

CITY OF DAVIS
YOLO COUNTY, CALIFORNIA

PUBLIC WORKS DEPARTMENT

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CONTRACT BOOK

PROJECT:
Mace Boulevard Complete Street Improvements
CIP No. 8257
[Federal Project No. 5238 (061)]

Project Engineer: Michael Mitchell, P.E.

BIDS OPEN: November 2, 2017 1:00 PM

Deliver Bids To: City Offices - City Clerk's Office
23 Russell Boulevard
Davis, CA 95616-3896

NOTE If you choose to mail your Bid Proposal, both the outside and inside envelope **MUST** be clearly marked as **[SEALED BID FOR: Mace Boulevard Complete Street Improvements CIP No. 8257]**

Bids from Contractors whose name is not on the plan holders list will be deemed unresponsive. See Note 2 of Notice Inviting Bids.

[DELIVER IMMEDIATELY TO CITY CLERK'S OFFICE]

City of Davis

**Mace Boulevard Complete Street Improvements
CIP No. 8257
[Federal Project No. 5238 (061)]**

This Contract Book, including the Specific Conditions, has been prepared under the direction of the following Registered Civil Engineer(s).



Michael Mitchell, P.E.

Registered Civil Engineer No. C35135
License Expires: September 30, 2019



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00 11 16 – NOTICE INVITING BIDS

Mace Boulevard Complete Street Improvements, CIP 8257 [Federal Project No. 5238 (061)]

1. **NOTICE IS HEREBY GIVEN** that the City Council of the City of Davis (“City”) invites and will receive sealed Bids up to but not later than **1:00 PM on November 2, 2017**, at the City Clerk’s office of the City Manager, located at 23 Russell Boulevard, Davis, CA 95616, for the furnishing to City of all labor, equipment, materials, tools, services, transportation, permits, utilities, and all other items necessary for the **Mace Boulevard Complete Street Improvements Project [Federal Project No. 5238 (061)]** (the “Project”). At said time, Bids will be publicly opened and read aloud at the City Office. Bids received after said time shall be returned unopened. Bids shall be valid for a period of 90 calendar days after the Bid opening date.

2. **Requesting Plans And Specifications:**

Plans and specifications (not including State Specifications or other documents included by reference), and proposal forms, may be obtained by logging on to www.blueprintexpress.com/davis or by calling BPXpress Reprographics at (916) 760-7281. The cost is \$40 per set (plus shipping and handling) and is non-refundable. Any bidder that fails to purchase a complete set of plans, specifications and proposal forms from BPXpress Reprographics prior to the bid opening date and time OR is not included on the BPXpress plan holder list shall have their bid deemed non-responsive. In other words, the bidder must purchase the plan set from BPXpress Reprographics AND be on the BPXpress plan holder list to be deemed responsive. The only exception shall be in the event a bidder’s name is not included on the plan holders list but the bidder can produce proof of purchase of the plans, specifications and proposal forms from BPXpress Reprographics with a purchase date that occurred prior to the close of bidding. Any bid produced from plans, specifications and proposal forms obtained from sources other than those purchased from BPXpress by bidder shall be deemed non-responsive. Only bidders on the plan holders list shall receive addenda notifications

It is the responsibility of each prospective bidder to pay the fee and download and print all Bid Documents for review and to verify the completeness of Bid Documents before submitting a bid. Any Addenda will be posted on www.blueprintexpress.com/davis. It is the responsibility of each prospective bidder to check the BPXpress Reprographics website listed above on a daily basis through the close of bids for any applicable addenda or updates. The City does not assume any liability or responsibility based on any defective or incomplete copying, excerpting, scanning, faxing, downloading or printing of the Bid Documents. Information on BPXpress Reprographics may change without notice to prospective bidders. The Contract Documents shall supersede any information posted or transmitted by BPXpress Reprographics.

Bids must be submitted on the City’s Bid Forms. To the extent required by section 20103.7 of the Public Contract Code, upon request from a contractor plan room service, the City shall provide an electronic copy of the Contract Documents at no charge to the contractor plan room.

Contract documents will not be available for inspection or purchase from the City by potential Bidders.

3. **Description Of The Work:** The work shall include reconstruction of Mace Boulevard between Redbud Drive and Cowell Boulevard; a 1.6' full depth reclamation pavement section for reconstruction of vehicular travel lanes, a 0.75' full depth reclamation pavement section for reconstruction of bike lanes and shoulders, utility adjustments, curb and gutter, concrete flatwork, signage, striping and pavement markers to reduce travel lanes from 4 to 2 lanes, add buffered bike lanes, and add two-way cycle track; at intersection of Mace Blvd and Cowell Blvd, improve intersection for bicycles and pedestrians; and at Mace Blvd and San Marino, install HAWK traffic signal, in Davis, CA including all labor, materials, equipment, and incidentals, to completely install an operating facility in accordance with the Project Plans and Specifications.

All work shall be performed in accordance with the City of Davis' Standard Specifications January 1996 Edition, Addenda through October 2009, the latest edition of California Department of Transportation Standard Specifications and Plans dated 2015, Davis-Bacon Wage Determinations, General Prevailing Wage Rates, Labor Surcharge and Equipment Rental Rates, and the Contract Documents.

4. **Engineer's Estimate:** \$2,400,000.00 **Project Engineer:** Michael C. Mitchell, P.E.

5. **Contractor's License Classification and Subcontractors:** Unless otherwise provided in the Instructions for Bidders, each Bidder shall be a licensed contractor pursuant to sections 7000 et seq. of the Business and Professions Code in the following classification(s) throughout the time it submits its Bid and for the duration of the contract: **Class [A] General Engineering Contractor's License** or a **combination of Class C-8, C-12, and C 32 licenses.**

Subcontractor Substitution requests shall be made within 35 calendar days after the award of the contract. Pursuant to Public Contract Code Section 3400(b), the City may make findings designating that certain additional materials, methods or services by specific brand or trade name other than those listed in the Standard Specifications be used for the Project. Such findings, if any, as well as the materials, methods or services and their specific brand or trade names that must be used for the Project may be found in the Special Conditions.

6. **Bid Bond:** Each Bid shall be accompanied by cash, a certified or cashier's check, or Bid Bond secured from a surety company satisfactory to the City Council, the amount of which shall not be less than ten percent (10%) of the submitted Total Bid Price, made payable to City of Davis as bid security. The bid security shall be provided as a guarantee that within five (5) working days after the City provides the successful bidder the Notice of Award, the successful Bidder will enter into a contract and provide the necessary bonds and certificates of insurance. The bid security will be declared forfeited if the successful Bidder fails to comply within said time. No interest will be paid on funds deposited with City. **The Bid Bond submitted shall be provided by a surety duly authorized by the Insurance Commissioner to transact surety business in the State of California.**

7. **Performance Bond and Labor and Material Bond:** The successful Bidder will be required to furnish a Faithful Performance Bond and a Labor and Material Payment Bond each in an amount equal to one hundred percent (100%) of the Contract Price. Each bond shall be in the forms set forth herein, shall be secured from a surety company that meets all State of California bonding

requirements, as defined in California Code of Civil Procedure Section 995.120, and that is a California admitted surety insurer.

Pursuant to Section 22300 of the Public Contract Code of the State of California, the successful Bidder may substitute certain securities for funds withheld by City to ensure its performance under the contract.

8. **Prevailing Wages:** Pursuant to Labor Code Section 1773, City has obtained the prevailing rate of per diem wages and the prevailing wage rate for holiday and overtime work applicable in Yolo County from the Director of the Department of Industrial Relations for each craft, classification, or type of worker needed to execute this contract. A copy of these prevailing wage rates may be obtained via the internet at: www.dir.ca.gov/dlsr/

In addition, a copy of the prevailing rate of per diem wages is available at the City's Public Works and shall be made available to interested parties upon request. The successful bidder shall post a copy of the prevailing wage rates at each job site. It shall be mandatory upon the Bidder to whom the Contract is awarded, and upon any subcontractors, to comply with all Labor Code provisions, which include but are not limited to the payment of not less than the said specified prevailing wage rates to all workers employed by them in the execution of the Contract, employment of apprentices, hours of labor and debarment of contractors and subcontractors.

9. **Department of Industrial Relations:** Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No Bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a contract, the Bidder and its subcontractors, of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the Project.

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. In bidding on this Project, it shall be the Bidder's sole responsibility to evaluate and include the cost of complying with all labor compliance requirements under this contract and applicable law in its Bid.

Additionally, this project is partially funded by the Federal Department of Transportation. Prevailing wages shall also follow Federal guidelines. The Contractor and its subcontractors must comply with both the State of California's prevailing wages and the Federal Department of Transportation's prevailing wages and pay the higher of the two amounts for any particular job title. See the Federal Requirements section of this Contract Book for more detail and Article 23 of the Instruction to Bidders.

10. **Retention:** Pursuant to Public Contract Code section 7201, the City has made a determination that the project described herein is substantially complex, and therefore a retention of 5% will be withheld from payment until after the work is complete.
11. **DBE Contract Goal:** 7.38%
The Federal Requirements section of this Contract Book covers the DBE requirements.
12. **Buy America:** This project is subject to the "Buy America" provisions of the Surface Transportation Assistance Act of 1982 as amended by the Intermodal Surface Transportation Efficiency Act of 1991.

13. **Award:** City shall award the contract for the Project to the lowest responsive, responsible Bidder as determined by the City from the Base Bid. City reserves the right to reject any or all bids or to waive any irregularities or informalities in any bids or in the bidding process.
14. **Notice to Proceed:** This project will be awarded for a spring start date. The Notice to Proceed shall be issued no sooner than April 2, 2018.
15. **Further Information:** For further information, contact Michael Mitchell, Principal Civil Engineer, at mmitchell@cityofdavis.org. Questions will only be considered and answered via email. Questions will not be considered or answered 24 working hours prior to the bid opening.

Deliver Bids To: CITY OFFICES - CITY CLERK'S OFFICE

23 Russell Boulevard, Davis, CA 95616-3896

(Building is located on the corner of Russell Boulevard & B Street)

Note If you choose to mail your Bid Proposal via any of the overnight/express services, the outside envelope **MUST** be clearly marked as **[SEALED BID FOR:**

Mace Boulevard Complete Street Improvements, Program No. 8257 [Federal Project No. 5238 (061)]

DELIVER IMMEDIATELY TO CITY CLERK'S OFFICE]

Date And Time: November 2, 2017 1:00 p.m.

Date: October 10, 2017

END OF NOTICE INVITING BIDS

00 21 13 – INSTRUCTIONS TO BIDDERS

ARTICLE 1. SECURING BID DOCUMENTS

Bids must be submitted to the City on the Bid Forms which are a part of the Bid Package for the Project. Bid and Contract Documents may be obtained from **BPXpress Reprographics** (www.blueprintexpress.com/davis) as specified in the Notice Inviting Bids. Prospective bidders are encouraged to telephone in advance to determine the availability of Contract Documents. Any charge for the Contract Documents is stated in the Notice Inviting Bids.

The City may also make the Contract Documents available for review at one or more plan rooms, as indicated in the Notice Inviting Bids. Please Note: Prospective Bidders who choose to review the Contract Documents at a plan room must contact BPXpress Reprographics to obtain the required Contract Documents if they decide to submit a bid for the Project.

Addenda, if any, issued during the bid period will be sent to those contractors who have obtained documents from BPXpress Reprographics and are on their planholder's list. Failure to acknowledge addenda may make a bid nonresponsive and not eligible for award of the contract.

ARTICLE 2. EXAMINATION OF SITE AND CONTRACT DOCUMENTS

At its own expense and prior to submitting its Bid, each Bidder shall visit the site of the proposed work and fully acquaint itself with the conditions relating to the construction and labor required so that the Bidder may fully understand the work, including but not limited to difficulties and restrictions attending the execution of the work under the contract. Each Bidder shall carefully examine the Drawings, and shall read the Specifications, Contract, and all other documents referenced herein. Each Bidder shall also determine the local conditions which may in any way affect the performance of the work, including local tax structure, contractors' licensing requirements, availability of required insurance, the prevailing wages and other relevant cost factors, shall familiarize itself with all federal, state and local laws, ordinances, rules, regulations and codes affecting the performance of the work, including the cost of permits and licenses required for the work, and shall make such surveys and investigations, including investigations of subsurface or latent physical conditions at the site or where work is to be performed as may be required. Bidders are responsible for consulting the standards referenced in the Contract. The failure or omission of any Bidder to receive or examine any contract documents, forms, instruments, addenda, or other documents, or to visit the site and acquaint itself with conditions there existing shall in no way relieve any Bidder from any obligation with respect to its Bid or to the contract and no relief for error or omission will be given except as required under State law. The submission of a Bid shall be taken as conclusive evidence of compliance with this Article.

ARTICLE 3. INTERPRETATION OF DRAWINGS AND DOCUMENTS

Prospective Bidders unclear as to the true meaning of any part of the Drawings, Specifications or other proposed contract documents may submit to the Engineer of the City a written request for interpretation. The prospective Bidder submitting the request is responsible for prompt delivery. Interpretation of the Drawings, Specifications or other proposed contract documents will be made only by a written addendum duly issued and a copy of such addenda will be mailed or delivered to each prospective Bidder who has purchased a set of Drawings and Specifications. The City will not be responsible for any other explanation or interpretations of the proposed documents. If a Prospective Bidders becomes aware of any errors or omissions in any part of the Contract

Documents, it is the obligation of the Prospective Bidder to promptly bring it to the attention of the City.

ARTICLE 4. PRE-BID CONFERENCE

No pre-bid conference is scheduled for this project at this time.

ARTICLE 5. ADDENDA

The City reserves the right to revise the Contract Documents prior to the Bid opening date. Revisions, if any, shall be made by written Addenda. All Addenda issued by the City shall be included in the Bid and made part of the Contract Documents. Pursuant to Public Contract Code Section 4104.5, if the City issues an Addendum which includes material changes to the Project less than 72 hours prior to the deadline for submission of Bids, the City will extend the deadline for submission of Bids. The City may determine, in its sole discretion, whether an Addendum warrants postponement of the Bid submission date. Each prospective Bidder shall provide City a name, address, email address, and facsimile number to which Addenda may be sent, as well as a telephone number by which the City can contact the Bidder. Copies of Addenda will be furnished by email, facsimile, first class mail, express mail or other proper means of delivery without charge to all parties who have obtained a copy of the Contract Documents and provided such current information. Please Note: Bidders are responsible for ensuring that they have received any and all Addenda. To this end, each Bidder should contact BPXpress Reprographics to verify that it has received all Addenda issued, if any, prior to the Bid opening. The Bidder shall indicate the Addenda received prior to bidding in the space provided in the Bid Form. Failure to indicate all Addenda may be sufficient cause for rejecting the Bid.

ARTICLE 6. ALTERNATE BIDS

If alternate bid items are called for in the Contract Documents, the time required for completion of the alternate bid items has already been factored into the Contract duration and no additional Contract time will be awarded for any of the alternate bid items. The City may elect to include one or more of the alternate bid items, or to otherwise remove certain work from the Project scope of work. Accordingly, each bidder must ensure that each bid item contains a proportionate share of profit, overhead, and other costs or expenses which will be incurred by the bidder.

ARTICLE 7. COMPLETION OF BID FORMS

Bids shall only be prepared using copies of the Bid Forms which are included in the Contract Documents. The use of substitute Bid Forms other than clear and correct photocopies of those provided by the City will not be permitted. Bids shall be executed by an authorized signatory as described in these Instructions to Bidders. In addition, Bidders shall fill in all blank spaces (including inserting "N/A" where applicable), and initial all interlineations, alterations, or erasures to the Bid Forms. Bidders shall neither delete, modify, nor supplement the printed matter on the Bid Forms nor make substitutions thereon. **USE OF BLACK OR BLUE INK, INDELIBLE PENCIL, OR A TYPEWRITER IS REQUIRED.** Deviations in the Bid Forms may result in the Bid being deemed non-responsive.

ARTICLE 8. MODIFICATIONS OF BIDS

Each Bidder shall submit its Bid in strict conformity with the requirements of the Contract Documents. Unauthorized additions, modifications, revisions, conditions, limitations, exclusions

or provisions attached to a Bid may render it non-responsive and may cause its rejection. Bidders shall not delete, modify, or supplement the printed matter on the Bid Forms, or make substitutions thereon. Oral, telephonic and electronic modifications will not be considered.

ARTICLE 9. SUBCONTRACTORS

Bidder shall set forth the name, address of the place of business, and contractor license number of each subcontractor who will perform work, labor, furnish materials or render services to the bidder on said contract and each subcontractor licensed by the State of California who, under subcontract to bidder, specially fabricates and installs a portion of the Work described in the Drawings and Specifications in an amount in excess of one half of one percent (0.5%) of the total bid price, and shall indicate the portion of the work to be done by such subcontractor in accordance with Public Contract Code Section 4104.

ARTICLE 10. LICENSING REQUIREMENTS

Pursuant to Business and Professions Code Section 7028.15 and Public Contract Code Section 3300, all bidders must possess proper licenses for performance of this Contract. Subcontractors must possess the appropriate licenses for each specialty subcontracted. Pursuant to Business and Professions Code Section 7028.5, the City shall consider any bid submitted by a contractor not currently licensed in accordance with state law and pursuant to the requirements found in the Contract Documents to be nonresponsive, and the City shall reject the Bid. The City shall have the right to request, and Bidders shall provide within ten (10) calendar days, evidence satisfactory to the City of all valid license(s) currently held by that Bidder and each of the Bidder's subcontractors, before awarding the Contract.

Notwithstanding anything contained herein, if the Work involves federal funds, the Contractor shall be properly licensed by the time the Contract is awarded, pursuant to the provisions of Public Contract Code section 20103.5.

ARTICLE 11. BID GUARANTEE (BOND)

Each bid shall be accompanied by: (a) cash; (b) a certified or cashier's check made payable to City of Davis; or (c) a Bid Bond secured from a surety company satisfactory to the City Council, the amount of which shall not be less than ten percent (10%) of the Total Bid Price, made payable to City of Davis as bid security. Personal sureties and unregistered surety companies are unacceptable. The surety insurer shall be California admitted surety insurer, as defined in Code of Civil Procedure Section 995.120. The bid security shall be provided as a guarantee that within ten (10) working days after the City provides the successful bidder the Notice of Award, the successful bidder will enter into a contract and provide the necessary bonds and certificates of insurance. The bid security will be declared forfeited if the successful bidder fails to comply within said time, and City may enter into a contract with the next lowest responsive responsible bidder, or may call for new bids. No interest shall be paid on funds deposited with the City. City will return the security accompanying the bids of all unsuccessful bidders no later than 60 calendar days after award of the contract.

ARTICLE 12. IRAN CONTRACTING ACT OF 2010

In accordance with Public Contract Code Section 2200 *et seq.*, the City requires that any person that submits a bid or proposal or otherwise proposes to enter into or renew a contract with the City with respect to goods or services of one million dollars (\$1,000,000) or more, certify at the

time the bid is submitted or the contract is renewed, that the person is not identified on a list created pursuant to subdivision (b) of Public Contract Code Section 2203 as a person engaging in investment activities in Iran described in subdivision (a) of Public Contract Code Section 2202.5, or as a person described in subdivision (b) of Public Contract Code Section 2202.5, as applicable.

The form of such Iran Contracting Certificate is included with the bid package and must be signed and dated under penalty of perjury.

ARTICLE 13. NONCOLLUSION DECLARATION

Bidders on all public works contracts are required to submit a declaration of noncollusion with their bid. This form is included with the bid package and must be signed and dated under penalty of perjury.

ARTICLE 14. PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work. If awarded a contract, the bidder and its subcontractors, of any tier, shall maintain active registration with the Department of Industrial Relations for the duration of the Project. To this end, Bidder shall sign and submit with its Bid the Public Works Contractor Registration Certification on the form provided, attesting to the facts contained therein. Failure to submit this form may render the bid non-responsive. In addition, each Bidder shall provide the registration number for each listed subcontractor in the space provided in the Designation of Subcontractors form.

ARTICLE 15. BIDDER INFORMATION AND EXPERIENCE FORM

Each Bidder shall complete the questionnaire provided herein and shall submit the questionnaire along with its Bid. Failure to provide all information requested within the questionnaire along with the Bid may cause the bid to be rejected as non-responsive. The City reserves the right to reject any Bid if an investigation of the information submitted does not satisfy the Engineer that the Bidder is qualified to properly carry out the terms of the contract.

ARTICLE 16. WORKERS' COMPENSATION CERTIFICATION

In accordance with the provisions of Labor Code Section 3700, Contractor shall secure the payment of compensation to its employees. Contractor shall sign and file with the City the following certificate prior to performing the work under this Contract:

I am aware of the provisions of Section 3700 of the Labor Code, 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 of this contract.

The form of such Workers' Compensation Certificate is included as part of this document.

ARTICLE 17. SIGNING OF BIDS

All Bids submitted shall be executed by the Bidder or its authorized representative. Bidders may be asked to provide evidence in the form of an authenticated resolution of its Board of Directors or a Power of Attorney evidencing the capacity of the person signing the Bid to bind the Bidder to each Bid and to any Contract arising therefrom.

If a Bidder is a joint venture or partnership, it may be asked to submit an authenticated Power of Attorney executed by each joint venturer or partner appointing and designating one of the joint venturers or partners as a management sponsor to execute the Bid on behalf of Bidder. Only that joint venturer or partner shall execute the Bid. The Power of Attorney shall also: (1) authorize that particular joint venturer or partner to act for and bind Bidder in all matters relating to the Bid; and (2) provide that each venturer or partner shall be jointly and severally liable for any and all of the duties and obligations of Bidder assumed under the Bid and under any Contract arising therefrom. The Bid shall be executed by the designated joint venturer or partner on behalf of the joint venture or partnership in its legal name.

ARTICLE 18. SUBMISSION OF SEALED BIDS

Once the Bid and supporting documents have been completed and signed as set forth herein, they shall be placed, along with the Bid Guarantee and other required materials, in a sealed envelope, addressed and delivered or mailed, postage prepaid, to the Engineering Department of the City before the time and day set for the receipt of bids. The envelope shall bear the title of the work and the name of the bidder. No oral or telephonic bids will be considered. No forms transmitted via the internet, e-mail, facsimile, or any other electronic means will be considered unless specifically authorized by the City as provided herein. Bids received after the time and day set for the receipt of bids shall be returned to the bidder unopened. The envelope shall also contain the following in the lower left-hand corner thereof:

**Bid of _____ (Bidder's Name)
for the Mace Boulevard Complete Street Improvements Project, CIP 8257 [Federal
Project No. 5238 (061)]**

Only where expressly permitted in the Notice Inviting Bids may bidders submit their bids via electronic transmission pursuant to Public Contract Code sections 1600 and 1601. Any acceptable method(s) of electronic transmission shall be stated in the Notice Inviting Bids. City may reject any bid not strictly complying with City's designated methods for delivery.

ARTICLE 19. OPENING OF BIDS

At the time and place set for the opening and reading of bids, or any time thereafter, each and every bid received prior to the time and day set for the receipt of bids will be publicly opened and read. The City will leave unopened any Bid received after the specified date and time, and any such unopened Bid will be returned to the bidder. It is the bidder's sole responsibility to ensure that its Bid is received as specified. Bids may be submitted earlier than the date(s) and time(s) indicated.

The public reading of each bid will include the following information:

- A. The name and business location of the bidder.

- B. The nature and amount of the bid security furnished by bidder.
- C. The bid amount.

Bidders or their representatives and other interested persons may be present at the opening of the bids. The City may, in its sole discretion, elect to postpone the opening of the submitted Bids. The City reserves the right to reject any or all Bids and to waive any informality or irregularity in any Bid.

ARTICLE 20. WITHDRAWAL OF BID

Any bid may be withdrawn either personally or by written request, incurring no penalty, at any time prior to the scheduled closing time for receipt of bids. Requests to withdraw bids shall be worded so as not to reveal the amount of the original bid. Withdrawn bids may be resubmitted until the time and day set for the receipt of bids, provided that resubmitted bids are in conformance with the instructions herein.

Bids may be withdrawn after bid opening only by providing written notice to City within five (5) working days of the bid opening and in compliance with Public Contract Code Section 5100 *et seq.*, or as otherwise may be allowed with the consent of the City.

ARTICLE 21. BIDDERS INTERESTED IN MORE THAN ONE BID

No Bidder shall be allowed to make, file or be interested in more than one bid for the same work unless alternate bids are specifically called for. A person, firm or corporation that has submitted a sub-proposal to a Bidder, or that has quoted prices of materials to a Bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders. No person, firm, corporation, or other entity may submit a sub-proposal to a Bidder, or quote prices of materials to a Bidder, when also submitting a prime Bid on the same Project.

ARTICLE 22. SUBSTITUTION OF SECURITY

The Contract Documents call for monthly progress payments based upon the percentage of the Work completed. The City will retain a percentage of each progress payment as provided by the Contract Documents. At the request and expense of the successful Bidder, the City will substitute securities for the amount so retained in accordance with Public Contract Code Section 22300.

ARTICLE 23. PREVAILING WAGES

The City has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages in the locality in which this work is to be performed for each craft or type of worker needed to execute the Contract.

These rates are available at the Public Works offices of the City or may be obtained online at <http://www.dir.ca.gov>. Bidders are advised that a copy of these rates must be posted by the successful Bidder at the job site(s).

The City of Davis hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation.

The Contractor shall pay hourly wages equal to or greater than the higher rate determined by the California Department of Industrial Relations or the Federal Wage Rates.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates, which is a part of the contract and available on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. The Federal minimum wage rates for this project, as predetermined by the United States Secretary of Labor, are available through the California Department of Transportation's Electronic Project Document Distribution Site on the Internet at <http://www.wdol.gov/>. Addenda to modify the Federal minimum wage rates, if necessary, will be issued to holders of the Contract Book. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. The Department will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate, which most closely approximates the duties of the employees in question.

ARTICLE 24. DEBARMENT OF CONTRACTORS AND SUBCONTRACTORS

In accordance with the provisions of the Labor Code, contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Labor Code Sections 1777.1 or 1777.7. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid to a debarred subcontractor by the Contractor for the Project shall be returned to the City. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the Project.

ARTICLE 25. INSURANCE REQUIREMENTS

Prior to commencing work, the successful bidder shall purchase and maintain insurance as set forth in the General Conditions.

ARTICLE 26. PERFORMANCE BOND AND PAYMENT BOND REQUIREMENTS

The successful bidder will be required to furnish a Labor and Material Payment Bond and a Faithful Performance Bond each in an amount equal to one hundred percent (100%) of the contract price. Each bond shall be secured from a surety company that meets all State of California bonding requirements, as defined in California Code of Civil Procedure Section 995.120 and is admitted by the State of California. Each bond shall be accompanied, upon the request of City, with all documents required by California Code of Civil Procedure Section 995.660 to the extent required by law. All bonding and insurance requirements shall be completed and submitted to City within ten (10) working days from the date the City provides the successful bidder with the

Notice of Award.

ARTICLE 27. SALES AND OTHER APPLICABLE TAXES, PERMITS, LICENSES AND FEES

Contractor and its subcontractors performing work under this Contract will be required to pay California sales tax and other applicable taxes, and to pay for permits, licenses and fees required by the agencies with authority in the jurisdiction in which the Work will be located, unless otherwise expressly provided by the Contract Documents.

ARTICLE 28. PERMIT AND INSPECTION FEE ALLOWANCE

Notwithstanding anything contained herein, the Bid Form contains an allowance for the Contractor's cost of acquiring traffic control permits and for construction inspection fees that may be charged to the Contractor by the Agency of Jurisdiction. The allowance is included within the Bid Form to eliminate the need by bidders to research or estimate the costs of traffic control permits and construction inspection fees prior to submitting a bid. The allowance is specifically intended to account for the costs of traffic control permits and construction inspection fees charged by the local Agency of Jurisdiction only. No other costs payable by Contractor to the Agency of Jurisdiction are included within the allowance.

ARTICLE 29. FILING OF BID PROTESTS

Bidders may file a "protest" of a Bid with the City of Davis' City Clerk, located at 23 Russell Boulevard. In order for a Bidder's protest to be considered valid, the protest must:

- A. Be filed in writing within five (5) calendar days after the bid opening date;
- B. Clearly identify the specific irregularity or accusation;
- C. Clearly identify the specific City staff determination or recommendation being protested;
- D. Specify in detail the grounds for protest and the facts supporting the protest; and
- E. Include all relevant, supporting documentation with the protest at time of filing.

If the protest does not comply with each of these requirements, the City may reject the protest without further review.

If the protest is timely and complies with the above requirements, the City of Davis' City Engineer, or other designated City staff member, shall review the protest, any response from the challenged Bidder(s), and all other relevant information. The City Engineer will provide a written decision to the protestor.

The procedure and time limits set forth in this Article are mandatory and are the sole and exclusive remedy in the event of a Bid protest. Failure to comply with these procedures shall constitute a failure to exhaust administrative remedies and a waiver of any right to further pursue the Bid protest, including filing a Government Code Claim or legal proceedings.

ARTICLE 30. BASIS OF AWARD; BALANCED BID

The City shall award the Contract to the lowest responsible Bidder submitting a responsive Bid. The lowest Bid will be determined on the basis of the Total Bid Price.

The City may reject any Bid which, in its opinion when compared to other Bids received or to the City's internal estimates, does not accurately reflect the cost to perform the Work. The City may reject as non-responsive any Bid which unevenly weights or allocates costs, including but not limited to overhead and profit to one or more particular bid items.

ARTICLE 31. BID RIGGING

The U.S. Department of Transportation provides a toll-free "hotline" service to report bid rigging activities. Bid rigging activities can be reported Monday through Friday, between 8:00 a.m. and 5:00 p.m. eastern time, telephone no. 1-800-424-9071. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report these activities. The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

ARTICLE 32. APPRENTICESHIP

If the project requires the employment of workers in any apprenticeship craft or trade, once awarded, the Contractor and subcontractor must apply to the Joint Apprenticeship Council unless already covered by local apprentice standards (Labor Code § 1777.5).

ARTICLE 33. AWARD PROCESS

Once all Bids are opened and reviewed to determine the lowest responsive and responsible Bidder, the City Manager or the City Council may award the contract (depending on the amount of the award). The apparent successful Bidder should begin to prepare the following documents: (1) the Performance Bond; (2) the Payment Bond; and (3) the required insurance certificates and endorsements. Once the City notifies the Bidder of the award, the Bidder will have ten (10) working days from the date of this notification to execute the Contract and supply the City with all of the required documents and certifications. Regardless of whether the Bidder supplies the required documents and certifications in a timely manner, the Contract time will begin to run twenty (20) working days from the date of the notification. Once the City receives all of the properly drafted and executed documents and certifications from the Bidder, the City shall issue a Notice to Proceed to that Bidder.

This project will be awarded for a spring start date. The Notice to Proceed shall be issued no sooner than April 2, 2018.

ARTICLE 34. EXECUTION OF CONTRACT

As required herein the Bidder to whom an award is made shall execute the Contract in the amount determined by the Contract Documents. The City may require appropriate evidence that the persons executing the Contract are duly empowered to do so. The Contract and bond forms to be executed by the successful Bidder are included within these Specifications and shall not be detached.

ARTICLE 35. QUESTIONS

Questions regarding this Notice Inviting Bids may be directed to Michael Mitchell, Principal Civil Engineer, at mmitchell@cityofdavis.org OR 530-757-5686. No other members of the City's staff or City Council should be contacted about this procurement during the bidding process. Any and

all inquiries and comments regarding this Bid must be communicated in writing, unless otherwise instructed by the City. The City will not entertain inquiries or comments 72 hours before the bid opening excluding weekends and holidays. The City may, in its sole discretion, disqualify any Bidder who engages in any prohibited communications.

00 41 43 – BID FORMS

1.1 Bid.

Bids will be received at the City of Davis, 23 Russell Boulevard, Davis, California, until 1:00 PM on the Second Day of November, 2017.

NAME OF BIDDER: _____

To the Honorable City Council
of the City of Davis
23 Russell Boulevard
Davis, California 95616

The undersigned hereby declare that we have carefully examined the location of the proposed Work, and have read and examined the Contract Documents, including all plans, specifications, and all addenda, if any for the following Project:

**Mace Boulevard Complete Street Improvements Project,
CIP 8257 [Federal Project 5238 (061)]**

We hereby propose to furnish all labor, materials, equipment, tools, transportation, and services, and to discharge all duties and obligations necessary and required to perform and complete the Project, as described and in strict conformity with the Drawings, and these Specifications for TOTAL BID PRICE indicated herein.

The undersigned acknowledges receipt, understanding, and full consideration of the following addenda to the Contract Documents:

Addenda No. _____

1. Attached is the required Bid Guarantee in the amount of not less than 10% of the Total Bid Price.
2. Attached is the completed Designation of Subcontractors form.
3. Attached is the fully executed Noncollusion Declaration form.
4. Attached is the completed Iran Contracting Act Certification form.
5. Attached is the completed Public Works Contractor Registration Certification form.
6. Attached is the completed Contractor's Certificate Regarding Workers' Compensation form.
7. Attached is the completed Bidder Information and Experience form.

A. BID SCHEDULE

**MACE BOULEVARD COMPLETE STREET IMPROVEMENTS
PROGRAM NO. 8257
[FEDERAL PROJECT NO. 5238 (061)]**

| Bid Items | | | | | |
|------------------|--|--------------|------------------|-------------------|--------------|
| Item | Description | Units | Est. Qty. | Item Price | Total |
| 1. | Mobilization | LS | | | \$ |
| 2. | Traffic Control | LS | | | \$ |
| 3. | Potholing | LS | | | \$ |
| 4. | Reset Monument (Std. Plan 301-5) | EA | 4 | \$ | \$ |
| 5. | Remove Concrete | SF | 6,795 | \$ | \$ |
| 6. | Cold Plane & Remove Pavement Reinforcement Fabric | SY | 24,165 | \$ | \$ |
| 7. | Utility Adjustments – Water Valve Box Frame and Cover to Grade (Std. Plan 101-3) | EA | 17 | \$ | \$ |
| 8. | Utility Adjustments – Sewer Manhole to Grade (Std. Plan 201-2) | EA | 6 | \$ | \$ |
| 9. | Utility Adjustments – Storm Drain Manhole to Grade (Std. Plan 201-2) | EA | 4 | \$ | \$ |
| 10. | Minor Concrete – 6” Barrier Curb (Std. Plan 301-1) | LF | 467 | \$ | \$ |
| 11. | Minor Concrete – Modified 6” Barrier Curb | LF | 9,397 | | |
| 12. | Minor Concrete – Truck Apron | SF | 264 | \$ | \$ |
| 13. | Minor Concrete –Median Island Surface | SF | 8,986 | \$ | \$ |
| 14. | Minor Concrete – Textured Median Island Surface | SF | 970 | \$ | \$ |
| 15. | Minor Concrete – Sidewalk (Std. Plan 301-1) | SF | 1,492 | \$ | \$ |
| 16. | Minor Concrete – Case A Curb Ramp (Caltrans Std. Plan A88A) | EA | 2 | \$ | \$ |
| 17. | Minor Concrete – Case C Curb Ramp (Caltrans Std. Plan A88A) | EA | 11 | \$ | \$ |
| 18. | Minor Concrete – Case CM Curb Ramp (Caltrans Std. Plan A88B) | EA | 1 | \$ | \$ |
| 19. | Furnish and Install Detectable Warning Surface | SF | 475 | \$ | \$ |
| 20. | Class 2 Aggregate Base | CY | 155 | \$ | \$ |

| Bid Items | | | | | |
|-------------------|--|--------------|------------------|-------------------|--------------|
| Item | Description | Units | Est. Qty. | Item Price | Total |
| 21. | Full Depth Reclamation (FDR) – TI = 9.0 | SF | 125,325 | \$ | \$ |
| 22. | Full Depth Reclamation (FDR) – TI = 5.0 | SF | 92,155 | \$ | \$ |
| 23. | Hot Mix Asphalt – Type A HMA, ½” Min. Agg. | TON | 5,315 | \$ | \$ |
| 24. | Thermoplastic Traffic Stripes | LF | 14,375 | \$ | \$ |
| 25. | Raised Pavement Markers | EA | 30 | \$ | \$ |
| 26. | Thermoplastic Pavement Markings | SF | 7,225 | \$ | \$ |
| 27. | Green Bike Lane Coating | SF | 9,910 | \$ | \$ |
| 28. | Roadside Sign(s) and Post (Std. Plan 301-9) | EA | 13 | \$ | \$ |
| 29. | Remove Sign(s) and Post | EA | 8 | \$ | \$ |
| 31. | Relocate Sign(s) and Post (Std. Plan 301-9) | EA | 1 | \$ | \$ |
| 32. | Furnish and Install Delineator Post | EA | 4 | \$ | \$ |
| 33. | Furnish and Install Object Marker | EA | 21 | \$ | \$ |
| 34. | Traffic Signal Modification – Mace Blvd and Cowell Blvd | LS | | | \$ |
| 35. | Traffic Signal Installation – Mace Blvd and San Marino Dr HAWK | LS | | | \$ |
| Total Bid: | | | | | \$ |

The costs for any Work shown or required in the Contract Documents, but not specifically identified as a line item are to be included in the related line items and no additional compensation shall be due to Contractor for the performance of the Work.

In case of discrepancy between the Unit Price and the Item Cost set forth for a unit basis item, the unit price shall prevail and shall be utilized as the basis for determining the lowest responsive, responsible Bidder. However, if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or is the same amount as the entry in the “Item Cost” column, then the amount set forth in the “Item Cost” column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the Unit Price.

For purposes of evaluating Bids, the City will correct any apparent errors in the extension of unit prices and any apparent errors in the addition of lump sum and extended prices.

The estimated quantities for Unit Price items are for purposes of comparing Bids only and the City makes no representation that the actual quantities of work performed will not vary from the estimates. Final payment shall be determined by the Engineer from measured quantities of work performed based upon the Unit Price.

A. TOTAL BID PRICE:

| | |
|---|---------------------------------|
| TOTAL BID PRICE BASED ON BID SCHEDULE TOTAL OF UNIT PRICES FOR MACE BOULEVARD COMPLETE STREET IMPROVEMENTS PROJECT, CIP 8257 | |
| \$ _____ | Total Bid Price in Numbers |
| \$ _____ | Total Bid Price in Written Form |
| In case of discrepancy between the written price and the numerical price, the written price shall prevail. | |

The undersigned agrees that this Bid Form constitutes a firm offer to the City which cannot be withdrawn for the number of calendar days indicated in the Notice Inviting Bids from and after the Bid opening, or until a Contract for the Work is fully executed by the City and a third party, whichever is earlier.

The successful bidder hereby agrees to sign the contract and furnish the necessary bonds and certificates of insurance within ten (10) working days after the City provides the successful bidder with the Notice of Award.

Upon receipt of the signed contract and other required documents, the contract will be executed by the City, after which the City will prepare a letter giving Contractor Notice to Proceed. The official starting date shall be the date of the Notice to Proceed, unless otherwise specified. The undersigned agrees to begin the Work within ten (10) working days of the date of the Notice to Proceed, unless otherwise specified.

This project will be awarded for a spring start date. The Notice to Proceed shall be issued no sooner than April 2, 2018.

The undersigned has examined the location of the proposed work and is familiar with the Drawings and Specifications and the local conditions at the place where work is to be done.

If awarded the contract, the undersigned agrees that there shall be paid by the undersigned and by all subcontractors to all laborers, workers and mechanics employed in the execution of such contract no less than the prevailing wage rate within Yolo County for each craft, classification, or type of worker needed to complete the Work contemplated by this contract as established by the Director of the Department of Industrial Relations. A copy of the prevailing rate of per diem wages

are on file at the City's Administration Office and shall be made available to interested parties upon request.

Enclosed find cash, bidder's bond, or cashier's or certified check No. _____ from the _____ Bank in the amount of _____, which is not less than ten percent (10%) of this bid, payable to City of Davis as bid security and which is given as a guarantee that the undersigned will enter into a contract and provide the necessary bonds and certificates of insurance if awarded the Work.

The bidder furthermore agrees that in case of bidder's default in executing said contract and furnishing required bonds and certificates of insurance, the cash, bidder's bond, or cashier's or certified check accompanying this proposal and the money payable thereon shall become and shall remain the property of the City of Davis.

Bidder is an individual _____, or corporation _____, or partnership _____, organized under the laws of the State of _____.

Bidder confirms license(s) required by California State Contractor's License Law for the performance of the subject project are in full effect and proper order. The following are the Bidder's applicable license number(s), with their expiration date(s) and class of license(s):

If the Bidder is a joint venture, each member of the joint venture must include the required licensing information.

Sureties that will furnish the Faithful Performance Bond and the Labor and Material Payment Bond, in the form specified herein, in an amount equal to one hundred percent (100%) of the contract price within ten (10) working days from the date the City provides the successful bidder the Notice of Award. Sureties must meet all of the State of California bonding requirements, as defined in California Code of Civil Procedure Section 995.120 and must be authorized by the State of California.

The insurance company or companies to provide the insurance required in the contract documents must have a Financial Strength Rating of not less than "A-" and a Financial Size Category of not less than "Class VII" according to the latest Best Key Rating Guide. At the sole discretion of the City, the City may waive the Financial Strength Rating and the Financial Size Category classifications for Workers' Compensation insurance.

(signatures continued on next page)

I hereby certify under penalty of perjury under the laws of the State of California that all of the information submitted in connection with this Bid and all of the representations made herein are true and correct.

Executed at _____, on this ____ day of _____, _____.

(Bidders Name – Print or Type)

(Name and Title)

(Corporate Seal)

(Signature)

Names of individual members of firm or names and titles of all officers of corporation and their addresses are listed below:

Name _____ Title _____

Complete Address _____

Phone _____ FAX _____

Name _____ Title _____

Complete Address _____

Phone _____ FAX _____

Name _____ Title _____

Complete Address _____

Phone _____ FAX _____

Name _____ Title _____

Complete Address _____

Phone _____ FAX _____

1.2 Bid Bond

[Note: Not required when other form of Bidder's Security, e.g. cash, certified check or cashier's check, accompanies bid.]

The makers of this bond are, _____, as Principal, and _____, as Surety and are held and firmly bound unto the City of Davis, hereinafter called the City, in the penal sum of TEN PERCENT (10%) OF THE TOTAL BID PRICE of the Principal submitted to CITY for the work described below, for the payment of which sum in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid dated _____, 20 ____, for Mace Boulevard Complete Street Improvements Project, CIP 8257.

If the Principal does not withdraw its Bid within the time specified in the Contract Documents; and if the Principal is awarded the Contract and provides all documents to the City as required by the Contract Documents; then this obligation shall be null and void. Otherwise, this bond will remain in full force and effect.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents shall in affect its obligation under this bond, and Surety does hereby waive notice of any such changes.

In the event a lawsuit is brought upon this bond by the City and judgment is recovered, the Surety shall pay all litigation expenses incurred by the City in such suit, including reasonable attorneys' fees, court costs, expert witness fees and expenses.

IN WITNESS WHEREOF, the above-bound parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporation.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

Notary Acknowledgment

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 _____

On _____, 20____, before me, _____, Notary Public, personally appeared _____, who 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 _____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- Individual
- Corporate Officer

_____ Title(s)

- Partner(s) Limited
- General

- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Signer is representing:
 Name Of Person(s) Or Entity(ies)

DESCRIPTION OF ATTACHED DOCUMENT

_____ Title or Type of Document

_____ Number of Pages

_____ Date of Document

_____ Signer(s) Other Than Named Above

NOTE: This acknowledgment is to be completed for the Attorney-in-Fact. The Power-of-Attorney to local representatives of the bonding company must also be attached.

END OF BID BOND

1.3 List of Subcontractors

In compliance with the Subletting and Subcontracting Fair Practices Act Chapter 4 (commencing at Section 4100), Part 1, Division 2 of the Public Contract Code of the State of California and any amendments thereof, Bidder shall set forth below: (a) the name and the location of the place of business, (b) the California contractor license number, (c) the DIR public works contractor registration number, and (d) the portion of the work which will be done by each subcontractor who will perform work or labor or render service to the Bidder in or about the construction of the work or improvement to be performed under this Contract in an amount in excess of one-half of one percent (0.5%) of the Bidder's Total Bid Price. Notwithstanding the foregoing, if the work involves the construction of streets and highways, then the Bidder shall list each subcontractor who will perform work or labor or render service to the Bidder in or about the work in an amount in excess of one-half of one percent (0.5%) of the Bidder's Total Bid Price or \$10,000, whichever is greater. No additional time shall be granted to provide the below requested information.

If a Bidder fails to specify a subcontractor or if a contractor specifies more than one subcontractor for the same portion of work, then the Bidder shall be deemed to have agreed that it is fully qualified to perform that portion of work and that it shall perform that portion itself.

| Work to be done by Subcontractor | Name of Subcontractor | Location of Business | CSLB Contractor License No. | DIR Registration Number | % of Work |
|---|------------------------------|-----------------------------|------------------------------------|--------------------------------|------------------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

| Work to be done by Subcontractor | Name of Subcontractor | Location of Business | CSLB Contractor License No. | DIR Registration Number | % of Work |
|----------------------------------|-----------------------|----------------------|-----------------------------|-------------------------|-----------|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

(Attach additional sheets if necessary)

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

1.4 Bidder Information and Experience Form

ARTICLE 1. INFORMATION ABOUT BIDDER

(Indicate not applicable (“N/A”) where appropriate.)

NOTE: Where Bidder is a joint venture, pages shall be duplicated and information provided for all parties to the joint venture.

1.0 Name of Bidder: _____

2.0 Type, if Entity: _____

3.0 Bidder Address: _____

Facsimile Number

Telephone Number

Email Address

4.0 How many years has Bidder’s organization been in business as a Contractor?

5.0 How many years has Bidder’s organization been in business under its present name? _____

5.1 Under what other or former names has Bidder’s organization operated? _____

6.0 If Bidder’s organization is a corporation, answer the following:

6.1 Date of Incorporation: _____

6.2 State of Incorporation: _____

6.3 President’s Name: _____

6.4 Vice-President’s Name(s): _____

6.5 Secretary’s Name: _____

6.6 Treasurer’s Name: _____

7.0 If an individual or a partnership, answer the following:

7.1 Date of Organization: _____

7.2 Name and address of all partners (state whether general or limited partnership):

8.0 If other than a corporation or partnership, describe organization and name principals:

9.0 List other states in which Bidder's organization is legally qualified to do business.

10.0 What type of work does the Bidder normally perform with its own forces?

11.0 Has Bidder ever failed to complete any work awarded to it? If so, note when, where, and why:

12.0 Within the last five years, has any officer or partner of Bidder's organization ever been an officer or partner of another organization when it failed to complete a contract? If so, attach a separate sheet of explanation:

13.0 List Trade References:

14.0 List Bank References (Bank and Branch Address):

15.0 Name of Bonding Company and Name and Address of Agent:

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

ARTICLE 4. EXPERIENCE AND TECHNICAL QUALIFICATIONS QUESTIONNAIRE

Personnel:

The Bidder shall identify the key personnel to be assigned to this project in a management, construction supervision or engineering capacity.

1. List each person's job title, name and percent of time to be allocated to this project:

2. Summarize each person's specialized education:

3. List each person's years of construction experience relevant to the project:

4. Summarize such experience:

Bidder agrees that personnel named in this Bid will remain on this Project until completion of all relevant Work, unless substituted by personnel of equivalent experience and qualifications approved in advance by the City.

Changes Occuring Since Prequalification

If any substantive changes have occurred since Bidder submitted its prequalification package for this Project, Bidder shall list them below. If none are listed, Bidder certifies that no substantive changes have occurred.

Additional Bidder's Statements:

If the Bidder feels that there is additional information which has not been included in the questionnaire above, and which would contribute to the qualification review, it may add that information in a statement here or on an attached sheet, appropriately marked:

ARTICLE 5. VERIFICATION AND EXECUTION

These Bid Forms shall be executed only by a duly authorized official of the Bidder:

I declare under penalty of perjury under the laws of the State of California that the foregoing information is true and correct:

Name of Bidder_____

Signature_____

Name_____

Title_____

Date_____

INCLUDE WITH BID

CERTIFIED STATEMENT OF HIRING

I am the [Title] _____ of the _____ Apprenticeship Program (the “Program”) and I am authorized to make this Certified Statement on the Program’s behalf.

I have examined the Program records which show that _____ has hired apprentices from the Program.
[Name of Contractor]

The Program is approved by the State of California Department of Industrial Relations, Division of Apprenticeship Standards and has graduated at least five (5) apprentices each consecutive year for the five (5) years immediately preceding [_____].

Date: _____

Name: _____

Print Name: _____

**REQUIRED FORM
INCLUDE WITH BID**

STATEMENT RE: NO APPRENTICESHIP VIOLATION

I am the _____ of
[Title] [Contractor] and I am authorized to make this statement on
Contractor's behalf.

During the past five (5) years, Contractor has not been found in violation of any provision of
state or local apprenticeship laws or regulations.

Date: _____

Name: _____

Printed Name: _____

**REQUIRED FORM
INCLUDE WITH BID**

(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____, proposed subcontractor _____, hereby certifies that he has ____, has not ____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

PUBLIC CONTRACT CODE

Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has _____, has not _____ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

Public Contract Code 10232 Statement

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement and Questionnaire.
Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

1.5 Non-Collusion Declaration

The undersigned declares:

I am the _____ of _____, the party making the foregoing Bid.

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

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

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].

Name of Bidder _____

Signature _____

Name _____

Title _____

1.6 Iran Contracting Act Certification.
(Public Contract Code section 2200 et seq.)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 *et seq.*) is true and correct:

The Contractor is not:

(1) identified on the current list of person and entities engaged in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(2) a financial instruction that extends, for 45 days or more, credit in the amount of \$20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

The City has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the City will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

The amount of the Contract payable to the Contractor for the Project does not exceed \$1,000,000.

Signature: _____

Printed Name: _____

Title: _____

Firm Name: _____

Date: _____

Note: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of \$250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

1.7 Public Works Contractor Registration Certification

Pursuant to Labor Code sections 1725.5 and 1771.1, all contractors and subcontractors that wish to bid on, be listed in a bid proposal, or enter into a contract to perform public work must be registered with the Department of Industrial Relations. See <http://www.dir.ca.gov/Public-Works/PublicWorks.html> for additional information.

No bid will be accepted nor any contract entered into without proof of the contractor's and subcontractors' current registration with the Department of Industrial Relations to perform public work.

Bidder hereby certifies that it is aware of the registration requirements set forth in Labor Code sections 1725.5 and 1771.1 and is currently registered as a contractor with the Department of Industrial Relations.

Name of Bidder: _____

DIR Registration Number: _____

DIR Registration Expiration: _____

Bidder further acknowledges:

1. Bidder shall maintain a current DIR registration for the duration of the project.
2. Bidder shall include the requirements of Labor Code sections 1725.5 and 1771.1 in its contract with subcontractors and ensure that all subcontractors are registered at the time of bid opening and maintain registration status for the duration of the project.
3. Failure to submit this form or comply with any of the above requirements may result in a finding that the bid is non-responsive.

Name of Bidder _____

Signature _____

Name and Title _____

Dated _____

1.8 Contractor's Certificate Regarding Workers' Compensation.

I am aware of the provisions of section 3700 of the Labor Code 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 of this Contract.

Name of Bidder _____

Signature _____

Name _____

Title _____

Dated _____

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- Is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- Has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- Does not have a proposed debarment pending; and
- Has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions.

The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

DISCLOSURE OF LOBBYING ACTIVITIES

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

| | | |
|---|--|---|
| <p>1. Type of Federal Action:</p> <p><input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance</p> | <p>2. Status of Federal Action:</p> <p><input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award</p> | <p>3. Report Type:</p> <p><input type="checkbox"/> a. initial <input type="checkbox"/> b. material change</p> <p style="text-align: right;">For Material Change Only: year ____ quarter ____ date of last report _____</p> |
| <p>4. Name and Address of Reporting Entity</p> <p>Prime _____ Subawardee _____ Tier _____, if known</p> <p>Congressional District, if known _____</p> | <p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</p> <p>Congressional District, if known _____</p> | |
| <p>6. Federal Department/Agency:</p> | <p>7. Federal Program Name/Description:</p> <p>CFDA Number, if applicable _____</p> | |
| <p>8. Federal Action Number, if known:</p> | <p>9. Award Amount, if known:</p> | |
| <p>10. a. Name and Address of Lobby Entity (If individual, last name, first name, MI)</p> | <p>b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI)</p> | |
| (attach Continuation Sheet(s) if necessary) | | |
| <p>11. Amount of Payment (check all that apply)</p> <p>\$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned</p> | <p>13. Type of Payment (check all that apply)</p> <p><input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other, specify _____</p> | <p>12. Form of Payment (check all that apply):</p> <p>a. cash b. in-kind; specify: nature _____ value _____</p> |
| <p>14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:</p> <p style="text-align: center;">(attach Continuation Sheet(s) if necessary)</p> | | |
| <p>15. Continuation Sheet(s) attached: Yes No</p> | | |
| <p>16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.</p> | | |
| <p>Signature: _____</p> <p>Print Name: _____</p> <p>Title: _____</p> <p>Telephone No.: _____ Date: _____</p> | | |
| <p>Authorized for Local Reproduction Standard Form - LLL</p> | | |

Federal Use Only:

Standard Form LLL Rev. 09-12-97

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of covered Federal action or a material change to previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered Federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
(b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box. Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box. Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with Federal officials. Identify the Federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503. SF-LLL-Instructions Rev. 06-04-90«ENDIF»

EXHIBIT 12-B BIDDER'S LIST OF SUBCONTRACTORS (DBE AND NON-DBE)

PART I

The bidder shall list all subcontractors (both DBE and non-DBE) in accordance with Title 49, Section 26.11 of the Code of Federal Regulations. This listing is required in addition to listing DBE Subcontractors elsewhere in the proposal. Photocopy this form for additional firms.

| Firm Name/ Address/ City, State, ZIP | Phone/ Fax | Annual Gross Receipts | Description of Portion of Work to be Performed | Local Agency Use Only (Certified DBE?) |
|--|---------------|---|--|--|
| <i>Name</i> | <i>Phone</i> | <input type="checkbox"/> < \$1 million | | <input type="checkbox"/> YES |
| | | <input type="checkbox"/> < \$5 million | | <input type="checkbox"/> NO |
| <i>Address</i> | <i>Fax</i> | <input type="checkbox"/> < \$10 million | | <i>If YES list DBE #:</i> |
| | | <input type="checkbox"/> < \$15 million | | |
| <i>City State ZIP</i> | | <input type="checkbox"/> > \$15 million | | <i>Age of Firm (Yrs.)</i> |
| <i>Name</i> | <i>Phone</i> | <input type="checkbox"/> < \$1 million | | <input type="checkbox"/> YES |
| | | <input type="checkbox"/> < \$5 million | | <input type="checkbox"/> NO |
| <i>Address</i> | <i>Fax</i> | <input type="checkbox"/> < \$10 million | | <i>If YES list DBE #:</i> |
| | | <input type="checkbox"/> < \$15 million | | |
| <i>City State ZIP</i> | | <input type="checkbox"/> > \$15 million | | <i>Age of Firm (Yrs.)</i> |
| <i>Name</i> | <i>Phone</i> | <input type="checkbox"/> < \$1 million | | <input type="checkbox"/> YES |
| | | <input type="checkbox"/> < \$5 million | | <input type="checkbox"/> NO |
| <i>Address</i> | <i>Fax</i> | <input type="checkbox"/> < \$10 million | | <i>If YES list DBE #:</i> |
| | | <input type="checkbox"/> < \$15 million | | |
| <i>City State ZIP</i> | | <input type="checkbox"/> > \$15 million | | <i>Age of Firm (Yrs.)</i> |
| <i>Name</i> | <i>Phone</i> | <input type="checkbox"/> < \$1 million | | <input type="checkbox"/> YES |
| | | <input type="checkbox"/> < \$5 million | | <input type="checkbox"/> NO |
| <i>Address</i> | <i>Fax</i> | <input type="checkbox"/> < \$10 million | | <i>If YES list DBE #:</i> |
| | | <input type="checkbox"/> < \$15 million | | |
| <i>City State ZIP</i> | | <input type="checkbox"/> > \$15 million | | <i>Age of Firm (Yrs.)</i> |

Distribution: 1) Original - Local Agency File

**INSTRUCTIONS - LOCAL AGENCY BIDDER
DBE COMMITMENT (CONSTRUCTION CONTRACTS)**

ALL BIDDERS:

PLEASE NOTE: This information may be submitted with your bid. If it is not, and you are the apparent low bidder or the second or third low bidder, it must be submitted and received as specified in the Special Provisions. Failure to submit the required DBE commitment will be grounds for finding the bid nonresponsive

The form requires specific information regarding the construction contract: Local Agency, Location, Project Description, Total Contract Amount, Bid Date, Bidder's Name, and Contract DBE Goal.

The form has a column for the Contract Item Number and Item of Work and Description of Services to be Subcontracted or Materials to be provided by DBEs. Prime contractors shall indicate all work to be performed by DBEs including, if the prime is a DBE, work performed by its own forces, if a DBE. The DBE shall provide a certification number to the Contractor and expiration date. Enter the DBE prime's and subcontractors' certification numbers. The form has a column for the Names of DBE contractors to perform the work (who must be certified on the date bids are opened and include the DBE address and phone number).

IMPORTANT: Identify **all** DBE firms participating in the project—including all DBEs listed on the DBE Commitment form (Exhibit 15G, regardless of tier. Names of the First-Tier DBE Subcontractors and their respective item(s) of work listed should be consistent, where applicable, with the names and items of work in the "List of Subcontractors" submitted with your bid.

There is a column for the DBE participation dollar amount. Enter the Total Claimed DBE Participation dollars and percentage amount of items of work submitted with your bid pursuant to the Special Provisions. (If 100% of item is not to be performed or furnished by the DBE, describe exact portion of time to be performed or furnished by the DBE.) See Section "Disadvantaged Business Enterprise (DBE)," of the Special Provisions (construction contracts), to determine how to count the participation of DBE firms.

Exhibit 15-G must be signed and dated by the person bidding. Also list a phone number in the space provided and print the name of the person to contact.

Local agencies should complete the Local Agency Contract Award, Federal-aid Project Number, Federal Share, Contract Award Date fields and verify that all information is complete and accurate before signing and filing.

EXHIBIT 15-H DBE INFORMATION —GOOD FAITH EFFORTS
ARTICLE I. DBE INFORMATION - GOOD FAITH EFFORTS

Federal-aid Project No. 5238 (061) Bid Opening Date: November 2, 2017

The City of Davis established a Disadvantaged Business Enterprise (DBE) goal of 7.38% for this project. The information provided herein shows that a good faith effort was made.

Lowest, second lowest and third lowest bidders shall submit the following information to document adequate good faith efforts. Bidders should submit the following information even if the "Local Agency Bidder DBE Commitment" form indicates that the bidder has met the DBE goal. This will protect the bidder's eligibility for award of the contract if the administering agency determines that the bidder failed to meet the goal for various reasons, e.g., a DBE firm was not certified at bid opening, or the bidder made a mathematical error.

Submittal of only the "Local Agency Bidder DBE Commitment" form may not provide sufficient documentation to demonstrate that adequate good faith efforts were made.

The following items are listed in the Section entitled "Submission of DBE Commitment" of the Special Provisions:

- A. The names and dates of each publication in which a request for DBE participation for this project was placed by the bidder (please attach copies of advertisements or proofs of publication):

| <u>Publications</u> | <u>Dates of Advertisement</u> |
|---------------------|-------------------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

- B. The names and dates of written notices sent to certified DBEs soliciting bids for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the DBEs were interested (please attach copies of solicitations, telephone records, fax confirmations, etc.):

| Names of DBEs Solicited | Date of Initial Solicitation | Follow Up Methods and Dates |
|-------------------------|------------------------------------|-----------------------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

- C. The items of work which the bidder made available to DBE firms including, where appropriate, any breaking down of the contract work items (including those items normally performed by the bidder with its own

forces) into economically feasible units to facilitate DBE participation. It is the bidder's responsibility to demonstrate that sufficient work to facilitate DBE participation was made available to DBE firms.

| Items of Work | Bidder Normally Performs Item (Y/N) | Breakdown of Items | Amount (\$) | Percentage Of Contract |
|---------------|--|-----------------------|----------------|------------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |

D. The names, addresses and phone numbers of rejected DBE firms, the reasons for the bidder's rejection of the DBEs, the firms selected for that work (please attach copies of quotes from the firms involved), and the price difference for each DBE if the selected firm is not a DBE:

Names, addresses and phone numbers of rejected DBEs and the reasons for the bidder's rejection of the DBEs:

Names, addresses and phone numbers of firms selected for the work above:

E. Efforts made to assist interested DBEs in obtaining bonding, lines of credit or insurance, and any technical assistance or information related to the plans, specifications and requirements for the work which was provided to DBEs:

F. Efforts made to assist interested DBEs in obtaining necessary equipment, supplies, materials or related assistance or services, excluding supplies and equipment the DBE subcontractor purchases or leases from the prime contractor or its affiliate:

G. The names of agencies, organizations or groups contacted to provide assistance in contacting, recruiting and using DBE firms (please attach copies of requests to agencies and any responses received, i.e., lists, Internet page download, etc.):

| Name of Agency/Organization | Method/Date of Contact | Results |
|-----------------------------|------------------------|---------|
| <hr/> | | |
| <hr/> | | |

H. Any additional data to support a demonstration of good faith efforts (use additional sheets if necessary):

NOTE: USE ADDITIONAL SHEETS OF PAPER IF NECESSARY.

00 52 13 – CONTRACT

This CONTRACT, No. _____ is made and entered into this ____ day of _____, _____, by and between City of Davis, sometimes hereinafter called "City," and _____, sometimes hereinafter called "Contractor."

WITNESSETH: That the parties hereto have mutually covenanted and agreed, and by these presents do covenant and agree with each other as follows:

a. **SCOPE OF WORK.** The Contractor shall perform all Work within the time stipulated in the Contract, and shall provide all labor, materials, equipment, tools, utility services, and transportation to complete all of the Work required in strict compliance with the Contract Documents as specified in Article 5, below, for the following Project:

**MACE BOULEVARD COMPLETE STREET IMPROVEMENTS PROJECT,
CIP 8257 [Federal Project 5238 (061)]**

The Contractor and its surety shall be liable to the City for any damages arising as a result of the Contractor's failure to comply with this obligation.

b. **TIME FOR COMPLETION.** Time is of the essence in the performance of the Work. The Work shall be commenced on the date stated in the Distric's Notice to Proceed. The Contractor shall complete all Work required by the Contract Documents within **60 working days** from the commencement date stated in the Notice to Proceed. By its signature hereunder, Contractor agrees the time for completion set forth above is adequate and reasonable to complete the Work.

c. **CONTRACT PRICE.** The City shall pay to the Contractor as full compensation for the performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs, the sum of _____ Dollars (\$ _____). Payment shall be made as set forth in the General Conditions.

d. **LIQUIDATED DAMAGES.** In accordance with Government Code section 53069.85, it is agreed that the Contractor will pay the City the sum set forth in Section 00 73 13, Article 1.11 for each and every calendar day of delay beyond the time prescribed in the Contract Documents for finishing the Work, as Liquidated Damages and not as a penalty or forfeiture. In the event this is not paid, the Contractor agrees the City may deduct that amount from any money due or that may become due the Contractor under the Contract. This Article does not exclude recovery of other damages specified in the Contract Documents.

e. **COMPONENT PARTS OF THE CONTRACT.** The "Contract Documents" include the following:

- Notice Inviting Bids
- Instructions to Bidders
- Bid Form
- Bid Bond
- Designation of Subcontractors
- Information Required of Bidders

Equal Employment Opportunity Certification
Public Contract Code
Non-Collusion Declaration Form
Iran Contracting Act Certification
Debarment and Suspension Certification
Nonlobbying Certification for Federal-aid Contracts
Bidders List of Subcontractors (DBE and Non-DBE)
Local Agency Bidder DBE Commitment (Construction Contracts)
DBE Information – Good Faith Efforts
Public Works Contractor Registration Certification
Performance Bond
Payment (Labor and Materials) Bond
General Conditions
Special Conditions
Technical Specifications
Addenda
Plans and Drawings
Standard Specifications for Public Works Construction “Greenbook”, latest edition, Except Sections 1-9
Applicable Local Agency Standards and Specifications, as last revised
Approved and fully executed change orders
Any other documents contained in or incorporated into the Contract

The Contractor shall complete the Work in strict accordance with all of the Contract Documents.

All of the Contract Documents are intended to be complementary. Work required by one of the Contract Documents and not by others shall be done as if required by all. This Contract shall supersede any prior agreement of the parties.

f. **PROVISIONS REQUIRED BY LAW AND CONTRACTOR COMPLIANCE.** Each and every provision of law required to be included in these Contract Documents shall be deemed to be included in these Contract Documents. The Contractor shall comply with all requirements of applicable federal, state and local laws, rules and regulations, including, but not limited to, the provisions of the California Labor Code and California Public Contract Code which are applicable to this Work.

g. **INDEMNIFICATION.** Contractor shall provide indemnification and defense as set forth in the General Conditions.

h. **PREVAILING WAGES.** Contractor shall be required to pay the prevailing rate of wages in accordance with the Labor Code which such rates shall be made available at the City’s Administrative Office or may be obtained online at <http://www.dir.ca.gov> and which must be posted at the job site.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, this Contract has been duly executed by the above-named parties, on the day and year above written.

Name of Contractor

CITY OF DAVIS

By _____

By _____
City Manager

Name and Title:

Date:

License No.

Date:

**(CONTRACTOR'S SIGNATURE MUST BE
NOTARIZED AND CORPORATE
SEAL AFFIXED, IF APPLICABLE)**

Approved as to form this _____ day of _____ 20____.

Attorney for City of Davis

END OF CONTRACT

Notary Acknowledgment

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 _____

On _____, 20____, before me, _____, Notary Public, personally appeared _____, who 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 _____

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

CAPACITY CLAIMED BY SIGNER

- Individual
- Corporate Officer

_____ Title(s)

- Partner(s) Limited
- General
- Attorney-In-Fact
- Trustee(s)
- Guardian/Conservator
- Other:

Signer is representing:
 Name Of Person(s) Or Entity(ies)

DESCRIPTION OF ATTACHED DOCUMENT

_____ Title or Type of Document

_____ Number of Pages

_____ Date of Document

_____ Signer(s) Other Than Named Above

00 61 13 – BOND FORMS

1.1 Performance Bond.

KNOW ALL PERSONS BY THESE PRESENTS:

THAT WHEREAS, the City of Davis, (hereinafter referred to as “City”) has awarded to _____, (hereinafter referred to as the “Contractor”) an agreement for **Contract No.** _____, (hereinafter referred to as the “Project”).

WHEREAS, the work to be performed by the Contractor is more particularly set forth in the Contract Documents for the Project dated _____, (hereinafter referred to as “Contract Documents”), the terms and conditions of which are expressly incorporated herein by reference; and

WHEREAS, the Contractor is required by said Contract Documents to perform the terms thereof and to furnish a bond for the faithful performance of said Contract Documents.

NOW, THEREFORE, we, _____, the undersigned Contractor and _____ as Surety, a corporation organized and duly authorized to transact business under the laws of the State of California, are held and firmly bound unto the City in the sum of _____ DOLLARS, (\$_____), said sum being not less than one hundred percent (100%) of the total amount of the Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the Contractor, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the Contract Documents and any alteration thereof made as therein provided, on its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill all obligations including the one (1) year guarantee of all materials and workmanship; and shall indemnify and save harmless the City, its officials, officers, employees, and authorized volunteers, as stipulated in said Contract Documents, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As a part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees including reasonable attorney’s fees, incurred by City in enforcing such obligation.

As a condition precedent to the satisfactory completion of the Contract Documents, unless otherwise provided for in the Contract Documents, the above obligation shall hold good for a period of one (1) year after the acceptance of the work by City, during which time if Contractor shall fail to make full, complete, and satisfactory repair and replacements and totally protect the City from loss or damage resulting from or caused by defective materials or faulty workmanship. The obligations of Surety hereunder shall continue so long as any obligation of Contractor remains. Nothing herein shall limit the City’s rights or the Contractor or Surety’s obligations under the Contract, law or equity, including, but not limited to, California Code of Civil Procedure Section 337.15.

Whenever Contractor shall be, and is declared by the City to be, in default under the Contract Documents, the Surety shall remedy the default pursuant to the Contract Documents, or shall promptly, at the City's option:

- i. Take over and complete the Project in accordance with all terms and conditions in the Contract Documents; or
- ii. Obtain a bid or bids for completing the Project in accordance with all terms and conditions in the Contract Documents and upon determination by Surety of the lowest responsive and responsible bidder, arrange for a Contract between such bidder, the Surety and the City, and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.
- iii. Permit the City to complete the Project in any manner consistent with California law and make available as work progresses sufficient funds to pay the cost of completion of the Project, less the balance of the contract price, including other costs and damages for which Surety may be liable. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable to Contractor by the City under the Contract and any modification thereto, less any amount previously paid by the City to the Contractor and any other set offs pursuant to the Contract Documents.

Surety expressly agrees that the City may reject any contractor or subcontractor which may be proposed by Surety in fulfillment of its obligations in the event of default by the Contractor.

Surety shall not utilize Contractor in completing the Project nor shall Surety accept a bid from Contractor for completion of the Project if the City, when declaring the Contractor in default, notifies Surety of the City's objection to Contractor's further participation in the completion of the Project.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project to be performed thereunder shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Documents or to the Project.

[REMAINDER OF PAGE LEFT INTENTIONALLY BLANK]

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

The rate of premium on this bond is _____ per thousand. The total amount of premium charges is \$_____.
(The above must be filled in by corporate attorney.)

THIS IS A REQUIRED FORM

Any claims under this bond may be addressed to:

(Name and Address of Surety)

(Name and Address of Agent or Representative for service of process in California, if different from above)

(Telephone number of Surety and Agent or Representative for service of process in California)

1.2 Payment Bond (Labor and Materials).

KNOW ALL MEN BY THESE PRESENTS That

WHEREAS, the City of Davis (hereinafter designated as the "City"), by action taken or a resolution passed _____, 20____, has awarded to _____ hereinafter designated as the "Principal," a contract for the work described as follows: **Contract No.** _____ (the "Project"); and

WHEREAS, said Principal is required to furnish a bond in connection with said contract; providing that if said Principal or any of its Subcontractors shall fail to pay for any materials, provisions, provender, equipment, or other supplies used in, upon, for or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, or for amounts due under the Unemployment Insurance Code or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of said Principal and its Subcontractors with respect to such work or labor the Surety on this bond will pay for the same to the extent hereinafter set forth.

NOW THEREFORE, we, the Principal and _____ as Surety, are held and firmly bound unto the City in the penal sum of _____ Dollars (\$_____) lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractors, heirs, executors, administrators, successors or assigns, shall fail to pay any of the persons named in Civil Code Section 9100, fail to pay for any materials, provisions or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or 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 or Franchise Tax Board from the wages of employees of the contractor and his subcontractors pursuant to Revenue and Taxation Code Section 18663, with respect to such work and labor the Surety or Sureties will pay for the same, in an amount not exceeding the sum herein above specified, and also, in case suit is brought upon this bond, all litigation expenses incurred by the City in such suit, including reasonable attorneys' fees, court costs, expert witness fees and investigation expenses.

This bond shall inure to the benefit of any of the persons named in Civil Code Section 9100 so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

It is further stipulated and agreed that the Surety on this bond shall not be exonerated or released from the obligation of this bond by any change, extension of time for performance, addition, alteration or modification in, to, or of any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described, or pertaining or relating to the furnishing of labor, materials, or equipment therefore, nor by any change or modification of any terms of payment or extension of the time for any payment pertaining or relating to any scheme or work of improvement herein above described, nor by any rescission or attempted rescission or attempted rescission of the contract, agreement or bond, nor by any conditions precedent or subsequent in the bond attempting to limit the right of recovery of claimants otherwise entitled to recover under any such contract or agreement or under the bond, nor by any fraud practiced by any person other than the claimant seeking to recover on the bond and that

this bond be construed most strongly against the Surety and in favor of all persons for whose benefit such bond is given, and under no circumstances shall Surety be released from liability to those for whose benefit such bond has been given, by reason of any breach of contract between the owner or City and original contractor or on the part of any obligee named in such bond, but the sole conditions of recovery shall be that claimant is a person described in Civil Code Section 9100, and has not been paid the full amount of his claim and that Surety does hereby waive notice of any such change, extension of time, addition, alteration or modification herein mentioned, including but not limited to the provisions of sections 2819 and 2845 of the California Civil Code.

IN WITNESS WHEREOF, we have hereunto set our hands and seals this _____ day of _____, 20__.

(Corporate Seal)

Contractor/ Principal

By _____

Title _____

(Corporate Seal)

Surety

By _____
Attorney-in-Fact

(Attach Attorney-in-Fact Certificate)

Title _____

00 72 13 – GENERAL CONDITIONS

ARTICLE 1. DEFINED TERMS

Whenever used in the Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined below, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.

- A. Act of God – An earthquake of magnitude of 3.5 or higher on the Richter scale or a tidal wave.
- B. Addenda -- Written or graphic instruments issued prior to the submission of Bids which clarify, correct, or change the Contract Documents.
- C. Additional Work -- New or unforeseen work will be classified as “Additional Work” when the City’s Representative determines that it is not covered by the Contract.
- D. Applicable Laws -- The laws, statutes, ordinances, rules, codes, regulations, permits, and licenses of any kind, issued by local, state or federal governmental authorities or private authorities with jurisdiction (including utilities), to the extent they apply to the Work.
- E. Bid -- The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices and other terms for the Work to be performed.
- F. Bidder -- The individual or entity who submits a Bid directly to the City.
- G. Change Order (“CO”) -- A document that authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Contract, in accordance with the Contract Documents and in the form contained in the Contract Documents.
- H. Change Order Request (“COR”) -- A request made by the Contractor for an adjustment in the Contract Price and/or Contract Times as the result of a Contractor-claimed change to the Work. This term may also be referred to as a Change Order Proposal (“COP”), or Request for Change (“RFC”).
- I. City -- The City of Davis.
- J. City Council, Council -- The City Council of the City.
- K. City’s Representative -- The individual or entity as identified in the Special Conditions to act as the City’s Representative.
- L. Claim -- A demand or assertion by the City or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

- M. Contract -- The entire integrated written agreement between the City and Contractor concerning the Work. "Contract" may be used interchangeably with "Agreement" in the Contract Documents. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral, and includes all Contract Documents.
- N. Contract Documents -- The documents listed in Section 00 52 13, Article 5. Some documents provided by the City to the Bidders and Contractor, including but not limited to reports and drawings of subsurface and physical conditions are not Contract Documents.
- O. Contract Price -- Amount to be paid by the City to the Contractor as full compensation for the performance of the Contract and completion of the Work, subject to any additions or deductions as provided in the Contract Documents, and including all applicable taxes and costs.
- P. Contract Times -- The number of days or the dates stated in the Contract Documents to: achieve defined Milestones, if any; and to complete the Work so that it is ready for final payment.
- Q. Contractor -- The individual or entity with which the City has contracted for performance of the Work.
- R. Contractor's Designated On-Site Representative -- The Contractor's Designated On-Site Representative will be as identified in Section 00 72 13, Article 3 and shall not be changed without prior written consent of the City.
- S. Daily Rate -- The Daily Rate stipulated in the Contract Documents as full compensation to the Contractor due to the City's unreasonable delay to the Project that was not contemplated by the parties.
- T. Day -- A calendar day of 24 hours measured from midnight to the next midnight.
- U. Defective Work -- Work that is unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referenced in the Contract Documents.
- V. Demobilization -- The complete dismantling and removal by the Contractor of all of the Contractor's temporary facilities, equipment, and personnel at the Site.
- W. Drawings -- That part of the Contract Documents prepared by of the Engineer of Record which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
- X. Effective Date of the Contract -- The date indicated in the Contract on which it becomes effective, but if no such date is indicated, it means the date on which the Contract is signed and delivered by the last of the two parties to sign and deliver.
- Y. Engineer, whenever not qualified, shall mean the City Engineer of the City, acting either directly or through properly authorized agents, such agents acting severally

within the scope of the particular duties entrusted to them (e.g., Project Manager, Public Works Inspector). On all questions concerning the acceptance of materials, machinery, the classifications of material, the execution of work, conflicting interest of the contractors performing related work and the determination of costs, the decision of the Engineer, duly authorized by the City Council, shall be binding and final upon both parties.

Z. Engineer of Record -- The individual, partnership, corporation, joint venture, or other legal entity named as such in Section 00 73 13, Article 1.1. or any succeeding entity designated by the City.

AA. Hazardous Waste -- The term "Hazardous Waste" shall have the meaning provided in Section 104 of the Solid Waste Disposal Act (42 U.S.C. § 6903) as amended from time to time or, 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 provisions of existing law, whichever is more restrictive.

BB. Holiday – The Holidays occur on:

New Year's Day - January 1
President's Day – Third Monday in February
Memorial Day - Last Monday in May
Independence Day - July 4
Labor Day - First Monday in September
Veteran's Day - November 11
Thanksgiving Day - Fourth Thursday in November
Friday after Thanksgiving
Christmas Eve – December 24
Christmas Day - December 25
Day After Christmas – December 26
New Year's Eve – December 31

If any Holiday listed above falls on a Saturday, Saturday and the preceding Friday are both Holidays. If the Holiday should fall on a Sunday, Sunday and the following Monday are both Holidays.

CC. Notice of Award -- The written notice by the City to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, the City will sign and deliver the Contract.

DD. Notice of Completion -- The form which may be executed by the City and recorded by the county where the Project is located constituting final acceptance of the Project.

EE. Notice to Proceed -- A written notice given by the City to Contractor fixing the date on which the Contractor may proceed with the Work and when Contract Times will commence to run.

FF. Project -- The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.

- GG. Recyclable Waste Materials -- Materials removed from the Site which are required to be diverted to a recycling center rather than an area landfill. Recyclable Waste Materials include asphalt, concrete, brick, concrete block, and rock.
- HH. Schedule of Submittals -- A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to facilitate scheduled performance of related construction activities.
- II. Shop Drawings -- All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
- JJ. Specifications -- That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
- KK. Stop Payment Notice -- A written notice as defined in Civil Code section 8044.
- LL. Subcontractor -- An individual or entity other than a Contractor having a contract with any other entity than the City for performance of any portion of the Work at the Site.
- MM. Submittal -- Written and graphic information and physical samples prepared and supplied by the Contractor demonstrating various portions of the Work.
- NN. Successful Bidder -- The Bidder submitting a responsive Bid to whom the City makes an award.
- OO. Supplier -- A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment used in the performance of the Work or to be incorporated in the Work.
- PP. Underground Facilities -- All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
- QQ. Unit Price Work -- Work to be paid for on the basis of unit prices as provided by the Contractor in its bid or as adjusted in accordance with the Contract Documents.
- RR. Warranty -- A written guarantee provided to the City by the Contractor that the Work will remain free of defects and suitable for its intended use for the period required by the Contract Documents or the longest period permitted by the law of this State, whichever is longer.
- SS. Work -- The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce

such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

ARTICLE 2. CONTRACT DOCUMENTS

- A. **Contract Documents.** The Contract Documents are complementary, and what is called for by one shall be as binding as if called for by all.
- B. **Interpretations.** The Contract Documents are intended to be fully cooperative and complementary. If the Contractor observes that any documents are in conflict, the Contractor shall promptly notify the Engineer in writing. In case of conflicts between the Contract Documents, the order of precedence shall be as follows:
1. Change Orders
 2. Addenda
 3. Special Conditions
 4. Technical Specifications
 5. Plans (Contract Drawings)
 6. Contract
 7. General Conditions
 8. Instructions to Bidders
 9. Notice Inviting Bids
 10. Contractor's Bid Forms
 11. Standard Specifications for Public Works Construction (Sections 1-9 Excluded)
 12. Applicable Local Agency Standards and Specifications
 13. Standard Drawings
 14. Reference Documents

With reference to the Drawings, the order of precedence shall be as follows:

1. Figures govern over scaled dimensions
 2. Detail drawings govern over general drawings
 3. Addenda or Change Order drawings govern over Contract Drawings
 4. Contract Drawings govern over Standard Drawings
 5. Contract Drawings govern over Shop Drawings
- C. **Conflicts in Contract Documents.** Notwithstanding the orders of precedence established above, in the event of conflicts, the higher standard, higher quality, and most expensive shall always apply.
- D. **Organization of Contract Documents.** Organization of the Contract Documents into divisions, sections, and articles, and arrangement of drawings shall not control the Contractor in dividing Project Work among subcontractors or in establishing the extent of Work to be performed by any trade.

ARTICLE 3. PRECONSTRUCTION AND CONSTRUCTION COMMUNICATION

Before any Work at the site is started, a conference attended by the City, Contractor, City's Representative, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to herein, procedures for

handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

At this conference the City and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

ARTICLE 4. CONTRACT DOCUMENTS: COPIES & MAINTENANCE

Contractor will be furnished, free of charge, **five (5)** copies of the Contract Documents. Additional copies may be obtained at cost of reproduction.

Contractor shall maintain a clean, undamaged set of Contract Documents, including submittals, at the Project site.

ARTICLE 5. EXAMINATION OF DRAWINGS, SPECIFICATIONS AND SITE OF WORK

- A. **Examination of Contract Documents.** Before commencing any portion of the Work, Contractor shall again carefully examine all applicable Contract Documents, the Project site, and other information given to Contractor as to materials and methods of construction and other Project requirements. Contractor shall immediately notify the Engineer of any potential error, inconsistency, ambiguity, conflict, or lack of detail or explanation. If Contractor performs, permits, or causes the performance of any Work which is in error, inconsistent or ambiguous, or not sufficiently detailed or explained, Contractor shall bear any and all resulting costs, including, without limitation, the cost of correction. In no case shall the Contractor or any subcontractor proceed with Work if uncertain as to the applicable requirements.
- B. **Additional Instructions.** After notification of any error, inconsistency, ambiguity, conflict, or lack of detail or explanation, the Engineer will provide any required additional instructions, by means of drawings or other written direction, necessary for proper execution of Work.
- C. **Quality of Parts, Construction and Finish.** All parts of the Work shall be of the best quality of their respective kinds and the Contractor must use all diligence to inform itself fully as to the required construction and finish.
- D. **Contractor's Variation from Contract Document Requirements.** If it is found that the Contractor has varied from the requirements of the Contract Documents including the requirement to comply with all applicable laws, ordinances, rules and regulations, the Engineer may at any time, before or after completion of the Work, order the improper Work removed, remade or replaced by the Contractor at the Contractor's expense.

ARTICLE 6. MOBILIZATION

- A. When a bid item is included in the Bid Form for mobilization, the costs of Work in advance of construction operations and not directly attributable to any specific bid item will be included in the progress estimate ("Initial Mobilization"). When no bid item is

provided for "Initial Mobilization," payment for such costs will be deemed to be included in the other items of the Work.

- B. Payment for Initial Mobilization based on the lump sum provided in the Bid Form, which shall constitute full compensation for all such Work. No payment for Initial Mobilization will be made until all of the listed items have been completed to the satisfaction of the Engineer. The scope of the Work included under Initial Mobilization shall include, but shall not be limited to, the following principal items:
 - 1. Obtaining and paying for all bonds, insurance, and permits.
 - 2. Moving on to the Project site of all Contractor's plant and equipment required for the first month's operations.
 - 3. Installing temporary construction power, wiring, and lighting facilities, as applicable.
 - 4. Establishing fire protection system, as applicable.
 - 5. Developing and installing a construction water supply, if applicable.
 - 6. Providing and maintaining the field office trailers for the Contractor, if necessary, and the Engineer (if specified), complete, with all specified furnishings and utility services.
 - 7. Providing on-site sanitary facilities and potable water facilities as specified per Cal-OSHA and these Contract Documents.
 - 8. Furnishing, installing, and maintaining all storage buildings or sheds required for temporary storage of products, equipment, or materials that have not yet been installed in the Work. All such storage shall meet manufacturer's specified storage requirements, and the specific provisions of the specifications, including temperature and humidity control, if recommended by the manufacturer, and for all security.
 - 9. Arranging for and erection of Contractor's work and storage yard.
 - 10. Posting all OSHA required notices and establishment of safety programs per Cal-OSHA.
 - 11. Full-time presence of Contractor's superintendent at the job site as required herein.
 - 12. Submittal of Construction Schedule as required by the Contract Documents.

ARTICLE 7. EXISTENCE OF UTILITIES AT THE WORK SITE

- A. The City has endeavored to determine the existence of utilities at the Project site from the records of the owners of known utilities in the vicinity of the Project. The positions of these utilities as derived from such records are shown on the Plans.
- B. Unless indicated otherwise on the Plans and Specifications, no excavations were made to verify the locations shown for underground utilities. The service connections

to these utilities are not shown on the Plans. Water service connections may be shown on the Plans showing general locations of such connections. It shall be the responsibility of the Contractor to determine the exact location of all service connections. The Contractor shall make its own investigations, including exploratory excavations, to determine the locations and type of service connections, prior to commencing Work which could result in damage to such utilities. The Contractor shall immediately notify the City in writing of any utility discovered in a different position than shown on the Plans or which is not shown on the Plans.

- C. If applicable, all water meters, water valves, fire hydrants, electrical utility vaults, telephone vaults, gas utility valves, and other subsurface structures shall be relocated or adjusted to final grade by the Contractor. Locations of existing utilities shown on the Plans are approximate and may not be complete. The Contractor shall be responsible for coordinating its Work with all utility companies during the construction of the Work.
- D. Notwithstanding the above, pursuant to section 4215 of the Government Code, the City has the responsibility to identify, with reasonable accuracy, main or trunkline facilities on the plans and specifications. In the event that main or trunkline utility facilities are not identified with reasonable accuracy in the plans and specifications made a part of the invitation for Bids, the City shall assume the responsibility for their timely removal, relocation, or protection.
- E. Contractor, except in an emergency, shall contact the appropriate regional notification center, **Northern California Underground Service Alert** at 811 or 1-800-227-2600 or on-line at www.digalert.org at least two working days prior to commencing any excavation if the excavation will be performed in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the City, and obtain an inquiry identification number from that notification center. No excavation shall be commenced or carried out by the Contractor unless such an inquiry identification number has been assigned to the Contractor or any subcontractor of the Contractor and the City has been given the identification number by the Contractor.

ARTICLE 8. SOILS INVESTIGATIONS

- A. Reports and Drawings. The Special Conditions identify:
 - 1. those reports known to the City of explorations and tests of subsurface conditions at or contiguous to the site; and
 - 2. those drawings known to the City of physical conditions relating to existing surface or subsurface structures at the site (except Underground Facilities).
- B. Limited Reliance by Contractor on Technical Data Authorized. Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, which were expressly not created or obtained to evaluate or assist in the evaluation of constructability, and are not Contract Documents. Contractor shall make its own interpretation of the “technical data” and shall be solely responsible for any such interpretations. Except for reliance on the accuracy of such “technical data,” Contractor may not rely upon or make any claim against the City, City’s

Representative, or Engineer of Record, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including without limitation any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions, conclusions and information contained in such reports or shown or indicated in such drawings; or
3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

ARTICLE 9. CONTRACTOR'S SUPERVISION

Contractor shall continuously keep at the Project site, a competent and experienced full-time Project superintendent acceptable to the City. Superintendent must be able to proficiently speak, read and write in English and shall have the authority to make decisions on behalf of the Contractor. Contractor shall continuously provide efficient supervision of the Project. If there are more than one construction sites for the project, the Superintendent shall visit all the sites at least once per day. When not at a site, Superintendent shall authorize a co-worker to be the lead; however, the Superintendent shall make decisions.

ARTICLE 10. WORKERS

- A. Contractor shall at all times enforce strict discipline and good order among its employees. Contractor shall not employ on the Project any unfit person or any one not skilled in the Work assigned to him or her.
- B. Any person in the employ of the Contractor whom the City may deem incompetent or unfit shall be dismissed from the Work and shall not be employed on this Project.

ARTICLE 11. INDEPENDENT CONTRACTORS

Contractor shall be an independent contractor for the City and not an employee. Contractor understands and agrees that it and all of its employees shall not be considered officers, employees, or agents of City and are not entitled to benefits of any kind normally provided employees of City, including but not limited to, state unemployment compensation or workers' compensation. Contractor assumes full responsibility for the acts and omissions of its employees or agents related to the Work.

ARTICLE 12. SUBCONTRACTS

- A. Contractor agrees to bind every subcontractor to the terms of the Contract Documents as far as such terms are applicable to subcontractor's portion of the Work. Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by its subcontractors, as Contractor is for acts and omissions of persons directly employed by Contractor. Nothing contained in these Contract Documents shall create any contractual relationship between any subcontractor and the City.

- B. The City reserves the right to accept all subcontractors. The City's acceptance of any subcontractor under this Contract shall not in any way relieve Contractor of its obligations in the Contract Documents.
- C. Prior to substituting any subcontractor listed in the Bid Forms, Contractor must comply with the requirements of the Subletting and Subcontracting Fair Practices Act pursuant to California Public Contract Code section 4100 et seq.

ARTICLE 13. VERIFICATION OF EMPLOYMENT ELIGIBILITY

By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time, and shall require all subcontractors, sub-subcontractors and consultants to comply with the same. Each person executing this Contract on behalf of Contractor verifies that he or she is a duly authorized officer of Contractor and that any of the following shall be grounds for the City to terminate the Contract for cause: (1) failure of the Contractor or its subcontractors, sub-subcontractors or consultants to meet any of the requirements provided for in this Article; (2) any misrepresentation or material omission concerning compliance with such requirements; or (3) failure to immediately remove from the Work any person found not to be in compliance with such requirements.

ARTICLE 14. REQUESTS FOR SUBSTITUTION

- A. For the purposes of this provision, the term "substitution" shall mean the substitution of any material, method or service substantially equal to or better in every respect to that indicated in the Standard Specifications or otherwise referenced herein.
- B. Pursuant to Public Contract Code section 3400(b), the City may make a finding that is described in the Notice Inviting Bids that designates certain products, things, or services by specific brand or trade name.
- C. Unless specifically designated in the Special Conditions, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating the description of the material, process, or article desired and shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer for substitution any material, process, or article which may be substantially equal to or better in every respect to that so indicated or specified in the Contract Documents. However, the City has adopted uniform standards for certain materials, processes, and articles.
- D. The Contractor shall submit substitution requests, together with substantiating data, for substitution of any "or equal" material, process, or article no later than thirty-five (35) calendar days after award of Contract. Provisions regarding submission of substitution requests shall not in any way authorize an extension of time for the performance of this Contract. If a substitution request is rejected by the City, the Contractor shall provide the material, method or service specified herein. The City shall not be responsible for any costs incurred by the Contractor associated with substitution requests. The burden of proof as to the equality of any material, process, or article shall rest with the Contractor. The Engineer has the complete and sole

discretion to determine if a material, process, or article is substantially equal to or better than that specified and to approve or reject all substitution requests.

- E. Substantiating data as described above shall include, at a minimum, the following information:
 - 1. A signed affidavit from the Contractor stating that the material, process, or article proposed as a substitution is substantially equal to or better than that specified in every way except as may be listed on the affidavit.
 - 2. Illustrations, specifications, catalog cut sheets, and any other relevant data required to prove that the material, process, or article is substantially equal to or better than that specified.
 - 3. A statement of the cost implications of the substitution being requested, indicating whether and why the proposed substitution will reduce or increase the amount of the contract.
 - 4. Information detailing the durability and lifecycle costs of the proposed substitution.
- F. Failure to submit all the required substantiating data detailed above in a timely manner so that the substitution request can be adequately reviewed may result in rejection of the substitution request. The Engineer is not obligated to review multiple submittals related the same substitution request resulting from the Contractor's failure to initially submit a complete package.
- G. Time limitations within this Article shall be strictly complied with and in no case will an extension of time for completion of the contract be granted because of Contractor's failure to provide substitution requests at the time and in the manner described herein.
- H. The Contractor shall bear the costs of all City work associated with the review of substitution requests.
- I. If substitution requests approved by the Engineer require that Contractor furnish materials, methods or services more expensive than that specified, the increased costs shall be borne by Contractor.

ARTICLE 15. SHOP DRAWINGS

- A. Contractor shall check and verify all field measurements and shall submit with such promptness as to provide adequate time for review and cause no delay in its own Work or in that of any other contractor, subcontractor, or worker on the Project, six (6) copies of all shop drawings, calculations, schedules, and materials list, and all other provisions required by the Contract Documents. Contractor shall sign all submittals affirming that submittals have been reviewed and approved by Contractor prior to submission to Engineer. Each signed submittal shall affirm that the submittal meets all the requirements of the Contract Documents except as specifically and clearly noted and listed on the transmittal letter of the submittal.
- B. Contractor shall make any corrections required by the Engineer, and file with the Engineer six (6) corrected copies each, and furnish such other copies as may be

needed for completion of the Work. Engineer's acceptance of shop drawings shall not relieve Contractor from responsibility for deviations from the Contract Documents unless Contractor has, in writing, called Engineer's attention to such deviations at time of submission and has secured the Engineer's written acceptance. Engineer's acceptance of shop drawings shall not relieve Contractor from responsibility for errors in shop drawings.

ARTICLE 16. SUBMITTALS

- A. Contractor shall furnish to the Engineer for approval, prior to purchasing or commencing any Work, a log of all samples, material lists and certifications, mix designs, schedules, and other submittals, as required in the Contract Documents. The log shall indicate whether samples will be provided in accordance with other provisions of this Contract.
- B. Contractor will provide samples and submittals, together with catalogs and supporting data required by the Engineer, to the Engineer within a reasonable time period to provide for adequate review and avoid delays in the Work.
- C. These requirements shall not authorize any extension of time for performance of this Contract. Engineer will check and approve such samples, but only for conformance with design concept of work and for compliance with information given in the Contract Documents. Work shall be in accordance with approved samples and submittals.

ARTICLE 17. MATERIALS

- A. Except as otherwise specifically stated in the Contract Documents, Contractor shall provide and pay for all materials, labor, tools, equipment, lights, power, transportation, superintendence, temporary constructions of every nature, and all other services and facilities of every nature whatsoever necessary to execute and complete this Contract within specified time.
- B. Unless otherwise specified, all materials shall be new and the best of their respective kinds and grades as noted and/or specified, and workmanship shall be of good quality.
- C. Materials shall be furnished in ample quantities and at such times as to ensure uninterrupted progress of the Work and shall be stored properly and protected as required by the Contract Documents. Contractor shall be entirely responsible for damage or loss by weather or other causes to materials or Work.
- D. No materials, supplies, or equipment for Work under this Contract shall be purchased subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or in any part thereof is retained by the seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in the Work and agrees upon completion of all work to deliver the Project, to the City free from any claims, liens, or charges.
- E. Materials shall be stored on the Project site in such manner so as not to interfere with any operations of the City or any independent contractor.

- F. Contractor shall verify all measurements, dimensions, elevations, and quantities before ordering any materials or performing any Work, and the City shall not be liable for Contractor's failure to do so. No additional compensation, over and above payment for the actual quantities at the prices set out in the Bid Form, will be allowed because of differences between actual measurements, dimension, elevations and quantities and those indicated on the Plans and in the Specifications. Any difference therein shall be submitted to the Engineer for consideration before proceeding with the Work.

ARTICLE 18. PERMITS AND LICENSES

- A. City will apply and pay for the review of necessary encroachment permits for Work within the public rights-of-way. Contractor shall obtain all other necessary permits and licenses for the construction of the Project, including encroachment permits, and shall pay all fees required by law and shall comply with all laws, ordinances, rules and regulations relating to the Work and to the preservation of public health and safety. Before acceptance of the Project, the Contractor shall submit all licenses, permits, certificates of inspection and required approvals to the City.
- B. The Bid Form contains an allowance for the Contractor's cost of acquiring traffic control permits and for construction inspection fees that may be charged to the Contractor by the Agency of Jurisdiction. The allowance is included within the Bid Form to eliminate the need by bidders to research or estimate the costs of traffic control permits and construction inspection fees prior to submitting a bid. The allowance is specifically intended to account for the costs of traffic control permits and construction inspection fees charged by the local Agency of Jurisdiction only. No other costs payable by Contractor to the Agency of Jurisdiction are included within the allowance. Payment by City to Contractor under the Permit and Inspection Allowance Bid Item shall be made based on actual cost receipts only and in accordance with the provisions of these specifications.

ARTICLE 19. TRENCHES

- A. **Trenches Five Feet or More in Depth.** Contractor shall submit to the Engineer at the preconstruction meeting, a detailed plan showing the design of shoring, bracing, sloping or other provisions to be made for worker protection from hazards of caving ground during the excavation of any trench or trenches five feet or more in depth. If such plan varies from shoring system standards established by the Construction Safety Orders of the California Code of Regulations, Department of Industrial Relations, the plan shall be prepared by a California registered civil or structural engineer. The plan shall not be less effective than the shoring, bracing, sloping, or other provisions of the Construction Safety Orders, as defined in the California Code of Regulations. The Contractor shall designate in writing the "competent person" as defined in Title 8, California Code of Regulations, who shall be present at the Work Site each day that trenching/excavation is in progress. The "competent person" shall prepare and provide daily trenching/excavation inspection reports to the Engineer. Contractor shall also submit a copy of its annual California Occupational Safety and Health Administration (Cal/OSHA) trench/excavation permit.
- B. **Excavations Deeper than Four Feet.** If the Work involves excavating trenches or other excavations that extend deeper than four feet below the surface, Contractor shall

promptly, and before the excavation is further disturbed, notify the City in writing of any of the following conditions:

1. Material that the Contractor believes may be material that is 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 provisions of existing law.
2. Subsurface or latent physical conditions at the site differing from those indicated.
3. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract

The City shall promptly investigate the conditions, and if it finds that the conditions do so 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, shall issue a change order under the procedures described in the Contract Documents.

In the event that a dispute arises between the City and the Contractor as to whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all Work to be performed under the Contract. Contractor shall retain any and all rights provided either by contract or by law which pertain to the resolution of disputes and protests between the parties.

ARTICLE 20. TRAFFIC CONTROL

- A. Traffic control plan(s) for the Work may be required by the Agency(s) of Jurisdiction. Traffic control plans, if required, shall be prepared at Contractor's expense, and traffic control shall be performed at Contractor's expense in accordance with the requirements of the Agency(s) of Jurisdiction. The Permit and Inspection Allowance included within the Bid Form includes the cost of required traffic control permit(s) and construction inspection by the Agency(s) of Jurisdiction only. The Permit and Inspection Allowance does not include costs for preparation of any required traffic control plans, implementation of any traffic control requirements or for any traffic signal services that may be required. Costs for traffic control plans, implementation of traffic control, or traffic signal services required by the Agency(s) of Jurisdiction shall be included in the Contractor's Bid.
- B. All warning signs and safety devices used by the Contractor to perform the Work shall conform to the requirements contained in the State of California, Department of Transportation's current edition of "Manual of Traffic Controls for Construction and Maintenance Work Zones" or to the requirements of the local agency. The Contractor shall also be responsible for all traffic control required by the agency having jurisdiction over the project on the intersecting streets. Contractor must submit a traffic control plan to the agency having jurisdiction over the project for approval prior to starting work.

- C. The Contractor's representative on the site responsible for traffic control shall produce evidence that he/she has completed training acceptable to the California Department of Transportation for safety through construction zones. All of the streets in which the Work will occur shall remain open to traffic and one lane of traffic maintained at all times unless otherwise directed by the agency of jurisdiction. Businesses and residences adjacent to the Work shall be notified forty-eight (48) hours in advance of closing of driveways. The Contractor shall make every effort to minimize the amount of public parking temporarily eliminated due to construction in areas fronting businesses. No stockpiles of pipe or other material will be allowed in traveled right-of-ways after working hours unless otherwise approved by the Engineer.

ARTICLE 21. DIVERSION OF RECYCLABLE WASTE MATERIALS

In compliance with the applicable City's waste reduction and recycling efforts, Contractor shall divert all Recyclable Waste Materials to appropriate recycling centers as required for compliance with the local jurisdiction's waste diversion ordinances. Contractor will be required to submit weight tickets and written proof of diversion with its monthly progress payment requests. Contractor shall complete and execute any certification forms required by City or other applicable agencies to document Contractor's compliance with these diversion requirements. All costs incurred for these waste diversion efforts shall be the responsibility of the Contractor.

ARTICLE 22. REMOVAL OF HAZARDOUS MATERIALS

Should Contractor encounter material reasonably believed to be polychlorinated biphenyl (PCB) or other toxic wastes and hazardous materials which have not been rendered harmless at the Project site, the Contractor shall immediately stop work at the affected Project site and shall report the condition to the City in writing. The City shall contract for any services required to directly remove and/or abate PCBs and other toxic wastes and hazardous materials, if required by the Project site(s), and shall not require the Contractor to subcontract for such services. The Work in the affected area shall not thereafter be resumed except by written agreement of the City and Contractor.

ARTICLE 23. SANITARY FACILITIES

Contractor shall provide sanitary temporary toilet buildings and hand washing facilities for the use of all workers. All toilets and hand washing facilities shall comply with local codes and ordinances. Toilets shall be kept supplied with toilet paper and shall have workable door fasteners. Toilets and hand washing facilities shall be serviced no less than once weekly and shall be present in a quantity of not less than 1 per 20 workers as required by Cal/OSHA regulations. The toilets and hand washing facilities shall be maintained in a sanitary condition at all times. Use of toilet and hand washing facilities in the Work under construction shall not be permitted. Any other Sanitary Facilities required by Cal/OSHA shall be the responsibility of the Contractor. The Contractor shall relocate the sanitary facilities each week to a new location at least 100 feet from the previous location.

ARTICLE 24. AIR POLLUTION CONTROL

Contractor shall comply with all air pollution control rules, regulations, ordinances and statutes, including, but not limited to, those required by the Yolo-Solano Air Quality Management District. All containers of paint, thinner, curing compound, solvent or liquid asphalt shall be labeled to indicate that the contents fully comply with the applicable material requirements.

ARTICLE 25. LAYOUT AND FIELD ENGINEERING

All field engineering required for laying out the Work and establishing grades for earthwork operations shall be furnished by the Contractor at its expense.

ARTICLE 26. TESTS AND INSPECTIONS

- A. If the Contract Documents, the Engineer, or any instructions, laws, ordinances, or public authority requires any part of the Work to be tested or Approved, Contractor shall provide the Engineer at least two (2) working days' notice of its readiness for observation or inspection. If inspection is by a public authority other than the City, Contractor shall promptly inform the City of the date fixed for such inspection. Required certificates of inspection (or similar) shall be secured by Contractor. Costs for City testing and City inspection shall be paid by the City. Costs of tests for Work found not to be in compliance shall be paid by the Contractor.
- B. If any Work is done or covered up without the required testing or approval, the Contractor shall uncover or deconstruct the Work, and the Work shall be redone after completion of the testing at the Contractor's cost in compliance with the Contract Documents.
- C. Where inspection and testing are to be conducted by an independent laboratory or agency, materials or samples of materials to be inspected or tested shall be selected by such laboratory or agency, or by the City, and not by Contractor. All tests or inspections of materials shall be made in accordance with the commonly recognized standards of national organizations.
- D. In advance of manufacture of materials to be supplied by Contractor which must be tested or inspected, Contractor shall notify the City so that the City may arrange for testing at the source of supply. Any materials which have not satisfactorily passed such testing and inspection shall not be incorporated into the Work.
- E. If the manufacture of materials to be inspected or tested will occur in a plant or location greater than sixty (60) miles from the City, the Contractor shall pay for any excessive or unusual costs associated with such testing or inspection, including but not limited to excessive travel time, standby time and required lodging.
- F. Reexamination of Work may be ordered by the City. If so ordered, Work must be uncovered or deconstructed by Contractor. If Work is found to be in accordance with the Contract Documents, the City shall pay the costs of reexamination and reconstruction. If such work is found not to be in accordance with the Contract Documents, Contractor shall pay all costs.

ARTICLE 27. PROTECTION OF WORK AND PROPERTY

- A. The Contractor shall be responsible for all damages to persons or property that occurs as a result of the Work. Contractor shall be responsible for the proper care and protection of all materials delivered and Work performed until completion and final Acceptance by the City. All Work shall be solely at the Contractor's risk. Contractor shall adequately protect adjacent property from settlement or loss of lateral support as necessary. Contractor shall comply with all applicable safety laws and building codes

to prevent accidents or injury to persons on, about, or adjacent to the Project site where Work is being performed. Contractor shall erect and properly maintain at all times, as required by field conditions and progress of work, all necessary safeguards, signs, barriers, lights, and watchmen for protection of workers and the public, and shall post danger signs warning against hazards created in the course of construction.

- B. In an emergency affecting safety of life or of work or of adjoining property, Contractor, without special instruction or authorization from the Engineer, is hereby permitted to act to prevent such threatened loss or injury; and Contractor shall so act, without appeal, if so authorized or instructed by the Engineer or the City. Any compensation claimed by Contractor on account of emergency work shall be determined by and agreed upon by the City and the Contractor.

ARTICLE 28. CONTRACTOR'S MEANS AND METHODS

Contractor is solely responsible for the means and methods utilized to perform the Work. In no case shall the Contractor's means and methods deviate from commonly used industry standards.

ARTICLE 29. AUTHORIZED REPRESENTATIVES

The City shall designate representatives, who shall have the right to be present at the Project site at all times. The City may designate an inspector who shall have the right to observe all of the Contractor's Work. The inspector shall not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. Contractor shall provide safe and proper facilities for such access.

ARTICLE 30. HOURS OF WORK

- A. As provided in Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code, Contractor stipulates that eight (8) hours of labor shall constitute a legal day's work. The time of service of any worker employed at any time by the Contractor or by any subcontractor on any subcontract under this Contract upon the Work or upon any part of the Work contemplated by this Contract is limited and restricted to eight (8) hours during any one calendar day and 40 hours during any one calendar week, except as hereinafter provided. Notwithstanding the provisions herein above set forth, work performed by employees of Contractor in excess of eight (8) hours per day, and 40 hours during any one week, shall be permitted upon this public work upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half times the basic rate of pay.
- B. The Contractor and every subcontractor shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed in connection with the Work or any part of the Work contemplated by this Contract. The record shall be kept open at all reasonable hours to the inspection of the City and to the Division of Labor Law Enforcement, Department of Industrial Relations of the State of California.
- C. The Contractor shall pay to the City a penalty of twenty-five dollars (\$25.00) for each worker employed in the execution of this Contract by the Contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and 40 hours in any one calendar

week in violation of the provisions of Article 3 (commencing at section 1810), Chapter 1, Part 7, Division 2 of the Labor Code.

- D. Any work necessary to be performed after regular working hours, or on Saturdays and Sundays or other holidays, shall be performed without additional expense to the City.
- E. City will provide inspection during normal working hours from 7:00 a.m. to 3:30 p.m. Monday through Friday. Inspection before or after this time will be charged to the Contractor as reimbursable inspection time. Inspections on weekends requires two days' notice for review and approval. Upon written request and approval the 8.5 hour working day may be changed to other limits subject to city/county ordinance.
- F. It shall be unlawful for any person to operate, permit, use, or cause to operate any of the following at the Project site, other than between the hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, with no Work allowed on the City-observed holidays, unless otherwise approved by the City:
 - 1. Powered Vehicles
 - 2. Construction Equipment
 - 3. Loading and Unloading Vehicles
 - 4. Domestic Power Tools

ARTICLE 31. PAYROLL RECORDS

- A. Pursuant to Labor Code section 1776, Contractor and all subcontractors shall maintain weekly certified payroll records, showing the names, addresses, Social Security numbers, work classifications, 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 by them in connection with the Work under this Contract. Contractor shall certify under penalty of perjury that records maintained and submitted by Contractor are true and accurate. Contractor shall also require subcontractor(s) to certify weekly payroll records under penalty of perjury.
- B. In accordance with Labor Code section 1771.4, the Contractor and each subcontractor shall furnish the certified payroll records directly to the Department of Industrial Relations ("DIR") on the specified interval and format prescribed by the DIR, which may include electronic submission. Contractor shall comply with all requirements and regulations from the DIR relating to labor compliance monitoring and enforcement.
- C. The payroll records described herein shall be certified and submitted by the Contractor at a time designated by the City. The Contractor shall also provide the following:
 - 1. A certified copy of the employee's payroll records shall be made available for inspection or furnished to such employee or his or her authorized representative on request.
 - 2. A certified copy of all payroll records described herein shall be made available for inspection or furnished upon request of the DIR.

- D. Unless submitted electronically, the certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement (“DLSE”) of the DIR or shall contain the same information as the forms provided by the DLSE.
- E. Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency, the City, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor awarded the Contract or performing the contract shall not be marked or obliterated.
- F. In the event of noncompliance with the requirements of this Article, the Contractor shall have ten (10) calendar days in which to comply subsequent to receipt of written notice specifying in what respects the Contractor must comply with this Article. Should noncompliance still be evident after such 10-day period, the Contractor shall pay a penalty of one hundred dollars (\$100.00) to the City for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payment then due.
- G. The responsibility for compliance with this Article shall rest upon the Contractor.

ARTICLE 32. PREVAILING RATES OF WAGES

- A. The Contractor is aware of the requirements of Labor Code sections 1720 *et seq.* and 1770 *et seq.*, as well as California Code of Regulations, Title 8, Section 16000 *et seq.* (“Prevailing Wage Laws”), which require the payment of prevailing wage rates and the performance of other requirements on certain “public works” and “maintenance” projects. Since this Project involves an applicable “public works” or “maintenance” project, as defined by the Prevailing Wage Laws, and since the total compensation is \$1,000 or more, Contractor agrees to fully comply with such Prevailing Wage Laws. The Contractor shall obtain a copy of the prevailing rates of per diem wages at the commencement of this Contract from the website of the Division of Labor Statistics and Research of the Department of Industrial Relations located at www.dir.ca.gov. In the alternative, the Contractor may view a copy of the prevailing rate of per diem wages which are on file at the City’s Administration Office and shall be made available to interested parties upon request. Contractor shall make copies of the prevailing rates of per diem wages for each craft, classification, or type of worker needed to perform work on the Project available to interested parties upon request, and shall post copies at the Contractor’s principal place of business and at the Project site. Contractor shall defend, indemnify and hold the City, its officials, officers, employees and authorized volunteers free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or allege failure to comply with the Prevailing Wage Laws.
- B. Additionally, this project is partially funded by the Federal Department of Transportation. Prevailing wages shall also follow Federal guidelines. The Contractor and its subcontractors must comply with both the State of California’s prevailing wages and the Federal Department of Transportation’s prevailing wages and pay the higher of the two amounts for any particular job title. See the Federal Requirements section of this Contract Book for more detail and Article 23 of the Instruction to Bidders.

- C. The Contractor shall forfeit as a penalty to the City not more than Two Hundred Dollars (\$200.00), pursuant to Labor Code section 1775, for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate as determined by the Director of the Department of Industrial Relations for such work or craft in which such worker is employed for any public work done under the Contract by it or by any subcontractor under it. The difference between such prevailing wage rate and the amount paid to each worker for each calendar day or portion thereof, for which each worker was paid less than the prevailing wage rate, shall be paid to each worker by the Contractor.
- D. Contractor shall post, at appropriate conspicuous points on the Project site, a schedule showing all determined general prevailing wage rates and all authorized deductions, if any, from unpaid wages actually earned.

ARTICLE 33. PUBLIC WORKS CONTRACTOR REGISTRATION

Pursuant to Labor Code sections 1725.5 and 1771.1, the Contractor and its subcontractors must be registered with the Department of Industrial Relations prior to the execution of a contract to perform public works. By entering into this Contract, Contractor represents that it is aware of the registration requirement and is currently registered with the DIR. Contractor shall maintain a current registration for the duration of the Project. Contractor shall further include the requirements of Labor Code sections 1725.5 and 1771.1 in any subcontract and ensure that all subcontractors are registered at the time this Contract is entered into and maintain registration for the duration of the Project.

ARTICLE 34. EMPLOYMENT OF APPRENTICES

- A. Contractor and all subcontractors shall comply with the requirements of Labor Code sections 1777.5 and 1777.6 in the employment of apprentices.
- B. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, California, or from the Division of Apprenticeship Standards and its branch offices.
- C. Knowing violations of Labor Code section 1777.5 will result in forfeiture not to exceed one hundred dollars (\$100.00) for each calendar day of non-compliance pursuant to Labor Code section 1777.7.
- D. The responsibility for compliance with this Article shall rest upon the Contractor.

ARTICLE 35. NONDISCRIMINATION/EQUAL EMPLOYMENT OPPORTUNITY

Pursuant to Labor Code section 1735 and other applicable provisions of law, the Contractor and its subcontractors shall not discriminate against any employee or applicant for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, sexual orientation, or any other classifications protected by law on this Project. The Contractor will take affirmative action to insure that employees are treated during employment or training without regard to their race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age, sexual orientation, or any other classifications protected by

law.

Employment Eligibility; Contractor. By executing this Contract, Contractor verifies that it fully complies with all requirements and restrictions of state and federal law respecting the employment of undocumented aliens, including, but not limited to, the Immigration Reform and Control Act of 1986, as may be amended from time to time. Such requirements and restrictions include, but are not limited to, examination and retention of documentation confirming the identity and immigration status of each employee of the Contractor. Contractor also verifies that it has not committed a violation of any such law within the five (5) years immediately preceding the date of execution of this Contract, and shall not violate any such law at any time during the term of the Contract. Contractor shall avoid any violation of any such law during the term of this Contract by participating in an electronic verification of work authorization program operated by the United States Department of Homeland Security, by participating in an equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, or by some other legally acceptable method. Contractor shall maintain records of each such verification, and shall make them available to the City or its representatives for inspection and copy at any time during normal business hours. The City shall not be responsible for any costs or expenses related to Contractor's compliance with the requirements provided for or referred to herein.

Employment Eligibility; Subcontractors, Sub-subcontractors and Consultants. To the same extent and under the same conditions as Contractor, Contractor shall require all of its subcontractors, sub-subcontractors and consultants performing any part of the Work or of this Contract to make the same verifications and comply with all requirements and restrictions provided for herein.

Employment Eligibility; Failure to Comply. Each person executing this Contract on behalf of Contractor verifies that he or she is a duly authorized officer of Contractor, and understands that any of the following shall be grounds for the City to terminate the Contract for cause: (1) failure of Contractor or its subcontractors, sub-subcontractors or consultants to meet any of the requirements provided for herein; (2) any misrepresentation or material omission concerning compliance with such requirements; or (3) failure to immediately remove from the Work any person found not to be in compliance with such requirements.

ARTICLE 36. DEBARMENT OF CONTRACTORS AND SUBCONTRACTORS

Contractors or subcontractors may not perform work on a public works project with a subcontractor who is ineligible to perform work on a public project pursuant to Labor Code section 1777.1 or 1777.7. Any contract on a public works project entered into between a contractor and a debarred subcontractor is void as a matter of law. A debarred subcontractor may not receive any public money for performing work as a subcontractor on a public works contract. Any public money that is paid, or may have been paid to a debarred subcontractor by a contractor on the project shall be returned to the City. The Contractor shall be responsible for the payment of wages to workers of a debarred subcontractor who has been allowed to work on the project.

ARTICLE 37. LABOR / EMPLOYMENT SAFETY

The Contractor shall comply with all applicable laws and regulations of the federal, state, and local government, including Cal/OSHA requirements and requirements for verification of employees' legal right to work in the United States.

The Contractor shall maintain emergency first aid treatment for his employees which complies

with the Federal Occupational Safety and Health Act of 1970 (29 U.S.C. § 651 *et seq.*), and California Code of Regulations, Title 8, Industrial Relations Division 1, Department of Industrial Relations, Chapter 4. The Contractor shall ensure the availability of emergency medical services for its employees in accordance with California Code of Regulations, Title 8, Section 1512.

The Contractor shall submit the Illness and Injury Prevention Program and a Project site specific safety program to the City prior to beginning Work at the Project site. Contractor shall maintain a confined space program that meets or exceeds the City Standards. Contractor shall adhere to the City's lock out tag out program.

ARTICLE 38. INSURANCE

The Contractor shall obtain, and at all times during performance of the Work of Contract, maintain all of the insurance described in this Article. Contractor shall not commence Work under this Contract until it has provided evidence satisfactory to the City that it has secured all insurance required hereunder. Contractor shall not allow any subcontractor to commence work on any subcontract until it has provided evidence satisfactory to the City that the subcontractor has secured all insurance required under this Article. Failure to provide and maintain all required insurance shall be grounds for the City to terminate this Contract for cause. Contractor shall furnish City with original certificates of insurance and endorsements effective coverage required by this Contract on forms satisfactory to the City. The certificates and endorsements for each insurance policy shall be signed by a person authorized by that insurer to bind coverage on its behalf, and shall be on forms acceptable to the City. All certificates and endorsements must be received and approved by the City before Work commences.

A. **Additional Insureds; Waiver of Subrogation.** The City, its officials, officers, employees, agents and authorized volunteers shall be named as Additional Insureds on Contractor's All Risk policy and on Contractor's and its subcontractors' policies of Commercial General Liability and Automobile Liability insurance using, for Contractor's policy/ies of Commercial General Liability insurance, ISO CG forms 20 10 and 20 37 (or endorsements providing the exact same coverage, including completed operations), and, for subcontractors' policies of Commercial General Liability insurance, ISO CG form 20 38 (or endorsements providing the exact same coverage). Notwithstanding the minimum limits set forth in this Contract for any type of insurance coverage, all available insurance proceeds in excess of the specified minimum limits of coverage shall be available to the parties required to be named as Additional Insureds hereunder. Contractor and its insurance carriers shall provide a Waiver of Subrogation in favor of those parties.

B. **Workers' Compensation Insurance.** The Contractor shall provide workers' compensation insurance for all of the employees engaged in Work under this Contract, on or at the Site, and, in case of any sublet Work, the Contractor shall require the subcontractor similarly to provide workers' compensation insurance for all the latter's employees as prescribed by State law. Any class of employee or employees not covered by a subcontractor's insurance shall be covered by the Contractor's insurance. In case any class of employees engaged in work under this Contract, on or at the Site, is not protected under the Workers' Compensation Statutes, the Contractor shall provide or shall cause a subcontractor to provide, adequate insurance coverage for the protection of such employees not otherwise protected. The Contractor is required to secure payment of compensation to his employees in accordance with the provisions of section 3700 of the Labor Code. The Contractor shall file with the City

certificates of his insurance protecting workers. Company or companies providing insurance coverage shall be acceptable to the City, if in the form and coverage as set forth in the Contract Documents.

C. Employer's Liability Insurance. Contractor shall provide Employer's Liability Insurance, including Occupational Disease, in the amount of at least one million dollars (\$1,000,000.00) per person per accident. Contractor shall provide City with a certificate of Employer's Liability Insurance. Such insurance shall comply with the provisions of the Contract Documents. The policy shall be endorsed, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement and contain a Waiver of Subrogation in favor of the City.

D. Commercial General Liability Insurance. Contractor shall provide "occurrence" form Commercial General Liability insurance coverage at least as broad as the most current ISO CGL Form 00 01, including but not limited to, premises liability, contractual liability, products/completed operations, personal and advertising injury which may arise from or out of Contractor's operations, use, and management of the Site, or the performance of its obligations hereunder. The policy shall not contain any exclusion contrary to this Contract including but not limited to endorsements or provisions limiting coverage for (1) contractual liability (including but not limited to ISO CG 24 26 or 21 39); or (2) cross-liability for claims or suits against one insured against another. Policy limits shall not be less than \$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. Defense costs shall be paid in addition to the limits.

1. Such policy shall comply with all the requirements of this Article. The limits set forth herein shall apply separately to each insured against whom claims are made or suits are brought, except with respect to the limits of liability. Further the limits set forth herein shall not be construed to relieve the Contractor from liability in excess of such coverage, nor shall it limit Contractor's indemnification obligations to the City, and shall not preclude the City from taking such other actions available to the City under other provisions of the Contract Documents or law.
2. All general liability policies provided pursuant to the provisions of this Article shall comply with the provisions of the Contract Documents.
3. All general liability policies shall be written to apply to all bodily injury, including death, property damage, personal injury, owned and non-owned equipment, blanket contractual liability, completed operations liability, explosion, collapse, under-ground excavation, removal of lateral support, and other covered loss, however occasioned, occurring during the policy term, and shall specifically insure the performance by Contractor of that part of the indemnification contained in these General Conditions relating to liability for injury to or death of persons and damage to property.
4. If the coverage contains one or more aggregate limits, a minimum of 50% of any such aggregate limit must remain available at all times; if over 50% of any aggregate limit has been paid or reserved, the City may require additional coverage to be purchased by Contractor to restore the required limits. Contractor

may combine primary, umbrella, and as broad as possible excess liability coverage to achieve the total limits indicated above. Any umbrella or excess liability policy shall include the additional insured endorsement described in the Contract Documents.

5. All policies of general liability insurance shall permit and Contractor does hereby waive any right of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss.
- E. **Automobile Liability Insurance.** Contractor shall provide "occurrence" form Automobile Liability Insurance at least as broad as ISO CA 00 01 (Any Auto) in the amount of, at least, one million dollars (\$1,000,000) per accident for bodily injury and property damage. Such insurance shall provide coverage with respect to the ownership, operation, maintenance, use, loading or unloading of any auto owned, leased, hired or borrowed by Contractor or for which Contractor is responsible, in a form and with insurance companies acceptable to the City. All policies of automobile insurance shall permit and Contractor does hereby waive any right of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss.
- F. Contractor shall require all tiers of sub-contractors working under this Contract to provide the insurance required under this Article unless otherwise agreed to in writing by City. Contractor shall make certain that any and all subcontractors hired by Contractor are insured in accordance with this Contract. If any subcontractor's coverage does not comply with the foregoing provisions, Contractor shall indemnify and hold the City harmless from any damage, loss, cost, or expense, including attorneys' fees, incurred by the City as a result thereof.

ARTICLE 39. FORM AND PROOF OF CARRIAGE OF INSURANCE

- A. Any insurance carrier providing insurance coverage required by the Contract Documents shall be admitted to and authorized to do business in the State of California unless waived, in writing, by the City's Risk Manager. Carrier(s) shall have an A.M. Best rating of not less than an A:VII. Insurance deductibles or self-insured retentions must be declared by the Contractor. At the election of the City the Contractor shall either 1) reduce or eliminate such deductibles or self-insured retentions, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses. If umbrella or excess liability coverage is used to meet any required limit(s) specified herein, the Contractor shall provide a "follow form" endorsement satisfactory to the City indicating that such coverage is subject to the same terms and conditions as the underlying liability policy.
- B. Each insurance policy required by this Contract shall be endorsed to state that: (1) coverage shall not be suspended, voided, reduced or cancelled except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City; and (2) any failure to comply with reporting or other provisions of the policies, including breaches of warranties, shall not affect coverage provided to the City, its officials, officers, agents, employees, and volunteers.
- C. The Certificates(s) and policies of insurance shall contain or shall be endorsed to contain the covenant of the insurance carrier(s) that it shall provide no less than thirty

(30) days written notice be given to the City prior to any material modification or cancellation of such insurance. In the event of a material modification or cancellation of coverage, the City may terminate the Contract or stop the Work in accordance with the Contract Documents, unless the City receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverage's set forth herein and the insurance required herein is in full force and effect. Contractor shall not take possession, or use the Site, or commence operations under this Contract until the City has been furnished original Certificate(s) of Insurance and certified original copies of endorsements or policies of insurance including all endorsements and any and all other attachments as required in this Article. The original endorsements for each policy and the Certificate of Insurance shall be signed by an individual authorized by the insurance carrier to do so on its behalf.

- D. The Certificate(s) of Insurance, policies and endorsements shall so covenant and shall be construed as primary, and the City's insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory.
- E. City reserves the right to adjust the monetary limits of insurance coverages during the term of this Contract including any extension thereof if, in the City's reasonable judgment, the amount or type of insurance carried by the Contractor becomes inadequate.
- F. Contractor shall report to the City, in addition to the Contractor's insurer, any and all insurance claims submitted by the Contractor in connection with the Work under this Contract.

ARTICLE 40. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

- A. **Time for Completion/Liquidated Damages.** Time is of the essence in the completion of the Work. **Notice to Proceed: This project will be awarded for a spring start date. The Notice to Proceed shall be issued no sooner than April 2, 2018.** Work shall be commenced within ten (10) Days of the date stated in the City's Notice to Proceed and shall be completed by Contractor in the time specified in the Contract Documents. The City is under no obligation to consider early completion of the Project; and the Contract completion date shall not be amended by the City's receipt or acceptance of the Contractor's proposed earlier completion date. Furthermore, Contractor shall not, under any circumstances, receive additional compensation from the City (including but not limited to indirect, general, administrative or other forms of overhead costs) for the period between the time of earlier completion proposed by the Contractor and the Contract completion date. If the Work is not completed as stated in the Contract Documents, it is understood that the City will suffer damage. In accordance with Government Code section 53069.85, being impractical and infeasible to determine the amount of actual damage, it is agreed that Contractor shall pay to the City as fixed and liquidated damages, and not as a penalty, the sum stipulated in the Contract for each calendar day of delay until the Work is fully completed. Contractor and its surety shall be liable for any liquidated damages. Any money due or to become due the Contractor may be retained to cover liquidated damages.

- B. **Inclement Weather.** Contractor shall abide by the Engineer's determination of what constitutes inclement weather. Time extensions for inclement weather shall only be granted when the Work stopped during inclement weather is on the critical path of the Project schedule.
- C. **Extension of Time.** Contractor shall not be charged liquidated damages because of any delays in completion of the Work due to unforeseeable causes beyond the control and without the fault or negligence of Contractor (or its subcontractors or suppliers). Contractor shall within five (5) Days of identifying any such delay notify the City in writing of causes of delay. The City shall ascertain the facts and extent of delay and grant extension of time for completing the Work when, in its judgment, the facts justify such an extension. Time extensions to the Project shall be requested by the Contractor as they occur and without delay. No delay claims shall be permitted unless the event or occurrence delays the completion of the Project beyond the Contract completion date.
- D. **No Damages for Reasonable Delay.** The City's liability to Contractor for delays for which the City is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. In no case shall the City be liable for any costs which are borne by the Contractor in the regular course of business, including, but not limited to, home office overhead and other ongoing costs. Damages caused by unreasonable City delay, including delays caused by items that are the responsibility of the City pursuant to Government Code section 4215, shall be based on actual costs only, no proportions or formulas shall be used to calculate any delay damages.

ARTICLE 41. COST BREAKDOWN AND PERIODIC ESTIMATES

Contractor shall furnish on forms Approved by the City:

- A. Within ten (10) Days of Notice to Proceed with the Contract, a detailed estimate giving a complete breakdown of the Contract price, if the Contract amount is a lump sum.
- B. A monthly itemized estimate of Work done for the purpose of making progress payments. In order for the City to consider and evaluate each progress payment application, the Contractor shall submit a detailed measurement of Work performed and a progress estimate of the value thereof before the tenth (10th) Day of the following month.
- C. Contractor shall submit, with each of its payment requests, an adjusted list of actual quantities, verified by the Engineer, for unit price items listed, if any, in the Bid Form.
- D. Following the City's Acceptance of the Work, the Contractor shall submit to the City a written statement of the final quantities of unit price items for inclusion in the final payment request.
- E. The City shall have the right to adjust any estimate of quantity and to subsequently correct any error made in any estimate for payment.

Contractor shall certify under penalty of perjury, that all cost breakdowns and periodic estimates accurately reflect the Work on the Project.

ARTICLE 42. PROGRESS ESTIMATES AND PAYMENT

- A. By the tenth (10th) Day of the following calendar month, Contractor shall submit to Engineer a payment request which shall set forth in detail the value of the Work done for the period beginning with the date work was first commenced and ending on the end of the calendar month for which the payment request is prepared. Contractor shall include any amount earned for authorized extra work. From the total thus computed, a deduction shall be made in the amount of five percent (5%) for retention, except where the City has adopted a finding that the Work done under the Contract is substantially complex, and then the amount withheld as retention shall be the percentage specified in the Notice Inviting Bids. From the remainder a further deduction may be made in accordance with Section B below. The amount computed, less the amount withheld for retention and any amounts withheld as set forth below, shall be the amount of the Contractor's payment request.
- B. The City may withhold a sufficient amount or amounts of any payment or payments otherwise due to Contractor, as in his judgment may be necessary to cover:
1. Payments which may be past due and payable for just claims against Contractor or any subcontractors for labor or materials furnished in and about the performance of work on the Project under this Contract.
 2. Defective work not remedied.
 3. Failure of Contractor to make proper payments to his subcontractor or for material or labor.
 4. Completion of the Contract if there is a reasonable doubt that the Work can be completed for balance then unpaid.
 5. Damage to another contractor or a third party.
 6. Amounts which may be due the City for claims against Contractor.
 7. Failure of Contractor to keep the record ("as-built") drawings up to date.
 8. Failure to provide update on construction schedule as required herein.
 9. Site cleanup.
 10. Failure to comply with Contract Documents.
 11. Liquidated damages.
 12. Legally permitted penalties.
- C. The City may apply such withheld amount or amounts to payment of such claims or obligations at its discretion with the exception of subsections (B)(1), (3), and (5) of this Article, which must be retained or applied in accordance with applicable law. In so doing, the City shall be deemed the agent of Contractor and any payment so made by the City shall be considered as a payment made under contract by the City to

Contractor and the City shall not be liable to Contractor for such payments made in good faith. Such payments may be made without prior judicial determination of claim or obligations. The City will render Contractor a proper accounting of such funds disbursed on behalf of Contractor.

- D. Upon receipt, the Engineer shall review the payment request to determine whether it is undisputed and suitable for payment. If the payment request is determined to be unsuitable for payment, it shall be returned to Contractor as soon as practicable but not later than seven (7) Days after receipt, accompanied by a document setting forth in writing the reasons why the payment request is not proper. The City shall make the progress payment within 30 calendar days after the receipt of an undisputed and properly submitted payment request from Contractor, provided that a release of liens and claims has been received from the Contractor pursuant to Civil Code section 8132. The number of days available to the City to make a payment without incurring interest pursuant to this paragraph shall be reduced by the number of days by which the Engineer exceeds the seven (7) Day requirement.
- E. A payment request shall be considered properly executed if funds are available for payment of the payment request and payment is not delayed due to an audit inquiry by the financial officer of the City.

ARTICLE 43. SECURITIES FOR MONEY WITHHELD

Pursuant to section 22300 of the Public Contract Code of the State of California, Contractor may request the City to make retention payments directly to an escrow agent or may substitute securities for any money withheld by the City to ensure performance under the contract. At the request and expense of Contractor, securities equivalent to the amount withheld shall be deposited with the City or with a state or federally chartered bank as the escrow agent who shall return such securities to Contractor upon satisfactory completion of the contract. Deposit of securities with an escrow agent shall be subject to a written agreement substantially in the form provided in section 22300 of the Public Contract Code.

ARTICLE 44. CHANGES AND EXTRA WORK.

A. Contract Change Orders.

1. The City, without invalidating the Contract, may order changes in the Work consisting of additions, deletions or other revisions, and the Contract Price and Contract Time shall be adjusted accordingly. Except as otherwise provided herein, all such changes in the Work shall be authorized by Change Order, and shall be performed under the applicable conditions of the Contract Documents. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including any adjustment in the Contract Price or the Contract Time, and the full and final settlement of all costs (direct, indirect and overhead) related to the Work authorized by the Change Order.
2. Contractor shall promptly execute changes in the Work as directed in writing by the City even when the parties have not reached agreement on whether the change increases the scope of Work or affects the Contract Price or Contract Time. All claims for additional compensation to the Contractor shall be presented in writing. No claim will be considered after the Work in question has been done

unless a written Change Order has been issued or a timely written notice of claim has been made by Contractor.

3. Whenever any change is made as provided for herein, such change shall be considered and treated as though originally included in the Contract, and shall be subject to all terms, conditions, and provisions of the original Contract.
4. Contractor shall not be entitled to claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease or omission of any item or portion of Work to be done.
5. No dispute, disagreement, or failure of the parties to reach agreement on the terms of the Change Order shall relieve the Contractor from the obligation to proceed with performance of the work, including Additional Work, promptly and expeditiously.
6. Contractor shall make available to the City any of the Contractor's documents related to the Project immediately upon request of the City, as set forth in Article 52.
7. Any alterations, extensions of time, Additional Work, or any other changes may be made without securing consent of the Contractor's surety or sureties.

B. Contract Price Change.

1. Process for Determining Adjustments in Contract Price.
 - a. Owner Initiated Change. The Contractor must submit a complete cost proposal, including any change in the Contract Price or Contract Time, within seven (7) Days after receipt of a scope of a proposed change order initiated by the City, unless the City requests that proposals be submitted in less than seven (7) Days.
 - b. Contractor Initiated Change. The Contractor must give written notice of a proposed change order required for compliance with the Contract Documents within seven (7) Days of discovery of the facts giving rise to the proposed change order.
 - c. Whenever possible, any changes to the Contract amount shall be in a lump sum mutually agreed to by the Contractor and the City.
 - d. Price quotations from the Contractor shall be accompanied by sufficiently detailed supporting documentation to permit verification by the City, including but not limited to estimates and quotations from subcontractors or material suppliers, as the City may reasonably request. Contractor shall certify the accuracy of all Change Order Requests under penalty of perjury.
 - e. If the Contractor fails to submit a complete cost proposal within the seven (7) Day period (or as requested), the City has the right to order the Contractor in writing to commence the Work immediately on a time and materials basis and/or issue a lump sum change to the Contract Price and/or Contract Time in

accordance with the City's estimate. If the change is issued based on the City's estimate, the Contractor will waive its right to dispute the action unless within fifteen (15) Days following completion of the added/deleted work, the Contractor presents written proof that the City's estimate was in error.

2. Unit Price Change Orders.

- a. When the actual quantity of a Unit Price item varies from the Bid Form, compensation for the change in quantity will be calculated by multiplying the actual quantity by the Unit Price. This calculation may result in either an additive or deductive Final Change Order pursuant to the Contract Documents.
- b. No Mark up for Overhead and Profit. Because the Contract Unit Prices provided in the Bid Form include Overhead and Profit as determined by Contractor at the time of Bid submission, no mark up or deduction for Overhead and Profit will be included in Unit Price Change Orders.
- c. Bid items included on the Bid Form may be deducted from the Work in their entirety without any negotiated extra costs.
- d. Contractor acknowledges that unit quantities are estimates and agrees that the estimated unit quantities listed on the Bid Form will be adjusted to reflect the actual unit quantities which may result in an adjustment to the Contract Unit Prices. Such an adjustment will be made by execution of a final additive or deductive Change Order following Contractor's completion of the Work. Upon notification, Contractor's failure to respond within seven (7) Days will result in City's issuance of a unit quantity adjustment to the Contract Unit Prices and/or Contract Time in accordance with the Contract Documents.
- e. The City or Contractor may make a Claim for an adjustment in the Unit Price in accordance with the Contract Documents if:
 - i. the quantity of any item of Unit Price Work performed by Contractor differs by twenty-five percent (25%) or more from the estimated quantity of such item indicated in the Contract; and
 - ii. there is no corresponding adjustment with respect to any other item of Work; and
 - iii. Contractor believes that Contractor is entitled to an increase in Unit Price as a result of having incurred additional expense or the City believes that the City is entitled to a decrease in Unit Price and the parties are unable to agree as to the amount of any such increase or decrease..

3. Lump Sum Change Orders. Compensation for Lump Sum Change Orders shall be limited to expenditures necessitated specifically by the Additional Work, and shall be segregated as follows:

- a. Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the Additional Work is done, plus employer payments of payroll taxes and insurance, health and welfare,

pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the Additional Work cost will not be permitted unless the Contractor establishes the necessity for such new classifications. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

- b. Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight, and delivery. Materials costs shall be based upon supplier or manufacturer's invoice. If invoices or other satisfactory evidence of cost are not furnished within fifteen (15) Days of delivery, then the City shall determine the materials cost, at its sole discretion.
 - c. Tool and Equipment Use. Costs for the use of small tools, which are tools that have a replacement value of \$1,000 or less, shall be considered included in the Overhead and Profit mark-ups established below. Regardless of ownership, the rates to be used in determining equipment use costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the Work is performed.
4. Time and Materials Change Orders.
- a. General. The term Time and Materials means the sum of all costs reasonably and necessarily incurred and paid by Contractor for labor, materials, and equipment in the proper performance of Additional Work. Except as otherwise may be agreed to in writing by the City, such costs shall be in amounts no higher than those prevailing in the locality of the Project, and shall include only the following items.
 - b. Timely and Final Documentation.
 - i. T&M Daily Sheets. Contractor must submit timesheets, materials invoices, records of equipment hours, and records of rental equipment hours to the City's Representative for an approval signature **each day** Additional Work is performed. Failure to get the City's Representative's approval signature each Day shall result in a waiver of Contractor's right to claim these costs. The City's Representative's signature on time sheets only serves as verification that the Work was performed and is not indicative of City's agreement to Contractor's entitlement to the cost.
 - ii. T&M Daily Summary Sheets. All documentation of incurred costs ("T&M Daily Summary Sheets") shall be submitted by Contractor within **three (3) Days** of incurring the cost for labor, material, equipment, and special services as Additional Work is performed. Contractor's actual costs shall be presented in a summary table in an electronic spreadsheet file by labor, material, equipment, and special services. Each T&M Daily Summary Sheet shall include Contractor's actual costs incurred for the Additional Work performed that day and a cumulative total of Contractor's actual costs incurred for the Additional Work. Contractor's failure to provide a T&M

Daily Summary Sheet showing a total cost summary within three (3) Days but within five (5) Days of performance of the Work will result in the Contractor's otherwise allowable overhead and profit being reduced by 50% for that portion of Additional Work which was not documented in a timely manner. Contractor's failure to submit the T&M Daily Summary Sheet within five (5) Days of performance of the Work will result in a total waiver of Contractor's right to claim these costs.

- iii. T&M Total Cost Summary Sheet. Contractor shall submit a T&M Total Cost Summary Sheet, which shall include total actual costs, within **seven (7) Days** following completion of City approved Additional Work. Contractor's total actual cost shall be presented in a summary table in an electronic spreadsheet file by labor, material, equipment, and special services. Contractor's failure to submit the T&M Total Cost Summary Sheet within seven (7) Days of completion of the Additional Work will result in Contractor's waiver for any reimbursement of any costs associated with the T&M Summary Sheets or the performance of the Additional Work.
- c. Labor. The Contractor will be paid the cost of labor for the workers used in the actual and direct performance of the Work. The cost of labor will be the sum of the actual wages paid (which shall include any employer payments to or on behalf of the workers for health and welfare, pension, vacation, and similar purposes) substantiated by timesheets and certified payroll for wages prevailing for each craft or type of workers performing the Additional Work at the time the Additional Work is done, and the labor surcharge set forth in the Department of Transportation publication entitled *Labor Surcharge and Equipment Rental Rates*, which is in effect on the date upon which the Work is accomplished and which is a part of the Contract. The labor surcharge shall constitute full compensation for all payments imposed by Federal, State, or local laws and for all other payments made to, or on behalf of, the workers, other than actual wages.
 - i. Equipment Operator Exception. Labor costs for equipment operators and helpers shall be paid only when such costs are not included in the invoice for equipment rental.
 - ii. Foreman Exception. The labor costs for foremen shall be proportioned to all of their assigned work and only that applicable to the Additional Work shall be paid. Indirect labor costs, including, without limitation, the superintendent, project manager, and other labor identified in the Contract Documents will be considered Overhead.
- d. Materials. The cost of materials reported shall be itemized at invoice or lowest current price at which materials are locally available and delivered to the Project site in the quantities involved, plus the cost of sales tax, freight, delivery, and storage.
 - i. Trade discounts available to the purchaser shall be credited to the City notwithstanding the fact that such discounts may not have been taken by Contractor.

- ii. For materials secured by other than a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid to the actual supplier as determined by the City's Representative.
 - iii. Payment for materials from sources owned wholly or in part by the purchaser shall not exceed the price paid by the purchaser for similar materials from said sources on Additional Work items or the current wholesale price for such materials delivered to the Project site, whichever price is lower.
 - iv. If, in the opinion of the City's Representative, the cost of materials is excessive, or Contractor does not furnish satisfactory evidence of the cost of such materials, then the cost shall be deemed to be the lowest current wholesale price for the total quantity concerned delivered to the Project site less trade discounts.
 - v. The City reserves the right to furnish materials for the Additional Work and no Claim shall be allowed by Contractor for costs of such materials or Indirect Costs or profit on City furnished materials.
- e. Equipment.
- i. Rental Time. The rental time to be paid for equipment on the Project site shall be the time the equipment is in productive operation on the Additional Work being performed and, in addition, shall include the time required to move the equipment to the location of the Additional Work and return it to the original location or to another location requiring no more time than that required to return it to its original location; except that moving time will not be paid if the equipment is used on other than the Additional Work, even though located at the site of the Additional Work.
 - (a) Rental Time Not Allowed. Rental time will not be allowed while equipment is inoperative due to breakdowns.
 - (b) Computation Method. The following shall be used in computing the rental time of equipment on the Project site.
 - (i) When hourly rates are paid, any part of an hour less than 30 minutes of operation shall be considered to be 1/2-hour of operation, and any part of an hour in excess of 30 minutes will be considered one hour of operation.
 - (ii) When daily rates are paid, any part of a day less than 4 hours operation shall be considered to be 1/2-day of operation, and any part of an hour in excess of 4 hours will be considered one day of operation.
 - ii. Rental Rates. Contractor will be paid for the use of equipment at the lesser of (i) the actual rental rate, or (ii) the rental rate listed for that equipment in the California Department of Transportation publication entitled *Labor Surcharge and Equipment Rental Rates*, which is in effect on the date upon

which the Contract was executed. Such rental rates will be used to compute payments for equipment whether the equipment is under Contractor's control through direct ownership, leasing, renting, or another method of acquisition. The rental rate to be applied for use of each item of equipment shall be the rate (i.e., daily, monthly) resulting in the least total cost to the City for the total period of use. If it is deemed necessary by Contractor to use equipment not listed in the publication, an equitable rental rate for the equipment will be established by the City's Representative. Contractor may furnish cost data which might assist the City's Representative in the establishment of the rental rate.

iii. Contractor-Owned Equipment.

(a) For Contractor-owned equipment, the allowed equipment rental rate will be limited to the monthly equipment rental rate using a utilization rate of 173 hours per month.

(b) For Contractor-owned equipment, the rental time to be paid for equipment on the Site shall be the time the equipment is in productive operation, unless, in the instance of standby time, the equipment could be actively used by Contractor on another project, then City shall pay for the entirety of the time the equipment is on Site. It shall be Contractor's burden to demonstrate to the City that the equipment could be actively used on another project.

iv. All equipment shall, in the opinion of the City's Representative, be in good working condition and suitable for the purpose for which the equipment is to be used.

v. Before construction equipment is used on the Additional Work, Contractor shall plainly stencil or stamp an identifying number thereon at a conspicuous location, and shall furnish to the City's Representative, in duplicate, a description of the equipment and its identifying number and the scheduled Additional Work activities planned.

vi. Unless otherwise specified, manufacturer's rating and manufacturer approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.

f. Special Services. Special work or services are defined as that Additional Work characterized by extraordinary complexity, sophistication, or innovation or a combination of the foregoing attributes which are unique to the construction industry.

i. Invoices for Special Services. When the City's Representative and Contractor determine that a special service is required which cannot be performed by the forces of Contractor or those of any of its Subcontractors, the special service may be performed by an entity especially skilled in the Additional Work. Invoices for special services based upon the current fair

market value thereof may be accepted without complete itemization of labor, material, and equipment rental costs, after validation of market values by the City's Representative.

- ii. Discount and Allowance. All invoices for special services will be adjusted by deducting all trade discounts offered or available, whether the discounts were taken or not. In lieu of Overhead and Profit specified herein, a total allowance not to exceed fifteen percent (15%) for Overhead and Profit will be added to invoices for Special Services.
 - iii. When the City determines, in its sole discretion, that competitive bidding is necessary for certain special services, Contractor shall solicit competitive bids for those special services.
- g. Excluded Costs. The term Time and Material shall not include any of the following costs or any other home or field office overhead costs, all of which are to be considered administrative costs covered by Contractor's allowance for Overhead and Profit.
- i. Overhead Cost. Payroll costs and other compensation of Contractor's officers, executives, principals, general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, timekeepers, clerks, and other personnel employed by Contractor whether at the Site or in Contractor's principal office or any branch office, material yard, or shop for general administration of the Additional Work;
 - ii. Office Expenses. Expenses of Contractor's principal and branch offices;
 - iii. Capital Expenses. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Additional Work and charges against Contractor for delinquent payments;
 - iv. Negligence. Costs due to the negligence of Contractor or any Subcontractor or Supplier, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including without limitation the correction of Defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property;
 - v. Other. Other overhead or general expense costs of any kind and the cost of any item not specifically and expressly included in the Contract Documents;
 - vi. Small Tools. Cost of small tools valued at less than \$1,000 and that remain the property of Contractor;
 - vii. Administrative Costs. Costs associated with the preparation of Change Orders (whether or not ultimately authorized), cost estimates, or the preparation or filing of Claims;

- viii. Anticipated Lost Profits. Expenses of Contractor associated with anticipated lost profits or lost revenues, lost income or earnings, lost interest on earnings, or unpaid retention;
 - ix. Home Office Overhead. Costs derived from the computation of a “home office overhead” rate by application of the *Eichleay, Allegheny*, burden fluctuation, or other similar methods;
 - x. Special Consultants and Attorneys. Costs of special consultants or attorneys, whether or not in the direct employ of Contractor, employed for services specifically related to the resolution of a Claim, dispute, or other matter arising out of or relating to the performance of the Additional Work.
- h. Overhead, Profit and Other Charges. The mark-up for overhead (including supervision) and profit on work added to the Contract shall be according to the following:
- i. “Net Cost” is defined as consisting of costs of labor, materials, and tools and equipment only excluding overhead and profit. The costs of applicable insurance and bond premium will be reimbursed to the Contractor and subcontractors at cost only, without mark-up. Contractor shall provide City with documentation of the costs, including, but not limited to, payroll records, invoices, and such other information as City may reasonably request.
 - ii. For Work performed by the Contractor’s forces, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Net Cost of the Work.
 - iii. For Work performed by a subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the subcontractor’s Net Cost of the Work to which the Contractor may add five percent (5%) of the subcontractor’s Net Cost.
 - iv. For Work performed by a sub-subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the sub-subcontractor’s Net Cost for Work to which the subcontractor and general contractor may each add an additional five percent (5%) of the Net Cost of the lower tier subcontractor.
 - v. No additional mark-up will be allowed for lower tier subcontractors, and in no case shall the added cost for overhead and profit payable by City exceed twenty-five percent (25%) of the Net Cost as defined herein, of the party that performs the Work.
5. All of the following costs are included in the markups for overhead and profit described above, and Contractor shall not receive any additional compensation for: Submittals, drawings, field drawings, Shop Drawings, including submissions of drawings; field inspection; General Superintendence; General administration and preparation of cost proposals, schedule analysis, Change Orders, and other supporting documentation; computer services; reproduction services; Salaries of

project engineer, superintendent, timekeeper, storekeeper, and secretaries; Janitorial services; Small tools, incidentals and consumables; Temporary On-Site facilities (Offices, Telephones, High Speed Internet Access, Plumbing, Electrical Power, Lighting; Platforms, Fencing, Water), Jobsite and Home office overhead or other expenses; vehicles and fuel used for work otherwise included in the Contract Documents; Surveying; Estimating; Protection of Work; Handling and disposal fees; Final Cleanup; Other Incidental Work; Related Warranties; insurance and bond premiums.

6. For added or deducted Work by subcontractors, the Contractor shall furnish to the City the subcontractor's signed detailed record of the cost of labor, material and equipment, including the subcontractor markup for overhead and profit. The same requirement shall apply to sub-subcontractors
7. For added or deducted work furnished by a vendor or supplier, the Contractor shall furnish to the City a detailed record of the cost to the Contractor, signed by such vendor or supplier.
8. Any change in the Work involving both additions and deletions shall indicate a net total cost, including subcontracts and materials. Allowance for overhead and profit, as specified herein, shall be applied if the net total cost is an increase in the Contract Price; overhead and profit allowances shall not be applied if the net total cost is a deduction to the Contract Price. The estimated cost of deductions shall be based on labor and material prices on the date the Contract was executed.
9. Contractor shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the Change Order for Work. No claims shall be allowed for impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or clarifications. The Contractor may not change or modify the City's change order form in an attempt to reserve additional rights.
10. If the City disagrees with the proposal submitted by Contractor, it will notify the Contractor and the City will provide its opinion of the appropriate price and/or time extension. If the Contractor agrees with the City, a Change Order will be issued by the City. If no agreement can be reached, the City shall have the right to issue a unilateral Change Order setting forth its determination of the reasonable additions or savings in costs and time attributable to the extra or deleted work. Such determination shall become final and binding if the Contractor fails to submit a claim in writing to the City within fifteen (15) Days of the issuance of the unilateral Change Order, disputing the terms of the unilateral Change Order, and providing such supporting documentation for its position as the City may require.

C. Change of Contract Times.

1. The Contract Times may only be changed by a Change Order.
2. All changes in the Contract Price and/or adjustments to the Contract Times related to each change shall be included in Contractor's COR pursuant to this Article. No cost or time will be allowed for cumulative effects of multiple changes. All Change Orders must state that the Contract Time is not changed or is either increased or

decreased by a specific number of days. Failure to include a change to time shall waive any change to the time unless the parties mutually agree in writing to postpone a determination of the change to time resulting from the Change Order.

3. Notice of the amount of the request for adjustment in the Contract Times with supporting data shall be delivered within seven (7) Days after such start of occurrence, unless City's Representative allows an additional period of time to ascertain more accurate data in support of the request. No extension of time or additional compensation shall be given for a delay if the Contractor failed to give notice in the manner and within the time prescribed.
4. City may elect, at City's sole discretion, to grant an extension in Contract Times, without Contractor's request, because of delays or other factors.
5. Use of Float and Critical Path.
 - a. Float is for the benefit of the Project. Float shall not be considered for the exclusive use or benefit of either the City or the Contractor.
 - b. Contractor shall not be entitled to compensation, and City will not compensate Contractor, for delays which impact early completion. Any difference in time between the Contractor's early completion and the Contract Time shall be considered a part of the Project float.
6. Contractor's entitlement to an extension of the Contract Times is limited to a City-caused extension of the critical path, reduced by the Contractor's concurrent delays, and established by a proper time impact analysis. No time extension shall be allowed unless, and then only to the extent that, the City-caused delay extends the critical path beyond the previously approved Contract Time. If approved, the increase in time required to complete the Work shall be added to the Contract Time.
 - a. Contractor shall not be entitled to an adjustment in the Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.
 - b. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions (as determined by the City), Acts of God, acts or failures to act of utility owners not under the control of City, or other causes not the fault of and beyond control of City and Contractor, then Contractor shall be entitled to a time extension when the Work stopped is on the critical path. Such a non-compensable adjustment shall be Contractor's sole and exclusive remedy for such delays. Contractor must submit a timely request in accordance with the requirements of this Article.
 - c. Utility-Related Delays.
 - i. Contractor shall immediately notify in writing the utility owner and City's Representative of its construction schedule and any subsequent changes in the construction schedule which will affect the time available for

protection, removal, or relocation of utilities. Requests for extensions of time arising out of utility relocation or repair delays shall be filed in accordance with this Article.

- ii. Contractor shall not be entitled to damages or additional payment for delays attributable to utility relocations or alterations if correctly located, as noted in the Contract Documents or by the Underground Service Alert survey.
7. Content for Requests for Contract Extension. Contractor's justification for entitlement shall be clear and complete citing specific Contract Document references and reasons on which Contractor's entitlement is based. At a minimum, each request for a time extension must include:
- a. Each request for an extension of Contract Time must identify the impacting event, in narrative form, providing a description of the delay event and sufficient justification as to why the Contractor is entitled to a time extension. Contractor must demonstrate that the delay arises from unforeseeable causes beyond the control and without the fault or negligence of both Contractor and any Subcontractors or Suppliers, or any other persons or organizations employed by any of them or for whose acts any of them may be liable, and that such causes in fact lead to performance or completion of the Work, or specified part in question, beyond the corresponding Contract Times, despite Contractor's reasonable and diligent actions to guard against those effects.
 - b. Each request for an extension of Contract Time must include a time impact analysis in CPM format, using the Contemporaneous Impacted As-Planned Schedule Analysis to calculate the impact of the delay event.
8. No Damages for Reasonable Delay.
- a. City's liability to Contractor for delays for which City is responsible shall be limited to only an extension of time unless such delays were unreasonable under the circumstances. In no case shall City be liable for any costs which are borne by the Contractor in the regular course of business, including, but not limited to, home office overhead and other ongoing costs.
 - b. Damages caused by unreasonable City delay that impact the critical path, including delays caused by items that are the responsibility of the City pursuant to Government Code section 4215, shall be compensated at the Daily Rate established in the Special Conditions. No other calculations, proportions or formulas shall be used to calculate any delay damages.
 - c. City and City's Representative, and the officers, members, partners, employees, agents, consultants, or subcontractors of each of them, shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

9. Contractor's failure, neglect, or refusal to comply with the requirements of the Contract Documents, or any portion thereof, shall bar Contractor's request for extensions of the Contract Times. Such failure, neglect, or refusal prejudices City's and City's Representative's ability to recognize and mitigate delay, and such failure, neglect, or refusal prevent the timely analysis of requests for extensions of Contract Times, and whether such extensions may be warranted. Contractor hereby waives all rights to extensions of Contract Times due to delays or accelerations that result from or occur during periods of time for which Contractor fails, neglects, or refuses to fully comply with the requirements of this Article.

ARTICLE 45. FINAL ACCEPTANCE AND PAYMENT

- A. The acceptance of the Work on behalf of the City will be made by the Engineer. Such acceptance by the City shall not constitute a waiver of defects. When the Work has been accepted there shall be paid to Contractor a sum equal to the contract price less any amounts previously paid Contractor and less any amounts withheld by the City from Contractor under the terms of the contract. The final five percent (5%), or the percentage specified in the notice inviting bids where the City has adopted a finding of substantially complete, shall not become due and payable until five (5) calendar days shall have elapsed after the expiration of the period within which all claims may be filed under the provisions of Civil Code section 9356. If the Contractor has placed securities with the City as described herein, the Contractor shall be paid a sum equal to one hundred percent (100%) of the contract price less any amounts due the City under the terms of the Contract.
- B. Unless Contractor advises the City in writing prior to acceptance of the final five percent (5%) or the percentage specified in the notice inviting bids where the City has adopted a finding of substantially complete, or the return of securities held as described herein, said acceptance shall operate as a release to the City of all claims and all liability to Contractor for all things done or furnished in connection with this work and for every act of negligence of the City and for all other claims relating to or arising out of this work. If Contractor advises the City in writing prior to acceptance of final payment or return of the securities that there is a dispute regarding the amount due the Contractor, the City may pay the undisputed amount contingent upon the Contractor furnishing a release of all undisputed claims against the City with the disputed claims in stated amounts being specifically excluded by Contractor from the operation of the release. No payments, however, final or otherwise, shall operate to release Contractor or its sureties from the Faithful Performance Bond, Labor and Material Payment Bond, or from any other obligation under this contract.
- C. In case of suspension of the contract any unpaid balance shall be and become the sole and absolute property of the City to the extent necessary to repay the City any excess in the cost of the Work above the contract price.
- D. Final payment shall be made no later than 60 days after the date of acceptance of the Work by the City or the date of occupation, beneficial use and enjoyment of the Work by the City including any operation only for testing, start-up or commissioning accompanied by cessation of labor on the Work, provided that a release of liens and claims has been received from the Contractor pursuant to Civil Code section 8136. In the event of a dispute between the City and the Contractor, the City may withhold from the final payment an amount not to exceed 150% of the disputed amount.

- E. Within ten (10) calendar days from the time that all or any portion of the retention proceeds are received by Contractor, Contractor shall pay each of its subcontractors from whom retention has been withheld each subcontractor's share of the retention received. However, if a retention payment received by Contractor is specifically designated for a particular subcontractor, payment of the retention shall be made to the designated subcontractor if the payment is consistent with the terms of the subcontract.

ARTICLE 46. OCCUPANCY

The City reserves the right to occupy or utilize any portion of the Work at any time before completion, and such occupancy or use shall not constitute acceptance of any part of Work covered by this Contract. This use shall not relieve the Contractor of its responsibilities under the Contract.

ARTICLE 47. INDEMNIFICATION

To the fullest extent permitted by law, Contractor shall immediately defend (with counsel of the City's choosing), indemnify and hold harmless the City, officials, officers, agents, employees, and representatives, and each of them from and against:

- A. Any and all claims, demands, causes of action, costs, expenses, injuries, losses or liabilities, in law or in equity, of every kind or nature whatsoever, but not limited to, injury to or death, including wrongful death, of any person, and damages to or destruction of property of any person, arising out of, related to, or in any manner directly or indirectly connected with the Work or this Contract, including claims made by subcontractors for nonpayment, including without limitation the payment of all consequential damages and attorney's fees and other related costs and expenses, however caused, regardless of whether the allegations are false, fraudulent, or groundless, and regardless of any negligence of the City or its officers, employees, or authorized volunteers (including passive negligence), except the sole negligence or willful misconduct or active negligence of the City or its officials, officers, employees, or authorized volunteers.
- B. Contractor's defense and indemnity obligation herein includes, but is not limited to damages, fines, penalties, attorney's fees and costs arising from claims under the Americans with Disabilities Act (ADA) or other federal or state disability access or discrimination laws arising from Contractor's Work during the course of construction of the improvements or after the Work is complete, as the result of defects or negligence in Contractor's construction of the improvements.
- C. Any and all actions, proceedings, damages, costs, expenses, fines, penalties or liabilities, in law or equity, of every kind or nature whatsoever, arising out of, resulting from, or on account of the violation of any governmental law or regulation, compliance with which is the responsibility of Contractor;
- D. Any and all losses, expenses, damages (including damages to the Work itself), attorney's fees, and other costs, including all costs of defense which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the Work and all of Contractor's obligations under the agreement. Such costs,

expenses, and damages shall include all costs, including attorney's fees, incurred by the indemnified parties in any lawsuit to which they are a party.

Contractor shall immediately defend, at Contractor's own cost, expense and risk, with the City Council's choosing, any and all such aforesaid suits, actions or other legal proceedings of every kind that may be brought or instituted against the City, its officials, officers, agents, employees and representatives. Contractor shall pay and satisfy any judgment, award or decree that may be rendered against the City, its officials, officers, employees, agents, employees and representatives, in any such suit, action or other legal proceeding. Contractor shall reimburse the City, its officials, officers, agents, employees and representatives for any and all legal expenses and costs incurred by each of them in connection therewith or in enforcing the indemnity herein provided. The only limitations on this provision shall be those imposed by Civil Code section 2782.

ARTICLE 48. PROCEDURE FOR RESOLVING DISPUTES

In accordance with Public Contract Code sections 20104 *et seq.* and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and the City shall be resolved under the following statutory procedure unless the City has elected to resolve the dispute pursuant to Public Contract Code section 10240 *et seq.*

- A. **All Claims.** All claims shall be submitted in writing and accompanied by substantiating documentation. Claims must be filed on or before the date of final payment unless other notice requirements are provided in the contract. "Claim" means a separate demand by the Contractor for (1) a time extension, (2) payment of money or damages arising from work done by or on behalf of the Contractor and payment of which is not otherwise expressly provided for or the Contractor is not otherwise entitled, or (3) an amount the payment of which is disputed by the City.
- B. **Claims Under \$50,000.** The City shall respond in writing to the claim within 45 calendar days of receipt of the claim, or, the City may request, in writing, within 30 calendar days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the City may have. If additional information is needed thereafter, it shall be provided upon mutual agreement of the City and the Contractor. The City's written response shall be submitted 15 calendar days after receiving the additional documentation, or within the same period of time taken by the Contractor to produce the additional information, whichever is greater.
- C. **Claims over \$50,000 but less than or equal to \$375,000.** The City shall respond in writing within 60 calendar days of receipt, or, may request in writing within 30 calendar days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims the City may have against the City. If additional information is needed thereafter, it shall be provided pursuant to mutual agreement between the City and the Contractor. The City response shall be submitted within 30 calendar days after receipt of the further documents, or within the same period of time taken by the Contractor to produce the additional information or documents, whichever is greater. The Contractor shall make these records and documents available at all reasonable times, without any direct charge.
- D. **All Claims.** The Contractor will submit the claim justification in the following format:

1. Summary of claim merit and price, and Contract clause pursuant to which the claim is made.
 2. List of documents relating to claim:
 - a. Specifications
 - b. Drawings
 - c. Clarifications (Requests for Information)
 - d. Schedules
 - e. Other (All Related Documents)
 3. Chronology of events and correspondence.
 4. Analysis of claim merit.
 5. Analysis of claim cost.
 6. Analysis of time impact analysis in CPM format.
 7. Cover letter and certification of validity of the claim.
- E. **All Claims.** If the Contractor disputes the City's response, or if the City fails to respond within the statutory time period(s), the Contractor may so notify the City within 15 calendar days of the receipt of the response or the failure to respond, and demand an informal conference to meet and confer for settlement. Upon such demand, the City shall schedule a meet and confer conference within 30 calendar days.
- F. The Contractor must comply with the claims filing procedures set forth in Government Code sections 900 *et seq.* for any claim or any portion thereof that remains in dispute, after the meet and confer conference. For purposes of those provisions, the time within which a claim must be filed shall be tolled from the time the Contractor submits the written claim until the time the claim is denied, including any time utilized for the meet and confer conference. Submission of a claim, properly certified, with all required supporting documentation, and written rejection or denial of all or part of the claim by the City, is a condition precedent to any action, proceeding, litigation, suit, general conditions claim, or demand for arbitration by Contractor.
- G. **Government Code Claim.** In addition to any and all contract requirements pertaining to notices of and requests for compensation or payment for extra work, disputed work, construction claims and/or changed conditions, the Contractor must comply with the claim procedures set forth in Government Code sections 900 *et seq.* prior to filing any lawsuit against the City. Such Government Code claims and any subsequent lawsuit based upon the Government Code claims shall be limited to those matters that remain unresolved after all procedures pertaining to extra work, disputed work, construction claims, and/or changed conditions have been followed by Contractor. If no such Government Code claim is submitted, or if the prerequisite contractual requirements are not otherwise satisfied as specified herein, Contractor shall be barred from bringing and maintaining a valid lawsuit against the City.

ARTICLE 49. CITY'S RIGHT TO TERMINATE CONTRACT

A. Termination for Cause by the City:

1. In the sole estimation of the City, if the Contractor refuses or fails to prosecute the Work or any separable part thereof with such diligence as will insure its completion within the time specified by the Contract Documents, or any extension thereof, or fails to complete such Work within such time, or if the Contractor should be adjudged a bankrupt, or if it should make a general assignment for the benefit of its creditors, or if a receiver should be appointed on account of its insolvency, or the Contractor or any of its subcontractors should violate any of the provisions of this Contract, the City may serve written notice upon the Contractor and its Surety of the City's intention to terminate this Contract. This notice of intent to terminate shall contain the reasons for such intention to terminate this Contract, and a statement to the effect that the Contractor's right to perform this Contract shall cease and terminate upon the expiration of ten (10) calendar days unless such violations have ceased and arrangements satisfactory to the City have been made for correction of said violations.
2. In the event that the City serves such written notice of termination upon the Contractor and the Surety, the Surety shall have the right to take over and perform the Contract. If the Surety does not: (1) give the City written notice of Surety's intention to take over and commence performance of the Contract within 15 calendar days of the City's service of said notice of intent to terminate upon Surety; and (2) actually commence performance of the Contract within 30 calendar days of the City's service of said notice upon Surety; then the City may take over the Work and prosecute the same to completion by separate contract or by any other method it may deem advisable for the account and at the expense of the Contractor.
3. In the event that the City elects to obtain an alternative performance of the Contract as specified above: (1) the City may, without liability for so doing, take possession of and utilize in completion of the Work such materials, appliances, plants and other property belonging to the Contractor that are on the site and reasonably necessary for such completion (A special lien to secure the claims of the City in the event of such suspension is hereby created against any property of Contractor taken into the possession of the City under the terms hereof and such lien may be enforced by sale of such property under the direction of the City Council without notice to Contractor. The proceeds of the sale after deducting all expenses thereof and connected therewith shall be credited to Contractor. If the net credits shall be in excess of the claims of the City against Contractor, the balance will be paid to Contractor or Contractor's legal representatives.); and (2) Surety shall be liable to the City for any cost or other damage to the City necessitated by the City securing an alternate performance pursuant to this Article.

B. Termination for Convenience by the City:

1. The City may terminate performance of the Work called for by the Contract Documents in whole or, from time to time, in part, if the City determines that a termination is in the City's interest.

2. The Contractor shall terminate all or any part of the Work upon delivery to the Contractor of a Notice of Termination specifying that the termination is for the convenience of the City, the extent of termination, and the Effective Date of such termination.
3. After receipt of Notice of Termination, and except as directed by the City's Representative, the Contractor shall, regardless of any delay in determining or adjusting any amounts due under this Termination for Convenience clause, immediately proceed with the following obligations:
 - a. Stop Work as specified in the Notice.
 - b. Complete any Work specified in the Notice of Termination in a least cost/shortest time manner while still maintaining the quality called for under the Contract Documents.
 - c. Leave the property upon which the Contractor was working and upon which the facility (or facilities) forming the basis of the Contract Document is situated in a safe and sanitary manner such that it does not pose any threat to the public health or safety.
 - d. Terminate all subcontracts to the extent that they relate to the portions of the Work terminated.
 - e. Place no further subcontracts or orders, except as necessary to complete the continued portion of the Contract.
 - f. Submit to the City's Representative, within ten (10) calendar days from the Effective Date of the Notice of Termination, all of the usual documentation called for by the Contract Documents to substantiate all costs incurred by the Contractor for labor, materials and equipment through the Effective Date of the Notice of Termination. Any documentation substantiating costs incurred by the Contractor solely as a result of the City's exercise of its right to terminate this Contract pursuant to this clause, which costs the contractor is authorized under the Contract documents to incur, shall: (1) be submitted to and received by the Engineer no later than 30 calendar days after the Effective Date of the Notice of Termination; (2) describe the costs incurred with particularity; and (3) be conspicuously identified as "Termination Costs occasioned by the City's Termination for Convenience."
4. Termination of the Contract shall not relieve Surety of its obligation for any just claims arising out of or relating to the Work performed.
5. In the event that the City exercises its right to terminate this Contract pursuant to this clause, the City shall pay the Contractor, upon the Contractor's submission of the documentation required by this clause and other applicable provisions of the Contract Documents, the following amounts:
 - a. All actual reimbursable costs incurred according to the provisions of this Contract.

- b. A reasonable allowance for profit on the cost of the Work performed, provided Contractor establishes to the satisfaction of the City's Representative that it is reasonably probable that Contractor would have made a profit had the Contract been completed and provided further, that the profit allowed shall in no event exceed fifteen (15%) percent of the costs.
 - c. A reasonable allowance for Contractor's administrative costs in determining the amount payable due to termination of the Contract under this Article.
- C. Notwithstanding any other provision of this Article, when immediate action is necessary to protect life and safety or to reduce significant exposure or liability, the City may immediately order Contractor to cease Work on the Project until such safety or liability issues are addressed to the satisfaction of the City or the Contract is terminated.

ARTICLE 50. WARRANTY AND GUARANTEE OF WORK

- A. Contractor hereby warrants that materials and Work shall be completed in conformance with the Contract Documents and that the materials and Work provided will fulfill the requirements of this Warranty. Contractor hereby agrees to repair or replace, at the discretion of the City, any or all Work that may prove to be defective in its workmanship, materials furnished, methods of installation or fail to conform to the Contract Document requirements together with any other Work which may be damaged or displaced by such defect(s) within a period of one (1) year from the date of the Notice of Completion of the Project without any expense whatever to the City, ordinary wear and tear and unusual abuse and neglect excepted. Contractor shall be required to promptly repair or replace defective equipment or materials, at Contractor's option. All costs associated with such corrective actions and testing, including the removal, replacement, and reinstatement of equipment and materials necessary to gain access, shall be the sole responsibility of the Contractor.
- B. For any Work so corrected, Contractor's obligation hereunder to correct defective Work shall be reinstated for an additional one (1) year period, commencing with the date of acceptance of such corrected Work. The reinstatement of the one (1) year warranty shall apply only to that portion of work that was corrected. Contractor shall perform such tests as City may require to verify that any corrective actions, including, without limitation, redesign, repairs, and replacements comply with the requirements of the Contract. In the event of Contractor's failure to comply with the above-mentioned conditions within ten (10) calendar days after being notified in writing of required repairs, to the reasonable satisfaction of the City, the City shall have the right to correct and replace any defective or non-conforming Work and any work damaged by such work or the replacement or correction thereof at Contractor's sole expense. Contractor shall be obligated to fully reimburse the City for any expenses incurred hereunder immediately upon demand.
- C. In addition to the warranty set forth in this Article, Contractor shall obtain for City all warranties that would be given in normal commercial practice and assign to City any and all manufacturer's or installer's warranties for equipment or materials not manufactured by Contractor and provided as part of the Work, to the extent that such third-party warranties are assignable and extend beyond the warranty period set forth

in this Article. Contractor shall furnish the City with all warranty and guarantee documents prior to final Acceptance of the Project by the City as required.

- D. When specifically indicated in the Contract Documents or when directed by the Engineer, the City may furnish materials or products to the Contractor for installation. In the event any act or failure to act by Contractor shall cause a warranty applicable to any materials or products purchased by the City for installation by the Contractor to be voided or reduced, Contractor shall indemnify City from and against any cost, expense, or other liability arising therefrom, and shall be responsible to the City for the cost of any repairs, replacement or other costs that would have been covered by the warranty but for such act or failure to act by Contractor.
- E. The Contractor shall remedy at its expense any damage to City-owned or controlled real or personal property.
- F. The City shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage. The Contractor shall within ten (10) calendar days after being notified commence and perform with due diligence all necessary Work. If the Contractor fails to promptly remedy any defect, or damage; the City shall have the right to replace, repair or otherwise remedy the defect, or damage at the Contractor's expense.
- G. In the event of any emergency constituting an immediate hazard to health, safety, property, or licensees, when caused by Work of the Contractor not in accordance with the Contract requirements, the City may undertake at Contractor's expense, and without prior notice, all Work necessary to correct such condition.
- H. Acceptance of Defective Work.
 - 1. If, instead of requiring correction or removal and replacement of Defective Work, the City prefers to accept it, City may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to City's evaluation of and determination to accept such Defective Work and for the diminished value of the Work.
 - 2. If any acceptance of defective work occurs prior to release of the Project Retention, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and City shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work and all costs incurred by City.
 - 3. If the Project Retention is held in an escrow account as permitted by the Contract Documents, Contractor will promptly alert the escrow holder, in writing, of the amount of Retention to be paid to City.
 - 4. If the acceptance of Defective Work occurs after release of the Project Retention, an appropriate amount will be paid by Contractor to City.

I. City May Correct Defective Work.

1. If Contractor fails within a reasonable time after written notice from City's Representative to correct Defective Work, or to remove and replace rejected Work as required by City, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, City may, after seven (7) Days' written notice to Contractor, correct, or remedy any such deficiency.
2. In connection with such corrective or remedial action, City may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which City has paid Contractor but which are stored elsewhere. Contractor shall allow City and City's Representative, and the agents, employees, other contractors, and consultants of each of them, access to the Site to enable City to exercise the rights and remedies to correct the Defective Work.
3. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by City correcting the Defective Work will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions into the Contract Documents with respect to the Work; and City shall be entitled to an appropriate decrease in the Contract Price.
4. Such claims, costs, losses and damages will include, but not be limited to, all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Defective Work.
5. If the Change Order is executed after all payments under the Contract have been paid by City and the Project Retention is held in an escrow account as permitted by the Contract Documents, Contractor will promptly alert the escrow holder, in writing, of the amount of Retention to be paid to City.
6. If the Change Order is executed after release of the Project Retention, an appropriate amount will be paid by Contractor to City.
7. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to City correcting Defective work.

- J. Nothing in the Warranty or in the Contract Documents shall be construed to limit the rights and remedies available to City at law or in equity, including, but not limited to, Code of Civil Procedure section 337.15.

ARTICLE 51. DOCUMENT RETENTION & EXAMINATION

- A. In accordance with Government Code section 8546.7, records of both the City and the Contractor shall be subject to examination and audit by the State Auditor General for a period of three (3) years after final payment.

- B. Contractor shall make available to the City any of the Contractor's other documents related to the Project immediately upon request of the City.
- C. In addition to the State Auditor rights above, the City shall have the right to examine and audit all books, estimates, records, contracts, documents, bid documents, subcontracts, and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at no additional cost to the City, for a period of four (4) years after final payment.

ARTICLE 52. SEPARATE CONTRACTS

- A. The City reserves the right to let other contracts in connection with this Work or on the Project site. Contractor shall permit other contractors reasonable access and storage of their materials and execution of their work and shall properly connect and coordinate its Work with theirs.
- B. To ensure proper execution of its subsequent Work, Contractor shall immediately inspect work already in place and shall at once report to the Engineer any problems with the Work in place or discrepancies with the Contract Documents.
- C. Contractor shall ascertain to its own satisfaction the scope of the Project and nature of any other contracts that have been or may be awarded by the City in prosecution of the Project to the end that Contractor may perform this Contract in the light of such other contracts, if any. Nothing herein contained shall be interpreted as granting to Contractor exclusive occupancy at site of the Project. Contractor shall not cause any unnecessary hindrance or delay to any other contractor working on the Project. If simultaneous execution of any contract for the Project is likely to cause interference with performance of some other contract or contracts, the Engineer shall decide which Contractor shall cease Work temporarily and which contractor shall continue or whether work can be coordinated so that contractors may proceed simultaneously. The City shall not be responsible for any damages suffered or for extra costs incurred by Contractor resulting directly or indirectly from award, performance, or attempted performance of any other contract or contracts on the Project site.

ARTICLE 53. NOTICE AND SERVICE THEREOF

All notices shall be in writing and either served by personal delivery or mailed to the other party as designated in the Bid Forms. Written notice to the Contractor shall be addressed to Contractor's principal place of business unless Contractor designates another address in writing for service of notice. Notice to City shall be addressed to the City as designated in the Notice Inviting Bids unless City designates another address in writing for service of notice. Notice shall be effective upon receipt or five (5) calendar days after being sent by first class mail, whichever is earlier. Notice given by facsimile shall not be effective unless acknowledged in writing by the receiving party.

ARTICLE 54. NOTICE OF THIRD PARTY CLAIMS

Pursuant to Public Contract Code section 9201, the City shall provide the Contractor with timely notification of the receipt of any third-party claims relating to the Contract. The City is entitled to recover reasonable costs incurred in providing such notification.

ARTICLE 55. STATE LICENSE BOARD NOTICE

Contractors are required by law to be licensed and regulated by the Contractors' State License Board which has jurisdiction to investigate complaints against contractors if a complaint regarding a patent act or omission is filed within four (4) years of the date of the alleged violation. A complaint regarding a latent act or omission pertaining to structural defects must be filed within ten (10) years of the date of the alleged violation. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 26000, Sacramento, California 95826.

ARTICLE 56. INTEGRATION

- A. **Oral Modifications Ineffective.** No oral order, objection, direction, claim or notice by any party or person shall affect or modify any of the terms or obligations contained in the Contract Documents.
- B. **Contract Documents Represent Entire Contract.** The Contract Documents represent the entire agreement of the City and Contractor.

ARTICLE 57. ASSIGNMENT OF CONTRACT

Contractor shall not assign, transfer, convey, sublet or otherwise dispose of the rights or title of interest of any or all of this contract without the prior written consent of the City. Any assignment or change of Contractor's name of legal entity without the written consent of the City shall be void. Any assignment of money due or to become due under this Contract shall be subject to a prior lien for services rendered or Material supplied for performance of Work called for under the Contract Documents in favor of all persons, firms, or corporations rendering such services or supplying such Materials to the extent that claims are filed pursuant to the Civil Code, the Code of Civil Procedure or the Government Code.

ARTICLE 58. CHANGE IN NAME AND NATURE OF CONTRACTOR'S LEGAL ENTITY

Should a change be contemplated in the name or nature of the Contractor's legal entity, the Contractor shall first notify the City in order that proper steps may be taken to have the change reflected on the Contract and all related documents. No change of Contractor's name or nature will affect City's rights under the Contract, including but not limited to the bonds.

ARTICLE 59. ASSIGNMENT OF ANTITRUST ACTIONS

Pursuant to Public Contract Code section 7103.5, in entering into a public works contract or subcontract to supply goods, services, or materials pursuant to a public works contract, Contractor or subcontractor offers and agrees to assign to the City all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 USC, 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 the purchase of goods, services, or materials pursuant to this contract or any subcontract. This assignment shall be made and become effective at the time the City tenders final payment to the Contractor, without further acknowledgment by the parties.

ARTICLE 60. PROHIBITED INTERESTS

No City official or representative who is authorized in such capacity and on behalf of the City to negotiate, supervise, make, accept, or approve, or to take part in negotiating, supervising, making, accepting or approving any engineering, inspection, construction or material supply contract or any subcontract in connection with construction of the project, shall be or become directly or indirectly interested financially in the Contract.

ARTICLE 61. CONTROLLING LAW

Notwithstanding any subcontract or other contract with any subcontractor, supplier, or other person or organization performing any part of the Work, this Contract shall be governed by the law of the State of California excluding any choice of law provisions.

ARTICLE 62. JURISDICTION; VENUE

Contractor and any subcontractor, supplier, or other person or organization performing any part of the Work agrees that any action or suits at law or in equity arising out of or related to the bidding, award, or performance of the Work shall be maintained in the Superior Court of Yolo County, California, and expressly consent to the jurisdiction of said court, regardless of residence or domicile, and agree that said court shall be a proper venue for any such action.

ARTICLE 63. LAWS AND REGULATIONS

- A. Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on conduct of work as indicated and specified. If Contractor observes that drawings and specifications are at variance therewith, it shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as provided for in this Contract for changes in work. If Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Engineer, it shall bear all costs arising therefrom.
- B. Contractor shall be responsible for familiarity with the Americans with Disabilities Act ("ADA") (42 U.S.C. § 12101 et seq.). The Work will be performed in compliance with ADA regulations.

ARTICLE 64. PATENTS

Contractor shall hold and save the City, officials, officers, employees, and authorized volunteers harmless from liability of any nature or kind of claim therefrom including costs and expenses for or on account of any patented or unpatented invention, article or appliance manufactured, furnished or used by Contractor in the performance of this contract.

ARTICLE 65. OWNERSHIP OF CONTRACT DOCUMENTS

All Contract Documents furnished by the City are City property. They are not to be used by Contractor or any subcontractor on other work nor shall Contractor claim any right to such documents. With exception of one complete set of Contract Documents, all documents shall be returned to the City on request at completion of the Work.

ARTICLE 66. NOTICE OF TAXABLE POSSESSORY INTEREST

In accordance with Revenue and Taxation Code section 107.6, the Contract Documents may create a possessory interest subject to personal property taxation for which Contractor will be responsible.

ARTICLE 67. SURVIVAL OF OBLIGATIONS

All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

00 73 13 – SPECIAL CONDITIONS

1.1 Engineer of Record.

- A. For purposes of this Project, the Engineer of Record or Engineer shall be: Daniel Blomquist of Mark Thomas and Company.

1.2 Location of the Project.

- A. The Project is located on Mace Boulevard, from Blue Oak Place to Cowell Boulevard.
- B. The general location of the Project is shown on Sheet 1 of 32 of the Contract Drawings.

1.3 Status of the Project Area and Rights-of-Way.

- A. City, at its expense, will provide all rights-of-way or permits, or both, covering the crossing of private property and public and private rights-of-way necessary for the permanent Work; provided, however, Contractor shall, at its expense, obtain any bonds or insurance policies or pay any fees and enter into any agreements required by a controlling authority, e.g., Caltrans or Union Pacific Railroad Company, before Contractor enters upon any property or right-of-way under the jurisdiction of any such controlling authority for the purpose of performing Work.
- B. City has acquired or is negotiating to acquire any rights-of-way, or both, necessary for the permanent Work.
- C. If such permits are required, all operations of Contractor shall conform to the restrictions, regulations, and requirements set forth in said permits, copies of which will be included in the Contract Documents.
- D. Contractor may be required, as a condition for receiving final payment, to obtain, and provide City's Representative with copies of, executed damage releases from the owners of public and private property whose property has been damaged by the Work. The damage releases will be on a form provided by City.
- E. Contractor shall, also, as a condition for receiving final payment, obtain, and provide City's Representative with copies of, executed damage releases from the owners of certain public and private property or areas which have been crossed by the Work or otherwise affected by the Work. The damage releases will be on a form provided by City.

1.4 Licenses and Permits.

- A. The Prime Contractor shall obtain a City Business License. The dollar amount claimed for "gross receipts" shall be the dollar amount awarded to the Contractor, or the anticipated annual gross receipts earned within the City, whichever is larger.

The total Business License fee is \$10, plus a tax amount determined based upon the amount of the contract award and the following table:

| Table of Business License Fees | |
|------------------------------------|----------------------------|
| Gross Receipts (Range: From/To) | License Fee (Group III) |
| \$0.00 to 9,999 | \$ 4.50 |
| 10,000 to 19,999 | 13.50 |
| 20,000 to 29,999 | 22.50 |
| 30,000 to 39,999 | 31.50 |
| 40,000 to 49,999 | 40.50 |
| 50,000 to 59,999 | 49.50 |
| 60,000 to 69,999 | 58.50 |
| 70,000 to 79,999 | 67.50 |
| 80,000 to 89,999 | 76.50 |
| 90,000 to 99,999 | 85.50 |
| 100,000 to 109,999 | 94.50 |
| Plus for each additional \$10,000 | 9.00 |

- B. Prior to mobilization, the Contractor shall obtain and fill out the Construction Debris Diversion form, located on the City's website (<http://community-development.cityofdavis.org/Media/Default/Documents/PDF/CDD/planning/forms/Construction-Demolition-Debris-Diversion-Form.pdf>). This form dictates how certain construction debris will be recycled, reused or reclaimed. The Contractor shall follow the dictates of the form.
- C. Water for construction use is available by the nearest fire hydrant. Although the water usage will be metered, there will be no charge for the water.

A Water Use Permit, obtained from Public Works, is required for use of any City fire hydrant prior to its use. The permit fees and water use charges shall be waived. The permit is valid for only one hydrant at a time. If the Contractor needs to use more than one hydrant at a time, additional permits must be obtained. If the Contractor needs to use multiple hydrants but not at the same time, he may do so after coordinating with the inspector. See below.

Public Works will issue a water meter and backflow assembly for attaching to the hydrant. A \$1,500 deposit for the meter/backflow assembly is required for each permit. This deposit is refundable when the meter/backflow assembly is/are returned. A tag is also issued with the permit.

At the time of obtaining the Permit, the Contractor shall receive a list of all hydrants that the Contractor may use. The Contractor shall coordinate hydrant use with the Public Works Inspector throughout the life of the project. If needs arise to use a

hydrant or hydrants that are not on the list, the Contractor shall coordinate this information with the Inspector. The Inspector MAY require that a new Permit be obtained.

Each hydrant being used must be outfitted with the Water Tag and the meter/backflow assembly. A hydrant wrench is required for operation.

Additionally, the following costs shall be deducted from the deposit:

- Parts and labor charges for lost or damaged equipment (if any);
- Lost Tags (if any) at \$25/Tag; and
- Fee for failure to provide the List of Hydrants Used (at \$25/hydrant used).

1.5 Designation of City's Representative

A. Unless otherwise modified by City, City's Representative shall be Michael Mitchell, Principal Civil Engineer, Engineering Division, Public Works Department.

1.6 Modification of Hours of Work.

This project is located in a residential area and no work will be allowed during non-normal working hours, except under special circumstances (see next paragraph). Work will generally be allowed during weekdays, excluding holidays, from the hours of 7:00 a.m. to 5:00 p.m.

Should some of the work on this project need to be performed during non-normal working hours, the Contractor shall make arrangements with the City for inspection services at least one week in advance of items requiring non-normal working hours. The Contractor shall indicate the need for non-normal work hours in the various schedules submitted during the progress of the project. Non-normal working hours will generally be limited to Saturdays, from 8:00 a.m. to 5:00 p.m., and Sundays, from 9:00 a.m. to 5:00 p.m.

Portions of this project are located adjacent to commercial properties, and the Contractor shall, in accordance with Standard Specifications Section 7-6, "Public Convenience," and Section 7-7, "Public Safety," minimize disruptions of access to commercial entrances, and provide for advance notice 5 working days minimum, to all commercial tenants adjacent to construction activities.

In addition, traffic flow at signalized intersections shall not be disrupted during peak traffic hours between 5:00 am to 9:00 am and 3:00 pm to 9:00 pm. Details will be discussed as part of the Traffic Control Plan review.

Workdays and official holidays for this contract shall be determined by the current Caltrans Construction Workday Calendar.

In addition to official holidays, no work shall be allowed during the following time periods:

- Picnic Day (April 21, 2018)

- Whole Earth Festival (May 11-13, 2018)
- Commencement Week (June 11-17, 2018)

During such times, excavations shall be closed, public pedestrian ways and traffic lanes shall be unobstructed, and all street parking shall be available for use. These periods shall not count as work days.

1.7 Project Retention

In accordance with Public Contract Code § 7201, City will withhold 5% of each progress payment as retention on the Project.

1.8 Reverse Liquidated Damages Due to Unreasonable City Delay.

- A. In compliance with the provisions of California Public Contract Code § 7102, the Contractor will be compensated for damages incurred due to delays in completing the Work due solely to the fault of the City, where such delay is unreasonable under the circumstances and not contemplated by the parties and such delay is not the result of Additional Work. The Contractor and City agree that determining actual damages is impracticable and extremely difficult. As such, the Contractor shall be entitled to the appropriate time extension and to payment of liquidated damages in the sum of **\$(INSERT AMOUNT)** per Day of delay in excess of the time specified for the Completion of the Work. Such amount shall constitute the only payment allowed and shall necessarily include all overhead (direct or indirect), all profit, all administrative costs, all bond costs, all labor, materials, equipment and rental costs, and any other costs, expenses and fees incurred or sustained as a result of such delay. The Contractor expressly agrees to be limited solely to the liquidated damages for all such delays as defined in this subsection.

1.9 Liquidated Damages Due to Contractor Delay.

- A. Time is of the essence. Should Contractor fail to complete all or any part of the Work within the time specified in the Contract Documents, City will suffer damage, the amount of which is difficult, if not impossible, to ascertain and, pursuant to the authority of Government Code section 53069.85, City shall therefore be entitled to **\$4,500 per Day** as liquidated damages for each Calendar Day or part thereof that actual completion extends beyond the time specified.
- B. Liquidated damages may be deducted from progress payments due Contractor, Project retention or may be collected directly from Contractor, or from Contractor's surety. These provisions for liquidated damages shall not prevent City, in case of Contractor's default, from terminating the Contractor.

1.10 Utility Outages – Notices to Residents.

- A. Should Contractor's operations require interruption of any utility service, Contractor shall notify City at least ten (10) Days prior to the scheduled outage. Contractor will notify all impacted residents on a form provided by City at least seven (7) Days prior to the scheduled outage.

- B. Contractor shall be responsible for providing, at its cost, any temporary utility or facilities necessitated by the utility outage.

1.11 Schedule Constraints.

NOT USED.

1.12 Noise Restrictions

- A. Contractor shall use only such equipment on the Work and in such state of repair so that the emission of sound therefrom is within the noise tolerance level of that equipment as established by Cal/OSHA.
- B. Contractor shall comply with the most restrictive of the following: (1) local sound control and noise level rules, regulations and ordinances and (2) the requirements contained in these Contract Documents, including hours of operation requirements.
- C. No internal combustion engine shall be operated on the Project without a muffler of the type recommended by the manufacturer. Should any muffler or other control device sustain damage or be determined to be ineffective or defective, the Contractor shall promptly remove the equipment and shall not return said equipment to the job until the device is repaired or replaced. Said noise and vibration level requirements shall apply to all equipment on the job or related to the job, including but not limited to, trucks, transit mixers or transit equipment that may or may not be owned by the Contractor.

1.13 Safety Programs.

NOT USED.

1.14 Coordination with Other Contractors.

NOT USED.

1.15 Payments.

A. Final Pay Quantities

Any pay item on the Proposal or Bid Items Schedule designated with an "F" shall be a Final Pay Item with an associated Final Quantity. No measurement will be made of Final Pay Items. The bid quantity shall be used for payment purposes. If the dimensions of the various portions of work are changed and the changes result in an increase or a decrease in the estimated Final Quantity of the item, then the Final Quantity shall be adjusted. If a Final Pay Item of work is eliminated then the Final Quantity shall also be eliminated and no measurement or payment adjustment shall be made to other items of work.

The estimated quantities for Final Quantity items shall be based upon plan dimensions and typical length, area and volume calculations. No adjustments or allowances will be made based on differences between the Final Quantity and actual constructed quantities.

If there is a discrepancy between the quantities shown on the bid schedule and quantity calculations based upon the plan dimensions, then the calculations based on the plan dimensions shall govern.

B. Labor Surcharge

The labor surcharge on this project shall be 12 percent for regular time and 11 percent for overtime.

C. Partial Payments

Contractor's attention is directed to Section 9-6, "Partial Payments," and 9-8, "Payment After Acceptance," of the Standard Specifications and these Special Conditions.

Add the following paragraph:

Satisfactory Performance

The Contractor agrees to pay each subcontractor under this Contract for satisfactory performance of its contract no later than 10 days from the receipt of each payment the Contractor received from the City. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Engineer.

D. Substitution of Securities for Withheld Money

Add the following paragraph:

When a Letter of Credit is provided by the Contractor to substitute securities for withheld money, the expiration date of the Letter shall cover the extended date of completion for the Contract, plus 60 days or until all issues are resolved. All outstanding issues, including a signed Acceptance Statement from the Contractor, must be resolved before the City authorizes release of the Letter. If there are no items being disputed, then 30 days will apply instead of the 60 days.

E. Final Payments and Claims

The City shall retain 5 percent of the estimated value of the work done and acceptable materials incorporated into the work as partial security for fulfillment of the Contract by the Contractor.

Add the following paragraph:

Release of Retainage

The Contractor agrees further to release retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Engineer.

END OF SPECIAL CONDITIONS

01 00 00 – GENERAL REQUIREMENTS

PART 1 -- GENERAL

1.1 DESCRIPTION

- A. The work described herein shall be performed according to the City of Davis Public Works Standard Specifications, January 1996 Edition, addenda through October 2009; the latest edition of the California Department of Transportation Standard Specifications and Plans; and certain Federal requirements contained herein.

Any discrepancies or omissions found in the Contract Documents shall be reported to the Engineer immediately. The Engineer will clarify discrepancies or omissions, in writing, within a reasonable time.

In resolving inconsistencies among two or more sections of the Contract Documents, precedence shall be given in the following order:

- A. Specific Conditions and Technical Specifications.
- B. City of Davis Standard Specifications and Plans.
- C. State Specifications and State Plans.
- D. Plans.

Addenda shall take precedence over all sections referenced therein. Figure dimensions on drawings shall take precedence over scale dimensions. Detailed drawings shall take precedence over general drawings.

- B. The work shall include reconstruction of Mace Boulevard between Redbud Drive and Cowell Boulevard; a 1.6' full depth reclamation pavement section for reconstruction of vehicular travel lanes, a 0.75' full depth reclamation pavement section for reconstruction of bike lanes and shoulders, utility adjustments, curb and gutter, concrete flatwork, signage, striping and pavement markers to reduce travel lanes from 4 to 2 lanes, add buffered bike lanes, and add two-way cycle track; at intersection of Mace Blvd and Cowell Blvd, improve intersection for bicycles and pedestrians; and at Mace Blvd and San Marino, install HAWK traffic signal, in Davis, CA including all labor, materials, equipment, and incidentals, to completely install an operating facility in accordance with the Project Plans and Specifications. All work shall be performed in accordance with the City of Davis' Standard Specifications January 1996 Edition, addenda through October 2009, General Prevailing Wage Rates, Labor Surcharge and Equipment Rental Rates, and the Contract Documents.

1.2 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

Federal funding incorporated in this project mandate the following additional specifications:

A. Located In Bid Proposal

Equal Employment Opportunity Certification;

Noncollusion Declaration;

Debarment and Suspension Certification;

Nonlobbying Certification for Federal-Aid Contracts; and

Disclosure of Lobbying Activities.

B. Located in Federal Requirements Section

Disadvantaged Business Enterprise (DBE);

Buy America Specification; and

Exhibit 12-G Required Federal-aid Contract Language.

C. Federal Wage Rates (Davis-Bacon)

The Federal minimum wage rates for this project, as predetermined by the United States Secretary of Labor, are available through the California Department of Transportation's Electronic Project Document Distribution Site on the Internet at <http://www.wdol.gov/>. Addenda to modify the Federal minimum wage rates, if necessary, will be issued to holders of the Contract Book. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates.

The following sections shall be added to or modify Part 1, General Conditions of the City of Davis Standard Specifications, unless stated otherwise.

1.3 SCHEDULE OF BID ITEMS

A. The abbreviations in the column designated Units on the Proposal or Bid Schedule shall have the following meanings:

Items designated C.Y. is cubic yard.

Items designated EA. is per each.

Items designated L.F. is linear foot.

Items designated S.F. is square foot.

Items designated S.Y. is square yard.

Items designated Ton is per ton.

Items designated L.S. is lump sum.

Payment for individual bid items shall be the extension of the contract unit price and the final quantity.

- B. Each bid item includes all labor, equipment, materials, and incidentals for completing each item as described.

Bid Item 1, Mobilization (General Conditions Article 6): The contract lump sum price paid for Mobilization shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for performing all the work involved in mobilization as specified herein.

The first payment for mobilization shall be 50 percent of the bid item amount. The second payment for mobilization shall be 50 percent of the bid item amount. No measurement shall be made.

Bid Item 2, Traffic Control (Section 10-2): The lump sum price paid for Traffic Control shall include furnishing all labor (including flaggers when necessary), materials (including all temporary signs) and equipment necessary to provide for the convenience and safety of the public (including measures to accommodate access to pedestrians, homeowners, public notification, and changeable message boards) to facilitate the performance of the work as shown on the plans and specified herein. No measurement shall be made.

Bid Item 3, Potholing (Section 10-04): The lump sum price paid for Potholing shall include potholing to uncover and protect underground utilities, primarily gas lines, by hand digging or other safe means, backfilling with original earth, compacting and resurfacing to match original surface as required. No measurement shall be made.

Bid Item 4, Reset Monument (Section 10-05): This item includes full compensation for furnishing all labor, materials and equipment necessary to reset monuments, including preparation and submittal of monument corner records by a licensed land surveyor, as directed by the Engineer, as shown on the plans and specified herein. Measurement shall be per each monument reset.

Bid Item 5, Remove Concrete (Section 10-06): This item includes furnishing all labor, materials and equipment necessary to perform the removal of existing concrete curbs, gutter, sidewalk and driveway, hauling and disposal of materials. Measurement shall be per square foot of concrete removed.

Bid Item 6, Cold Plane and Remove Pavement Reinforcement Fabric (Section 10-07): This item includes furnishing all labor, materials and equipment necessary to perform the cold planing of existing asphalt concrete pavement to the depth required for removal of pavement reinforcement fabric, hauling and disposal of materials. Measurement shall be per square yard of asphalt concrete removed.

Bid Item 7, Utility Adjustments - Water Valve Box Frame and Cover to Grade (Section 10-08): This item includes all materials necessary to lower water valves prior to the paving operation, protect existing facilities, and raise water valves to the finish grade of

the roadway, including the removal and placement of the concrete collar around each valve. Measurement shall be per each valve adjusted.

Bid Item 8, Utility Adjustments - Sewer Manhole to Grade (Section 10-08): This item includes temporary storage of frames and covers, and all labor and materials necessary for the adjustment of sanitary sewer manholes prior to and after paving operations, including protecting existing facilities and removal and placement of concrete collar around each manhole. Measurement shall be per each manhole adjusted.

Bid Item 9, Utility Adjustments - Storm Drain Manhole to Grade (Section 10-08): This item includes temporary storage of frames and covers, and all labor and materials necessary for the adjustment of storm drain manholes prior to and after paving operations, including protecting existing facilities, and removal and placement of concrete collar around each manhole. Measurement shall be per each manhole adjusted.

Bid Item 10, Minor Concrete - 6" Vertical Concrete Curb and Gutter (Section 10-10): This item includes construction of standard vertical curb and gutter, transitions between vertical and roll curb, including subgrade preparation, placement of aggregate base, joint materials and concrete, form work, dowels, reinforcement, concrete placement and finishing, stripping forms, curing, and cleanup. Measurement shall be per lineal foot as measured along the curb face of completed work.

Bid Item 11, Minor Concrete – Modified 6" Barrier Curb (Section 10-10): This item includes construction of modified 6" barrier curb, including subgrade preparation, joint materials and concrete, form work, concrete placement and finishing, stripping forms, curing, curb paint, and cleanup. Measurement shall be per lineal foot as measured along the curb face of completed work.

Bid Item 12, Minor Concrete – Truck Apron (Section 10-10): This item includes construction of concrete truck apron including PCC forming, placing, finishing, scoring, construction joints, joint fillers, striping forms, curing, clean up and repairing any damage to adjacent pavement. Measurement shall be per square foot of truck apron placed.

Bid Item 13, Minor Concrete – Median Island Surface (Section 10-10): This item includes construction of concrete median island surface including PCC forming, placing, finishing, scoring, construction joints, joint fillers, striping forms, curing, clean up and repairing any damage to adjacent pavement. Measurement shall be per square foot of sidewalk and median island surface placed. Placement of aggregate base beneath median island surface will be measured and paid for separately.

Bid Item 14, Minor Concrete – Textured Median Island Surface (Section 10-10): This item includes construction of colored and textured concrete median island surface including coloring, PCC forming, placing, stamping the decorative pattern, finishing, scoring, construction joints, joint fillers, striping forms, curing, clean up and repairing any damage to adjacent pavement. Measurement shall be per square foot of textured median island surface placed. Placement of aggregate base beneath textured median island surface will be measured and paid for separately.

Bid Item 15, Minor Concrete – Sidewalk (Section 10-10): This item includes construction of standard concrete sidewalk including placement of four (4) inches of aggregate base, PCC forming, placing, finishing, scoring, construction joints, joint fillers, striping forms,

curing, clean up and repairing any damage to adjacent landscaping, irrigation and pavement. Measurement shall be per square foot of sidewalk and median island surface placed.

Bid Item 16, Minor Concrete –Case A Curb Ramp (Section 10-10): This item includes construction of standard, ADA-compliant curb ramps, including subgrade preparation, placement of aggregate base, form work, concrete placement and finishing, joint materials, installing truncated domes, stripping forms, curing, and cleanup. Measurement shall be per each Case A curb ramp completed.

Bid Item 17, Minor Concrete –Case C Curb Ramp (Section 10-10): This item includes construction of standard, ADA-compliant curb ramps, including subgrade preparation, placement of aggregate base, form work, concrete placement and finishing, retaining curb, joint materials, installing truncated domes, stripping forms, curing, cleanup and repairing any damage to adjacent landscaping, irrigation and pavement. Measurement shall be per each Case C curb ramp completed.

Bid Item 18, Minor Concrete –Case CM Curb Ramp (Section 10-10): This item includes construction of standard, ADA-compliant curb ramps, including subgrade preparation, placement of aggregate base, form work, concrete placement and finishing, retaining curb, joint materials, installing truncated domes, stripping forms, curing, cleanup and repairing any damage to adjacent landscaping, irrigation and pavement. Measurement shall be per each Case CM curb ramp completed.

Bid Item 19, Detectable Warning Surface (Section 10-10): This items includes placement of detectable warning surface (truncated domes) and concrete pad, if needed, not included within the contract price paid for curb ramps. The contract unit price paid for “Detectable Warning Surface”, including concrete pads shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. Measurement shall be per square foot of detectable warning surface installed.

Bid Item 20, Class 2 Aggregate Base for Medians (Section 10-11): This item includes the placement of new Class 2 aggregate base in median areas to the grades shown on the plans, including compaction of AB and subgrade. Measurement shall be per cubic yard of Class 2 aggregate base placed.

Bid Item 21, Full Depth Reclamation – T.I. = 9.0 (Section 10-12): The pulverization and cement treatment of the existing pavement shall be paid for at the contract unit price per square foot for “Full Depth Reclamation” and shall include costs for all pulverizing, and mixing of the existing pavement and underlying materials; for all water and Portland cement; for all spreading, compacting and trimming to the proper grade as shown on the plans and as specified; for excavating and hauling away of all excess pulverized and cement treated material; for all micro-cracking, curing, protection and sealing of the cement treated subgrade. Additional cement and associated equipment and labor required for installation required, above and beyond the specified amount, will be paid on a change order basis.

Bid Item 22, Full Depth Reclamation – T.I. = 5.0 (Section 10-12): The pulverization and cement treatment of the existing pavement shall be paid for at the contract unit price per square foot for “Full Depth Reclamation” and shall include costs for all pulverizing, and

mixing of the existing pavement and underlying materials; for all water and Portland cement; for all spreading, compacting and trimming to the proper grade as shown on the plans and as specified; for excavating and hauling away of all excess pulverized and cement treated material; for all micro-cracking, curing, protection and sealing of the cement treated subgrade. Additional cement and associated equipment and labor required for installation required, above and beyond the specified amount, will be paid on a change order basis.

Bid Item 23, Hot Mix Asphalt – Type A HMA, ½” Min. Agg. (Section 10-15): This item includes the placement of new HMA in three inch maximum lifts to the grades shown on the plans, including tack coat and compaction of AB or subgrade. Measurement shall be per ton of HMA placed. (Weigh Slips shall be submitted by Contractor)

Bid Item 24, Thermoplastic Traffic Stripes (Section 10-16): This items includes placement of thermoplastic stripes. The contract price paid per linear foot for “Thermoplastic Traffic Stripes” shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. No additional compensation will be made.

Bid Item 25, Raised Pavement Markers (Section 10-16): This items includes placement of raised pavement markers, including reflective markers for fire hydrants. The contract price paid per each for “Raised Pavement Markers” shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. No additional compensation will be made.

Bid Item 26, Thermoplastic Pavement Markings (Section 10-16): This items includes placement of thermoplastic pavement markings. The contract price paid per square foot for “Thermoplastic Pavement Markings” shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. No additional compensation will be made.

Bid Item 27, Green Bike Lane Coating (Section 10-16): This items includes placement of green bike lane coating. The contract price paid per square foot for “Green Bike Lane Coating” shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. No additional compensation will be made.

Bid Item 28, Remove and Dispose of Yellow Traffic Stripes (Section 10-16): This item includes furnishing all labor, materials and equipment necessary to remove and dispose of yellow thermoplastic and painted traffic stripes, including preparation and submittal of the Lead Compliance Plan, if necessary. The contract lump sum price paid for “Remove and Dispose Yellow Traffic Stripes”, shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. No measurement shall be made.

Bid Item 29, Install Roadside Sign(s) and Post (Section 10-17): This items includes placement of roadside signs and posts. The contract unit price paid for “Roadside Signs and Post”, shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. Measurement shall be per each sign(s) and post installed.

Bid Item 30, Remove Sign(s) and Post (Section 10-17): This items includes removal and salvage of roadside signs and posts. The contract unit price paid for “Remove Sign(s) and Post”, including delivery of salvage signs to the City, shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. Measurement shall be per each sign(s) and post removed.

Bid Item 31, Relocate Sign(s) and Post (Section 10-17): This items includes removal and placement of roadside signs and posts. The contract unit price paid for “Relocate Signs and Post”, including furnishing and installing new posts, shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. Measurement shall be per each sign(s) and post relocated.

Bid Item 32, Delineators (Section 10-17): This items includes placement of flexible post delineators. The contract unit price paid for “Delineators”, shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. Measurement shall be per each delineator installed.

Bid Item 33, Object Markers (Section 10-17): This items includes placement of object markers. The contract unit price paid for “Object Markers”, shall be considered full compensation for furnishing all labor, materials and equipment necessary to complete the work, as shown on the plans and specified herein. Measurement shall be per each object marker installed.

Bid Item 34, Traffic Signal Modification – Mace Blvd. and Cowell Blvd. (Section 10-18): Traffic Signal Modification shall be measured and paid for on a lump sum basis. The contract lump sum price paid for traffic signal modification shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for doing all work involving in the traffic signal modification as shown on the plans, as specified in these special provisions, the Standard Plans and Specifications and as directed by the Engineer, including, dewatering (if needed), all appurtenances and equipment specified, foundations, poles, signal heads, pedestrian heads, pedestrian push buttons, potholing, conduits, pull boxes, wiring, signs, painting, conductors, connection to existing pull boxes, removing existing wiring and salvaging equipment, removal and relocation of sign panels, furnishing and installation of sign panels, testing, modification of the lighting system, temporary signal system, removal of foundations and no additional payment will be allowed therefore.

Bid Item 35, Traffic Signal Installation – Mace Blvd. and San Marino Dr. (Section 10-18): Traffic Signal Installation shall be measured and paid for on a lump sum basis. The contract lump sum price paid for traffic signal installation shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for doing all work involving in the traffic signal installation as shown on the plans, as specified in these special provisions, the Standard Plans and Specifications and as directed by the Engineer, including, dewatering (if needed), all appurtenances and equipment specified, foundations, poles, signal heads, pedestrian heads, pedestrian push buttons, potholing, conduits, pull boxes, wiring, signs, painting, conductors, furnishing and installation of sign panels, testing, modification of the lighting system, and no additional payment will be allowed therefore.

Full compensation for all additional materials and labor, not shown on the plans or specified, which are necessary to complete the installation and modification of the traffic signal and lighting systems, shall be considered as included in the prices paid for the system, or units thereof, and no additional compensation will be allowed therefore.

Full compensation for hauling and stockpiling electrical material shall be considered as included in the contract price paid for the item requiring the material to be salvaged, and no additional compensation will be allowed therefore.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION

3.1 LAYOUT OF WORK AND QUANTITY SURVEYS

- A. General. The Contractor shall utilize a properly licensed surveyor to perform all layout surveys required for the control and completion of the Work, and all necessary surveys to compute quantities of Work performed.

City and/or the Engineer of Record has established primary control to be used by the Contractor for establishing lines and grades required for the Work.

Primary control consists of benchmarks and horizontal control points in the vicinity of the Work. A listing and identification of the primary control is provided on the Drawings. Before beginning any layout work or construction activity, the Contractor shall check and verify primary control, and shall advise the City Representative of any discrepancies.

- B. Quantity surveys. The Contractor shall perform such surveys and computations as are necessary to determine quantities of Work performed or placed during each progress payment period, and shall perform all surveys necessary for the City Representative to determine final quantities of Work in place. The City Representative will determine final quantities based upon the survey data provided by the Contractor, and the design lines and grades. If requested by the City Representative, the Contractor shall provide an electronic copy of data used for quantity computations.

All surveys performed for measurement of final quantities of Work and material shall be subject to approval of City's Representative. Unless waived by City's Representative in each specific case, quantity surveys made by the Contractor shall be made in the presence of City's Representative.

- C. Surveying

1. Accuracy. Degree of accuracy shall be an order high enough to satisfy tolerances specified for the Work and the following:

- (a) Right-of-way and alignment of tangents and curves shall be within 0.1 foot.

- (b) Structure points shall be set within 0.01 foot, except where operational function of the special features or installation of metalwork and equipment require closer tolerances. When formwork has been placed and is ready for concrete, the Contractor shall check the formwork for conformance with the drawings and to ensure that the forms are sufficiently within the tolerance limits for the completed work.
 - (c) Cross-section points shall be located within 0.1 foot, horizontally and vertically.
 - (d) Aerial Mapping shall meet National Mapping Standards for 2-foot contour intervals.
- D. Records. Survey data shall be recorded in accordance with recognized professional surveying standards. Original field notes, computations, and other surveying data shall be recorded on electronic data collectors or in standard field books and must be of sufficient quality to enable the Contractor to prepare accurate record drawings as required by the Contract Documents.
- E. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required for surveys for the layout of work and quantity surveys shall be included in the Schedule of Pay Items for items of work requiring the surveys. No additional compensation shall be made to the Contractor for this Work.

3.2 SCHEDULE

- A. Estimated Schedule. Within 14 Days after the issuance of the Notice to Proceed, Contractor shall prepare a Project schedule and shall submit this to the Engineer for Approval. The receipt or Approval of any schedules by the Engineer or the City shall not in any way relieve the Contractor of its obligations under the Contract Documents. The Contractor is fully responsible to determine and provide for any and all staffing and resources at levels which allow for good quality and timely completion of the Project. Contractor's failure to incorporate all elements of Work required for the performance of the Contract or any inaccuracy in the schedule shall not excuse the Contractor from performing all Work required for a completed Project within the specified Contract time period. If the required schedule is not received by the time the first payment under the Contract is due, Contractor shall not be paid until the schedule is received, reviewed and accepted by the Engineer.
- B. Schedule Contents. The schedule shall indicate the beginning and completion dates of all phases of construction; critical path for all critical, sequential time related activities; and "float time" for all "slack" or "gaps" in the non-critical activities. The schedule shall clearly identify all staffing and other resources which in the Contractor's judgment are needed to complete the Project within the time specified for completion. The overall Project Schedule duration shall be within the Contract time.
- C. Schedule Updates. Contractor shall continuously update its construction schedule. Contractor shall submit an updated and accurate construction schedule to the Engineer monthly when requested to do so by Engineer. Contractor shall also submit schedules showing a three week detailed look-ahead at bi-weekly meetings conducted with the City. The Engineer may withhold progress payments or other amounts due under the Contract Documents if Contractor fails to submit an updated and accurate construction schedule.

3.3 ORDER OF WORK

The Order of Work shall conform to the following provisions:

1. Submit orders for all traffic signal poles and equipment.
2. Pre-construction meeting with City, submittal of construction schedule, issuance of Notice to Proceed and other administrative requirements.
3. Contractor submit and City reviews and approves traffic control plan, SWPPP, and other submittals.
4. After City approval of traffic control plan, Contractor places traffic control and construction signing.
5. Mark all facilities to be lowered prior to grinding / raised to grade after paving.
6. Notify residents (see Technical Specifications Section 10-5) of concrete work, full depth reclamation AND paving operation dates.
7. Perform traffic signal modifications, HAWK installation, curb and gutter, concrete flatwork.*
8. Perform full depth reclamation work within the area bounded by Redbud Drive on the south and Cowell Boulevard on the north.
9. Place finish course of AC. Place temporary striping. Paving operation shall take place not more than 10 working days after full depth reclamation operation. Coordinate with City on schedule.
10. Notify residents second time, if finish course of AC follows full depth reclamation by more than 72 hours.
11. Place final striping.
12. Raise utilities to grade and reset monuments.
13. Cleanup.

* *Traffic signal modifications, HAWK installation, concrete curb and gutter, and concrete flatwork may be done any time prior to paving operation.*

3.4 TEMPORARY FIELD OFFICE

NOT USED.

3.5 PROTECTION OF WORK AND PROPERTY

- A. All traffic detector loops, fences, walls, culverts, property line monuments, or other obstructions (except property line monuments within five (5) feet of the centerline of the mains) which are removed, damaged, or destroyed in the course of the Work, shall be replaced or repaired to the original condition. If Contractor provides the City with

reasonable notice of the need for such repair or replacement, it shall be performed by the City. If the Contractor fails to provide the City with reasonable notice, the repair or replacement shall be performed by and at the expense of the Contractor to the satisfaction of the City, whether or not those obstructions have been shown on the Plans, unless otherwise stated herein. It is then the Contractor's responsibility to employ at its expense a Licensed Land Surveyor to restore all property line monuments located more than five (5) feet from the centerline of the mains, which are destroyed or obliterated. Property line monuments located within five (5) feet of the centerline of the mains will be replaced by the City at no expense to the Contractor, provided the City is notified at least 48 hours before the property line monuments are damaged.

- B. Contractor shall provide such heat, covering, and enclosures as are necessary to protect all Work, materials, equipment, appliances, and tools against damage by weather conditions.
- C. Contractor shall take adequate precautions to protect existing sidewalks, curbs, pavements, utilities, and other adjoining property and structures, and to avoid damage thereto, and Contractor shall repair any damage thereto caused by the Work operations. Contractor shall:
 - 1. Enclose the working area with a substantial barricade, and arrange work to cause minimum amount of inconvenience and danger to the public.
 - 2. Provide substantial barricades around any shrubs or trees indicated to be preserved.
 - 3. Deliver materials to the Project site over a route designated by the Engineer.
 - 4. Provide any and all dust control required and follow the Applicable air quality regulations as appropriate. If the Contractor does not comply, the City shall have the immediate authority to provide dust control and deduct the cost from payments to the Contractor.
 - 5. Confine Contractor's apparatus, the storage of materials, and the operations of its workers to limits required by law, ordinances, permits, or directions of the Engineer. Contractor shall not unreasonably encumber the Project site with its materials.
 - 6. Take care to prevent disturbing or covering any survey markers, monuments, or other devices marking property boundaries or corners. If such markers are disturbed by accident, they shall be replaced by a civil engineer or land surveyor acceptable to the City, at no cost to the City.
 - 7. Ensure that existing facilities, fences and other structures are all adequately protected and that, upon completion of all Work, all facilities that may have been damaged are restored to a condition acceptable to the City.
 - 8. Preserve and protect from injury all buildings, pole lines and all direction, warning and mileage signs that have been placed within the right-of-way.

9. At the completion of work each day, leave the Project site in a clean, safe condition.
 10. Comply with any stage construction and traffic control plans. Access to residences and businesses shall be maintained at all times, unless otherwise permitted in writing by the City.
- D. These precautionary measures will apply continuously and not be limited to normal working hours. Full compensation for the Work involved in the preservation of life, safety and property as above specified shall be considered as included in the prices paid for the various contract items of Work, and no additional allowance will be made therefore.
 - E. Should damage to persons or property occur as a result of the Work, Contractor shall be responsible for proper investigation, documentation, including video or photography, to adequately memorialize and make a record of what transpired. The City shall be entitled to inspect and copy any such documentation, video, or photographs.

3.6 SITE CONDITIONS SURVEYS

A. Work Included.

Contractor shall conduct thorough pre-construction and post-construction site condition surveys of the entire project area. Site Conditions surveys shall include written documentation of the conditions found, as well as photographs and video recordings of the area within at least 80 feet of any construction area and staging area. The written notes, photographs, and video shall be suitable for forensic purposes to resolve any damage claims that may arise as a result of construction.

B. Submittals.

1. Written documentation of site condition survey at pre-construction and post-construction.
2. Photographs as described herein of pre-construction and post-construction conditions.
3. Video recordings as described herein of pre-construction and post-construction conditions.
4. Submittals shall be made within three days of the surveys. All post-construction data shall be submitted prior to the final project inspection.

C. Site Condition Written Documentation.

Written documentation shall include the time, date, and conditions under which the site survey was made. The documentation shall note the condition of structures, pavement, sidewalks, utilities, fences, and etc. within the work areas.

D. Photographs.

1. General – Contractor shall take enough photographs during each site survey to provide a record of conditions existing prior to construction and conditions after construction. Pre-construction photographs shall be taken prior to any construction or mobilization of equipment, but not more than one week prior to actual start of work. The pre-construction photographs may be staged at different times to match the progression of the Work.
2. The photographs shall document existing damage to public and private facilities, both prior to and after construction. Conditions to be documented include, but are not limited to: sidewalk cracks, broken curbs, separated property walls, improvements within public right-of-ways, access roads used, utility covers and markings, signs, pavement striping, pavement, unique or unusual conditions, adjacent driveways, landscaping, survey markers, and any feature directed by the Engineer. Private property that is adjacent to the public right-of-way shall be documented to the extent visible from the public right-of-way.
3. Photographs shall include items to indicate scale, as needed. In particular, scales or other items shall be laid next to close ups of structural cracks and other damaged areas being recorded. Scaling shall also be used to document elevation differences, as needed.
4. One set of color prints shall be submitted. Additional sets shall be available for reviewing in settling any construction disputes. A set of photos shall also be furnished in electronic format. The resolution shall be at least equal to 7 megapixels. All photos shall be documented as to time and date taken, photographer, project number, location, and orientation. Documentation shall include a brief description of objects photographed.

E. Video Recording.

1. Video recordings shall document the conditions of the entire area affected by construction, as well as nearby structures and facilities. The general documentation requirements for videos are the same as for photographs. Video recorders shall accurately and continuously record the time and date.
2. Video recordings shall include an audio portion made simultaneously during the videoing. The audio recording shall describe the location, time, orientation, and objects being recorded. Special commentary shall be provided for unusual conditions or damage noted.
3. Video equipment shall be capable of producing high resolution images and shall have zoom capabilities.
4. Video recordings shall provide an overall picture of the sites and shall provide detailed images of damaged areas. Video shall extend to the maximum height of structures.

5. The Engineer shall have the right to reject any audio video recordings submitted with unintelligible audio, uncontrolled pan or zoom, or of poor quality. Video recordings shall be repeated when rejected.
6. Video recordings shall be submitted with labels indicating the project, date, recorder, and other pertinent information. Recordings shall be submitted on standard DVDs in a standard format.

F. Timing.

Contractor shall provide written notice of the time scheduled for the site conditions survey and the place it is to begin. Contractor shall obtain the Engineer's concurrence prior to beginning the condition survey. The Engineer reserves the right to cancel the survey due to weather conditions or other problems. Videoing shall be done during times of good visibility and no videoing or photography shall be done during periods of visible precipitation or when standing water obscures pavement. Contractor shall provide the Engineer with an opportunity to have a representative present when taking the photos and provide guidance during photographing.

G. Site Surveyor.

The site condition surveyor(s) shall be experienced in construction and potential damage concerns. The site condition surveyor(s) shall be familiar with the photography and video equipment being used.

H. Field Quality Control.

Prior to submitting videos and photographs, the Contractor shall spot check the photos and videos in the field to insure they accurately reflect the actual conditions and to insure they are correctly labeled.

I. Soils Compaction Testing.

1. All soils compaction testing will be done by a licensed geotechnical engineer furnished by the City. Soils compaction testing will be done for all footings and foundations prior to placement of rebar or concrete.
2. For pipeline construction, soil compaction testing will be done at 100-foot intervals at the bottom of the trench prior to placement of pipe bedding; at the top of the pipe bedding above the pipe; every two vertical feet of trench backfill; at the top of the trench backfill, which would be the bottom of the pavement section; and at the top of the aggregate base prior to pavement construction.

3.7 SUBMITTAL REQUIREMENTS FOR MANUALS AND RECORD DRAWINGS

- A. General. The Contractor shall furnish all materials and perform all Work required for furnishing submittals to City in accordance with Contract Documents.

B. Technical Manuals.

1. The Contractor shall submit technical operation and maintenance information for each item of mechanical, electrical and instrumentation equipment in an organized manner in the Technical Manual. It shall be written so that it can be used and understood by City's operation and maintenance staff.
2. The Technical Manual shall be subdivided first by specification section number; second, by equipment item; and last, by "Category." "Categories" shall conform to the following (as applicable):

(a) Category 1 - Equipment Summary:

- (1) Summary: A summary table shall indicate the equipment name, equipment number, and process area in which the equipment is installed.

(b) Category 2 - Operational Procedures:

- (1) Procedures: Manufacturer-recommended procedures on the following shall be included in Part 2:
 - a. Installation
 - b. Adjustment
 - c. Startup
 - d. Location of controls, special tools, equipment required, or related instrumentation needed for operation
 - e. Operation procedures
 - f. Load changes
 - g. Calibration
 - h. Shutdown
 - i. Troubleshooting
 - j. Disassembly
 - k. Reassembly
 - l. Realignment
 - m. Testing to determine performance efficiency
 - n. Tabulation of proper settings for all pressure relief valves, low and high pressure switches, and other protection devices
 - o. List of all electrical relay settings including alarm and contact settings

(c) Category 3 - Preventive Maintenance Procedures:

- (1) Procedures: Preventive maintenance procedures shall include all manufacturer-recommended procedures to be performed on a periodic basis, both by removing and replacing the equipment or component, and by leaving the equipment in place.
- (2) Schedules: Recommended frequency of preventive maintenance procedures shall be included. Lubrication schedules, including lubricant SAE grade, type, and temperature ranges, shall be covered.

(d) Category 4 - Parts List:

- (1) Parts List: A complete parts list shall be furnished, including a generic description and manufacturer's identification number for each part. Addresses and telephone numbers of the nearest supplier and parts warehouse shall be included.
- (2) Drawings: Cross-sectional or exploded view drawings shall accompany the parts list.

(e) Category 5 - Wiring Diagrams:

- (1) Diagrams: Part 5 shall include complete internal and connection wiring diagrams for electrical equipment items.

(f) Category 6 - Shop Drawings:

- (1) Drawings: This part shall include approved shop or fabrication drawings, complete with dimensions.

The Contractor shall submit the following items for Shop Drawing approval prior to installation on the project:

| Shop Drawing Submittal List | | |
|------------------------------------|---------------------------------|--|
| Item Description | Spec. Section | Submittal Summary |
| SWPPP | Gen. Req. 3.10 | SWPPP |
| Progress Schedule | Gen. Req. 3.2 | Graphical Schedule listing work items, start date, duration, etc., |
| Traffic Control Plan | 10-02 | Traffic Control Plan |
| Reset Monument | 10-05 | Monument Corner Record |
| Utility Adjustments | 10-08 | Plan or other approved means to locate utilities after paving |
| Minor Concrete | Standard Specifications 201 and | Mix Design Truncated Domes |

| Shop Drawing Submittal List | | |
|--|---|---|
| Item Description | Spec. Section | Submittal Summary |
| | Technical Specs 10-10 | Demolition Plan Mock-up fo stamped and colored concrete median island surface |
| Full Depth Reclamation | 10-12 | Cement Supplier Equipment Description Contractor Experience |
| Hot Mix Asphalt | Standard Specifications 202-1 and Technical Specs 10-15 | Mix Design |
| Thermoplastic | 10-16 | Materials Lead Compliance Plan Colorized Bike Lane Coating |
| Signals, Lighting and Electrical Systems | 10-18 | Concrete Foundations Steel Reinforcement Poles and Mast Arms Equipment Testing Plan |

All Shop Drawings shall be numbered sequentially. Each component requiring approval shall be individually submitted. Any submittals not conforming to this requirement will be returned.

(g) Category 7 - Safety:

- (1) Procedures: This part describes the safety precautions to be taken when operating and maintaining the equipment or working near it.

(h) Category 8 - Documentation:

- (1) All equipment warranties, affidavits, and certifications required by the Technical Specifications shall be placed in this part.

3. The Contractor shall furnish to City six (6) identical Technical Manuals. Each set shall consist of one or more volumes, each of which shall be bound in a standard binder.

- C. Spare Parts List - The Contractor shall furnish to City six (6) identical sets of spare parts information for all mechanical, electrical, and instrumentation equipment. The spare parts list shall include the current list price of each spare part. The spare parts list shall include those spare parts which each manufacturer recommends be maintained by

City in inventory. Each manufacturer or supplier shall indicate the name, address, and telephone number of its nearest outlet of spare parts to assist City in ordering. The Contractor shall cross-reference all spare parts lists to the equipment numbers designated in the Contract Documents. The spare parts lists shall be bound in standard size, 3-ring binder.

D. Record Drawings

1. The Contractor shall maintain one record set of Drawings at the Site. On these, it shall mark all Project conditions, locations, configurations, and any other changes or deviations which may vary from the information represented in the original Contract Documents, including buried or concealed construction and utility features which are revealed during the course of construction. Special attention shall be given to recording the horizontal and vertical location of all buried utilities that differ from the locations indicated, or which were not indicated on the Contract Drawings. Said record drawings shall be supplemented by any detailed sketches as necessary or directed to fully indicate the Work as actually constructed. These master record drawings of the as-built conditions, including all revisions made necessary by Addenda and Change Orders shall be maintained up-to-date during the progress of the Project. Red ink shall be used for alterations and notes. Notes shall identify relevant Change Orders by number and date.
2. For all Projects involving the installation of any pipeline, Contractor shall survey and record the top of the pipe at a minimum of every 100 linear feet, and at each bend, recording both the horizontal and vertical locations.
3. Record drawings shall be accessible to City's Representative at all times during the construction period. Failure on the Contractor's part to keep record drawings current could result in withholding partial payment.
4. Upon Completion of the Project and as a condition of final acceptance, the Contractor shall finalize and deliver a complete set of Record Drawings to City's Representative. The information submitted by the Contractor will be assumed to be correct, and the Contractor shall be responsible for, and liable to City, for the accuracy of such information, and for any errors or omissions which may or may not appear on the Record Drawings.

- E. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to complete the Manuals and Record Drawings shall be included in Contractor's bid and distributed in the Schedule of Pay. No additional compensation shall be made to the Contractor for this Work.

3.8 MATERIALS

A. Materials to be Furnished by the Contractor

1. Inspection of Materials. Materials furnished by the Contractor which will become a part of the Project shall be subject to inspection at any one or more of the following locations, as determined by City's Representative: at the place of production or manufacture, at the shipping point, or at the site of the Work. To allow sufficient time to provide for inspection, the Contractor shall submit to City's Representative,

at the time of issuance, copies of purchase orders or other written instrument confirming procurement of the materials, including drawings and other pertinent information, covering materials on which inspection will be made.

2. No later than fourteen (14) Days prior to manufacture of material, Contractor shall inform City's Representative, in writing, the date the material is to be manufactured.
3. Contractors Obligations. The inspection of materials at any of the locations specified above or the waiving of the inspection thereof shall not impact whether the materials and equipment conform to the Contract Documents. Contractor will not be relieved from furnishing materials meeting the requirements of the Contract Documents due to City's inspection or lack of inspection of the equipment or materials. Acceptance of any materials will be made only after materials are installed in the Project.
4. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to accommodate City's testing efforts, including any travel required by Contractor's forces, shall be included in Contractor's bid and distributed in the Schedule of Pay Items related to the materials requiring testing. No additional compensation shall be made to the Contractor for this Work.

B. Materials to be Furnished by the City

1. The City will furnish "No Parking" signs to the Contractor; see Section 10-2.02, Barricading Excavations, Parking, & Notifications, of the Technical Specifications. The Contractor shall pick signs up at City Hall, 23 Russell Boulevard, Davis.

3.9 LOCAL CONDITIONS AND REQUIREMENTS

A. Access to Work and Haul Routes

1. General. All work on the rights-of-way necessary for access to the Site shall be performed by the Contractor.
2. Access, Damage, Restoration. The Contractor shall make his own investigation of the condition of available public or private roads and of clearances, restrictions, bridge-load limits, permit or bond requirements, and other limitations that affect or may affect transportation and ingress or egress at the Site. Claims for changes in Contract Price or Contract Times arising out of the unavailability of transportation facilities or limitations thereon shall not be considered by City.
3. All trucks exceeding 3 tons GVW shall not use the Richard's Boulevard exit from I-80 to travel to the site due to a height limitation at the railroad undercrossing. Trucks shall use the Mace Boulevard exit from I-80 or the Russell Boulevard exit from Route 113 to travel to and from this site. The Contractor shall require all material suppliers and sub-contractors to comply with the authorized truck route. The Contractor shall maintain and repair any damage arising out of Contractor's operations to all roads used during construction of the Project, and upon completion of all Work, but prior to final acceptance, the roads shall be

restored to their original condition. Prior to using any road for access to the Site, the Contractor shall conduct a photograph and/or video survey of the roadway with a copy submitted to City's Representative.

4. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to complete this Work, shall be included in Contractor's bid and distributed in the Schedule of Pay Items. No additional compensation shall be made to the Contractor for this Work.
- B. Power. Contractor shall provide at its own expense all necessary power required for operations under the contract. The Contractor shall provide and maintain in good order such modern equipment and installations as shall be adequate in the opinion of the Engineer to perform in a safe and satisfactory manner the Work required by the contract.
- C. Construction Water.
1. Construction water shall not be used for purposes other than those required to satisfactorily complete the contract.
 2. All connections to the City's water system used for the purposes of obtaining construction water shall utilize a temporary construction meter and backflow prevention device supplied by the City. The City-furnished backflow prevention device shall be tested immediately after installation and the construction meter and backflow prevention device shall not be placed into service until the backflow prevention device passes such tests. Backflow prevention device testing shall be performed in accordance with the most recent edition of the Manual of Cross-Connection Control as published by the University of Southern California by a person selected from City of Davis "City-Approved Certified Backflow Assembly Testers" list, and test results shall be provided to the Engineer. If the temporary construction meter and backflow prevention device are moved to alternate location(s) during construction, the backflow prevention device shall again be tested as described above immediately after re-installation.
 3. For each temporary construction meter requested by the Contractor for the performance of work under this contract, an amount equivalent to the deposit requirement for temporary construction meters listed in the current approved version of the City's Policies and Procedures Manual shall be withheld from the final contract payment until the temporary construction meters are returned.
- D. Operation of Existing Water Facilities
1. The Contractor shall not operate any of the existing water systems, including pumps, motors, and hydrants, but shall contact the City two (2) working days in advance with a list and location of the water system facilities that will require operating, opening, stopping, or closure by the City.
 2. At the option of the Engineer, the Contractor may be permitted to operate valves for the purpose of making connections to existing mains. The City will perform all notification to existing customers regarding temporary loss of service.

3. Contractor shall submit a request on City's standard form for any shut-down of existing water facilities.
4. Refer to Technical Specifications Section 10-2.02 for additional requirements concerning notifications.

E. Construction at Existing Utilities

1. General. Where the Work to be performed crosses or otherwise interferes with water, sewer, gas, or oil pipelines; buried cable; or other public or private utilities, the Contractor shall perform construction in such a manner so that no damage will result to either public or private utilities. It shall be the responsibility of the Contractor to determine the actual locations of, and make accommodations to maintain, all utilities.
2. Permission, Notice and Liability. Before any utility is taken out of service, permission shall be obtained by the Contractor from the owner. The owner, any impacted resident or business owner and the City Representative will be advised of the nature and duration of the utility outage as well as the Contractor's plan for providing temporary utilities if required by the owner. The Contractor shall be liable for all damage which may result from its failure to maintain utilities during the progress of the Work, and the Contractor shall indemnify City as required by the Contract Documents from all claims arising out of or connected with damage to utilities encountered during construction; damages resulting from disruption of service; and injury to persons or damage to property resulting from the negligent, accidental, or intentional breaching of utilities.
3. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to complete this Work, shall be included in Contractor's bid and distributed in the Schedule of Pay Items. No additional compensation shall be made to the Contractor for this Work.

F. Traffic Control

1. General. Contractor shall abide by traffic control plans approved by the appropriate jurisdiction.
2. Protections. Roads subject to interference by the Work shall be kept open or suitable temporary passages through the Work shall be provided and maintained by the Contractor. The Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient flasher lights, flag persons, danger signals, and signs, and shall take all necessary precautions for the protection of the Work and the safety of the public. No construction work along public or private roads may proceed until the Contractor has proper barricades, flasher lights, flag persons, signals, and signs in place at the construction site.
3. Except when a road closure is approved by the Engineer, one lane of traffic (minimum 16 feet per lane) must be open to vehicular and bicycle traffic for the entire length of the project at all times. Striping and/or cones, barricades, and flagmen properly marked must be used to delineate the traffic lane.

The Contractor shall post Road Closure and Detour signs as indicated on the Contractor's approved Traffic Control Plan.

4. Whenever a partial street closure is required to perform the work, at least one vehicular travel lane and one bike lane shall be maintained in each direction for the traveling public. The minimum lane widths shall be 10 feet for motorized vehicles and 6 feet for bicycles. Temporary delineation shall be provided between the vehicle lane and adjacent bicycle lane. Any such temporary partial street closures shall be indicated on the Traffic Control Plan.

All other construction zone warning signs and devices shall comply with the "California Manual of Uniform Traffic Control Devices," Chapter 6, "Temporary Traffic Control, latest edition."

No traffic lanes may be closed between 03:00 p.m. Friday and 09:00 a.m. Monday; or between 05:00 a.m. and 09:00 a.m. or 3:00 p.m. and 9:00 p.m. Monday through Friday; without written permission from the Engineer.

Lane closures require a traffic control plan to be submitted 14 days in advance of the work. Only closures plans demonstrated to be in conformance with public safety and public convenience will be approved.

When a travel lane is used for interchangeable direction to traffic, you must provide flaggers at each street intersection to expedite the safe passage of public traffic through the work under one-way controls. Where flaggers are not visible to each other, they must be equipped with two-way radios for communication, or you must furnish a properly equipped and signed pilot car and driver to pilot traffic through those project areas where two flaggers are not visible to each other or at any time as directed by the Engineer. When directed by the Engineer and as necessary to protect the work, additional flaggers must be provided to control traffic entering and leaving side streets and no additional compensation shall be provided therefore.

Stopped public traffic must not exceed a period of five (5) minutes when traffic is being handled by one-lane/alternating two-way control.

Lanes or streets must be closed long enough to protect the work.

Do not open new HMA pavement to traffic until the surface temperature is below 130 degrees F.

Contractor shall order work so that all lanes shall be opened to traffic by the times specified above without damaging the surface.

5. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to complete this Work, shall be included in Contractor's bid and distributed in the Schedule of Pay Items. No additional compensation shall be made to the Contractor for this Work.

G. Cleaning Up

1. Contractor at all times shall keep premises free from debris such as waste, rubbish, and excess materials and equipment. Contractor shall not store debris under, in, or about the premises. Contractor shall also clean all asphalt and concrete areas to the degree necessary to remove oil, grease, fuel, or other stains caused by Contractor operations or equipment. The use of water, resulting in mud on streets, will not be permitted as substitute for sweeping or other methods. Dust control may require having a water truck onsite for the duration of the project, and/or use of temporary hoses and pipelines to convey water.
2. Contractor shall fully clean up the site at the completion of the Work. If the Contractor fails to immediately clean up at the completion of the Work, the City may do so and the cost of such clean up shall be charged back to the Contractor.

3.10 ENVIRONMENTAL QUALITY PROTECTION

A. Environmental Conditions

1. Contractor must comply with all applicable environmental laws, Project conditions, and constraints, including, but not limited to:
 - NEPA Categorical Exemption/Categorical Exclusion Determination Form; 03-YOL-City of Davis; STPL 5238 (061); dated March 21, 2016.
 - CEQA Notice of Exemption; Mace Boulevard Complete Streets; Dated March 17, 2016.
2. City has considered these Environmental Conditions when determining the Contract Times and no additional time or compensation will be added to the Contract due to these Conditions.

B. Landscape and Vegetation Preservation

1. General. The Contractor shall exercise care to preserve the natural landscape and vegetation, and shall conduct operations so as to prevent unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the Work.
2. Damage and Restoration. Movement of crews and equipment within the rights-of-way and over routes provided for access to the Work shall be performed in a manner to prevent damage to property. When no longer required, construction roads shall be restored to original contours.
3. Upon completion of the Work, and following removal of construction facilities and required cleanup, land used for construction purposes and not required for the completed installation shall be scarified and regraded, as required, so that all surfaces are left in a condition that will facilitate natural revegetation, provide for proper drainage, and prevent erosion.

4. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to complete this Work, shall be included in Contractor's bid and distributed in the Schedule of Pay Items. No additional compensation shall be made to the Contractor for this Work.

C. Protected Species

1. General. If, in the performance of the Work, evidence of the possible occurrence of any Federally listed threatened or endangered plant or animal is discovered, the Contractor shall notify the City Representative immediately, giving the location and nature of the findings. Written confirmation of the evidence, location and nature of the findings shall be forwarded to City within 2 Days.
2. Procedures. The Contractor shall immediately cease all construction activities in the immediate area of the discovery to the extent necessary to protect the endangered plant or animal.

If directed by the City Representative, Contractor will refrain from working in the immediate area, suspend the Work in its entirety, or alter its performance to ensure full compliance with all applicable permits, laws and regulations. Any City directed changes to the Work as a result of a siting will be pursuant to the Contract Documents.

3. False Siting. Any costs or delays incurred by City or the Contractor due to unreasonable or false notification of an endangered plant or animal will be borne by the Contractor.
4. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to comply with this paragraph, shall be included in Contractor's bid and distributed in the Schedule of Pay Items. No additional compensation shall be made to the Contractor for this Work.

D. Preservation of Historical and Archeological Resources

1. General. If, in the performance of the Work, Contractor should unearth cultural resources (for example, human remains, animal bones, stone tools, artifacts and/or midden deposits) through excavation, grading, watering or other means, the Contractor notify the Construction/Archeological Monitor and/or the City Representative immediately, giving the location and nature of the findings. Written confirmation of the evidence, location and nature of the findings shall be forwarded to the Construction/Archeological Monitor and/or City within 2 Days.

Attachment A is the Unanticipated Discovery Plan that outlines what the Contractor is responsible for in the event of an unanticipated discovery of cultural resources. Payment to the Contractor for work performed, should this event(s) occur, will be handled by change order.

2. Procedures. The Contractor shall immediately cease all construction activities in the immediate area of the discovery to the extent necessary to protect the cultural resource.

If directed by the City Representative, Contractor will refrain from working in the immediate area, suspend the Work in its entirety, or re-sequence and/or alter its performance to ensure full compliance with all applicable permits, laws and regulations. Should the presence of cultural resources be confirmed, the Contractor will assist the City Representative and the Construction/Archeological Monitor in the preparation and implementation of a data recovery plan. The Contractor shall provide such cooperation and assistance as may be necessary to preserve the cultural resources for removal or other disposition. Any City directed changes to the Work as a result of the cultural resource will be pursuant to the Contract Documents.

3. Contractor's Liability. Should Contractor, without permission, injure, destroy, excavate, appropriate, or remove any cultural resource on or adjacent to the Site, it will be subject to disciplinary action, arrest and penalty under applicable law. The Contractor shall be principally responsible for all costs of mitigation and/or restoration of cultural resources related to the unauthorized actions identified above. Contractor shall be required to pay for unauthorized damage and mitigation costs to cultural resources (historical and archeological resources) as a result of unauthorized activities that damage cultural resources and shall indemnify City pursuant to the Contract Documents.
4. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to comply with this paragraph, shall be included in Contractor's bid and distributed in the Schedule of Pay Items. No additional compensation shall be made to the Contractor for this Work.

E. Dust and Pollution Control

1. Contractor shall provide all necessary material, equipment and labor to prevent and control the emission of dust and any other potential pollutant on site.
2. Contractor shall not discharge into the atmosphere from any source smoke, dust or other air contaminants in violation of the law, rules, and regulations of the governing agency.
3. Cost. Unless otherwise called for by the Contract Documents, the cost of all material, equipment, and labor required to comply with this paragraph, shall be included in Contractor's bid and distributed in the Schedule of Pay Items. No additional compensation shall be made to the Contractor for this Work.

F. Fugitive Dust

NOT USED.

G. Management of Storm, Surface and Other Waters

1. Storm water, surface water, groundwater, and nuisance, or other waters may be encountered at various times during construction of the Project. Federal and State laws require the City and its contractors to manage such waters pursuant to the requirements of California State Water Resources Control Board Order Number 2009-0009-DWQ, the Federal Clean Water Act, and the California Porter Cologne

Water Quality Control Act. Contractor acknowledges that it has investigated the risk arising from such waters in conjunction with the Project, and assumes any and all risks and liabilities arising therefrom.

2. The Contractor shall perform all construction operations in such a manner as to comply, and ensure all subcontractors to comply, with all applicable Federal, State, and local laws, orders, and regulations concerning the control and abatement of water pollution; and all terms and conditions of any applicable permits issued for the Project. In the event there is a conflict between Federal, State, and local laws, regulations, and requirements, the most stringent shall apply.
3. Contractor violations. If noncompliance should occur, the Contractor shall report this to the City Representative immediately, with the specific information submitted in writing within 2 Days. Consistent violations of applicable Federal, State, or local laws, orders, regulations, or Water Quality Standards may result in City stopping all site activity until compliance is ensured. The Contractor shall not be entitled to any change in Contract Price or Contract Times, claim for damage, or additional compensation by reason of such a work stoppage. Corrective measures required to bring activities into compliance shall be at the Contractor's expense.
4. Compliance with Construction General Storm water Permit. Contractor shall be required to comply with all aspects of the State Water Resources Control Board (State Board) Water Quality Order No. 2009-0009-DWQ, National Pollutant Discharge Elimination System General Permit for Storm Water Discharges Associated with Construction Activity (Permit) for all projects that involve construction on or disturbance of one acre or more of land or which are part of a larger common area of development.
 - (a) Contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) for the Project site based on the appropriate Risk Level requirements, and draft and coordinate submittal of all Permit related documents with City's Legally Responsible Person and/or Authorized Signatory as those terms are defined in the Permit. The Contractor shall submit the SWPPP to the City Representative for review not less than fifteen (15) Days prior to the start of on- site construction work. City will file the Notice of Intent and pay the filing fee.
 - (b) The SWPPP shall be developed by a Qualified SWPPP Developer and implemented by a Qualified SWPPP Practitioner as those terms are defined in the Permit and shall include industry standard requirements for water quality control including but not be limited to the following:
 - (1) Sediment and erosion control measures to manage sediment and erosion including vegetative practices, structural control, silt fences, straw dikes, sediment controls or operator controls as appropriate. Storm water management measures shall be instituted as required, including velocity dissipaters, and solid waste controls shall address controls for building materials and offsite tracking of sediment.

A. EROSION CONTROL BLANKETS

Erosion control blankets shall be North American Green single net

straw blanket, or equivalent. Erosion Control Blankets shall be installed and staked according to manufacturer's recommendations for slopes.

B. FIBER ROLLS

Fiber rolls shall be netted tubes, at least 12 inches in diameter, filled with straw or equivalent biodegradable product. Installation shall be in accordance with "Improvement Standards, Section 11, Stormwater Quality, Erosion and Sediment Control", County of Yolo.

C. SAND OR GRAVEL BAGS

Use standard sand or gravel bags bound with wire. Sand or gravel bags shall be installed as necessary around catch basins, in the flowline of v-ditches, and inlets to intercept and detain sediment.

D. SILT FENCE

Silt fence shall be per "Improvement Standards, Section 11, Stormwater Quality, Erosion and Sediment Control", County of Yolo. Silt fences shall be installed to intercept and detain sediment prior to entering storm drainage.

E. ROCK FILTER AND GRAVEL CONSTRUCTION FENCE

Rock to be used for the rock filters and for the protection of the construction entrance shall consist of Class 1, Type B Drain Rock conforming to Caltrans Section 68, unless otherwise noted.

As erosion control measures near capacity for silt retention, the Contractor shall remove the silt materials. The Contractor shall remove the materials from the site or to an area that is designated by the City. The Contractor shall then reestablish the silt fences, fiber rolls, straw bales, or riprap to its original state.

Silt fences, fiber rolls, sand or gravel bags, and riprap shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately, to the satisfaction of the City.

- (2) Wastewater and storm water management controls to divert offsite surface flows around the Project site and to divert surface flows within the Project area away from areas of open earth or stockpiles of building and other materials. Wastewater from general construction activities, such as drain water collection, aggregate processing, concrete batching, drilling, grouting, or other construction operations, shall not enter flowing or dry watercourses without having met the authorized non-storm water discharge requirements listed in State Board Water Quality Order No. 2009-0009-DWQ, Section III.C., including proper notification to the Regional Water Board.
- (3) Pollution prevention measures including methods of dewatering, unwatering, excavating, or stockpiling earth and rock materials which

- include prevention measures to control silting and erosion, and which will intercept and settle any runoff of sediment-laden waters.
- (4) Turbidity prevention measures for prevention of excess turbidity including, but are not restricted to, intercepting ditches, settling ponds, gravel filter entrapment dikes, flocculating processes, recirculation, combinations thereof, or other approved methods that are not harmful to aquatic life. All such wastewaters discharged into surface waters, shall contain the least concentration of settleable material possible, and shall meet all conditions of section 402, the National Pollutant Discharge Elimination System (NPDES) permit.
 - (5) Overall construction site management measures to address changes at the Project site as the Project moves through different phases and changes that account for rainy and dry season management practices.
 - (6) Pollution control measures and construction activity methods that will prevent entrance, or accidental spillage, of solid matter, contaminants, debris, or other pollutants or wastes, into streams, flowing or dry watercourses, lakes, wetlands, reservoirs, or underground water sources. Such pollutants and wastes include, but are not restricted to: refuse, garbage, cement, sanitary waste, industrial waste, hazardous materials, radioactive substances, oil and other petroleum products, aggregate processing, tailings, mineral salts, and thermal pollution.
 - (7) Control measures for stockpiled or deposited materials prohibiting the stockpile or deposit of excavated materials, or other construction materials, near or on stream banks, lake shorelines, or other watercourse perimeters where they can be washed away by high water or storm runoff, or can, in any way, encroach upon the watercourse.
 - (8) Develop and implement a Rain Event Action Plan (REAP), if required, that must be designed and implemented to protect all exposed portions of the site 48 hours prior to any likely precipitation event.
 - (9) Monitoring, reporting and record keeping, as necessary to achieve compliance with applicable Permit requirements, including but not limited to annual reports and rain event reports.
- (c) Before any Permit related documents, including the SWPPP, rain event reports, or annual reports may be submitted to the State Board or implemented on the Project site, they must first be reviewed and approved by City.
 - (d) City retains the right to procure and maintain coverage under the Permit for the Project site if the Contractor fails to draft a SWPPP or other Permit related document, or fails to proceed in a manner that is satisfactory to City. City reserves the right to implement its own SWPPP at the Project site, and hire additional contractors to maintain compliance. Whether Contractor has adequately maintained compliance with the Permit shall be City's sole determination. In the event that Contractor has failed or is unable to maintain compliance with the Permit, any costs or fines incurred by City in implementing a SWPPP, or otherwise maintaining compliance with the Construction General Permit shall be paid by the Contractor.

- (e) Failure to implement the SWPPP or otherwise comply with the Permit is a violation of federal and state law. Contractor hereby agrees to indemnify City as required by the Contract Documents for any noncompliance or alleged noncompliance with the Permit arising out of or in connection with the Project, except for liability resulting from the sole established negligence, willful misconduct or active negligence of City. City may seek damages from Contractor for delay in completing the Contract in accordance with the Contract Documents, caused by Contractor's failure to comply with the Permit.
5. In addition to compliance with the Permit, Contractor shall comply with the lawful requirements of any applicable municipality, district, drainage district, flood control district, and other local agencies regarding discharges of storm water, surface water, groundwater or other nuisance waters off of the Project site.
 6. Oil storage tanks management.
 - (a) Storage tank placement. All oil or other petroleum product (hereinafter referred to collectively as oil) storage tanks shall be placed at least 20 feet from streams, flowing or dry watercourses, lakes, wetlands, reservoirs, and any other water source.
 - (b) Storage area dikes. Storage areas shall be diked at least 12 inches high or graded and sloped to permit safe containment of leaks and spills equal to the capacity of all tanks and/or containers located within each area, plus a sufficient amount of freeboard to contain the 25-year rainstorm.
 - (c) Diked area barriers. Diked areas shall have an impermeable barrier at least 10 mils thick. Areas used for refueling operations shall have an impermeable liner at least 10 mils thick buried under 2 to 4 inches of soil.
 - (d) Spill Prevention Control and Countermeasure Plan (SPCC). Where the location of a construction site is such that oil from an accidental spillage could reasonably be expected to enter into or upon the navigable waters of the United States or adjoining shorelines, and the aggregate storage of oil at the site is over 1,320 gallons or a single container has a capacity in excess of 660 gallons, the Contractor shall prepare an SPCC Plan. The Contractor shall submit the SPCC Plan to the Engineer at least 30 days prior to delivery or storage of oil at the site. The Plan must have been reviewed and certified by a registered professional engineer in accordance with 40 C.F.R., part 112
 7. Underground tank prohibition. The Contractor shall not use underground storage tanks.
 8. Construction safety standards. The Contractor shall comply with the sanitation and potable water requirements of Section 7 of United States Bureau of Reclamation's publication "Reclamation Safety And Health Standards."
 9. Other Permits.
 - (a) Other permits applicable to the Project are listed in the Special Conditions. The Contractor shall obtain all other necessary licenses and permits.

- (b) Monitoring. The Contractor is required to conduct monitoring in order to meet the requirements of the permits, which may include sampling, testing and inspections.
 - (c) Recordkeeping. The Contractor shall retain all records and data required by the permits for the time specified in the contract.
10. Cost. Except as specified herein, the cost of complying with this section shall be included in the Schedule of Pay Items for work which necessitate the water pollution prevention measures required by this paragraph.

END OF GENERAL REQUIREMENTS

**EXHIBIT "A"
CHANGE ORDER FORM**

City of Davis

*23 Russell Boulevard
Davis, CA 95616
(949) 493-1171*

Contract Change Order #

| | | | |
|-----------------------------|-------------------------------|----|------|
| Project: | Change Order No.: | | |
| | Orig. Contract Amt.: | \$ | Days |
| Contract No.: | | | |
| Contractor: | Prev. Appvd. Changes: | \$ | Days |
| Owner: City of Davis | This Change: | \$ | Days |
| | Revised Contract Amt.: | \$ | Days |

This Change Order covers changes to the subject contract as described herein. The Contractor shall construct, furnish equipment and materials, and perform all work as necessary or required to complete the Change Order items for a lump sum price agreed upon between the Contractor and City of Davis, otherwise referred to as Owner.

| Item No. | Description of Changes | Increase/ (Decrease) in Contract Amount | Contract Time Extension, Days |
|----------|------------------------|--|--|
| 1 | | | |
| 2 | | | |
| | Totals | \$ | |

This Contract Change Order consists of **2 pages** and any exhibits attached to this Contract Change Order shall not be part of the Contract Change Order unless specifically initialed by or on behalf of both the Contractor and the City of Davis.

Contract Change Order # _____ Page 1 of 2

The amount of the contract will be increased by the sum of \$_____ and the contract time shall be extended by working days. The undersigned Contractor approves the foregoing Change Order # as to the changes, if any, in the contract price specified for each item including any and all supervision costs and other miscellaneous costs relating to the change in work, and as to the extension of time allowed, if any, for completion of the entire work on account of said Change Order #. The Contractor agrees to furnish all labor and materials and perform all other necessary work, inclusive of the directly or indirectly related to the approved time extension, required to complete the Change order items. This document will become a supplement of the contract and all provisions will apply hereto. It is understood that the Change Order shall be effective when approved by the Owner.

Contractor accepts the terms and conditions stated above as full and final settlement of any and all claims arising out of or related to the subject of this Change Order and acknowledges that the compensation (time and cost) set forth herein comprises the total compensation due for the work or change defined in the Change Order, including all impact on any unchanged work. By signing this Change Order, the Contractor acknowledges and agrees that the stipulated compensation includes payment for all Work contained in the Change Order, plus all payment for any acceleration or interruption of schedules, extended overhead costs, delay, and all impact or cumulative impact on all Work under this Contract. The signing of this Change Order acknowledges full mutual accord and satisfaction for the change and that the stated time and/or cost constitute the total equitable adjustment owed the Contractor as a result of the change. The Contractor hereby releases and agrees to waive all rights, without exception or reservation of any kind whatsoever, to file any further claim or request for equitable adjustment of any type, for any reasonably foreseeable cause that shall arise out of, or as a result of, this Change Order and/or its impact on the remainder of the Work under the Contract.

Accepted:

 (Signature) Contractor's Authorized Representative _____
Date

Recommended:

 (Signature) Public Works Inspector _____
Date

Recommended:

 (Signature) Project Engineer _____
Date

Approved:

 (Signature) CIP Manager _____
Date

| Item No. | Justification for Change(s) |
|----------|-----------------------------|
| 1 | |
| 2 | |

This Contract Change Order consists of **2 pages** and any exhibits attached to this Contract Change Order shall not be part of the Contract Change Order unless specifically initialed by or on behalf of both the Contractor and the City of Davis.

ATTACHMENT A UNANTICIPATED DISCOVERY PLAN

In the event that any cultural resources that may qualify as historic properties are discovered during monitoring of project construction (e.g., clearing, grading, trenching, etc.), potentially destructive construction work within 25 feet of the find will cease until the find has been evaluated and a course of action decided upon. The construction monitor will take action to see that a physical marker (e.g., exclusionary flagging) is erected to prohibit further potentially destructive activities. These activities will be prohibited until notification that construction activities can resume is received (see below).

The construction monitor will give notice to the Public Works Inspector who will make a preliminary assessment of the discovered resource and call in an archaeologist if needed. The City may then notify the State Historic Preservation Office (SHPO) within 48 hours to alert them to the situation and in coordination with city of Davis and the archaeologist. The potential significance of the find will be evaluated, and appropriate treatment measures, if any, will be determined.

In the event that any human remains and associated funerary objects are discovered during implementation of the project, potentially damaging activities in the vicinity of the remains will be stopped immediately. After the location of the find has been secured, a qualified archaeologist or physical anthropologist will be engaged to make an assessment as to whether the remains have the potential to be Native American in origin. If the remains are assessed as potentially Native American, the archaeologist will then immediately implement the following measures: (1) A physical marker (e.g., exclusionary flagging) will be erected to prohibit potentially damaging activities from occurring within 25 feet of the resource; (2) Notify city of Davis, the SHPO, the California Native American Heritage Commission, the county coroner of the discovery, and consult with the designated Most Likely Descendant. If the remains are assessed as clearly non-Native American, an attempt will be made to identify other most likely descendants (e.g., landowners) expeditiously. Construction activities will resume in the area of the identified human remains only after proper treatment of the materials has been achieved and a notice to proceed is received.

The treatment and disposition of human remains and associated funerary objects will be undertaken with respect, in consultation with the appropriate Native American tribe(s) or Most Likely Descendant. Preservation *in situ* is the preferred practice for human remains and any associated funerary objects. Accordingly, no human remains will be disinterred unless such remains would be subject to disturbance by project activities. If human remains are inadvertently encountered but are not subject to further project disturbance, they will be documented archaeologically, promptly covered over, and left undisturbed.

EXHIBIT 12-G REQUIRED FEDERAL-AID CONTRACT LANGUAGE
(For Local Assistance Construction Projects)

The following language must be incorporated into all Local Assistance Federal-aid construction contracts. The following language, with minor edits, was taken from the Code of Federal Regulations.

| | | |
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1. DISADVANTAGED BUSINESS ENTERPRISES (DBE)

Under 49 CFR 26.13(b):

The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

Take necessary and reasonable steps to ensure that DBEs have opportunity to participate in the contract (49 CFR 26).

To ensure equal participation of DBEs provided in 49 CFR 26.5, the Agency shows a goal for DBEs.

Make work available to DBEs and select work parts consistent with available DBE subcontractors and suppliers.

Meet the DBE goal shown elsewhere in these special provisions or demonstrate that you made adequate good faith efforts to meet this goal.

It is your responsibility to verify that the DBE firm is certified as DBE at date of bid opening. For a list of DBEs certified by the California Unified Certification Program, go to:

http://www.dot.ca.gov/hq/bep/find_certified.htm.

All DBE participation will count toward the California Department of Transportation's federally mandated statewide overall DBE goal.

Credit for materials or supplies you purchase from DBEs counts towards the goal in the following manner:

- 100 percent counts if the materials or supplies are obtained from a DBE manufacturer.
- 60 percent counts if the materials or supplies are obtained from a DBE regular dealer.
- Only fees, commissions, and charges for assistance in the procurement and delivery of materials or supplies count if obtained from a DBE that is neither a manufacturer nor regular dealer. 49 CFR 26.55 defines "manufacturer" and "regular dealer."

You receive credit towards the goal if you employ a DBE trucking company that performs a commercially useful function as defined in 49 CFR 26.55(d)(1) through (4) and (6).

a. DBE Commitment Submittal

Submit the Exhibit 15-G *Construction Contract DBE Commitment* form, included in the Bid book. If the form is not submitted with the bid, remove the form from the Bid book before submitting your bid.

If the DBE Commitment form is not submitted with the bid, the apparent low bidder, the 2nd low bidder, and the 3rd low bidder must complete and submit the DBE Commitment form to the Agency. DBE Commitment form must be received by the Agency no later than 4:00 p.m. on the 4th business day after bid opening.

Other bidders do not need to submit the DBE Commitment form unless the Agency requests it. If the Agency requests you to submit a DBE Commitment form, submit the completed form within 4 business days of the request.

Submit written confirmation from each DBE stating that it is participating in the contract. Include confirmation with the DBE Commitment form. A copy of a DBE's quote will serve as written confirmation that the DBE is participating in the contract.

If you do not submit the DBE Commitment form within the specified time, the Agency will find your bid nonresponsive.

b. Good Faith Efforts Submittal

If you have not met the DBE goal, complete and submit the DBE Information - Good Faith Efforts, Exhibit 15-H, form with the bid showing that you made adequate good faith efforts to meet the goal. Only good faith efforts directed towards obtaining participation by DBEs will be considered. If good faith efforts documentation is not submitted with the bid, it must be received by the Agency no later than 4:00 p.m. on the 4th business day after bid opening.

If your DBE Commitment form shows that you have met the DBE goal or if you are required to submit the DBE Commitment form, you must also submit good faith efforts documentation within the specified time to protect your eligibility for award of the contract in the event the Agency finds that the DBE goal has not been met.

Good faith efforts documentation must include the following information and supporting documents, as necessary:

1. Items of work you have made available to DBE firms. Identify those items of work you might otherwise perform with your own forces and those items that have been broken down into economically feasible units to facilitate DBE participation. For each item listed, show the dollar value and percentage of the total contract. It is your responsibility to demonstrate that sufficient work to meet the goal was made available to DBE firms.
2. Names of certified DBEs and dates on which they were solicited to bid on the project. Include the items of work offered. Describe the methods used for following up on initial solicitations to determine with certainty if the DBEs were interested, and the dates of the follow-up. Attach supporting documents such as copies of letters, memos, facsimiles sent, telephone logs, telephone billing statements, and other evidence of solicitation. You are reminded to solicit certified DBEs through all reasonable and available means and provide sufficient time to allow DBEs to respond.
3. Name of selected firm and its status as a DBE for each item of work made available. Include name, address, and telephone number of each DBE that provided a quote and their price quote. If the firm selected for the item is not a DBE, provide the reasons for the selection.
4. Name and date of each publication in which you requested DBE participation for the project. Attach copies of the published advertisements.
5. Names of agencies and dates on which they were contacted to provide assistance in contacting, recruiting, and using DBE firms. If the agencies were contacted in writing, provide copies of supporting documents.
6. List of efforts made to provide interested DBEs with adequate information about the plans, specifications, and requirements of the contract to assist them in responding to a solicitation. If you have provided information, identify the name of the DBE assisted, the nature of the information provided, and date of contact. Provide copies of supporting documents, as appropriate.
7. List of efforts made to assist interested DBEs in obtaining bonding, lines of credit, insurance, necessary equipment, supplies, and materials, excluding supplies and

equipment that the DBE subcontractor purchases or leases from the prime contractor or its affiliate. If such assistance is provided by you, identify the name of the DBE assisted, nature of the assistance offered, and date assistance was provided. Provide copies of supporting documents, as appropriate.

8. Any additional data to support demonstration of good faith efforts.

The Agency may consider DBE commitments of the 2nd and 3rd bidders when determining whether the low bidder made good faith efforts to meet the DBE goal.

c. Exhibit 15-G - Construction Contract DBE Commitment

Complete and sign Exhibit 15-G *Construction Contract DBE Commitment* included in the contract documents regardless of whether DBE participation is reported.

Provide written confirmation from each DBE that the DBE is participating in the Contract. A copy of a DBE's quote serves as written confirmation. If a DBE is participating as a joint venture partner, the Agency encourages you to submit a copy of the joint venture agreement.)

d. Subcontractor and Disadvantaged Business Enterprise Records

Use each DBE subcontractor as listed on Exhibit 12-B *Bidder's List of Subcontractors (DBE and Non-DBE)* and Exhibit 15-G *Construction Contract DBE Commitment* form unless you receive authorization for a substitution.

The Agency requests the Contractor to:

1. Notify the Engineer of any changes to its anticipated DBE participation
2. Provide this notification before starting the affected work
3. Maintain records including:
 - Name and business address of each 1st-tier subcontractor
 - Name and business address of each DBE subcontractor, DBE vendor, and DBE trucking company, regardless of tier
 - Date of payment and total amount paid to each business

If you are a DBE contractor, include the date of work performed by your own forces and the corresponding value of the work.

Before the 15th of each month, submit a Monthly DBE Trucking Verification form.

If a DBE is decertified before completing its work, the DBE must notify you in writing of the decertification date. If a business becomes a certified DBE before completing its work, the business must notify you in writing of the certification date. Submit the notifications. On work completion, complete a Disadvantaged Business Enterprises (DBE) Certification Status Change, Exhibit 17-O, form. Submit the form within 30 days of contract acceptance.

Upon work completion, complete Exhibit 17-F *Final Report – Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subcontractors*. Submit it within 90 days of contract acceptance. The Agency will withhold \$10,000 until the form is submitted. The Agency releases the withhold upon submission of the completed form.

e. Performance of Disadvantaged Business Enterprises

DBEs must perform work or supply materials as listed in the Exhibit 15-G *Construction Contract DBE Commitment* form, included in the Bid.

Do not terminate or substitute a listed DBE for convenience and perform the work with your own forces or obtain materials from other sources without authorization from the Agency.

The Agency authorizes a request to use other forces or sources of materials if it shows any of the following justifications:

1. Listed DBE fails or refuses to execute a written contract based on plans and specifications for the project.
2. You stipulated that a bond is a condition of executing the subcontract and the listed DBE fails to meet your bond requirements.
3. Work requires a contractor's license and listed DBE does not have a valid license under Contractors License Law.
4. Listed DBE fails or refuses to perform the work or furnish the listed materials.
5. Listed DBE's work is unsatisfactory and not in compliance with the contract.
6. Listed DBE is ineligible to work on the project because of suspension or debarment.
7. Listed DBE becomes bankrupt or insolvent.
8. Listed DBE voluntarily withdraws with written notice from the Contract
9. Listed DBE is ineligible to receive credit for the type of work required.
10. Listed DBE owner dies or becomes disabled resulting in the inability to perform the work on the Contract.
11. Agency determines other documented good cause.

Notify the original DBE of your intent to use other forces or material sources and provide the reasons. Provide the DBE with 5 days to respond to your notice and advise you and the Agency of the reasons why the use of other forces or sources of materials should not occur. Your request to use other forces or material sources must include:

1. One or more of the reasons listed in the preceding paragraph.
2. Notices from you to the DBE regarding the request.
3. Notices from the DBEs to you regarding the request.

If a listed DBE is terminated or substituted, you must make good faith efforts to find another DBE to substitute for the original DBE. The substitute DBE must perform at least the same amount of work as the original DBE under the contract to the extent needed to meet the DBE goal.

The substitute DBE must be certified as a DBE at the time of request for substitution.

Unless the Agency authorizes (1) a request to use other forces or sources of materials or (2) a good faith effort for a substitution of a terminated DBE, the Agency does not pay for work listed on the Exhibit 15-G *Construction Contract DBE Commitment* form unless it is performed or supplied by the listed DBE or an authorized substitute.

2. **BID OPENING** The Agency publicly opens and reads bids at the time and place shown on the *Notice to Bidders*.
3. **BID RIGGING** The U.S. Department of Transportation (DOT) provides a toll-free hotline to report bid rigging activities. Use the hotline to report bid rigging, bidder collusion, and other fraudulent activities. The hotline number is (800) 424-9071. The service is available 24 hours 7 days a week and is confidential and anonymous.. The hotline is part of the DOT's effort to identify and investigate

highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General.

4. **CONTRACT AWARD** If the Agency awards the contract, the award is made to the lowest responsible and responsive bidder.

5. **CONTRACTOR LICENSE**

The Contractor must be properly licensed as a contractor from contract award through Contract acceptance (Public Contract Code § 10164).

6. **CHANGED CONDITIONS**

- a. *Differing Site Conditions*

1. During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the contract or if unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the contract, are encountered at the site, the party discovering such conditions shall promptly notify the other party in writing of the specific differing conditions before the site is disturbed and before the affected work is performed.
 2. Upon written notification, the engineer will investigate the conditions, and if it is determined that the conditions materially differ and cause an increase or decrease in the cost or time required for the performance of any work under the contract, an adjustment, excluding anticipated profits, will be made and the contract modified in writing accordingly. The engineer will notify the contractor of the determination whether or not an adjustment of the contract is warranted.
 3. No contract adjustment which results in a benefit to the contractor will be allowed unless the contractor has provided the required written notice.
 4. No contract adjustment will be allowed under this clause for any effects caused on unchanged work. (This provision may be omitted by the Local Agency, at their option.)

- b. *Suspensions of Work Ordered by the Engineer*

1. If the performance of all or any portion of the work is suspended or delayed by the engineer in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional compensation and/or contract time is due as a result of such suspension or delay, the contractor shall submit to the engineer in writing a request for adjustment within 7 calendar days of receipt of the notice to resume work. The request shall set forth the reasons and support for such adjustment.
 2. Upon receipt, the engineer will evaluate the contractor's request. If the engineer agrees that the cost and/or time required for the performance of the contract has increased as a result of such suspension and the suspension was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the engineer will make an adjustment (excluding profit) and modify the contract in writing accordingly. The contractor will be notified of the engineer's determination whether or not an adjustment of the contract is warranted.
 3. No contract adjustment will be allowed unless the contractor has submitted the request for adjustment within the time prescribed.
 4. No contract adjustment will be allowed under this clause to the extent that performance would have been suspended or delayed by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

c. Significant Changes in the Character of Work

1. The engineer reserves the right to make, in writing, at any time during the work, such changes in quantities and such alterations in the work as are necessary to satisfactorily complete the project. Such changes in quantities and alterations shall not invalidate the contract nor release the surety, and the contractor agrees to perform the work as altered.
2. If the alterations or changes in quantities significantly change the character of the work under the contract, whether such alterations or changes are in themselves significant changes to the character of the work or by affecting other work cause such other work to become significantly different in character, an adjustment, excluding anticipated profit, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the contractor in such amount as the engineer may determine to be fair and equitable.
3. If the alterations or changes in quantities do not significantly change the character of the work to be performed under the contract, the altered work will be paid for as provided elsewhere in the contract.
4. The term "significant change" shall be construed to apply only to the following circumstances:
 - When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or
 - When a major item of work, as defined elsewhere in the contract, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity shall apply only to that portion in excess of 125 percent of original contract item quantity, or in case of a decrease below 75 percent, to the actual amount of work performed.

7. BEGINNING OF WORK, TIME OF COMPLETION AND LIQUIDATED DAMAGES

The Contractor shall begin work within 15 calendar days after the contract has been approved by the attorney appointed and authorized to represent the City of Davis.

This work shall be diligently prosecuted to completion before the expiration of **60 WORKING DAYS** beginning on the fifteenth calendar day after approval of the contract.

The Contractor shall pay to the City of Davis the sum of **\$ 4,500 per day**, for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above.

8. BUY AMERICA

Furnish steel and iron materials to be incorporated into the work with certificates of compliance. Steel and iron materials must be produced in the U.S. except:

1. Foreign pig iron and processed, pelletized, and reduced iron ore may be used in the domestic production of the steel and iron materials [60 Fed Reg 15478 (03/24/1995)];
2. If the total combined cost of the materials does not exceed the greater of 0.1 percent of the total bid or \$2,500, materials produced outside the U.S. may be used.

Production includes:

1. Processing steel and iron materials, including smelting or other processes that alter the physical form or shape (such as rolling, extruding, machining, bending, grinding, and drilling) or chemical composition;
2. Coating application, including epoxy coating, galvanizing, and painting, that protects or enhances the value of steel and iron materials.

9. **QUALITY ASSURANCE**

The Agency uses a Quality Assurance Program (QAP) to ensure a material is produced to comply with the Contract.

You may examine the records and reports of tests the Agency performs if they are available at the job site.

Schedule work to allow time for QAP.

10. **PROMPT PAYMENT OF FUNDS WITHHELD TO SUBCONTRACTORS**

The agency shall hold retainage from the prime contractor and shall make prompt and regular incremental acceptances of portions, as determined by the agency, of the contract work, and pay retainage to the prime contractor based on these acceptances. The prime contractor, or subcontractor, shall return all monies withheld in retention from a subcontractor within 30 days after receiving payment for work satisfactorily completed and accepted including incremental acceptances of portions of the contract work by the agency. Federal law (49CFR26.29) requires that any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of this provision shall subject the violating prime contractor or subcontractor to the penalties, sanctions and other remedies specified in Section 7108.5 of the Business and Professions Code. These requirements shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the prime contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

11. **FORM FHWA-1273 REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONTRACTS**

(Excluding ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS)

[The following 10 pages must be physically inserted into the contract without modification.]

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency

and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the

contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in

a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these

and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good

faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily

excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

12. FEMALE AND MINORITY GOALS

To comply with Section II, "Nondiscrimination," of "Required Contract Provisions Federal-Aid Construction Contracts," the following are for female and minority utilization goals for Federal-aid construction contracts and subcontracts that exceed \$10,000:

The nationwide goal for female utilization is 6.9 percent.

The goals for minority utilization [45 Fed Reg 65984 (10/3/1980)] are as follows:

MINORITY UTILIZATION GOALS

| Economic Area | | Goal (Percent) |
|---------------|---|----------------|
| 174 | Redding CA: Non-SMSA (Standard Metropolitan Statistical Area) Counties: CA Lassen; CA Modoc; CA Plumas; CA Shasta; CA Siskiyou; CA Tehama | 6.8 |
| 175 | Eureka, CA Non-SMSA Counties: CA Del Norte; CA Humboldt; CA Trinity | 6.6 |
| 176 | San Francisco-Oakland-San Jose, CA: SMSA Counties: 7120 Salinas-Seaside-Monterey, CA CA Monterey | 28.9 |
| | 7360 San Francisco-Oakland CA Alameda; CA Contra Costa; CA Marin; CA San Francisco; CA San Mateo | 25.6 |
| | 7400 San Jose, CA CA Santa Clara, CA | 19.6 |
| | 7485 Santa Cruz, CA CA Santa Cruz | 14.9 |
| | 7500 Santa Rosa CA Sonoma | 9.1 |
| | 8720 Vallejo-Fairfield-Napa, CA CA Napa; CA Solano | 17.1 |
| | Non-SMSA Counties: CA Lake; CA Mendocino; CA San Benito | 23.2 |
| 177 | Sacramento, CA: SMSA Counties: 6920 Sacramento, CA CA Placer; CA Sacramento; CA Yolo | 16.1 |
| | Non-SMSA Counties CA Butte; CA Colusa; CA El Dorado; CA Glenn; CA Nevada; CA Sierra; CA Sutter; CA Yuba | 14.3 |
| 178 | Stockton-Modesto, CA: SMSA Counties: 5170 Modesto, CA CA Stanislaus | 12.3 |
| | 8120 Stockton, CA CA San Joaquin | 24.3 |
| | Non-SMSA Counties | 19.8 |
| | CA Alpine; CA Amador; CA Calaveras; CA Mariposa; CA Merced; CA Tuolumne | |

| | | | |
|---|---|------------------|--|
| 179 | Fresno-Bakersfield, CA | | |
| | SMSA Counties: | | |
| | 0680 Bakersfield, CA | 19.1 | |
| | CA Kern | | |
| 180 | 2840 Fresno, CA | 26.1 | |
| | CA Fresno | | |
| | Non-SMSA Counties: | | |
| | CA Kings; CA Madera; CA Tulare | 23.6 | |
| | 181 | Los Angeles, CA: | |
| | | SMSA Counties: | |
| 0360 Anaheim-Santa Ana-Garden Grove, CA | | 11.9 | |
| CA Orange | | | |
| 4480 Los Angeles-Long Beach, CA | | 28.3 | |
| CA Los Angeles | | | |
| 6000 Oxnard-Simi Valley-Ventura, CA | | 21.5 | |
| CA Ventura | | | |
| 6780 Riverside-San Bernardino-Ontario, CA | | 19.0 | |
| CA Riverside; CA San Bernardino | | | |
| 181 | 7480 Santa Barbara-Santa Maria-Lompoc, CA | 19.7 | |
| | CA Santa Barbara | | |
| | Non-SMSA Counties | 24.6 | |
| | CA Inyo; CA Mono; CA San Luis Obispo | | |
| 181 | San Diego, CA: | | |
| | SMSA Counties | | |
| | 7320 San Diego, CA | 16.9 | |
| | CA San Diego | | |
| 181 | Non-SMSA Counties | 18.2 | |
| | CA Imperial | | |

For the last full week July during which work is performed under the contract, you and each non material-supplier subcontractor with a subcontract of \$10,000 or more must complete Form FHWA PR-1391 (Appendix C to 23 CFR 230). Submit the forms by August 15.

13. FEDERAL TRAINEE PROGRAM

For the Federal training program, the number of trainees or apprentices is **zero (0)**.

This section applies if a number of trainees or apprentices is specified in the special provisions.

As part of your equal opportunity affirmative action program, provide on-the-job training to develop full journeymen in the types of trades or job classifications involved.

You have primary responsibility for meeting this training requirement.

If you subcontract a contract part, determine how many trainees or apprentices are to be trained by the subcontractor.

Include these training requirements in your subcontract.

Where feasible, 25 percent of apprentices or trainees in each occupation must be in their 1st year of apprenticeship or training.

Distribute the number of apprentices or trainees among the work classifications on the basis of your needs and the availability of journeymen in the various classifications within a reasonable recruitment area.

Before starting work, submit to the City of Davis:

1. Number of apprentices or trainees to be trained for each classification
2. Training program to be used
3. Training starting date for each classification

Obtain the City of Davis' approval for this submitted information before you start work. The City of Davis credits you for each apprentice or trainee you employ on the work who is currently enrolled or becomes enrolled in an approved program.

The primary objective of this section is to train and upgrade minorities and women toward journeyman status. Make every effort to enroll minority and women apprentices or trainees, such as conducting systematic and direct recruitment through public and private sources likely to yield minority and women apprentices or trainees, to the extent they are available within a reasonable recruitment area. Show that you have made the efforts. In making these efforts, do not discriminate against any applicant for training.

Do not employ as an apprentice or trainee an employee:

1. In any classification in which the employee has successfully completed a training course leading to journeyman status or in which the employee has been employed as a journeyman
2. Who is not registered in a program approved by the US Department of Labor, Bureau of Apprenticeship and Training

Ask the employee if the employee has successfully completed a training course leading to journeyman status or has been employed as a journeyman. Your records must show the employee's answers to the questions.

In your training program, establish the minimum length and training type for each classification. The City of Davis and FHWA approves a program if one of the following is met:

1. It is calculated to:
 - Meet the your equal employment opportunity responsibilities
 - Qualify the average apprentice or trainee for journeyman status in the classification involved by the end of the training period
2. It is registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, and it is administered in a way consistent with the equal employment responsibilities of Federal-aid highway construction contracts

Obtain the State's approval for your training program before you start work involving the classification covered by the program.

Provide training in the construction crafts, not in clerk-typist or secretarial-type positions. Training is allowed in lower level management positions such as office engineers, estimators, and timekeepers if the training is oriented toward construction applications. Training is allowed in the laborer classification if significant and meaningful training is provided and approved by the division office. Off-site training is allowed if the training is an integral part of an approved training program and does not make up a significant part of the overall training.

The City of Davis reimburses you 80 cents per hour of training given an employee on this contract under an approved training program:

1. For on-site training

2. For off-site training if the apprentice or trainee is currently employed on a Federal-aid project and you do at least one of the following:
 - Contribute to the cost of the training
 - Provide the instruction to the apprentice or trainee
 - Pay the apprentice's or trainee's wages during the off-site training period

3. If you comply this section.

Each apprentice or trainee must:

1. Begin training on the project as soon as feasible after the start of work involving the apprentice's or trainee's skill
2. Remain on the project as long as training opportunities exist in the apprentice's or trainee's work classification or until the apprentice or trainee has completed the training program

Furnish the apprentice or trainee:

1. Copy of the program you will comply with in providing the training
2. Certification showing the type and length of training satisfactorily completed

14. TITLE VI ASSURANCES

During the performance of this Agreement, the contractor, for itself, its assignees and successors in interest (hereinafter collectively referred to as CONTRACTOR) agrees as follows:

- (1) Compliance with Regulations: CONTRACTOR shall comply with the regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the REGULATIONS), which are herein incorporated by reference and made a part of this agreement.
- (2) Nondiscrimination: CONTRACTOR, with regard to the work performed by it during the AGREEMENT, shall not discriminate on the grounds of race, color, sex, national origin, religion, age, or disability in the selection and retention of sub-applicants, including procurements of materials and leases of equipment. CONTRACTOR shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the agreement covers a program set forth in Appendix B of the Regulations.
- (3) Solicitations for Sub-agreements, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by CONTRACTOR for work to be performed under a Sub-agreement, including procurements of materials or leases of equipment, each potential sub-applicant or supplier shall be notified by CONTRACTOR of the CONTRACTOR'S obligations under this Agreement and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- (4) Information and Reports: CONTRACTOR shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the California Department of Transportation or FHWA to be pertinent to ascertain compliance with such Regulations or directives. Where any information required of CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, CONTRACTOR shall so certify to the California Department of Transportation or the FHWA as appropriate, and shall set forth what efforts CONTRACTOR has made to obtain the information.

- (5) Sanctions for Noncompliance: In the event of CONTRACTOR's noncompliance with the nondiscrimination provisions of this agreement, the California Department of Transportation shall impose such agreement sanctions as it or the FHWA may determine to be appropriate, including, but not limited to:
- (a) withholding of payments to CONTRACTOR under the Agreement within a reasonable period of time, not to exceed 90 days; and/or
 - (b) cancellation, termination or suspension of the Agreement, in whole or in part.
- (6) Incorporation of Provisions: CONTRACTOR shall include the provisions of paragraphs (1) through (6) in every sub-agreement, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto.

CONTRACTOR shall take such action with respect to any sub-agreement or procurement as the California Department of Transportation or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that, in the event CONTRACTOR becomes involved in, or is threatened with, litigation with a sub-applicant or supplier as a result of such direction, CONTRACTOR may request the California Department of Transportation enter into such litigation to protect the interests of the State, and, in addition, CONTRACTOR may request the United States to enter into such litigation to protect the interests of the United States.

15. USE OF UNITED STATES-FLAG VESSELS

The CONTRACTOR agrees-

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carries, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
2. To Furnish within 20 days following the date of loading for shipments originating within the United State or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
3. To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

16. SUBCONTRACTING

No subcontract releases the Contractor from the contract or relieves the Contractor of their responsibility for a subcontractor's work.

If the Contractor violates Pub Cont Code § 4100 et seq., the City of Davis may exercise the remedies provided under Pub Cont Code § 4110. The City of Davis may refer the violation to the Contractors State License Board as provided under Pub Cont Code § 4111.

The Contractor shall perform work equaling at least 30 percent of the value of the original total bid with the Contractor's own employees and equipment, owned or rented, with or without operators.

Each subcontract must comply with the contract.

Each subcontractor must have an active and valid State contractor's license with a classification appropriate for the work to be performed (Bus & Prof Code, § 7000 et seq.).

Submit copies of subcontracts upon request by the Engineer.

Before subcontracted work starts, submit a Subcontracting Request form.

Do not use a debarred contractor; a current list of debarred contractors is available at the Department of Industrial Relations' Web site.

Upon request by the Engineer, immediately remove and not again use a subcontractor who fails to prosecute the work satisfactorily.

Each subcontract and any lower tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts" in Section 14 of these special provisions. Noncompliance shall be corrected. Payment for subcontracted work involved will be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

17. PROMPT PROGRESS PAYMENT TO SUBCONTRACTORS

A prime contractor or subcontractor shall pay any subcontractor not later than 10 days of receipt of each progress payment in accordance with the provision in Section 7108.5 of the California Business and Professions Code concerning prompt payment to subcontractors. The 10 days is applicable unless a longer period is agreed to in writing. Any delay or postponement of payment over 30 days may take place only for good cause and with the agency's prior written approval. Any violation of Section 7108.5 shall subject the violating contractor or subcontractor to the penalties, sanction and other remedies of that section. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the contractor or subcontractor in the event of a dispute involving late payment or nonpayment by the prime contractor, deficient subcontract performance, or noncompliance by a subcontractor.

Maintain records and submit reports documenting your performance under this section

Exhibit 17-F Final Report-Utilization of Disadvantaged Business Enterprises (DBE) and First-Tier Subcontractors

| 1. Local Agency Contract Number | | 2. Federal-Aid Project Number | | 3. Local Agency | | | 4. Contract Completion Date | |
|---|--|---------------------------------------|------------------------------|-----------------------|-----|-------------------------|-----------------------------|--|
| 5. Contractor/Consultant | | | 6. Business Address | | | | 7. Final Contract Amount | |
| 8. Contract Item Number | 9. Description of Work, Service, or Materials Supplied | 10. Company Name and Business Address | 11. DBE Certification Number | 12. Contract Payments | | 13. Date Work Completed | 14. Date of Final Payment | |
| | | | | Non-DBE | DBE | | | |
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| 15. ORIGINAL DBE COMMITMENT AMOUNT \$ _____ | | | | 16. TOTAL | | | | |

List all first-tier subcontractors/subconsultants and DBEs regardless of tier whether or not the firms were originally listed for goal credit. If actual DBE utilization (or item of work) was different than that approved at the time of award, provide comments on an additional page. List actual amount paid to each entity. If no subcontractors/subconsultants were used on the contract, indicate on the form.

| | | | |
|--|---|-----------|----------|
| I CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND CORRECT | | | |
| 17. Contractor/Consultant Representative's Signature | 18. Contractor/Consultant Representative's Name | 19. Phone | 20. Date |
| I CERTIFY THAT THE CONTRACTING RECORDS AND ON-SITE PERFORMANCE OF THE DBE(S) HAS BEEN MONITORED | | | |
| 21. Local Agency Representative's Signature | 22. Local Agency Representative's Name | 23. Phone | 24. Date |

DISTRIBUTION: Original – Local Agency, Copy – Caltrans District Local Assistance Engineer. Include with Final Report of Expenditures

ADA NOTICE: For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 445-1233, Local Assistance Procedures Manual TTY 711, or write to Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

**INSTRUCTIONS – FINAL REPORT-UTILIZATION OF DISADVANTAGED BUSINESS ENTERPRISES
(DBE) AND FIRST-TIER SUBCONTRACTORS**

1. **Local Agency Contract Number** - Enter the Local Agency contract number or identifier.
2. **Federal-Aid Project Number** - Enter the Federal-Aid Project Number.
3. **Local Agency** - Enter the name of the local or regional agency that is funding the contract.
4. **Contract Completion Date** - Enter the date the contract was completed.
5. **Contractor/Consultant** - Enter the contractor/consultant's firm name.
6. **Business Address** - Enter the contractor/consultant's business address.
7. **Final Contract Amount** - Enter the total final amount for the contract.
8. **Contract Item Number** - Enter contract item for work, services, or materials supplied provided. Not applicable for consultant contracts.
9. **Description of Work, Services, or Materials Supplied** - Enter description of work, services, or materials provided. Indicate all work to be performed by DBEs including work performed by the prime contractor/consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
10. **Company Name and Business Address** - Enter the name, address, and phone number of all subcontracted contractors/consultants. Also, enter the prime contractor/consultant's name and phone number, if the prime is a DBE.
11. **DBE Certification Number** - Enter the DBE's Certification Identification Number. Leave blank if subcontractor is not a DBE.
12. **Contract Payments** - Enter the subcontracted dollar amount of the work performed or service provided. Include the prime contractor/consultant if the prime is a DBE. The Non-DBE column is used to enter the dollar value of work performed by firms that are not certified DBE or for work after a DBE becomes decertified.
13. **Date Work Completed** - Enter the date the subcontractor/subconsultant's item work was completed.
14. **Date of Final Payment** - Enter the date when the prime contractor/consultant made the final payment to the subcontractor/subconsultant for the portion of work listed as being completed.
15. **Original DBE Commitment Amount** - Enter the "Total Claimed DBE Participation Dollars" from Exhibits 15-G or 10-O2 for the contract.
16. **Total** - Enter the sum of the "Contract Payments" Non-DBE and DBE columns.
17. **Contractor/Consultant Representative's Signature** - The person completing the form on behalf of the contractor/consultant's firm must sign their name.
18. **Contractor/Consultant Representative's Name** - Enter the name of the person preparing and signing the form.
19. **Phone** - Enter the area code and telephone number of the person signing the form.
20. **Date** - Enter the date the form is signed by the contractor's preparer.
21. **Local Agency Representative's Signature** - A Local Agency Representative must sign their name to certify that the contracting records and on-site performance of the DBE(s) has been monitored.
22. **Local Agency Representative's Name** - Enter the name of the Local Agency Representative signing the form.
23. **Phone** - Enter the area code and telephone number of the person signing the form.
24. **Date** - Enter the date the form is signed by the Local Agency Representative.

**INSTRUCTIONS –DISADVANTAGED BUSINESS ENTERPRISES (DBE)
CERTIFICATION STATUS CHANGE**

1. **Local Agency Contract Number** - Enter the Local Agency contract number or identifier.
2. **Federal-Aid Project Number** - Enter the Federal-Aid Project Number.
3. **Local Agency** - Enter the name of the local or regional agency that is funding the contract.
4. **Contract Completion Date** - Enter the date the contract was completed.
5. **Contractor/Consultant** - Enter the contractor/consultant's firm name.
6. **Business Address** - Enter the contractor/consultant's business address.
7. **Final Contract Amount** - Enter the total final amount for the contract.
8. **Contract Item Number** - Enter contract item for work, services, or materials supplied provided. Not applicable for consultant contracts.
9. **DBE Contact Information** - Enter the name, address, and phone number of all DBE subcontracted contractors/consultants.
10. **DBE Certification Number** - Enter the DBE's Certification Identification Number.
11. **Amount Paid While Certified** - Enter the actual dollar value of the work performed by those subcontractors/subconsultants during the time period they are certified as a DBE.
12. **Certification/Decertification Date (Letter Attached)** - Enter either the date of the Decertification Letter sent out by the Office of Business and Economic Opportunity (OBEO) or the date of the Certification Certificate mailed out by OBEO.
13. **Comments** - If needed, provide any additional information in this section regarding any of the above certification status changes.
14. **Contractor/Consultant Representative's Signature** - The person completing the form on behalf of the contractor/consultant's firm must sign their name.
15. **Contractor/Consultant Representative's Name** - Enter the name of the person preparing and signing the form.
16. **Phone** - Enter the area code and telephone number of the person signing the form.
17. **Date** - Enter the date the form is signed by the contractor's preparer.
18. **Local Agency Representative's Signature** - A Local Agency Representative must sign their name to certify that the contracting records and on-site performance of the DBE(s) has been monitored.
19. **Local Agency Representative's Name** - Enter the name of the Local Agency Representative signing the form.
20. **Phone** - Enter the area code and telephone number of the person signing the form.
21. **Date** - Enter the date the form is signed by the Local Agency Representative.

Technical Specifications

Mace Boulevard Complete Street Improvements

Program No. 8257

[Federal Project No. 5238 (061)]

10-1 CONSTRUCTION AREA SIGNS

Signs shall conform to Section 7-7 Public Safety of the Standard Specifications. The signs shall be mounted on 4" by 4" wood posts, mounted to existing street light posts, or mounted on Type II Barricades. The exact location of the signs will be determined in the field by the Engineer.

Compensation for providing, installing, maintaining and removal of construction area signs shall be considered as included in the contract price for the various items of work involved and no separate payment will be made.

10-2 TRAFFIC CONTROL

The Contractor's attention is directed to Section 7-7, Public Safety, of the City of Davis Standard Specifications and the Specific Conditions. The Contractor shall cooperate with the City to maintain traffic in a safe and efficient manner. The Contractor shall make all reasonable effort to avoid traffic delays and shall have sufficient flaggers available to respond to emergency situations.

saangeable Message (PCM) signs shall be furnished, placed, operated, and maintained at locations designated by the Engineer. At a minimum, they will be required in two (2) locations. The following proposed locations are subject to change:

- South of the intersection of Redbud Drive and Mace Boulevard
- North of the intersection of Cowell Boulevard and Mace Boulevard

PCM Signs shall be placed at least 2 weeks prior to closing lanes on Mace Boulevard to provide advance warning to motorists. The message shall state: "MACE BOULEVARD FROM [STREET] TO [STREET], LANES CLOSED FOR ROADWAY WORK, [DATE] TO [DATE]".

The Contractor shall provide flaggers at any intersection at all times that only one lane of traffic is open. The Contractor shall open all lanes of traffic at the end of each working day using AC cold patches and steel plates as necessary or as directed by the engineer.

The Contractor shall be responsible for supplying and placing all proper detour signs, barricades, flagmen, cones and other warning devices necessary to ensure a smooth operation with as little inconvenience as possible to the traveling public prior to the work each day. This includes sidewalks, bike lanes, bike paths, and vehicle travel lanes.

The Contractor shall submit a Traffic Control Plan for all phases of construction together with a diagram indicating the layout for traffic control. This plan shall be subject to the approval of the Engineer prior to the beginning of construction work, at a pre-construction meeting.

The Contractor shall be totally responsible for traffic and failure or refusal to construct and maintain detours and controls at the proper time shall be sufficient cause for closing down the work until such detours and controls are in satisfactory condition for safe use by the public.

Traffic control will also include detours and signage for sidewalks closed due to sidewalk or curb ramp and truncated dome installation.

Traffic control plan shall include a truck access plan which will provide for truck access to and from the job site. The truck access plan shall provide a route for efficient work flow for grinding and paving operations at the job site.

Contractor shall coordinate with City for approval of dates for the full depth reclamation and paving to avoid conflict with any events.

10-2.01 ACCESSIBLE PATH OF TRAVEL DURING CONSTRUCTION

Contractor shall provide an ADA compliant path of travel for pedestrians around sidewalk construction and at street crossings during all phases of work including but not limited to temporary ramps, temporary striping, delineators, signage, and any other devices or accommodations necessary.

Compensation for providing, installing, maintaining and removal of temporary measures for providing an ADA compliant path of travel for pedestrians shall be considered as included in the contract price for Traffic Control and no separate payment will be made.

10-2.02 BARRICADING EXCAVATIONS, PARKING, & NOTIFICATIONS

The Contractor shall be responsible for the barricading and preservation of this work during all phases of the work (from demolition to acceptance). Barricades shall be in place two working days in advance of the work. Barricades shall be in good condition and of sufficient quantity to ensure safe passage through the construction zones. Immediately after the barricades have been placed, the Contractor shall notify the Inspector.

At all locations where parking zones will be disturbed, barricades shall be placed with "NO PARKING" signs, at least 48 hours prior to the construction taking place, and Contractor shall notify the Inspector when signs are in place. In addition, the Contractor shall notify adjacent businesses and residents of parking restrictions at least two working days in advance of construction. "NO PARKING" signs will be provided by the City; Contractor shall fill in date and time of work.

The removal of parked cars shall be coordinated through the Inspector for the Public Works and City Police Departments. Towing fees shall be paid for by the City. "NO PARKING" signs shall be removed within 24 hours of the completion of the work that required the parking removal.

Businesses located within a block of where Work will take place shall be notified one week prior to excavation. Schools located in the vicinity of the Work (Pioneer Elementary School) shall be notified one week prior to excavation. Where vehicle or pedestrian access to a residence is to be interrupted, residents shall be notified one week prior to excavation.

Contractor shall notify occupants (or managers) of properties (both business and residential) fronting locations of Work consisting of concrete repair one working day prior to excavation.

In addition, door hangers supplied by City shall be placed at residences and business 48 hours prior to actual grinding or overlay. Contractor shall include appropriate grinding AND paving schedule date and time.

If paving operation does not follow the full depth reclamation operation within 72 hours, "No Parking" signs shall be removed after grinding operation and replaced for paving operation, and new door hangers shall be placed by Contractor for paving operation. Paving operation shall not follow full depth reclamation operation by more than 10 working days.

Compensation for providing, installing, maintaining and removal of temporary barricades, no parking signs and notifications of nearby businesses and residences shall be considered as included in the contract price for Traffic Control and no separate payment will be made.

10-2.03 LEAVING SECTIONS "OPEN"

Due to the nature of matching existing sidewalks, curbs, and gutters, some locations may require being left "open" overnight or longer. In this event, CAUTION tape and lighted barricades shall be used to protect the site and pedestrian traffic. No excavation shall be left "open" over a weekend unless under unusual circumstances and approved by the Project Engineer.

Compensation for providing, installing, maintaining and removal of temporary barriers and caution tape shall be considered as included in the contract price for Traffic Control and no separate payment will be made.

10-2.04 COORDINATING DRIVEWAY ACCESS

Contractor is responsible for investigating and accommodating the specific access needs of the residents whose driveways are impacted by the construction activity. Prior to closure of driveways, coordinate and notify the property owner or resident at least twice of such closure. Closure notices shall be given to the property owner/resident 48 hours and one hour prior to each closure. The Contractor shall assess and accommodate all property owners' specific needs for driveway access. In no case shall a driveway remain closed for more than 8 hours unless otherwise authorized by the Engineer.

Compensation for providing, installing, maintaining and removal of temporary measures for providing driveway access shall be considered as included in the contract price for Traffic Control and no separate payment will be made.

10-03 CONSTRUCTION STAKING

The Contractor will be responsible for the accuracy of all layout work and will retain the services of a licensed surveyor or civil engineer to set lines and grades for all construction. Contractor is to cooperate with the City in coordinating staking with grading operators. Equipment operators and workers are to be skilled in grading operations and are to be supervised by a competent superintendent who is familiar with

the nature of the work, these provisions, and all permit conditions. All grading, sub-grading, and finished grading areas shall be controlled by such intermediate grade stakes and lines as may be necessary to obtain the slopes and levels required by the finished grade elevations shown on the plans.

All bench marks, monuments and other reference points shall be carefully protected and maintained at no increased cost and, if disturbed or destroyed, shall be replaced as directed by the Engineer and City at Contractor expense.

The Contractor shall have his own grade setter/checker onsite during all grading and filling operations. The grade setter/checker shall verify the horizontal and vertical improvements in progress so that improvements will be built to conform to the lines, width and grades on the plans. The Contractor shall make available the grade setter/checker to work with the Engineer on checking and verifying all grade stakes, form work, etc. when requested by the Engineer. The grade setter/checker shall provide all necessary equipment and tools to perform his/her work. All computations necessary to establish the exact position of the work from control points shall be made by the Contractor.

Compensation for all required surveying, grade staking, and job layout shall be considered as included in the contract price paid for the various items of work involved and no separate payment will be made.

10-04 POTHOLING

Existing underground utilities shall be located for protection and for eliminating interferences. Contractor shall pothole in locations where underground utilities are known or suspected. After the need for the pothole is complete, the Contractor shall backfill the pothole with the original earth, compact and resurface to match original surface.

10-05 "MONUMENTS" PROPERTY LINE MARKERS

It shall be the responsibility of the Contractor to protect all property boundary control monuments, whether or not denoted on plans, and preserve their locations in accordance with section 8771(B) of the California Business and Professions Code (BPC). In the case of location preservation, monuments shall be located and referenced by a licensed land surveyor prior to commencement of construction or demolition activities. Prior to final inspection of completed improvements and as a condition of approval, preserved monument locations shall be restored as described in section 8771(B) of the BPC by a licensed land surveyor, and a corner record filed with the Yolo County Surveyor.

10-06 REMOVALS

The Contractor's attention is directed to Protection of Work and Materials in the Planting Section of the City of Davis Parks Department Landscape Specifications and Standards. Any and all natural or manmade items that are necessary to be removed as part of the project, shall be removed and disposed of.

The Contractor shall remove and dispose of asphalt concrete, pavement reinforcement fabric, Portland cement concrete, and any other items shown on the plans for removal or as directed by the Engineer. Removed concrete shall become the property of the Contractor and be disposed of outside of the City right-of-way, with coordination with the Engineer, and in accordance with Federal, State and City regulations.

Full compensation for all required removals, including sawcutting, tree trimming, root pruning, and disposal of removed items, as shown on the plans or as directed by the Engineer, shall be considered as included in the contract price paid for the various items of work involved and no separate payment will be made. Removal of concrete and signs shall be measured and paid for separately.

10-06.01 SAWCUTTING

The Contractor shall vacuum up all water used in sawcutting and dispose of it offsite. No sawcutting water shall be allowed to drain to the storm sewer system.

10-06.02 TREE TRIMMING / ROOT PRUNING

If existing trees or shrubs, (including private trees) encroach into the public right-of-way and obstruct the Contractor's operations, the Contractor shall request permission to trim existing trees or shrubs at least five (5) working days in advance of the date of scheduled tree trimming. All tree and shrub trimming must have prior approval of the Engineer and City's Arborist and shall be performed by the Contractor or his subcontractor possessing a *C-27, Landscaping Contractor's License* or a *C-61, Limited Specialty Contractor's License*. A special notice pertaining to the tree trimming shall be delivered to the adjacent home or business at least five (5) working days prior to the trimming of the adjacent tree or shrub. The special notice shall be approved by the Engineer prior to delivery to the resident or business.

Tree root pruning shall be the responsibility of the Contractor. Tree roots shall be removed to a depth of 6" below subgrade. Tree roots are to be cut neatly with a saw, or shears to prevent disease to the tree. Any root 3" or larger shall be brought to the attention of the Engineer for further instructions.

Some locations may need extensive root work. The Contractor may investigate the locations prior to bidding. All costs for tree or shrub trimming or pruning and proper disposal shall be paid by the Contractor.

10-06.03 DISPOSAL OF WASTE MATERIALS

Disposal of waste material shall be the Contractor's responsibility per Section 7-13 of the Standard Specifications, except that materials that can be recycled shall be recycled and accounted for on the Debris Diversion Form provided. Load slips are required for the Debris Diversion Form.

10-07 GRINDING

Grinding shall precede paving operation by not more than 10 working days. Planing of asphalt concrete pavement shall be performed without the use of a heating device to soften the pavement. Planing shall be to the depth necessary to remove existing pavement reinforcement fabric from the roadway prior to full depth reclamation activity.

All iron on portions of street to receive full planing shall be lowered (remove lid and frame and concrete collar) and plated prior to grinding. The finished surface of the iron shall not extend above the grade established by the Engineer.

Any "green waste" or yard debris that is moved off of the street shall be moved back into the street on the same day.

Prior to grinding, Contractor is responsible for tying out all USA utility marks or other indications of utility locations such that the Contractor is aware of the locations of any utilities during patching, excavation, or other work.

Grinding shall not take place adjacent to "fresh" concrete until the concrete has been allowed to cure for a minimum of three (3) days.

10-07.1 FULL PAVEMENT PLANING EQUIPMENT

Cold planing machine must be equipped with a cutter head width that matches the planing width. If the only available cutter head width is wider than the cold plane area shown, submit to the Engineer a request for using a wider cutter head. Do not cold plane until the Engineer approves Contractor request.

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

Cold planing machine must be equipped to effectively control dust generated by the planing operation, must be operated so that no fumes or smoke is produced, and shall be maintained such that broken, missing, or worn machine teeth are replaced.

10-07.2 GRINDINGS

Pick-up of material shall follow **immediately** behind the planing operation, and shall be completed on the same work day.

The street shall be swept to clean up all loose material at the end of each work day. Compensation for all required street sweeping and job site cleanup shall be considered as included in the contract price paid for the various items of work involved and no separate payment will be made.

The Contractor shall deposit the "grindings" just north of the City limits at the Old Davis Landfill at 24998 County Road 102. Contractor shall deposit grindings in locations as directed by City staff, and shall be responsible for knocking down, spreading and/or moving grinding piles as directed by City staff.

10-08 UTILITY ADJUSTMENTS

The Contractor shall be responsible for adjusting and raising all maintenance holes, sewer cleanouts, valve boxes, monuments, and other utilities (collectively, "iron") affected by the roadway paving.

All iron encountered in the area for full depth reclamation shall be carefully referenced out by the Contractor and the locations of the cover painted on the surface immediately after paving. Utility reference information shall be approved by Engineer prior to paving.

All sewer, storm drain, water maintenance hole, valve, cleanout, and monument adjustments are the responsibility of the Contractor. Iron removed from the street for paving must be stored by the Contractor and not in the public right of way or resident's private property.

Adjustment to grade of other utility covers (i.e., Level 3 manholes) will be by others. You must notify the utility agencies prior to start of construction for any coordination effort. Prior to placing of asphalt concrete, notify utility agencies a minimum of five (5) working days in advance of paving operations so that the affected agencies can be prepared to reset covers to grade following paving.

Contact information of utility companies is:

Level 3 Communications: Mark Dykes
1075 Triangle Court
West Sacramento, CA 95605
Phone: (916) 668-6139

PG&E: Annalesa Morlock
5555 Florin-Perkins Road, Room 10
Sacramento, CA 95826
Phone: (530) 889-5150

Obtain a response. Advise the City if assistance with additional contact information is necessary. No additional payment will be made for coordinating utility adjustments by others.

Contractor shall utilize canvas baskets or other methods to insure that no debris falls into the maintenance holes and other structures during this operation.

The method of adjustment shall be removal and resetting in new concrete collars **in kind**, except that all iron shall receive a concrete collar regardless of whether one existed prior to the grinding and dimensions shall not be less than City standards. No additional payment or compensation will be made for removal or replacement of existing "oversized" collars.

*All city utilities that are within the limits of the cold plane and full depth reclamation operation shall be lowered (remove lid and frame) and plated before the cold plane operation.

10-09 EARTHWORK

Earthwork shall conform to the applicable provisions of Section 300 of the Standard Specifications and these Special Provisions.

Earthwork shall include excavation and grading associated with the concrete sidewalk, curb ramps, curb and gutters and other earthwork as necessary to complete the work described in these Special Provisions.

Excavated material shall become the property of the Contractor and shall be disposed of outside the right of way. Subject to the approval of the Engineer, suitable excavated material may be used as backfill where necessary.

Edges of excavation in existing roadway pavement shall be cut neat.

The Contractor shall notify the engineer immediately after identifying a grade conflict. The Contractor shall not be eligible for additional compensation for minor design changes other than those that cause a change in quantities.

In the event of a grade conflict, the Contractor shall pursue other work which is not affected by the conflict. If such alternative work is available, the Contractor shall not be eligible for additional compensation due to the grade conflict.

Import fill or on-site fill shall be moisture conditioned to near Optimum Moisture Content and on-site clay soil being used as fill should be moisture conditioned to above Optimum Moisture Content. Fill shall be placed in uniform horizontal layers not exceeding 8 inches in loose thickness, and compacted to at least 90 percent Relative Compaction. In areas where fill or backfill will underlie flatwork/slabs, the upper 6 inches of fill shall be kept moist until flatwork/slabs are placed.

If import fill is needed, it shall consist of soil that has a Liquid Limit of less than 40 and a Plasticity Index of less than 15 (as determined by ASTM D 4318-98), is free of organic material, and contains no rocks or clods larger than 4 inches in greatest dimensions. Moisture conditioning may be necessary to achieve compaction requirements.

No open trenches or other excavated areas shall be within or adjacent to the traveled way when work is not actively in progress.

Temporary plates to cover open trenches may only be installed when there is active work underway at the particular site and when specifically authorized by the Engineer.

SHORING

Contractor shall not begin the aforementioned excavation prior to receiving approval of the shoring plans by the Engineer. (Note that the Engineer's approval shall in no way limit the Contractor's responsibility for the shoring system.) If such plan complies with the shoring system standards established by the construction Safety Orders, the plan shall be submitted at least five (5) days before the Contractor intends to begin excavation for the trench. If such plan varies from the shoring system standards established by the construction Safety Orders, the plan shall be prepared and signed by the engineer who is registered as a Civil Engineer in the State of California and the plan and design calculations shall be submitted at least five (5) working days before the Contractor intends to begin excavation for the trench.

Compensation for all required earthwork shall be considered as included in the contract price paid for the various bid items of work included and no additional payment will be made.

10-10 MINOR CONCRETE

The Contractor's attention is directed to Sections 201 and 303 of the City of Davis Standard Specifications for construction of concrete curb, truck apron, median island surface, sidewalk and curb ramps.

The Contractor shall set forms, compact aggregate base and construct concrete in conformance with, and to the stated tolerances of, the City of Davis Standard Specifications except that aggregate base shall be increased to four (4) inches in depth under sidewalk and median island surface. Concrete color and

texture shall be uniform in nature unless noted otherwise. All sawcuts of pavement and concrete shall be done in neat straight lines with minimal overcutting. Cutting water shall be vacuumed up.

The rubble from the excavation shall be removed immediately and the area left evenly graded. Where sub-grade needs to be raised, for any reason (including root pruning, unsuitable material removal, design change, etc.), backfill shall be Class II AB.

Existing sidewalk, curb, and gutter shall be doweled. Doweling shall conform to Standard Drawing 301-18, except that epoxying the dowels shall not be required and dowels shall be placed at spacing of 24-inch on center.

Concrete shall contain one pound of Lamp Black per yard of concrete, and no synthetic fibers are to be added. Match adjacent concrete finish and scoring as directed by Engineer.

The Contractor shall submit a concrete mix design and have approval for concrete mix prior to work.

Unless otherwise specified, all curb, truck apron, median island surface, sidewalk, and curb ramps shall be placed in a monolithic pour.

All flatwork replacement shall be placed on four inches (4") of aggregate base material. Subgrade and aggregate base shall each be compacted to achieve a relative compaction of not less than 95%. Class 2 Aggregate Base, per City Standard Specifications shall be used to fill the voids or bring to final subgrade. Removal of roots and/or other debris is necessary prior to compaction of subgrade.

For any gutter replacement, if the slopes do not appear to maintain drainage after form boards have been set, notify the Public Works Inspector prior to ordering concrete.

A clear curing compound per 90-1.02J of the State Specifications shall be used to cure all concrete. Pigmented curing compound shall not be used on this project.

The contractor shall provide for repair of landscaping that is damaged during construction including any necessary grading or irrigation changes that may be necessary. All disturbed or removed landscaped areas shall be replaced in kind. Existing sod can be saved and reused if in good condition. Other areas shall be reseeded to as-good or better condition as soon as possible. Damaged irrigation shall be repaired at Contractor's expense.

10-10.01 CURB RAMPS

Curb ramps shall comply with the Caltrans Standard Plans and details shown on the plans, but may be modified by the Engineer to fit field conditions.

An accessible pedestrian path-of-travel shall be maintained at all times by the Contractor during minor concrete work. Any exception must be approved in advance by the Engineer. Where necessary, temporary path of travel improvements may include but is not limited to, temporary curb ramps, protected walkways when pedestrians are directed into the vehicle travel way and signage to redirect pedestrian traffic. All temporary measures shall be compliant with state and federal ADA requirements. Pedestrian path of travel detours shall not create sight distance constraints for motorists. The Contractor is responsible for maintenance of all temporary pedestrian path improvements. The Contractor shall submit a demolition plan to the Engineer prior to demolition and subsequent construction of curb ramps. The

demolition plan shall clearly indicate temporary pedestrian path of travel at all times. The demolition shall commence upon approval of the demolition plan by the Engineer. Contractor shall allow (5) working days for review of the demolition plan. No additional working days will be allowed for review of the phasing plan. No curb ramps may be removed prior to approval of the phasing plan by the Engineer. Once the curb ramp phasing plan is approved by the Engineer, modifications to the phasing plan shall only be allowed with written approval from the Engineer.

Curb ramps shall include all construction details of each respective type of ramp to be installed as specified on the plans. Forms and finished slopes on new curb ramps will be checked in the field by the resident engineer using a 2-foot level. All curb ramp and passageway forms shall be checked by the Engineer prior to pouring concrete. Construction details include the installation of joints, grooves, retaining curb, if necessary, adjustment of utility boxes to new grade, relocation of street/traffic signs, conforming work with existing private improvements and any modifications to fit field conditions as directed by the Engineer.

10-10.02 DETECTABLE WARNING SURFACE

Detectable warning surfaces shall be wet set style, black in color, color shall be integral throughout, ADA Solutions Incorporated, or approved equal. Any detectable warning surface equivalent specification shall be submitted in writing for approval to the Engineer. A minimum of 5 working days shall be allowed for approval by the Engineer. The cost for furnishing and installing detectable warning surface within curb ramps shall be included in the contract price paid for curb ramps and no additional payment will be allowed.

10-10.03 REPLACEMENT OF EXISTING SPECIAL SIDEWALK MARKINGS

Contractor shall replace any "S" or "W" markings on the face of curb where they exist. These identify existing underground sewer or water service lines.

10-10.04 COLORED CONCRETE AND TEXTURED MEDIAN ISLAND SURFACE

Textured median island surface pattern shall match the stamped 'brick' pattern in the roadway medians at the intersection of E. Covell Boulevard and J Street. Contractor shall furnish a mock-up sample for textured median island surface as indicated below. Match concrete finish and scoring as directed by the Engineer.

Contractor shall submit product data and manufacturer's instructions for color additives and curing compounds.

Contractor shall follow all other manufacturer's recommendations regarding mixing, batching, curing and finishing. The Contractor for this work shall be experienced in colored concrete.

General

Quality Assurance: All work shall conform to the following standards:

- ASTM C494 - Standard specifications for chemical admixtures for concrete*
- ASTM C979 - Standard specifications for pigments for integrally colored concrete*
- ASTM C309 - Liquid membrane forming compounds for curing concrete*
- ACI 305 R - Hot weather concreting*
- ACI 306 R - Cold weather concreting*

ACI 318 - Building code requirements for reinforced concrete
NRMCA - CIP5 - Plastic shrinkage cracking

Submittals: Contractor shall submit for City review and approval the manufacturer's tech-data sheets and certificates of compliance to applicable ASTM requirements.

Mock-Up: Contractor shall provide and finish a 36" x 36" mock-up sample of stamped and colored concrete flatwork representative of each surface finish (as applicable), for approval by the Engineer. Sample shall demonstrate methods of obtaining consistent visual appearance, including materials, workmanship, and curing method.

Sample shall include application of "Color Seal II" as curing compound and sealant. Test sample shall be poured and finished at least 30 days prior to request for approval. Engineer shall not approve sample that has been poured for less than 30 days.

The City may require modifications to be made to the mock-up (i.e. alternate color choice.) The revised mock-ups shall be provided at no cost to the City. Once the City has approved the mock-up, the contractor shall retain approved mock-up during construction as standard for judging completed work.

Full compensation for meeting all of the provisions of this section including furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in developing an approved mock up is included in the per square foot price paid for the various items of work involved and no additional payment will be made.

Materials:

Integral Color Admixture: All concrete designated as colored concrete in plans or specifications shall be integrally colored and contain the proper proportions for color-conditioned concrete. It shall be certified that the colored admixtures comply with the requirements of paragraph 407 of ACI 318-83 (Building code requirements for reinforced concrete) as water-reducing admixtures, and that their water-reducing components have tested for compliance with ASTM C494. The color-conditioned admixture shall be a single-component pigmented, water-reducing concrete admixture, factory formulated, and packaged in cubic yard increments, not multiple additives and pigments to dose separately into the mix. The pigment portion of the colored admixture shall comply with ASTM C979. Application shall conform to manufacturer's spec data sheets. Color shall be as indicated on the plans.

Concrete Curing/Sealing Materials: Flatwork shall be cured and sealed with an acrylic co-polymer curing compound "Color Seal II" as manufactured by Davis Colors or approved equal. Application and coverage shall conform to the manufacturer's specifications.

Mixing of Integrally Colored Concrete:

The concrete color admixture shall be added at the concrete batch plant. Minimum batch size shall be three (3) yards. All integrally colored concrete shall contain the proper proportion of admixture for conditioned concrete as determined by the manufacturer. The color-conditioned admixture shall be a single-component, colored, water-reducing, set-controlling admixture, factory formulated and pre-packaged in disintegrating bags, pre-measured in cubic yard dosage increments, not multiple additives and pigments added separately into the mix. As a formulated water-reducing admixture, it shall conform to ASTM C 494. As formulated coloring agents, the admixture shall conform to ASTM C 979. Admixtures shall comply with the requirements of paragraph 407 of ACI 318-83 (Building code

requirements for reinforced concrete) as water-reducing components have tested for compliance. The concrete shall contain 5 sacks of cement per cubic yard. The slump shall not exceed four inches.

The batching procedures shall be as follows: Before adding color-conditioning admixture, the mixing drum must be thoroughly cleaned and wetted with approximately 40 gallons of the mix water and/or a portion of the aggregates. One bag of the color admixture correctly packaged for the mix design should be added per yard of concrete. Proceed with normal batching of balance of ingredients. After loading is complete, mix at mixing speed for a minimum of 15 minutes. No water should be added after a portion of the load has been discharged.

The same brand of cement, source of sand, and water/cement ratios should be maintained for each load of concrete of the same color. Calcium chloride shall not be permitted as it causes mottling and surface discoloration. Weather conditions shall be considered when scheduling pour. Concrete admixtures shall be added at the concrete batch plant and never added to an empty drum or at the tail end of a load.

Installation:

The contractor shall mask and protect all new concrete walks, curbs, work of other trades and improvements. Any new paving damaged from subsequent construction activities shall be replaced at no cost to the City.

The subgrade should be well drained and have adequate and uniform load-bearing characteristics as specified. The subgrade must be compacted as specified. It must be moist, completely consolidated, and free of frost at the time of concreting. The subgrade must be dampened by water in advance of concreting, but concrete should not be placed over freestanding water or muddy, frozen or soft spots. The concrete should be placed and consolidated so that it completely fills all space inside the forms and provides a suitable surface for finishing. The concrete adjacent to the forms must be spaded.

When depositing, the concrete should be deposited near its final position to avoid segregation due to re-handling or flowing. If held-back water is added at the jobsite, the concrete shall be mixed at mixing speed for a minimum of 30 revolutions after addition of the water and before depositing. The slump of the concrete should be consistent throughout the project at four inches or less, and should not exceed four inches (4") for any load. Concrete that has started to set must not be re-tempered, and should be discarded. Surrounding areas must be protected by cover, to be removed at the end of the day.

Measuring and adjusting the air content of the load is recommended immediately prior to placement. No water shall be added after a portion of the load has been discharged.

Finishing:

Strike off concrete to specified level using wooden strike off bar, immediately following strike off, further level and consolidate concrete with wooden bull float or wood darby. Begin floating operation before free moisture rises to the surface. After the concrete has reached a point where bleed water disappears, finishing may proceed.

Surface shall receive a stamped concrete texture as indicated on the drawings. For uniformity of appearance, consistent finishing practices must be used when applying specified finish. Hard steel troweling should be minimized to avoid trowel burns. **Water must not be sprinkled or otherwise added to the surface while finishing.** All surfaces should be finished within reasonably the same time after placing.

Curing:

Paving shall be cured with one application of “Color Seal II” manufactured by Davis Colors tinted to match colored concrete or approved equal. Follow manufacturer’s specifications regarding application. Surrounding areas, landscaping, and adjacent surfaces must be masked or protected from overspray, spills, tracking, and equipment contact.

The curing membrane must be applied as soon as the surface of the concrete has sufficiently set so it can be walked on gently without marring, the surface moisture has evaporated, and no condensation or sweating can occur. During application, all surfaces must be in the same stage of hardening. Prior to application, loosen pigment from bottom of pail with stirring tool and stir until color of liquid becomes homogeneous. Color of liquid will appear lighter than final shade when dry.

Color Seal II must be applied full strength using an airless sprayer. **The contractor shall not use a hand-held pump sprayer for this application.** The airless sprayer must be of professional quality with a variable output fluid pressure of 1500-2500 psi (100-170 bars). The sprayer should be fitted with a fan-tip of 0.013-0.018 inches. The recommended coverage rate per coat is 300-400 square feet per gallon depending on the porosity and texture of the surface.

Apply thinly and uniformly and do not allow to puddle or collect in joint indentations. Over-application will result in a thick coat that can remain tacky when heated by the sun. The surface should be divided into work sections using walls, joint lines, or other stationary features as natural stopping points.

During cold, foggy or damp weather, or during periods of falling temperatures, the concrete may sweat or condensation may form on the surface, thereby preventing the curing membrane from drying and adhering properly. Application of Color Seal II shall be made when condensation ceases, usually 24-48 hours after placement and when temperatures will not fall below 42 degrees.

Product may skin over in 30 minutes and harden in approximately 4 hours. Allow 24 hours to dry completely. Weather conditions can retard or advance dry time. Freshly placed, colored concrete should not be covered with plastic sheeting or waterproof paper. The use of plastic sheeting for protection is not recommended.

Curing with water is detrimental to color uniformity. Curing with burlap and other wet coverings, plastic sheeting, or other liquid-membrane type curing compounds is not recommended as mottling or staining normally occurs.

Sealing:

Flatwork shall be sealed with a second application of Color Seal II as manufactured by Davis Colors or approved equal.

Seal coat shall be made after the moisture content of the concrete is low enough so alkali and other salts do not become trapped beneath the sealer causing discoloration or clouding. This is normally 14-28 days after placement. Before sealing the concrete surface, all dirt, oil, and grease must be completely removed. Failure to remove all contaminants and coatings that may impede the penetration of the initial coat will cause appearance defects, adhesion loss, peeling, and reduced durability. All washed or wet areas should be allowed to dry thoroughly before application of sealant.

Surrounding areas, landscaping, and adjacent surfaces must be masked or protected from overspray, spills, tracking, and equipment contact. The surface should be divided into work sections using walls,

joint lines, or other stationary features as natural stopping points. This allows for easier control of coverage, wet edge, and overlap. A wet edge must be maintained and overlap controlled. Sealant must be applied thinly and uniformly and not allowed to puddle or collect in joint indentations.

Application should be on a calm day when concrete and ambient temperatures are between 50 and 90 degrees and will not fall below 42 degrees. Application should not be made during rainy, foggy, or very humid weather. On hotter, drier days, application should be made during the coolest part of the day and when the concrete is in the shade.

Coated surfaces will be tack free after approximately 1-2 hours. The area may be walked on gently after a minimum of approximately four hours. Sealant must be allowed to dry completely, normally a minimum of 12-18 hours, before it is subjected to temperatures below 42 degrees or to water such as hoses, sprinklers, condensation or rain. After the coating is completely dry, the area may be opened to light use after a minimum of 24 hours and to general use after a minimum of approximately 72 hours.

10-11 CLASS 2 AGGREGATE BASE

Class 2 Aggregate Base (Class 2 AB) shall conform to Section 26 of the Standard Specifications for ¾" Maximum Class 2 AB.

Spreading and compacting of Class 2 AB material shall be performed by methods that will produce a uniform base, firmly compacted, and free from pockets of coarse or fine material. Subgrade material shall be Class 2 AB in accordance with Section 26-1.02B of the Standard Specifications for ¾" maximum gradation (except where otherwise indicated on the plans) and compaction shall be moisture conditioned (if necessary) to above optimum moisture content and compacted to at least 95 percent relative compaction. The subgrade should not be allowed to dry out prior to pavement construction.

Other than for aggregate base placed beneath median island surfaces, Class 2 Aggregate Base shall not be measured. Compensation for all required aggregate base, unless installed beneath median island surfaces, shall be considered as included in the contract price paid for the various bid items of work included and no additional compensation shall be allowed.

10-12 FULL DEPTH RECLAMATION (FDR) OF PAVEMENT SECTION

10-12.01 DESCRIPTION

Work shall consist of pulverizing existing asphalt concrete, base, and subgrade soil to a total depth of 1.5 feet following cold planing of existing asphalt concrete for removal of pavement reinforcing fabric. Re-grade and haul away excess material to allow for the net placement of 0.4 feet (TI = 9.0) and 0.2 feet (TI=5.0) of new hot mix asphalt. Add cement and water to the blended material to a total depth of 1.25 feet (TI=9.0) and 0.70 feet (TI=5.0) in accordance with the specifications provided below. Compact, fine grade to the grades required, cure and micro-crack the completed cement treated surface, prior to placement of asphalt concrete.

This item shall consist of constructing a mixture of pulverized asphalt concrete, base material and/or subgrade soil, cement, and water in accordance with this specification, and in conformity with the lines, grades, thickness, and typical cross sections shown on the plans. Cement-treated subgrade shall be constructed in a series of parallel lanes such that longitudinal and transverse joints are minimized.

10-12.02 MATERIALS

10-12.02.1 PORTLAND CEMENT

Portland cement shall be Type II/V conforming to the requirements of Section 201-1 “Portland Cement Concrete” of the City of Davis Standard Specifications. There are no substitutions for Portland cement.

10-12.02.2 WATER

Water used for mixing or curing shall be reasonably clean and free of oil, salt, acid, alkali, sugar, vegetable, or other substances injurious to the finished product. Water shall conform to the provisions in Section 201-1.3, “Water,” of the City of Davis Standard Specifications.

10-12.02.3 PULVERIZED MATERIAL

Existing asphalt concrete surfacing shall be pulverized with underlying base materials and/or subgrade soil to the specified depths and widths in conformance to the Project Plans and Special Provisions.

The asphalt concrete surfacing and underlying base/soil materials shall be pulverized such that 95 percent of the material, exclusive of rock and aggregate, will pass a 2-inch sieve. The pulverized materials shall be free of roots, sod, weeds, wood, and construction debris.

10-12.02.4 SUBMITTALS

Contractor shall provide the following information:

1. Cement Supplier. Identification that the proposed cement has been successfully used on at least five (5) other FDR cement projects in California over the past three (3) years, including project name, agency/owner, project engineer, and construction dates.
2. Description of the proposed equipment and construction methods.
3. The Contractor (or Subcontractor) performing the FDR with cement shall have completed a minimum of five (5) FDR projects in the last three (3) years. Submit project name, agency/owner, project engineer, and construction dates. For deep-lift compaction (lift thickness greater than 12”) the Contractor shall provide the same information on a minimum of 5 projects the Contractor has compacted in one lift in the last 3 years.

The Contractor shall provide Just-In-Time Training (JITT) conducted by an instructor experienced in the construction methods, materials, and test methods associated with construction of FDR cement projects. The training shall be mandatory and consist of a formal joint training class on the process, required special equipment, placement and compaction methods, and quality control. Construction operations for FDR cement shall not begin until the Contractor's and the Engineer's personnel have completed the JITT. The JITT training class shall be conducted during normal working hours and at a location convenient for both the Contractor and the Engineer. The JITT class shall be completed not more than 7 days prior to the start of the FDR process. A copy of the course syllabus, handouts, and presentation material shall be submitted to the Engineer at least 7 days before the day of the training. The Contractor and the Engineer shall mutually agree to the course instructor, course content, and training site.

During the process, the Contractor shall furnish the following information to the Engineer on a daily basis:

- 1) Certified weight tickets of cement delivered to the project location.
- 2) A summary of quantity of FDR cement constructed each day.

10-12.03 CONSTRUCTION METHODS

10-12.03.1 GENERAL

Prior to beginning any cement treatment, the existing subgrade shall be shaped to conform to the typical sections, lines, and grades as shown on the plans. The Engineer shall check and verify the conformance of the material to the lines, grade, and elevation as shown on the plans, prior to beginning cement treatment.

Trimming and disposal of excess material, if required, will be performed on the intimate mixture of pulverized asphalt concrete, base materials and subgrade soil prior to cement treatment. Excess pulverized material is the surplus that results after trimming and grading the pulverized section to the lines and grades shown on the plans. The subgrade should be trimmed sufficiently to allow for the added cement volume, proper material compaction, and subsequent layers of leveling and surface course asphalt concrete overlays.

10-12.03.2 APPLICATION

Cement shall be distributed with a non-pressurized mechanical vane-feed spreader equipped with on-board scales and controls capable of spreading the cement at a prescribed weight per unit area. Cement shall not be spread upon the prepared material more than 2 hours prior to the mixing operation. No traffic other than the mixing equipment shall be allowed to pass over the spread cement until the mixing operation is completed.

Cement shall be applied at a rate of not less than 6.5 percent based on the in-place dry unit weight of soil and for the depth of subgrade treatment shown on the plans. For estimating purposes, an in-place dry unit weight of soil of 128 pcf should be used as a basis for the application rate.

The cement content shall vary no more than 0.5 percent under and not more than 1.0 percent over the specified cement content (example: tolerance on spread rate of 6.0% is 5.5% to 7.0%). However, the moving average of the rate of cement content tests/inspections shall not be less than the specified cement content. The Engineer reserves the right to increase the rate of application of cement from the specified rate during the progress of construction as necessary to maintain the desired characteristic of the stabilized subgrade.

10-12.03.3 MIXING

Mixing of the soil, cement, and water shall be done with a four-wheel drive rotary mixer (Wirtgen 240, CAT 500 or equivalent). The mixing machine shall have equipment provisions for introducing water at the time of mixing through a metering device.

The full depth of the treated subgrade shall be mixed a minimum of two times with the approved mixing machine. At least one of the two mixes shall be done while introducing water into the soil through the metering device on the mixer. The optimum moisture content of the soil-cement mixture is 6.0%. Water shall be added to the subgrade during mixing to provide a moisture content not less than 1 percentage point below nor more than two percentage points above (-1 to +3 of OMC) the optimum moisture of the soil-cement mixture (ASTM D 1557) to ensure chemical action of the cement and soil.

To ensure a uniformly treated section, any material/soil around manholes, utility risers, valves and adjacent to curbs/gutters or in corners, must have that material/soil pulled out by the Contractor, at the depth of treatment, where it is accessible to be mixed with the reagent. After that material is mixed with the reagent, it will be placed back and compacted by the contractor.

10-12.03.4 COMPACTION

The mixture shall be compacted in one layer. The Contractor shall regulate the sequencing of the cement treatment operations, such that the final compaction of the soil-cement mixture to the specified density will be completed within 2 1/2 hours after the initial application of water during the mixing operation.

Compaction shall be by means of steel drum, pad foot and/or segmented wheel rollers of sufficient capacity to compact the full depth. Areas inaccessible to rollers shall be compacted to the required density by other means satisfactory to the Engineer. The field dry density of the compacted mixture shall be at least 95 percent in the upper 12” and at least 90 percent for the balance of the depth of treatment of the maximum dry density as determined in accordance with ASTM D 1557. Should the cement treated subgrade yield under the weight of the compaction equipment, compaction effort will cease in an effort not to compromise the section; in this case, the maximum achievable field density will be accepted or an alternate remedial plan will be proposed by the Engineer.

10-12.03.5 FINISHING AND CURING

After the final layer of cement treated subgrade has been compacted, it shall be brought to the required lines and grades in accordance with the typical section, and shall be kept moist. The completed section shall then be finished by rolling with a steel drum or other suitable roller approved by the Engineer. However, trimming (cuts only) can be completed within 24 hours of mixing.

The completed cement treated subgrade shall be surfaced with a curing seal consisting of SS or CSS grade asphalt emulsion at a rate of 0.12 to 0.20 gallons per square yard of surface until completion of micro-cracking. The cement treated subgrade shall be kept free from heavy traffic during the curing period or until the asphalt concrete surfacing is placed whichever is less, unless otherwise directed by the Engineer.

10-12.03.6 MICRO-CRACKING

After the initial 24 hours of the curing period, the finished course shall be tested to determine the stiffness of the layer. The stiffness measurement of the section shall be determined using an approved device, such as the Humboldt Stiffness Gauge (HSG), or equivalent. One test will be made along each 100 ft section of street. The test location shall be marked with paint for later retesting. If the initial HSG readings are in the range of 50 to 60 (MN/m), then micro-cracking of the section course shall begin. If the readings are below the stated range, the section course shall be allowed to cure for an additional 24 hours and stiffness readings obtained at the end of the 24 hour period and prior to the commencement of microcracking

operations. Micro-cracking of the cement treated subgrade shall be completed within 48 to 72 hours of the final compaction.

Micro-cracking of the section shall be accomplished by a 12 ton steel-wheel vibratory roller, traveling at a speed of approximately 2 mph and vibrating at maximum amplitude (or as directed by the Project Engineer). The section shall have 100% coverage exclusive of the outside 1 foot so as to induce minute cracks in the section. The microcracking operations may be terminated when a minimum 40% reduction in the stiffness of the section is achieved as compared to the initial (pre-cracked) readings. After one pass of the vibratory roller, the stiffness of the section shall be determined. Based on the target total stiffness minimum reduction of 40%, it will be decided if additional passes are required. Additional passes of the steel roller may be required to achieve the desired crack pattern or section modulus as determined by the Project Engineer. The section shall be tested for stiffness after each additional rolling. It is anticipated that the roller will have to make between 1 to 4 passes to achieve the required reduction in stiffness.

10-12.03.7 FINAL CURING

After micro-cracking is complete and the section supports the installation of overlying courses, subsequent courses can be placed over the section. Should additional curing be required, curing shall continue in accordance with Section 3-1.5, unless otherwise directed by the Engineer.

10-12.03.8 CONSTRUCTION JOINTS

Construction joints shall have vertical faces and shall be made in thoroughly compacted material. Additional mixture shall not be placed against the construction joint until the joint has been approved by the Engineer. The face of the cut joint shall be lean and free of deleterious material and shall be kept moist until the placing of the adjacent soil-cement.

10-12.03.9 REPAIR

If the soil-cement is damaged, it shall be repaired by removing and replacing the entire depth of affected layers in the damaged area. Feathering will not be permitted for repair of low areas.

10-13 ASPHALT REMOVAL AND ASPHALT PATCHING ADJACENT TO CURB AND GUTTER

All locations where curb and gutter are removed and replaced require the adjacent asphalt be removed and replaced, except as noted below.

Where asphalt is to be removed, it shall be neatly saw-cut and removed a distance of 18" minimum from the lip of gutter for edge patch. Cutting water shall be vacuumed up. Rubble from the excavation shall be removed immediately and the area left evenly graded.

Thickness of asphalt patch shall match the existing adjacent AC thickness, but shall be 6" minimum. Mix design shall be as specified in Section 10-17, Hot Mix Asphalt below. Subgrade shall be compacted prior to AC placement. In some cases Engineer may require a sand seal for edge patch where the surface is substandard.

The Contractor shall tack coat all asphaltic concrete and Portland cement concrete (PCC) that will come in contact with the hot mix asphalt (HMA) to be placed with this contract. Surfaces where tack coat shall

be applied includes but is not limited to: the front face of all gutters and the front face of existing asphalt pavement (where new asphalt concrete will butt up against existing asphalt concrete).

Sand seal shall be spray application of SS1 and sand spread evenly; concrete shall be protected from overspray. Excess sand shall be removed by means other than sweeping.

When concrete is replaced adjacent to a curb ramp, access shall be restored to the curb ramp within 48 hours of placement of new concrete. If Contractor wants concrete to cure before placement of new A.C., temporary backfill of AB with 1.5" cutback may be placed, any temporary fill shall be maintained with no more than 1/2" deformation.

When concrete is replaced adjacent to a driveway, access shall be restored to the driveway within 48 hours of placement of new concrete. If Contractor wants concrete to cure before placement of new A.C., temporary backfill of AB with 1.5" cutback may be placed.

The Contractor shall schedule the AC patching so that the patching will be done within 10 calendar days of the concrete pour.

Contractor shall submit asphalt concrete mix design and have approval prior to work.

In areas where street has been recently overlaid, Contractor shall take care to not disturb the existing AC at the lip of gutter. Contractor will pour the gutter pan neat to the existing AC.

10-14 TACK COAT

The contractor shall tack coat all asphaltic concrete and Portland cement concrete (PCC) surfaces that will come into contact with the hot mix asphalt (HMA) to be placed with this contract prior to overlay. Surfaces where tack coat shall be applied include but are not limited to: the front face of all gutters, the front face of existing asphalt pavement (where new asphalt concrete will butt up against existing asphalt concrete, and over all existing asphalt concrete surfaces to be overlaid.

Tack Coat shall be applied per section 39-1.09C of the State Specifications at the residual rate shown for planed surfaces. The application rate will be determined based on the type of tack coat chosen by the Contractor. For estimating purposes only, the minimum application rate will be 0.11 gal/SY. Application rate will be verified by weighing the truck before and after applying tack coat on each section of pavement.

Compensation for providing and applying tack coat shall be considered as included in the contract price for the various items of work involved and no separate payment will be made.

10-15 HOT MIX ASPHALT (HMA)

The Contractor shall submit an HMA mix design including gradation and properties of aggregate for each mix proposed to be used. Each mix shall satisfy the requirements of Section 39, "Hot Mix Asphalt" and Section 92, "Asphalts" of the State Specifications.

Mix designs shall be accompanied by current test results that indicate compliance with the State Specifications as well as a Certificate of Compliance for liquid asphalt from the manufacturer stating that the material used complies with the requirement of the State Specifications.

The job mix formula shall establish a single percentage of aggregate passing each required sieve size and a percentage of asphalt binder to be added to the aggregate. The asphalt concrete binder content shall be based on 4.0% air voids.

The Contractor shall be responsible for designing a job-mix formula through an approved testing laboratory, and shall submit it to the Engineer for approval ten (10) working days prior to any mixing and/or placing of HMA.

Said job-mix formula shall be determined using the specifications set forth herein. If the Contractor elects to use any material, including blending material, other than those materials utilized in the mix design, he shall so inform the Engineer in advance of the production of asphaltic concrete and shall document the request through an approved testing laboratory.

During the production of either mineral aggregate or asphaltic concrete, the Contractor may request that adjustments be made in the job-mix formula. Such request shall be in writing and substantiated through an approved testing laboratory. Consideration will be given promptly to such request.

Asphalt binder shall be grade PG 64-10 per Section 202-1 of the Standard Specifications.

10-15.01 AGGREGATE

The aggregate shall conform to the gradation for 1/2-inch HMA and shall meet the quality requirements for Type A.

10-15.02 PLACEMENT

The top layer of asphalt concrete shall be placed in a lift no less than one and one-half inches (1.5") and no greater than three inches (3") in compacted thickness.

Paving work shall be a continuous non-stop operation with delivery trucks arriving in a uniform manner. The Engineer will meet daily with the Contractor to evaluate the Contractor's operations relative to the work time restrictions.

The asphalt concrete shall be delivered to the site in a thoroughly blended condition and shall be spread by a self-propelled asphalt paving machine in such a manner as to avoid segregation during the placing operations. Initial rolling shall be performed immediately after placement.

No asphalt concrete shall be placed when the atmospheric temperature is below 50°F.

No paving work whatsoever shall be allowed when the roadway is moist or damp or when it is raining. For the purpose of this provision, "raining" shall mean any weather condition that causes the roadway to become moist or damp. In the case of sudden precipitation, all paving work must stop immediately, all asphalt concrete on site not yet placed and all asphalt concrete in transit from the plant shall be rejected and no payment will be allowed.

Any time new asphalt concrete is to be placed in contact with existing asphalt concrete, the surface shall be cleaned and a tack coat per section 10-14 shall be applied to ensure proper bond. Tack coat shall be applied to vertical edges of any existing pavement, curbs, and gutters adjoining the area to be paved.

Unless otherwise specified in these Specifications, the minimum compacted thickness of asphalt concrete shall be the thickness shown on the Plans. The tolerance for minimum thickness for all operations shall be 0.01 feet. The tolerance for maximum thickness for asphalt concrete structural sections less than 0.35 feet thick shall be 0.02 feet, and for sections more than 0.35 feet thick shall be 0.03 feet.

At the end of the Working Day, the distance between the ends of the adjacent improved lanes shall be between five feet (5') and ten feet (10'), unless otherwise approved by the Engineer.

Sand shall be black in color and free from clay or organic material and shall be of such size that from ninety to one hundred percent (90 to 100%) will pass a No. 4 sieve and not more than five percent (5%) will pass a No. 200 sieve. Sand shall be spread at the approximate rate of one (1) to two (2) pounds per square yard.

Triangular sections (tapers) at curb returns shall be paved at intersections.

Asphalt placement shall conform to the requirement for an accessible-compliant landing at the base of each curb ramp. Accessible-compliant landings shall extend 4-feet into the road as measured from the gutter flowline at the base of the ramp. The maximum cross-slope in this area shall not exceed 2.0% and the maximum longitudinal slope shall not exceed 5.0%.

Placement of asphalt in these areas may require placement by hand and may require a smaller roller to meet the slope requirements. Areas requiring hand work shall receive a slurry seal with type II aggregate. The slurry seal shall meet the requirements in Section 37-3 of the State Specifications.

Surplus asphalt material raked into the gutters shall be removed from job site on a daily basis. Any "green waste" or yard debris that is moved off of the street shall be moved back into street on the same day. Paving operation shall NOT occur on trash pickup day. A map of the garbage pick-up days is available on-line at http://www.dwrco.com/html/map_-_schedule.htm.

City to provide all post-placement testing.

10-16 THERMOPLASTIC STRIPING, MARKINGS, RAISED PAVEMENT MARKERS, AND COLORIZED BIKE LANE COATING

All existing stripes, pavement marking, arrows, stop bars, crosswalk, legend and raised pavement markings covered or obliterated by the work not shown on the plan and also shown specifically on the plan shall be replaced at the appropriate locations. The work of this section includes the application of traffic stripes and pavement markings.

Striping shall conform to Section 84, Traffic Stripes and Pavement Markings of the State Specifications. Striping, markings, and legends shall consist of thermoplastic material conforming to PTH-02ALKVD or PTH-02HYDRO. Glass beads to be applied to the surface of the molten thermoplastic material shall conform to the requirements of Section 84-1.02 of the State Specifications.

Existing surfacing which is to receive the thermoplastic material shall be mechanically wire brushed to remove all dirt and contaminant. Temporary pavement tabs shall be removed upon placement of permanent delineation. Existing pavement markers, which are damaged by blast cleaning, or wire

brushing shall be removed and replaced by the Contractor at its expense.

Thermoplastic material shall be applied only to dry pavement surfaces and only when the pavement surface temperature is above 50 degrees F. Surface conditions shall be such that material shall be applied only after a minimum of two days of clear/dry weather (no rain) has been observed and City Engineer agrees with the application to proceed.

A primer, of the type recommended by the manufacturer of the thermoplastic material, shall be applied to all asphaltic surfaces over 6 months old. The primer shall be applied immediately in advance of, but concurrent with, the application of thermoplastic material. The primer shall be applied at the application rate recommended by the manufacturer and shall not be thinned.

Preheaters with mixers having 360-degree rotation shall be used to preheat materials.

The thermoplastic material shall be applied to the pavement at a temperature between 400 degrees F and 425 degrees F unless a different temperature is recommended by the manufacturer.

The thermoplastic material shall be applied by the extrusion method only (spray method is not allowed).

Stencils shall be used when applying thermoplastic material for pavement markings.

The pavement surface to which thermoplastic material is applied shall be completely coated by the material and the voids of the pavement surface shall be filled.

Unless otherwise specified in the special provisions, the thermoplastic material for traffic stripes shall be applied at a minimum thickness of 0.060-inch. Thermoplastic material for pavement markings shall be applied at a thickness of 0.100- to 0.150-inch. Glass beads shall be applied immediately to the surface of the molten thermoplastic material at a rate of not less than 8 pounds per 100 square feet. The amount of glass beads applied shall be measured by stabbing the glass bead tank with a calibrated rod.

Contractor shall apply traffic stripes and markings on pavements in accordance with the striping plans. The Engineer and the Contractor shall inspect all sites prior to beginning of work. This site visit shall answer all questions in reference to the amount and location of required striping. The City Engineer shall approve all layouts prior to the application of thermoplastic or markers.

All work necessary to establish satisfactory alignment for stripes and all layout work required for pavement markings shall be performed by the Contractor with any device or method that will not damage the pavement or conflict with other traffic devices.

Temporary Striping: Contractor shall place temporary pavement markers (“flopies”) immediately after paving. The Contractor shall be responsible for the removal of the temporary pavement markers prior to the placement of permanent striping.

Temporary striping and flopies shall be paid for in the various items included and no additional compensation shall be made.

10-16.01 COLORIZED BIKE LANE COATING

Colorized bike lane coating shall consist of a two component, epoxy-modified, acrylic, waterborne coating, Ride-a-way by Ennis-Flint or approved equal. Coating shall be applied per manufacturer's instructions.

10-16.02 CURB PAINT

Red and yellow curb paint shall conform to Section 205-2, "Traffic Paint" of the Standard Specifications. Compensation for providing and applying curb paint, as directed by the Engineer, shall be considered as included in the contract price for the various items of work involved and no separate payment will be made.

10-16.03 REMOVAL OF TRAFFIC STRIPES AND PAVEMENT MARKINGS

Traffic stripes and pavement markings shall be removed at the locations shown on the plans and as directed by the Engineer. Compensation for removing and disposing of white traffic stripes, pavement markings and traffic markers shall be considered as included in the contract price for the various items of work involved and no separate payment will be made.

Waste from removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking contains lead chromate in average concentrations greater than or equal to 350 mg/kg and less than 1000 mg/kg Total Lead. Residue produced when yellow thermoplastic and yellow paint are removed may contain heavy metals in concentrations that exceed thresholds established by the California Health and Safety Code and may produce toxic fumes when heated.

The removed yellow thermoplastic and yellow paint shall be disposed of at a Class 1 disposal facility or a Class 2 disposal facility permitted by the Regional Water Quality Control Board in conformance with the requirements of the disposal facility operator within 30 days after accumulating 100 kg of residue and dust. The Contractor shall make necessary arrangements with the operator of the disposal facility to test the yellow thermoplastic and yellow paint residue as required by the facility and these special provisions. Testing shall include, at a minimum, (1) Total Lead and Chromium by EPA Method 7000 series and (2) Soluble Lead and Chromium by California Waste Extraction Test. From the first 3360 L of waste or portion thereof, if less than 3360 L of waste are produced; a minimum of four randomly selected samples shall be taken and analyzed. From each additional 840 L of waste or portion thereof, if less than 840 L are produced; a minimum of one additional random sample shall be taken and analyzed. The Contractor shall submit the name and location of the disposal facility and analytical laboratory along with the testing requirements to the Engineer not less than 10 days prior to the start of removal of yellow thermoplastic and yellow painted traffic stripe and pavement marking. The Department of Health Services Environmental Laboratory Accreditation Program shall certify the analytical laboratory. Test results shall be provided to the Engineer for review prior to signing a waste profile as requested by the disposal facility, prior to issuing an EPA identification number and prior to allowing removal of the waste from the site.

The Contractor shall prepare a project specific Lead Compliance Plan to prevent or minimize worker exposure to lead while handling removed yellow thermoplastic and yellow paint residue. Attention is directed to Title 8, California Code of Regulations, Section 1532.1, "Lead," for specific Cal OSHA requirements when working with lead.

The Lead Compliance Plan shall contain the elements listed in Title 8, California Code of Regulations, Section 1532.1(e)(2)(B). Before submission to the Engineer, an Industrial Hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene shall approve the Lead Compliance Plan. The Plan shall be submitted to the Engineer at least 7 days prior to beginning removal of yellow thermoplastic and yellow paint.

Prior to removing yellow thermoplastic and yellow painted traffic stripe and pavement marking, personnel who have no prior training, including City personnel, shall complete a safety training program provided by the Contractor that meets the requirements of Title 8, California Code of Regulations, Section 1532.1, "Lead," and the Contractor's Lead Compliance Program.

Where grinding or other methods approved by the Engineer are used to remove yellow thermoplastic and yellow painted traffic stripe and pavement marking, the removed residue, including dust, shall be contained and collected immediately. Sweeping equipment shall not be used. Collection shall be by a high efficiency particulate air (HEPA) filter equipped vacuum attachment operated concurrently with the removal operations or other equally effective methods approved by the Engineer. The Contractor shall submit a written work plan for the removal, storage, and disposal of yellow thermoplastic and yellow painted traffic stripe and pavement marking to the Engineer for approval not less than 10 days prior to the start of the removal operations. Removal operations shall not be started until the Engineer has approved the work plan.

The removed yellow thermoplastic and yellow painted traffic stripe and pavement-marking residue shall be stored and labeled in covered containers. Labels shall conform to the provisions of Title 22, California Code of Regulations, Sections 66262.31 and 66262.32. Labels shall be marked with date when the waste is generated, the words "Hazardous Waste", composition and physical state of the waste (for example, asphalt grindings with thermoplastic or paint), the word "Toxic", the name and address of the Engineer, the Engineer's telephone number, contract number, and Contractor or subcontractor. The containers shall be a type approved by the United States Department of Transportation for the transportation and temporary storage of the removed residue. The containers shall be handled so that no spillage will occur. The containers shall be stored in a secured enclosure at a location within the project limits until disposal, as approved by the Engineer.

If the yellow thermoplastic and yellow painted traffic stripe and pavement marking residue is transported to a Class 1 disposal facility, a manifest shall be used, and the transporter shall be registered with the California Department of Toxic Substance Control. The Engineer will obtain the United States Environmental Protection Agency Identification Number and sign all manifests as the generator within 2 working days of receiving sample test results and approving the test methods.

The Contractor shall assume that the yellow paint removed is not regulated under the Federal Resource Conservation and Recovery Act (RCRA). Additional disposal costs for removal residue regulated under RCRA, as determined by test results required by the disposal facility, will be paid for as extra work as provided in Section 4-1.05, "Changes and Extra Work," of the State Standard Specifications.

Nothing in these special provisions shall relieve the Contractor of the Contractor's responsibilities as specified in Section 7-1.04, "Public Safety," of the State Standard Specifications.

10-17 ROADSIDE SIGNS, OBJECT MARKERS AND DELINEATORS

Roadside signs, object markers and delineators shall conform to Standard Drawing 301-9, Section 82, “Markers and Delineators”, Section 56-4, “Roadside Signs,” of the Standard Specifications and these Special Provisions.

Details and dimensions of roadside signs, object markers and delineators shall be in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD).

10-17.01 REMOVAL AND SALVAGING OF ROADSIDE SIGNS

Signs and posts shall be removed at the locations shown on the plans and as directed by the Engineer. Removed signs shall be salvaged to the City of Davis Public Works Corp Yard at 1717 5th Street. Removed sign posts shall be disposed of in accordance with the Standard Specifications.

10-18 SIGNALS, LIGHTING AND ELECTRICAL SYSTEMS

10-18.01 GENERAL

Signals, lighting and electrical systems shall conform to Section 86, “General”, and Section 87, “Electrical Systems”, of the Caltrans 2015 Standard Specifications and Section 309 “Streetlight Installation” of the City of Davis Standard Specifications and these special provisions.

10-18.02 DESCRIPTION

Traffic signal work must be performed at the following locations:

1. Mace Blvd and Cowell Blvd
2. Mace Blvd and San Marino Drive

10-18.03 MAINTAINING EXISTING AND TEMPORARY ELECTRICAL SYSTEMS

Maintaining existing and temporary electrical systems shall conform to section 87-21.03, “Construction”, of the Caltrans 2015 Standard Specifications, Section 309-4.2 “Existing Lighting Systems” of the City of Davis Standard Specifications and these special provisions.

The contractor shall provide one flagger per intersection approach to control traffic. Each flagger shall wear appropriate safety gear and carry a stop paddle for controlling the traffic. The flaggers shall completely stop traffic prior to the signal changing from red flash to full operation.

10-18.04 TYPE P CONTROLLER CABINET

1. Cabinet Design and construction
 - a. The cabinet shall be constructed from type 5052-H32 aluminum with a minimum thickness of 0.125 inches.
 - b. The cabinet shall be designed and manufactured with materials that will allow rigid mounting, whether intended for pole, base or pedestal mounting. The cabinet must not flex on its mount.

- i. A rain channel shall be incorporated into the design of the main door opening to prevent liquids from entering the enclosure. The cabinet door opening must be a minimum of 80 percent of the front surface of the cabinet. A stiffener plate shall be welded across the inside of the main door to prevent flexing.
 - ii. The top of the cabinet shall incorporate a 1-inch slope toward the rear to prevent rain accumulation.
- c. Unless otherwise specified, the cabinet shall be supplied with a natural aluminum finish. Sufficient care shall be taken in handling to ensure that scratches are minimized. All surfaces shall be free from weld flash. Welds shall be smooth, neatly formed, free from cracks, blowholes and other irregularities. All sharp edges shall be ground smooth.
- d. Where painted cabinets are specified, the exterior shall be degreased and primed with a spray applied iron phosphate coat- equivalent to a four-stage iron phosphate coat prior to painting. The final coat shall consist of a powder coat paint (TGIC or equivalent) applied with a minimum thickness of 2 mils.
- e. All seams shall be sealed with RTV sealant or equivalent material on the interior of the cabinet.
- f. All cabinets shall be supplied with a minimum of one removable shelf manufactured from 5052-H32 aluminum. Shelf shall be a minimum of 10 inches deep.
- g. The shelf shall have horizontal slots at the rear and vertical slots at the front of the turned down side flange. The shelf shall be installed by first inserting the rear edge of the shelf on the cabinet rear sidewall mounting studs, then lowering the shelf on the front sidewall mounting studs. The shelf shall be held in place by a nylon tie-wrap inserted through holes on the front edge of the shelf and around the front sidewall mounting studs.
- h. The front edge of the shelf shall have holes punched every 6 inches to accommodate tie-wrapping of cables/harnesses.
- i. A minimum of one set of vertical "C" channels shall be mounted on each interior wall of the cabinet for the purpose of mounting the cabinet components. The channels shall accommodate spring mounted nuts or studs. All mounting rails shall extend to within 7 inches of the top and bottom of the cabinet. Sidewall rail spacing shall be 7.88 inches center-to-center. Rear wall rail spacing shall be 18.50 inches center-to-center.
- j. The main door and police door-in-door shall close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material for the main door shall be a minimum of 0.250 inches thick by 1.00 inch wide. The gasket material for the police door shall be a minimum of 0.250 inches thick by 0.500 inches wide. The gaskets shall be permanently bonded to the cabinet.
- k. The lower section of the cabinet shall be equipped with a louvered air entrance. The air inlet shall be large enough to allow sufficient air flow per the rated fan capacity. Louvers must satisfy the NEMA rod entry test for 3R ventilated enclosures. A non-corrosive, vermin- and insect-proof, removable air filter shall be secured to the air entrance. The filter shall fit snugly against the cabinet door wall.
- l. The roof of the cabinet shall incorporate an exhaust plenum with a vent screen. Perforations in the vent screen shall not exceed 0.125 inches in diameter.
- m. The main door shall be equipped with a three-point latching mechanism.
- n. The handle on the main door shall utilize a shank of 5/8 inches minimum diameter. The handle shall include a hasp for the attachment of an optional padlock. The cabinet door handle shall rotate counter-clockwise to open. The handle shall not extend beyond the perimeter of the main door at any time. The lock assembly shall be positioned so that the handle shall not cause any interference with the key when opening the cabinet door.

- o. The main door hinge shall be a one-piece, continuous piano hinge with a stainless steel pin running the entire length of the door. The hinge shall be attached in such a manner that no rivets or bolts are exposed.
 - p. The main door shall include a mechanism capable of holding the door open at approximately 90, 125, and 150 degrees under windy conditions. Manual placement of the mechanism shall not be required by field personnel.
 - q. The main door shall be equipped with a Corbin tumbler lock number 1548-1 or exact equivalent. Minimum of two keys shall be supplied.
 - r. The police door-in-door shall be provided with a treasury type lock Corbin No. R357SGS or exact equivalent and a minimum of one key.
 - s. All base mounted cabinets require anchor bolts to properly secure the cabinet to its base. The cabinet flange for securing the anchor bolts shall not protrude outward from the bottom of the cabinet. Four anchor bolts shall be required for proper installation.
 - t. Each cabinet shall be of sufficient size to accommodate all equipment. The cabinet size shall match NEMA Type P.
2. Terminals and Facilities/Main Panel Design and Construction
- a. The main panel shall be constructed from 5052-H32 brushed aluminum of 0.125 inches minimum thickness and installed so as to minimize flexing when plug-in components are installed.
 - b. All 8-, 12- and 16-position main panels are provided with a mounting mechanism which allows easy access to all wiring on the rear of the panel without the removal of any cabinet shelves. Lowering of the main panel can be accomplished without the use of hand tools. Complete removal can be accomplished by the use of simple hand tools.
 - c. The terminals and facilities shall be available as a minimum in the following configurations:
 - i. Configuration #1 - Four load switch sockets, two flash transfer relay sockets, one flasher socket, 1- BIU sockets(expandable to 2), one 8-channel detector rack with one BIU, and one Type-16 MMU.
 - ii. Configuration #2 - Eight load switch sockets, four flash transfer relay sockets, one flasher socket, 1- BIU sockets(expandable to 2), one 8-channel detector rack with one BIU, and one Type-16 MMU
 - iii. Configuration #3 - Twelve load switch sockets, six flash transfer relay sockets, one flasher socket, 2- BIU sockets, one 16-channel detector rack with one BIU, and one Type-16 MMU
 - iv. Configuration #4 - Sixteen load switch sockets, six flash transfer relay sockets, one flasher socket, 2- BIU sockets, one 16-channel detector rack with one BIU, and one Type-16 MMU.
 - d. All load switch and flash transfer relay socket reference designators shall be silk-screen labeled on the front and rear of the main panel to match drawing designations. Socket pins shall be marked for reference on the rear of the panel.
 - e. A maximum of eight load switch sockets may be positioned horizontally or stacked in two rows on the main panel. Main panels requiring more than eight load switch sockets shall be mounted in two horizontal rows.
 - f. All load switches shall be supported by a bracket, extending at least half the length of the load switch.
 - g. The 4- and 8- load switch position main panels shall have all field wires contained within one or two row(s) of horizontally mounted terminal blocks. The 12- and 16-load switch position main panels shall have all field wires contained on two rows of horizontally

- mounted terminal blocks. The upper row shall be wired for the pedestrian and overlap field terminations. The lower row shall be reserved for phase one through phase eight vehicle field terminations.
- h. All field output circuits shall be terminated on a non-fused barrier type terminal block with a minimum rating of 10 amps.
 - i. All field input/output (I/O) terminals shall be identified by permanent alphanumeric labels. All labels shall use standard nomenclature per the NEMA TS2 specification.
 - j. It shall be possible to flash either the yellow or red indication on any vehicle movement and to change from one color indication to the other by use of a screwdriver.
 - k. Field terminal blocks shall be wired to use four positions per vehicle or overlap phase (green, yellow, and red, flash). It shall not be necessary to de-buss field terminal blocks for flash programming.
 - l. The main panel shall contain at least one flasher socket (silk screen labeled) capable of operating a 15-amp, 2-pole, NEMA solid-state flasher. The flasher shall be supported by a bracket, extending at least half its length.
 - m. One RC network shall be wired in parallel with each group of three flash-transfer relays and any other relay coils.
 - n. All logic-level, NEMA-controller and Malfunction Management Unit input and output terminations on the main panel shall be permanently labeled. Cabinet prints shall identify the function of each terminal position.
 - o. At a minimum, three 20-position terminal blocks shall be provided at the top of the main panel to provide access to the controller unit's programmable and non-programmable I/O. Terminal blocks for DC signal interfacing shall have a number 6-32 x 7/32 inch screw as minimum.
 - p. All main panel wiring shall conform to the following wire size and color:
 - Green/Walk load switch output - brown wire - 14 gauge
 - Yellow load switch output - yellow wire - 14 gauge
 - Red/Don't Walk load switch - red wire output - 14 gauge
 - MMU (other than AC power) - violet wire - 22 gauge
 - Controller I/O - blue wire - 22 gauge
 - AC Line (power panel to - black wire main panel) - 8 / 10 gauge
 - AC Line (main panel) - black wire - 10 gauge
 - AC Neutral (power panel to - white wire main panel) - 8 / 10 gauge
 - AC Neutral (main panel) - white wire - 10 gauge
 - Earth ground (power panel) - green wire - 8 gauge
 - Logic ground - gray wire - 22 gauge
 - Flash programming - Orange wire
 - Flasher terminal - Black wire red or yellow field terminal - 14 gauge
 - q. All wiring, 14 AWG and smaller, shall conform to MIL-W-16878/1, type B/N, 600V, 19-strand tinned copper. The wire shall have a minimum of 0.010 inches thick PVC insulation with clear nylon jacket and rated to 105 degrees Celsius. All 12 AWG and larger wire shall have UL listed THHN/THWN 90 degrees Celsius, 600V, 0.020 inches thick PVC insulation and clear nylon jacketed.\
 - r. Connecting cables shall be sleeved in a braided nylon mesh or poly-jacketed. The use of exposed tie-wraps or interwoven cables is unacceptable.
 - s. All Terminals and Facilities configurations shall be provided with BIU wiring assignments consistent with NEMA TS2-1998 specifications.
 - t. All Terminals and Facilities configurations shall be provided with sufficient RS-485 Port 1 communication cables to allow for the intended operation of that cabinet. Each

- communication cable connector shall be a 15-pin metallized plastic shell D subminiature type. The cable shall be a shielded cable suitable for RS-485 communications.
- u. All main panels shall be pre-wired for a Type-16 Malfunction Management Unit.
 - v. All wiring shall be neat in appearance. All cabinet wiring shall be continuous from its point of origin to its termination point. Butt type connections/splices are not acceptable.
 - w. All connecting cables and wire runs shall be secured by mechanical clamps. Stick-on type clamps are not acceptable.
 - x. The grounding system in the cabinet shall be divided into three separate circuits (AC Neutral, Earth Ground, and Logic Ground). These ground circuits shall be connected together at a single point as outlined in the NEMA TS2 Standard.
 - y. The main panel shall incorporate a relay to remove +24 VDC from the common side of the load switches when the intersection is placed into mechanical flash. The relay shall have a momentary pushbutton to apply power to the load switch inputs for ease of troubleshooting. The relay shall have a momentary pushbutton to apply power to the load switch inputs for ease of troubleshooting.
 - z. All pedestrian push button inputs from the field to the controller shall be opto-isolated through the BIU and operate at 12 VAC.
 - aa. All wire (size 16 AWG or smaller) at solder joints shall be hooked or looped around the eyelet or terminal block post prior to soldering to ensure circuit integrity. Lap joint soldering is not acceptable.
3. Power Panel Design and Construction
- a. The power panel shall be integrated into the main panel and be located on the lower right portion. The power panel shall be wired to provide the necessary filtered power to the load switches, flasher(s), and power bus assembly. The power components shall be equipped with a removable plastic front cover for technician protection. The design will allow a technician to access the main and auxiliary breakers without removing the protective front cover.
 - b. The power panel portion of the main panel shall include the following components:
 - i. A minimum of a 40-amp main breaker for 12- or 16- position cabinets or a minimum of a 30-amp breaker for 4- or 8-position cabinets. This breaker shall supply power to the controller, MMU, signals, cabinet power supply and auxiliary panels. Breakers shall be at minimum, a thermal magnetic type, U.L. listed for HACR service, with a minimum of 10,000 amp interrupting capacity.
 - ii. A minimum of a 15-amp auxiliary breaker. This breaker shall supply power to the fan, light and GFI utility outlet.
 - iii. An EDCO model SHP-300-10 or exact approved equivalent surge arrester.
 - iv. A 50 amp, 125 VAC radio interference line filter.
 - v. A normally-open, 60-amp, mercury contactor Mercury Displacement Industries, Inc. model 60NC-120A or exact equivalent.
 - vi. A minimum of 8-position neutral bus bar capable of connecting three #12 wires per position.
 - vii. A minimum of 6-position ground bus bar capable of connecting three #12 wires per position.
 - viii. A NEMA type 5-15R GFI utility outlet.
 - ix. A 4 position plug-in connector for wiring to the power bus assembly

4. Power Bus Assembly
 - a. The power bus assembly shall be manufactured from 0.090", 5052-H32 aluminum. It shall provide filtered power for the controller, malfunction management unit, cabinet power supply, and all auxiliary equipment. It shall include the SDLC Bus connecting cables wired into a surface-mounted compression terminal block.
 - b. The Power Bus Assembly shall house the following components:
 - i. A minimum of three and a maximum of six power connectors.
 - ii. Two terminal strips to hardwire the power connections.
 - iii. SDLC terminal block with pre-wired cables.
 - c. All cabinet equipment requiring filtered power to operate shall be connected to the power bus assembly by a Burndy connector # SMS12PDH1 or exact equivalent or hardwired directly to the supplied terminal blocks.

5. Auxiliary Cabinet Equipment
 - a. The cabinet shall be provided with a thermostatically controlled (adjustable between 80-150 degrees Fahrenheit) ventilation fan in the top of the cabinet plenum. The fan plate shall be removable with the use of simple hand tools for serviceability. A minimum of one exhaust fan shall be provided. The fan shall be a ball bearing type fan and shall be capable of drawing a minimum of 100 cubic feet of air per minute. The Fan/Thermostat assembly shall be connected to the Power panel by means of a 4 position plug-in cable.
 - b. At minimum, a 40-watt incandescent refrigerator lamp and socket mounted on an aluminum bracket shall be mounted in the cabinet to sufficiently illuminate the field terminals. The lamp shall be wired to either a 15-amp ON/OFF toggle switch mounted on the power panel or to a door activated switch mounted near the top of the door.
 - i. Alternately, a 25-watt incandescent lamp mounted on a 14-inch flexible arm shall be included. The flexible arm shall be permanently mounted to the middle of the cabinet door. The lamp shall be wired to either a 15-amp ON/OFF toggle switch mounted on the power panel or to a door activated switch mounted near the top of the door.
 - ii. Alternately, a fluorescent lighting fixture shall be mounted on the inside top of the cabinet near the front edge. The fixture shall be rated to accommodate at minimum a F15T8 lamp operated from a normal power factor UL or ETL listed ballast. The lamp shall be wired to either a 15-amp ON/OFF toggle switch mounted on the power panel or to a door activated switch mounted near the top of the door.
 - c. A resealable print pouch shall be mounted to the door of the cabinet. The pouch shall be of sufficient size to accommodate one complete set of cabinet prints.
 - d. A minimum of two sets of complete and accurate cabinet drawings shall be supplied with each cabinet.
 - e. A minimum of one set of manuals for the controller, Malfunction Management Unit and vehicle detector amplifiers shall be supplied with each cabinet.

6. Vehicle Detection
 - a. A minimum of one vehicle detector amplifier rack shall be provided in each cabinet. Detector racks shall be available in two configurations. These configurations shall be integrated on top left side portion of the main panel.
 - i. Configuration #1 - Shall support up to eight channels of loop detection (either four 2 channel detectors or two 4 channel detectors), two 2-channel preemption

- iv. CONTROL EQUIPMENT POWER ON/OFF - This switch shall control the controller, MMU, and cabinet power supply AC power. Momentary test push buttons for all vehicle and pedestrian inputs to the controller are not required. The TS2 controller to be provided with the cabinet assembly shall provide vehicular and pedestrian call inputs from its keyboard while in the standard status display.
 - b. The police door switch panel shall contain the following:
 - i. SIGNALS ON/OFF SWITCH - In the OFF position, power shall be removed from signal heads in the intersection. The controller shall continue to operate. When in the OFF position, the MMU shall not conflict or require reset.
 - ii. AUTO/FLASH SWITCH – When in the flash position, power shall be maintained to the controller and the intersection shall be placed in flash. The controller shall be stop timed when in flash. Wired according to NEMA-TS2-1998 the MMU forces the controller to initiate the start-up sequence when exiting flash.
 - iii. AUTO/MANUAL SWITCH - Cabinet wiring shall include provisions for an AUTO/MANUAL switch and a momentary push button or hand cord. The AUTO/MANUAL switch and push button or hand cord shall not be provided unless it is called for in the CUSTOMER SPECIFICATION.
 - iv. COORD/FREE SWITCH - Cabinet wiring shall include provisions for COORD/FREE switch. The COORD/FREE switch shall not be provided unless it is called for in the CUSTOMER SPECIFICATION.
 - c. All toggle type switches shall be heavy duty and rated 15 amps minimum. Single- or double-pole switches may be provided, as required.
 - d. Any exposed terminals or switch solder points shall be covered with a non-flexible shield to prevent accidental contact.
 - e. All switch functions must be permanently and clearly labeled.
 - f. All wire routed to the police door-in-door and test switch push button panel shall be adequately protected against damage from repetitive opening and closing of the main door.
 - g. All test switch panel wiring shall be connected to the main panel via a 36-pin Burndy connector #SMS36R1, or exact equivalent.
 - h. Wiring from the main panel to the test switch panel shall be connected to the switch panel via a 24-pin Burndy connector #SMS24R1 or exact equivalent.
- 8. Controller Telemetry Interface Panel
 - a. A telemetry interface harness and interface panel shall be supplied with each cabinet assembly when specified in the special provisions.
 - b. The harness shall be a minimum of 6 feet long and shall consist of two twisted shielded pairs, 22 AWG wire with drain wire in an overall jacket, terminated to a 9-pin "D" type connector at one end. The pin out of the 9-pin connector shall be in exact accordance with the NEMA TS2 Standard. The opposite end of the harness shall be terminated on a 10-position EDCO PCB-1B or exact equal lightning protection socket base.
 - c. All terminal block designations and peripheral board-mounted components shall be labeled as to their number and function and shall correspond to the cabinet wiring diagrams.
 - d. The following signals shall be accessible from the telemetry interface panel:
 - Local controller command lines 1 & 2.
 - Local controller read back lines 1 & 2.
 - Master controller command lines 1 & 2.

- Master controller read back lines 1 & 2.
 - Earth grounds.
 - e. A socket mounted communication line transient protection device shall be supplied with the telemetry interface panel. The device shall be an EDCO model PC642C-008D or exact approved equivalent. The transient protection device shall be wired in series with the telemetry communication circuit.
 - f. Communication line impedance shall be matched to the transmitter output impedance to minimize noise on the communication lines. The panel shall allow connection of a 620 ohm resistor across the command and read back lines, where necessary.
9. Auxiliary Devices
- a. Load Switches
 - i. Load switches shall be solid state and shall conform to the requirements of Section 6.2 of the NEMA TS2 Standard.
 - ii. Signal load switches shall have a minimum rating of 10 amperes at 120 VAC for an incandescent lamp load.
 - iii. The front of the load switch shall be provided with three indicators to show the input signal from the controller to the load switch.
 - iv. Load switches shall be dedicated per phase. The use of load switches for other partial phases is not acceptable.
 - v. The full complement of load switches shall be supplied with each cabinet to allow for maximum phase utilization for which the cabinet is designed.
 - b. Flashers
 - i. The flasher shall be solid state and shall conform to the requirements of section 6.3 of the NEMA TS2 Standard.
 - ii. Flashing of field circuits for the purpose of intersection flash shall be accomplished by a separate flasher.
 - iii. The flasher shall be rated at 15 amperes, double pole with a nominal flash rate of 60 FPM.
 - c. Flash Transfer Relays
 - i. All flash transfer relays shall meet the requirements of Section 6.4 of the NEMA TS2 Standard.
 - ii. The coil of the flash transfer relay must be de-energized for flash operation.
 - iii. The full complement of relays shall be supplied with each cabinet to allow for maximum phase utilization for which the cabinet is designed.
 - d. Malfunction Management Units
 - i. Each cabinet assembly shall be supplied with one Malfunction Management Unit (MMU) as defined by the requirements of Section 4 of the NEMA TS2 Standard.
 - ii. Malfunction Management Units shall be a Type 16. The MMU shall be Econolite Control Products, Inc. Model MMU-16 (EDI Model MMU-16) or approved equal.
 - e. Bus Interface Units
 - i. All Bus Interface Units (BIUs) shall meet the requirements of Section 8 of the NEMA TS2 Standard.
 - ii. The full complement of Econolite Control Products, Inc. Model 32860G1 Bus Interface Units shall be supplied with each cabinet to allow for maximum phase and function utilization for which the cabinet is designed.
 - iii. Each Bus Interface Unit shall include power on, transmit and valid data indicators. All indicators shall be LEDs.

- f. Cabinet Power Supply
 - i. The cabinet power supply shall meet the requirements of Section 5.3.5 of the NEMA TS2 Standard.
 - ii. The cabinet power supply shall provide LED indicators for the line frequency, 12 VDC, 12 VAC, and 24 VDC outputs.
 - iii. The cabinet power supply shall provide (on the front panel) jack plugs for access to the +24 VDC for test purposes.
- g. One Econolite Control Products, Inc. Model 1084-033 cabinet power supply shall be supplied with each cabinet assembly and shall be wired directly to the Power Bus Assembly via a Burndy 12-pos #SMS12PDH1 connector or exact equivalent.

10. Warranty:

The cabinet assembly and all other components shall be warranted for a period of one year from date of shipment.

Any defects shall be corrected by the manufacturer or supplier at no cost to the owner.

11. Acceptable Manufacturers:

Econolite TS2 Type 1 “PLUG-N-GO” Modular Cabinet Assembly to match existing City systems.

10-18.05 ELECTRICAL SERVICE

Electrical service enclosures shall conform to Section 86-1.02P(2), “Service Equipment Enclosures” and Section 87-1.03L(2), “Electric Service”, of the State Standard Specifications. Electrical service cabinet shall include provisions for 120V metered and 240V unmetered connections.

10-18.06 DETECTION

Detectors shall conform to provisions in Section 87-1.03V, "Detectors," of the Caltrans 2015 Standard Specifications and these special provisions.

PVC encased detector loop wire shall be type 1.

Pavement saw cut detector loop wire shall be type 2.

Loop detector lead-in cable shall be Type "C". Cable shall not be spliced between the termination pull box and the controller terminals.

Loops in adjacent lanes shall be polarized and the loop conductor ends identified as detailed in the ‘Winding Details’ on 2015 Standard Plan RSP ES-5A, “Electrical Systems (Loop Detectors)”, in the Caltrans 2015 Standard Plans.

Loop locations shall be per detail.

The loop wire when spliced to the lead-in cable shall be insulated using Method ‘C’.

Resistance: max = $0.51 + 0.35_{/c}$ of DLC.

Insulation: min = 100 meg_.

The sealant for filling slots shall be elastomeric sealant or hot-melt rubberized asphalt sealant, and shall conform to Caltrans 2015 Standard Specifications Section 86-1.02W “Loop Detector Sealants”.

10-18.07 CONDUIT

Conduit shall conform to Section 309-5 “Underground Conduit Installation” of the City of Davis Standard Specifications. Conduit installed underground shall be Type 1 or Type 3.

If a standard coupling cannot be used for joining Type 1 conduit, use a UL-listed threaded union coupling under Caltrans 2015 Standard Specifications Section 87-1.03B, “Conduit Installation”, a concrete-tight split coupling, or a concrete-tight set screw coupling.

If Type 3 conduit is placed in a trench, not in the pavement or under concrete sidewalk, after the bedding material is placed and the conduit is installed, backfill the trench to not less than 4 inches above the conduit with minor concrete under Caltrans 2015 Standard Specifications Section 90-2, “Minor Concrete”, except the concrete must contain not less than 421 pounds of cementitious material per cubic yard. Backfill the remaining trench to finished grade with backfill material.

After conductors have been installed, the ends of the conduits terminating in pull boxes, service equipment enclosures, and controller cabinets shall be sealed with an authorized type of sealing compound.

At those locations where conduit is required to be installed under pavement and underground facilities designated as high priority subsurface installation under California Government Code Section 4216, conduit must be placed by the trenching in pavement method under Caltrans 2015 Standard Specifications Section 87-1.03B(6), “Conduit Installation by the Trenching-in-Pavement Method”.

At other locations where conduit is required to be installed under pavement and if a delay to vehicles will not exceed 5 minutes, conduit may be installed by the trenching in pavement method.

10-18.08 VIDEO VEHICLE DETECTION SYSTEM

1. System Hardware

The machine vision system hardware shall consist of three components:

- 1) A color, 559 step, 10x zoom, MVP sensor
- 2) A modular cabinet interface unit
- 3) A communication interface panel.

Additionally, an optional personal computer (PC) shall host the server and client applications that are used to program and monitor the system components. The real-time performance shall be observed by viewing the video output from the sensor with overlaid flashing detectors to indicate the current detection state (on/off). The MVP sensor shall optionally store cumulative traffic statistics internally in non-volatile memory for later retrieval and analysis.

The MVP shall communicate to the modular cabinet interface unit via the communications interface panel and the software applications using the industry standard TCP/IP network protocol. The MVP shall have a built-in, Ethernet-ready, Internet Protocol (IP) address and shall be addressable with no plug in devices or converters required. The MVP shall provide standard MPEG-4 streaming digital video. Achievable frame rates shall vary from 5 to 30 frames/sec as a function of video quality and available bandwidth.

The modular cabinet interface unit shall communicate directly with up to eight (8) MVP sensors and shall comply with the form factor and electrical characteristics to plug directly into a NEMA type C or D detector rack providing up to thirty-two (32) inputs and sixty-four (64) outputs or a 170 input file rack providing up to sixteen (16) contact closure inputs and twenty-four (24) contact closure outputs to a traffic signal controller.

System Software

The MVP sensor embedded software shall incorporate multiple applications that perform a variety of diagnostic, installation, fault tolerant operations, data communications, digital video streaming, and vehicle detection processing. The detection shall be reliable, consistent, and perform under all weather, lighting, and traffic congestion levels. An embedded web server shall permit standard internet browsers to connect and perform basic configuration, maintenance, and video streaming services.

There shall be a suite of client applications that reside on the host client / server PC. The applications shall execute under Microsoft Windows XP, Vista or Windows 7. Available client applications shall include:

- Master network browser: Learn a network of connected modular cabinet interface units and MVP sensors, display basic information, and launch applications software to perform operations within that system of sensors.
- Configuration setup: Create and modify detector configurations to be executed on the MVP sensor and the modular cabinet interface unit.
- Operation log: Retrieve, display, and save field hardware run-time operation logs of special events that have occurred.
- Software install: Reconfigure one or more MVP sensors with a newer release of embedded system software.
- Streaming video player: Play and record streaming video with flashing detector overlay.
- Data retrieval: Fetch once or poll for traffic data and alarms and store on PC storage media.
- Communications server: Provide fault-tolerant, real-time TCP/IP communications to / from all devices and client applications with full logging capability for systems integration. The communications server shall operate as a Windows® Service.

2. Functional Capabilities

MVP Sensor

The MVP sensor shall be an integrated imaging color CCD array with zoom lens optics, high-speed, dual-core image processing hardware bundled into a sealed enclosure. The CCD array shall be directly controlled by the dual-core processor, thus providing high-quality video for detection that has virtually no noise to degrade detection performance. It shall be possible to zoom the lens as required for setup and operation. It shall provide JPEG video compression as well as standard MPEG-4 digital streaming video with flashing detector overlay. The MVP shall provide direct real-time iris and shutter speed control. The MVP image sensor shall be equipped with an integrated 559 step, 10x zoom lens that can be changed

using either configuration computer software. The digital streaming video output and all data communications shall be transmitted over the three-wire power cable.

a) Power

The MVP sensor shall operate on 110/220 VAC, 50/60Hz at a maximum of 25 watts. The camera and processor electronics shall consume a maximum of 10 watts and the remaining 15 watts shall support an enclosure heater.

b) Detection Zone Programming

Placement of detection zones shall be by means of a PC with a Windows XP, Vista or Windows 7 operating system, a keyboard, and a mouse. The PC monitor shall be able to show the detection zones superimposed on images of traffic scenes.

The detection zones shall be created by using a mouse to draw detection zones on the PC monitor. Using the mouse and keyboard it shall be possible to place, size, and orient detection zones to provide optimal road coverage for vehicle detection. It shall be possible to download detector configurations from the PC to the MVP sensor and cabinet interface module, to retrieve the detector configuration that is currently running in the MVP sensor, and to back up detector configurations by saving them to the PC fixed disks or other removable storage media.

The supervisor computer's mouse and keyboard shall be used to edit previously defined detector configurations to permit adjustment of the detection zone size and placement, to add detectors for additional traffic applications, or to reprogram the MVP sensor for different traffic applications or changes in installation site geometry or traffic rerouting.

c) Optimal Detection

The video detection system shall optimally detect vehicle passage and presence when the MVP sensor is mounted 30 feet (10 m) or higher above the roadway, when the image sensor is adjacent to the desired coverage area, and when the distance to the farthest detection zone locations are not greater than ten (10) times the mounting height of the MVP. The recommended deployment geometry for optimal detection also requires that there be an unobstructed view of each traveled lane where detection is required.

Although optimal detection may be obtained when the MVP is mounted directly above the traveled lanes, the MVP shall not be required to be directly over the roadway. The MVP shall be able to view either approaching or receding traffic or both in the same field of view. The preferred MVP sensor orientation shall be to view approaching traffic since there are more high contrast features on vehicles as viewed from the front rather than the rear. The MVP sensor placed at a mounting height that minimizes vehicle image occlusion shall be able to simultaneously monitor a maximum of six (6) traffic lanes when mounted at the road-side or up to eight (8) traffic lanes when mounted in the center with four lanes on each side.

Count Detection Performance

Using an installed camera that meets the optimal viewing specifications described above for count station traffic applications, the system will be able to accurately count vehicles with at least 98% accuracy under normal operating conditions (day and night), and at least 93% accuracy under artifact conditions. Artifact conditions are combinations of weather and lighting conditions that result from shadows, fog, rain, snow, etc. The volume count will be accumulated for the entire roadway (all traveled lanes), and

accumulated over time intervals that contain a minimum of one hundred (100) vehicles to ensure statistical significance.

d) Demand Presence Detection Performance

Using an installed camera that meets the optimal viewing specifications described above for intersection control traffic applications, the system will be able to accurately provide demand presence detection.

The demand presence accuracy will be based on the ability to enable a protected turning movement on an intersection stop line, when a demand exists. The probability of not detecting a vehicle for demand presence will be less than 1% error under all operating conditions. In the presence of artifact conditions, the MVP will minimize extraneous (false) protected movement calls to less than 7%.

To ensure statistical significance, the demand presence accuracy and error will be calculated over time intervals that contain a minimum of one hundred, protected turning movements.

These performance specifications will be achieved with a minimum of 2 presence detectors coupled with a single detector function (Type-9) to provide adequate road coverage to sample the random arrival pattern of vehicles at the stop line.

The calculation of the demand presence error will not include turning movements where vehicles do not pass through the presence detectors, or where they stop short or stop beyond the combined detection zones.

e) Speed Detection Performance

The MVP will accurately measure average (arithmetic mean) speed of multiple vehicles with more than 97% accuracy under all operating conditions for approaching and receding traffic.

The average speed measurement will include a minimum of 100 vehicles in the sample to ensure statistical significance. Optimal speed detection performance requires the camera location to follow the specifications described above for count station traffic applications with the exception that the camera must be higher than 13 m (40) feet.

The MVP will accurately measure individual vehicle speeds with more than 94% accuracy under all operating conditions for vehicles approaching the camera (viewing the front end of vehicles), and more than 90% accuracy for vehicles receding from the camera (viewing the rear end of vehicles).

These specifications will apply to vehicles that travel through both the count and speed detector pair and will not include partial detection situations created by lane-changing maneuvers.

To ensure statistical significance, the average speed accuracy and error will be calculated over time intervals that contain a minimum of one hundred vehicles.

Using a MVP sensor installed within the optimal viewing specifications described above or count station traffic applications.

Mounting Hardware

System shall include 10” pedestal camera mounting brackets for mounting on signal mast arms.

Acceptable Manufacturers:

- a) (AENCOREH) Econolite Autoscope ENCORE MVP Sensor with EasyLock Connector.
- b) No known equal.

3. Modular Cabinet Interface Unit

The modular cabinet interface unit shall provide the hardware and software means for up to eight (8) MVP sensors to communicate real-time detection states and alarms to a local traffic signal controller. It shall comply with the electrical and protocol specifications of the detector rack standards. The card shall have 1500 Vrms isolation between rack logic ground and street wiring.

The modular cabinet interface unit shall be a simple interface card that plugs directly into a 170 input file rack or a NEMA type C or D detector rack. The modular cabinet interface unit shall occupy only 2 slots of the detector rack. The modular cabinet interface unit shall accept up to sixteen (16) phase inputs and shall provide up to twenty-four (24) detector outputs.

Acceptable Manufacturers:

- a) (ATIP1) Econolite Autoscope ENCORE Terra Interface Panel Fit Pni#.
- b) No known equal.

4. Communications Interface Panel

The communications interface panel shall support up to six MVPs. The communications interface panel shall accept 110/220 VAC, 50/60 Hz power and provide predefined wire termination blocks for MVP power connections, a Broadband-over-Power-Cable transceiver to support up to 14Mb/s interdevice communications, electrical surge protectors to isolate the modular cabinet interface unit and MVP sensors, and an interface connector to cable directly to the modular cabinet interface unit.

The interface panel shall provide power for up to eight (8) MVP sensors, taking local line voltage 110/220 VAC, 50/60 Hz and producing 110/220 VAC, 50/60 Hz, at about 30 watts to each MVP sensor. Two ½-amp SLO-BLO fuses shall protect the communications interface panel. Spare fuses shall be included with each panel.

Acceptable Manufacturers:

- a) (ATAPE) Econolite Autoscope ENCORE Terra Access Point Econ.
- b) No known equal.

5. Branch Cable Specifications

This specification sets forth the minimum requirements for the branch cable. This “three-wires-only” cable is designed for 110VAC use between MVP sensors mounted on traffic structures and the traffic cabinet.

The cable shall consist of three conductors 18 AWG with an overall UV-resistant Low Density Polyethylene jacket.

- 18 AWG COMPONENTS: Three conductors, 18 AWG, 19 strands of 30 gauge tin-plated copper conductor diameter .046”/.052”
- CONDUCTOR INSULATION: Extruded polyethylene 200 with nominal .030” wall thickness
- COLORS: Black, green, and white
- JACKET: Extruded black polyethylene .040”/.050” wall thickness, UV-resistant
- FINISHED DIAMETER: .330” - .354” maximum
- ELECTRICAL: 600 volts (rms)
- CABLE IDENTIFICATION: The cable identification shall be printed with the manufacturer’s part number, number of conductors, conductor size, voltage rating, jacket material, and an indication that it is conduit rated (e.g., Terra Cable, Part #1175-011, 3 COND, 18 AWG, 600V, polyethylene jacket, conduit rated).
- PART NUMBER and CABLE LENGTHS: The Econolite part number for this cable is 1175-011 on a 1000 ft. spool, and 1175-010 on a 500 ft. spool.

Acceptable Manufacturers:

- a) Econolite cable #1175-011 on 1000 ft and #1175-010 on a 500ft spool.
- b) Cable, 3 Cond, 18 AWG Polyethylene.
- c) No known equal.

10-18.09 ELECTRICAL WIRING

Electrical wiring shall conform to Section 86-1.02F, “Conductors and Cables” of the State Specifications, Section 87-1.03F(3), “Conductors” of the Caltrans 2015 Standard Specifications, and Section 309-7 “Electrical Wiring” of the City of Davis Standard Specifications.

10-18.10 PULL BOX INSTALLATION

Pull boxes shall conform to Section 86-1.01C(2), “Pull Boxes” of the Caltrans 2015 Standard Specifications, Section 87-1.03C, “Installation of Pull Boxes” of the Caltrans 2015 Standard Specifications, and Section 309-5.4 “Pull Box Installation” of the City of Davis Standard Specifications.

10-18.11 FOUNDATIONS

Foundations shall conform to Section 309-6.3 “Foundations” of the City of Davis Standard Specifications.

10-18.12 POLES

Poles shall conform to Section 56-3, “Standards and Poles” of the Caltrans 2015 Standard Specifications and Section 309-6.4 “Poles” of the City of Davis Standard Specifications.

10-18.13 LUMINAIRES

Luminaires shall be LED and conform to Section 309-6.5 “Luminaire” of the City of Davis Standard Specifications. LED luminaires must be on the State of California Authorized Material List for LED luminaires and must:

1. Be self-contained, not requiring assembly.

2. Comply with UL 1598 for luminaires in wet locations.
3. Have a power supply with:
 - 3.1. ANSI/IEC rating of at least IP65.
 - 3.2. 2 leads to accept standard 0-10 V(dc).
 - 3.3. Dimming control compatible with IEC 60929, Annex E. If the control leads are open or the analog control signal is lost, the circuit must default to 100-percent power.
 - 3.4. Case temperature self rise of 77 degrees F or less above ambient temperature in free air with no additional heat sinks.
4. Weigh no more than 35 lb.
5. Have a minimum operating life of 63,000 hours when operated for an average time of 11.5 hours at an average temperature of 70 degrees F.
6. Be designed to operate over a temperature range from -40 to 130 degrees F.
7. Be operationally compatible with photoelectric controls.
8. Have a correlated color temperature range from 3,500 to 6,500 K and a color rendering index of 65 or greater.
9. Have a maximum-effective projected area of 1.4 sq ft when viewed from either side or end.
10. Have a housing color that matches a color no. 26152 to 26440, 36231 to 36375, or 36440 of FED-STD-595.
11. Have an ANSI C136.41-compliant, locking-type, photocontrol receptacle with dimming connections and a watertight shorting cap.
12. Comply with LM-79, LM-80 and California Test 611.

The individual LEDs must be connected such that a catastrophic loss or a failure of 1 LED does not result in the loss of more than 20 percent of the luminous output of the luminaire.

A luminaire must have the following identification permanently marked inside the unit and outside of its packaging box:

1. Manufacturer's name and trademark
2. Month and year of manufacture
3. Model, serial, and lot numbers
4. Rated voltage, wattage, and power in VA

An LED luminaire's onboard circuitry must include a surge protection device to withstand high-repetition noise transients caused by utility line switching, nearby lightning strikes, and other interferences. The device must protect the luminaire from damage and failure due to transient voltages and currents as defined in Tables 1 and 4 of ANSI/IEEE C64.41.2 for location category C-High. The surge protection device must comply with UL 1449 and ANSI/IEEE C62.45 based on ANSI/IEEE C62.41.2 definitions for standard and optional waveforms for location category C-High.

An LED luminaire and its associated onboard circuitry must comply with the Class A emission limits under 47 CFR 15(B) for the emission of electronic noise.

The fluctuations of line voltage must have no visible effect on the luminous output.

The operating voltage may range from 120 to 480 V(ac), 60 ± 3 Hz. The luminaire must operate over the entire voltage range or the voltage range must be selected from one of the following options:

1. Luminaire must operate over a voltage range from 95 to 277 V(ac). The operating voltages for this option are 120 V(ac) and 240 V(ac).
2. Luminaire must operate over a voltage range from 347 to 480 V(ac). The operating voltage for this option is 480 V(ac).

An LED luminaire must have a power factor of 0.90 or greater. The total harmonic distortion, current, and voltage induced into a power line by a luminaire must not exceed 20 percent. The L70 of the luminaire must be the minimum operating life or greater. Illuminance measurements must be calibrated to standard photopic calibrations.

The maximum power consumption and maintained illuminance of the LED luminaires must comply with the isofootcandle curves as shown.

An LED luminaire must not allow more than 10 percent of the rated lumens to project above 80 degrees from vertical and 2.5 percent of the rated lumens to project above 90 degrees from vertical.

The luminaire must have passive thermal management with enough capacity to ensure proper heat dissipation and functioning of the luminaire over its minimum operating life. The maximum junction temperature for the minimum operating life must not exceed 221 degrees F.

The junction-to-ambient thermal resistance must be 95 degrees F per watt or less. The use of fans or other mechanical devices is not allowed for cooling the luminaire. The heat sink must be made of aluminum or other material of equal or lower thermal resistance. The luminaire must contain circuitry that automatically reduces the power to the LEDs so the maximum junction temperature is not exceeded when the ambient temperature is 100 degrees F or greater.

The luminaire's housing must be fabricated from materials designed to withstand a 3,000-hour salt spray test under ASTM B117. All aluminum used in housings and brackets must be made of a marine-grade alloy with less than 0.2 percent copper. All exposed aluminum must be anodized. The housing's paint must comply with section 78-4.08. A chromate conversion undercoating must be used underneath a thermoplastic polyester powder coat.

The housing must be designed to prevent the buildup of water on its top surface. Exposed heat sink fins must be oriented to allow water to run off the luminaire and carry dust and other accumulated debris away from the unit. The optical assembly of the luminaire must be protected against dust and moisture intrusion to at least an UL 60529 rating of IP66. The power supply enclosure must be protected to at least an UL 60529 rating of IP43.

The housing must have a slip fitter capable of being mounted on a 2-inch-diameter pipe tenon. The slip fitter must:

1. Fit on mast arms with outside diameters from 1-5/8 to 2-3/8 inches
2. Be adjustable to a minimum of ± 5 degrees from the axis of the tenon in a minimum of 5 steps:
+5, +2.5, 0, -2.5, -5
3. Have clamping brackets that:
 - 3.1. Are made of corrosion-resistant materials or treated to prevent galvanic reactions
 - 3.2. Do not bottom out on the housing bosses when adjusted within the designed angular range
 - 3.3. Do not permanently set in excess of 1/32 inch when tightened

Each refractor or lens must be made of UV-inhibiting high-impact plastic, such as acrylic or polycarbonate, or heat- and impact-resistant glass. The refractor or lens must be resistant to scratching. Polymeric materials, except for the lenses of enclosures containing either the power supply or electronic components of the luminaire, must be made of UL94 V-0 flame-retardant materials.

An LED luminaire and its internal components must be able to withstand mechanical shock and vibration.

If the components are mounted on a down-opening door, the door must be hinged and secured to the luminaire's housing separately from the refractor or flat lens frame. The door must be secured to the housing to prevent accidental opening. A safety cable must mechanically connect the door to the housing.

An LED luminaire must have a barrier-type terminal block secured to the housing to connect field wires. The terminal screws must be captive and equipped with wire grips for conductors up to no. 6.

The conductors and terminals must be identified and marked.

10-18.14 PHOTO-ELECTRIC CONTROLS

Photo-electric controls, when required, shall be General Electric 402G660, or approved equal.

10-18.15 TRAFFIC SIGNAL FACES AND FITTINGS

Traffic Signal Faces and Fittings shall conform to Section 86-1.02R(4), "Signal Faces", and Section 87-1.03R(2), "Signal Faces", of the Caltrans 2015 Standard Specifications.

10-18.16 PEDESTRIAN SIGNAL FACES

All pedestrian signal heads shall be the countdown type, Model Number 430-6479-001X by Dialight Corporation or approved equal.

All LED countdown pedestrian signal modules shall:

1. Use LED as the light source.
2. Be made of material complying with ASTM D 3935.
3. Be fully compliant to ITE PTCSI Part 2 LED Pedestrian Traffic Signal Module Specification adopted 8/04/10.
4. Be Intertek/ETL certified.
5. Be designed to mount behind or to replace face plates of a standard Type A housing as specified in the ITE publication *Equipment and Material Standards*, chapter 3, "Pedestrian Traffic Control Signal Indications," and the *California MUTCD*.
6. Have internal components supported such that they withstand mechanical shock and vibration from high winds and other sources.
7. Use the required color and be the ultra-bright type rated for 100,000 hours of continuous operation for a temperature range from -40 to +74 degrees C.
8. Have replaceable signal lamp optical units.
9. Fit into the housing of a pedestrian signal section without modification.
10. Be a single, self-contained device that does not require on-site assembly for installation.
11. Have the following information permanently marked on the back of the module:
 - 11.1. Manufacturer's name
 - 11.2. Trademark
 - 11.3. Model number
 - 11.4. Serial number
 - 11.5. Lot number
 - 11.6. Month and year of manufacture
 - 11.7. Required operating characteristics, including:

- 11.7.1. Rated voltage
 - 11.7.2. Power consumption
 - 11.7.3. Volt-ampere
 - 11.7.4. Power factor
12. Have prominent and permanent vertical markings for accurate indexing and orientation within the signal housing if a specific mounting orientation is required. Markings shall be a minimum of 1 inch in height and include an up arrow and the word "up" or "top."

The housing size shall be 16" x 18".

The module shall maintain an average luminance value for at least 5 years of continuous signal operation for a temperature range from -40 to +74 degrees C.

The module shall operate over the specified ambient temperature and voltage range and be readable both day and night at distances up to the full width of the area to be crossed. The minimum luminance values shall be 1,400 cd/m² for countdown timer and "Upraised Hand", and 2,200 cd/m² for "Walking Person."

The module shall operate at a frequency of 60 ± 3 Hz over a voltage range from 80 to 135 V(ac) RMS without flicker perceptible to the unaided eye. Fluctuations of the line voltage shall have no visible effect on the luminous intensity of the indications. The rated voltage for measurements shall be 120 V(ac).

The countdown module shall operate during the pedestrian change interval. The module shall begin counting down when the flashing "Upraised Hand" interval turns on, counting down to 0 and turning off when the steady "Upraised Hand" interval turns on.

10-18.17 AUDIBLE PEDESTRIAN PUSHBUTTONS

Audible pedestrian units (APU) shall be installed at the following intersections:

- Mace Blvd and Cowell Blvd
- Mace Blvd and San Marino Drive

APUs shall be Polara Navigator EN2 PBS + SP1 software package or approved equal which meets or exceeds the specifications below.

The units shall consist of a 2-wire push button station which shall serve as the pedestrian interface to the accessible pedestrian system. The system shall include a programmable central control unit mounted in the signal controller cabinet and up to 16 push button stations (PBS) with a maximum of four push button stations per channel. The programming options may include either: A) a portable computer with: 1) a USB port at the PBS; or 2) an Ethernet connection to an office portable computer; or B) a handheld configuration device with infrared connection for use at the PBS. All sounds shall emanate from the back of the unit. A sunlight-visible red LED shall light to confirm the push button has been pushed. The PBS includes the body, sign, ADA compliant push button and mounting hardware.

Each PBS shall provide both vibrating arrow button and audible sounds.

The central control unit shall provide the following features:

1. Confirmation of button push via latching LED, sound, and tactile bounce;

2. Direction of travel (with extended button push);
3. Standard locating tone during Don't Walk and Clearance;
4. Cuckoo, Chirp, Rapid Tick, Verbal, or user customized voice messages during walk. At least 5 walk sound options shall be included with at least 2 additional locations for custom voice messages and walk sounds;
5. Vibrating button during walk;
6. Choice of 4 locating tones, custom sound, or verbal countdown during PED clearance;
7. All sounds will automatically adjust to ambient over 60dB range;
8. Sounds will have a minimum and maximum volume that is independently set;
9. Sounds will be synchronized across all PBS's;
10. Extended button push will be able to turn on, boost volumes, and/or mute all sounds except those on the activated crosswalk;
11. Will provide pre-configured special messages played throughout the entire intersection upon a central system (pre-emption) activated signal;
12. Custom audio messages will be easily changed via the USB port;
13. Firmware updates will be provided through the USB port;
14. Independent ambient adjustment setting for the locate tone;
15. Two separate program configurations with all options available which can be switched via external input

The operating specifications are as follows:

| Parameter | Rating |
|-----------------------------|--|
| Operating Temperature Range | -34°C to +74°C (-30°F to +165°F) |
| Storage Temperature Range | -45°C to +85°C (-50°F to +185°F) |
| Operating Force | 3.0 lbs Maximum |
| MTBF | 3,000,000 hours |
| Switch Operating Life | Greater than 20 Million Operations |
| Maximum Volume | 100 dB @ 1 meter |
| Minimum Ambient Sound | 37 dBA |
| Audio Quality | 3% THD plus Noise @ 1 kHz |
| Operating Voltage | 120 VAC at the cabinet for the system. PBS operates off of 18-22 VDC from the Central Control Unit |
| Audio File Updates | Via Secure USB Port |
| Microcode Updates | Via Secure USB Port |
| Sound Synchronization | All Sounds are synchronized |
| Automatic Volume Range | Automatically Adjusts to Ambient Volume over a 60 dB Range |
| Volume Over Ambient Noise | Adjustable up to 10 dB |
| Locate Tone Volume | Adjustable from -24dB to +6dB Ambient |
| False Walk Detection | Built-in - Four Independent Checks |
| Event Monitoring | Built-in - PBS Health Check Every 30 Seconds with Fault Recording |
| Ethernet Interface | 10/100BASE-T, Built-in Server-Host with Password Protection |

| Parameter | Rating |
|------------------------|---|
| Extended Push Priority | Mutes Entire Intersection except the Selected Crosswalk |
| Extended Push | 0 to 6 Seconds in 0.5 Second Steps |

The product design shall be in compliance with the following:

| Test Type | Compliance |
|--------------------------------|--------------------------------|
| Functionality | MUTCD 2009 - 4E |
| Temperature and Humidity | NEMA TS 2 |
| Transient Voltage Protection | NEMA TS 2 |
| Transient Suppression | IEC 61000-4-4, IEC 61000-4-5 |
| Electronic Noise | FCC Title 47, Part 15, Class A |
| Mechanical Shock and Vibration | NEMA TS 2 |
| EN2 PBS Enclosure | NEMA 250 - Type 4X |
| Electrical Reliability | NEMA TS 4 |

a) Warranty

The Contractor shall provide from the manufacturer a written warranty against defects in materials and workmanship for LED Pedestrian Signal Face (PSF) modules for a minimum period of 48 months after installation of LED PSF modules. Replacement LED PSF modules must be provided within 15 days after receipt of failed LED PSF modules at no additional cost to the City of Davis. Replacement LED PSF modules must be delivered to the City of Davis Public Works Department at 1717 Fifth Street.

10-18.18 EMERGENCY VEHICLE DETECTOR SYSTEM

Emergency vehicle detectors shall be GTT 721 detectors, or approved equal.

The priority control system shall offer the capability of identifying two levels of priority vehicles at signalized intersections and one level of probe vehicle. High priority for emergency vehicles and low priority for other authorized users will request the traffic signal controller to advance to or hold a desired traffic signal display selected from phases normally available. A Probe Vehicle Mode must be available for traffic engineering, run time analysis and response time data gathering. The probe vehicle mode will not preempt the traffic signal. The Probe Mode will record of the probe vehicle’s presence at a Priority Controlled intersection. The system will only allow users with flash rates of 14.0359Hz +/-0.05% for high priority and 9.63855Hz +/-0.05% for low priority activation of the system. The system shall also be capable of identifying up to 10,000 individual vehicles by the coded light signal of the vehicle emitter for security and vehicle logging.

The system will have non-authorized vehicle control with the capability of only allowing use of the system to authorized users with valid identification codes.

The system will record up to 1000 activations, on a continuous basis. The latest preemption will replace the oldest preemption. The system must record the date and time of the preemption, the duration of the preemption, the direction from which the call was received, the vehicle identification number (class and ID), intersection name, log entry number, priority of vehicle, final green signal phase, time spent in final greens, duration of call, and recording of the actual traffic controller green indications. Further, the system must record approximate distance of each emitter recorded during last moment of detection. This data is to

be recorded in the phase selector located inside the cabinet. Information is to be easily accessible via RS232 port and software. The phase selector shall also have the capability to assign a relative priority to a call request within high or low priority based on the received vehicle ID class.

The system shall offer automated signal intensity threshold settings. Activation range shall be set by downloading a code through the software and by using a combination of the software and a special range setting emitter. The system range shall be capable of precise settings using 1200 increments; and actuating between 100 feet and up to 2500 feet passage of 8 separate emergency vehicles, individually approaching the test intersection. Each equipped emergency vehicle will be required to activate the test intersection at 1800 feet with a variance of 100 (+/-) feet. The system must be able to set separate ranges on any detector; one for low priority and one for high priority.

The system will be a matched component system with all components from one manufacturer consisting of:

- A Data-Encoded Emitter. The data-encoded emitter will trigger the system. It will send the infrared signal to the detector. It will be located on the priority or probe vehicle.
- Phase Selectors to be located in the controller cabinet with green sense harnesses wired into the traffic controller per manufacturer specifications.
Phase selectors shall have two channels.
- Detector cable with four conductors yellow, blue, orange and bare.
- Vehicle detectors shall be dual input single output.

The system shall offer the capability of detector diagnostics through connecting a lap top computer to the phase selector and reading electrical line noise between the traffic signal cabinet and detector mounted in the intersection. System must display information, such as optical noise levels, so as to confirm proper operation of detector and therefore reduce inspection time and effort.

10-18.19 REMOVING, REINSTALLING OR SALVAGING ELECTRICAL EQUIPMENT

Based on written direction and approval from the City of Davis, any salvaged electrical materials shall be hauled to City of Davis Public Works Department, 1717 Fifth Street, and stockpiled.

The Contractor shall provide the equipment, as necessary, to safely unload and stockpile the material. A minimum of 2 working days' notice shall be given to the City of Davis prior to delivery.

10-18.20 TRAFFIC SIGNAL EQUIPMENT FUNCTIONAL TEST

Prior to requesting final inspection for signal equipment, the Contractor shall perform the following functional tests in the presence of the City of Davis:

- A. The continuity and ground of each circuit shall be tested.
- B. All 120 volt vehicular and pedestrian indications shall individually be turned on momentarily and proper operation and phasing shall be checked.
- C. All 24 volt pedestrian push button conductors shall be checked for continuity to verify phase locations and conductor integrity.
- D. All pushbuttons and signal detection shall be checked for proper operation and phasing.
- E. All vehicular and pedestrian signal heads shall be properly adjusted and covered.

- F. All vehicular and pedestrian signal heads shall individually be momentarily illuminated to verify proper operation and phasing.
- G. Check primary Ground for proper resistance. Ground shall not exceed current NEC requirements.

If any system component or circuit does not operate properly, it shall be repaired by the Contractor and re-inspected by the City of Davis. After the successful completion of all tests, the Contractor shall request final inspection by the City of Davis' Representative Inspector.

**End
Technical Specifications**