sawcut and remove existing curb and gutter and sidewalk if nearest existing adjacent filler expansion joint is greater than five feet from the point of conform;

ii. Remove existing curb and gutter and sidewalk to nearest adjacent filler expansion joint if the distance from the conform is less than five feet;

iii. Sawcuts shall be perpendicular to the existing curb line or sidewalk, sawed straight and true through entire existing sections;

iv. Adjacent areas damaged during curb and gutter, sidewalk, or driveway removal shall be promptly removed and replaced in accordance with these Technical Provisions at no additional cost to the City.

d. Measurement and Payment.

- Measurement of "Minor Concrete (Curb and Gutter)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 5**. Work shall include full compensation for providing all labor, materials, equipment, tools and incidentals necessary to construct new Driveways/Approaches, including but not limited to; saw cutting, disposal, aggregate base, compaction, formwork, steel, and conforms, complete in place per City Standard detail A-3 (Type I), as shown on the plans and as specified herein, and no separate payment shall be made.

- Measurement of "Minor Concrete (Sidewalk Driveways/Approaches)" will be paid per Square Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 6**. Work shall include full compensation for providing all labor, materials, equipment, tools and incidentals necessary to construct new Sidewalks/Driveways/Approaches, including but not limited to; saw cutting, disposal, aggregate base, compaction, formwork, steel, and conforms, complete in place per City Standard detail A-9, as shown on the plans and as specified herein, and no separate payment shall be made.

- Measurement of "Minor Concrete (ADA Ramps)" will be paid per Each installed ADA ramp, complete in place and shall be included in the Bid Schedule, **Bid Item 7**. Work shall include full compensation for providing all labor, materials, equipment, tools and incidentals necessary to construct new ADA Ramps, including but not limited to; truncated domes, saw cutting, disposal, aggregate base, compaction, formwork, steel, and conforms, complete in place per City Standard detail A-1, as shown on the plans and as specified herein, and no separate payment shall be made.

13.00 Storm Drain System

This work shall consist of constructing storm drain improvements, modifications & alterations, new manholes, new pipes, and new curb inlets complete in place, including connections to new or existing storm drain pipes or culverts, in accordance with the design and details shown on the plans, and as specified in the Standard Specifications and these Technical Specifications and City Standard details.

Concrete shall be minor concrete conforming to the provisions in Section 90-10, "Minor Concrete," of the Standard Specifications. The concrete shall contain not less than 590 pounds of cementitious material per cubic yard.

Cast-in-place Curb Inlets shall be constructed in accordance with City Standard Details SD-1 thru SD-7. Storm Drain Pipe shall be RCP, class 3 bell/spigot per City Standards.

Measurement and Payment

The contract lump sum price for "Storm Drain System" shall be included in the Bid Schedule, **Bid Item 8**, and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in constructing the storm drain improvements as shown on the Plans, complete in place, including; bar reinforcing steel, steel plates, anchor bolts, mortar, concrete, saw cutting, excavation, shoring, backfill, compaction, pipe & materials, manholes and curb inlets as shown on the plans and City Standard Details, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

14.00 Asphalt Concrete

a. Description: Asphalt concrete shall be used as an overlay and the street pavement section. New pavement shall be furnished, placed, and compacted in accordance with Section 39 "Asphalt Concrete" of the CSS and the top lift shall contain **no Reclaimed Asphalt Pavement (RAP)**. Asphalt Concrete shall be compacted to a minimum 95 percent of Maximum Theoretical Density as determined by American Society of Testing Materials (ASTM) D-2041. Finished asphalt concrete pavements, which do not conform to the specified relative compaction requirements, will be paid for using the following pay factors:

In-Place Relative Compaction	Pay Factor
95% or greater	100%
90-94.9%	20% Reduction in unit price
89.9% or less	Remove & Replace as directed

b. Materials: The asphalt concrete for overlay shall be Type A, 12.5 mm (1/2") medium maximum gradation with.

Asphalt binder shall be PG 64-10.

Asphalt shall conform to these Technical Provisions and not Section 92, "Asphalts," of the CSS.

Asphalt shall consist of refined petroleum or a mixture of refined liquid asphalt and refined solid asphalt, prepared from crude petroleum. Asphalt shall be:

A. Free from residues caused by the artificial distillation of coal, coal tar, or paraffin.
B. Free from water.
C. Homogeneous.

The Contractor shall furnish asphalt in conformance with Caltrans' "Certification Program for Suppliers of Asphalt." Caltrans maintains the program requirements, procedures, and a list of approved suppliers at:

http://www.dot.ca.gov/hq/esc/Translab/fpmcoc.htm

The Contractor shall ensure the safe transportation, storage, use, and disposal of asphalt.

The Contractor shall prevent the formation of carbonized particles caused by overheating asphalt during manufacturing or construction.

Performance graded (PG) asphalt binder shall conform to the following:

Performance Graded Asphalt Binder

Property	AASHTO Test Method	Specification Grade				
		PG 58-22 [a]	PG 64-10	PG 64-16	PG 64-28	PG 70-10
Original Binder						
Flash Point, Minimum °C	T48	230	230	230	230	230
Solubility, Minimum % [b]	T44	99	99	99	99	99
Viscosity at 135°C, [c] Maximum, Pa·s	T316	3.0	3.0	3.0	3.0	3.0
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	58 1.00	64 1.00	64 1.00	64 1.00	70 1.00
RTFO Test [e], Mass Loss, Maximum, %	T240	1.00	1.00	1.00	1.00	1.00
RTFO Test Aged Binder						
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*/sin(delta), kPa	T315	58 2.20	64 2.20	64 2.20	64 2.20	70 2.20
Ductility at 25°C Minimum, cm	T51	75	75	75	75	75
PAV [f] Aging, Temperature, °C	R28	100	100	100	100	110
RTFO Test and PAV Aged Binder						
Dynamic Shear, Test Temp. at 10 rad/s, °C Minimum G*sin(delta), kPa	T315	22 [d] 5000	31 [d] 5000	28 [d] 5000	22 [d] 5000	34 [d] 5000
Creep Stiffness, Test Temperature, °C Maximum S-value, MPa Minimum M-value	T313	-12 300 0.300	0 300 0.300	-6 300 0.300	-18 300 0.300	0 300 0.300

Notes:

a. For use as asphalt rubber base stock for high mountain and high desert area.

b. The Engineer will waive this specification if the supplier is a Quality Supplier as defined by the Caltrans' "Certification Program for Suppliers of Asphalt."
c. The Engineer will waive this specification if the supplier certifies the asphalt binder can be adequately pumped and mixed at temperatures meeting applicable safety standards.
d. Test the sample at 3°C higher if it fails at the specified test temperature. G*sin(delta) shall remain 5000 kPa maximum.
e. "RTFO Test" means the asphaltic residue obtained using the Rolling Thin Film Oven Test, AASHTO Test Method T240 or ASTM Designation: D 2827.
f. "PAV" means Pressurized Aging Vessel.

Performance based asphalt (PBA) binder shall conform to the following:

Performance Based Asphalt Binder

Property	AASHTO Test Method	Specification Grade			
		PBA 6a	PBA 6a(mod)	PBA 6b	PBA 7
Absolute Viscosity (60°C), Pa·s(x10^{-1}) [a] Original Binder, Minimum RTFO Test Aged Residue [b], Minimum	T202	 2000 5000	 2000 5000	 2000 5000	 1100 3000
Kinematic Viscosity (135°C), m^2/s(x10^{-6}) Original Binder, Maximum RTFO Test Aged Residue, Minimum	T201	 2000 275	 2000 275	 2000 275	 2000 275
Absolute Viscosity Ratio (60°C), Maximum RTFO Test Visc./Orig. Visc.	—	 4.0	 4.0	 4.0	 4.0
Flash Point, Cleveland Open Cup, °C Original Binder, Minimum	T48	 232	 232	 232	 232
Mass Loss After RTFO Test, %	T240	0.60	0.60	0.60	0.60
Solubility in Trichloroethylene, % [c] Original Binder, Minimum	T44	 Report	 Report	 Report	 Report
Ductility (25°C, 5 cm/min), cm RTFO Test Aged Residue [b], Minimum	T51	 60	 60	 60	 75
On RTFO Test Aged Residue, °C 1 to 10 rad/sec: SSD [e] ≥ 0 and Phase Angle (at 1 rad/sec) < 72°	[f]	 —	 35	 —	 —
On Residue from: PAV [g] at temp., °C Or Residue from Tilt Oven[f] (@113°C), hours	R28	 100 36	 100 36	 100 36	 110 72
[e] SSD ≥ -115(SSV)-50.6, °C	[f]	—	—	—	25
Stiffness, Test Temperature, °C Maximum S-value, MPa Minimum M-value	T313	 -24 300 0.300	 -24 300 0.300	 -30 300 0.300	 -6 300 0.300

Notes:

a. Absolute viscosity (60°C) will be determined at one sec^{-1} using ASTM Designation: D 4957 with Asphalt Institute vacuum capillary viscometers.
b. "RTFO Test Aged Residue" means the asphaltic residue obtained using the Rolling Thin Film Oven Test (RTFO Test), AASHTO Test Method T240 or ASTM Designation: D 2827.
c. There is no requirement; however results of the test shall be part of the copy of test results furnished with the Certificate of Compliance.
d. "Residue from Tilt Oven " means the asphalt obtained using California Test 374, Method B, "Method for Determining Asphalt Durability Using the California Tilt-Oven Durability Test."
e. "SSD" means Shear Susceptibility of Delta; "SSV" means Shear Susceptibility of Viscosity.
f. California Test 381.
g. "PAV" means Pressurized Aging Vessel.

The Contractor shall provide a sampling device in the asphalt feed line connecting the plant storage tanks to the asphalt weighing system or spray bar. The sampling device shall be accessible between 600 and 750 mm above the platform. The Contractor shall provide a receptacle for flushing the sampling device.

The sampling device shall include a valve:

1 With a diameter between 10 and 20 mm.
2 Manufactured in a manner that an one-liter sample may be taken slowly at any time during plant operations.
3 Maintained in good condition.

The Contractor shall replace failed valves.

In the presence of the Engineer, the Contractor shall take 2 one-liter samples per operating day. The Contractor shall provide round friction top containers with one-liter capacity for storing samples.

Unless otherwise specified, the Contractor shall heat and apply asphalt in conformance with the provisions in Section 93, "Liquid Asphalts."

The Contractor shall apply paving asphalt at a temperature between 120°and 190°C. The Engineer will determine the exact temperature of paving asphalt.

c. Paint Binder (Tack Coat): Paint binder shall be applied to all horizontal and vertical surfaces to receive asphalt concrete surfacing. Paint binder shall be furnished and applied in accordance with Section 39-4.01, “Subgrade”, Section 93 "Liquid Asphalts", and Section 94 "Asphaltic Emulsions".

d. Measurement and Payment: Full compensation for asphalt concrete shall be considered as included in the contract prices paid for “Asphalt Overlay, **Bid Item 9**, and “Full depth AC repair”, **Bid Item 10**, and “Street Pavement Section”, **Bid item 13**, and no additional payment will be made therefor.

15.00 Cold In-Place Recycled (CIR) Asphalt Concrete

a. Description: This item of work shall consist of recycling the existing pavement material into a new roadway base course suitable for/and receiving a 2-inch asphalt concrete overlay (separate payment method). The work shall include field sampling of the existing pavement sections, preparation of all site-specific CIR job mix designs, quality assurance/ quality control, milling, labor, equipment, processing, added materials, placing, compacting, curing, fog sealing and sand spreading, and any incidental items necessary to meet these Specifications.

The Contractor shall use the foamed asphalt method. The emulsion method will not be allowed.

Cold In-Place Recycled Asphalt Concrete shall not be exposed to traffic for more than ninety-six (96) hours.

Contractor Qualifications:
The Contractor directly responsible for providing the cold-in-place recycling activities shall submit minimum qualifications for the Engineer's approval prior to being awarded the project. The minimum qualifications shall include:

- At least two years' experience providing cold in-place recycling services
- A list of three (3) or more successful cold in-place recycling project with a list of references, including contact information
- The resume of a cold foam expert with a minimum of five (5) years' experiences providing QA/QC services on cold in-place recycling projects. This individual shall oversee quality control duties throughout the project.

Mix Design:
A minimum 14 calendar days prior to starting the Cold in-Place Recycling, the Contractor will take samples of the existing pavement, prepare, and submit a mix design for the Engineer's approval. The mix design shall be prepared in a lab certified to perform the tests specified. The mix design shall conform to the "Cold Recycling, Wirtgen Cold Recycling Technology" Manual, 2012 edition, unless otherwise specified herein.

Each design submittal must indicate the following information:

- Cold in-Place Recycling (CIR) equipment and method proposed
- Gradation (ASTM D422)
- Bitumen Grade
- Bitumen Content
- Bitumen Source
- Water Content
- Cement or Lime Content
- Cement or Lime Source

- Cement or Lime Grade
- Any other additives or emulsifiers
- Marshall Stability and Flow (ASTM D6927 and ASTM 1556)
- Bulk Specific Gravity and Density of Compacted Bituminous Mixtures (ASTM D1188)
- Theoretical Maximum Specific Gravity of Bituminous Materials (Cal 309)
- Job Mix Specific Gravity

Minimum criteria used for acceptance of the proposed mix design will be:

Soaked Indirect Tensile Strength	>250 kPa (37 psi)

Quality Assurance and Quality Control:
Provide a quality control plan (QCP) that describes the organization, responsible parties, and procedures that the Contractor will use to:

1. Control quality
2. Determine when corrective actions are needed (action limits)
3. Implement corrective actions

The QCP must contain copies of the forms that will be used to provide all required inspection records and sampling and testing results. On the form used to record and report the quality control measurements, also show the job mix formula information.

As part of the QCP, the Contractor will provide a contingency plan that describes the corrective actions the Contractor will take in the event of equipment break down or material out of compliance.

Contingency Plan:
The contingency plan must include any corrective actions including repairing and reopening the roadway to traffic using hot mix asphalt in compliance with Section 39, "Hot Mix Asphalt", of the Standard Specifications or temporary bituminous surfacing in compliance with these technical provisions.

Hot mix asphalt must:
1. Be hot mix asphalt (Type A)
2. Use ½-inch aggregate grading
3. Use asphalt binder grade PG 64-10 or PG 64-16

Temporary bituminous surfacing must:
1. Be commercial quality bituminous material
2. Contain aggregate using ½-inch hot mix asphalt grading in compliance with section 39-1.02E, "Aggregate," of the Standard Specifications
3. Use liquid asphalt SC-800 in compliance with Section 93, "Liquid Asphalts," of the Standard Specifications.

Meet with the Engineer at least 7 calendar days before starting the cold in-place recycling work to review the QCP and contingency plan.

QC Laboratory:
Provide a certified testing laboratory and personnel to perform quality control inspection, sampling, and testing. Provide the Engineer with unrestricted access to the laboratory, sampling and testing sites, and all information resulting from the job mix formula and quality control inspection and testing activities. Proficiency of testing laboratories and sampling and testing personnel must be reviewed, qualified, and accredited by Caltrans' Independent Assurance Program before starting any cold in-place recycling work. Perform inspection, sampling and testing at a rate sufficient to ensure that cold in-place recycling mixture, placement, compaction and finishing complies with the specifications.

Production:
Once daily the Contractor shall sample the RAP (reclaimed asphalt pavement) behind the recycling equipment or the processed RAP before the addition of the emulsified recycling agent. The Contractor shall report the test results immediately to the Engineer. Reprocess the RAP or take other corrective action to attain compliance.

Divide the project into 3,000-square yard lots. For each lot:

1. Determine the actual recycled depth at each end of the milling drum at least once every 300 feet along the cut length
2. Determine the amount of recycling agent
3. On ever third sample taken, perform a wet field gradation for material passing the 1-inch through No. 4 sieves. Compare the sieved sample to the gradation band determined from the job mix formula and adjust the emulsified recycling agent if necessary
4. Determine in place density and relative compaction of 10 random locations. Use the submitted Job Mix density as the basis of comparison.

For each lot, measure or calculate and record the following information:

1. Length, width, depth of cut and calculated weight in tons of material processed
2. Weight of recycling agent added in tons
3. Percentage of added recycling agent in the lot's CIR mixture by weight
4. Weight of recycling additive used in tons (if used)
5. Percentage of recycling additive in the lot's CIR mixture by weight (if used)
6. Maximum particle size of the RAP
7. Maximum obtainable density used for relative compaction calculation.
8. Nuclear gauge in-place density and relative compaction aqt 10 random locations.
9. Ambient and compacted recycled pavement surface temperatures

10. Maximum theoretical density under California Test 309 and void ratio (Report Only)
11. Rate of fog seal coat application
12. Rate of sand cover application

On the form used to record and report the quality control measurements, also show the job mix formula information. The Contractor shall make adjustments during CIR operations for optimum quality. If adjustments are made, document the reason for the change and identify on the daily quality control inspection records and sampling and test results.

Daily, the Contractor shall take and split a sample of the CIR mixture from a location approved by the Engineer. Split the samples into two parts and label the containers with location and station. Submit one split part to the Engineer and use one part for the testing. Determine maximum theoretical density under California Test 309. Use the maximum theoretical density and calculate void ratio for each nuclear gauge site and lot. Report on daily quality control inspection records and sampling and test results. The Engineer does not use the Contractor's California Test 309 test results and void ratio to determine specification compliance.

The Contractor shall be responsible for the quality of construction and material incorporated into the Project. The Contractor's quality control measurements shall ensure that operational techniques and activities provide integral and finished material of acceptable quality. Contractor sampling and testing shall be performed to control the processes and ensure material compliance with the requirements of the Contract.

The Contractor shall perform all Quality Control testing and sampling for the project. All quality control sampling and testing shall be performed by technicians certified by the State of California for that particular material and all laboratory testing shall be performed by laboratories accredited by AASHTO Material Reference Laboratory (AMRL) and Cement and Concrete Reference Laboratory (CCRL) for the test methods required. Contractor shall furnish copies of all test results to the Engineer or other authorized City representative within 24 hours of completing the test of the acquired sample or the next day of business.

Recycling Equipment:
A single-unit, self-propelled cold recycling machine with a down cutting cutter head shall be capable of pulverizing and recycling the existing hot-mix asphalt pavement to a maximum depth of six (6) inches (0.12 m), incorporate the foamed asphalt and compaction water, and mix the materials to produce a homogeneous material.

The milling and mixing unit must be equipped with a gradation control bar that will stabilize the milled surface during milling to prevent the pavement from chunking. The minimum power of this machine shall be 950 hp. The machine shall be capable of pulverizing and recycling not less than 12.5-foot wide section per pass.

The machine shall have two independent systems for adding foamed asphalt and metered water with each system having full width spray bar with a positive displacement pump interlocked to the machine's ground speed to insure that the amount of foamed asphalt and compaction water being added is automatically adjusted with changes to the machine's ground speed. Each additive system shall have its own spray bar equipped with two nozzles per foot of spray bar. The foamed asphalt spray bar must be electrically heated. Individual valves on the spray bar shall be capable of being turned off (in pairs) as necessary both foamed asphalt and water to minimize overlap on subsequent passes.

The single unit must also have a tamper bar screed attached to the milling an mixing unit. The tamper bar screed must have the ability to tamp at varying frequency. The screed shall have slope control and the ability to convey material out the side of the screed if there is a surge of material between the mixing chamber and the screed. The mixing unit and screed combination must have electronic grade controls.

Placement:
CIR shall be to a depth of six (6) inches minimum within the lines and grades of the project plans and specifications or as directed by the Engineer. The CIR material shall be capable of holding traffic at the end of each day's production without deformation or damage occurring to the surface. No rutting or raveling shall be tolerated and corrective action per the contingency plan provisions shall be applied when either occurs.

Placement of the CIR materials will be in accordance with Section 12.00 of these specifications.

Fog Seal and Sand Spreading:
At the end of each day's production, the Contractor shall apply a uniform fog seal to the surface at a rate of 0.12 gallons/square yard and shall meet SS1H "Fog Seal" Cut 50. Sand shall be spread at a rate of 1.0 to 2.0 pounds per square yard at the areas fog seal is placed unless otherwise determined by the Engineer. Remove excess sand from the CIR surface by sweeping at the end of each day. Sand cover shall be spread by mean of a self-propelled spreader equipped with a mechanical device that will spread the sand at a uniform rate over the CIR surface. The area treated shall be capable of holding traffic at the end of each day's production without any deformation or damage to the surface.

Acceptance:
The project shall be divided into 3,000-square yard lots. If one day's production will be less than 3,000 square yards, that day's production shall be a lot. If one day's production is one lot plus an additional amount, the additional work shall be a separate log. The Engineer will sample and test each lot prior to acceptance. Frequency of testing will be at the Engineer's discretion.

Acceptance will be based on the following criteria:

A. IDTS soaked results must be grater than 95% of the minimum design strength (250 KPa).

B. The average Relative compaction of a lot shall be a minimum of 98% of the maximum wet density as measured by Cal 216. No single test shall be less than 94% relative compaction.

For lots outside of the acceptance criteria, the Engineer determines a deduction for each test result outside the specifications using the reduced payment factors shown in the following tables:

Table A-Marshall Test Results

% Minimum Design Strength (250 kPa)	Pay Factor	% Minimum Design Strength (250 kPa)	Pay Factor
95	100.00%	92.3	86.50%
94.9	99.50%	92.2	86.00%
94.8	99.00%	92.1	85.50%
94.7	98.50%	92	85.00%
94.6	98.00%	91.9	84.50%
94.5	97.50%	91.8	84.00%
94.4	97.00%	91.7	83.50%
94.3	96.50%	91.6	83.00%
94.2	96.00%	91.5	82.50%
94.1	95.50%	91.4	82.00%
94	95.00%	91.3	81.50%
93.9	94.50%	91.2	81.00%
93.8	94.00%	91.1	80.50%
93.7	93.50%	91	80.00%
93.6	93.00%	90.9	79.50%
93.5	92.50%	90.8	79.00%
93.4	92.00%	90.7	78.50%
93.3	91.50%	90.6	78.00%
93.2	91.00%	90.5	77.50%
93.1	90.50%	90.4	77.00%
93	90.00%	90.3	76.50%
92.9	89.50%	90.2	76.00%
92.8	89.00%	90.1	75.50%
92.7	88.50%	90	75.00%
92.6	88.00%	89.9	Remove at Engineer's sole discretion
92.5	87.50%		
92.4	87.00%		

Table B-Compaction

% Relative Compaction, as measured by Cal 216 Average Density per Lot	Pay Factor
98	100.00%
97.9	99.00%
97.8	98.00%
97.7	97.00%
97.6	96.00%
97.5	95.00%
97.4	94.00%
97.3	93.00%
97.2	92.00%
97.1	91.00%
97	90.00%
96.9	89.00%
96.8	88.00%
96.7	87.00%
96.6	86.00%
96.5	85.00%
96.4	84.00%
96.3	83.00%
96.2	82.00%
96.1	81.00%
96	80.00%
95.9	79.00%

% Relative Compaction, as measured by Cal 216 Average Density per Lot	Pay Factor
95.8	78.00%
95.7	77.00%
95.6	76.00%
95.5	75.00%
95.4	74.00%
95.3	73.00%
95.2	72.00%
95.1	71.00%
95	70.00%
94.9	69.00%
94.8	68.00%
94.7	67.00%
94.6	66.00%
94.5	65.00%
94.4	64.00%
94.3	63.00%
94.2	62.00%
94.1	61.00%
94	Remove at Engineer's sole discretion

In the event a lot is subject to both pay factors, they will be cumulative (I.E. An 80% pay factor for Marshall and a 70% pay factor for Compaction equals a 56% cumulative pay factor: .80 X .70 = .56).

b. Measurement and Payment: 6 inch Cold in-Place Recycling shall be measured per square foot for the depth specified in the contract and shall be included in the Bid Schedule, **Bid Item 12** and include mix design, saw cutting, wedge grinding, disposal, sealing, spreading, quality control, testing and all other incidentals to perform the work as shown on the Plans. The area to be paid shall be the length measured along the centerline of the roadway multiplied the average perpendicular width. Additional excavation/ recycling performed by the Contractor outside the lines provided in the Plans shall not be measured and compensated by the City without approval in writing by the Engineer.

16.00 Street Pavement Section (6" Asphalt over 12" Aggregate base)

a. Description: Areas shown on the plans shall be excavated 18 inches and reconstructed with 12 inches of aggregate baserock and 6 inches of asphalt concrete per Caltrans Section 19-Earthwork.

The AC shall be placed in two or three lifts with the uppermost lift of not less than 0.15 ft. or more than 0.20 ft.

The Contractor shall make all arrangements for disposal of excavated materials. All edges shall be saw-cut unless otherwise approved by the Engineer. Asphalt concrete in repair sections shall be placed in lifts in accordance with Section 39-6 "Spreading and Compacting". Removed materials shall be disposed of legally.

Aggregate base must comply with Section 26, "Aggregate Bases," of the Standard Specifications and these Technical Specifications. Aggregate base must be Class 2.

Do not store reclaimed asphalt concrete or aggregate base with reclaimed asphalt concrete within 100 feet measured horizontally of any culvert, watercourse, or bridge.

Asphalt Concrete must comply with Section 39 and City standard specifications.

The material remaining in place, after removing surfacing and base, to the required depth, shall be graded to a plane, watered and compacted to 95 percent relative compaction. After compaction and prior to the placing of asphalt concrete, the vertical edges of the existing pavement shall receive a tack coat. The finished surface of the remaining material shall not extend above the grade established by the Engineer.

b. Asphalt Material: The asphalt concrete for top/final lift shall be Type A, 12.5 mm (½") medium maximum gradation, in accordance with CSS. Base course shall be type B, ¾" max gradation. Asphalt binder shall be PG 64-10. **No percentage of RAP (Reclaimed Asphalt Pavement) shall be permitted in the asphalt concrete placed as the final lift/wearing course on the project.**

c. Unsuitable Material: In the event that the underlying subbase material is unsuitable, the Engineer shall be notified immediately. The limits of removal shall be designated by the Engineer. The unsuitable material shall be excavated an additional 15 inches below the subgrade and disposed of. The resulting space shall be lined with geo-grid textile and filled with class II aggregate base per these Specifications.

Unsuitable material is defined as material the Engineer determines to be:

A. Of such unstable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content; or
B. Too wet to be properly compacted and circumstances prevent suitable in-place drying prior to incorporation into the work; or

C. Otherwise unsuitable for the planned use.

D. Measurement and Payment:

- Street Pavement Section shall be measured by the square foot as shown on the plans and as marked in the field by the Engineer. No payment shall be made for materials placed outside of the limits marked by the Engineer. The contract unit prices paid per square foot for "Street Pavement Section" shall be included in the Bid Schedule under **Bid Item 13**, and include full compensation for furnishing all labor, material, equipment, tools, and all other incidentals and for doing all work involved in furnishing and placing Street Pavement Section, complete in place, including saw cutting, excavation and grading subbase, disposal, aggregate base, asphalt, compaction, quality control, staged construction, temporary conforms, traffic control, flagging, k-rails, temporary striping and delineation, prime coats, tack coats, and paint binders, as specified herein and as directed by the Engineer.
- Unsuitable Material shall be measured by the square foot. No payment shall be made for materials placed outside of the limits marked by the Engineer. The contract unit prices paid per square foot for "Unsuitable Material" shall be included in the Bid Schedule under **Bid Item 13a**, and shall include full compensation for furnishing all labor, material, equipment, tools, and all other incidentals and for doing all work involved in removing unsuitable material and furnishing and placing geogrid and aggregate base, complete in place, including saw cutting, excavation, disposal, aggregate base, compaction, quality control, staged construction, traffic control, flagging, as specified herein and as directed by the Engineer.

17.00 Miscellaneous Site and Utility Improvements

a. Description: The work to be done consists of furnishing all labor, equipment and materials and performing all incidental work for; relocating mailboxes, installing water services, relocated fire hydrant with new water service connection and companion valve, relocate traffic signs, protecting trees, and install irrigation sleeves.

c. Measurement and Payment:

- Miscellaneous Site and Utility Improvements shall be Lump Sum and shall be included under the Bid Schedule, **Bid Item 14**, and include full compensation for furnishing all labor, material, equipment, tools, and all other incidentals and for doing all work involved in furnishing, installing or relocating; fire hydrant, new fire hydrant connection per City Detail W-13 and W-14, mailbox relocation, traffic sign relocation, protecting trees, irrigation sleeves, and all other misc. work, complete in place and as specified herein and as directed by the Engineer.

- 1 inch water service shall be per Each installed 1" water service, complete in place, and shall be included under the Bid Schedule, **Bid Item 15**, and include

full compensation for furnishing all labor, material, equipment, tools, and all other incidentals and for doing all work involved in furnishing and installing; 1" water services and all incidentals per City Stand Detail W-1, complete in place and as specified herein and as directed by the Engineer.

- 2 inch water service shall be per Each installed 1" water service, complete in place, and shall be included under the Bid Schedule, **Bid Item 16**, and include full compensation for furnishing all labor, material, equipment, tools, and all other incidentals and for doing all work involved in furnishing and installing; 2" water services and all incidentals per City Stand Detail W-1, complete in place and as specified herein and as directed by the Engineer.

18.00 Slurry Seal

a. Description: The work to be done consists of furnishing all labor, equipment and materials and performing all operations necessary for the application of Type II polymer modified asphalt slurry seal surface over the existing AC pavement surfaces.

The slurry seal shall consist of a mixture of a polymer modified asphalt emulsion, mineral aggregate, mineral filler, water, and specified additives. The materials shall be properly proportioned, mixed and uniformly spread over a properly prepared surface as specified in these Technical Provisions, and as directed by the Engineer. The slurry seal shall conform to the requirements of Section 37-2 "Slurry Seal" of the CSS except where specified otherwise in these Technical Provisions.

The completed slurry seal shall leave a homogeneous mat, adhere firmly to the prepared surface, and have a friction resistant surface texture throughout its service life. The work shall include furnishing all surface preparation and any additional work, not mentioned above, that is required to be performed by the CSS and these Technical Provisions.

b. Contractor Experience: The Contractor shall be experienced with slurry seal. The Contractor shall submit, during the pre-construction meeting, a list of at least three projects of slurry seal completed within the last 12 months. The project list shall show the name of the project, name of the owner, address, telephone number of an appropriate party to contact, year and square feet application in each case.

c. Material Sampling: The minimum acceptable sampling frequency shall be as follows:

- Asphalt Emulsion (minimum sampling frequency - once daily)
- Mineral Aggregate (minimum sampling frequency - once weekly)

All samples of asphalt emulsion and aggregate for slurry seal shall be captured from the storage tank of the slurry seal application truck in use on the work. Inspector shall observe the sampling of 1 gallon of the emulsion and 50 lbs. of

the slurry seal aggregate. Contractor shall provide the samples and containers to the Engineer.

The Engineer or his representative shall be permitted to take samples of materials from the project at anytime. The City may elect to perform testing on the samples to verify compliance of the materials with the specifications.

d. Testing: Testing shall be undertaken by the Engineer whenever deemed necessary. The Engineer, or his representative, may suspend the application of the slurry seal whenever changes in the materials or quality of the applied slurry are noted. Work shall resume only when the noted deficiencies are corrected to the satisfaction of the Engineer. When work is suspended for this reason, samples will be taken immediately.

The Engineer may send samples to a testing laboratory. Testing will be at the City's expense unless deficiencies are verified by the testing. The Contractor shall reimburse the City for the cost of any testing required by deficient materials or application of the slurry mix.

Aggregate, if tested, should at a minimum be tested for the following:

Gradation	CTM 202; AASHTO T11, T27; ASTM C117, C136
Sand Equivalent	ASTM D2419
Moisture Content	CTM 226, 231; AASHTO T265; ASTM D2216

e. Materials:

13. Asphalt Emulsion

The emulsified asphalt shall be designated as grade PMCQS-1h.

The polymer within the asphalt emulsion shall be, at the option of the Contractor, Neoprene, SBR, EVA or SBS. Solid polymers such as EVA or SBS shall be adequately blended into the asphalt prior to emulsification. If a liquid latex such as Neoprene, SBR or similar is used, the latex shall be “co-milled” into the emulsion through the water phase during manufacturing. Each load of polymer asphaltic emulsion shall have a certificate from the asphalt emulsion manufacturer guaranteeing that either asphalt blending or “co-milling” processes were used. The certificate shall also state the percentage of the solid rubber polymer added by weight of the asphalt as well as the composition of the polymer. The addition of latex to the emulsion after emulsion manufacturing is prohibited. The certificate shall state if the emulsion supplied is the same as that used in the mix design.

The polymer modified asphalt emulsion shall conform to the following specifications:

TEST	TEST METHOD	REQUIREMENT

TEST	TEST METHOD	REQUIREMENT	
Tests on emulsion:			
		Minimum	Maximum
Viscosity SSF, @ 77°F, seconds	AASHTO T 59	15	90
Settlement, 5 days, %	AASHTO T 59	--	5
Storage Stability Test, 1 day, %	AASHTO T 59	--	1.0
Distillation:			
Oil distillate by volume of emulsion, %	AASHTO T 59	--	3
Residue by Evaporation, %	CTM 331	60	--
Tests on residue from Evaporation using CTM 331:			
Penetration, 77°F, 100 grams for 5 seconds, dmm	AASHTO T 59	40	65
Ductility, 77°F, 5 cm/min, cm (RTFO Aged Residue)	AASHTO T 51	60	--
Ring & Ball Softening Point, °F	AASHTO T 53	123	--
Polymer Content *, % *Solid polymer content based on weight of asphalt	CTM 401	3.0%	--
OR			
Torsional Recovery, %	CTM 32	18	--

2. Mineral Aggregate

Any aggregate or combination of aggregates shall be produced by crushing rock. To assure the material is totally crushed, 100% of the parent aggregate shall be larger than the largest stone in the gradation to be used. All materials shall be free from vegetable matter and other deleterious substances, oversized particles and caked lumps.

When tested in accordance to AASHTO T27 (ASTM C136) and AASHTO T11 (ASTM C117), the aggregate gradation (including the mineral filler) shall be within following bands:

3. Aggregate

Sieve Sizes	Percentage Passing	Percentage Passing
	Type I	Type II
9.5 mm (3/8”)		100
4.75 mm (#4)	100	94-100
2.36 mm (#8)	90-100	65-90
1.18 mm (#16)	60-90	40-70
600 um (#30)	40-65	25-50
75 um (#200)	10-20	5-15

After the target gradation has been submitted and identified in the mix design then the percent passing each sieve shall not vary by more than the stockpile tolerance and still remain within the gradation band during the application of slurry seal.

The mineral aggregate shall also conform to the following:

Test	Test Method	Requirements	
		Type I	Type II
Sand Equivalent	217	68 Minimum	70 Minimum
Durability Index	229	70 Minimum	75 Minimum

4. Mineral Filler

Mineral Filler shall be either Portland cement, hydrated lime, limestone dust, fly ash or other approved filler meeting the requirements of ASTM D242 and shall be used if required by the mix design. The mineral filler shall be considered as part of the aggregate in calculations regarding slurry seal asphalt content.

5. Water

The water added to the slurry seal shall be potable and free of harmful salts and contaminates.

6. Additives

Additives may be used to accelerate or retard the mixing and setting characteristics of the slurry seal, or improve the resulting finished surface. The use of additives in the slurry mix (or individual materials) shall be made initially in quantities predetermined by the mix design with field adjustments if required. If the use of additive during application requires a greater than + or - 1.0% deviation from the recommendations of the mix design, a new mix design will be performed to verify system performance at higher or lower additive levels.

f. Mix Design and Pre-Qualification of Materials: During the pre-construction meeting, the Contractor shall submit a signed mix design covering the specific materials to be used on the project. Compatibility of the aggregate, emulsion, mineral filler, and other additives shall be verified by the mix design. The mix design shall be made with the same aggregate gradation that the Contractor shall provide on the project.

The mix design shall be performed and dated within 30 days prior to the application of slurry seal. This mix design testing shall be performed by a laboratory capable of performing all tests listed in these specifications. The laboratory shall certify on the mix design that it has had at least two years of experience in the design of slurry seals.

After the mix design has been approved, no substitution or changes of materials shall be permitted, unless approved by the Engineer. If changes in materials are approved by the Engineer, a new mix design shall be performed by the Testing Laboratory before the application of new materials.

Required tests and values are as follows:

TEST	DESCRIPTION	SPEC
ISSA TB-113	Mix Time (Mixing test and set time test shall be done at the highest temperatures expected during construction.)	Controllable to 180 sec minimum
ISSA TB-139	Wet Cohesion	
	30 minutes min 60 minutes min	12kg-cm minimum 20kg-cm minimum
ISSA TB-109	Excess Asphalt by LWT Sand Adhesion	50g/ft ^{2} maximum (538 g/m ^{2} maximum)
ISSA TB-114	Wet Stripping	Pass (90% minimum)
ISSA TB-100	Wet Track Abrasion Loss	50g/ft ^{2} maximum
	One hour soak	(807 g/m ^{2} maximum)

The Wet Track Abrasion test is used to determine the minimum asphalt content.

The laboratory shall also report the quantitative effects of moisture content on the unit weight of the aggregate (bulking effect). The report must clearly show the proportions of aggregate, mineral filler (min. and max.), water (min. and max.), additive(s) (usage), and asphalt emulsion based on the dry weight of the aggregate.

The percentages of each individual material required shall be shown in the laboratory report. Adjustments may be required during the construction, based on the field conditions. The Engineer shall give final approval for all such adjustments.

The Engineer shall approve the mix design and all slurry seal materials and methods prior to use. The component materials shall be within the following limits:

RESIDUAL ASPHALT	7.5% - 13.5% (approx.12.0 - 22.0% emulsion). Based on dry weight of aggregate.
MINERAL FILLER	0.0% - 2.0% Based on dry weight of aggregate.
ADDITIVES	As needed to control mixing and setting times.
WATER	As needed to achieve proper mix consistency.

The Contractor shall submit samples at the pre-construction meeting from all suppliers furnishing a minimum of the following materials with corresponding MSDS sheets. Each sample shall be clearly labeled as to its contents, the related project name and job number.

1. One gallon of the base asphalt
2. One pint of the polymer additive (with clear labeling of polymer type)
3. One quart of asphalt emulsion
4. Fifty pounds of slurry seal aggregate

g. Proportioning: Proportioning shall conform to the provisions in Section 37-2.04, "Proportioning" of the CSS and these Technical Provisions.

The aggregate shall be proportioned using a belt feeder operated with an adjustable cutoff gate. The height of the gate opening shall be readily determinable. The emulsion shall be proportioned by a positive displacement pump. Any variable rate emulsion pump, if used, shall be equipped with a means to seal the adjusting unit in its calibrated condition.

The delivery rate of aggregate and emulsion per revolution of the aggregate feeder shall be calibrated at the appropriate gate settings for each mixer-spreader truck used on the project. The calibration shall demonstrate that delivery rates of dry aggregate and emulsion residue are within the recommended percentages stated in the laboratory mix design. The Contractor shall provide written calibration documentation for each application truck which has been performed within the last calendar year. The Contractor

shall further provide a short calibration demonstrating gate settings and liquids are delivering job materials within the mix design recommended ranges.

h. Mixing and Spreading Equipment: Mixing and spreading equipment shall conform to the provisions in Section 37-2.05, "Mixing and Spreading Equipment" of the CSS and these Technical Provisions. A minimum of two slurry seal machines shall be on the job and in good operating condition at all times.

The following equipment will be required:

The slurry seal shall be mixed in a self-propelled mixing machine equipped with a continuous flow pugmill, capable of accurately delivering and automatically proportioning the aggregate, emulsified asphalt, mineral filler, water and admixtures to a double shafted, multi-blade pugmill mixer capable of minimum speeds of 200 revolutions per minute. Mix retention time in the pugmill shall be less than three seconds. The mixing machine shall have sufficient storage capacity of aggregate, emulsified asphalt, mineral filler and water to maintain an adequate supply to the proportioning controls and make 15 tons of emulsion mix.

The mixing machine shall be equipped with hydraulic controls for proportioning the material by volume to the mix. Each material control device shall be calibrated, properly marked, pre-set and lockable.

The mixing machine shall be equipped with a water pressure system and nozzle type spray bars to provide a water spray immediately ahead of the spreader box.

The mixing machine shall be equipped with an approved fines feeder that provides a uniform, positive, accurately metered, pre-determined amount of the mineral filler at the same time and location that the aggregate is fed.

i. Placing: Placement of slurry seal shall conform to the provisions in Section 37-2.06, "Placing" of the CSS and these Technical Provisions.

The slurry mix shall be placed over the surface by means of a spreader box equipped with augers to distribute the material uniformly throughout the full width with flexible seals to prevent loss of mixture from the box. The box shall have 6 to 8 foot skids to provide for leveling and filling of uneven depressed areas. The strike off assembly shall be adjustable metal plate to ensure uniform placement on super elevated sections and shoulder slopes. There shall be a walkway across the rear of the screed to facilitate strike-off and texturing adjustments along with material sample taking.

The emulsion mix shall not be placed when the atmospheric temperature is below 50°F or during unsuitable weather.

Immediately prior to placing the latex emulsion mix, the surface shall be thoroughly cleaned of all vegetation, loose materials, dirt, mud and all other extraneous materials by a combination of sweeping and blowing. The latex emulsion mixture shall fill all minor cracks, depressions or low areas and leave a uniform surface free from ruts,

humps, depressions or irregularities. Any ridges, indentations or other objectionable marks left in the surface shall be eliminated by rolling or other means.

The Engineer shall approve all surface preparation prior to application of the slurry seal.

Utility covers, manholes, and other permanent fixtures shall be protected from coverage by the slurry seal and referenced for prompt location and cleaning following application. The Contractor shall be responsible for locating, removing, and cleaning protection from the above items following the slurry seal operations. The methods of protection and referencing, locating and cleaning shall be submitted by the Contractor and shall be subject to approval by the Engineer.

Slurry sealing of driveway aprons, returns, and other incidental work shall be accomplished concurrently with application of the street proper. The joint between the pavement and the PCC gutter shall be sealed with slurry seal and the gutter edge overlapped by approximately two inches. When slurry starts or finishes, a straight line cut-off shall be obtained by laying down a strip of building paper or other approved material. Such paper and any excess slurry shall be removed by the Contractor after application of the slurry. Edge limits of the slurry on both sides of the street shall be maintained in a neat and uniform line.

Construction joints shall be neat in appearance and shall be tapered or feathered to conform to the existing surfacing. All excess material shall be removed from surfaces upon completion of each run.

Areas, which cannot be reached with slurry seal machines, shall be surfaced using hand squeegees to provide complete and uniform coverage. The area to be hand worked shall be lightly dampened prior to mix placement and the slurry worked immediately. Care shall be exercised to leave no unsightly appearance from handwork. The same type finish as applied by the spreader box shall be required. Handwork shall be completed during machine applying process.

Once the slurry seal has cured and is open to traffic, any excessive raveling of the aggregate from the mixture shall be swept up by the Contractor. The surface shall be maintained and re-swept ***three separate times after streets have been completed or*** as required by the Engineer until such time as the raveling ceases or the surface is rejected by the Engineer. Sweeping shall be provided when required within 48 hours notice.

Spread rate shall be as follows:

Type II	5.44 - 9.07 kg/m^2 (12 - 20 lbs/yd^2)

The exact rate will be as determined by specific weight of aggregate, the surface demand of the pavement, and the size of the largest particle size of the aggregate. The application rate will produce finished slurry seal as defined elsewhere in these specifications.

At the end of each day's production, the Contractor will provide to the Engineer a report containing the following information:

1. Tons of dry aggregate consumed that day;
2. Tons of asphalt emulsion consumed that day; and
3. Footage covered that day.

This report shall be received no later than 10:00 a.m. of the following day.

j. Installation: The Contractor shall perform the service in a safe, acceptable, workmanlike manner, and in accordance with the requirements of Section 37-2, "Slurry Seals", of the CSS.

1. Personnel shall be experienced, knowledgeable and capable in all aspects of performing the service. The same personnel that start the project shall remain on the project for the life of the contract.

2. The equipment shall be in good repair and serviceable to operate in a reliable and safe manner.

3. When slurry is being placed over a brick, concrete, or other highly absorbent or polished surface, a 1-part emulsion, 3-part water tack coat of the same asphalt emulsion (if possible) type and grade as specified for the slurry is recommended. This can be applied with an asphalt distributor. The normal application rate is 0.05 to 0.10 gal. /sq. yd. of the diluted emulsion.

4. The Contractor shall place slurry seal to the beginning and ending limits of the work as directed by the Engineer.

5. The Contractor shall be responsible for providing the street cleaning, "No Parking" posting, and traffic control.

6. The Contractor shall be responsible for all cleanup of the work areas and staging areas.

7. The Contractor shall be responsible for covering and uncovering all structure covers, such as manholes, valve and monument covers.

8. All streets (full width and gutters) shall be swept by mechanical means no sooner than 5 days and no later than 15 days after slurry placement is complete.

k. Measurement and Payment: Slurry seal will be measured by the square foot. The contract price paid per square foot for "Slurry Seal" of the types shown in the Bid Schedule, under **Bid Item 17,** shall include full compensation for furnishing all labor,

materials, tools, equipment and incidentals and for doing all the work involved in the furnishing and placing the slurry seal, complete in place, including cleaning the surface and protecting the slurry seal until it has set, as specified in the CSS and these Technical Provisions, and as directed by the Engineer.

19.00 Locate and Raise/Adjust Manholes and Other Structures to Grade

a. Description: This work shall consist of raising all manholes, water valve covers and similar sized boxes in street areas such as street monuments in accordance with City Standard Detail SD-1 and City Standard Detail W-8. All manholes, valves covers, and similar sized boxes must be exposed within 24 hours and the structures raised to grade and paved within 72 hours of being covered. The Contractor shall pay the City liquidated damages of $500 per calendar day, for each day the Contractor fails to raise the structures to grade after a three calendar day period after being covered during the Contractor's operations.

b. Materials: Materials shall be furnished in conformance with City Standards, detail drawings in the Appendix and the appropriate Sections of the California Standard Specifications.

c. Measurement and Payment: The price to adjust and/or lower structures (iron) to grade shall be included in the other various bid items of work and thus no separate payment shall be made therefore. Work shall include full compensation for furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved in raising and/or lowering structures for CIR process, and street pavement section work as shown on the plans, and as specified herein and as directed by the Engineer.

20.00 Asphalt Concrete Overlay (2 inch)

a. Description: A 2 inch thick asphalt concrete layer shall be placed over the recently installed CIR area. This work shall include any wedge grinding required to conform to existing pavement surface or concrete overpass deck. Wedge grinding shall be 20-30 feet long at each end transition to prevent abrupt elevation changes within the roadway.

The surface, when compacted, shall be smooth, dense, well bonded, and of uniform texture and appearance. The compacted surface course of asphalt concrete shall be free from ruts, humps, depressions or irregularities. When a straightedge 3.6 meters (12 feet) long is laid on the finished surface and parallel with the centerline of the road or driveway, the surface shall not vary more than .006 meters (0.02 foot) from the lower edge of the straightedge. The transverse slope of the finished surface shall be uniform to a degree such that no depressions greater than 0.02 foot are present when tested with a straight-edge 12 feet long laid in a direction transverse to the center line and extending from edge to edge of a 3.05 meter (10 foot) pass.

Any ridges, indentations or other objectionable marks left in the surface of the asphalt concrete 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. Asphalt concrete pavement shall include the application of a paint binder.

In addition to the requirements in Section 39-5.01, "Spreading Equipment," of the CSS, asphalt-paving equipment shall be equipped with automatic screed controls and a sensing device or devices. When placing asphalt concrete the automatic controls shall control the longitudinal grade and transverse slope of the screed. Grade and slope references shall be furnished, installed and maintained by the Contractor. Ski devices shall be a minimum length of at least 30 feet with a rigid one-piece unit whereby the entire length activates the sensor.

When placing contiguously with previously placed mats, the end of the screed adjacent to the previously placed mat shall be controlled by a sensor that responds to grade of the previously placed mat and will reproduce the grade in the new mat within a 0.01-foot tolerance.

Should the method and equipment furnished by the Contractor fail to produce a layer of asphalt concrete conforming to the above requirements, including straightedge tolerance of Section 39-6.03, the paving operations shall be discontinued upon notice of the Engineer, and the Contractor shall modify his equipment or furnish substitute equipment within three (3) working days of such notice of the Engineer.

The area to which paint binder has been applied shall be closed to public traffic. All possible care shall be taken to avoid tracking binder material onto existing pavement surfaces beyond the limits of construction. A drop-off of more than 0.10-foot will not be allowed at any time between adjacent lanes open to public traffic.

The Contractor shall be responsible for temporary pavement delineation and markings as required by the Engineer for the maintenance of a safe traveled way. The Contractor shall be responsible for providing a safe and well-marked roadway. This shall include providing temporary striping during evening and weekend hours if specified by the Engineer.

b. Materials: The asphalt concrete for overlay shall be Type A, 12.5 mm (½") medium maximum gradation, in accordance with CSS. Asphalt binder shall be PG 64-10. **No percentage of RAP (Reclaimed Asphalt Pavement) shall be permitted in the asphalt concrete placed as the final lift/wearing course on the project.**

c. Paint Binder (Tack Coat): Paint binder shall be applied to all horizontal and vertical surfaces to receive asphalt concrete surfacing. Paint binder shall be furnished and applied in accordance with Sections 39-4.01 “Subgrade”, and Section 93 "Liquid Asphalts", and Section 94 "Asphaltic Emulsions".

d. Measurement and Payment: Asphalt Concrete Overlay shall be measured by the ton compacted in place in accordance with Section 39-8.01 "Measurement" of the CSS. No payment shall be made for materials placed outside of the limits marked by the Engineer. The contract unit price paid per ton for "Asphalt Concrete Overlay (2")" shall be included in the Bid Schedule under **Bid item 9,** and include full compensation for furnishing all labor, material, equipment, tools, and incidentals and for doing all work involved in installing asphalt concrete overlay, complete in place, including staged construction, wedge grinding, temporary conforms, traffic control, flagging, temporary striping and delineation, prime coats, tack coats and paint binders as described above, as shown on the plans, as specified herein and as directed by the Engineer.

21.00 Full Depth AC Pavement Repair

a. Description: Areas designated by the Engineer, and/or shown on the plans, shall be dug out to a depth of 150 mm (6 inches) at all locations, (milling is recommended and preferred) removed and replaced with full-depth AC, unless otherwise directed on the contract plans. The AC shall be placed in two or three lifts with the uppermost lift of not less than 0.15 ft. or more than 0.20 ft. The minimum width of any repair shall be as field marked. **Surface lift (2") shall be 12.5 mm (1/2") medium, no RAP, per City standards.**

The Contractor shall make all arrangements for disposal of excavated materials. All edges shall be saw-cut unless otherwise approved by the Engineer. Asphalt concrete in repair sections shall be placed in lifts in accordance with Section 39-6 "Spreading and Compacting", and shall be Type A, 3/4" maximum, medium gradation per Section 39-2, "Materials" of the CSS. Removed materials shall be disposed of legally.

The material remaining in place, after removing surfacing and base, to the required depth, shall be graded to a plane, watered and compacted to 95 percent relative compaction. After compaction and prior to the placing of asphalt concrete, the vertical edges of the existing pavement shall receive a tack coat. The finished surface of the remaining material shall not extend above the grade established by the Engineer.

b. Unsuitable Material: In the event that the underlying subbase material is unsuitable, it shall be excavated below the depth required above and disposed of. The limits of removal shall be designated by the Engineer and shall be in one-inch increments. Compensation shall be at a per inch price based on the bid for a 6-inch deep pavement repair divided by 6 for each additional inch of depth. The resulting space shall be filled with a single lift of asphalt concrete.

Unsuitable material is defined as material the Engineer determines to be:

A. Of such unstable nature as to be incapable of being compacted to specified density using ordinary methods at optimum moisture content; or
B. Too wet to be properly compacted and circumstances prevent suitable in-place drying prior to incorporation into the work; or
C. Otherwise unsuitable for the planned use.

c. Measurement and Payment: Full Depth AC Pavement Repair shall be measured by the square foot as shown on the plans and as marked in the field by the Engineer. No payment shall be made for materials placed outside of the limits marked by the Engineer. The contract unit prices paid per square foot for "Full Depth AC Pavement Repair" shall be included in the Bid Schedule, **Bid Item 10**, for full compensation for furnishing all labor, material, equipment, tools, and all other incidentals and for doing all work involved in furnishing, disposing, saw cutting, grinding, asphalt, and placing full depth AC pavement repair, complete in place, including staged construction, temporary conforms, traffic control, flagging, temporary striping and delineation, prime coats, tack coats, and paint binders, as specified herein and as directed by the Engineer.

22.00 Crack Seal

a. Description: This work shall include sealing all pavement cracks up to ¼-inch in width or as directed by the Engineer, for the full length visible including cracking around all manholes, water valve boxes, monuments and traffic signal loops. If wet pavement conditions exist, the Contractor shall reschedule with the Engineer an appropriate time to crack seal. The Engineer shall make final determination of the crack seal schedule to be followed.

b. Material: Crack sealing material shall be hot applied asphalt sealing compound, Koch Material Co. Flex-A-Fill or approved equal. Material shall be applied at a temperature between 350 and 400 degrees Fahrenheit. Material shall be of a type so as to not track, string or in any way be transferred to traffic after initial setting of the material. All due care and diligence shall be used to ensure the proper placing and setting of the material prior to allowing traffic on it.

c. Method of Construction: The street shall be swept with a power broom before start of application of crack seal. Cracks in the street pavements shall be sealed with hot applied sealing compound after cleaning of the cracks with a hot air lance. Routing of the cracks is not required, but cracks shall be blown out by compressed air prior to sealing operations. The crack sealant shall be applied in such a manner that it shall not protrude above the surface more than 1/4 inch. Any material more than 1/4 inch above the crack shall be spread with a squeegee to obtain a level surface over the filled crack. All cracks shall be free of moisture prior to sealing. No moisture shall be visible on the street at the time of sealant placement.

In the event the material is transferred to vehicles prior to the opening of the street to traffic, the Contractor shall be responsible for cleaning those vehicles to the satisfaction of the Engineer and the vehicle owner.

d. Measurement and Payment: Crack sealing shall be measured per lineal foot of crack receiving sealant per the Bid Schedule, **Bid Item 11**. Payment for the crack seal work shall be per linear foot of sealant applied as necessary to seal all cracks and shall include furnishing all labor, materials, and equipment for transporting and placement of

crack seal including all traffic control in accordance with Caltrans specifications and as modified by these special provisions and no additional payment shall be made therefore.

23.00 Class 2 Aggregate Base

a. Description. Aggregate base shall be Class 2 and shall conform to the provisions in Section 26, "Aggregate Bases," of the CSS and these Technical Provisions. Aggregate base shall be compacted to 90% RC under sidewalk and 95% RC at all other locations.

b. Measurement and Payment. Full compensation for Class 2 Aggregate Base is included in the contract items of work involved and no additional compensation will be allowed therefor.

24.00 Rectangular Rapid Flashing Beacons Assembly

A. Description: Furnish and install new signs on existing posts, new signs on new posts, new sign post, removal of existing signs, removal of existing sign posts, installation of "RRFB" rectangular rapid flashing beacon assemblies with solar and wireless connectivity, and shall include all labor and materials required to install the improvements including but not limited to removal and disposal of existing signs and posts, traffic control, and pedestrian safety delineation.

B. Locations: The locations for new signs and/or posts shall be identified or marked and approved by the Public Works Department prior to any installation work. The locations of new signs shall not block any existing traffic control devices or signs.

C. Mounting Heights and Order: Sign mounting heights and display order shall be in conformance with the California Manual Uniform Traffic Control Devices (MUTCD).

D. Trimming: The contractor shall trim any existing vegetation and/or trees that may obstruct the views of existing or new signs as deemed necessary by the Engineer.

E. Rectangular Rapid Flashing Beacon (RRFB):

1. All electrical work shall conform to the state of California department of transportation (CALTRANS) standard specifications and standard plans (May 2006), the California Manual of uniform traffic control devices (MUTCD, Jan 2010), and the manufacturer's specifications.

2. The contractor shall verify existing conditions on the job site. The exact locations for all new equipment shall be identified by the contractor and approved by the Engineer prior to installation of any equipment.

3. All new signs mounted on existing / new posts shall conform to the California MUTCD (Jan. 2010).

4. The “RRFB” system equipment shall be Carmanah Technologies Corporation, model R920 Series or approved equal (determined by the Engineer).

5. The “RRFB” system shall include solar panels, solar batteries, solar control unit, LED lights, wireless connectivity and ADA pedestrian push buttons, and shall include all necessary equipment and accessory components required for a completely functional RRFB warning system.

6. The contractor shall be responsible for the repair of all sidewalk and roadway paving upon completion of the “RRFB” system installation.

F. Materials: Signs shall be in conformance with the California Manual Uniform Traffic Control Devices (MUTCD). Posts shall be “telespar” 1 ¾” square sign post with “telespar” 2” square anchor or approved equal, refer to City of Morgan Hill’s Standard Detail A-29.

G. Payment: The contract unit price per each Rectangular Rapid Flashing Beacon assemblies, as shown on the plans and complete in place, shall consist of new signs, new posts, foundations, new pedestrian push button, new solar power and battery system, installation of “RRFB” rectangular rapid flashing beacon assembly **(**including installation of pole and foundations for “RRFB” assembly, shall include full compensation for all labor, materials, tools, equipment, and incidentals and for doing all the work involved in the RRFB assembly and signage installation as shown on the plans, as specified in these special provisions, and as directed by the Engineer and shall be included in **Bid Item 18**.

25.00 Street Lighting and Electric Systems

DESCRIPTION

The LED street lighting system shall fully conform with the National Electrical Code and City of Morgan Hill Standard Specifications and Details, the Plans, these Special Provisions, and as directed by the Engineer. Rate schedule is LS2A. LED luminaire and internal wiring shall be supplied and installed by the Contractor.

The work shall consist of furnishing and installing complete street light poles, luminaries, concrete poles foundations, and all incidental items necessary, including connections, conduits, and conductors necessary for complete installation in conformance with the Plans, these Special Provisions, and as directed by the Engineer.

POLES AND LUMINAIRES

Poles and LED luminaries shall be shipped and delivered free of defects. Refer to project plans for detail of LED street light. All poles to be complete with handhole and handhole cover. All poles to be furnished with full pole base covers. Luminaires shall be shipped and delivered complete with P.E.C. receptacles and all mounting hardware. P.E.C. and lamp shall be supplied and installed per the general notes on the Plans.

MATERIAL

Lighting Standard Foundation: Foundation for light standards shall be Class B concrete and reinforced with a #6 rebar cage as called for in the Project Plans. Concrete foundations shall be constructed on undisturbed ground, or in material that has been compacted to 95% relative density before excavating for foundation. The foundation shall be cast monolithically up to the top four (4) inches which shall be placed after the standard has been plumbed.

1. High strength anchor bolts, nuts and washers shall conform to ASTM designation A-325 and shall be galvanized.

2. The upper threaded portion of all anchor bolts shall be provided with two (2) nuts and two (2) washers each.

3. Welding shall not be performed on any portion of the body of high-strength anchor bolts.

4. Plumbing of the lighting standards shall be accomplished by adjusting the leveling nuts before placing mortar or before the foundation is finished to final grade. Shims or other similar devices shall not be used for plumbing or raking of standards.

5. Both forms and ground which will be in contact with the concrete shall be thoroughly moistened before placing concrete. Forms shall not be removed until the concrete has thoroughly set.

6. Where obstructions prevent the construction of the planned foundation, the contractor shall construct an effective foundation as approved by the Engineer.

7. Poles shall not be erected until the foundation has set for at least seven (7) days.

8. Forms shall be true to line and grade. Tops of foundation for poles shall be finished to curb or sidewalk grade, or as directed by the Engineer. Conduit ends and anchor bolts shall be placed in proper position and to proper height and shall be held in place by means of a template until the concrete sets.

STREET LIGHT CONDUIT

The work shall consist of furnishing and installing street light conduit in conformance with the Plans, the Standard Specifications and these Special Provisions.

All conduit and fittings shall be U.L. approved. Unless otherwise noted or required, use minimum 1½" Schedule 40 PVC conduit and fittings below grade. Minimum radius bends shall be 18 in. For aboveground installation, use metallic rigid steel conduit. Provide pull wire in all empty conduits. All crossings shall be perpendicular to street.

CONDUCTORS FOR STREET LIGHTING

The work shall consist of furnishing and installing street light conductor in conformance with the Plans, the Standard Specifications and these Special Provisions.

Conductors shall be No. 8, type THW, unless otherwise specified, and be UL listed for 600V operation. All conductors shall be stranded copper in accordance with ASTM B 3 and B 8. All conductor insulation shall be standard type THW in accordance with ASTM D 2219 and ASTM 2220. No.10 in pole may be used.

PULL BOXES/GROUNDING BOXES

Splice box shall be No. 3½ state type splice box and shall conform to the Plans, the Standard Specifications and these Special Provisions.

Splice boxes shall include lid and brass hold-down bolts, unless otherwise noted. Lids to be inscribed "STREET LIGHTING."

REMOVAL AND RELOCATION OF EXISTING STREET LIGHTS AND ASSOCIATED FACILITIES COMPLETE

Contractor shall remove/relocate existing street lights and associated conductors, boxes and conductors in conformance with the Plans, the Standard Specifications and these Special Provisions.

Contractor shall cut and cap existing conduits a minimum of 18” below grade. Street light bases to be removed per City specifications.

Contractor shall transport all salvageable items to the City Corp Yard.

EQUIPMENT LIST AND DRAWINGS

The Contractor shall submit to the Engineer within ten (10) days after receiving the fully executed contract a list of equipment and materials proposed for installation in accordance with Section 86-1.01C, “Submittals,” of the Standard Specifications and City Standard Details.

MEASUREMENT AND PAYMENT

Full compensation for furnishing all labor, materials, tools equipment and incidentals and for doing all related work for installing street lights and relocating street light, complete in place as shown on the Plans, per City Standard Details, and as directed by the Engineer shall be considered included in the bid schedule as shown below:

- Street lighting systems shall be measured and paid for per Each Street Light installed in operable condition per the Bid Schedule, **Bid Item 19**, and include; excavation, disposal, foundations (steel & concrete), poles, mast arms, LED luminaries, wiring, conduits, pull boxes, and all associated equipment, complete in place.

- Street light Relocation shall be measured and paid for per Each Street Light relocated, complete in place, in operable condition per the Bid Schedule, **Bid**

Item 20, and include; removal of foundation, disposal, backfill of existing foundation, relocation of pole, excavation of new foundation (steel & concrete), new LED luminare, wiring, conduits, pull boxes, and all associated equipment, complete in place.

26.00 Traffic Stripes, Signage, Pavement Markings and Raised Reflective Markers

a. Description: This work shall be done in accordance with Sections 84 and 85 of the CSS, as modified by these Technical Provisions. Traffic stripes and pavement marking items shall include replacing all existing traffic stripes, words, and symbols, reflective and non-reflective pavement markers, and fire hydrant blue marker as required on the streets to be resurfaced. Included also is any necessary removal, temporary delineation, site survey of existing layout and traffic control. It may be necessary to phase the construction of the striping in the interest of public safety. This work includes as-builting the existing striping layout and replacing said striping back to the original layout unless otherwise directed by the Engineer in writing.

The Contractor shall install striping, where possible, prior to opening the roadway to traffic and when indicated by the public's safety or convenience. If required, removal of existing striping shall be by wet sand blasting. All traffic stripes and pavement markings, new or existing, within or adjacent to the work limits, which become defaced or damaged during the Contractor's operations, shall be replaced by the Contractor at its expense concurrently with other traffic marking operations in the immediate area. **The Engineer shall be the sole judge as to which stripes or legends are defaced or damaged.**

All new traffic striping shall include the reflective markers in conformance with the Caltrans Traffic Manual.

b. Materials: Materials shall be in conformance with CSS Section 84-2 "Thermoplastic Traffic Stripes and Pavement Markings", and Section 85 "Pavement Markers". Thermoplastic material for traffic stripes shall be applied at a minimum thickness of 0.060 inch, except crosswalks shall be applied at a minimum thickness of 0.12 inch. All crosswalks and bike lane striping shall be non-skid. Thermoplastic material for pavement markings shall be applied at a thickness of .100-.150 inch. **All streets are to receive thermoplastic stripes and pavement markings.**

Templates or stencils for pavement markings shall be of "English unit" dimensions and shall be approved by the Engineer prior to application.

c. Method of Construction: Construction and installation shall be per Sections 84 and 85 of the CSS. Removal of existing facilities shall be per Section 15-2.02B and 15-2.02C of the CSS.

Temporary "cat tracks" shall be placed for all striping (including limit lines) immediately (no later than 72 hours) after completing sealing or overlay of any street.

All streets shall receive the first coat of permanent centerline, lane lines, stop limit lines, and crosswalks no sooner than 7 days and no later than 9 days following resurfacing of the street. The Contractor shall pay the City liquidated damages of $500 per calendar day, for each day the Contractor fails to replace the striping and markings within the time periods specified above.

Pavement marker (blue marker) shall be per the requirements of the State Standard Plans.

d. Temporary Traffic Stripes and Pavement Markings: "Scrub seal Marker," as distributed by MV Plastics, Inc., 533 W. Collings Avenue, Orange, CA 714-532-1522, or approved equal, shall be used for temporary traffic stripes and shall be installed at 24' spacing, immediately after obliteration of any existing striping.

All other traffic control and safety markings such as crosswalks, arrows, lane tapers, etc. shall be marked using paint or reflective tape.

e. Layout: All layout and cat tracking shall be performed by and at the expense of the Contractor, and shall be approved by the Engineer prior to placement of striping or markings.

f. Traffic Stripes: Unless otherwise stated, all striping shall be hot liquid thermoplastic. All areas to receive traffic stripes shall be swept immediately prior to applying thermoplastic to remove all loose rock.

g. Pavement Markers: All markers shall be placed using hot melt bituminous adhesive exclusively. All non-reflective markers shall be the ceramic type.

h. Pavement Markings: Legends, crosswalks, and stop bars, shall be thermoplastic unless otherwise stated. When thermoplastic is applied for crosswalks or bike lane striping, the following composition shall be used with a maximum thickness of 0.12 inches (3.0 mm):

Binder	20%	(18% min)
Glass Beads	20%	(15% min)
TiO_2 Pigment	10%	(7%min)
Filler	35%	(37% max)
Cullet	15 %	(10% min)

The crushed glass cullet in such mixture shall be produced from cullet of clear glass, with a maximum size of 850 micrometers (100% passing by weight) and a minimum size of 425 micrometers (0-5% passing by weight). The skid resistance shall be a minimum of 55 BPN.

i. Measurement and Payment: Thermoplastic Traffic stripes, pavement markers and reflectors will be paid as described below, and include full compensation for furnishing all labor, material, equipment, tools, and incidentals and for doing all the work involved in

furnishing and installing traffic stripes, pavement markings, symbols/arrows, and all "Green" striping/symbols complete in place, including removal of all existing pavement delineations, layout (cat tracking), and temporary pavement delineation, as shown on the plans, as specified herein and as directed by the Engineer. No additional or separate payment shall be made therefor.

- Measurement of "Traffic Striping" (Remove existing striping/symbols)" will be paid per Lump Sum, complete in place and shall be included in the Bid Schedule, **Bid Item 21**.

- Measurement of "Traffic Striping" (Detail 22)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 22**.

- Measurement of "Traffic Striping" (Detail 27B)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 23**.

- Measurement of "Traffic Striping" (Detail 29)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 24**.

- Measurement of "Traffic Striping" (Detail 32)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 25**.

- Measurement of "Traffic Striping" (Detail 38)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 26**.

- Measurement of "Traffic Striping" (Detail 39)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 27**.

- Measurement of "Traffic Striping" (Type IV Arrow)" will be paid per Each unit, complete in place and shall be included in the Bid Schedule, **Bid Item 28**.

- Measurement of "Traffic Striping" (Type I Arrow 10')" will be paid per Each unit, complete in place and shall be included in the Bid Schedule, **Bid Item 29**.

- Measurement of "Traffic Striping" (Crosswalk 12" wide)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 30** (measured along centerline of crosswalks).

- Measurement of "Traffic Striping" (Crosswalk ladder striping)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 31** (measured along centerline of crosswalks)

- Measurement of "Traffic Striping" (Yield Markings)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 32**

- Measurement of "Traffic Striping" (STOP Pavement Markings)" will be paid per EACH unit, complete in place and shall be included in the Bid Schedule, **Bid Item 33**.

- Measurement of "Traffic Striping" (SLOW Pavement Markings)" will be paid per EACH unit, complete in place and shall be included in the Bid Schedule, **Bid Item 34**.

- Measurement of "Traffic Striping" (SCHOOL Pavement Markings)" will be paid per EACH unit, complete in place and shall be included in the Bid Schedule, **Bid Item 35**.

- Measurement of "Traffic Striping" (XING Pavement Markings)" will be paid per EACH unit, complete in place and shall be included in the Bid Schedule, **Bid Item 36**.

- Measurement of "Traffic Striping" (Bike Lane Symbols-Caltrans)" will be paid per EACH unit, complete in place and shall be included in the Bid Schedule, **Bid Item 37**.

- Measurement of "Traffic Striping" (Green Bike Lane Symbol-Detail A)" will be paid per Each unit, complete in place and shall be included in the Bid Schedule, **Bid Item 38**.

- Measurement of "Traffic Striping" (Green Dashed Markings-Detail B)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 39**.

- Measurement of "Traffic Striping" (Pavement Marking-Detail C)" will be paid per Lineal Foot, complete in place and shall be included in the Bid Schedule, **Bid Item 40**.

- Measurement of "Traffic Striping" (Pavement Marking-Detail D)" will be paid per Lineal foot, complete in place and shall be included in the Bid Schedule, **Bid Item 41**.

j. Measurement and Payment: Traffic Signage will be paid as a lump sum per **Bid Item 42**, and include full compensation for furnishing all labor, material, equipment, tools, and incidentals and for doing all the work involved in furnishing and installing traffic signs and posts per City Detail A-29, and include excavation, backfill, foundation, concrete, signs, and all hardware complete in place, as shown on the plans, as specified herein and as directed by the Engineer. No additional or separate payment shall be made therefor.

27.00 "GREEN" Bike Lane Striping

SKID/SLIP RESISTANT THERMOPLASTIC PAVEMENT MATERIAL

28-3.1 GENERAL - A durable, high skid and slip resistant, pavement marking material suitable for use as bike lane delineation and markings. For use on asphalt or Portland cement concrete pavement surfaces.
The thermoplastic striping and markings shall meet Caltrans specifications.
28-3.2 MATERIAL - Shall be composed of impervious to degradation by motor fuels, lubricants, etc., in conjunction with aggregates, pigments, binders, and anti-skid/anti-slip elements uniformly distributed throughout the material. The thermoplastic material shall conform to AASHTO designation M249, with the exception of the relevant differences due to the material being non-reflective, and being of a color different from white or yellow.

3.1. The material shall be a resilient thermoplastic product containing intermix of anti-skid/anti-slip elements and where the top surface contains anti-skid/anti-slip elements. These anti-skid/anti-slip elements must have a minimum hardness of 8 (Mohs scale).
3.2. The material shall be capable of being applied on bituminous and/or Portland cement concrete pavements.
3.3. The material shall be capable of conforming to pavement contours, breaks and faults through the action of traffic at normal pavement temperatures.
3.4. Pigment: The color of the pavement marking material shall be accordance with FHWA Memorandum dated April 15, 2011: Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes (IA-14). The final shade will be determined and approved by the Engineer.

3.4.1. Daytime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
X	y	X	y	x	y	x	y
0.230	0.754	0.266	0.500	0.367	0.500	0.444	0.555

3.4.2. Nighttime chromaticity coordinates for the color used for green colored pavement shall be as follows:

1		2		3		4	
X	y	X	y	x	y	x	y
0.230	0.754	0.336	0.540	0.450	0.500	0.479	0.520

3.4.3. The pigment system shall not contain heavy metals or any carcinogen, as defined in 29 CFR 1910.1200 in amounts exceeding permissible limits as specified in relevant Federal Regulations.

3.5. Skid Resistance: The surface of the thermoplastic material shall contain factory applied anti-skid elements with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum skid resistance value of 60 BPN when tested according to ASTM E 303.
3.6. Slip Resistance: The surface of the thermoplastic material shall contain anti-skid elements with a minimum hardness of 8 (Mohs scale). Upon application the material shall provide a minimum static coefficient of friction of 0.6 when tested according to

ASTM C 1028 (wet and dry), and a minimum static coefficient of friction of 0.6 when tested according to ASTM D 2047.
3.7. Thickness: The material shall be supplied at a minimum thickness of 90 mil (2.29 mm).
3.8. Environmental Resistance: The material shall be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

28-33 PAYMENT
Payment for "Green Bike Lane Striping/Symbols" shall be included in the "Traffic Striping and Signage" **bid items,** and include full compensation for furnishing all labor, materials, tools, equipment, traffic control and incidentals for doing all the work involved in complying with these Special Provisions, the Plans and Standard Specifications, and as directed by the Engineer.

28.00 Street Trees

1.00 DESCRIPTION OF WORK

Furnish all labor, material, equipment, labor, tools, and incidentals necessary for the provision and installation of street trees as shown on the Plans and as specified in this Section and per City Standard details.

1.01 QUALITY ASSURANCE

A. Quality: Minimum quality of all plant material shall conform to prevailing published specifications of the California Association of Nurserymen and the American Association of Nurserymen unless otherwise indicated. Additional specifications shall be indicated on the Plans.

1.02 SUBMITTALS

A. General: Within fourteen (14) days after Notice to Proceed submit the following:
   1. Documentation certifying quantity and species of plant material ordered, the nursery supplier(s), *any* plant material not available at that time, or proposed substitutions to be reviewed.
   2. Product data on all associated planting products specified herein.
   3. 4-ounce sample of mulch.

1.03 REVIEWS

A. Contractor shall specifically request at least (5) five days in advance the following review prior to progressing with the work:
   1. Intermediate Review – plant material approval and layout/locations.

PART II - PRODUCTS

2.01 GENERAL

A. Nomenclature and Labels: Plant botanical names conform to "Standardized Plant Names," second edition, and secondly, "A Checklist of Woody Ornamental Plants of California, "Manual 32, University of California. All plants of each clone, species, and cultivar shall be delivered to the site labeled with their full botanical name. Every plant species shall be labeled with no less than one label for every ten plants of a species.

B. Quantities: The quantities shown on the plant list and in labels are for the Engineer's use and are not to be construed as the complete and accurate limits of the Contract. Contractor shall furnish and install all plants shown schematically on the Plans.

C. Root Systems: All container-grown stock shall be grown in its container for at least six months prior to its planting. Contractor shall allow one percent of the quantity of plants for removal and inspection. Any plant material, within two years following the final acceptance of the project, determined by the Engineer to be defective, restricted, declining or otherwise deficient due to abnormal root growth, shall be replaced by the Contractor, to the equal condition of the adjacent plants, at the time of replacement.

D. Health: Foliage, roots and stems of all plants shall be of vigorous health and normal habit of growth for its species. All plants/trees shall be free of all disease, insect stages, burns or disfiguring characteristics.

E. Untrue Species: All plant material, within two years following the final acceptance of the Project, determined by the Owner to be untrue to the species, clone, and/or variety specified, shall be replaced by the Contractor, to the equal condition of adjacent plants at the time of replacement.

2.02 TREES

A. All trees shall be 15 gallon unless noted otherwise, and have straight trunks of uniform taper, larger at the bottom. Trunks shall be free of damaged bark, with all minor abrasions and cuts showing healing tissue. Sucker basal growth and lateral growth shall be removed and treated to eliminate re-sprouting. Normal lower side branching shall remain. Trees unable to stand upright without support shall be rejected. Install trees per City Standard Detail L-16. Tree type will be chosen by the home owner from the following list, Desert Willow, Western hackberry, Toyon, Hollyleaf Cherry.

2.03 MULCH

A. Shall be 2 inch thick, chipped wood product such as cedar or redwood chips greater than 1/2 inch and less than 2 inch in length, and no more than 1/2 inch thick, and

shall contain less than 1% foreign matter including soil, weeds, seeds, etc. by dry weight.

PART III - EXECUTION

3.01 GENERAL

A. Plant Material Approvals: Before planting operations commence, all plant material shall be reviewed by the Engineer. Defective plants shall be removed from the site and acceptable material substituted in its place. The review does not accept defective plants/trees which may be installed.

B. Layout: Only those plants/trees to be planted in any single day should be laid out. Locations of all plants/trees shall be reviewed prior to planting. Plants/trees installed without this review may be transplanted/relocated as directed by the Engineer.

C. Protection of Plants/trees: Contractor shall maintain all plant/tree material in a healthy growing condition prior to and during planting operation. Contractor shall be responsible for vandalism, theft, and damage to plant/tree material until commencement of the maintenance period.

D. Pruning: Contractor shall do no pruning without specific authorization of the Engineer. Plants/trees pruned without authorization shall be replaced by the Contractor if necessary.

3.02 PLANT PITS

A. Rootball shall rest only on undisturbed soil, or in the case of fill areas, on compacted, un-amended sub-grade. See 02920 Soil Preparation for backfill mix requirements. Plant rootball and pits shall have their sides and bottoms loosened and otherwise broken to prevent glazing or compaction.

1. Plant pits shall be at least the following minimum sizes:

15 gallon container	10" backfill all around

2. Plant pits in paved areas shall extend to the edge of the planter opening in all directions unless otherwise noted on the Plans.

3.03 TREE INSTALLATION

A. Basins: Construct basins as necessary to water plants. Basin bottoms shall drain to berm away from plant stems.

1. Remove basins from all plants under a permanent irrigation system prior to operation of the irrigation system and finish grade the planting area.

B. Staking: All trees shall be staked unless otherwise noted on the Plans. Install stakes as per City Standard Details.

1. Stakes shall be driven securely into existing soil on the windward side of the tree. A minimum of two figure-eight, wire and rubber tree ties shall be required.

3.05 MULCH

A. Install 3-inch mulch – see the Plans for areas to be covered.

3.06 CLEAN UP

A. After completion of all operations, Contractor shall remove all trash, excess soil and other debris. All walks, walls, and pavement shall be swept and washed clean. Leave the entire area in a neat, orderly condition.

3.07 MEASUREMENT AND PAYMENT

A. The Contract unit price paid for each tree installation including excavation, backfill, fertilizer, staking, and mulch, shall be included in the Bid Schedule, **Bid Item 43**, and include full compensation for furnishing all labor, material, equipment, tools, and incidentals, for all work involved as specified in this Section, as shown on the Drawings, and as directed by the Engineer, and no separate payment shall be made.

29.00 Supplemental Work

A. Description: The work shall include any new or unforeseen work not specified for in the Plans and Specification. The lump sum dollar amount listed in the bid schedule for Supplemental Work shall be included in each bidder's proposal. Supplemental work shall be performed only upon direct written authorization from the Project Engineer and is revocable if not used.

B. Measurement and Payment: Supplemental scope of work and price shall be agreed to prior to authorization and shall be paid out of **Bid Item 44**.

END