

# SPECIAL PROVISIONS

## LAWRENCE EXPRESSWAY PAVEMENT REHABILITATION PROJECT BETWEEN QUITO ROAD AND HOMESTEAD ROAD

COUNTY STANDARD SPECIFICATIONS: MAY 2000

STATE STANDARD SPECIFICATIONS: 2023

**BID OPENING DATE: May 30, 2024**

<http://www.sccgov.org/portal/site/rda/>



*Christine Li*  
Christine Li, PE  
Associate Civil Engineer

**County of Santa Clara  
Roads and Airports Department**



DocuSigned by:  
*Harry Freitas*  
6DC28984CB2D46D  
Harry Freitas  
Director

**County of Santa Clara  
Roads and Airports Department**





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**SECTION 100 – NOTICE TO BIDDERS**

Notice is hereby given that sealed bids will be received by the County of Santa Clara's ("County" or "Owner") Clerk of the Board of Supervisors, County Government Center, 70 West Hedding Street, East Wing, 10<sup>th</sup> Floor, San Jose, California, 95110, before 2:00 p.m. on

the day of May 30, 2024 For the Project Lawrence Expressway Pavement Rehabilitation Project Between Quito Rd and Homestead Rd

The Work consists of providing temporary traffic control system, supplying labor, materials & equipment as required for pavement rehabilitation and related improvements, including, cold in-place recycling (CIR), hot mix asphalt (HMA) overlay, pavement repair, roadway excavation, Portland cement concrete (PCC) curb, curb & gutter, and sidewalk replacement, ADA access improvements, removal and replacement of pavement markings and striping, remove and install Signage, Roadside safety barrier upgrades, install pedestrian sensors, replace cameras, removal and replacement of inductive traffic loops, treating bridge deck with methacrylate resin and polyester concrete overlay, and other details of work not mentioned above that are required by the Project Plans and these Special Provisions.

**100-01 TIME OF COMPLETION**

The time limit for the completion of Work is 100 working days commencing on the first charged day, which will be approximately 30-45 days following the Notice of Award by the County of Santa Clara.

Liquidated damages shall be assessed in the amount of \$ 1500 for each calendar day the Work remains incomplete beyond the time limit for completion.

Owner may withhold liquidated damages from payments as such damages accrue, or in Owner's discretion, withhold liquidated damages from any payments due, or that may become due under the Contract, including retention and final payment (California Government Code Section 53069.85).

This project may be subject to periodic winter shut down or delayed start due to storm water issues. If this occurs, it shall be at no financial cost to County. The charging of working days may be suspended during such shutdowns, except on those days work on the "controlling items of work" are performed. (See County Standard Specifications section 8.05 for additional information.)

**100-02 BID PLANS AND SPECIAL PROVISIONS**

Bid Plans and Special Provisions may be obtained from Periscope: <https://www.periscopeholdings.com/s2g>

All Questions regarding the Bid Plans and Special Provisions go to: <https://www.periscopeholdings.com/s2g>

A copy of the County of Santa Clara Standard Specifications and Standard Details may be obtained at <https://countyroads.sccgov.org/do-business-us/published-standards-specifications-documents-and-forms>

**100-03 PROJECT ENGINEER**

The County of Santa Clara Roads & Airports Department's Project Engineer for this Project is

Christine Li , PE

**100-04 CONTRACTOR LICENSE**

The Contractor shall possess either a Class A License or a combination of the following licenses: Class N/A

If a Bidder does not possess the required Contractor License(s) at the time the Bid is submitted (per Business and Professions Code section 7028.15), the Bid shall be considered non-responsive and shall be rejected by Owner. Owner may enforce the required forfeiture of the Bidder's Bond.

The Bidder and any subcontractors must be licensed by the Contractors State License Board of the State of California, and contractor and subcontractor information as shown on Bid Forms 2A & 2B shall be supplied in accordance with Public Contract Code section 4104.

**100-05 STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS REGISTRATION**

No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the State of California Department of Industrial Relations pursuant to Labor Code section 1725.5 (with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)).

No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

Failure of contractor to timely supply missing information shall be cause for rejection of bid.

**100-06 PRE-BID OPENING CONFERENCE**

A Pre-Bid Opening conference will not be held for this project.

Bidders should have fully inspected the Project site in all particulars and become thoroughly familiar with the terms and conditions of the Bid Plans and Special Provisions as well as local conditions affecting the

performance and costs of the Work, prior to this conference. Bids are required for the entire Work described herein. Any awarded contract is subject to the state nondiscrimination and compliance requirements.

**100-07 BID SUBMITTAL**

- Bidder's original signature(s) must appear on all Bid Forms and on the original Bidder's Bond.
- Bidder's Bond: Each Bid must be accompanied by a Bidder's Bond, cash, or a certified cashier's check, in the sum of not less than 10% of the total aggregate of the Bid, including all additives and/or all alternate bid items. The original Bid Bond must be provided by an admitted Surety insurer, authorized to issue Surety bonds in the State of California, and it must execute the Bid Bond. The check or bond shall be made payable "County of Santa Clara".
- Bid Forms must be completed in ink, completely filled out, and submitted on the forms furnished as part of the Bid Documents. Faxed Bids or alteration to any Bid Form will not be considered by Owner. If the Bid amount or other material information is changed, the change must be initialed.
- All Bids must be addressed to the Office of the Clerk of the Board for the County of Santa Clara, and shall bear the title or name of the project as it appears on the Bid Documents.
- All Bids mailed or express delivered shall be in a sealed envelope inside the mailing envelope. The outside of both the outer mailing envelope and the inner sealed envelope shall be clearly printed "BID PROPOSAL – DO NOT OPEN" in large letters on the front and back.
- Sealed bids will be received by the County of Santa Clara's Clerk of the Board of Supervisors, located at County Government Center, 70 West Hedding Street, East Wing, 10th Floor, San Jose, California, 95110.

**100-08 BID OPENING & BASIS OF AWARD**

Bids will be publicly opened and read by the Clerk of the Board of Supervisors at the time and place indicated above. A report of the results will be made by the Clerk of the Board of Supervisors at a publicly noticed regular or special meeting of the Board of Supervisors. The anticipated date of the meeting will be announced at the Bid opening.

The basis of award of the Contract shall be as stated on Bid Form 1 – Bid Proposal.

**100-09 BID RIGGING**

The US 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.

**100-10 BID ACCEPTANCE / REJECTION**

The acceptance of Bid for award is subject to approval by the County of Santa Clara Board of Supervisors. The County of Santa Clara Board of Supervisors reserves the right to reject any and/or all Bids, or to waive any minor irregularities or discrepancies in the Bids. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Public Contract Code section 4104, or engage in the performance of any contract for public work, as defined in Chapter 1, Public Works of Part 7, Division 2 of California Labor Code, unless they are currently registered and qualified to perform public work pursuant to California Labor Code section 1725.5.

It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 of the California Labor Code at the time the contract is awarded.

All other factors being equal, tied Bids will be determined by the Bidder who submitted their Bid first, as shown on the date and time stamps on the Bids. If date and time stamps are not available, the tied Bids will be determined by the flip of a coin in the presence of Bidders and witnesses.

**100-11 SUBSTITUTIONS**

Contractor may offer any material, process, article, or equipment that is substantially equal or better in every respect to that so indicated or specified; provided, however, that if the material, process, article, or equipment offered by Contractor is not, in the opinion of Owner's Project Engineer, substantially equal or better in respect to that specified, then Contractor must furnish that material, process, article, or equipment specified or one that in the opinion of Owner's Project Engineer is substantially equal or better in every respect.

Proposals for alternative material(s), process, article(s), or equipment must be submitted in writing during a period starting with the Notice to Proceed and ending 35 days later, in accordance with the requirements of Section 6.09 "Trade Names and Alternatives" of the County of Santa Clara Roads & Airports Department Standard Specifications, amended as stated in Section 106 of these Special Provisions.

**100-12 BONDS AND INSURANCE**

The successful Bidder shall deliver a signed Payment Bond, Performance Bond, Certificates of Insurance, and Special Endorsements to the Clerk of the Board of Supervisors for approval before Owner will issue a Notice to Proceed with the Work. No contractual relationship shall exist between the parties until all bonds and insurance coverages have been approved by Owner's Project Engineer.

**100-13 SUBSTITUTION OF SECURITIES**

Pursuant to Section 9.06 "Substitution of Securities" of the County of Santa Clara Roads & Airports Department Standard Specifications, the Contractor may substitute securities for any money withheld from progress



payments, using the Escrow Agreement form provided in Section 112 "Contract Forms" of these Special Provisions.

#### **100-14 PREVAILING WAGE REQUIREMENT**

Contractor's attention is directed to Section 7.07 "Prevailing Wage & Payroll Records" of the County of Santa Clara Roads & Airports Department Standard Specifications.

Pursuant to Section 7.07 "Prevailing Wage & Payroll Records" of the County of Santa Clara Roads & Airports Department Standard Specifications, workers employed in the Work must be paid at the rates at least equal to the prevailing wage rates last adopted by the Director of the California Department of Industrial Relations, which rates are on file at the Office of the Clerk of the Board of Supervisors, and copies of which are available to any interested parties on request. The rates are also available on the State of California Department of Industrial Relations website at California Department of Industrial Relations Home Page <https://www.dir.ca.gov/>.

#### **100-15 PRESERVATION OF CULTURAL RESOURCES**

- ☐ The Work site is deemed "Archeologically Sensitive" and the provisions relating to preservation of cultural resources in Section 8.14 "Preservation of Cultural Resources" of the County of Santa Clara Roads & Airports Department Standard Specifications shall apply.
- ☒ The Work site has not been deemed "Archeologically Sensitive."

#### **100-16 COVID-19**

The County of Santa Clara requires contractors and subcontractors to comply with all County requirements in effect relating to COVID-19 for their personnel who routinely perform services for County onsite and share airspace with or proximity to other people at a County facility as part of their services for County as set forth in a County Health Order (or similar directives) available at <https://covid19.sccgov.org/home>. Proposer acknowledges that if awarded a contract resulting from this solicitation, Proposer and any subcontractor (at any tier) shall, for the duration of the contract, comply with any County COVID-19 requirements in effect as set forth in the COVID-19 REQUIREMENTS contract term in the contract template incorporated into this solicitation.

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## SECTION 101 – PLANS AND SPECIFICATIONS

The Project shall be constructed and administered in accordance with the Contract Documents issued for this Project. The Contract Documents consist of the Special Provisions, Plans, County Standard Specifications, County Standard Details, State Standard Specifications, State Standard Plans, and any Addendum or written modification to any of the foregoing. (For definition of “Plans,” “County Standard Specifications,” and “State Standard Specifications” see Section 1 of the County Standard Specifications as approved May 2000, including any applicable amendments).

The State Standard Specifications applicable to this Project are Sections 9 through 99 inclusive of the State Standard Specifications dated 2023, and its amendments as approved by the State of California, Department of Transportation (“Caltrans”). The required version of the State Standard Specifications and State Standard Plans to be used on this Project is indicated below.

Attention of the Bidder is directed to Section 106(A)(10) of these Special Provisions, which amends Section 5.19 “Coordination, Interpretation and Order of Precedence of Contract Documents” of the County Standard Specifications.

Attention of the Bidder is also directed to Section 110, “Technical Specifications” of these Special Provisions and Section 106 “Amendments to County Standard Details and Specifications”, which include modifications and/or additions to the County Standard Specifications, that are particular to this Project.

### STANDARD SPECIFICATIONS

COUNTY STANDARD SPECIFICATIONS DATED MAY 2000. Electronic version of the County-issued Amendments to County Standard Specifications is available online for download from County’s website at <https://countyroads.sccgov.org/do-business-us/published-standards-specifications-documents-and-forms>. A hard copy of the Amendments is available at the Permit Counter of the County of Santa Clara Department of Roads & Airports located at 101 Skyport Drive, San Jose, California 95110, for walk-in review by Bidders. Amendments with the latest issue date up to the Bid Opening date shall apply to the Project.

STATE STANDARD SPECIFICATIONS DATED 2023. Electronic version of the Caltrans-issued Amendments to State Standard Specifications is available online for download from: Caltrans website at <https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications>

### STANDARD PLANS

COUNTY STANDARD DETAILS MANUAL DATED SEPTEMBER 1997. Electronic version of the County-issued Amendments to County Standard Specifications is available online for download from County’s website at <https://countyroads.sccgov.org/do-business-us/published-standards-specifications-documents-and-forms>. A hard copy of the Amendments is available at the Permit Counter of the County of Santa Clara Department of Roads & Airports located at 101 Skyport Drive, San Jose, California 95110, for walk-in review by Bidders. Amendments with the latest issue date up to the Bid Opening date shall apply to the Project.

STATE STANDARD PLANS DATED 2023. Electronic version of the Caltrans-issued Amendments to State Standard Plans is available online for download from: Caltrans website at <https://dot.ca.gov/programs/design/ccs-standard-plans-and-standard-specifications>

**SECTION 102 – BID REQUIREMENTS AND PROCEDURES****102-01 BID FORMS**

Bidder's attention is directed to Section 2 "Bid Requirements and Conditions" of the County Standard Specifications, and these Special Provisions.

In order for a Bidder to receive consideration of their Bid, each of the Bid Forms contained in Section 111, "Bid Forms", shall be completed, and the forms' language must not be changed.

Bidder's original signature(s) must appear on all of the following listed Bid Forms and on the Bidder's Bond:

BID FORM 1	BID PROPOSAL
BID FORM 2A	CERTIFICATION OF SUBCONTRACTING LIMITATIONS
BID FORM 2B	DESIGNATION OF SUBCONTRACTORS
BID FORM 3	STATEMENT REGARDING VIOLATION OF LAW OR SAFETY REGULATION
BID FORM 4	DESIGNATION OF INSURANCE AND BONDING COMPANIES
BID FORM 5	EQUAL OPPORTUNITY REQUIREMENTS
BID FORM 6	NONCOLLUSION AFFIDAVIT
BID FORM 7	STOP PAYMENT NOTICE INFORMATION
BID FORM 8	BIDDER'S BOND
BID FORM 9	NOT USED

**102-02 BID PROTEST AND PROCEDURES**

It is the policy of the County that contractors have a process in which they can protest the bid of another contractor, or to challenge steps taken during a solicitation process that the Bidder believes constitutes an abuse of discretion by the County or misconduct or impropriety by County officials or evaluation team members.

Attention is directed to the following bid protest procedures. The decision resulting from the established protest process shall be the final decision of the County.

**PROTEST PROCEDURES FOR PUBLIC WORKS**

- A. This protest procedure applies to all public works procurements, whether Invitation to Bid, Request for Proposals, Prequalification, or other form of competitive procurement, formal or informal. The words “bid” and “bidder” shall be interchangeable with “proposal and “proposer” respectively, as appropriate for the specific procurement.
  
- B. Only a person or entity who has submitted a bid is eligible to lodge a protest. Bid protests will not be accepted from non-bidders, including, but not limited to, subcontractors, subconsultants, or other third parties. A bidder may also not rely on the protest submitted by another bidder, but instead must timely pursue its own protest
  
- C. Protest Regarding the Legal Sufficiency of Procurement Documents and Process. Any protest (including supporting documentation) relating to the legal sufficiency of the procurement documents or the procurement solicitation process must be emailed so that it is received by the Owner’s Project Manager identified in the procurement documents before 5:00 p.m. of the 5th business day after the release of the solicitation. Any protest not received by the deadline, or sent to any person other than Owner’s Project Manager, may be rejected or dismissed in Owner’s sole discretion. The protest must be in writing and state the specific legal authority establishing the deficiency in the procurement documents or procurement solicitation process. Any bidder who fails to submit a timely protest subject to this provision shall be deemed to have waived any such protest. Owner may respond by any reasonable means, including, without limitation, by issuing an addendum, issuing a letter to the protester, or canceling the procurement.
  
- D. Protest of Owner Rejection of Bid as Non-Responsive or Bidder as Non-Responsible. If Owner determines that the apparent lowest bid(s) are non-responsive or the lowest bidder(s) are non-responsible (after conducting a non-responsibility hearing or bidder waiving any objection to a non-responsibility determination), Owner shall reject the bid. Owner will notify the bidder in writing that the bid has been rejected, and state the basis for the rejection. The rejected bidder may protest Owner’s decision. The protest must be in writing and emailed to Owner’s Project Manager before 5:00 p.m. within 5 business days of the issuance of the rejection
  
- E. Protest Regarding Award
  - 1. The Owner’s Project Manager or designee will send an email or otherwise provide an announcement to all bidders informing each of the bid(s) that was/were selected or deemed to be a finalist. The announcement may take any reasonable form in the Owner’s discretion, including, but not limited to, providing an email to bidders, and/or posting results on Periscope or other similar electronic bidding platform utilized by the County
  - 2. The written protest and all supporting documentation must be emailed to the Owner’s Project Manager listed in the procurement documents so that it is received before 5:00 p.m. on the 5th business day after the announcement in the preceding section. Owner will not consider, and immediately dismiss, bid protests that are lodged before Owner issues the notice of intent to

award, or notice of finalist(s). Any protest not received by the deadline, or sent to any person other than the Owner's Project Manager, may be rejected or dismissed by Owner in Owner's sole discretion.

- F. For all protests, a protest received on or after 5:00 p.m. shall be considered received as of the next business day. A business day does not include weekends or County observed holidays

G. Contents of Protest:

1. All protests lodged, regardless of basis, must conform to the following content requirements.
2. The protest must be in writing. The following must be written on the cover or subject line of the protest: "Protest Relating to [SOLICITATION NUMBER]." The written protest must contain the following information:
  - a. the name, street address, electronic mail address, and telephone and facsimile number of the protester;
  - b. signature of the protester or its representative;
  - c. clearly-stated grounds for the protest and supporting information that forms the basis of the protest, including the specific portions of the bid documents, plans, specification, bid proposal, and/or applicable law or regulation that was not complied with;
  - d. copies of all relevant documents; and,
  - e. the form of relief requested.

Protests should be concise and logically arranged. All documents submitted by the protester are public records subject to disclosure under the California Public Records Act.

3. The protester may not present any additional grounds or arguments after submission, unless requested by Owner. All protest documents shall be public records.
4. If a protest contends there was an error made by Owner officials or evaluation team members, a difference of opinion regarding the scoring or points to be awarded to a proposal in any or all categories does not constitute for protest purposes an error, an abuse of discretion or process, or misconduct

H. Protest Resolution Process

1. Upon receipt of a timely protest, the department will attempt to informally resolve the protest. This will include providing a copy of the protest to the protested bidder, and request a response within a time frame set by Owner, typically 5 calendar days.
2. The director of the department or its designee overseeing the procurement will render its final decision in writing. The director or designee may, consistent with applicable law and in its sole discretion, use any available resources and information to resolve the protest. The director or designee has the discretion to contact the protester, protested bidder, schedule a meeting, or conduct an informal hearing

**I. Protest Remedies**

1. In accordance with applicable law, Owner has no obligation to delay or otherwise postpone an award of contract based on a bidder's protest.
2. The remedies available pursuant to these procedures may include, but are not limited to, the reevaluation or the cancellation of a solicitation. However, no remedy may require Owner to execute a contract with any entity, which authority is solely reserved for the Board of Supervisors or an official with appropriate delegated authority.
3. The procedures and time limits set forth herein are mandatory and are each bidder's sole and exclusively remedy in the event of a protest. A bidder's failure to timely complete the procedures set forth herein shall be deemed a failure to exhaust administrative remedies. Failure to exhaust administrative remedies, or failure to comply with the protest procedures, shall constitute a waiver of any right to further pursue a bid protest, including the filing of any claim or legal proceedings



## **SECTION 103 – EQUAL EMPLOYMENT OPPORTUNITY AND WORKING ENVIRONMENT REQUIREMENTS**

### **103-01 EQUAL EMPLOYMENT OPPORTUNITY**

Contractor's attention is directed to the County Standard Specifications Section 7.01, "Compliance with Laws and Regulations", in totality and Section 7.02, "Contractor's Licensing Laws", and Section 7.03, "Equal Opportunity Requirements".

### **103-02 WORKING ENVIRONMENT**

Contractor shall ensure and maintain a working environment free of personal harassment and intimidation as set forth in County Standard Specifications section 5.15, "Working Environment" and as amended January 7, 2011.

In the event that the Contractor and/or its workforces fail to comply with this provision, Contractor and/or Contractor's workforces may be subject, but not limited, to the requirements stated in the following County Standard Specifications Sections:

- 5.14, "Character of Workers" and as amended dated January 7, 2011;
- 8.05, "Temporary Suspension of Work";
- 8.08, "Termination of Control";
- 9.08, "Progress Payments"; and
- Such other remedies as are provided in these Contract Documents or as allowed by law.

### **103-03 ASSIGNMENT OF CLAYTON ACT, CARTWRIGHT ACT CLAIMS**

Contractor hereby assigns to County all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by Contractor for sale to County pursuant to this Agreement.

### **103-04 COVID-19 REQUIREMENTS**

Contractor shall comply with all County requirements in effect relating to COVID-19 for persons who routinely perform services for County onsite and share airspace with or proximity to other people at a County facility as part of their services for County as set forth in a County Health Order (or similar directives) available at <https://covid19.sccgov.org/home>, and incorporated herein by this reference. Contractor shall comply with all reasonable requests by County for documentation demonstrating Contractor's compliance with this Section.

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**SECTION 104 – PRECONSTRUCTION REQUIREMENTS****104-01 GENERAL REQUIREMENTS**

Attention is directed to the provisions in Sections 3.03.03, “Submittals for all Contracts prior to Contractor Performing Work”, and 8.03, “Beginning of Work”, of the County Standard Specifications, as well as these Special Provisions.

Following the approval of bonds and insurance coverages and the execution of the Agreement, Owner will issue a Notice to Proceed with the Work. Contractor cannot occupy the right-of-way before the Notice to Proceed has been issued by the Roads and Airports Department.

The Bidder to whom the Contract is awarded by Owner shall, prior to beginning of Work, submit to the Project Engineer the compliance material information required in the County Standard Specifications section, 3.03 “Execution of Contract.” Payment may be withheld on all work performed prior to submittal of the aforementioned compliance material.

Contractor shall furnish the Project Engineer with a statement from the vendor that the order for long lead time items required for this Contract has been received and accepted by said vendor and said statement shall be furnished within ten (10) calendar days after the date of the Notice to Proceed.

Owner will not be liable for any damages suffered by Contractor as the result of a labor dispute (including one involving public employees) which prevents Owner from performing any of its obligations set forth in these Contract Documents. Contractor shall within five (5) calendar days from the beginning of any delay notify Owner in writing of the cause of the delay. Owner will ascertain the facts and the extent of the delay, and extend the time for completing the Work when, in the Owner’s judgment, the findings of facts justify such an extension. Owner’s finding of fact thereon shall be final and conclusive on the parties hereto.

**104-02 MANDATORY PRE-CONSTRUCTION CONFERENCE**

Prior to the issuance of the Notice to Proceed, a mandatory pre-construction conference will be held at the Roads & Airports Department, 101 Skyport Drive, San Jose, California, 95110, for the purpose of discussing with Contractor the scope of Work, Contract drawings, Specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution of and the satisfactory completion of the Project as required. Contractor’s representatives at this conference shall include Subcontractors’ superintendents for the Work.

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**SECTION 105 – GENERAL CONDITIONS****105-01 FINAL PAY QUANTITY ITEMS**

Attention is directed to the provisions in Section 9.01, "Measurement and Final Pay Quantities", of the County of Santa Clara Standard Specifications. Items of Work that are "Final Pay Quantity Items" are designated with "F" on Bid Schedule in Section 111 – Bid Forms.

**105-02 SPECIALTY ITEMS OF WORK**

Attention is directed to the provisions in Section 8.01, "Subcontracting" of the County Standard Specifications. Items of Work that are "Specialty Items" are designated with "S" on Bid Schedule in Section 111 – Bid Forms.

**105-03 ENGINEER'S FACILITIES**

☒ Engineer's Facilities are not required for this Contract.

☐ Engineer's Facilities are required for this Contract in accordance with the following:

- Contractor shall provide adequate office facilities, including a private telephone in these facilities for the sole and exclusive use of the Project Engineer and/or Project Inspector at the site of the Work. The Engineer's Facilities shall consist of a building or portable field office-type trailer with the minimum following area:

On projects awarded by the Owner between:		Surface Area:
\$0.00	and \$50,000	120 square feet
\$50,000.01	and \$500,000	160 square feet
\$500,000.01	and \$1,000,000	300 square feet
\$1,000,000.01	and OVER	450 square feet

This facility shall not be less than 10' wide, with ceiling height not less than 8' high, and shall contain a desk, table and/or counter for use in viewing plans. Adequate chairs, heat, light, ventilation, drinking water and toilet facilities shall be provided by Contractor. All telephone calls pertaining to the Work made by the Project Engineer or Project Inspector from the telephone provided for their use shall be made at Contractor's expense. The facilities called for herein shall be provided at the beginning of the Project and shall be maintained until Acceptance by the Owner.

The above facilities shall be located and installed, including hook-up of all required utilities, as agreed by the Project Inspector.

- Payment for Engineer's Facilities when not included in the Contract as a separate pay item shall be considered as included as part of the "Mobilization" pay item. When the Contract does not include a contract pay item for "Mobilization" as specified above, full compensation for the necessary Engineer's Facilities as required above shall be considered as included in the prices paid for the various Contract items of work involved. No additional compensation or Contract time shall be allowed for this Work.

**105-04 INDEMNITY, INSURANCE AND BOND REQUIREMENTS**

Contractor shall provide insurance coverages as specified below. Contractor's attention is directed to Section 105-04.02.D.3.a, hereinbelow regarding the additional insured endorsement(s) requirement. Additional public entity(ies) identified below shall be named on the applicable coverages as additional insured(s). County may, at any time and in its sole discretion, require Contractor to procure additional insured endorsement(s) for Public Entities during the course of the Work under the Contract.

**City of San José, City of Santa Clara, Caltrans, and**

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**Santa Clara Valley Water District**

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**INSURANCE REQUIREMENTS FOR  
CONSTRUCTION CONTRACTS BETWEEN \$10,000,000 AND \$25,000,000**

**105-04.01      INDEMNITY**

To the fullest extent allowed by law, the Contractor shall indemnify, defend, and hold harmless the County of Santa Clara (hereinafter "County"), its officers, agents and employees from any claim, liability, loss, injury or damage arising out of, or in connection with, performance of this Agreement by Contractor and/or its agents, employees or sub-contractors, excepting only loss, injury or damage caused by the sole negligence or willful misconduct of personnel employed by the County. It is the intent of the parties to this Agreement to provide the broadest possible coverage for the County. The Contractor shall reimburse the County for all costs, attorneys' fees, expenses and liabilities incurred with respect to any litigation in which the Contractor contests its obligation to indemnify, defend and/or hold harmless the County under this Agreement and does not prevail in that contest.

**105-04.02      INSURANCE**

Without limiting the Contractor's indemnification of the County, the Contractor shall provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, the following insurance coverages and provisions:

A. Evidence of Coverage

Prior to commencement of this Agreement, the Contractor shall provide a Certificate of Insurance certifying that coverage as required herein has been obtained. Individual endorsements executed by the insurance carrier must accompany the certificate. In addition, a certified copy of the policy or policies shall be provided by the Contractor upon request.

This verification of coverage shall be sent to the requesting County department, unless otherwise directed. The Contractor shall not receive a Notice to Proceed with the work under the Agreement until it has obtained all insurance required and such insurance has been approved by the County. This approval of insurance shall neither relieve nor decrease the liability of the Contractor.

B. Qualifying Insurers

1. All coverages, except surety, shall be issued by companies which hold a current policy holder's alphabetic and financial size category rating of not less than A- V, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by the County's Insurance Manager.

2. When surety bonds are required, they shall be issued by companies that meet the following minimum requirements:

1. A California admitted surety with either a current A.M. Best rating of A IV or a current Standard and Poors (S&P) rating of A.

OR

2. An admitted surety insurer which complies with the provisions of the Code of Civil Procedure, Section 995.660\*.

OR

3. In lieu of 1 & 2, a company of equal financial size and stability that is approved by the County's Insurance Manager

\* California Code of Civil Procedure section 995.660 in summary, states that an admitted surety must provide: 1) the original, or a certified copy of instrument authorizing the person who executed the bond to do so, within 10 calendar days of receipt of a request to submit the instrument; 2) a certified copy of the Certificate of Authority issued by the Insurance Commissioner, within 10 calendar days of receipt of a request to submit the copy; 3) a certificate from County Clerk of Santa Clara County that Certificate of Authority has not been surrendered, revoked, canceled, annulled or suspended, within 10 calendar days of receipt of the certificate; 4) copies of the surety's most recent annual statement and quarterly statement filed with the Department of Insurance pursuant to Article 10, within 10 calendar days of receipt of a request to submit the statements.

C. Notice of Cancellation

All coverage as required herein shall not be canceled or changed so as to no longer meet the specified County insurance requirements without 30 days' prior written notice of such cancellation or change being delivered to the County of Santa Clara or their designated agent.



D. Insurance Required

1. Commercial General Liability Insurance - for bodily injury (including death) and property damage which provides limits as follows:

- |  |             |
|--|-------------|
| a) Each occurrence -                         | \$2,000,000 |
| b) General aggregate -                       | \$4,000,000 |
| c) Products/Completed Operations aggregate - | \$2,000,000 |
| d) Personal Injury -                         | \$2,000,000 |

A minimum of 50% of each of the aggregate limits must remain available at all times unless coverage is project specific.

2. General liability coverage shall include:

- a) Premises and Operations
- b) Products/Completed Operations with limits of two million dollars (\$2,000,000) per aggregate to be maintained for three (3) years following acceptance of the work by the County..
- c) Contractual Liability expressly including liability assumed under this Agreement. If the Contractor is working within fifty (50) feet of a railroad or light rail operation, any exclusion as to performance of operations within the vicinity of any railroad bridge, trestle, track, roadbed, tunnel, underpass or crossway shall be deleted, or a railroad protective policy provided.
- d) Personal Injury liability
- e) Owners' and Contractors' Protective liability
- f) Severability of interest
- g) Explosion, Collapse, and Underground Hazards (X, C and U)
- h) Broad Form Property Damage liability

3. General liability coverage shall include the following endorsements, copies of which shall be provided to the County:

a) **Additional Insured Endorsement**, which shall read:

“County of Santa Clara, and members of the Board of Supervisors of the County of Santa Clara, and the officers, agents, and employees of the County of Santa Clara, individually and collectively, as additional insureds.”

Insurance afforded by the additional insured endorsement shall apply as primary insurance, and other insurance maintained by the County of Santa Clara, its officers, agents, and employees shall be excess only and not contributing with insurance provided under this policy. Public Entities may also be added to the additional insured endorsement as applicable and Contractor shall be notified by the contracting department of these requirements.

b) **Contractual Liability Endorsement:**

Insurance afforded by this policy shall apply to liability assumed by the insured under written contract with the County of Santa Clara.

c) **X C & U (Explosion, Collapse and Underground) Endorsement:**

Insurance afforded by this policy shall provide X, C and U Hazards coverage.

4. Claims Made Coverage

If coverage is written on a claims made basis, the Certificate of Insurance shall clearly state so. In addition to coverage requirements above, such policy shall provide that:

- a) Policy retroactive date coincides with or precedes Contractor's start of work (including subsequent policies purchased as renewals or replacements).
- b) Contractor will make every effort to maintain similar insurance during the required extended period of coverage following project completion, including the requirement of adding all additional insureds.
- c) If insurance is terminated for any reason, Contractor agrees to purchase an extended reporting provision of at least two years to report claims arising from work performed in connection with this Agreement or Permit.
- d) Policy allows for reporting of circumstances or incidents that might give rise to future claims.

5. Automobile Liability Insurance

For bodily injury (including death) and property damage which provides total limits of not less than one million dollars (\$1,000,000) combined single limit per occurrence applicable to all owned, non owned and hired vehicles

6. Excess Liability Insurance (General Liability and Automobile Liability)

For bodily injury (including death) and property damage which provides total limits of not less than fifteen million dollars (\$15,000,000) combined single limit per occurrence. The coverage must contain a clause stating that it takes effect (drops down) in the event the underlying primary limits are exhausted.

7. Workers' Compensation and Employer's Liability Insurance

- a) Statutory California Workers' Compensation coverage including broad form all-states coverage.
- b) Employer's Liability coverage for not less than one million dollars (\$1,000,000) per occurrence.

8. Contractor's Pollution Liability

Contractor shall provide Contractor's Pollution Liability coverage including bodily injury, personal injury, and property damage from a pollution event resulting from the Work, operations or completed operations of the Project with limits not less than \$1,000,000 per claim or per occurrence and \$1,000,000 aggregate limits, including claim expenses and defense, written on a claims made or occurrence basis for the Project inclusive of the term of construction and a ten (10) year completed operations period, including coverage for mold. If the Work involves the removal of asbestos, the removal/ replacement of underground tanks and/or the removal of toxic chemicals and substances, Contractor or Subcontractor performing such Work shall provide the appropriate pollution coverage, with limits of no less than \$1,000,000 per claim or per occurrence.

9. Contractors' Equipment Insurance

On an "all risk" basis covering equipment owned, leased, or used by the Contractor. If the total value of equipment is less than \$100,000 Contractor may self-insure this exposure. If total equipment value is \$100,000 or more, insurance is required. Such insurance shall include an insurer's waiver of subrogation in favor of the County. Contractor shall hold harmless the County for any loss or damage to the Contractor's equipment. This coverage may be waived by the Insurance Manager, but the Contractor hereby releases and holds harmless the County for any loss or damages to its equipment.

E. Special Provisions

The following provisions shall apply to this Agreement:

1. The foregoing requirements as to the types and limits of insurance coverage to be maintained by the Contractor and any approval of said insurance by the County or its insurance consultant(s) are not intended to and shall not in any manner limit or qualify the liabilities and obligations otherwise assumed by the Contractor pursuant to this Agreement, including but not limited to the provisions concerning indemnification.
2. The County acknowledges that some insurance requirements contained in this Agreement may be fulfilled by self insurance on the part of the Contractor. However, this shall not in any way limit liabilities assumed by the Contractor under this Agreement. Any self insurance shall be approved in writing by the County upon satisfactory evidence of financial capacity. Contractors' obligation hereunder may be satisfied in whole or in part by adequately funded self-insurance programs or self-insurance retentions.
3. Should any of the work under this Agreement be sublet, the Contractor shall require each of its subcontractors of any tier to carry the aforementioned coverages, or Contractor may insure subcontractors under its own policies.
4. The County reserves the right to withhold payments to the Contractor in the event of material noncompliance with the insurance requirements outlined above.

F. Bond Requirements

1. Contract Bonds - Prior to execution of the Contract, Contractor shall file with the County on the approved forms, the two surety bonds in the amounts and for the purposes noted below, duly executed by a reputable surety company satisfactory to County, and Contractor shall pay all premiums and costs thereof and incidental thereto.

Each bond shall be signed by both Contractor and the sureties.

- a) The "payment bond for public works" shall be in an amount of one hundred percent (100%) of the Contract price, as determined from the prices in the bid form, and shall insure to the benefit of persons performing labor or furnishing materials in connection with the work of the proposed Contract. This bond shall be maintained in full force and effect until all work under the Contract is completed and accepted by the County, and until all claims for materials and labor have been paid.
- b) The "performance bond" shall be in an amount of one hundred percent (100%) of the Contract price as determined from the prices in the bid form and shall insure the faithful performance by

Contractor of all work under the Contract. It shall also insure the replacing of, or making acceptable, any defective materials or faulty workmanship.

Should any surety or sureties be deemed unsatisfactory at any time by the County notice will be given Contractor to that effect and Contractor shall forthwith substitute a new surety or sureties satisfactory to the County. No further payment shall be deemed due or will be made under the Contract until the new sureties qualify and are accepted by the County.

All alterations, time extensions, extra and additional work, and other changes authorized by the Specifications, or any part of the Contract, may be made without securing consent of the surety or sureties on the contract bonds.

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**105-05 PERMITS**

Contractor's attention is directed to Section 7.19, "Permits and Fees" of the County Standard Specifications and Section 108 herein for any applicable Railroad Relations & Insurance requirements. Any permit(s) obtained by the Roads & Airports Department shall not relieve Contractor from obtaining all necessary permits and licenses, providing necessary notices, and complying with all laws, ordinances, rules, and regulations relating to the Work.

Owner has obtained permits, licenses, or other authorizations applicable to the Work. Contractor shall comply with the provisions of those listed permits, licenses, and other authorizations. The following Owner-obtained permits are included as designated below:

- ☐ CALIFORNIA DEPARTMENT OF FISH AND GAME
- ☒ SANTA CLARA VALLEY WATER DISTRICT
- ☒ CALTRANS
- ☐ ARMY CORPS OF ENGINEERS
- ☒ CITY(IES) OF City of Santa Clara, City of San Jose
- ☐ REGIONAL WATER QUALITY CONTROL BOARD
- ☐ UTILITIES: \_\_\_\_\_
- ☐ OTHER(S): \_\_\_\_\_

**105-06 PROMPT PAYMENT TO SUBCONTRACTORS**

Pursuant to Business & Professions Code section 7108.5(a), Contractor shall pay to any subcontractor, not later than 7 days after receipt of each progress payment, unless otherwise agreed to in writing, the respective amounts allowed Contractor on account of the Work performed by the subcontractors, to the extent of each subcontractor's interest therein. In the event that there is a good faith dispute over all or any portion of the amount due on a progress payment from Contractor to a subcontractor, Contractor may withhold no more than 150 percent of the disputed amount.

Regarding withholding of retention, pursuant to Public Contract Code section 7107(d), within 7 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. Pursuant to Public Contract Code section 7107(e), Contractor may withhold from a subcontractor its portion of the retention proceeds if a bona fide dispute exists between

the subcontractor and Contractor. The amount withheld from the retention payment shall not exceed 150 percent of the estimated value of the disputed amount.



## SECTION 106 – AMENDMENTS TO COUNTY STANDARD DETAILS AND STANDARD SPECIFICATIONS

The County Standard Details Manual dated September 1997 contains amended, deleted, and new standard details. The County Standard Details Manual was most recently amended on June 30, 2014. The County Standard Details Manual and updates can be obtained from the County of Santa Clara Roads & Airports Department website at <https://countyroads.sccgov.org/do-business-us/published-standards-specifications-documents-and-forms>

The County Standard Specifications, dated May 15, 2000 contains amended, deleted, and new standard specifications. The Standard Specifications and its amendments dated January 7, 2011, delineate the requirements for projects constructed for Santa Clara County Department of Roads and Airports projects. These updates can be obtained from the County of Santa Clara Roads & Airports Department website at <https://countyroads.sccgov.org/do-business-us/published-standards-specifications-documents-and-forms>

The Contractor shall be familiar with and comply will all County Standards Details and Specifications, as well as corresponding amendments specified herein. To the extent there are any conflicts between these Special Provisions and either the County Standard Details and Specifications, these Special Provisions shall control.

### A. Updates to County Standard Specifications, Dated May 15, 2000

1. Section 1.02, "Definitions," is amended as follows:
  - a. "Manual of Traffic Controls" is amended to read as follows: The current manual entitled "California Manual on Uniform Traffic Control Devices (CA MUTCD)" approved and issued by the State of California, Department of Transportation.
  - b. "Minor Contract" is amended to read as follows: Contract awarded and accepted by the Purchasing Agent and administered under the Uniform Public Construction Cost Accounting Act, which qualifies as one of the following categories:
    - (1) Project awarded for no more than \$75,000;
    - (2) Emergency project pursuant to County Ordinance Code section A43-82.
2. Section 2.05 - Reserved
3. Section 2.12, "Relief of Bidders," is amended to read as follows: Attention is directed to the provisions of California Public Contract Code sections 5100 through 5110, inclusive, which set forth criteria and procedures for relief of Bidders, and for authorizing Contract award.

4. Section 4.04.03, "Resolution of Construction Claims (Claims for \$375,000) or Below," is amended as follows:
  - a. Public Contract Code section (b)(1) is amended to read as follows: "Public work" has the same meaning as in Sections 3100 and 3106 of the Civil Code, except that "public work" does not include any work or improvement contracted for by the state or the Regents of the University of California.
  - b. Public Contract Code section 20104.4 section (b)(1) is amended to read as follows: If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act (Title 4 (commencing with Section 2016.010) of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.
5. Section 4.04.05, "Decisions on Protests and Claims," is amended to read as follows: Protests and claims of Contractor arising under the Contract will be decided by Owner, who will furnish the decisions to Contractor in writing.
6. Section 4.04.06, "Negotiations," is amended to read as follows: Negotiations on disputed work or claims are for settlement purposes only and not binding."
7. Section 4.04.07, "Mediation," Subsection D, "Selection of Mediator," is amended to read as follows: Upon receipt of a Request for Mediation, and provided that Owner and Contractor have both agreed to voluntary mediation, within fourteen (14) days, the parties will meet and confer to select an appropriate Mediator agreeable to all parties.
8. Section 4.04.12, "Public Contract Code Section 9204 Claims Resolution Process for Public Works Projects," shall be added, and state as follows:
  - a. Pursuant to Public Contract Code section 9204(c), for purposes of this section:
    - (1) "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:
      - (a) A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.
      - (b) Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.
      - (c) Payment of an amount that is disputed by the public entity.

- (2) "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.
- (3) (A) "Public entity" means, without limitation, except as provided in subparagraph (B), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency
- (4) "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.
- (5) "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

b. Pursuant to Public Contract Code section 9204(d)

- (1) (A) Upon receipt of a claim pursuant to this section, the public entity to which the claim applies shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, a public entity and a contractor may, by mutual agreement, extend the time period provided in this subdivision; (B) The claimant shall furnish reasonable documentation to support the claim; (C) If the public entity needs approval from its governing body to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the governing body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the public entity shall have up to three days following the next duly publicly noticed meeting of the governing body after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion; (D) Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. If the public entity fails to issue a written statement, paragraph (3) shall apply.
- (2) (A) If the claimant disputes the public entity's written response, or if the public entity fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt

requested, the public entity shall schedule a meet and confer conference within 30 days for settlement of the dispute; (B) Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the public entity shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the public entity issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the public entity and the claimant sharing the associated costs equally. The public entity and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section; (C) For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section; (D) Unless otherwise agreed to by the public entity and the contractor in writing, the mediation conducted pursuant to this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced; (E) This section does not preclude a public entity from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

- (3) Failure by the public entity to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the public entity's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.
- (4) Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.
- (5) If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a public entity because privity of contract does not exist, the contractor may present to the public entity a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on their own behalf or on behalf of a lower tier subcontractor,

that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the public entity shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the public entity and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

- c. Pursuant to Public Contract Code section 9204(f): A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.
9. Section 4.05, "As-Built Record Construction Plans," is amended so that Subsection (2) reads as follows: For Projects with Plans developed by Consultants, including encroachment permit type projects, one (1) set of Mylar reproducible as-built record plans, along with an electronic copy containing PDF and AutoCAD files of same, showing all approved changes made during construction, shall be furnished to the County prior to acceptance of the Work or sign-off of the permit by the County. As-built record plans shall be signed by the Consultant's Engineer.
10. Section 5.19, "Coordination, Interpretation and Order of Precedence of Contract Documents," is amended to set forth the following order of precedence: (1) Construction Agreement; (2) Special Provisions; (3) Project Plans; (4) County Standard Details; (5) County Standard Specifications; (6) State Standard Plans; (7) State Standard Specifications.
11. Section 7.03, "Equal Opportunity Requirements," is amended to read as follows: No party contracting with the County will discriminate against any subcontractor, employee, or applicant for employment, because of age, race, color, national origin, ancestry, religion, sex, gender, sexual orientation, mental disability, physical disability, medical condition, political beliefs, organizational affiliations, or marital status with respect to recruitment, selection for training including apprenticeship, hiring, employment, assignment, promotion, layoff, rates of pay or other forms of compensation. It is further the policy of the County that no party contracting with the County may discriminate in the provision of services under the contract because of age, race, color, national origin, ancestry, religion, sex, gender, sexual orientation, mental disability, physical disability, medical condition, political beliefs, organizational affiliations, or marital status. It is the policy of the County that parties contracting with the County must comply with all applicable federal, state, and local pay equity laws, including, but not limited to, the Federal Equal Pay Act, Title VII of the Civil Rights Act of 1964, the California Fair Pay Act, and the California Fair Employment and Housing Act. A potential contractor that has submitted a formal bid to provide goods and/or services to the County may be disqualified if

the potential contractor has been found, by a court, arbitrator, arbitral panel, or a final administrative action of an investigatory government agency, to have violated applicable pay equity laws in the five years prior to the submission of a bid to provide goods and/or services. A current contractor found by a court, arbitrator, arbitral panel, or final administrative action of an investigatory government agency to have violated applicable pay equity laws, in the five years prior to or during the term of the contract with the County, may be in material breach of its contract with the County if the violation is not fully disclosed and/or satisfied per County guidelines and contract requirements. Such breach may serve as a basis for contract termination and/or any other remedies available under law, including a stipulated remediation plan. Pay equity violations disclosed by a contractor or potential contractor will be assessed on a case-by-case basis in light of the totality of the circumstances, including whether the violation is serious, repeated, willful, and/or pervasive, the size of the contractor, and any mitigating factors.

12. Section 7.09, "Workers' Safety Provisions," is amended as follows:
  - a. Labor Code section 6500 is amended to read as follows: (a) For those employments or places of employment that by their nature involve a substantial risk of injury, the division shall require the issuance of a permit prior to the initiation of any practices, work, method, operation, or process of employment. The permit requirement of this section is limited to employment or places of employment that are any of the following: (1) Construction of trenches or excavations that are five feet or deeper and into which a person is required to descend; (2) The construction of any building, structure, falsework, or scaffolding more than three stories high or the equivalent height; (3) The demolition of any building, structure, falsework, or scaffold more than three stories high or the equivalent height; (4) The underground use of diesel engines in work in mines and tunnels.
  - b. Labor Code section 6705 is amended to read as follows: No contract for public works involving an estimated expenditure in excess of twenty-five thousand dollars (\$25,000), for the excavation of any trench or trenches five feet or more in depth, shall be awarded unless it contains a clause requiring submission by the contractor and acceptance by the awarding body or by a registered civil or structural engineer, employed by the awarding body, to whom authority to accept has been delegated, in advance of excavation, of a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.
13. Section 7.14, "Sound Control Requirements," is amended to refer to County Ordinance Code section B11-152, "Exterior Noise Limits," and Section B11-154, "Prohibits Acts," subsection (6), "Construction/Demolition."
14. Section 7.17.01, "Pesticides," is amended to include reference to County Ordinance Code, Division B28, "Integrated Pest Management and Pesticide Use."

15. Section 9.08 , "Progress Payments," is amended to read as follows:

- a. Contractor shall be paid for the actual field accepted quantities for the various items of Work in accordance with the provisions below. However, the total payment shall not exceed the total Contract amount.
- b. On or before the day immediately following the end of each payment period, Owner shall prepare and forward to Contractor an estimated progress payment in writing of the total amount of Work done and the acceptable materials on hand. Payment for the Work shall be based on a four-week period.
- c. Materials on hand are:
  - (1) Acceptable materials furnished and delivered by Contractor to the Work site but not yet used; or,
  - (2) Acceptable materials furnished and stored in a location that is subject to or under the control of Owner for use in the performance of the Contract during the payment period.
- d. The amount of any material to be considered in making an estimate will in no case exceed the amount thereof which has been reported by Contractor to the Project Engineer on Owner-furnished forms properly filled out and executed, including accompanying documentation as therein required, less the amount of the material incorporated in the work to the time of the estimate. Only materials to be incorporated in the Work will be considered. The estimated value of the material established by the Project Engineer will in no case exceed the Contract price for the item of Work for which the material is furnished.
- e. Owner will retain five (5) percent of such estimated value of the Work done, and five (5) percent of the value of the materials so estimated to have been furnished and delivered and unused or furnished and stored as aforesaid as part security for the fulfillment of the Contract by Contractor. Owner will pay to Contractor, while carrying on the Work, the balance not retained, as aforesaid, after deducting therefrom all previous payments and all sums to be kept or retained under the provisions of the Contract and applicable laws.
- f. No such estimate or payment shall be construed to be an acceptance of any defective work or improper materials.
- g. After 50% completion of the Work, if the Board of Supervisors finds that satisfactory progress has been made in accordance with the approved schedule of operations, Owner may make any of the remaining progress payments in full, without retention, for actual Work completed
- h. In addition to any remedy authorized by law, so much of the money due Contractor under and by virtue of the Contract as shall be considered necessary by Owner may be retained by Owner until disposition has been made of such suits or claims for damages as aforesaid.
- i. Work completed in place as estimated shall be an estimate only, and no inaccuracy or error in said estimates shall operate to release Contractor or any Surety from damages arising from such Work or from enforcing each and every provision of the Contract.

Owner shall have the right subsequently to correct any error made in any estimate for payment.

- j. No such estimate or payment shall be required to be made when, in the judgment of the Project Engineer, the Work is not proceeding in accordance with the provisions of the Contract; or when in his or her judgment the total value of the Work done since the last estimate amounts to less than \$500.

B. Updates to Amendments to County Standard Details and Standard Specifications, Dated January 7, 2011

- 1. Section 9.07, "Stop Notices," is amended to read as follows: "Owner will comply with California Civil Code Title 3, Chapter 4, Section 9350 et seq. regarding stop payment notices. All preliminary and stop payment notices shall be sent to the attention and address indicated on the 'Stop Payment Notice Information' set forth in the Bid Forms section of the Project's Special Provisions."



**SECTION 107 – MATERIALS****107-01 PREQUALIFIED AND TESTED SIGNING AND DELINEATION MATERIALS**

Owner has adopted the Caltrans' trade name list of approved prequalified and tested signing and delineation materials and products for use on this Project. Approval of prequalified and tested products and materials shall not preclude the Project Engineer from sampling and testing any of the signing and delineation materials or products at any time.

The current trade name list is available on Caltrans website at:

<https://dot.ca.gov/programs/engineering-services/authorized-materials-lists>

This list of approved prequalified and tested signing and delineation materials and products covers materials and products that shall be used in the Work. A Certificate of Compliance shall be furnished as specified in Section 6.11, "Certificates of Compliance" of the County Standard Specifications for signing and delineation materials and products. Said Certificate shall also certify that the signing and delineation material or product conforms to the prequalified testing and approval of Caltrans, Division of Traffic Operations, and was manufactured in accordance with the approved quality control program.

Materials and products will be considered for addition to said approved prequalified and tested list if the manufacturer of the material or product submits to Caltrans, Division of Traffic Operations, a sample of the material or product. The sample shall be sufficient to permit performance of all required tests. Approval of such materials or products will be dependent upon a determination as to compliance with the specifications and any test that Caltrans may elect to perform.

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**SECTION 108 – NOT APPLICABLE**

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**SECTION 109 – DESCRIPTION OF WORK**

These Special Provisions cover the supplying of labor, materials and equipment as required for pavement rehabilitation on Lawrence Expressway between Homestead Road and Quito Road.

Work shall include:

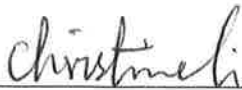
- Traffic Control System
- Stormwater Pollution Prevention Plan (SWPPP)
- Mobilization
- Potholing
- Remove Existing Portland Cement Concrete (PCC)
- Remove Striping, Markings, and Markers
- Remove Signages
- Roadway Excavation for Pavement Repair
- Cold Plane Asphalt Concrete Conform
- Cold In-place Recycling (CIR)
- Hot Mix Asphalt (HMA) Type RHMA-G for Overlay
- PCC B2 Curb & Gutter/B3 Curb/Sidewalk
- Pedestrian Curb Ramps
- Adjust Existing Manhole/Monument/Water Valves to Grade
- Modify Drainage Inlet (DI) Opening
- Roadside safety barrier upgrades,
- Thermoplastic Pavement Striping/Marking and Pavement Markers
- Paint Existing Curb
- Install Signages
- Install Pull Boxes, Underground Conduit, and Wiring
- Replace Traffic Signal Controller and Service Cabinets
- Relocate Existing Battery Back-up System
- Upgrade Pedestrian Push Buttons
- Inductive Traffic and Bicycle Loops
- Adjust Existing Detector Handhole to Grade
- Install New Detector Handhole to Grade
- Install pedestrian sensors
- Bridge Preventive Maintenance Program – treating bridge deck with methacrylate resin and placing polyester concrete overlay
- All other Items of Work not mentioned above that are required by Plans, County Standard Specifications and these Special Provisions

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## SECTION 110 – TECHNICAL SPECIFICATIONS &amp; FURTHER CONDITIONS

The Technical Specifications contained herein have been prepared by or under the direction of the following registered person(s) (California Business and Professions Code section 6735).

## HIGHWAY



Christine Li  
Registered Civil Engineer



## ELECTRICAL



David R Boyd  
Registered Civil Engineer



## STRUCTURAL



Solomon Tegegne  
Registered Civil Engineer



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**110-01 ORDER OF WORK**

Order of work must conform to the provisions in Section 5.05 "Order of Work" of the County Standard Specifications and these special provisions.

Work will be implemented in logical and sequenced segments.

Contractor shall prepare a digital video recording of the construction area prior to beginning Work. This video shall be an existing condition record of the job site. The video recording shall be done jointly by the Contractor and the Project Engineer and Project Inspector, and a copy of the video shall be furnished to the Project Inspector at the beginning of the Work.

Within 10 day of Contract execution, the Contractor shall contact USA (Underground Service Alert) to have the location of all utilities marked. Promptly after utility markings are completed, the Contractor shall then be responsible for locating and marking the positions of all signal standards and pull boxes. The Project Engineer will assist the Contractor in locating the above items. The Contractor shall coordinate the layout with the utility company representatives to avoid utility conflicts.

Location identified as potential conflicts with existing utilities, the Contractor shall promptly "pothole" to find the exact location of the utilities before excavation. See Section 110-12.06 "Potholing" for additional potholing utilities requirement and payment.

All final locations of poles shall be determined and approved by the Project Engineer BEFORE any construction. The Contractor shall provide all work described herein including potholing of utilities within 3 days of receiving the location approval from the Project Engineer.

Contractor shall manufacture and install two (2) Project Funding Signs prior to beginning construction. The size and format of the Project Funding Signs are specified in in Section 110-06.07, "Project Information Sign". The Project Inspector will determine the location of the Project Funding Signs in the field. The signs will be removed and delivered to the County East Yard after all construction activities are completed. All sign manufacturing, installation, removal, and salvaging costs shall be the responsibility of Contractor and shall be considered as included in the Work.

Construction area signs and devices shall be in place prior to beginning of the work.

Contractor shall obtain encroachment permit in a timely manner prior to commencing work from Santa Clara Valley Water District, Caltrans, City of San Jose, and City of Santa Clara. All fees, including associated inspection costs, will be the responsibility of the Contractor and will be considered as included in other items of work.

County inspector shall be present during in-roadway loop cable installation. Additionally, contractor shall notify County inspector upon the completion of loop installation at existing signalized intersections. County TEO personnel will do the final connection of the detector lead-in cables (DLC) inside the controller cabinet after they are terminated inside the controller cabinet, labeled, and merged by Contractor. County TEO personnel shall perform the final test upon connection of the DLCs inside the controller cabinet to verify the loop performance. Contractor shall be responsible for defective loops and DLCs due to material or

workmanship or damage to the loops and DLCs caused by its pavement grinding and resurfacing operations. At newly signalized intersections, the Contractor shall allow sufficient time for testing, repairs, and retesting prior to coordinating the activation date of the traffic signal. County will perform testing within 5 working days of written notification.

Contractor will also conduct all fiber optic cable work along Lawrence Expressway (i.e.: SMFO cable, conduit, and pull boxes) in such a manner as to minimize downtime of fiber optic communication operations.

**Measurement and Payment** –Full compensation for conforming to this Section shall be considered as included in various contract bid items of work and no separate payment will be made therefor, unless otherwise specified elsewhere in these Special Provisions.

## **110-02 SUBMITTALS**

Unless otherwise specified or directed by the Project Engineer, all Contract Bid items are subject to the submittal requirements of this Section and are supplemented by the submittal requirements of the specifications for each Bid item. Requirements and procedures for preparing and transmitting submittals to the Project Engineer shall conform to the provisions of County Standard Specifications section 4.06 "Submittal for Materials and Equipment; Section 5, "Control of Work," Section 6 "Control of Materials", Section 86.01.04 "Submittals in relation "Signals, Lighting, Traffic Communication & Other Electrical Systems", and these Special Provisions as follows:

- A. Submittals shall be accompanied by a "Submittal Cover Letter" form properly filled out. Forms will be furnished by the Project Engineer.
- B. The Contractor shall submit 6 legible copies of all information attachments for each submittal.
- C. The Contractor shall prepare such working and shop drawings as required by the Engineer for the performance of the work. Such drawings shall be prepared on a reproducible sheet measuring 22 inches by 34 inches, unless otherwise approved by the Engineer. Each drawing shall have the following information:
  - 1. Contract number and name,
  - 2. Number and title of drawing,
  - 3. Date of drawing or revision,
  - 4. Name of Contractor and Subcontractor submitting drawing,
  - 5. Clear identification of contents and location of work, and
  - 6. Referenced special provisions
- D. The Contractor shall furnish all submittals, including drawings and schedules sufficiently in advance of construction requirements to permit no less than five (5) working days for review and appropriate action by the Project Engineer.
- E. If any submittal shows any variation from the Contract requirements, such variations shall be described in a supplemental letter of submittal, attached to the submittal form.
- F. Re-submittals will be handled in the same manner as first submittals.
- G. All submittals shall be provided within 35 days of contract award.

**110-03 SUPERINTENDENT AND MEETINGS**

Attention is directed to Section 5.06 "Superintendent" of the County Standard Specifications.

Weekly project meetings between the Project Engineer, Project Inspector and Contractor are mandatory. In addition, a comprehensive walk-through site meeting is also mandatory. The time and location of these meetings will be established at the Pre-Construction Conference Meeting.

All subcontractors are required to attend weekly project meetings if they are working on a controlling item of Work and/or if their submittals are not approved.

**Measurement and Payment** – Full compensation for conforming to this Section shall be considered as included in various contract bid items of work and no separate payment will be made therefor, unless otherwise specified elsewhere in these Special Provisions.

**110-04 AS-BUILT RECORD CONSTRUCTION PLANS**

In addition to the requirements of the County Standard Specifications section 4.05, "As-Built Record Construction Plans," the following shall apply:

Contractor shall maintain one set of current and accurate redlined construction plans. Upon completion of the Work, and prior to Acceptance of the Project, this redlined set of plans shall be certified by the Inspector, and delivered to Project Engineer.

**Measurement and Payment** - Full compensation for this work shall be considered as included in the Contract prices paid for the various contract bid items of work, and no separate payment will be made therefor.

**110-05 PROGRESS SCHEDULE**

Attention is directed to the provisions in Section 8.04 "Progress Schedule" of the County Standard Specifications, and these Special Provisions.

A. Procedures for Preparation of Project Schedule

The construction procedures shall represent a practical plan to complete the Work within the Contract time

1. A schedule extending beyond the expiration of Contract time will not be acceptable and shall be considered a material breach of the Contract.
2. Contractor agrees that if the Contractor's initial Project Bar Chart schedule duration is less than the time allowed by the Contract for the completion of the Work, the Contract completion time may be shortened to equal the Contractor's Bar Chart schedule duration by a Change Order, at no cost to Owner, provided the Owner is in agreement with the schedule.

3. A schedule showing the Work completed in less than the Contract time may be found by the Project Engineer to be impractical. A schedule found to be impractical for this, or any other reason shall be revised by Contractor and resubmitted for approval by the Project Engineer.
4. A schedule showing the Work completed in less than the Contract time, which is found to be practical by Project Engineer, shall be considered to have float, as defined in Section 1.02 "Definitions", of the County Standard Specifications.
5. The construction schedule shall clearly show the sequence and interdependence of construction activities, and shall specifically list specifically:
  - a. The start and completion of all items of Work, their major components, and interim milestone completion dates. The construction schedule shall also clearly show:
    - (1) Activities for procurement, delivery, installation and completion of each major piece of equipment, materials and other supplies, including:
      - (a) Time for submittals, resubmittals, and reviews;
      - (b) Time for fabrication and delivery of manufactured products for the Work; and,
      - (c) The interdependence of procurement and construction activities.
6. The construction schedule shall also:
  - a. Be in sufficient detail to assure adequate planning and execution of the Work. Activities should range in duration from three to fifteen working days each. See sample schedule for reference on next page;
  - b. Be suitable, in the judgment of Project Engineer, to allow monitoring and evaluation of progress in the performance of the Work, and,
  - c. Show a clearly defined critical path for the entire completion of Work.
7. Contractor's submittal of the construction schedule shall be understood to be the Contractor's representation that the schedule meets the requirements of the Contract Documents and that the Work will be executed in the sequence indicated in the schedule.

TECHNICAL SPECIFICATIONS & FURTHER CONDITIONS

SECTION 110

County of Santa Clara  
Roads and Airports Department

**PROPOSED SCHEDULE**  
**THREE WEEKS LOOK AHEAD**  
(NOTE: THIS SCHEDULE IS A SAMPLE DOCUMENT ONLY)

Project Limit:  
XXX / Capitol Expressway

RESPONSIBILITY	ACTIVITY DESCRIPTION	X – Day Work: N – Night Work																					
		JULY																					
		S	M	T	W	Th	F	Sa	S	M	T	W	Th	F	Sa	S	M	T	W	Th	F	Sa	
		8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
	NB off to EB Capitol																						
ABC Construction	Install Construction Area Signs & Detour Signs		x	x	x	x																	
EYZ	install BMP's									x	x	x											
F88	Staking						x			x	x	x	x										
JKM	ESA Fence									x	x												
	NB on to WB Capitol																						
CXS	Temp Delineation									n													
EYZ	Install Krail and Crash Cushions											n											
Heimex	Clear and Grub												x	x									
EYZ	roadway ex detour 1 and 2																x	x					
EYZ	storm drain sys 39																		x	x	x		
SME	electrical									n	n						n	n					



**B. Review, Update and Revisions**

Project Engineer will review and return Contractor's schedule with comments within five (5) working days. Contractor shall make all corrections to the schedule requested by Project Engineer and resubmit for re-review and acceptance by Project Engineer. If the Contractor does not agree with the Project Engineer's comments, the following procedure shall be followed:

1. Contractor shall continue to proceed with the Work per Project Engineer's comments.
2. Within three (3) working days of receipt of Project Engineer's comments, Contractor shall provide Project Engineer with written notice indicating the concerns and or disagreement. Contractor's response received after the specified deadline shall not be considered by Project Engineer, and Project Engineer's comments shall be deemed as accepted by Contractor.
3. Within seven (7) working days of the receipt of Contractor's notice, Project Engineer will meet with the Contractor for a resolution. If a resolution is reached, Contractor shall submit within three (3) working days from the resolution meeting date the schedule with all agreed upon changes.
4. If no resolution is reached, Project Engineer will provide notice to Contractor stating Project Engineer's determination within seven (7) working days from the day of the meeting. Contractor shall abide by the Project Engineer's determination.

Project Engineer will use Contractor's bar chart to analyze and update the schedule, whereby the following shall apply:

1. Contractor shall be responsible for the accuracy of the information contained in the bar chart and subsequent updates of the schedule. Contractor will be allowed three (3) working days to confirm the accuracy of any data.
2. Once a month or as deemed necessary by Project Engineer, Contractor shall participate with Project Engineer in a schedule review to update activity progress.
3. Any change in Contractor's planned sequence or timing of the Work shall be accompanied by a written revision to the affected portion of the bar chart drawing by Contractor, so that the bar chart may be changed accordingly.
4. If, according to the current updated bar chart schedule, Contractor is five (5) working days or more behind the Contract completion date or any interim milestone, considering all granted time extensions, Contractor shall submit a revised schedule showing a workable plan to complete the Project on time.
5. Scheduling of Change or Extra Work Orders is the responsibility of Contractor. Contractor shall revise the schedule drawing to incorporate all activities involved in completing the change or extra work order and submit it to Project Engineer for review. Only with express approval by Project Engineer, an individual Change or Extra Work Order that costs less than \$10,000 may not need to be scheduled, unless the Change or Extra Work Order affects the Contract critical path.

6. If Project Engineer finds Contractor is entitled to an extension of any completion date under the provisions of the Contract, Project Engineer's determination of the total number of days extension will be based upon the current analysis of the schedule and upon data relevant to the extension.
7. Delays to non-critical activities (those with float) may not be the basis for a time extension. Non-critical activities are those activities which, when delayed, do not affect the Contract completion date.

#### C. Weekly Schedule

Contractor shall prepare and deliver to Project Engineer at the weekly progress meetings a weekly schedule of activities. The weekly schedule of activities shall cover the period of the following three weeks.

The schedule shall be prepared in form of a bar chart identifying anticipated activities, to the satisfaction of Project Engineer

1. The schedule shall be no smaller than 8 1/2 -inches by 14-inches.
2. Black or dark blue ink shall be used to draw the schedule.
3. Six (6) hard copies and one (1) electronic copy shall be provided to Project Engineer.

Contractor acknowledges and agrees that full compensation for complying with this Section is included in the Contract price, and no additional compensation will be allowed therefor.

**Measurement and Payment** –The contract lump sum price paid for Progress Schedule includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals for conforming to the provisions of this Section and no separate payment will be made therefor.

#### 110-06 TRAFFIC CONTROL SYSTEM AND/OR TEMPORARY ROADWAY LANE CLOSURE REQUIREMENTS

Contractor must provide temporary traffic control system for project worksite during construction. Temporary traffic control system applies to all Work whether or not lane closure is required and must be in accordance with County Standard Specifications section 7.22, "Public Convenience and Public Safety", and Section 12, "Construction Area Traffic Control Devices", California Manual on Uniform Traffic Control Devices For Streets & Highways (CA MUTCD), and the following.

During the entire construction of the Work, Contractor must maintain the intersection signal operations at the same level prior to construction. Any degradation to the signal operations or delay to a signal phase caused by a temporary loss of detection of more than 24 hours will not be permitted, and Contractor shall provide a temporary signal detection system as specified herein below.

**110-06.01 TRAFFIC CONTROL SYSTEM**

Traffic control system includes all work, including furnishing and installing equipment and materials, necessary to provide a safe condition to the traveling public through the construction area.

Contractor to:

- A. Prepare and submit a traffic control plan to Project Engineer for review and acceptance a minimum of ten (10) working days prior to performing any Work affecting the traffic flow. No Work shall be permitted until the traffic control plan is accepted by Project Engineer. The following minimum provisions must be considered in developing the traffic control plan:
  1. Details for but not limited to proposed staging concepts, construction area signage, temporary pedestrian access, traffic control systems to facilitate staging and pedestrian access in compliance with maintaining traffic requirements in section 12 and Section 12-4.04 of the State Standard Specifications.
  2. Number and placement of all construction-related traffic control signs must comply with CA MUTCD and be specified on the traffic control plan.
  3. Barricades must be provided with industry-approved flashers and its placement as provided on the approved traffic control plan or as directed by Project Engineer, must be maintained at all times until the Work is completed and the barricaded location is deemed safe to open for the general public.
  4. Operations of traffic lanes and traffic communications/signals must be maintained without interruption to the maximum extent possible as per Section 86.01.06, "Maintaining Existing and/or Temporary Electrical Systems and Traffic Communication Systems", of the County Standard Specifications.
  5. Temporary signal shutdown is limited to the hours between 9:00 AM and 3:00 PM unless approved otherwise by Project Engineer. Uniformed traffic control officers must be provided for traffic control for the duration of signal shutdown as specified hereinbelow.
- B. Coordinate with Project Inspector or contact County Signal & Electrical Operations at 408-494-2700 (for off/non-working hours), a minimum of 48 hours prior to commencing Work affecting traffic signal operations or traffic communication system.
- C. Obtain at least 2 uniformed traffic control officers to provide traffic control at signalized intersection requiring temporary signal shutdown. For expressway with carpool lanes, Contractor must first request the local California Highway Patrol (CHP) for the traffic control services. If CHP cannot provide its personnel for the service, Contractor may then contact the local enforcement agency having jurisdiction over the affected intersection for its personnel to perform the traffic control service. For expressway without carpool lanes and other roads, Contractor must contact the local enforcement agency having jurisdiction over the affected intersection for its personnel to perform the traffic control service. In the event that the local enforcement agency cannot provide its personnel upon request by Contractor, and with the approval of the said local enforcement agency and Project Engineer, Contractor may provide its own traffic control personnel.
- D. Contractor's personnel performing the traffic control tasks must be properly trained and equipped in accordance with the guidelines and requirements set by the CA MUTCD, Part 6. Temporary

Traffic Control Chapter 6E, Flagger Control. All flaggers must be equipped with 2-way radios to conduct traffic control of all one-lane-traffic operations.

- E. Set up and maintain a safe work area, including mitigate immediately any conditions or operations that may create an unsafe environment to the traveling public by providing adequate flaggers, traffic control devices, advance warning signage, and any other necessary measures when field conditions dictate or directed by Project Engineer. Contractor's failure to comply with these requirements shall cause the Work to be suspended in accordance with the provisions in Section 8.05, "Temporary Suspension of Work", of the County Standard Specifications until a Contractor-prepared mitigation plan is submitted and accepted by Project Engineer.
- F. Provide during construction temporary vehicle detection to maintain the signal operations at the pre-construction level when existing vehicle detection becomes dysfunctional for more than 24 hours and/or a traffic lane shift occurs during construction. At locations where traffic lanes are relocated, temporary traffic signal heads shall be provided by Contractor to conform to the relocated lane configuration. The temporary detection shall be compatible with the existing traffic controller and detection system currently operated at the intersection, and may be video, microwave, wireless technology or an inductive loop. The selected type shall be submitted and approved by Project Engineer before any work that may affect the existing vehicle detectors. The temporary detection system using technology other than inductive loop will be removed upon completion of the work and transferred to Owner's ownership in good and working conditions. Equipment damaged in Contractor's possession must be repaired or replaced and certified as working by the equipment manufacturer prior to acceptance by Owner.
- G. Existing pedestrian access facilities shall be maintained through construction areas within the right of way. Pedestrian and bicycle traffic control and safety shall be included in submitted traffic control plans. Where relocated or disturbed by construction, pedestrian walkways shall be provided with surfacing of HMA, portland cement concrete or timber. Surface shall be skid resistant and free of irregularities. Keep room for bikes or use W79A sign, included in these Special Provisions, after C20 in advance sign series Contractor shall provide one working flasher for each barricade and shall insure that each flasher is maintained in working condition while in use. Contractor shall not remove the barricades in the street at any given location until the HMA patching adjacent to the gutter has been done and the hazard to bicyclist and motorist no longer exists.
- H. Provide temporary striping and pavement markings at all phasing during construction.
- I. Contractor shall notify, in writing, both the County and residents/workers/property owners of his intent to begin work at least 5 days and 3 days respectively prior to construction. Notification to residents/property owners shall be in the form of fliers.
- J. Type 1 barricades with one flashing light on top of each barricade shall be placed to delineate construction areas. Flashers shall be turned on before dark and contractor shall ensure that each flasher is maintained the operational while in use.
- K. "Road Work Ahead" (W20-1) on all approaches to the work area and "End Road Work" (G20-2) shall be installed stationary for the duration of project on all cross streets. When work is done, all signs shall be removed and be delivered to the County East Yard at 1505 Schallenberger Road, San Jose, Ca 95131.

**Measurement and Payment** - Compensation for the work on Traffic Control System is made on a lump sum basis as indicated on the Bid Schedule. It includes full compensation for furnishing all labor, materials, equipment such as traffic control devices (i.e., flashing beacons, flaggers, cones, barricades, channelizers, crash cushions, etc....), and incidentals that are required to establish a safe work area in compliance with the latest regulations and standards as specified hereinabove. Also, other traffic control related expenses such as uniformed traffic control officers or Contractor-furnished traffic control personnel; Type III barricades with mounted signs, temporary delineators, and placing, removing, storing, maintaining, and relocating of temporary traffic control devices are considered to be included in the price paid for Traffic Control System and no additional payment is to be made.

The contract lump sum price paid for Construction Area Signs shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, installing and removing the construction area signs.

The contract lump sum price paid for Temporary Striping and Pavement Markings shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing, installing and removing the temporary striping and pavement markings, temporary flexible pavement markers (floppies).

Full compensation for preparing, submitting, revising and re-submitting traffic control plans for approval shall be considered as included in the contract lump sum price paid for traffic control system and no separate payment will be made therefor.

The Contractor is not entitled to any compensation for the suspension of work resulting from the failure of providing a safe work area to the traveling public as specified hereinabove.

#### **110-06.02 TEMPORARY PEDESTRIAN ACCESS ROUTE**

Temporary pedestrian access route (TPAR) shall conform to Section 12-4.04, "Temporary Pedestrian Access Routes" of the State Standard Specifications, and plan sheets T30, T31, T32, T33, and T34, "Temporary Pedestrian Access Routes" of the State Standard Plans, MUTCD Section 6D.01 and 6D.02, and these Special Provisions.

Means of passage of pedestrian traffic around and through the work area shall be provided at all times. Whenever possible work should be done in a manner that does not create a need to detour pedestrian from existing pedestrian routes. At least one (1) continuous walkway along one (1) side of the street shall be available at all times. The temporary pedestrian access route shall be surfaced with asphalt concrete, Portland cement concrete (PCC), or timber and shall be accessible by wheelchair. The surface must be skid resistant and free of irregularities.

Contractor shall prepare plans of TPAR and submit at least two weeks before construction for Engineer's review and approval. The plan shall be prepared (or under direction of), sealed and signed by an engineer who is registered as a civil engineer in the state of California.

Contractor shall provide temporary traffic control devices to protect pedestrian from traffic and construction equipment. Contractor is responsible for maintaining the pedestrian access in good condition.

**Measurement and Payment:** The contract lump sum price paid for Temporary Pedestrian Access Route shall include full compensation for furnishing all labor, material, tools, equipment, and incidentals for preparing drawings, constructing, maintaining, and removing temporary pedestrian access route as specified in these Special Provisions, and as directed by the Engineer, and no additional compensation shall be allowed therefore.

#### 110-06.03 PORTABLE CHANGEABLE MESSAGE SIGN

Portable Changeable Message Signs must conform to Section 12 “Temporary Traffic Control” of the State Standard Specifications.

Typically place these portable changeable message signs, one in advance of the first warning sign for each stationary lane closure and the second one near the beginning of the lane shift and/or detour. Exact messaging and locations must be approved by the Engineer. Contractor shall make message changes to the boards as required by the project engineer throughout the duration of project. PCMS shall conform to Section 12-3.32 of the State Standard Specifications.

Replace Section 12-3.32D with: Payment for furnishing, placing, operating, modifying messages, maintaining portable changeable message signs, transporting changeable message signs from location to location, removing, and repairing or replacing defective or damaged portable changeable message signs is included in the price paid per each for Portable Changeable Message Sign.

**Measurement and Payment:** The contract unit price paid for each Portable Changeable Message Sign shall include use of Portable Changeable Message Sign for duration of the project. It shall cover payment for furnishing, placing, operating, modifying messages, maintaining portable changeable message signs, transporting changeable message signs from location to location, removing, and repairing or replacing defective or damaged portable changeable message signs and no additional payment is to be made.

#### 110-06.04 TYPE III BARRICADE-STAGE CONSTRUCTION PLANS

Type III barricades shall conform to the provisions Section 12-3.10, “Barricades,” of the State Standard Specifications.

**Measurement and Payment** – Full compensation for furnishing, installing, maintaining, and removing Type III barricades including construction area signs and marker panels on barricades shall be considered as included in the contract lump sum price paid for traffic control system and no separate payment will be made therefor.

#### 110-06.05 WATER-FILLED BARRIER

Water-filled barrier are made of medium density polyethylene filled with water in orange and white color and has minimum of 32” height. These barriers shall be tested and performed in an acceptable manner in accordance with NCHRP 350.

Install the barrier per manufacturer recommendation. These unit shall be pinned together with steel rod inserted through lugs formed into the end of each segment. Offset the approach end of barrier a minimum of 15 feet from the edge of an open traffic lane. Install the barrier on a skew toward the edge of the traffic lane of not more than 1 foot transversely to 10 feet longitudinally with respect to the edge of traffic lane. If the 15-foot minimum offset cannot be achieved, the barrier must be installed on the 10 to 1 skew to obtain the maximum available offset between the approach end of the railing and the edge of the traffic lane, and an array of temporary crash cushion modules must be installed at the approached end of the barrier.

**Measurement and Payment** – Full compensation for furnishing, installing, maintaining and removing water-filled barrier and temporary crash cushion modules are included in the contract lump sum price paid for Temporary Pedestrian Access Route, and no additional compensation will be allowed.

#### 110-06.06 ROADWAY LANE CLOSURE

Temporary traffic control for roadway lane closure shall conform to the requirements of the CA MUTCD, Part 6, Temporary Traffic Control”, Caltrans Standard Plans listed below are applicable to different types of facility and are provided for guidance to Contractor to develop its temporary traffic control plan for the worksite area:

- T-10 “Traffic Control System for Lane Closure on Freeways and Expressways,”
- T-11 “Traffic Control System for Lane Closure on Multilane Conventional Highways,”
- T-13 “Traffic Control System for Lane Closure on Two Lane Conventional Highways,”
- T-14 “Traffic Control System for Ramp Closure,” and
- T-15 and T-16, both titled “Traffic Control System for Moving Lane Closure on Multilane Highways.”

##### A. CLOSURE SCHEDULE

The following is the approved lane closure times for Lawrence Expressway:

• Weekdays (Southbound):	<u>9:00 AM – 3:00 PM</u>
• Weekdays (Northbound between I-280 and Homestead Road):	<u>10:00 AM – 4:00 PM</u>
• Weekdays (Northbound between Quito Road and I-280):	<u>9:00 AM – 3:00 PM</u>
• Weekdays Intersection (if affects both directions):	<u>10:00 AM – 3:00 PM</u>
• Night work:	<u>9:00 PM – 5:00 AM</u>
• Weekends:	<u>Friday 9:00pm to Monday 5:00am for signal shutdown</u>

Submit proposed weekend closure plans including hours of lane closures for approval by the Engineer. Submit weekend closure plans a minimum of 5 working days in advance of proposed weekend work.

If a Subcontractor is providing Traffic Control, the Subcontractor shall have a **Class C31 license** for implementing construction area lane closure and traffic control measures.

No roadway lane closure is permitted before and after the hours specified above.

No roadway lane closure setup and removal activities are permitted before and after the times specified above.

No overnight roadway lane closure is permitted.

Access to and from Lawrence Expressway should always be maintained at all side streets.

During weekday hours, consecutive/adjacent left-turns shall not be closed. Where an intersection left-turn lane is closed, the upstream and downstream intersections must not restrict turn movements.

Subject to the approval of the Project Engineer, weekend work may be allowed at locations where weekday traffic and work hour traffic is heavy and likely to be impacted by the construction operations. Weekend work should be requested by the contractor one week in advance and shall be approved by the Project Engineer in advance of the closure. There shall be no additional cost to the County if Contractor decides to work on weekend unless directed by the County to do so.

## **B. CLOSURE AND CONTINGENCY PLANS**

A detailed roadway lane closure plan must be prepared and submitted to Project Engineer for review and acceptance a minimum of ten (10) working days prior to the planned closure at the job site for any work requiring lane closure. The closure plan must include as a minimum the following information:

1. Date(s) of closure and beginning and end times of closure, including time requiring for the closure set-up and removal,
2. A proposed traffic control plan for the closure implementation,
3. Description of work elements with estimated timeline to be performed within the specified closure duration, and
4. A separate contingency plan to be implemented in the event that unexpected field conditions or causes, beyond the control of or not created by Contractor or its subcontractors, material suppliers, require the duration of closure to exceed the time specified. The contingency plan must include a traffic detour plan with placement of additional advance warning signs, alternative route and detour signs to notify the traveling public approaching the work area of lane closure and traffic delay.



The accepted closure and contingency plans are subject to modification by Project Engineer during its implementation if found necessary to minimize traffic delay and improve the safety of the traveling public. Lane Closure Request Form shall be submitted with the closure plan. See sample request form for reference on next page.

# TECHNICAL SPECIFICATIONS & FURTHER CONDITIONS

# SECTION 110

County of Santa Clara  
Roads and Airports Department

## LANE CLOSURE REQUEST FORM

(NOTE: THIS IS A SAMPLE DOCUMENT ONLY)

Project Limit:

CONSTRUCTION OFFICE: Field trailer on	WEEK OF:	THROUGH:
PROJECT NAME:	PROJECT NUMBER:	CONTRACT NUMBER:
RADIO CALL NUMBER:	PHONE NUMBER:	FAX NUMBER:

DATE	ROUTE	LOCATION														LANE CLOSURE NUMBER
		DIRECTION	LANE CLOSED								RAMP		LIMITS			
		NB,SB,EB,WB	1	2	3	4	5	6	LS	RS	ON	OFF	POST MILE, INTERCHANGE	START	END	
7/9 to 7/13	US101	NB									X		US101	12am	4am	
7/9	Capitol	EB	X						X				Capitol	1am	5am	
7/10	Capitol	WB						X		X			Capitol	2am	6am	

COMMENTS:	
SENT TO PUBLIC INFORMATION BY: XYZ CONTRACTOR	DATE: 7-5-2012

**C. EARLY CLOSURE AND LATE REOPENING OF CLOSURE**

No early closure is permitted as specified hereinabove. If a closure is set up or in place prior to the specified time, Work will be suspended in accordance with the provisions in Section 8.05, "Temporary Suspension of Work", of the County Standard Specifications.

If a closure is not reopened to public traffic by the specified time and without a pre-approved contingency plan as specified hereinabove, Work will be suspended in accordance with the provisions in Section 8.05, "Temporary Suspension of Work" of the County Standard Specifications. Contractor must remove all closures and return the work area affected by the closure to a safe condition for the traveling public. No further closures are to be made until Project Engineer has accepted a Contractor-submitted work plan that ensures that future closures will be reopened to public traffic at the specified time. Project Engineer will have three (3) business days upon receipt of the work plan to accept or reject Contractor's proposed work plan.

For each 10-minute interval, or fraction thereof past the time specified to reopen the closure, Owner will deduct the amount per interval shown below from monies due or that may become due Contractor under the Contract.

Type of Facility	Route or Segment	Period	Damages/interval (\$)
Expressway	Lawrence	1st half hour	\$500.00 / 10 minutes
		2nd half hour	\$1000.00 / 10 minutes
		Over 1 hour	\$2000.00 / 10 minutes

**D. NO ADDITIONAL COMPENSATION**

Work specified under this Section is not paid for separately and is considered as being included in the Contract price.

Contractor shall not be entitled to any compensation for the suspension of work resulting from the early closure and late reopening of closure as specified hereinabove.

**110-06.07 TEMPORARY PAVEMENT DELINEATION**

Before any major physical construction work readily visible to expressway users is started on this contract, the Contractor shall furnish and erect two (2) Type 1 Project Information signs at the locations designated by the Engineer.

Whenever the work causes obliteration of pavement delineation, temporary or permanent pavement delineation shall be in place prior to opening the traveled way to public traffic. Lane line, centerline or edge line pavement delineation and markings shall be provided at all times for traveled ways open to public traffic.

Temporary pavement delineation shall be either temporary pavement markers or removable traffic stripe tapes at contractor option. Temporary pavement delineation shall be removed prior to placing permanent pavement striping.

The Contractor shall perform the work necessary to establish the alignment of temporary pavement delineation, including required lines or marks. Surfaces to receive temporary pavement delineation shall be dry and free of dirt and loose material. Temporary pavement delineation shall not be applied over existing pavement delineation or other temporary pavement delineation. Temporary pavement delineation shall be maintained until superseded or replaced with a new pattern of temporary pavement delineation or permanent pavement delineation.

Temporary lane line or centerline delineation consisting entirely of temporary pavement markers shall be placed on longitudinal intervals of not more than 24 feet. Temporary pavement markers for left edge lines shall be placed at longitudinal intervals of not more than 6 feet. The temporary pavement markers shall be the same color as the lane line or centerline the pavement markers replace.

Temporary pavement delineation shall be furnished, placed, maintained, and removed in conformance with the provisions in Section 12-3.01, "General," of the State Standard Specifications and these Special Provisions. Nothing in these special provisions shall be construed as reducing the minimum standards specified in the Manual of Traffic Controls published by the Department or as relieving the Contractor from the responsibilities specified in Section 7.22.02, "Public Safety," of the County Standard Specifications.

**Measurement and Payment:** Full compensation for furnishing, placing, maintaining, and removing temporary pavement delineation and markings, including underlying adhesive, layout (dribble) lines to establish alignment, for temporary lane line and centerline delineation, shall be considered as included in the contract price paid for Traffic Control System and no separate payment will be allowed therefor.

#### **110-06.08 PROJECT INFORMATION SIGN**

Before any major physical construction work readily visible to expressway users is started on this contract, the Contractor shall furnish and erect two (2) Type 1 Project Information signs at the locations designated by the Engineer.

The signs shall be installed on 6"x6" wood posts and shall be stationary-mounted signs in accordance with Section 12-3.11, "Construction Area Signs", of the State Standard Specification. The bottom of the sign panel must be at least 7 feet above the edge of the traveled way.

The sign letters, border and the logos shall conform to the colors, sizes and details as shown on the plan, and shall be on a white background (non-reflective). All logos shall be in reflective color except for black.

The content to be used on the Project Information Sign will be furnished by the Engineer. A sign proof shall be submitted to the Engineer for review and approval prior to fabrication. The signs shall be in place and in operation a minimum of ten (10) working days prior to the commencement of work.

The signs shall be kept clean and in good condition and shall be repaired or replaced by the Contractor if ordered by the Engineer.

Upon the completion of work, the signs shall be removed and salvaged by the contractor. Salvaged material shall remain the property of the County, and shall be cleaned, packaged, bundled, tagged, and delivered to the Santa Clara County East Yard at 1505 Schallenberger Road, San Jose, CA 95131.



#### **Measurement and Payment:**

The contract unit price paid for Project Information Sign shall include full compensation for excavation, backfill, minor concrete, furnishing, erecting, maintaining, removing, disposing and delivery of the project construction signs and no additional compensation will be allowed therefor.

### **110-07 STORMWATER POLLUTION PREVENTION PLAN, JOB SITE MANAGEMENT**

Attention is directed to Section 13, "Water Pollution Control", of State Standard Specification, these Technical Specifications, and as directed by the Project Engineer.

The contractor shall develop and implement an erosion control plan, which specifies construction site Best Management Practices (BMPs) that will prevent all construction pollutions from contacting storm water and with the intent of keeping all products of erosion from moving offsite into receiving water. The contractor shall inspect and maintain all BMPs at all times.

**110-07.01 STORMWATER POLLUTION PREVENTION PLAN**

County, as Owner of the project site(s) where the subject construction activity is to occur, is responsible for preventing and/or mitigating potential chemical release, erosion, and sedimentation impacts associated with storm water runoff.

Contractor shall prepare and submit an Erosion and Sediment Control Action Plan Element (ESCAPE) for the Project for approval by Project Engineer prior to commencing any field work. The ESCAPE shall identify appropriate storm water pollution prevention measures or Best Management Practices (BMPs) to reduce pollutants in storm water discharges from the Project's site in connection with construction activities. Once the ESCAPE is accepted by Project Engineer, Contractor shall implement the provisions of the ESCAPE, maintain and update the plan, as deemed necessary and with the approval of Project Engineer, throughout the construction phase. A copy of the ESCAPE shall be made readily available onsite throughout the construction period, and shall include name and telephone number of Contractor-designated personnel responsible for the ESCAPE activities. The Contractor shall refer to the following manuals for preparing the ESCAPE:

- Guidelines for Construction Projects prepared by California Regional Water Quality Control Board (available for purchase at [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/training.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/training.shtml) ), and
- Erosion and Sediment Control Field Manual (4<sup>th</sup> Edition) prepared by the California Regional Water Quality Control Board (available for purchase at [http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/training.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/training.shtml) ), and
- Storm Water Best Management Practice Handbook for Construction Activity (November 2009 or latest edition) prepared by California Storm Water Quality Association (available by subscription at <https://www.casqa.org/casqastore/entity/tabid/169/c-4-best-management-practice-bmp-handbooks.aspx>).

At a minimum, the ESCAPE shall include the following BMP provisions for implementation on and in the vicinity of the Project's site:

- Solid and Demolition Waste Management: Provide designated waste collection areas and containers on site away from streets, gutters, storm drains, and waterways, and arrange for regular disposal. Waste containers must be watertight and covered at all times except when waste is deposited. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (page C3) or latest.
- Hazardous Waste Management: Provide proper handling and disposal of hazardous wastes by a licensed hazardous waste material hauler. Hazardous wastes should be stored and properly labeled in sealed containers constructed of suitable materials. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages C-5 to C-6) or latest.
- Spill Prevention and Control: Provide proper storage areas for liquid and solid materials, including chemicals and hazardous substances, away from streets, gutters, storm drains, and waterways. Spill control materials must be kept on site where readily accessible. Spills must be cleaned up immediately and contaminated soil disposed properly. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages C-7 to C-8, C-13 to C-14) or latest.

- Vehicle and Construction Equipment Service and Storage: An area shall be designated for the maintenance, where on-site maintenance is required, and storage of equipment that is protected from stormwater run-on and runoff. Measures shall be provided to capture any waste oils, lubricants, or other potential pollutants and these wastes shall be properly disposed of off-site. Fueling and major maintenance/repair, and washing shall be conducted off-site whenever feasible. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (page C9) or latest.
- Material Delivery, Handling and Storage: In general, materials should not be stockpiled on site. Where temporary stockpiles are necessary and approved by the County, they shall be covered with secured plastic sheeting or tarp and located in designated areas near construction entrances and away from drainage paths and waterways. Barriers shall be provided around storage areas where materials are potentially in contact with runoff. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages C-11 to C-12) or latest.
- Handling and Disposal of Concrete and Cement: When concrete trucks and equipment are washed on-site, concrete wastewater shall be contained in designated containers or in a temporary lined and watertight pit where wasted concrete can harden for later removal. If possible, have concrete contractor remove concrete wash water from site. In no case shall fresh concrete be washed into the road right-of-way. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages C-15 to C-16) or latest.
- Pavement Construction Management: Prevent or reduce the discharge of pollutants from paving operations, using measures to prevent run-on and runoff pollution and properly disposing of wastes. Avoid paving in the wet season and reschedule paving when rain is in the forecast. Residue from saw-cutting shall be vacuumed for proper disposal. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages C-17 to C-18) or latest.
- Contaminated Soil and Water Management: Inspections to identify contaminated soils should occur prior to construction and at regular intervals during construction. Remediating contaminated soil should occur promptly after identification and be specific to the contaminant identified, which may include hazardous waste removal. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages C-19 to C-20) or latest.
- Sanitary/Septic Water Management: Temporary sanitary facilities should be located away from drainage paths, waterways, and traffic areas. Only licensed sanitary and septic waste haulers should be used. Secondary containment should be provided for all sanitary facilities. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (page C-21) or latest.
- Sediment Control Management:
- Tracking Prevention & Clean Up. Activities shall be organized and measures taken as needed to prevent or minimize tracking of soil onto the public street system. A gravel or proprietary device construction entrance/exit is required for all sites. Clean up of tracked material shall be provided by means of an approved street sweeper prior to an approaching rain event, or at least once at the end of each workday that material is tracked, or, more frequently as determined by the Project Inspector. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages B-31 to B-33) or latest.
- Storm Drain Inlet and Catch Basin Inlet Protection: Inlets shall be protected with gravel bags placed around inlets. At locations where exposed soils are present, staked fiber roles or staked silt fences can be used. Inlet filters are not allowed due to clogging and subsequent flooding. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages B-49 to B-51) or latest

- Erosion Control: During the rainy season, all disturbed areas must include an effective combination of erosion and sediment control. It is required that temporary erosion control measures are applied to all disturbed soil areas prior to a rain event. During the non-rainy season, erosion control measures must be applied sufficient to control wind erosion at the site.
- Inspection & Documentation: Disturbed areas of the Project's site, areas for material storage sites, locations where vehicles enter or exit the site, and all erosion and sediment controls that are identified as part of the ESCAPE must be inspected by the Contractor and Project Inspector before, during, and after storm events, and at least weekly during seasonal wet periods. Problem areas must be documented and control measures identified and implemented immediately, within 24 hours of the problem being identified. Documentation shall consist of weekly and pre-storm and post-storm inspection reports that include the problem area location, type of maintenance or repairs needed, action taken, date completed and any observations made, size and duration of storm. Reports shall include the date and names of the Project Inspector and Contractor's qualified personnel and staff from regulatory agencies (such as the RWQCB), if any, performing the site inspection, and shall be kept with the ESCAPE. Refer to Erosion & Sediment Control Field Manual, 4<sup>th</sup> Edition (pages F-1 to F-7) or latest.

The Contractor is advised that the acceptance of the ESCAPE by the County does not relieve the Contractor or Subcontractor(s) of their responsibility to comply with other State, County and Local governmental requirements, including those for storm water management or non-point source runoff controls. County reserves the right to require the Contractor to amend the ESCAPE as initially approved if, during construction, conditions (such as change in construction operations, construction staging modification, change in site conditions, or unanticipated offsite drainage impacts) occur that affect the ability of the Contractor to implement the plan effectively or the ability of the plan to meet the objectives for water pollution control. Contractor shall implement any amendments to the ESCAPE issued by the Project Engineer and incorporate the ESCAPE amendments into the on-site documents.

**Measurement and Payment** – Full compensation for furnishing all labor, materials, tools, equipment and incidentals required for preparing, implementing, modifying and maintaining ESCAPE, in compliance with requirements of this Section, complete in place, and as directed by the Project Engineer, will be included in the Schedule of Bid Items.

In addition to the foregoing, Contractor shall at all times comply with Division B11.5 of the County Ordinance Code, governing nonpoint source pollution. Under County Ordinance Code sections B11.5-10 and B11.5-11, multiple individuals at the County, including the Director of the Roads and Airport Department, are authorized to enforce the provisions in Division B11.5, including overseeing, inspecting, requiring expedient cleanup, pursuing stricter enforcement, and issuing citations for violations. Likewise, these individuals may perform investigations of storm drainage facility conditions, construction sites, industrial and commercial sites, illicit connections to the storm drainage system, illicit discharge, illegal dumping into the storm drainage system, and potential or actual sources of stormwater pollution, as necessary to carry out the purposes of Division B11.5.

The contract unit price paid per each for Temporary Drainage Inlet Protection includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in constructing the temporary drainage inlet protection, complete in place, including removal of materials, cleanup and disposal of retained sediment and debris, and backfilling and repairing holes, depressions and other ground



disturbance, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer. No additional compensation will be made if the temporary drainage inlet protection is relocated during the course of construction.

#### 110-07.02 JOB SITE MANAGEMENT

Job site management shall comply with Section 13-4, "Job Site Management," of the State Standard Specifications and these Technical Specifications.

**Measurement and Payment** - The contract lump sum price paid for Job Site Management includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in spill prevention and control, material management, waste management, non-stormwater management, and dewatering and identifying, sampling, testing, handling, and disposing of hazardous waste resulting from your activities, as specified in the Standard Specifications and these special provisions, and as ordered by the Engineer

#### 110-08 UNDERGROUND OBSTRUCTIONS

Attention is directed to the provisions in Section 8.11, "Utility and Other Facilities," and Section 15, "Existing Highway Facilities," of the County Standard Specifications as well as these Special Provisions.

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

Notification Center	Telephone
Underground Service Alert-Northern California (USA)	811 or 1-800-642-2444

Full compensation for conforming to the requirements of this section, not otherwise provided for, shall be considered as included in the Contract prices, and no additional compensation will be allowed therefor.

#### 110-09 CONSTRUCTION LAY-DOWN OR STAGING AREA

Contractor's attention is directed to Section 106, "Amendments to County Standard Specifications", of these Special Provisions regarding the amended County Standard Specifications Section 5.07.02, "Project Real Site Property" for construction lay-down or staging area for use by Contractor.

**110-10 PROTECTION OF EXISTING LANDSCAPE AND TREES**

This section includes specifications for work relating to existing landscape and trees. Work impacting existing landscape and trees must comply with Section 14-6, "Biological Resources", and Section 20, "Landscape", of the State Standard Specifications.

**110-10.01 CONTRACTOR-SUPPLIED BIOLOGIST**

A contractor-supplied biologist must comply with Section 14-6, "Biological Resources", of the State Standard Specifications and these Special Provisions.

Survey the job site for regulated species and submit a preconstruction survey report within 14 days before starting work. An additional survey of landscape or trees to be removed must be completed within 48 hours prior to removal.

The preconstruction survey report must include one of the following:

1. Detailed observations and locations where regulated species were observed
2. Statement that no regulated species were observed

**Measurement and Payment:** The lump sum contract price paid for a Contractor-Supplied Biologist includes full compensation for retaining a qualified biologist and the full completion of responsibilities as identified in the State Standard Specifications and these Special Provisions.

**110-10.02 CONTRACTOR-SUPPLIED ARBORIST****110-10.02A General**

This section includes specifications for providing a Contractor-supplied arborist to monitor construction and to manage activities related to work involving ground disturbance within the drip line of protected trees as defined in Section 8.16, "Tree Preservation and Removal", of the County Standard Specifications.

The Contractor-supplied arborist must:

1. Take part in a preconstruction meeting with the Engineer
2. Verify and visually inspect trees intended to be worked around before beginning work
3. Verify trees are alive, dead, dying, diseased and/or hazardous

**110-10.02B Submittals****110-10.02B(1) Qualifications**

Within 7 days after Contract approval, submit the arborist name, resume, and statement of qualifications. Allow 10 days for review. If the submittal is incomplete, the Engineer will provide

comments. Within 7 days after receiving the Engineer's comments, update and resubmit qualifications data. Do not start construction activities until the Contractor-supplied arborist is authorized.

The arborist must be licensed in the state of California.

**110-10.02B(2) Monitoring Report**

Submit Monitoring Report for trees impacted by ground disturbing activities within 7 days of completion. Report must include:

- Dates and Times monitor was present at site.
- Tree and activity monitored.
- Assessment of health of tree before and after construction activity.
- Record of roots greater than 2 inches that were severed.
- Any other notable concerns for the tree such as, root health, pests, disease, or existing damage.

**110-10.02B(3) Incident Report**

Submit an Incident Report within 24 hours of the incident. An incident is any substantial damage to a tree root which could jeopardize the survival or longevity of the tree. The report contains information on the damage to the tree, and an assessment of the effects on the survival and health of the tree.

**110-10.02B(4) Final Monitoring Report****110-10.02C Materials**

Not Used

**110-10.02D Monitoring**

Perform monitoring as required for trees.

**Measurement and Payment** - The lump sum contract price paid for a Contractor-Supplied Arborist includes full compensation for retaining a qualified arborist and the full completion of responsibilities as identified in these Special Provisions.

**110-11 HAZARDOUS WASTE AND CONTAMINATION**

Work involving hazardous waste must comply with Section 14-11, "Hazardous Waste and Contamination", of the State Standard Specification and these Special Provisions.

**110-11.01 LEAD COMPLIANCE PLAN**

Section 110-11.02 applies if a bid item for a lead compliance plan is shown on the Bid Item List.

Regulations containing specific Cal/OSHA requirements when working with lead include 8 CA Code of Regs § 1532.1.

Submit a plan:

1. That documents your compliance program to prevent or minimize worker exposure to lead
2. Including the items listed in 8 CA Code of Regs § 1532.1(e)(2)(B)
3. Sealed and signed by a CIH with knowledge of and experience complying with 8 CA Code of Regs

Allow 7 days for review. Obtain authorization for the plan before starting any activity that presents the potential for lead exposure.

Before starting any activity that presents the potential for lead exposure to employees who have no prior training, including State employees, provide a safety training program to these employees that complies with 8 CA Code of Regs § 1532.1 and your lead compliance plan.

Submit copies of air monitoring or job site inspection reports made by or under the direction of the CIH under 8 CA Code of Regs § 1532.1 within 10 days after the date of monitoring or inspection.

**Measurement and Payment:**

The contract lump sum price paid for Lead Compliance Plan will include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in preparing a lead compliance plan as specified in as specified in these Special Provisions, and as directed by the Project Engineer.

**110-11.02 REMOVAL AND HANDLING OF YELLOW THERMOPLASTIC**

This project includes removal of yellow thermoplastic traffic stripes and yellow thermoplastic pavement markings that may produce hazardous waste residue. Section 14-11.12, "REMOVAL OF YELLOW TRAFFIC STRIPE AND PAVEMENT MARKING WITH HAZARDOUS WASTE RESIDUE" and Section 84-9, "Existing Markings", of the State Standard Specifications and these Special Provisions Section 110-12.10 "REMOVAL OF TRAFFIC STRIPES, PAVEMENT MARKINGS, & MARKERS" apply to the removal and handling of yellow thermoplastic.

**110-11.03 TREATED WOOD WASTE**

**110-11.03A General**

Section 110-11.03 includes specifications for handling, storing, transporting, and disposing of treated wood waste. Manage treated wood waste under Health & Safety Code §25230 et seq.

Wood removed from guardrail and roadside signs is treated wood waste.

**110-11.03B Submittals**

Within 5 business days of disposing of treated wood waste, submit as an informational submittal a copy of each completed shipping record and weight receipt.

**110-11.03.C Training**

Provide training to personnel who handle or may come in contact with treated wood waste. Training must include:

1. Requirements of 8 CA Code of Regs
2. Procedures for identifying and segregating treated wood waste
3. Safe handling practices
4. Requirements of Health & Safety Code §25230 et seq
5. Proper disposal methods

Maintain training records for 3 years after contract acceptance.

**110-11.03D Storage of Treated Wood Waste**

Store treated wood waste at the jobsite until transport to the CA permitted disposal site.

Until disposal, store treated wood waste using the following methods:

1. Raise the waste on blocks above a foreseeable run-on elevation and protect it from precipitation for no more than 90 days.
2. Place the waste on a containment surface or pad protected from run-on and precipitation for no more than 180 days.
3. Place the waste in water-resistant containers designed for shipping or solid waste collection for no more than 1 year.
4. Place the waste in a storage building as defined in Health & Safety Code §25230 et seq.

Prevent unauthorized access to treated wood waste using a secure enclosure such as a locked chain-link-fenced area or a lockable shipping container located within the job site.

Resize and segregate treated wood waste at a location where debris including sawdust and chips can be contained. Collect and manage the debris as treated wood waste.

Identify treated wood waste and accumulation areas using water-resistant labels that comply with Health & Safety Code §25230 et seq. Labels must include:

1. The words *TREATED WOOD WASTE Do not burn or scavenge*
2. The words *County of Santa Clara Roads and Airports Department*
3. The words *Construction Contract* and the contract number
4. Department office address
5. Engineer's name, address, and telephone number
6. Contractor's contact name, address, and telephone number
7. Date placed in storage

**110-11.03E Transport and Disposal of Treated Wood Waste**

Dispose of treated wood waste within:

1. 90 days of generation if stored on blocks
2. 180 days of generation if stored on a containment surface or pad
3. 1 year of generation if stored in a water-resistant container or within 90 days after the container is full, whichever is shorter
4. 1 year of generation if stored in a storage building as defined in Health & Safety Code §25230 et seq

Before transporting treated wood waste, obtain agreement from the receiving facility that it will accept the waste. Protect shipments of the waste from loss and exposure to precipitation. For projects generating 10,000 lb or more of treated wood waste, request a generator's EPA Identification Number from the Engineer at least 5 business days before the 1st shipment. Each shipment must be accompanied by a shipping record such as a bill of lading or invoice that includes:

1. The words *County of Santa Clara Roads and Airports Department*
2. The words *Construction Contract* and the contract number
3. Department office address
4. Engineer's name, address, and telephone number
5. Contractor's name, contact person, and telephone number
6. Receiving facility's name and address
7. Description of the waste (e.g., treated wood waste with preservative type if known or unknown/mixture)
8. Project location
9. Estimated weight or volume of the shipment
10. Date accumulation begins
11. Date of transport
12. Name of transporter
13. Date of receipt by the treated wood waste facility
14. Weight of shipment measured by the receiving facility
15. Generator's US EPA Identification Number for projects generating 10,000 lb or more of treated wood waste

The shipping record must be 8-1/2 by 11 inches and a 4-part carbon or carbonless form to provide copies for the Engineer, transporter, and treated wood waste facility.

Transport treated wood waste directly to the CA permitted disposal site after leaving the jobsite. Do not mix treated wood waste from the job site with waste from any other generator.

Dispose of treated wood waste at one of the following:

1. An approved California disposal site operating under a RWQCB permit that includes acceptance of treated wood waste
2. California disposal site operating under a DTSC permit that includes acceptance of treated wood waste

**Measurement and Payment:**

Quantities of Treated Wood Waste to be paid for will be determined by the weight of wood as measured by the receiving facility.

The contract unit price paid per pound for Treated Wood Waste includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in managing and disposing of completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

## **110-12 ROADWAY IMPROVEMENTS OR STRUCTURE IMPROVEMENTS**

### **110-12.01 LINES & GRADES**

Construction staking that is required for the improvements to be constructed to lines and grades as shown on the Project Plans and these Special Provisions shall conform to Section 5.08 Lines and Grades of the County Standard Specifications as amended in Section 107 – Amendments to County Standard Details and Standard Specifications of these Special Provisions.

The County will furnish to the Contractor one set of control stakes. Once set, the maintenance of the integrity of said stakes becomes the responsibility of the Contractor. Additional sets of said stakes only will be furnished at the expense of the Contractor. All reference staking, location and layout work required for

construction purposes and preservation of the stakes, except the staking specified below, shall be performed by the Contractor at his expense.

When making the survey request, the Contractor shall stipulate at that time the particular stakes required, giving specific location or limiting station, kind of stakes, offsets, and other pertinent information.

It shall be the responsibility of the Contractor, in requesting survey services, to properly coordinate said requests with his construction activities so as to prevent inefficient scheduling of County survey crews.

Contractor shall provide the Project Inspector with 48-hour advance notice of completion of sub-grade, aggregate sub-base, and aggregate base installation so finished grades may be checked.

**Measurement and Payment:** Full compensation for conforming to provisions in this section, not otherwise provided for, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

#### **110-12.02 MOBILIZATION**

Mobilization shall conform to the provisions in Section 11, "Mobilization," of the County Standard Specifications.

Progress Schedule preparation/updates and video recording is included as part of mobilization.

**Measurement and Payment:**

The contract lump sum price paid for Mobilization will include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in mobilization as specified in the County Standard Specifications, including progress schedule, video recording and no additional payment will be allowed therefor.

#### **110-12.03 PRESERVATION AND RESTORATION OF PROPERTY**

Preservation and restoration of property must conform to Section 7.37, "Protection and Restoration of Property" and Section 7.38, "Responsibility for Damage" of the County Standard Specifications, and Section 5-1.36, "Property and Facility Preservation" of the State Standard Specifications.

Contractor must completely remove all utility paint markings at project completion. Removal must be by use of the high water pressure method only.

**Measurement and Payment:**

Full compensation for preservation and restoration of property including removing utility paint markings will be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

**110-12.04    PRESERVATION OF EXISTING FACILITIES**

Preservation of existing trees shall conform to Section 5-1.36, "Property and Facility Preservation" of the State Standard Specifications and Section 8.13, "Tree Preservation and Removal" of the County Standard Specifications.

Contractor shall protect and preserve the existing irrigation and landscaping area within and outside the improvement areas. Excessive cutting of roots is prohibited. Any damaged tree, grass, or irrigation facilities due to Contractor's operation shall be replaced in kind at Contractor's cost.

**Measurement and Payment:** Full compensation for conforming to this section is considered as included in the contract prices paid various items of work involved and no separate compensation shall be allowed therefore.

**110-12.05    COOPERATION**

Work associated with cooperation shall conform to Section 7.21, "Cooperation," and Section 8.11, "Utilities and Other Facilities" of the County Standard Specifications and these Special Provisions.

Contractor must coordinate and cooperate with others working in the project limit of work, including but not limited to utility facilities or facility owners, adjacent cities, and residents.

**Measurement and Payment:**

Full compensation for cooperation by the Contractor is considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed.

**110-12.06    POTHOLING**

This section specifies the requirements for performing all operations necessary to excavate, expose, and verify the location of existing utility mains and laterals which may conflict with the proposed facilities as shown on the plans. In particular, these locations are In areas where existing non-compliant PCC curb ramps are to be modified, and, on defective PCC curb, curb & gutter, and sidewalk that shall be replaced. **Potholing shall be done if existing utilities (as marked by USA) are within the areas where excavation for curb, curb & gutter, sidewalk, and pedestrian curb ramps is located, and, depth of existing marked utilities is unknown and/or less than or equal to 1 foot.** Depth of excavation for curb, curb & gutter, sidewalk, and pedestrian curb ramps is approximately 1 foot.

Such facilities for potholing may include, but not limited to, public- and/or private-owned: gas lines, electrical lines, communication lines, storm and sanitary sewer lines, water mains and laterals, fiber optic lines, street traffic lights line, etc.

Potholing can be vacuum excavation and/or hand dig.



The Contractor must notify USA and all utility companies, which have underground facilities within the limits of work two (2) working days before beginning any excavation work and have them locate and mark those facilities. The Contractor must notify the County three (3) working days before beginning any excavations.

The Contractor must submit a plan for actual count of pothole location for approval by the County, showing conflict utilities to be potholed. This plan must include a tentative schedule for potholing activities. The Contractor must submit a report for each pothole. Reports must clearly show all necessary details, including: (a) Sketch showing the location, date, top elevation or depth, conditions encountered clearance to other utility lines within the pothole location, type and size of utility lines, and person in charge of potholing; (b) Utility and County staff notified; (c) Contractor must place a witness stake at each pothole. Each stake must be uniquely numbered then located by survey horizontal project coordinates. In this pothole report, the Contractor must provide a description and vertical cut from grade to top of utilities for each corresponding stake, and (d) Backfill of potholes must conform to the provisions in Section 19 "Earthwork" of the County and State Standard Specifications.

All removed materials must be disposed of outside the public road rights-of-way. Disposal of material must conform to Section 7.18, "Disposal of Material Outside the Highway Right-Of-Way," of the County Standard Specifications. The disposal site is the responsibility of the Contractor.

**Measurement and Payment:**

The contract unit price paid each for Potholing includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in Potholing including backfill, compact, restore surface (local soil material or HMA/concrete if on HMA pavement/PCC surface), off-haul all spoils, USA coordination, and traffic control plan and no additional payment will be allowed therefor.

**110-12.07 EXISTING HIGHWAY FACILITIES**

Existing highway facilities shall conform to Section 15, "Existing Highway Facilities" of the County and Section 15, "Existing Facilities", of the State Standard Specifications, Contract Plans and these Special Provisions.

In removing items designated for removal, preservation, or relocation, Contractor shall exercise extreme caution to protect these existing facilities. The Contractor shall provide adequate support to existing utilities during excavation work. Any damages to existing items shall be brought to the attention of the County immediately and shall be repaired to the satisfaction of the County at Contractor's expense.

Attention is directed to Section 8.11, "Utilities and Other Facilities" of the County Standard Specifications for existing underground facilities that conflict with new improvements.

**Measurement and Payment:** Full compensation for conforming to provisions in this section, not otherwise specified in these special provisions, except Section 8.11, shall be considered as included in prices paid for the various contract items of work involved and no additional compensation will be allowed therefore. Compensation for work involved as specified in Section 8.11 shall be paid for as described under the said section of the County Standard Specifications.

**110-12.08 DUST CONTROL**

Dust control shall conform to the provisions of Section 10, "Dust Control" and Section 17 "Watering" of the County Standard Specifications.

**Measurement and Payment:** Full compensation for Dust Control shall be considered as included in other items of work and no additional compensation will be allowed therefore.

**110-12.08.01 STREET SWEEPING**

The complete street surface shall be power swept & vacuumed from curb face to curb face prior to paving operation. Contractor shall provide cleaning methods necessary to remove all dirt and loose material from the pavement. Paving operation shall not proceed until the inspector has approved the street sweeping. Vacuum Broom sweepers (mobile or equivalent) shall be furnished by the Contractor for this portion of the work. If water is used, cracks shall be allowed to dry thoroughly before applying overlay. No dry aggregate, either spilled from the lay-down machine or existing on the road, will be permitted to remain.

Pavement markings and pavement markers (permanent and temporary) shall be ground-removed prior to the application of pavement overlay as per section 110-12.10 "Remove Thermoplastic Pavement Markings, Markers & Striping".

All materials gathered shall be properly disposed of off-site at the expense of the Contractor. Contractor shall also remove all dirt and plant material growing in the street or the interface of the asphalt surface with the lip of P.C.C. gutter prior to placing overlay.

Contractor shall maintain street sweeping operations throughout the duration of the project or as directed by the project inspector.

Contractor shall also power sweep and vacuum all street surface to remove all HMA, loose materials, tracked outside of project limits or by direction of the project engineer or inspector.

**Measurement and Payment**

The contract lump sum price paid for Street Sweeping shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in street sweeping including disposal of collected material, as show in the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

**110-12.09 CLEARING AND GRUBBING**

Clearing and grubbing shall conform to the provisions in Section 16, "Clearing and Grubbing", of the County and Section 17-2, "Clearing and Grubbing", of the State Standard Specifications, these Special Provisions and the Contract Plans.

Clearing and grubbing shall consist of removing all natural and artificial objectionable materials from the right of way in construction areas, road approaches, material sites within the right of way, and such other areas as shown in the plans.

Only cut tree branches that overhang the roadway and are less than 8 feet above finished grade. Remove new growth from the base of existing tree trunks.

Protect all trees not identified for removal.

Excess material shall become the property of the Contractor. It shall be disposed of outside of the road right of way.

The Contractor shall protect existing landscaping and irrigation, from injury or damage resulting from the Contractor's operations. If existing irrigation system is within the new PCC sidewalk/driveway approach/curb ramps or on the County or City' Right-of-Way, the Contractor shall relocate existing irrigation components at the back of new sidewalk on the property owner's R/W so that the water is confined to the property owner's landscaped area only. In case there is no place to relocate inside private property, Contractor shall remove the irrigation system. The Contractor shall replace in kind, at no cost to the County, any landscaping or irrigation damaged.

Vegetation encroaching within the pavement area shall be removed and cleared within one foot behind existing curb, asphalt concrete dike or sidewalk or two feet behind edge of pavement. All existing vegetation outside the areas to be cleared and grubbed shall be protected from injury or damage resulting from contractor's operations.

Clearing and grubbing shall include "power brooming" material from roadside and existing drainage facilities to prepare for improvements and proper pavement drainage.

All Clearing and Grubbing activities controlled by the Contractor, except cleanup or other required work, shall be confined within the limit of the construction area. Nothing herein shall be construed as relieving the Contractor of his responsibility for final cleanup of the highway as provided in the Section 22, "Clean-up," of the County Standard Specifications and Section 22, "Finishing Roadway" of the State Standard Specifications.

**Measurement and Payment:** The contract lump sum price paid for Clearing and Grubbing shall include full compensation for furnishing all labor, materials, tools, equipment, transportation and incidental required for all clearing and grubbing of the project site, disposal of removed or surplus materials outside the project limits, returning removed materials to County, and for doing all the work involved in clearing and grubbing, complete in place, as shown on the plans, as specified in State Specifications and these Special Provisions.

#### **110-12.10 REMOVAL OF TRAFFIC STRIPES, PAVEMENT MARKINGS, & MARKERS**

##### **110-12.10.01 REMOVE TRAFFIC STRIPES, PAVEMENT MARKINGS, & MARKERS**

Removal of traffic stripes, pavement markings and pavement markers shall conform to Section 84-9.03A, "General", of the State Standard Specifications, the details shown on the plans, and these special provisions. All thermoplastic materials shall be removed.

Traffic stripes, legends and pavement markings shall be removed by sandblasting, grinding, or as directed by the Engineer. No painting over existing markings will be allowed.

Striping removal process and removal of pavement markers shall not materially damage the surface or the texture of the pavement.

Where blast cleaning is used for the removal of painted traffic stripes and pavement markings or for removal of objectionable material, and such removal operation is being performed within 10 feet of a lane occupied by public traffic, the residue including dust shall be removed immediately after contact between the sand and the surface being created. Such removal shall be by vacuum attachment operating concurrently with the blast cleaning operation.

Wherever the Contractor's operations obliterate pavement delineation (lane lines), such pavement delineation shall be replaced by either permanent or temporary delineation before opening the traveled way to public traffic.

#### **110-12.10.02 REMOVAL AND HANDLING OF YELLOW PAINTED TRAFFIC STRIPES**

Waste from the removal of yellow painted traffic stripes may contain lead chromate. Yellow paint traffic stripe exists within project limits. Residue produced when yellow paint is removed may contain lead and chromium in concentrations that exceed thresholds established by the California Health and Safety Code and the Environmental Protection Agency and may produce an inhalation hazard from toxic fumes when heated or when ground into an airborne particulate. The removed yellow paint shall be disposed of at a Class 1 or a Class 2 disposal facility permitted by the California Department of Toxic Substances Control in conformance with the requirements of the disposal facility operator within 30 days after accumulating 100 kg of residue and dust. The Contractor, at his sole cost, shall make necessary arrangements to have the yellow paint residue tested as required by the disposal 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, and
3. Soluble Lead and Chromium by the Toxic Characteristic Leaching Procedure (TCLP).

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 7 days prior to the start of removal of yellow painted traffic stripe. The analytical laboratory shall be certified by the California Department of Health Services Environmental Laboratory Accreditation Program. Test results shall be provided to the Engineer for review by the County's Environmental Health and Safety Compliance Specialist prior to signing a waste profile as requested by the disposal facility, 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 paint residue. The Lead Compliance Plan requirements are as follows:

##### **Lead Compliance Plan**

Submit a lead compliance plan:

1. That documents the project's compliance program to prevent or minimize worker exposure to

lead.

2. Including the items listed in 8 CA Code of Regulations § 1532.1(e)(2)(B)

3. Signed and sealed by a Certified Industrial Hygienist (CIH)

Before starting any activity that presents the potential for lead exposure to employees who have no prior training, provide a safety training program to these employees that complies with 8 CA Code of Regulations § 1532.1 and the lead compliance plan. Provide the training records.

Submit copies of air monitoring or job site inspection reports made by or under the direction of the CIH under 8 CA Code of Regulations § 1532.1

The Lead Compliance Plan shall also be used for the removal, storage, and disposal of removed leaded paint.

The Lead Compliance Plan shall be submitted to the Engineer at least 7 days prior to beginning removal of yellow paint.

Where grinding or other methods approved by the Engineer are used to remove yellow painted traffic stripe, 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 painted traffic stripe to the Engineer for approval by the County's Environmental Health and Safety Compliance Specialist not less than 7 days prior to the start of the removal operations. Removal operations shall not be started until the Engineer and Environmental Health and Safety Compliance Specialist have approved the work plan.

The removed yellow painted traffic stripe residue shall be stored and labeled as Hazardous Waste in covered containers. Hazardous Waste labels shall conform to the provisions of Title 22, California Code of Regulations, Sections 66262.31 and 66262.32. Labels shall be marked with the date when the waste was generated ("accumulation start date"), the words "Hazardous Waste", the composition (i.e., "asphalt grindings with lead and chromium-based paint") and physical state of the waste ("solid"), the hazardous property ("toxic") the name and address of the generator of the waste (County of Santa Clara – Roads & Airports Dept., 101 Skyport Drive), and the California waste code (181). The containers shall be of 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 painted traffic stripe residue is determined to be a Hazardous Waste, a uniform Hazardous Waste Manifest shall be used for transportation, and the transporter shall be registered with the California Department of Toxic Substances Control. The County's Environmental Health and Safety Compliance Specialist or Environmental Health & Safety Analyst will sign all manifests as the generator within 2 working days of receiving sample test results and approving the test methods. EPA ID Number will be provided by the Department Environmental Health and Safety Compliance Specialist.

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 of residue regulated under RCRA, as determined by test results, will be paid for as extra work as provided in Section 4.07, "Extra Work," of the County Standard Specifications.

Nothing in these Special Provisions shall relieve the Contractor of the Contractor's responsibilities as specified in Section 7.22.02, "Public Safety," of the County Standard Specifications.

**Measurement and Payment:**

The contract lump sum price paid for Traffic Striping Removal shall include full compensation for furnishing all labor, materials, tools, equipment, and for doing all the work involved in removing traffic stripes and pavement markings, green bike lane stripes and markings, complete in place, including removal of raised pavement markers, development of and compliance with the Lead Compliance Plan, and disposal of removed markings and markers, as shown on the plans, as specified in State Specifications and these Special Provisions.

Full compensation for temporary delineation is included in the contract lump sum price paid for Traffic Control System, and no additional compensation will be allowed.

**110-12.11 REMOVE TREE**

Only trees that are specifically designated on the plans for removal shall be removed. The trees to be removed shall be individually marked in the field by the Contractor and shall be approved by the Engineer prior to any tree removal activities. No permit will be issued for trees to be removed on County of Santa Clara's Right-of-Way. The approved Legislative File (by the Board of Supervisors before advertisement) is the documentation that the tree removal is approved.

Remove existing tree and tree root ball. Voids left from removal of existing tree must be backfilled and compacted. Roots deeper than 2' in depth and 1" or smaller may be left in place. Tree roots underneath sound walls or extending outside road rights of way need not be removed.

Dispose of removed items in a manner as specified in Section 17-2.03D "Disposal of Materials", of the State Standard Specifications.

**Measurement and Payment:** Quantities for Remove Tree will be determined by a count of actual trees removed. Trees with more than one trunk originating from a single root ball are considered one (1) tree.

The contract unit price paid per each Remove Tree shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in removing and disposing trees, stumps and roots, and backfilling holes from stump removal, as specified in these Special Provisions and as directed by the County, and no additional compensation shall be allowed therefor.

**110-12.12 REMOVE ROADSIDE SIGNS**

Remove roadside signs shall conform to Section 82-9, "Existing Roadside Signs and Markers," of the State Standard Specifications and these Special Provisions.

The Contractor is to salvage the metal sign panels, bundle them, and deliver to the County corporation yard. Notify the Engineer a minimum of 2 working days in advance of planned delivery to the following County corporation yard:

Santa Clara County East Yard  
1505 Schallenberger Road  
San Jose, CA 95131

**Measurement and Payment** - The contract unit price paid per each for Remove Roadside Sign includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing roadside signs, complete in place, including removing foundation and backfilling, salvaging and delivery sign panels, and proper handling and disposal of wood sign posts and metal posts, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### 110-12.13 RELOCATE ROADSIDE SIGNS

Relocating roadside signs shall conform to Section 82-9, "Existing Roadside Signs and Markers," of the State Standard Specifications and these Special Provisions.

As shown on the plans, the Contractor shall relocate existing roadside signs as directed by the Project Engineer. The roadside sign shall be mounted on a new post or mounted on signal or street light poles as shown on the project plans.

If the sign is relocated within the sidewalk area, the sign post shall be 2" galvanized pipe and installed in conformance with County Standard Detail B/14. If the sign is relocated outside the sidewalk, the sign post shall be treated wood and installed in conformance with State Standard Plan RS2.

**Measurement and Payment:** The contract unit price paid per each for Relocate Roadside Sign includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in relocating roadside signs, complete in place, including proper handling and disposal of wood sign posts or metal posts, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

#### 110-12.14 REMOVE EXISTING ASPHALT CONCRETE

The removal of existing asphalt concrete shall conform to the provisions of Section 39-3, "Existing Asphalt Concrete," of the State Standard Specifications, Sections 7.18, "Disposal of Material Outside the Highway Right-of-Way" of the County Standard Specifications and these Special Provisions.

Removed materials shall become the property of contractor and shall be disposed outside the County right-of-way and shall conform to Section 7.18, "Disposal of Material Outside the Highway Right-Of-Way," of the County Standard Specifications. The disposal site shall be the responsibility of the Contractor.

Overly wet base material shall be scarified and allowed to dry as required to allow compaction. Where subgrade materials are unsuitable for use, Section 19, "Earthwork," of the State Standard Specification shall apply.

**Measurement and Payment:** Quantities for Remove Asphalt Concrete Pavement (CY) will be determined based on the measured volume of the removed area. Removed material will not be measured once removed.

Quantities for Remove Asphalt Concrete Dike will be determined based on the length measured along the top of dike.

Quantities for Remove Asphalt Concrete Walkway will be determined based on the area measured horizontally exclusive of vertical faces.

The contract price paid for removal of existing asphalt concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removal including excavating, disposal of excavated materials, recompacting subgrade areas; and sawcutting, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Removal and disposal existing detectable warning surfaces in island passageway will not be paid as a separate bid item and shall be considered as included in the price paid for Remove Asphalt Concrete Walkway and no additional compensation will be allowed, therefore.

#### 110-12.15 REMOVE EXISTING CONCRETE

Existing concrete must be removed in accordance with the provisions in Section 15-1.03B, "Removing Concrete," of the State Standard Specifications and these Special Provisions

Where no joint exists between concrete to be removed and concrete to remain in place, the concrete shall be saw cut in a neat line to the concrete full depth with a power-driven saw before concrete is removed.

Removed materials shall become the property of contractor and shall be disposed outside the County right-of-way and shall conform to Section 7.18, "Disposal of Material Outside the Highway Right-Of-Way," of the County Standard Specifications. The disposal site shall be the responsibility of the Contractor.

**Measurement and Payment:** Quantities for Remove Concrete (Curb), Remove Concrete (Curb & Gutter), and Remove Concrete (Valley Gutter) will be determined based on the length measured along the face of curb regardless of width of curb, curb & gutter.

Quantities for Remove Concrete (Sidewalk/Curb Ramp) and Remove Concrete (Pork Chop/Median) will be determined based on the area measured horizontally exclusive of vertical faces.

The contract price paid for removing existing concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in removing existing PCC, including, but not limited to, excavation, saw cutting, moving, spreading and compacting suitable excavated



materials, preparing, transporting, handling, and disposing off-site unused and unsuitable excavated materials, complete in place, protecting vegetation/landscaping or relocation of irrigations system, as shown on the plans, as specified in the Standard Specifications and these Special Provisions. No additional compensation will be allowed therefor.

Removal and disposal existing detectable warning surfaces in curb ramp will not be paid as a separate bid item and shall be considered as included in the price paid for Remove Concrete (Sidewalk/Curb Ramp) and no additional compensation will be allowed, therefore.

#### **110-12.16 COLD PLANE ASPHALT CONCRETE CONFORMS**

Cold Plane Asphalt Concrete Conforms (grindings) shall conform to County Standard Specifications Section 42, "Groove and Grind Pavement," Section 39-3.04 "Cold Planing Asphalt Concrete Pavement" of the State Standard Specifications, details shown on the plans, and these special provisions.

Grinding of existing asphalt concrete shall be done at the locations and within the limits of AC overlay and tie-ins as shown on the plans and in accordance with these Special Provisions. Attention is directed to "Hot Mix Asphalt" section of the Special Provisions.

Planing asphalt concrete pavement shall be performed by cold planing. The cold planing machine shall have a cutter head at least 60 inches wide and shall be operated so as not to produce fumes or smoke.

Sawcutting shall be done prior to grinding.

The depth, width and shape of the cut shall be as indicated on the plans, and as specified in these Special Provisions. The final cut shall result in a uniform surface conforming to the cross section. The outside lines of the ground area shall be straight, neat and uniform. The existing pavement surface to remain in place shall not be damaged in any way by this operation.

No drop-off along transverse edges and no drop-off of more than 0.10 foot deep along longitudinal edges of the planed areas shall remain between the existing pavement and the planed area when the pavement is opened to public traffic. If HMA pavement section has not been placed to the level of existing pavement before the pavement is to be opened to public traffic, a temporary taper shall be constructed. The temporary taper shall be placed to the level of the existing pavement and tapered to the level of the planed area.

Asphalt concrete for the tapers shall be of commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Asphalt concrete tapers shall be completely removed, including removing all loose material, prior to applying paint binder for AC overlay.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be immediately removed from the site of the work and disposed of as provided in Section 7.18, "Disposal of Material Outside the Highway Right-of-Way," of the County Standard Specifications.

**Measurement and Payment:**

The contract price paid per square yard for Cold Plane Asphalt Concrete Conforms shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in grinding the existing asphalt concrete pavement to receive HMA overlay and HMA tie-ins, including grinding in front and around existing inlets, removing the residue including furnishing water for washing pavement, sawcutting, placing, removing and disposing temporary asphalt concrete tapers, sweeping, as shown on the plans, and as specified in these special provisions.

**110-12.17 RUBBERIZED HOT MIX ASPHALT-GAP GRADED**

Rubberized hot mix asphalt must be in conformance with Section 39, "Asphalt Concrete", of the State Standard Specifications, the Project Plans, and these Special Provisions.

The grade of asphalt binder for RHMA-G must be 64-16.

No *BASELINE* inertial profile data file will be provided. *MRI<sub>0</sub>* is the MRI values in the contractor-furnished *EXIST* data file. All inertial profile files must be provided to the Department in PDF format.

**Measurement and Payments:**

The payment quantity for RHMA-G is measured based on the combined mixture weight. If recorded batch weights are printed automatically, the bid item for HMA is measured by using the printed batch weights, provided:

1. Total aggregate and supplemental fine aggregate weight per batch is printed. If supplemental fine aggregate is weighed cumulatively with the aggregate, the total aggregate batch weight must include the supplemental fine aggregate weight.
2. Total virgin asphalt binder weight per batch is printed.
3. Each truckload's zero tolerance weight is printed before weighing the first batch and after weighing the last batch.
4. Time, date, mix number, load number and truck identification is correlated with a load slip.
5. Copy of the recorded batch weights is certified by a licensed weigh master and submitted.

The contract price paid per ton for the RHMA-G shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all the work involved in placing RHMA-G, complete in place, including preparation of the area to receive the minor HMA, as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer.

**110-12.18 MINOR HOT MIX ASPHALT**

Minor hot mix asphalt must be in conformance with Section 39, "Asphalt concrete", of the State Standard Specifications, the Project Plans, and these Special Provisions.

The grade of asphalt binder for minor HMA must be 64-10.

For minor HMA using RAP substitution of greater than 15 percent of the aggregate blend, the grade of the virgin binder must comply with the binder grade specified above with a 6-degree reduction in the upper and lower temperature classification.

For minor HMA using RAP substitution of 15 percent or less of the aggregate blend, the grade of the virgin binder must comply with the binder grade specified above.

The aggregate for HMA Type A for AC Dike must comply with the 3/8-inch maximum grading.

**Measurement and Payments:**

The payment quantity for minor HMA is measured based on the combined mixture weight. If recorded batch weights are printed automatically, the bid item for HMA is measured by using the printed batch weights, provided:

1. Total aggregate and supplemental fine aggregate weight per batch is printed. If supplemental fine aggregate is weighed cumulatively with the aggregate, the total aggregate batch weight must include the supplemental fine aggregate weight.
2. Total virgin asphalt binder weight per batch is printed.
3. Each truckload's zero tolerance weight is printed before weighing the first batch and after weighing the last batch.
4. Time, date, mix number, load number and truck identification is correlated with a load slip.
5. Copy of the recorded batch weights is certified by a licensed weigh master and submitted.

The contract price paid per ton for the Minor Hot Mix Asphalt shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all the work involved in placing minor HMA, complete in place, including preparation of the area to receive the minor HMA, as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer.

The contract price paid per linear foot for the Hot Mix Asphalt Concrete Dike (Type A) shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all the work involved in placing HMA dike, complete in place, including excavation, backfill, and preparation of the area to receive the dike, as shown on the plans, as specified in these specifications and the special provisions, and as directed by the Engineer.

**110-12.19 TACK COAT**

Tack coat must be in conformance with Section 39, "Asphalt Concrete", of the State Standard Specifications, the Project Plans, and these Special Provisions.

**Measurement and Payment:** Quantities of tack coat to be paid for will be measured based on weight of tack coat applied.

Tack coat associated with minor HMA is paid as part of minor HMA.

The contract price paid per ton for Tack Coat shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all the work involved in placing tack coat, complete in place, including preparation of the area to receive tack, as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer.

#### 110-12.20 COLD IN-PLACE RECYCLING (CIR)

This work includes repair on pavement areas along Lawrence Expressway utilizing CIR, where identified in the plans. The CIR shall be to a depth of **4 inches** within the lines and grades of the project plans and specifications and as marked and directed by the Engineer. It shall conform to the details shown on the plans, and these Special Provisions.

##### MIX DESIGN

A minimum 10 days prior to starting the Cold in Place Recycling the contractor will take samples of the existing pavement, prepare, and submit a mix design for the Engineers approval. The mix design shall be prepared in a lab certified to perform the tests specified. The mix design shall be performed in accordance with the Wirtgen Cold Recycling Manual, ED 2010, or other method approved by the Engineer.

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

Dry Indirect Tensile Strength	>250 kPa (37 psi)
Minimum Wet Strength	225 kPa (33 psi)

The design submittal must indicate the following information:

- Cold in Place Recycling CIR equipment and method proposed
- Grain Size Distribution Report
- Bitumen Grade
- Bitumen Content
- Bitumen Source
- Water Content
- Cement or Lime Content
- Cement or Lime Source
- Cement or Lime Grade
- Any other additives
- Results of Mix Design indicating strength and foaming parameters
- Maximum Density per Cal 216
- Bulk density of recommended oil content
- Test results of the Mix Design
- Bitumen Foaming Half-life vs. Expansion
- Optimum Foaming Water Content Required (to produce a half-life of 6 seconds and an expansion ratio of 8:1)

**QUALITY CONTROL PLAN**

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

1. Perform control quality activities required by the project specifications
2. Determine when corrective actions are needed (action limits)
3. Implement corrective actions

The QCP must contain copies of the forms that will be used to provide all required inspection records and sampling and testing results. On the form used to record and report the quality control measurements, also show the job mix formula information. The QCP must also demonstrate how the project will be divided into lots, and the approximate number of each test to be performed per lot to be in accordance with the testing requirements set for in the project specifications.

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

**CONTINGENCY PLAN**

The contingency plan must include any corrective actions including repairing and reopening the roadway to traffic using hot mix asphalt in compliance with the "Hot Mix Asphalt" portion of the project or temporary bituminous surfacing in compliance with these special provisions.

Hot mix asphalt must:

1. Be hot mix asphalt (Type A)
2. Use 1/2-inch aggregate grading
3. Use asphalt binder grade PG 64-10

Temporary bituminous surfacing must:

1. Be commercial quality bituminous material
2. Contain aggregate using 1/2-inch HMA grading in compliance with Section 39-1.02E, "Aggregate," of the Standard Specifications.
3. Use liquid asphalt SC-800 in compliance with Section 93, "Liquid Asphalts," of the Standard Specifications.

The contractor shall meet with the Project Engineer at least 7 days before starting cold-in-place recycling work to review the QCP and contingency plan.

**QUALITY CONTROL LABORATORY**

Provide a Caltrans certified testing laboratory and personnel to perform quality control inspection, sampling and testing.

Provide the Engineer with unrestricted access to the laboratory, sampling and testing sites, and all information resulting from submitted mix designs and quality control inspection and testing activities. Proficiency of testing laboratories and sampling and testing personnel must be reviewed, qualified, and accredited by Caltrans Independent Assurance Program before starting cold-in-place recycling work.

Perform inspection, sampling and testing at a rate sufficient to ensure that cold-in-place recycling mixture, placement, compaction and finishing complies with the specifications.

**PRODUCTION QUALITY CONTROL**

Divide the project into 3,000-square yard lots as per the approved QCP. For each lot perform the following:

1. Determine the actual recycle depth at each end of the milling drum at least once every 500 feet along the cut length.
2. Take and split a sample of the CIR mixture from directly behind the recycler as near as possible to the start of the lot. Sampling shall be in accordance with the approved QCP. A sample shall consist of a minimum of four (4), five-gallon buckets of processed material. Split the samples into two (2) parts and label the containers with location including stationing. Submit 1 split part to the Engineer and use 1 part for the Quality Control testing.
3. QC testing shall consist of the following for each lot processed:
  - Wet gradation of the coarse fraction (2" through #4 Sieve). Per CTM 202.
  - CTM 216 Compaction Curve. Under no circumstances shall a common composite be used.
  - A minimum of six (6) briquettes for indirect tensile strength testing shall be produced from one sample. Three shall be used to determine an average dry indirect tensile strength and three shall be used to determine an average soaked indirect tensile strength. Briquettes samples shall be compacted and curing started within three (3) hours from the time of sampling. All indirect tensile strength tests shall be performed in accordance with the Wirtgen Cold In-Place Recycling Manual method A5.1, 2010 edition.
4. Determine in place density and relative compaction of at least 10 random locations per Cal 231 (using direct transmission nuclear density gauge.). Use test results from the CTM 216 sampled from within the lot to determine the percent compaction. Additional testing is acceptable however, a minimum of 10 tests per lot shall be recorded and submitted for the basis of acceptance.

For each day measure or calculate and record the following information:

1. Length, width, depth of cut and calculated weight in tons of material processed
2. Weight of recycling agent added in tons
3. Percentage of added recycling agent in the lot's CIR mixture by weight
4. Weight of recycling additive used in tons (if used)
5. Percentage of recycling additive in the lot's CIR mixture by weight (if used)
6. Ambient and compacted recycled pavement surface temperatures
7. Rate off of seal coat application

On the form used to record and report the quality control measurements, also show the project mix design information.

Make adjustments during CIR operations for optimum quality. If adjustments are made, document the reason for the change and identify on the daily quality control inspection records and sampling and test results.

The Contractor shall be responsible for the quality of construction and materials incorporated into the project. The Contractor's QC measures shall ensure that operational techniques and activities provide integral and finished material of acceptable quality.

Contractor sampling and testing shall be performed to control the processes and ensure material compliance with the requirements of the Contract.

The Contractor shall perform all Quality Control testing and sampling for the project. All QC sampling and testing shall be performed by technicians certified by the State of California for that particular test method, where applicable, and all laboratory testing shall be performed by laboratories accredited by the Caltrans Independent Assurance Program for the applicable methods.

Contractor shall furnish copies of all test results to the Engineer or other authorized department representative within 48 hours of completing the test.

The Contractor shall furnish a complete QC Final Report including all test results, as well as summary of findings. The final QC report shall be reviewed and approved prior to issuing payment.

## **PLACEMENT**

Existing facilities such as manholes, valves and monuments or other facilities that will be affected shall be lowered by 6" below grade before CIR operation.

CIR shall be to a depth of 4 inches (as stated on the project plans), within the lines and grades of the project plans and specifications marked at the field and as directed by the Engineer. Due to the residential nature of the area due diligence will be performed to ensure the quietest operation possible. CIR operations may be done at night.

**While waiting for final HMA overlay, temporary pavement delineation for existing striping/markings affected by CIR application shall be temporary paint.**

## **RECYCLING EQUIPMENT**

A cold recycling machine with a down cutting cutter head shall be capable of pulverizing and recycling the existing hot-mix asphalt pavement to a minimum depth of 4 inches (101.6 mm), incorporate the foamed asphalt and compaction water, and mix the materials to produce a homogeneous material.

The milling and mixing unit must be equipped with a gradation control bar that will stabilize the milled surface during milling to prevent the pavement from chunking.

The machine shall have two independent systems for adding foamed asphalt and metered water with each system having a full width spray bar with a positive displacement pump interlocked to the machine's ground speed to ensure that the amount of foamed asphalt and compaction water being added is automatically adjusted with changes to the machine's ground speed. Each additive system shall have its own spray bar equipped with 2 nozzles per foot of spray bar. The foamed asphalt spray bar must be electrically heated.

Individual valves on the spray bar shall be capable of being turned off (in pairs) as necessary both foamed asphalt and water to minimize overlap on subsequent passes.

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

### FOG SEAL AND SAND SPREADING

At the end of each day's production, the contractor shall apply a uniform fog seal to the surface at a rate of 0.12 gal/sq. yd. and shall meet SS1H "Fog Seal" Cut 50%. If directed by the Engineer, sand shall be spread at a rate of 1.0 to 2.0 pounds per square yard. Exact spread rate shall be determined by the Engineer. Remove excess sand from the CIR surface. Sand cover shall be spread by means of a self-propelled spreader equipped with a mechanical device that will spread the sand at a uniform rate over the CIR surface. The area treated shall be capable of holding traffic at the end of each day's production without any deformation or damage to the surface.

The Contractor will use their knowledge and expertise to deliver a product that meets the requirements of this section and contract.

### ACCEPTANCE

The project shall be divided into lots 2500 linear feet long and 12 feet wide, or 3,000 square yards, extending along the lane lines of the roadway. If one day's production will be less than 3000 square yards that day's production shall be a lot. If one day's production is one lot plus an additional amount greater than 1000 square yards, the additional work shall be a separate lot. For additional amounts, less than 1000 square yards the additional amount shall rolled into the previous lot unless a distinct material change is noted, in which case a new lot shall be created.

Acceptance will be based on the following criteria:

- A. The average minimum Wet Indirect Tensile Strength of a lot shall be 225 kPa (33 psi).
- B. The average relative compaction of a lot shall be a minimum of 98% of the maximum wet density as measured by Cal 216. No single test shall be less than 96% relative compaction.

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

#### A- ITS Test Results

<u>% of Minimum Wet Strength (225 kPa)</u>	<u>Pay Factor</u>
> 100%	100%
> 99%	95%



> 98%	90%
> 97%	85%
> 96%	80%
> 95%	75%
< 95%	Remove at Engineers Sole Discretion

**B- Compaction**

**% of Relative Compaction  
as Measured By Cal 216  
Average Density Per Lot**

**Pay Factor**

> 98%	100%
> 97%	90%
> 96%	80%
> 95%	70%
< 94%	Remove at Engineers Sole Discretion

In the event a lot is subject to both pay factors, they will be cumulative. (I.E. An 80% pay factor for ITS and a 70% pay factor for Compaction equals a 56% cumulative pay factor.  $0.80 \times 0.70 = 0.56$ )

In the event that the contractor fails to perform the required tests listed above the contractor shall not be compensated for lots process without the appropriate QC test results.

In the case of discrepancy or contested laboratory results the recycled layer shall be cored for indirect tensile strength determination and in-situ density. The coring must be done once the layer has fully cured. Typically, CIR layers are fully cured within 6 weeks of placement. However, actual cure time depends on the environmental conditions around the mat during curing. The actual cured state shall be verified coring, and subsequent moisture testing.

Coring shall not be performed as a method for payment in the event that the contractor fails to perform the required quality control testing and inspections.

**METHOD OF MEASUREMENT**

The unit of measurement for Cold In-Place Pavement Recycling shall be per square yard for the depth specified in the contract. The area to be paid shall be the length measured along the centerline of the roadway multiplied by the average perpendicular width.

Additional excavation/recycling performed by the Contractor outside the lines provided in the Plans shall not be measured and compensated by the Department without approval by the Engineer.

**Minimum Qualifications for Cold In-Place Recycling (CIR) Contractor**

The contractor directly responsible for providing the cold in place recycling activities shall provide minimum qualifications for the Engineers approval prior to being awarded the project. The minimum qualifications shall include:

- At least two years' experience providing cold in-place recycling services utilizing the method of recycling call for within this specification.
- A list of five (5) or more successful cold in-place recycling projects, utilizing the method of recycling called for within this specification, with a list of references, including contact information.
- The resume of a cold foam expert with a minimum of two (2) years' experience providing QA/QC services on cold in-place recycling projects, utilizing the recycling method set forth within this specification. This individual shall be on site full time during recycling activities, oversee quality control duties throughout the project, and be responsible for submitting test results to the agency for acceptance. The cold foam expert shall also be available for project meetings throughout the project.

**Measurement and Payment:** Cold In-Place Pavement Recycling (CIR) shall be paid for at the contract unit price per Square Yard adjusted by the pay factor. This amount shall be full compensation for all work necessary within the dimensions shown on the Plans or specified herein, including but not limited to removal of pavement markers, pulverizing existing pavements, additional materials, stabilizing agent(s), mineral filler, fog seal (sand and oil), water, grading, compaction, sampling, testing and for all materials, labor, tools, equipment, hauling permits, mobilization, temporary striping and any incidentals necessary to complete the work.

Payment associated in lowering 6 inches below existing grade of existing monuments, manholes, water valves and detector handholes affected by CIR application shall be considered as included in the price paid for "Adjust Existing Manhole, CIR", "Adjust Existing Monument, CIR", "Adjust Existing Valve Box, CIR" and "Adjust Existing Detector Handhole, CIR" specified elsewhere in these special provisions.

#### **110-12.21 AGGREGATE BASE**

Aggregate base must be in conformance with Section 26, "Aggregate Bases", of the County and State Standard Specifications, the Project Plans, and these Special Provisions.

**Measurement and Payment:** Full compensation for furnishing and installing aggregate base under all minor is included in other applicable items of work that require aggregate base and no additional compensation is allowed therefor.

#### **110-12.22 MINOR CONCRETE CONSTRUCTION**

Minor concrete construction includes improvements constructed with minor concrete including curb, gutter, sidewalk, and contrast paving and must conform to the provisions in Section 73, "Concrete Curbs & Sidewalks", of the County and State Standard Specifications, the Project Plans and these Special Provisions.

Minor concrete for improvements included in this section may contain returned plastic concrete (RPC) per Section 90-9 of the State Standard Specifications.

Aggregate cushion shall conform to Section 110-12.21, "Aggregate Base", of these Special Provisions.

Detectable warning surfaces (Raised Truncated Domes) shall be **yellow** truncated dome panels at the intersections of Lawrence Expressway & Mitty Way and Lawrence Expressway & Prospect Road, and **black** truncated dome panels at other locations.

**Measurement and Payment:** Quantities for Minor Concrete (Curb) (LF), Minor Concrete (Curb and Gutter) (LF), and Minor Concrete Valley Gutter (LF) will be determined based on measurement made along the face of curb, regardless of curb height or shape or gutter pan width. Minor Concrete (Curb) (LF) includes retaining curbs at pedestrian curb ramps and Minor Concrete (Curb and Gutter) (LF) includes across pedestrian curb ramp locations.

Quantities for Minor Concrete (Island Paving) (SQFT), Minor Concrete (Sidewalk) (SQFT), Minor Concrete (Curb Ramp) (SQFT), Minor Concrete (Apron) (SQFT), Minor Concrete (Vegetation Control) (SQFT), and Minor Concrete (6" Slab) (SQFT) will be determined based on measurement made horizontally.

The contract price paid for minor concrete construction shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and all costs associated with minor concrete construction, complete in place as shown on the plans and as specified in these Special Provisions, including over excavation, root removal on areas near trees, compaction, aggregate base cushion, rebar or dowel, sawcutting, detectable warning surface, and no additional payment shall be made therefor.

#### 110-12.23 RETROFIT ISLAND PASSTHROUGH

Retrofit Island Passthrough shall conform to the provisions in Section 73, "Concrete Curbs & Sidewalks", of the County and State Standard Specifications, State Standard Plans A88A and A88B, the Project Plans, and these Special Provisions.

Retrofit Island Passthrough covers the retrofit of traffic island (pork chop) passageways in compliance with the Americans with Disabilities Act (ADA).

Detectable warning surfaces (Raised Truncated Domes) shall be **yellow** truncated dome panels at the intersections of Lawrence Expressway & Mitty Way and Lawrence Expressway & Prospect Road, and **black** truncated dome panels at other locations.

**Measurement and Payment:** The unit price bid for each "Retrofit Island Passthrough" shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and all costs associated with retrofitting island passthrough on traffic island passageways, complete in place as shown on the plans and as specified in these Special Provisions, including saw cutting, detectable warning surface, conforming to existing pavement transitions, and no additional payment shall be made therefor.

**110-12.23 ADJUST EXISTING UTILITIES**

Adjusting existing utilities must conform to the provisions of Section 15, "Existing Highway Facilities," Section 70.01.01, "Adjustment of Existing Manholes to Grade," of the County Standard Specifications, Section 78-23, "Adjust Utility Frames, Covers, and Manholes", of the State Standard Specifications, the project plans and these Special Provisions.

Prior to paving, all utility access points within the paved portion of the roadway shall be marked with appropriately colored paint. Contractor shall mark a reference point outside the paving area for relocating the manhole after paving. Utility representatives will confirm the utility locations prior to final paving.

**Measurement and Payment:** Quantities of utilities adjusted to be paid for will be determined by actual count of utilities adjusted.

The contract price paid for each Adjust Existing Manhole to Grade and Adjust Existing Valves & Covers to Grade shall include full compensation for furnishing all labor, materials, tools and equipment, and for doing all the work involved in adjusting frames and covers, including temporary covers, and locating and marking utility access points, and no additional payment will be allowed.

**110-12.24 ADJUST EXISTING MONUMENT BOX**

Adjust Existing Monument Box to Grade and shall conform to the provisions of Section 15, "Existing Highway Facilities," and Section 81, "Monuments," of the County Standard Specifications and these Special Provisions.

Prior to paving, all utility access points and boxes within the paved portion of the roadway shall be marked with appropriately colored paint. Contractor shall mark a reference point outside the paving area for relocating the monument box after paving. Utility representatives will confirm the utility locations prior to final paving.

**Measurement and Payment:** The contract price for each Adjust Existing Monument Box to Grade shall include full compensation for furnishing all labor, materials, tools and equipment, and for doing all the work involved in adjusting the monument box, including temporary covers, and locating and marking utility access points, and no additional payment will be allowed.

**110-12.25 CHAIN LINK FENCE (TYPE CL-4)**

Chain link fence must be in conformance with Section 80 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**Measurement and Payment:**

Quantities of Chain Link Fence (Type CL-4) to be paid for will be determined by the linear foot from actual measurement made parallel to the ground slope along the line of the installed fence.

The contract unit price paid per linear foot for Chain Link Fence (Type CL-4) shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in chain link fence completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.26 DELINEATOR (CLASS 1)**

Delineators (Class 1) must be in conformance with Section 81 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

The Contractor must provide the Project Engineer with Certificate of Compliance in accordance with the provisions of Section 6.11 "Certificate of Compliance" of the County Standard Specifications.

**Measurement and Payment:**

Quantities of Delineator (Class 1) to be paid for will be determined by actual count of delineators installed.

Payment of Delineators (Class 1) will be paid per each delineator regardless of type which includes full compensation for furnishing all labor, materials, tools, equipment and incidentals required for the installation of delineators.

**110-12.27 GUARD RAILING DELINEATOR**

Guard Railing Delineators must be in conformance with Section 81 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

Guard railing delineators must be installed per Revised State Standard Plan A77N4 unless directed otherwise by the Project Engineer.

The Contractor must provide the Project Engineer with Certificate of Compliance in accordance with the provisions of Section 6.11 "Certificate of Compliance" of the County Standard Specifications.

**Measurement and Payment:**

Quantities of Guard Railing Delineator to be paid for will be determined by actual count of delineators installed.

Payment of Guard Rail Delineators will be paid per each delineator regardless of type which includes full compensation for furnishing all labor, materials, tools, equipment and incidentals required for the installation of delineators.

**110-12.28 CONCRETE BARRIER DELINEATOR**

Concrete Barrier Delineators must be in conformance with Section 81 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

Cement concrete barrier delineator bases to the barrier with rapid set epoxy adhesive as specified in section 81-3.03C for cementing pavement markers to the pavement. Apply rapid set epoxy adhesive and place concrete barrier delineators on clean, dry surfaces.

The Contractor must provide the Project Engineer with Certificate of Compliance in accordance with the provisions of Section 6.11 "Certificate of Compliance" of the County Standard Specifications.

**Measurement and Payment:**

Quantities of Concrete Barrier Delineator to be paid for will be determined by actual count of delineators installed.

Payment of Concrete Barrier Delineators will be paid per each delineator regardless of type which includes full compensation for furnishing all labor, materials, tools, equipment and incidentals required for the installation of delineators.

**110-12.29 PAVEMENT MARKERS**

Pavement markers must conform to the provisions of Section 81-3, "Pavement Markers", of the State Standard Specifications and these Special Provisions.

**Measurement and Payment:** Quantities of Pavement Marker (Retroreflective) to be paid for will be determined by actual count of markers installed.

The contract price paid for each Pavement Marker (Retroreflective) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in installing new pavement markers as shown on the plans and State Standard Plans, as specified in the CA MUTCD and these Special Provisions, and as directed by the County, and no additional payment will be allowed.

**110-12.30 OBJECT MARKER (TYPE P (CA))**

Type P (CA) Object Markers shall be in conformance with Section 82 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**Measurement and Payment:** Quantities of Type P (CA) Object Marker to be paid for will be determined by actual count of markers installed.

The contract unit price paid per each for Object Markers (Type P (CA)) shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Type P (CA) Object Marker installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.31 CONCRETE BARRIER MARKER**

Concrete barrier markers shall be in conformance with Section 82 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**Measurement and Payment:** Quantities of concrete barrier marker to be paid for will be determined by actual count of markers installed.

The contract unit price paid per each for concrete barrier markers shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in concrete barrier marker installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.32 ROADSIDE SIGN**

Roadside Signs shall conform to the provisions of Section 56 of the County Standard Specifications, Section 82 of the State Standard Specifications, the State Standard Plans, the latest edition of CA MUTCD, as shown in the Project Plans, and these Special Provisions.

If the sign is installed within the sidewalk area, the sign post shall be 2" galvanized pipe and installed in conformance with County Standard Detail B/14. If the sign is relocated outside the sidewalk, the sign post shall be treated wood and installed in conformance with State Standard Plan RS2.

The type and kind of signs are identified on the plans Contractor shall fabricate, furnish and install new roadside sign at location specified on the plans. The fabrication and installation of the roadside sign shall conform to CA MUTCD and State Standard Plans, Specifications and Sign Specifications. Contractor shall furnish and install new posts and concrete foundation.

**Measurement and Payment:** The contract price paid for each Roadside Sign shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in fabricating and installing new roadside sign panels including sawcutting, mounting accessories, furnishing and installing post and concrete foundation as shown on the plans and State Standard Plans, as specified in the CA MUTCD and these Special Provisions, and as directed by the County, and no additional payment will be allowed.

The contract unit price paid per each for Roadside Sign (on Signal Pole or Street Light) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in installing roadside sign on signal pole or street light, complete in place, including proper furnishing hardware for mounting sign on signal pole, as shown on the plans and State Standard Plans, as specified in the CA MUTCD and these Special Provisions, and as directed by the County, and no additional payment will be allowed.

**110-12.33 REMOVE GUARDRAIL**

Remove guardrail must conform to Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

Contractor must remove existing improvements as indicated on the plans. Removed improvements may include W-beam elements, posts, foundations, and terminal systems.

All removed existing facilities must be disposed of outside the public road rights-of-way. Disposal of material must conform to Section 7.18, "Disposal of Material Outside the Highway Right-Of-Way," of the County Standard Specifications. The disposal site must be the responsibility of the Contractor.

The existing wood posts are treated wood waste (TWW) and must be handled, stored and properly disposed of in accordance as specified elsewhere in these Special Provisions.

**Measurement and Payment:**

Quantities of Remove Guardrail to be paid for will be determined by the linear foot from actual measurement made parallel to the ground slope along the line of the existing railing to be removed.

The contract unit price paid per linear feet for Remove Guardrail includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing existing guardrail and end terminals, including proper handling and disposal of wood posts, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

#### **110-12.34 SALVAGE CRASH CUSHION**

Salvage crash cushion must conform to Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

Contractor must remove existing crash cushion as indicated on the plans. Removed improvements may include W-beam elements, posts, foundations, and proprietary components.

Deliver complete salvaged crash cushion to the County's West Yard, 11030 Doyle Rd, San Jose, CA.

The existing wood posts are treated wood waste (TWW) and must be handled, stored and properly disposed of in accordance as specified elsewhere in these Special Provisions.

##### **Measurement and Payment:**

Quantities of Salvage Crash Cushion to be paid for will be determined by the actual count of crash cushions salvaged.

The contract unit price paid per each for Salvage Crash Cushion includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in salvaging existing crash cushions, including proper handling and disposal of wood posts, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

#### **110-12.35 REMOVE CRASH CUSHION**

Remove crash cushion must conform to Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

Contractor must remove existing crash cushion as indicated on the plans. Removed improvements may include W-beam elements, posts, foundations, and proprietary components.

All removed existing facilities must be disposed of outside the public road rights-of-way. Disposal of material must conform to Section 7.18, "Disposal of Material Outside the Highway Right-Of-Way," of the County Standard Specifications. The disposal site must be the responsibility of the Contractor.

##### **Measurement and Payment:**

Quantities of Remove Crash Cushion to be paid for will be determined by the actual count of crash cushions removed. Quantities of Remove Crash Cushion (Sand Filled) to be paid for will be determined by the actual count of sand filled crash cushion arrays removed.

The contract unit price paid per each for Remove Crash Cushion includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in removing existing



crash cushions, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

#### 110-12.36 MIDWEST GUARDRAIL SYSTEM

Midwest Guardrail System (MGS) shall be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

All new MGS installations shall use steel posts with recycled plastic blocks for typical line posts.

**Measurement and Payment:** Quantities of Midwest Guardrail System to be paid for will be determined by the linear foot from actual measurement made parallel to the ground slope along the line of the installed railing, regardless of post length or material.

The contract unit price paid per linear foot for Midwest Guardrail System shall include full compensation for furnishing all labor, materials (including, but not limited to, posts, blocks, W-beam rail elements, and hardware), tools, equipment and incidentals, and for doing all the work involved in Midwest Guardrail System completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

#### 110-12.37 TRANSITION RAILINGS

Transition Railings shall be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**Measurement and Payment:** Quantities of Transition Railings to be paid for will be determined by actual count of each type of transition railing installed.

The contract unit price paid per each for Transition Railing shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Transition Railing installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

#### 110-12.38 TYPE SFT-M END ANCHOR

Type SFT-M End Anchor shall be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**Measurement and Payment:** Quantities of Type SFT-M End Anchor to be paid for will be determined by actual count of end anchors installed.

The contract unit price paid per each for Type SFT-M End Anchor shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Type SFT-M End Anchor installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.39 RAIL TENSIONING ASSEMBLY**

Rail Tensioning Assembly shall be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**Measurement and Payment:** Quantities of Rail Tensioning Assembly to be paid for will be determined by actual count of end anchors installed.

The contract unit price paid per each for Rail Tensioning Assembly shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Rail Tensioning Assembly installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.40 ALTERNATIVE IN-LINE TERMINAL SYSTEM****110-12.40A General****110-12.40A(1) Summary**

Alternative In-Line Terminal Systems must be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**110-12.40A(2) Definitions**

Not Used

**110-12.40A(3) Submittals**

Submit a certificate of compliance for alternative in-line terminal systems.

**110-12.40A(4) Quality Assurance**

For each model of alternative in-line terminal system being installed, obtain the manufacturer's check list for the assembly and installation of the alternative in-line terminal systems from the manufacturer's representative or distributor. Notify the Engineer of the alternative in-line terminal systems to be installed at each location before starting installation activities. Complete, sign, and date the check list for each installed in-line terminal system and submit a copy of the completed and signed check list for each installed location, and include the following:

1. Contract number
2. Name of installation Contractor
3. Flare offset used in layout
4. Date of installation
5. Location on the project, and by station if stationing shown on plans
6. Name and signature of individual completing the checklist.

The Engineer signs and dates the completed check lists, verifying the in-line terminal system at each location was assembled and installed under the manufacturer's instructions and as described.

Use personnel trained by the manufacturer to install in-line terminal systems. A record of training provided by the manufacturer may be requested by the Engineer at any time.

**110-12.40B Materials**

Alternative in-line terminal systems must be one of the following or a Department-authorized equal:

1. Type SoftStop terminal systems must be SoftStop End Terminal System manufactured by Trinity Highway Products, LLC, and must include the connection components. Type SoftStop terminal system - Type SoftStop terminal system must be a SoftStop terminal with a System length of 50'-9 1/2" for test level 3, manufactured by Trinity Highway Products, LLC, and must include items detailed for SoftStop terminal system, as shown
2. Type MSKT - Type MSKT terminal system must be a 31" MSKT Guard Rail End Terminal with a system length of 50'-0" as manufactured by Road Systems, Inc., located in Big Spring, Texas, and must include items detailed for Type MSKT terminal system shown on the plans.

Type MAX-Tension Tangent Guardrail End Treatment by Barrier Systems, Inc. is a tangent, re- directive gating guardrail terminal. The MAX-Tension has a length of 55'-1/2", and can be flared for an offset of 0 to 2 feet at the head.

**110-12.40C Construction**

Identify each terminal system by painting the type of terminal system in 2-inch-high, neat, black letters and figures on the backside of the rail element between system posts number 4 and 5. Paint must be metallic acrylic resin type spray paint. Before applying terminal system identification, the surface to receive terminal system identification must be free of all dirt, grease, oil, salt, or other contaminants by washing the surface with detergent or other suitable cleaner. Rinse thoroughly with fresh water and allow to fully dry.

Install Type SoftStop terminal system under the manufacturer's installation instructions. For Type SoftStop terminal system, use W6 x 8.5 steel yielding terminal posts for Posts 1 and 2 and standard W6 x 8.5 steel posts for the other posts. Drive all posts or place them in drilled holes. Backfill the space around the posts with selected earth that is free of rock. Moisten and thoroughly compact each layer. For the terminal with a system length of 50'-9 1/2" or system length of 38'-3 1/2", all blocks must be plastic and must be 8 or 12 inches deep.

For Type MSKT terminal system, install a W6x15 at lower section Post 1 with a soil plate attached and a 6 by 6 by 1/8 inches tube section at upper section Post 1. Install a W6x9 or W6x8.5 post assembly top and post assembly bottom at Post 2. Install W6x9 or W6x8.5 at Posts 3 through 8. Attach a 9'-4 1/2" W-beam MGS rail section to Post 3. Use 8-inch blocks. The posts must be, at your option, driven with or without pilot holes, or placed in drilled holes. Do not pound on the side plates when installing lower post #1 and lower post #2. Space around the posts must be backfilled with selected earth, free of rock, placed in layers approximately 4 inches thick and each layer must be moistened and thoroughly compacted.

Install Type MAX-Tension terminal system under the manufacturer's installation instructions. Use 8- or 12-inch composite blocks. Install W6x8.5 or W6x9 at post positions after Post 1. Backfill the space around the posts with selected earth that is free of rock. The posts must be, at your option, driven with or without pilot holes, or placed in drilled holes. Space around the posts must be backfilled with selected earth, free

of rock, placed in layers approximately 4 inches thick and each layer must be moistened and thoroughly compacted.

**Measurement and Payment:**

Quantities of Alternative In-Line Terminal System to be paid for will be determined by actual count of terminal systems installed. The measured length for payment for Alternative In-Line Terminal System is the system length identified in the manufacturer's documentation.

The contract unit price paid per each for Alternative In-Line Terminal System includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Alternative In-Line Terminal System installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.41 ALTERNATIVE MEDIAN END TERMINAL SYSTEM**

**110-12.41A General**

**110-12.41A(1) Summary**

Alternative Median Terminal Systems must be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**110-12.41A(2) Definitions**

Not Used

**110-12.41A(3) Submittals**

Submit two copies of the manufacturer's Caltrans approved drawings, installation instructions, and maintenance manuals for alternative median terminal systems being installed at least 10 days before installing alternative median terminal systems.

Submit a certificate of compliance for alternative median terminal systems.

**110-12.41A(4) Quality Assurance**

For each model of alternative median terminal system being installed, obtain the manufacturer's check list for the assembly and installation of the alternative median terminal systems from the manufacturer's representative or distributor. Notify the Engineer of the alternative median terminal systems to be installed at each location before starting installation activities. Complete, sign, and date the check list for each installed alternative median terminal system and submit a copy of the completed and signed check list for each installed location, and include the following:

1. Contract number
2. Name of installation Contractor
3. Flare offset used in layout
4. Date of installation
5. Location on the project, and by station if stationing shown on plans
6. Name and signature of individual completing the checklist.

The Engineer signs and dates the completed check lists, verifying the alternative median terminal system at each location was assembled and installed under the manufacturer's instructions and as described.

Use personnel trained by the manufacturer to install alternative median terminal systems. A record of training provided by the manufacturer may be requested by the Engineer at any time.

**110-12.41B Materials**

Alternative median terminal systems must be one of the following or a Department-authorized equal:

1. MAX-Tension Median Terminal - The MAX-Tension Median Terminal is an energy absorbing terminal manufactured by Barrier Systems, Inc, located in Rio Vista, California and must include the items detailed on the manufacturer plans and installation instructions. The terminal may use 8-inch depth wood or composite block outs. The terminal may use standard W6x8.5 or W6x9 line posts after Post 2.

**110-12.41C Construction**

Identify each median terminal system by painting the type of median terminal system in 2-inch-high, neat, black letters and figures on the backside of the rail element between system posts number 4 and 5. Paint must be metallic acrylic resin type spray paint. Before applying median terminal system identification, the surface to receive median terminal system identification must be free of all dirt, grease, oil, salt, or other contaminants by washing the surface with detergent or other suitable cleaner. Rinse thoroughly with fresh water and allow to fully dry.

Install alternative median terminal system under the manufacturer's installation instructions.

The soil tubes with soil plates attached must be wither driven with or without pilot holes or placed in drilled holes. Space around the soil tubes must be backfilled with selected earth, free of rock, placed in layers approximately 4 inches thick and each layer must be moistened and thoroughly compacted. Wood posts must be inserted into the soil tubes by hand. Before the wood posts are inserted, the inside surfaces of the soil tubes to receive the wood posts must be coated with a grease that will not melt or run at a temperature of 149 degrees Fahrenheit or less. The edges of the wood posts may be slightly rounded to facilitate insertion of the post into the soil tubes.

After installing alternative median terminal system, uniformly spread the surplus excavated material in a uniform manner along the adjacent roadway where designated by the engineer.

You must have a copy of the manufacturer's Department approved drawings and installation manual onsite for each model of alternative median terminal system being installed.

**Measurement and Payment:** Quantities of Alternative Median End Terminal System to be paid for will be determined by actual count of terminal systems installed. The measured length for payment for Alternative Median End Terminal System shall be as identified on the manufacturer's installation materials.

The contract unit price paid per each for Median End Terminal System shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Median End Terminal System installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.42 TYPE SFT-M END ANCHOR**

Type SFT-M End Anchor shall be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**Measurement and Payment:** Quantities of Type SFT-M End Anchor to be paid for will be determined by actual count of end anchors installed.

The contract unit price paid per each for Type SFT-M End Anchor shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Type SFT-M End Anchor installation, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.43 ALTERNATIVE CRASH CUSHION SYSTEM****110-12.43A General****110-12.43A(1) Summary**

Section 110-12.43 includes specifications for constructing alternative crash cushion systems, including foundations, transitions, and hardware required to connect to a structure or barrier as described.

Alternative Crash Cushion Systems must be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

**110-12.43A(2) Definitions**

Not Used

**110-12.43A(3) Submittals**

Submit a certificate of compliance for each model of crash cushion system.

At least 10 days before installation, for each model of crash cushion system used on the project, submit at least two copies of the following:

1. Manufacturer's:
  - 1.1. Instruction manuals with installation checklists
  - 1.2. Maintenance manuals
2. List of installation locations

As each crash cushion system is installed, complete the manufacturer's installation checklist and include the following:

1. Contract number
2. Name of installation Contractor
3. Type of crash cushion system installed

4. Date of installation
5. Location by post mile and by station if stationing is shown
6. Name and signature of person completing the checklist

For each crash cushion system installed, submit a completed manufacturer's checklist within 10 days after installation. The checklist must be completed by personnel that have been trained by the manufacturer.

**110-12.43A(4) Quality Assurance**

Personnel trained by the manufacturer must be on site during installation. Provide list of trained personnel to the Engineer.

**110-12.43B Materials**

Concrete must comply with the specifications for minor concrete and the manufacturer's strength requirements.

Reinforcement must comply with section 52.

Alternative crash cushion system must meet test level 3 criteria and must be one of the following or a Department-authorized equal:

1. CRASH CUSHION (TYPE SCI-100GM) - The Type SCI-100GM is a potentially reusable, re-directive, non-gating, bidirectional, impact crash cushion for roadside features of 24" width with the use of an approved transition. The system length is 21'-6".
2. CRASH CUSHION (QUADGUARD M10, 6-bay) - The Type QuadGuard M10, 6-bay, is a potentially reusable, re-directive, non-gating crash cushion for roadside features of 24" in width with use of an approved transition. The system length is 21'-11". The Type QuadGuard M10, 6-bay must be a QM10024 Tension Strut Backup or Concrete Backup with a backup width of 24 inches.
3. CRASH CUSHION (TAU-M, 7-bay) - The Type TAU-M, 7-bay, is a potentially reusable, re-directive, non-gating crash cushion for roadside features of up to 27.5 inches in width with use of an approved transition. The Type TAU-M has a system length of 23'-11".

**110-12.43C Construction**

For each model of crash cushion system being installed, have a copy of the Caltrans approved manufacturer's drawings and installation manual onsite for reference.

Attach a manufacturer-supplied retroreflective marker panel to the front of the crash cushion if the closest point of the crash cushion is within 12 feet of the traveled way. Install Left, Right, or Median marker as appropriate. Firmly attach the marker panel to the crash cushion as recommended by the manufacturer or by other authorized methods.

Do not install crash cushion system over expansion joints or drainage basins.

Use the reinforced concrete foundation option.

Install Type SCI-100GM crash cushion under the manufacturer's installation instructions. Foundations must be a flat surface with longitudinal and cross slopes of 10:1 or less. Concrete foundations must reach full cure strength before use and the surface of the foundation must be cleaned of all debris, dirt, mud, etc.

Install Type QuadGuard M10, 6-bay crash cushion under the manufacturer's installation instructions. The QuadGuard M10, 6-bay must be a Tension Strut Backup or a Concrete Backup. A transition panel or side panel must be used on each side of the backup. The QuadGuard M10, 6-bay must only be assembled on an existing or freshly placed and cured concrete base. Cross-slope shall not exceed 8% and must not twist more than 2 percent over the length of the system. Concrete anchorage devices used for attaching the crash cushion to the base slab must be limited to those provided by the manufacturer.

Install Type TAU-M, 7-bay crash cushion under the manufacturer's installation instructions. The TAU-M, 7-bay must be connected to the barrier using the manufacturer's recommended transition. A transition panel or side panel must be used on each side of the backup. The TAU-M, 7-bay must only be assembled on an existing or freshly placed and cured concrete base. Concrete anchorage devices used for attaching the crash cushion to the base slab must be limited to those provided by the manufacturer.

Identify each crash cushion system installed by painting the system type, installation date, and project identification number in 2-inch-high, neat letters and figures in a contrasting color on the foundation beneath the crash cushion in a conspicuous location near the impact head.

Before applying paint, the surface must be free of all dirt, grease, oil, salt, or other contaminants by washing it with a brush and a suitable cleaner. Rinse thoroughly with fresh water and allow to fully dry. Paint must be an epoxy-based paint specifically intended for exterior use on concrete.

#### **110-12.44 SAND FILLED CRASH CUSHION**

##### **110-12.44A General**

##### **110-12.44A(1) Summary**

Sand Filled Crash Cushions must be in conformance with Section 83 of the County and State Standard Specifications, as shown in the Project Plans, and these Special Provisions.

##### **110-12.44A(2) Definitions**

Not Used

##### **110-12.44A(3) Submittals**

Submit a certificate of compliance for sand-filled crash cushions.

##### **110-12.44A(4) Quality Assurance**

Not Used.

##### **110-12.41B Materials**

The modules making up the sand-filled crash cushions must be one of the modules shown in the following table or approved equal:



Module	Manufacturer
Energite III Crash Cushion	ENERGY ABSORPTION SYSTEMS INC  70 W MADISON ST STE 2350  CHICAGO IL 60602
TraFFix Sand Barrels	TRAFFIX DEVICES INC  220 CALLE PINTORESCO  SAN CLEMENTE CA 92672  Telephone: (949) 361-5663  Fax: (949) 361-9205
CrashGard Model CC-48 Sand Barrels	PLASTIC SAFETY SYSTEMS INC  2444 BALDWIN RD  CLEVELAND OH 44104

Use only 1 type of module at any 1 location.

The modules must:

1. Be the standard yellow color furnished by the manufacturer
2. Have black lids
3. Have exterior components that are formulated or processed to resist deterioration from ambient UV rays
4. Be free from structural flaws and surface defects
5. Have been manufactured after March 31, 1997

Sand used to fill the modules must be clean, washed, commercial-quality concrete sand. When placed in the modules, the sand must contain no more than 7 percent water when tested under California Test 226.

#### **110-12.44C Construction**

Under the manufacturer's instructions, fill the modules with sand and securely attach the lids.

Attach a Type R or Type P marker panel to the front of the crash cushion if the closest point of the crash cushion array is within 12 feet of the traveled way. Fasten the marker panel to the crash cushion using commercial-quality hardware or by other authorized methods. Place the top of Type R marker panels 1 inch below the module lid. Place Type P marker panels such that the bottom of the panel is at the bottom of the module.

**Measurement and Payment:**

Quantities of Crash Cushion, Sand Filled, to be paid for will be determined by the count of crash cushion arrays installed.

The contract unit price paid per each for Crash Cushion, Sand Filled, includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in crash cushion construction, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.45 CONCRETE BARRIER**

Concrete Barrier must be in conformance with Section 83 of the County and State Standard Specifications, and these Special Provisions.

**Measurement and Payment:**

Quantities of Concrete Barrier (Type 60MS) to be paid for will be determined by the linear foot from actual measurement made parallel to the ground slope along the face of the barrier.

The contract unit price paid per linear foot for Concrete Barrier includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Concrete Barrier construction, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.46 CONCRETE BARRIER TRANSITION**

Concrete Barrier Transition must be in conformance with Section 83 of the County and State Standard Specifications, and these Special Provisions.

Existing bridge barrier must be sounded prior to drilling for dowels to identify any areas of spalling or delaminating concrete. Any areas identified must be cleaned and prepared prior to placement of new transition section.

Concrete barrier transition work includes repair of spalled concrete on existing exposed bridge barriers at the connection location.

**Measurement and Payment:**

Quantities of Concrete Barrier Transition to be paid for will be determined by the linear foot from actual measurement made parallel to the ground slope along the face of the barrier transition regardless of barrier shape or height.

The contract unit price paid per linear foot for Concrete Barrier Transition includes full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in Concrete Barrier Transition construction, completely as shown, as specified in these Special Provisions, and as directed by the Project Engineer.

**110-12.47 THERMOPLASTIC PAVEMENT STRIPE**

This section shall apply to all thermoplastic traffic stripes, regardless of width, continuous or broken.

Thermoplastic traffic stripes shall conform to the provisions in Section 84 "Traffic Stripes and Pavement Markings," of the County Standard Specifications and Section 84-2 "Traffic Stripes and Pavement Markings" of the State Standard Specifications, 2018 State Standard Plans revised 11/19/20, CA MUTCD, the plans and these Special Provisions.

New thermoplastic traffic stripes (all types, widths) shall replace the existing stripes, as shown on the striping plans or as directed by the County. These are Details 12, 22, 25, 36, 36A, 36B, 37, 38, 38B, 39, 39A, 40, and 41. Contractor shall provide a submittal indicating materials, installation procedures and method for traffic stripes. Installation shall be by way of extrusion.

The pigment, glass beads, and filler additive shall be well dispersed in the binder before application to the pavement. Heated thermoplastic material shall not emit fumes that are toxic or injurious to persons or property, and shall comply with all applicable air pollution control rules and regulations.

**Glass Beads**

Glass beads applied to paint must comply with State Specification 8010-004. Glass beads applied to molten thermoplastic material must be Type 2 beads complying with AASHTO M 247. The glass beads must have a coating that promotes adhesion of the beads to thermoplastic. At least 75 percent of the beads by count must be true spheres that are colorless and do not exhibit dark spots, air inclusions, or surface scratches when viewed under 20X magnification. Each lot of glass beads used in pavement markings must contain less than 200 ppm each of arsenic and lead when tested under EPA Test Methods 3052 and 6010B or 6010C.

**Enhanced Wet-Night Visibility**

A thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility consists of a single uniform layer of thermoplastic and 2 layers of glass beads.

The 1st layer of glass beads must be on the Authorized Material List for high-performance glass beads. The color of the glass beads must match the color of the stripe or marking to which they are being applied. The 2nd layer of glass beads must comply with AASHTO M 247, Type 2. The glass beads used in both layers must be surface treated for use with thermoplastic under the bead manufacturer's instructions. Within 14 days of applying a thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility, the retroreflectivity must be a minimum of 700 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for white stripes and markings and 500 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for yellow stripes and markings when measured under ASTM E1710.

Aside from regular glass beads, 3M Reflective Elements (microcrystalline beads) shall be added to improve or increase reflectivity and visibility of pavement markings. Contact information for 3M Reflective Elements: 3M Traffic Safety and Security Division, 3M Center Bldg 0235-03-A-09 St Paul, MN 55144-10000 at phone **1-800-553-1380**. Color varies from white and yellow crystalline beads. Use white for white marking/stripping and yellow for yellow marking/stripping

**Quality Control**

This section shall conform to the provisions in Section 84-2.01D "Quality Assurance" of the State Standard Specifications.

The Engineer shall check and approve the cat tracks before striping. The Engineer shall have a minimum 48 hours to approve. Contractor shall be responsible for the cat tracking operations.

Contractor shall reinstall traffic stripes at the transition between new and existing pavement to ensure the pavement striping is continuous and consistent.

Thermoplastic materials shall be tested prior to use or the manufacturer shall provide the Engineer with a Certificate of Compliance in accordance with the provisions of Section 6.11, "Certificates of Compliance," of the County Standard Specifications.

The roadway shall not be striped before 5 calendar days of pavement curing, but shall be striped within 10 calendar days after the completion of paving. Liquidated damages, at the specified rate, shall apply to each day of delay beyond this date unless approved otherwise by the Engineer.

**Measurement and Payment:** The contract price paid per linear foot for Thermoplastic Traffic Stripe (all types shown in the project plans, widths and color) shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in furnishing and installing various types of thermoplastic traffic stripes complete in place, including pavement markers, cat tracks, dribble lines, 3M Reflective Elements (microcrystalline beads) and layout work, conforming to State Standard Plans, County and State Standard Specifications, details and requirements as shown on the plans and as specified in these Special Provisions, as directed by the County, and no additional compensation shall be allowed therefore.

Payment for temporary traffic stripes for channelization during construction (temporary pavement delineation) shall be considered as included in the contract price paid for Traffic Control and no additional compensation shall be allowed therefore.

**110-12.48 THERMOPLASTIC PAVEMENT MARKING**

Thermoplastic pavement markings shall conform to the provisions in Section 84 "Traffic Stripes and Pavement Markings," of the County Standard Specifications and Section 84-2 "Traffic Stripes and Pavement Markings" of the State Standard Specifications, State Standard Plans, CA MUTCD, the plans and these Special Provisions.

Pavement markings shall include 12" cross-walk, 12" stop bar, arrows, speed limits, bicycle logo and all other symbols or markings painted on the pavement as shown on the plans. Installation shall be by way of extrusion.

The pigment, glass beads, and filler additive shall be well dispersed in the binder before application to the pavement. Heated thermoplastic material shall not emit fumes that are toxic or injurious to persons or property, and shall comply with all applicable air pollution control rules and regulations.

The completed pavement markings shall have clean and well-defined edges without running or deformation, and shall conform to the dimensions shown in these Special Provisions.

### **Glass Beads**

Glass beads applied to paint must comply with State Specification 8010-004. Glass beads applied to molten thermoplastic material must be Type 2 beads complying with AASHTO M 247. The glass beads must have a coating that promotes adhesion of the beads to thermoplastic. At least 75 percent of the beads by count must be true spheres that are colorless and do not exhibit dark spots, air inclusions, or surface scratches when viewed under 20X magnification. Each lot of glass beads used in pavement markings must contain less than 200 ppm each of arsenic and lead when tested under EPA Test Methods 3052 and 6010B or 6010C.

### **Enhanced Wet-Night Visibility**

A thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility consists of a single uniform layer of thermoplastic and 2 layers of glass beads.

The 1st layer of glass beads must be on the Authorized Material List for high-performance glass beads. The color of the glass beads must match the color of the stripe or marking to which they are being applied. The 2nd layer of glass beads must comply with AASHTO M 247, Type 2. The glass beads used in both layers must be surface treated for use with thermoplastic under the bead manufacturer's instructions. Within 14 days of applying a thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility, the retroreflectivity must be a minimum of 700 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for white stripes and markings and 500 mcd·m<sup>-2</sup>·lx<sup>-1</sup> for yellow stripes and markings when measured under ASTM E1710.

Aside from regular glass beads, 3M Reflective Elements (microcrystalline beads) shall be added to improve or increase reflectivity and visibility of pavement markings. Contact information for 3M Reflective Elements: 3M Traffic Safety and Security Division, 3M Center Bldg 0235-03-A-09 St Paul, MN 55144-10000 at phone **1-800-553-1380**. Color varies from white and yellow crystalline beads. Use white for white marking/stripping and yellow for yellow marking/stripping

### **Quality Control**

This section shall conform to the provisions in Section 84-2.01D "Quality Assurance" of the State Standard Specifications.

The Engineer shall check and approve the cat tracks before striping. The Engineer shall have a minimum 48 hours to approve. Contractor shall be responsible for the cat tracking operations.

Contractor shall reinstall traffic stripes at the transition between new and existing pavement to ensure the pavement striping is continuous and consistent.

Thermoplastic materials shall be tested prior to use or the manufacturer shall provide the Engineer with a Certificate of Compliance in accordance with the provisions of Section 6.11, "Certificates of Compliance," of the County Standard Specifications.

Work shall consist of replacing existing pavement markings, crosswalks and stop bars, where pavement is resurfaced, or at other locations as directed by the Engineer.

Time requirements as set out in "Thermoplastic Traffic Stripes," shall also apply to thermoplastic pavement markings.

Thermoplastic pavement markings, stop bars and crosswalks shall be measured by the square feet for the area covered by each marking unit. Stop bars and crosswalks shall be 12 inches wide as per State Std. Plan A24E.

**Measurement and Payment:** The contract prices paid per square foot for Thermoplastic Pavement Marking shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, including cat-tracks(layout) and 3M Reflective Elements (microcrystalline beads), complete in place as shown on the plans, as specified in these special provisions, and as directed by the Engineer, and no additional payment will be made therefor.

Payment for temporary traffic stripes for channelization during construction (temporary pavement delineation) shall be considered as included in the contract price paid for Traffic Control and no additional compensation shall be allowed therefore.

#### **110-12.49 PAINT ISLAND CURB NOSE**

Paint Island Curb Nose shall conform to the provisions in Section 91, "Paint" of the County Standard Specifications, Sections 84-2.02C "Paint" and 84-2.02D "Glass Beads" of the State Standards Specifications and these Special Provisions.

Paint color shall be yellow for median island curbs. It shall be applied in two coats along the top and face of curb. Glass beads applied to paint must comply with State Specification 8010-004.

**Measurement and Payment:** The contract prices paid per Square Foot for Pain Island Curb Nose shall include full compensation for furnishing all labor, tools, equipment, and incidentals, and for doing all the work doing all the work involved in preparing the curb surface and applying the paint to the curb surface with glass beads as shown on the plans, and as specified in these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed therefore.

#### **110-13 TRAFFIC SIGNAL, COMMUNICATION AND HIGHWAY LIGHTING SYSTEMS**

**All electrical work as specified in this Section 110-13 shall be performed by certified electrician per California Contractors State License Board Rules and Regulations.**

The Contractor shall provide all material, equipment, and labor necessary for the traffic signals and traffic signal systems, all associated hardware and equipment, and all appurtenant work to provide a functional installation/modification, complete in place and operable, as shown on the Drawings and as specified herein. The cost for necessary items not specifically called out in these specifications and/or the bid schedule shall be

considered as included in the prices paid for the various items of Work and no additional compensation will be allowed therefore.

The furnishing and installation of traffic signal equipment and highway safety lighting shall conform to Sections 86 of the County Standard Specifications, County Standard Details Manual, the latest State Standard Specifications and Plans, the details shown on the Project Plans, and these Special Provisions.

Contractor's attention is directed to the following sections in the County Standard Specifications:

- Section 86.02.01 "Mobility-Impaired Access Provisions,"
- Section 86.02.02 "Excavating and Backfilling", and
- Section 86.02.03 "Removing and Replacing Existing Improvements".

Equipment shop and field testing shall conform to Section 86.02.13, "Testing," of the County Standard Specifications.

#### 110-13.01 ABBREVIATIONS AND GLOSSARY

##### **Abbreviations:**

AGC:	Automatic gain control
BNC:	Bayonet Navy Connector
CCTV:	Closed Circuit Television
EIA:	Electronics Industries Association
F/O, FO:	Fiber optic
Hz:	Hertz
NEMA:	National Electrical Manufacturers Association
NTSC:	National Television Standards Committee
OD:	Outside Diameter
PDA:	Power Distribution Assembly
PTZ:	Pan/Tilt/Zoom
SM:	Single Mode
SMFO:	Single Mode Fiber Optic
ST:	Type of fiber optic cable connector
TIA:	Telecommunications Industries Association
TMC:	Traffic Management Center

##### **Glossary:**

**Channel**--(1) An information path between a discrete input and a discrete output. (2) One single input to a multiplexer or output from a demultiplexer.

**Closed Circuit Television Assembly**--Camera, lens, environmental enclosure, and necessary connectors, cables, and power supply.

**Connector**--A mechanical device used to provide a means for attaching to and decoupling from a transmitter, receiver, or another fiber (such as on a patch panel).

**Coupler**--A coupler is a device which transfers light from two fibers to one fiber and vice versa, where the two fibers are carrying light in opposite directions.

**Jumper Cable** --A short fiber optic cable that has connectors installed on both ends.

**Link**--A passive section of the system, the ends of which are to be connected to active components. A link may include splices and couplers.

**Mux/Demux** – Multiplexer/demultiplexer

### 110-13.02 EQUIPMENT LIST AND DRAWINGS

Equipment lists and drawings shall be prepared in accordance with the requirements of the applicable County Standard Specifications, County Standard Details, the Contract Plans and these Technical Specifications. Attention is directed to Section 86.01.04 of the County Standard Specifications and the following:

A maintenance manual shall be furnished for all equipment, and vehicle detector sensor units, control units, and amplifiers. The maintenance manual and operation manual may be combined into one manual. The maintenance manual or combined maintenance and operation manual shall be submitted at the time the equipment is delivered for testing or, if ordered by the Project Inspector, prior to purchase. The maintenance manual shall include, but need not be limited to, the following items:

- A. Specifications
- B. Design characteristics
- C. General operation theory
- D. Function of all controls
- E. Trouble shooting procedure (diagnostic routine)
- F. Block circuit diagram
- G. Geographical layout of components
- H. Schematic diagrams
- I. List of replaceable component parts with stock numbers

**Measurement and Payment** - Full compensation for conforming to the provisions of this Section shall be considered as included in the prices paid for the various items of Work and no additional compensation will be allowed, therefore.

### 110-13.03 WARRANTIES, GUARANTEES, AND INSTRUCTION SHEETS

All Equipment furnished by the Contractor shall be guaranteed to the County, by the manufacturers, for a period of not less than one (1) year following the date of acceptance of the installation of such equipment unless specified otherwise. If any part (or parts) is found to be defective in materials or workmanship within the one year period and it is determined by the Engineer or by an authorized manufacturer's representative that said part (or parts) cannot be repaired on the site, the manufacturer shall provide a replacement part (or parts) of equal kind and/or type during the repair period, and shall be responsible for the removal, handling, repair or replacement, and reinstallation of the part (or parts) until such time as the traffic signal



and/or street lighting equipment is functioning as specified and as intended herein; the repair period shall be made upon notification.

The one (1) year guarantee on the repaired or replaced parts shall again commence with the date of acceptance by the County.

**Measurement and Payment** - Full compensation for conforming to the provisions of this Section shall be considered as included in the prices paid for the various items of Work and no additional compensation will be allowed, therefore.

#### **110-13.04 MAINTAINING EXISTING AND TEMPORARY ELECTRICAL SYSTEMS AND TRAFFIC COMMUNICATIONS SYSTEMS**

Maintaining existing and temporary electrical systems and traffic communications systems shall be performed in accordance with the requirements of the applicable County Standard Specifications, County Standard Details, the Contract Plans and these Special Provisions.

Contractor shall ensure that the existing and temporary traffic signal and/or communications facilities are in operational condition until the transfer of existing system to new system.

Contractor shall take precaution not to damage any existing traffic signal and communications facilities that are to remain in place and operational during and post construction. Damage to the signal and communications facilities due to Contractor's operation shall be repaired or replaced at the Contractor's cost in accordance with CSS Section 86.01.06 "Maintaining Existing and/or Temporary Electrical Systems and Traffic Communications Systems."

Traffic signal system shutdowns shall be limited to periods allowed for lane closures listed or specified in Section 110-06 "Traffic Control System and/or Temporary Roadway Lane Closure Requirements" of these Special Provisions. Signal operations including the signal detection system must remain in operational during construction and an approved detection method must be provided as specified in Section 110-06 of these Special Provisions if the existing detection system becomes non-operational as a whole or in part due to construction activities.

##### **110-13.04.01 TEMPORARY VIDEO DETECTION SYSTEM**

Maintaining electrical systems shall be performed in accordance with the requirements of the applicable County Standard Specifications, County Standard Details, the Contract Plans and these Special Provisions. Attention is directed to Section 86.01.06 of the CSS.

Contractor shall ensure that the existing traffic signal facilities are in operational condition until the transfer of existing signal system to new system. Attention is directed to Section 7.22.03, "Intersection or Lane Closure" of the County Standard Specifications.

Contractor shall maintain during construction the intersection signal operations at the same level prior to construction. Any degradation to the signal operations or delay to a signal phase caused by a temporary loss of detection of more than 24 hours will not be permitted and Contractor shall provide a temporary signal detection system as specified in these Special Provisions.

The Contractor shall furnish and install a video detection system to detect vehicles and bicycles during construction. In all lanes where loop detectors become no longer functional, due to construction activity, video detection must be in place. Vehicle and bicycle detection must be operational in each lane at all times.

The Contractor shall furnish and install video detection system model Vantage Next with Vantage Vector, manufactured by Iteris, Inc. Contractor shall furnish ten (10) controller units and thirty-seven (37) cameras for the ten (10) signalized intersections within the project limits.

The temporary video detection cameras are to be installed on the signal mast arm or luminaire arms adjacent to existing CCTV camera. It should be installed for each approach where loop detectors are being demolished. In addition, temporary video detection must be in-place before any grinding will occur.

Contractor shall take precaution not to damage any existing traffic signal facilities that are to remain in place and operational during and post construction. Damage to this facility due to Contractor's operation shall be repaired or replaced at the Contractor's cost, as directed by the Engineer and to the satisfaction of the County in accordance with CSS Section 86.01.06.

Traffic signal system shutdowns shall be limited to periods allowed for lane closures listed or specified in Section 110-06 "Traffic Control System and/or Temporary Roadway Lane Closure Requirements" of these Special Provisions.

The Contractor shall be responsible for installing all sensors needed and wiring to connect back to the controller cabinet. The existing CAT 6 cables for the existing camera shall be disconnected and reconnected to the temporary video detection system. If wires are to be installed in conduit with existing conductors and/or cables, those conductors shall be removed, conduit cleaned, and new and existing conductors and/or cables shall be pulled back in as one unit. Contractor shall submit an installation plan for approval to the project engineer 10 working days before the video detection system is to be installed.

Upon completion of the work, the Contractor shall remove the temporary video detection equipment and reconnect the new/existing CAT 6 cables to the new/existing cameras and verify cameras are delivering video to the County TOC.

**Measurement and Payment:** The contract price paid to furnish and install "Temporary Video Detection System" includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in installing the video detection system including but not limited to installing, connecting, testing control units and cameras and removing upon completion of the work, including all wire splicing and terminations, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**110-13.05 EQUIPMENT TESTING**

Equipment shop and field testing shall conform to Section 86.02.13, "Testing," of the County Standard Specification.

**Measurement and Payment** - Full compensation for conforming to the provisions of this Section shall be considered as included in the prices paid for the various items of Work and no additional compensation will be allowed, therefore.

**110-13.06 COOPERATION**

Contractor's attention is directed to Section 7.21, "Cooperation," of the County Standard Specifications in the event of construction activities by other contractor(s) within or adjacent to the limits of the Work.

**Measurement and Payment** - Full compensation for conforming to the provisions of this Section, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

**110-13.07 FOUNDATIONS**

Foundations shall conform to Section 86.02.04, "Foundations," of the County Standard Specifications, Revised State Standard Plans number RSP ES-7B (for Type 1-B standard), and applicable Standard Plans (for signal/lighting standards) of the State Standard Plans and Project Plans. Foundations for the Type III-AF service equipment enclosure shall conform to the details in the County Standard Details and Project Plans.

The drilling of foundation hole and placement of cast-in-place concrete shall conform to Section 49-3, "Cast-In-Place Concrete Piles," of the State Standard Specifications. For piles with a diameter of 30 inches or greater, concrete shall be vibrated from the bottom of the reinforcement cage to the top of the pile. For piles with a diameter of less than 30 inches, concrete shall be vibrated in the upper 15 feet of the pile. Conduit in foundation to the nearest pull box shall be 3-inch PVC.

When potential conflict with underground utilities is anticipated and with the approval of the Engineer, exploratory hole shall be dug. The cost of this work will be included in the prices for the various other items requiring the work.

**Measurement and Payment** – The contract unit price paid per each for Pole Foundation (various types for signal poles) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved constructing foundations (type as described on the bid list), complete in place, including furnishing and installing conduit in the foundation to nearest pull box, all conduit terminations, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Measurement and payment for controller cabinet foundation, service cabinet foundation, and battery backup system cabinet foundation shall be paid for as included in sections 110-13.16, 110-13.21, and 110-13.22 of these Special Provisions.

#### **110-13.08 STANDARDS, STEEL PEDESTALS AND POSTS**

New standards shall be installed as shown on the Contract Plans. See Section 110-13.31 "County-Furnished Materials" for list of standards furnished by County.

Traffic signal and safety lighting standards shall be furnished and installed in conformance with these Technical Specifications, Section 86.02.05 "Standards, Steel Pedestals and Posts" of the County Standard Specifications, County Standard Details Manual, the applicable State Standard Plans (for standards as specified on the project plans), and the following.

Traffic signal poles shall be set back from face of curb no less than 30 inches to face of standard or pole; and the base plate shall be installed parallel to the stop bar unless otherwise specified by the Engineer.

Contractor shall submit shop drawings for all signal and lighting standards and the Steel Certified Test Reports (e.g., Mill Test) for review by the Engineer. County will not accept any signal standard not meeting the requirements of this provision.

Foundations shall conform to Section 86.02.04 "Foundations" of the County Standard Specifications.

**Measurement and Payment** – The contract unit price paid per each for Signal Pole (various types) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in installing Signal Poles (type as described on the bid list), complete in place, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

#### **110-13.09 CONDUIT**

New conduit shall be furnished and installed of the type and at locations shown on the Contract Plans to provide additional capacity where existing conduit runs are full, or to where no conduit currently exists. In instances where a four-conduit bundle is to be installed, then orange, gray, red and black colored conduits shall be furnished and installed. Conduit work shall be performed in accordance with the requirements of the applicable County Standard Specifications, County Standard Details, the Contract Plans, and these Technical Specifications. Attention is directed to Section 86.02.06 of the County Standard Specifications and the following.

Unless other specified, all conduit installed under this Contract shall be Schedule 80 PVC, HDPE, or galvanized rigid steel. PVC conduit shall be manufactured in accordance with NEMA TC-2-1998 standards. HDPE conduit shall be manufactured in accordance with NEMA TC 7-2000 standards. Conduit under

roadway pavement shall be a minimum of three (3) inch diameter unless where a four or three-conduit bundles is to be installed.

A four-conduit bundle for traffic signal improvements will consist of 3 x 3-inch conduits and 1 x 3- or 4-inch conduit (for traffic signal conductors, size shown on the plans) installed in the same bore or trench. A three-conduit bundle will consist of 3 x 3-inch conduits installed in the same bore or trench. A four-conduit bundle for fiber optic improvements will consist of 4 x 3-inch conduits installed in the same bore or trench.

Conduits shall be color coded as shown on sheet E-4 of the Project Plans and as described by the following:

- Empty – BLACK Color
- Traffic Signal and Lighting – RED Color
- ITS cables (camera, cat 6) – ORANGE Color
- DLCs – GRAY Color

The directional boring method shall be used for the installation of conduit except where short conduit runs are required and right-of-way is limited for setting up boring equipment, then open trenching shall be permitted subject to approval by the County Engineer. When trenching in pavement is allowed, the conduit installation shall meet the trench in pavement requirements of Section 86-2.05 of the State Standard Specifications.

In the event if the County deems the existing conduit as unusable, contractor shall replace the existing conduit with new conduit of like size. The replaced conduit shall be considered and paid for as new.

Conduit shall be installed at depths as specified in Section 86.02.06C "Installation" of the County Standard Specifications, except that conduits installed within the paved or unpaved median, shall be at a minimum depth of 36 inches below finished grades. Placement of conduit on top of roadway pavement within the paved median island will not be permitted unless so specified on the project plans or in these Technical Specifications.

Where conduit is left empty or with no metallic conductors, it shall have one (1) #8 AWG, THW stranded copper locating wire. The insulating jacket of the wire shall be green. Where bundles of multiple conduits are installed in the same bore or trench, the locating wire may be installed in only one conduit. It shall then be installed in one of the empty conduits.

Conduit shall be able to withstand 95% soil compaction without collapsing.

Conduit and condulets used to penetrate the base of a controller cabinet, and conduit used for external connections to new NEMA enclosures to be mounted on the side of existing controller cabinets, shall be galvanized rigid steel.

Contractor may elect, at his option and expense, to install new conduit in lieu of installing new wiring in existing conduits. Any additional wiring or connections required shall also be at the Contractor's expense.

Prior to exercising this option at any location, the Contractor shall advise the Engineer in writing of his intent.

At locations of pull box, pole foundation, cabinet foundation, conduit ends shall be terminated as specified on the Project Plans and in Section 86.02.06C, "Installation," of the County Standard Specifications. In concrete structures, including pole and cabinet foundations, galvanized rigid steel conduit shall be used.

**Measurement and Payment** - Conduit shall be measured on a linear foot basis, measured straight-line from pull box to pull box or from pull box to cabinet/enclosure, furnished and installed in place. Installation of the four-conduit bundle or three-conduit bundle shall be considered as one unit of conduit and measured on a linear-foot basis, straight-line from pull box to pull box, furnished and installed completed in place.

The contract unit price paid per lineal foot for Conduit includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing Conduit (type and size as shown on the contract plans and as described in these Technical Specifications), complete in place, including conduit dividers, all conduit terminations, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

The contract unit price paid per each for Connect New Conduit to Existing Conduit or Existing Pull Box includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in connecting new conduit to existing conduit or pull box (type and size as shown on the contract plans), complete in place, including all conduit terminations, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

#### **110-13.10 CONDUIT DIVIDERS**

Conduit dividers shall be installed in new or existing conduit to receive new fiber optic cable as shown on plans.

Conduit dividers shall be Maxcell by TVC Communications or approved equal. Dividers shall be installed as follows:

- In existing, occupied conduits sized 2 inch or 3 inch, furnish and install a 2 inch one-cell divider.
- In new conduit sized 2 inch, furnish, and install a 2 inch one-cell divider.
- In new conduit sized 3 inch, furnish, and install a 3 inch one-cell divider.

Dividers shall be installed according to the manufacturer's recommendations. At locations where the divider can be installed without damaging existing conductors, removal or reinstallation of existing conductors is not required. In this case, use a fiberglass rodder to install Maxcell if there is not an existing pull rope. A fiberglass blow tape may be used instead if approved by the Project Engineer. Under no circumstances shall a metal fish tape be used to install Maxcell in conduits with existing conductors. At other locations, installation shall conform to the requirements for conductor installation, as specified in Section 89.02.09B of the County Standard Specifications, except that slack will not be required in pull boxes and labeling shall be done through use of individually colored pull tapes or ropes in empty cells.

The Contractor shall be responsible for any damage to existing cable as a result of Contractor's operations. In addition, the Contractor is responsible for documenting and reconnecting existing cable and wiring as found, and ensuring that it is left fully functional after new cables are installed.

The Contractor may elect to inspect and conduct tests of existing cable prior to removal, in the presence of the Project Engineer, to record the operational condition of existing wires. The Contractor will not be held responsible for any cable damage found, documented, and noted by the Project Engineer, as part of the pre-removal inspection and testing.

**Measurement and Payment** – Full compensation for furnishing and installing CONDUIT DIVIDERS shall be considered as included in the contract price paid for CONDUIT as shown on project plans, and no separate payment will be allowed therefor.

#### **110-13.11 PULL BOXES**

Pull boxes shall be No. 5 unless indicated otherwise on the Project Plans and shall conform to Section 86.02.07, "Pull Boxes," of the County Standard Specifications and County Standard Details Manual E/8. Pull box cover marking shall conform to Section 86.02.07B "Cover Marking" of the County Standard Specifications except that the identification shall be "COUNTY", followed by the correct designation, such as "TRAFFIC SIGNAL". Pull box cover shall be a locking type.

Pull box material and installation shall conform to the applicable County Standard Specifications and County Standard Details, except as amended by these Contract Documents. Attention is directed to Section 86.02.07, "Pull Boxes," of the County Standard Specifications and the requirements for stub modification shown in the Contract Documents and described herein.

Pull boxes shall be located behind the curb or at the locations shown on the plans. Pull boxes shall not be installed in travel way unless specified otherwise, in which case pull boxes and lids shall be rated for H-20 traffic load application and approved by the Project Engineer.

Pull boxes shall be grouted at the bottom per details in the Contract Documents.

Where existing pull boxes are specified in the Contract Documents to be replaced with larger pull boxes, existing conduit stub-outs in these pull boxes shall be cut back to provide stub-ups of 1 inch minimum to 2 inch maximum in length. Ground bushings shall be installed on metallic conduits and end bells on PVC conduits. All conduit entries into pull boxes shall be 45° sweeps and shall conform to County Standard Specification 86.02.06C.

All N40 pull boxes shall be installed with a 12-inch extension.

All fiber optic pull boxes, including #6 communication pull boxes, shall be installed with extension as shown on County Standard Detail E/8.

Fiber optic pull boxes shall be furnished and installed in accordance with Section 86.02.07 of the County Standard Specifications, except as amended by these Contract Documents and the details as shown in the Contract plans. The Contractor shall provide a rack and hook assembly along the interior of both long sides of fiber optic pull boxes. Use rack and hooks that are designed for attaching coiled cabling and splice closures weighing as much as 100 lbs.

The depth of the rack shall not be less than 14 inches and shall be positioned on the side wall of the pull box and extension such that there is at least 4 inches clearance from the top and bottom.

Contractor shall clean all pull boxes (new and existing) entered for installation of conduit or wire of all dirt and debris. All pull box lids damaged by Contractor operations shall be replaced at his expense. The wiring in these pull boxes shall be neatly bundled, recoiled, and reinstalled in the pull box.

All pull boxes shall have locking lids. All pull box lids shall be Fibrelyte, if available, or approved equal.

**Measurement and Payment** – The contract unit price paid per each for Pull Box (various sizes) includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing Pull Boxes (type as described on the bid list), complete in place, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

## 110-13.12 CONDUCTORS AND WIRING

### GENERAL

Conductors shall conform to Section 86.02.08 "Conductors and Cables" of the County Standard Specifications.

Splicing existing or new DLCs will not be allowed.

Wiring shall include all work as specified, including furnishing all necessary materials, equipment, and labor for:

- Removing existing conductors and cables specified for reuse;
- Cleaning of existing conduits;
- Installing, connecting, and splicing new and existing conductors and cables in conduits, pull boxes, terminal compartments, traffic and pedestrian signal facilities, lighting facilities, service cabinets, and controller cabinets;
- Labeling all conductors; and
- Bonding and grounding electrical facilities.



Where existing conductors and cables are specified to be reused on the project plans, Contractor shall exercise care in the removal of and protect the cables from damage. The reinstallation of these cables into the conduit shall be expedited.

All conductors in pull boxes and cabinets shall be tagged and labeled in accordance with the requirements per E/44 of the County Standard Details Manual for new installation or modification to existing wiring.

In addition to fiber optic cable, various conductors and wiring are needed for connections including those to CCTV cameras, loop detectors, pedestrian sensors, bicycle detectors, service points and enclosures. The Contractor shall furnish and install the conductors and wiring indicated in the Contract plans.

Conductors and wiring work shall be performed in accordance with the requirements of the applicable County Standard Specifications, County Standard Details, the Contract Plans and these Technical Specifications. Attention is directed to Section 86.02.08, "Conductors and Cables," and Section 86.02.09, "Wiring," of the County Standard Specifications.

Fire preemption cable shall conform to the requirements of the existing Opticom preemption system.

## **CABLING FOR CCTV CAMERAS**

### **CCTV Cable:**

The Contractor shall furnish and install LAN-Trak OSP outside plant cable or approved equal. Cable shall have TIA/EIA-568-C.2 Category 6 electrical performance. Cables shall be designed for exposure to the elements. Jacket shall be black UV-resistant polyethylene, with craft-friendly semi-dry flooding material that cleans easily from the cable core.

Specifications:

Cable Type	4 Pair, 24 AWG, Duct/Aerial Lashed
Jacket Diameter	.261 inches
Weight	36 lbs./M
Min. Bend Radius	2.75 inches

Cable and power conductors shall be used at all intersections where new video cameras are being installed.

All CCTV cabling shall be tagged to indicate which camera it serves. The Contractor shall contact the Project Engineer for camera addressing. The Contractor shall test the cables for continuity prior to and after installation.

All cables shall be rated for outdoor, underground, dry and wet installation and be provided with appropriate strain relieved plug type connectors for connection to leads extending from the camera assembly.

The installation of the cabling may require that a hole be drilled into the camera supporting structure. Prior to drilling this hole, the existing wiring inside the pole or mast arm shall be removed or protected such that

it is not damage by the drilling operation. The edges of the drilled hole shall be smoothed. The Contractor shall install a watertight gland nut in this hole that securely holds the wiring.

The Contractor shall install the cable between the camera and the pole entrance such that it forms a drip loop to prevent water from flowing down the cable into the hole.

Camera video, power, and control cables shall be installed in the pole, conduit, and cabinets or side-mounted equipment enclosures. All cable runs shall be continuous and shall run without splices between the camera assembly and the cabinet. Cable ends shall be kept sealed at all times during installation using an approved cable end cap. Tape shall not be used to seal the cable end. The cable end shall remain sealed until connectors are installed. All terminations and cable connectors shall be installed per manufacturer specifications. The minimum bending radius of the cable, as established by the cable manufacturer, shall not be exceeded at any time. Where cables enter into an equipment cabinet, a minimum of two meters of cable slack shall be provided in the cabinet. Where cables enter into a side-mounted equipment enclosure, a minimum of two meters of cable slack shall be provided in the pull box nearest to the side-mounted equipment enclosure.

All cables shall be:

- installed without damaging the conductors or insulation;
- installed without kinks;
- installed with sufficient slack for equipment movement;
- have a watertight, strain relieved plug type connection to the camera housing.

Detailed requirements for installation of new wiring in conduits with existing wiring are stated elsewhere herein. These methods and provisions shall be followed by the Contractor.

The Contractor shall make all connections of this wiring to the camera assembly, the video transmission device and power.

**Measurement and Payment** – The contract lump sum paid for CONDUCTORS AND WIRING includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing Conductor and Wiring, complete in place, including all wire splicing and terminations, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

#### 110-13.13 FIBER-OPTIC CABLE

Work under this item shall include the removal of existing fiber optic cable from existing conduit, furnishing and installing new cable through new and existing conduit and pull boxes, splicing and termination of fiber optic cable as shown on the plans.

Work under this item shall comply with the following Sections of the of the County Standard Specifications:

1. Furnish and Install 12 Strand SMFO and 96 Strand SMFO (Trunkline) Fiber Optic Cable – Sections 86.02.08F and 86.02.09C
2. Splicing and Splicing Insulation – Section 86.02.09E(2)
3. Fiber Optic cable testing – Section 86.02.13D

New/existing fiber optic cable (12 Strand SMFO Cable (Branch)) shall be spliced/re-spliced and terminated on new fiber termination panel at the locations shown on the contract plans by the Contractor. Where shown on the Contract Plans, fiber optic cable shall be pulled out of existing conduits and reinstalled through new and/or existing conduits and spliced and terminated by the Contractor.

### **INSTALLATION OF FIBER OPTIC CABLE**

Installation procedures shall be in conformance with the procedures specified by the cable manufacturer for the specific cable being installed, Section 86.02.09C of the of the County Standard Specifications, and Section 110-13.09 "Conduit", and Section 110-13.10 "Conduit Dividers", and Section 110-13.12 "Conductors and Wiring" of these Technical Specifications.

All cable installation work shall be carried out in accordance and consistent with the highest standards of quality and craftsmanship in the communication industry with regard to the electrical and mechanical integrity of the connections; the finished appearance of the installation; as well as the accuracy and completeness of the documentation.

The Contractor shall make a physical survey of the project site for the purpose of establishing the exact cable routing and cutting lengths prior to the commencement of any fiber optic work or committing any fiber optic materials. The Contractor shall submit a cable routing plan that shows the locations of all splices. The fiber shall only be spliced at the locations shown on the plans unless otherwise approved by the Engineer.

All work areas shall be clean and orderly at the completion of work and at times required by the Engineer during the progress of work.

If the fiber cable reel is left outside overnight during installation, the Contractor must provide security for the cable.

Prior to the removal and re-installation of the fiber optic cables, the Contractor shall prepare and submit a detailed, written installation plan to the Project Engineer for approval. At a minimum, the installation plan shall address the following:

4. Assignment of activities
5. Data forms for testing
6. Equipment and supplies to be used

7. Identification of potential problem areas
8. Identification of safety issues
9. Installation methods
10. Traffic control plans

The Contractor shall monitor the supply reel during removal and re-installation to prevent violation of the bend radius due to back wrapping, improper winding of the cable on the reel, or loosening of the cable on the reel. At all times, the Contractor shall use the proper tools and techniques for the installation of fiber optic cable. A fiber optic cable lubricant, compatible with the jacket material of the cable, shall be utilized during the installation into the conduit. The figure 8 technique shall be used for storing cable at intermediate locations when dividing long pulls into several shorter pulls. Service loops shall be provided in pull boxes and splice vaults as shown on the plans and in accordance with the County Standard Specifications. Cable utilizing water-blocking gels shall be capped to prevent the gel from flowing out of the cable. Fibers and buffer tubes shall be protected at all times to prevent accidental damage or breakage.

### **SPLICING AND CONNECTORIZING OF FIBER OPTIC CABLE**

The Contractor shall make splices and terminate branch cable at locations shown in the Contract Documents, as approved by the Engineer and conform to Sections 86.02.09D, "Connectors and Terminals," and 86.02.09E, "Splicing and Splicing Insulation," of the County Standard Specifications.

The Contractor shall make all splices as shown on the plans in accordance with the splicing details. Where trunkline splices are called for in the Contract Documents to join two lengths of 96-strand cable, the Contractor shall splice each strand of the cable. Trunkline splicing shall be performed to provide continuity between similar strands (e.g., splice strand 1 of upstream cable to strand 1 of downstream cable). Splices shall be made as shown on the fiber splice diagram in the Contract Documents. Intermediate splices may be made for convenience to connect cable segments between designated splice locations, but no such splices shall be less than 1,000 meters (approximately 3300 feet) apart without the approval of the Engineer. The Contractor must receive approval from the Project Engineer before performing any splices that are not indicated in the Contract Documents. The Contractor shall furnish and install an additional fiber optic pull box and underground splice closure if directed by the Engineer at intermediate splice locations if not already shown in the Contract Documents, and the costs of any such intermediate splices, pull boxes, or splice closures shall be paid for at the bid prices for the applicable items of work.

Lateral splicing shall be made to splice the 96-strand trunk cable to the 12-strand drop cables at the individual field devices. Splices shall be made as shown on the fiber splice diagram in the Contract Documents.

All fiber strands terminating at cabinets shall be spliced to and terminated with a connectorized pigtail.

The F/O cable splices shall be the fusion type and shall not exceed 0.05 dB loss per splice. Splice losses shall be measured and recorded by the splicing equipment. This measurement shall not be used in lieu of

OTDR testing of the fiber. All splices shall be tested in accordance with the requirements of the following subsection of these specifications.

Splices shall be housed in a splice tray in a splice enclosure and in underground splice closures or fiber termination units as shown in the Contract Documents. All splices shall be protected with a thermal shrink sleeve. The Contractor shall perform all outdoor splices within a tent, truck, or trailer. If the Contractor wishes to use another type of facility for splicing, it must be approved by the Engineer on a day-by-day basis.

Cable routed through a fiber optic splice pull box without being spliced shall have a minimum amount of cable (per the Contract Documents) left coiled within that pull box to accommodate future splicing. Cable shall be coiled in all other pull boxes and cabinets per the Contract Documents. Different lengths of coiled cable shall be provided where shown in the Contract Documents or as specified in the County Standard Specifications.

Only those fibers that are to be spliced shall be removed from the cable and buffer tubes. All other fibers shall remain in their tubes and shall be suitably protected. The Contractor shall seal all cables where the cable jacket is removed. The cable shall be sealed per the cable manufacturer's recommendation with an approved blocking material.

Contractor shall submit to the Engineer for approval the resumes with references of people who will be performing splices. Splices shall be performed only by experienced personnel with experience including successful completion of no less than 2000 fusion splices. Only those individuals approved by the Engineer shall be allowed to make fiber optic splices.

Prior to splicing or connectorizing the fiber optic cable, the cable shall be prepared in accordance with the method described below:

11. Remove jacket without damaging buffer tubes.
12. Expose fibers without damaging by removing buffer tube with purpose-built tool.
13. Clean fibers and buffer tubes using a solvent designed to remove all water blocking gel from each exposed fiber.
14. Solvent must not remove any color from individual fibers or buffer tubes and must not be harmful to the MDPE cable jacket.
15. Cleave tools shall be used during splicing to cut the individual fibers as close to a perfect 90-degree angle as possible, thus allowing the highest core to core alignment and therefore the lowest dB splice loss. The manufacturers of cleave tools have established "end angle" cleave averages that are based on a minimum of 150 cuts utilizing a minimum of 10 cutters. Based on these test results, the County shall allow cleave tools that have minimum end angle averages as follows: Less than 0.70-degree average with no cut of the 150 cleaves exceeding 1.5 degree. Prior to the splicing of any fiber cable, the Contractor shall submit to the Project Inspector the part number and manufacturer of the cleave tool along with an "end angle" distribution chart that demonstrates the actual 150 cut end angles.

**SPLICE AND CABLE LOGGING OF FIBER OPTIC CABLE**

The Contractor shall keep accurate detailed records of each splice and each splice location. These records shall include the date each splice was made, the name of the splicer, splice location, splice loss, fiber and tube color codes, splice tray number and position of the fiber within the tray. For each splice closure, the Contractor shall provide the Engineer with a chart indicating the source and destination of every fiber spliced in that enclosure and indicating the tray and position within each tray. This also applies to fibers terminated at patch panels.

To log the fiber routes, terminations and splices, the Contractor shall use a series of numbers and letters to describe the cable, tube, fiber and location of the termination or splice. The following naming convention shall be used as a guide to developing your documentation:

TOS-Intersection Name-Hub Location-Sequential #  
Segment Name-# Strands  
Buffer Tube Color-Strand Color  
FIBER OPTIC PIGTAILS

Contractor shall furnish and install fiber optic pigtails at the end of all fiber strands terminating at cabinets and communications hubs that meet the following requirements:

16. 250  $\mu\text{m}$  buffering of each fiber
17. 900  $\mu\text{m}$  buffering of each fiber applied after the initial 250 $\mu\text{m}$  buffering
18. Maximum factory measured insertion loss of 0.5 dB per EIA/TIA 455-171
19. Less than 0.2 dB loss when subjected to EIA/TIA-455-1B, 300 cycles, 1.1 lbs. (0.5 kg)
20. Minimum tensile strength of 35 lbf (154 N).
21. ST connectors on one end, factory terminated with strain relief. All connector bodies shall be metallic, and all ferrules shall be ceramic.

Contractor shall match the color of single fiber pigtails with the color of the fiber that it is spliced to. Alternatively, single fiber pigtails may be routed through colored fan-out tubing that matches the fiber that it is spliced to. Pigtails shall be of a suitable length to be routed from fiber splice trays to the fiber termination panels. Contractor shall adhere to manufacturer recommended installation and minimum bend radius requirements. After installation, all connectors shall be cleaned with alcohol wipes and a compressed cleaning gas.

**FIBER OPTIC CABLE TESTING**

The Contractor shall test the existing fiber optic cable prior to disconnection and removal of the cable (before), and then Contractor shall test the cable after the reinstallation and re-splicing process (after) to ensure that cable performance after installation is essentially equal to its performance before removal. The Contractor shall test fiber optic cable per the requirements of County Standard Specifications Section

86.02.13D. Test results shall be furnished to the County in a neatly bound, printed format. Electronic submittal to the Project Engineer on floppy disk or compact disc (CD) shall also be required.

The Contractor shall be responsible for formulating and developing test procedures and forms for approval by the County in conformance with ANSI/TIA/EIA 526-7 "Measurement of Optical Power Loss of Installed Single-mode Fiber Cable Plant." All tests shall be performed with light wavelengths at 1310 nm and 1550 nm. Test forms shall contain at least the following basic information: type of test performed, type of equipment used (including name and model number), results of calibration check, location of test equipment used, technician(s) performing the test, date of tests, wavelength(s) tested, cable ID reference, buffer tube color, reference reading, fiber number, direction of reading/attenuation, and any general notes or remarks the technician(s) determine to be pertinent to this process. The test forms shall include the required power level reading required in each strand of cable, for the before and after conditions, based on the following equations:

1. For 1310 nm:  $\text{Max loss} = 0.4L + 0.2N + 0.5C + K$
2. For 1550 nm:  $\text{Max loss} = 0.3L + 0.05N + 0.5C + K$ ; where:
  - L = actual optical path length in km
  - N = number of splices in optical path
  - C = number of connectors
  - K = 3 dB (a constant for optical point discontinuities)

All results shall be submitted in printed form on 216 mm x 279 mm paper in a suitable binder organized by cable and strand number. Each binder shall have a cover sheet indicating which cable(s) were tested, the operator's name, the reviewer's name, the type of test performed, and the date(s) of the test. Cover sheets for the final test results shall bear the reviewer's signature, the date, and a statement indicating that the installation complies with the requirements of this section.

All traces shall bear the signature or initials of the Contractor's representative who has reviewed the traces. The Contractor shall place a check mark on all traces that satisfy the requirements identified herein. For intermediate test results, the Contractor shall highlight any discrepancies that may exist and place a post-it flag on the subject page. The page shall bear a short description of the proposed corrective action (e.g., re-splice).

Records of all factory inspections and tests shall be maintained by the County and made available at the request of the Contractor with 20 working days advance notice.

As-built data sheets shall be prepared by the Contractor and submitted to the County for its maintenance and troubleshooting activities. Three copies of the as-built data sheets shall be provided to the Project Engineer and shall also include the following information:

22. Insertion loss measurements
23. OTDR measurements

- 24. Wavelength
- 25. Spectral width
- 26. Equipment used (manufacturer, model number, and serial number)
- 27. Direction of test

In addition, the Contractor shall perform a continuity test following the installation of all pigtails and termination devices. The Contractor shall connect the light source to the connectorized fiber and shall connect a power meter to the other end of the fiber. The Contractor shall turn the light source on and off at a rate of approximately once per second for three cycles. The individual observing the power meter shall record the response of the meter. The response shall be "OK" if the Contractor's individual notes the meter responding to each of the three cycles. Any other responses, such as no cycles, less than three cycles, or more than three cycles shall require a "BAD" response. For each "BAD" response, the Contractor shall submit to the County a statement summarizing the response noted on the power meter and shall correct all "BAD" responses. After making corrections to the cable, the strobe test shall be re-conducted. A tone modulated light source may also be used, in place of the three-cycle method, to conduct this test. Continuity tests shall be performed in both directions for all fibers terminated on both ends.

#### **FIBER CONDUIT PROTECTION MARKER**

The fiber conduit protection marker shall be comprised of a construction poster, warning tape, and conduit marker. Each is specified below.

The Contractor shall furnish and display at poster in the vicinity of all conduits intended to contain fiber-optic cable. All such conduits shall be identified with temporary markers during construction. Warning tape shall be used for all new conduit installed by trenching. All conduit and pull boxes containing fiber-optic cable shall be identified with permanent markers within two weeks of installation of fiber-optic conduit.

#### **CONSTRUCTION POSTER OF FIBER OPTIC CABLE**

The Contractor shall display a poster in the vicinity of all conduits containing and/or intending to contain fiber-optic cable that highlights the locations of buried conduits. This poster shall be displayed during all relevant construction phasing. The poster shall list the General Contractor, a phone number for contacting the General Contractor, and "Santa Clara County Foothill Expressway Operational Improvement Project". The poster shall help construction crews avoid causing accidental damage to buried conduits. It shall serve as a warning to the general public that fiber conduit is buried in the area. The poster shall be easily installable, visible, and safe. The poster material shall be such that it will not result in sparks, fire, or explosion when struck.

#### **TEMPORARY MARKERS FOR FIBER OPTIC CABLE**

Temporary markers shall be installed along the conduit path immediately after the installation of fiber-optic cable into new or existing conduit to warn construction crews of the presence of fiber-optic cable.



In paved areas, temporary marking shall consist of bright orange spray paint along the conduit path and the lettering "F/O" no more than 30 meters (100 feet) apart from each other. Spray paint shall be approved for outdoor marking. Spray paint shall be removed by water blasting or other approved method within 5 working days from installation of permanent markers.

In unpaved areas, temporary markers shall be installed above the conduit and spaced no more than 100 feet apart from each other. These markers shall be clearly visible from a distance and shall be bright orange in accordance with the APWA national color code. Temporary markers shall be Line Mark ® Flags by Smi-Carr or approved equivalent. It is the Contractor's responsibility to ensure that all temporary markers are placed correctly and in an upright position by the end of each work shift.

#### 1. Warning Tape

When conduit is installed using the trenching technique, a continuous warning tape marker shall be installed throughout the length of the underground conduit intended to contain fiber-optic cable. The marker shall be located at a depth of 330 mm (13 inches) below the ground surface and 600 mm (24 inches) above the conduit level. The tape marker shall be 75 mm (3 inches) width, 4 mils thick, bright orange in color (in accordance with the APWA national color code), stretchable (detectable as optional), and appropriately labeled for fiber cable application. The tape shall be permanently imprinted with a black, environmentally safe ink with an appropriate legend to define the fiber-optic cable line that it protects. The tape shall be suitable for direct burial and prolonged exposure to the elements normally encountered in the earth's soils. It shall be made of material with a similar life expectancy as the conduit.

### PERMANENT MARKERS OF FIBER OPTIC CABLE

Regardless of the method of installation, all new and existing conduit containing fiber-optic cable shall be marked with permanent fiber-optic markers. All permanent markers shall be bright orange in color, formulated for all-weather, extended use above ground, and shall retain their color after installation, to the satisfaction of the Project Inspector. Details regarding the layout and lettering of permanent markers can be found in the Project Standard Details sheets. Permanent markers shall be installed no later than two weeks after the installation of fiber-optic conduit system.

Permanent fiber-optic cable markers shall be installed at each pull box containing fiber-optic cabling and within 1.5 feet along the fiber-optic cable conduit path, spaced no more than 600 feet apart from each other. Permanent markers shall be installed at every junction where the conduit path changes more than 30 degrees. Where the conduit crosses any roadway, light-rail track, railroad tracks, or bridge structures, permanent markers shall be installed on both sides of the crossing.

In unpaved areas, permanent markers shall be flexible line marker (Flexpost by William Frick and Company or approved equivalent). These markers shall be 4 feet in length and installed approximately 1 foot underground.

All pull boxes containing fiber-optic cable in paved or unpaved areas shall be marked with a permanent marker, which shall be Duracast ® Curb Markers by das Manufacturing or approved equivalent. The marker shall be circular in shape, 4 inches (103 mm) diameter, and made from high-impact plastic, bright reflective material with UV resistant coatings and imprinting. Markers shall be mounted to the top of pullbox lids. The markers shall have non-skid surfaces and shall have secured with epoxy cement or adequate approved anchorage to prevent removal of the marker.

**Measurement and Payment** – The contract lump sum paid for removing and reinstalling existing FIBER OPTIC CABLE, and furnishing and installing new FIBER OPTIC CABLE shall include disconnecting removing, storing, reinstalling, splicing, connectorizing, terminating, labeling & markers, including permanent markers of fiber optic cable, and for doing all work involved in removing and reinstalling existing, furnishing and installing new Fiber Optic Cable, complete in place, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

#### 110-13.14 FIBER-OPTIC CABLE SPLICE CLOSURES

Work under this item shall include furnishing and installing fiber optic splice enclosures at those locations as shown in the Contract Documents. The splice enclosure shall be Tyco “Raychem” enclosure, or equivalent, which accommodates up to 144 splices per enclosure. The enclosure shall include a three-section end plate with six pre-molded cable entry ports; 4 ports for up to 7/8” OD cables and 2 ports for up to 3/4” OD cables.

The work performed under this item shall conform to the section 86.02.09G, Splice Enclosures, of the of the County Standard Specifications and these specifications.

Following splicing, ensure that the underground splice closures are sealed watertight and secure them to the rack and hook assembly in such a manner that the front-end cap of the closure is 150 mm (6”) lower than the opposite end.

Neatly and separately coil each slack fiber optic cable in fiber optic pull boxes and secure each coil to the hook and rack assembly. See Contract Documents for splice pull box and splice closure installation details. Each splice enclosure, fiber termination panel and fiber termination unit will be labeled in accordance with the naming convention listed in the Fiber Optic Cable section of these Technical Specifications.

**Measurement and Payment** – The contract unit price paid per each for Fiber Optic Splice Enclosure includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing Fiber Optic Splice Enclosure, complete in place, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

**110-13.15 BONDING AND GROUNDING**

Bonding and grounding shall conform to Section 86.02.10, "Bonding and Grounding," of the County Standard Specifications.

**Measurement and Payment** - Full compensation for conforming to the provisions of this Section shall be considered as included in the prices paid for the various items of Work and no additional compensation will be allowed, therefore.

**110-13.16 TYPE III-AF SERVICE**

County has applied for the service relocation from PG&E. Contractor shall coordinate with PG&E for electrical service disconnection / reconnection and inspection.

Electrical service installation shall conform to Section 86.02.11, "Service," of the County Standard Specifications (See Amendments dated January 7, 2011) and the State Standard Specifications, County Standard Plans and these Special Provisions.

New Type III-AF service enclosure and foundation shall be installed as shown on the plans and on the County Standard Details.

**Measurement and Payment** – The contract unit price paid per each for Type III-AF Service includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing new Type III-AF service cabinet, complete in place, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

**110-13.17 INSTALL COUNTY-FURNISHED CLOSED CIRCUIT TELEVISION (CCTV) CAMERAS****GENERAL**

The Contractor shall install County-furnished CCTV equipment, including camera, mounting hardware, lenses, and any additional equipment required for a complete and operational CCTV assembly. Contractor shall furnish and install all new cabling as necessary to provide a fully operational CCTV system.

The CCTV assembly shall be installed such that the camera viewing coverage is optimized as directed by the Project Inspector.

**MATERIALS**

As part of the relocation process, Contractor shall furnish any CCTV appurtenances necessary to mount the cameras on the new traffic signal poles, as well as new cabling necessary to connect to the CCTV system in the controller cabinet.

**INSTALLATION**

The Contractor shall install the CCTV assemblies at those locations as shown in the Contract Documents. Where necessary, pole mounting adapters shall be electrically bonded to the camera pole. The camera assembly shall be electrically bonded to the pole mounting adapter. Refer to Section 110-13.12, "Conductors and Wiring", for additional cable installation requirements.

The Contractor shall install and fully adjust the camera with the associated lens, power supplies, housings, and pan/tilt and dome units (if applicable), and furnish and install all necessary cabling, etc., to make the assembly completely operational.

The Contractor shall firmly attach the camera to the housing. The Contractor shall exercise care to tighten the camera mount within the torque limits specified by the camera manufacturer.

The Contractor shall properly terminate all of the electrical cables to the camera and firmly attach them.

The camera shall be mounted in the housing within 0.24 inches of the optical window. This distance is measured with the lens attached and adjusted to its maximum physical length.

The Contractor shall mount the camera in the housing such that the lens is centered in the optical window.

**POSITIONING AND CONFIGURATION OF CCTV CAMERAS**

Cameras and other video sources where possible, shall use the electrical power supply 60 Hz signal for synchronization. After installation, the Contractor shall adjust the phase setting to synchronize all cameras, and other video sources where possible.

There shall be no image roll when different cameras are sequentially switched to the same monitor.

When cameras are initially installed, they shall be aimed to view one leg of the intersection at which they are installed. The intersection leg to be viewed shall be as designated by the Engineer. The initial aiming of cameras shall allow viewing of the stop line for approaching traffic and part of the intersection itself in the foreground, and the approaching and departing roadway (to the horizon if possible) in the background. The Contractor shall enable the Engineer to interactively view the camera image and choose the view for the first camera installed, and thereafter shall use that experience to aim other cameras similarly.

After all cameras are installed and central equipment is operational, the Contractor shall arrange an interactive session with the Engineer to fine tune the aiming and other adjustments at cameras, including the stop points and presets for moveable cameras. This session shall enable the Engineer to observe the image at the control room while being in verbal communication with the Contractor at the camera. The means of verbal communication shall be provided by the Contractor. The Contractor shall make adjustments as directed by the Engineer. The Engineer will continue to observe the image while adjustments are made and will direct further adjustments as needed to achieve the desired view and picture quality. A representative of the Contractor shall accompany the Engineer in the control room during this procedure.

Camera aiming adjustments may involve rotation of the entire camera mounting around the supporting pole or arm and small longitudinal movements along the pole or arm within the limits of the attached cables, in addition to adjustments within the mounting hardware. Contractor shall ensure the camera lens and enclosure glass are left clean.

**TESTING**

All equipment shall be tested at the camera locations and the TOC during both daytime and nighttime to verify proper operations and ensure picture quality. The testing shall be conducted in conformance with these Specifications.

The Contractor shall arrange to have a signal technician, qualified to work on the CCTV Camera System and employed by the CCTV Camera System manufacturer or his representative, present at time the equipment is turned on.

The Contractor shall successfully complete the Camera Cable Test and Local Operations Test as described below.

**Camera Cable Test:**

The Contractor shall perform the following Camera Cable Test. The Contractor shall furnish all equipment, appliances, and labor necessary to test the installed camera cable between the camera assembly and the cabinet. The Contractor shall perform the following tests before any connections are made:

1. Perform continuity test on the camera cable. Camera cable must not exhibit any discontinuities such as opens, shorts, crimps, or defects.
2. Perform continuity tests on the stranded conductors element of the camera cable using a meter having a minimum input resistance of 20,000 ohms per volt. Show that each conductor has a resistance of not more than 16 ohms per 300 meters of conductor.
3. Measure the insulation resistance between the conductors and between each conductor, ground, and shielding using a meggar. The resistance must be "infinity". All resistance testing is to be performed after final termination and cable installation, but prior to connection of any electronics or field devices.
4. Should any cable fail to meet these parameters, or should any testing reveal defects in the cable, the Contractor will replace the cable, then retest new cable as specified above.
5. Submit copies of the test results, including any unsuccessful and subsequently successful tests to "The Engineer" prior to any field operations testing.

**Local Field Operations Test:**

The Contractor shall perform the Local Field Operations Test at the CCTV field site, as follows. The Contractor shall test the cameras before the relocation process and after the relocation process, to ensure that the camera performance remains at similar or improved levels. After all camera hardware, power supply, and connecting cabling has been installed, demonstrate the following:

1. Verify physical construction has been completed in accordance with the Contract Documents and specifications.
2. Inspect quality and tightness of ground and surge protector connections.
3. Check power supply voltages and output.
4. Connect devices to power source.
5. Verify the installation of specified cables and connections between camera, pan/tilt unit, camera control receiver, and video/data transmission equipment.
6. Set the camera control address.
7. Verify presence and quality of video image locally with laptop computer (assisted by County technician).

8. Test local operation of all CCTV equipment, by exercising the pan, tilt, zoom, focus, iris opening, and manual iris control selection and operation, low pressure alarm (if present), pre-set positioning, and power on/off functions while observing the video picture on a laptop computer and assisted by a County technician. The County will provide software to the Contractor for testing of the CCTV unit. The Contractor will furnish all other test equipment.
9. Demonstration of camera sensitivity at low light levels to match existing camera performance prior to relocation.
10. Demonstration of pan/tilt speed and extent of movement to match existing camera performance prior to relocation.
11. Measurements of video signal level at the communications interface.
12. Verify proper voltage of power supply.
13. Submit copies of the test results, including any unsuccessful and subsequently successful tests to the Project Engineer prior to any field operations testing.

**Measurement and Payment** – The contract unit price paid per each for Install County-Furnished Closed Circuit Television (CCTV) Cameras includes full compensation for furnishing all labor, materials, tools, equipment, testing, and incidentals, and for doing all work involved in installing county-furnished CCTV cameras, complete in place, as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer.

#### **110-13.18 LABELING REQUIREMENTS**

##### **GENERAL**

All signal conductors, detector lead-in cables, pedestrian sensor cables, APS cables, video and fiber optic cables, connectors, jumper cables and fiber terminations shall be labeled as part of the equipment installation process. Labeling shall consist of phenolic tags on cables and connectors and labels on Fiber Termination Panels and Fiber Termination Units.

##### **Fiber Optic Cable Labeling Requirements**

All fiber optic cables shall be labeled in pull boxes, splice vaults and communications hubs with a cable tag approved by the Project Engineer.

The labels will be an orange weather resistant tag and are required inside every pull box.

The labeling format for County owned cables is:

**Project Name-Expressway-# Strands-Sequential #**  
**Segment Name (for trunk line) or Intersection (for lateral)**  
**Agency Name**  
**Contact Phone #**

The County of Santa Clara will assign the sequential number. The Contractor shall supply labels. For example, the 96-strand fiber optic cable running along the Lawrence Expressway at Bollinger/Moorpark would be labeled as follows:

TOS-Lawrence-96-1  
XXXXXXX  
County of Santa Clara  
(408) 494-2700

### **Intersection Enclosure/Cabinet Labeling Requirements**

- Both ends of the CAT 6 cable connecting each camera to the fiber optic switch.
- Fiber optic cable in the fiber termination panel (FTP). Each FTP port shall be numbered, and a table created showing the port number, assigned fiber strand and a brief description of the port's use (ex. Video to the Hub, Unconnected, etc.). This table shall be placed in the enclosure/cabinet for reference by Santa Clara County maintenance personnel.

**Measurement and Payment** - Full compensation for LABELING REQUIREMENTS shall be considered as included in the prices paid for the various items of Work and no additional compensation will be allowed, therefore.

### **110-13.19 HUB INTEGRATION**

The Contractor shall make all necessary connections to provide a complete and operational system. This includes the installation, connection and testing of all communication equipment as described in Section 110-13.13, "Fiber-Optic Cable" and Section 110-13.46, "Fiber Optic Cable Splice Closures", and the testing described in Section 110-13.20, "System Testing". Specifically, at the Lawrence Hub, the Contractor is responsible for producing video signals from each camera and testing all video and data connections that are to be relocated at the Project Intersections.

**Measurement and Payment** – Full compensation for HUB INTERGRATION including testing all CCTV camera systems and fiber optic cables that are relocated and reconnected as part of this project, ensuring that the systems work properly as they did prior to disconnection/relocation, and for doing all work as shown on the plans, as specified in the Standard Specifications and these Technical Specifications, and as directed by the Engineer, shall be considered as included in the prices paid for the various items of work and no additional compensation will be allowed, therefore.

### **110-13.20 SYSTEM TESTING**

To verify complete system operations the Contractor shall perform a communications subsystem test and system communications test.

#### **Communications Subsystem Test**

The communications subsystem test will verify the intersection to hub communications. This test shall not be conducted until the following conditions are met:

- All field CCTV cameras have been installed and passed their local operations test.
- All fiber optic cable has been installed, spliced, terminated, and tested.
- All intersection to hub communications equipment has been installed and all terminations have been made.

The Contractor shall conduct, pass, and document a test to demonstrate the functionality of the CCTV camera sites, and master controllers from their respective communications hubs. The test shall be performed at the communication hub and shall include the following elements. The test shall be conducted on the output of the fiber switch located in the TOC.

1. Operation of all pan/tilt camera assemblies, i.e., exercising the pan, tilt, zoom, focus, and iris functions, while observing the video picture monitor.
2. Verification of acceptable quality video images, and that video images output from the intersection fiber switch to Hub fiber switch conform to NTSC standards. For the fixed cameras, the test shall be conducted with all cameras at the intersection connected to the fiber switch at the intersection and transmitting video images to the Hub fiber switch. For locations that have master signal controllers, the master controller shall also be connected to the fiber switch at the intersection and two-way data shall be transmitted between the communication hub and the master traffic signal controller during the test.
3. Verification of valid data communications between the communication hub and the master controller. In addition, by using a laptop computer, the Contractor shall poll the master controller. This test shall be conducted while all fixed cameras at the intersection are also connected to the fiber switch at the intersection and transmitting video images. Polling of the master controller shall be conducted for at least 15 minutes with 99.9% valid polls required for acceptance.

The Contractor shall notify the County at least 48 hours prior to conducting the subsystem test. The Contractor shall document results of all tests on forms to be developed by the Contractor. The documentation shall specify the camera or controller tested, the results of the test and any corrective action that was necessary.

### **Communications System Test**

The system communications test will verify the complete system communications from the TOC, through the communications hubs to the field devices. This test shall not be conducted until:

- All field CCTV and PTZ cameras have been installed and passed their local operations test
- All fiber optic cable has been installed, spliced, terminated and tested
- All intersection to hub communications equipment has been installed and all terminations have been made.
- All communications subsystem tests have been successfully completed.



The Contractor shall conduct, pass, and document a test to demonstrate the functionality of the CCTV camera sites, and master controllers from the TOC. All field equipment shall be connected to the communications network and transmitting video/data during the test. The test shall be performed at the TOC and shall include the following elements.

1. Operation of all pan/tilt camera assemblies, i.e., exercising the pan, tilt, zoom, focus, and iris functions, while observing the video picture a monitor. The test shall verify that all commands are received and executed in real-time with no delay that will impact system operations.
2. Verification of acceptable quality video images, and that video images output from the fiber switch at the TOC conform to NTSC standards.
3. Verification of valid data communications between the communication hub and the master controller. In addition, by using a laptop computer, the Contractor shall poll and upload/download data to the master controller. Polling of the master controller or other acceptable method approved by the Engineer shall be conducted for at least 15 minutes with 99.9% valid polls required for acceptance.

The Contractor shall furnish all equipment necessary to conduct the communications subsystem test. The County will provide diagnostic programs for communicating to the master controllers and the pan/tilt CCTV cameras.

The Contractor shall notify the County at least 48 hours prior to conducting the subsystem test. The Contractor shall document results of all tests on forms to be developed by the Contractor. The documentation shall specify the camera or controller tested, the results of the test and any corrective action that was necessary.

**Measurement and Payment** – Full compensation for conforming to this Section shall be considered as included in various contract bid items of work and no separate payment will be made therefor, unless otherwise specified elsewhere in these Special Provisions.

#### **110-13.21 CONTROLLER ASSEMBLIES**

Contractor shall install County-furnished Controller Assemblies as specified on the Project Plans and in Section 86.03, "Controller Assemblies," of the County Standard Specifications (See Amendments dated January 7, 2011). The new Controller Assembly shall be installed at the intersection of Lawrence Expressway and Moorpark Avenue.

**Measurement and Payment** – The contract unit price paid per each for Install County-Furnished Controller Assembly includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in installing new Controller Assembly, complete in place, including foundation, conduit terminations and connection of conductors, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**110-13.22 RELOCATE EXISTING BATTERY BACKUP SYSTEM AND INSTALL NEW FOUNDATION**

Contractor shall relocate existing Battery Backup System and install new foundation as specified on the Project Plans and in Section 86.10, "Battery Backup System," of the County Standard Specifications (See Amendments dated January 7, 2011).

**Measurement and Payment** – The contract unit price paid per each for Relocate Existing Battery Backup System and Install New Foundation includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in relocating existing Battery Backup System, complete in place, including foundation, conduit terminations and connection of conductors, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**110-13.23 PEDESTRIAN SENSORS**

Contractor shall furnish and install pedestrian motion sensors for crosswalk occupancy detection. Sensors shall be MS SEDCO SmartWalk XM or approved equal and meet the following specifications:

Operating Frequency: 24.125 GHz  
Detection Method: Microprocessor analyzed Doppler microwave  
Detection Pattern: Adjustable with cover off  
Detection Angle: Adjustable  
Detection Mode: Selectable: approach only, depart-only or bi-directional motion  
Call Extension Time: 0.1 to 5 seconds  
Power Requirements: 12 to 24 V AC or DC + or – 10%  
Power Consumption: 1W maximum  
Relay Output: Form C, rated at 1 Amp @ 24V DC (N.O. and N.C.)  
Output Power: 5mW typical, 2mW minimum  
Relay Contact Ratings: 0.5A:50V AC-1A:24V DC  
Operating Temperature: -22 degrees F to 158 degrees F  
Physical Dimensions: 4"W x 4"H x 7"L  
Enclosure: Powder coated aluminum  
Weight: 4 lbs.

Two pedestrian motion sensors shall be installed per crosswalk (one at each end) crossing four intersections Lawrence Expressway at Homestead, Lehigh. Bollinger/Moorpark, and Pruneridge. Contractor shall follow manufacturer's installation instructions to complete installation.

Pedestrian Sensors and cabling shall be installed per County standard plan E/54, manufacturer's recommendation, and as directed by the Engineer.

After all pedestrian sensors are installed per the Contract Plan, and equipment is operational, the Contractor shall arrange an interactive session with the project inspector to fine tune the aiming and other settings as recommended by the manufacturer. The Contractor shall make adjustments as directed by the inspector.

The project inspector will continue to observe the operation of the pedestrian sensor while adjustments are made and will direct further adjustments as needed. A representative of the Contractor shall accompany the project inspector during this procedure.

**Measurement and Payment** – The contract unit price paid per each for Pedestrian Sensors includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing, installing, and fine-tuning pedestrian Sensors, complete in place, as shown on the plans, as specified in these Special Provisions, and as directed by the Engineer.

#### **110-13.24 PEDESTRIAN SIGNALS**

Pedestrian signal head shall be furnished and installed as specified on the Project Plans and in Section 86.02.01, "Mobility-Impaired Access Provisions," and Section 86.04.05B, "LED Countdown Pedestrian Signal Module," of the County Standard Specifications (See Amendments dated January 7, 2011).

Where new traffic signal standards are required in the Contract Documents, pedestrian signal heads shall be furnished with LED type. LED pedestrian signal heads shall have a Portland orange "UPRAISED HAND" and lunar white "WALKING PERSON" capable of fitting into the standard Type A signal housing and replacing incandescent lamps, meeting the requirements of GE's Ecolux or approved equal.

**Measurement and Payment** – The contract unit price paid per each for Pedestrian Signals includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing pedestrian signal faces and fittings, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

#### **110-13.25 APS (ACCESSIBLE PEDESTRIAN SIGNALS) PUSH BUTTON**

New APS pedestrian push buttons shall conform to the requirements of section 86.04.04B of the County Standard Specifications, latest MUTCD Section 4E, and these Special Provisions. The placard size for the APS units shall be 9"x12".

Pedestrian push button shall be Campell APS Guardian Wave.

**Measurement and Payment** – The contract unit price paid per each for APS Push Butto includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing pedestrian push buttons, complete in place, including push button sign/plaque with arrow as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

**110-13.26 LOOP DETECTION SYSTEM (IN PAVEMENT)****GENERAL**

Loop Detection System shall conform to Section 86.05, "Detectors," of the County Standard Specifications, County Standard Details Manual, Section 87-1.03V, "Detectors," of the State Standard Specifications, the Contract Plans, and these Special Provisions.

Contractor shall remove and replace any detector loops and/or detector handholes shown on the plans to remain that are removed or damaged by pavement repair operations. For areas that are to be excavated, contractor shall notify USA and County Traffic Electrical and Operations Department to field ID location of existing loop locations prior to any excavation.

Any detector handholes within resurfacing area shall be protected and remain exposed after all pavement repair operations are complete.

Contractor shall furnish and install new detector loops and sensor units as shown in the Contract Documents to supplement stop bar detection and for system loops.

Detector work shall be performed in accordance with the requirements of the applicable County Standard Specifications, County Standard Details, and the Contract Documents. Attention is directed to County Standard Specification 86.05.04 and County Standard Detail E/5A.

The Engineer shall approve new traffic detector loops layout and home runs prior installation.

The Contractor shall test all individual loops and all DLC prior to and after splicing in the presence of the project Inspector. The Contractor shall test loop sensitivity with either an approved lightweight motorcycle or an Engineer-approved wind wand.

New detector sensor units shall conform to the requirements of Section 86.05.01 of the County Standard Specifications except units shall be 4-channel units. At all locations, new one-slot detector units shall be installed in existing detector racks and shall be fully compatible with existing equipment. Where racks do not contain adequate slots for the new units, existing 2-channel units shall be replaced with new 4-channel units.

**INDUCTIVE VEHICLE LOOPS**

All new detector loops shall be Type B per Caltrans Revised Standard Plan RSP ES-5B except for loops closest to the stop bar. All new stop bar loops shall be Caltrans Type D per the Caltrans Revised Standard Plan RSP ES-5B.

The installation of inductive loops shall conform to Section 86.05.04, "Detector Loop Installation," of the County Standard Specifications and Standard Detail E/5A of the County Standard Details Manual.

Residue resulting from slot cutting operations shall not be permitted to flow across shoulders or lanes opened to public traffic. It shall be contained by an approved method during the slot cutting operation and

removed immediately upon completion of the cutting operations. Discharge of the residue into the storm drainage system is not permitted.

Detector loop conductor shall be Type 2 loop wire. Lead-in cable shall be Type B. Detector handholes shall be Type A.

The Engineer shall approve new traffic and bike detector loops layout and home runs prior to installation. Where pavement markings for stop bar/crosswalk and lane stripes are relocated or obliterated, County Survey will identify and mark the center points of the inductive loops and centerlines of the stop bar and lane/shoulder stripes. County Signal Inspector will verify and approve the marked locations of these facilities prior to loop cutting of pavement by Contractor.

The Contractor shall test all individual loops prior to and after splicing in the presence of the County Inspector. The Contractor shall test loop sensitivity with either an approved lightweight motorcycle or an Engineer-approved wind wand.

Any existing defective loop replacement as approved by the Engineer shall be done as extra work. Replacement of loop performed by the Contractor without meeting the requirements as specified in this section or due to damage by the Contractor's operation shall be at Contractor's expense.

### **INDUCTIVE BICYCLE LOOPS**

All inductive bicycle loops shall be modified Caltrans Type D (3' x 3') loops.

The Engineer shall approve new bicycle detector loop layouts and home runs prior to installation. The Contractor shall work with the County Signal Inspector to verify the locations of existing vehicle loops and homeruns. This will help to prevent damage to existing loops when saw cutting for new bicycle loops is taking place.

Residue resulting from slot cutting operations shall not be permitted to flow across shoulders or lanes opened to public traffic. It shall be contained by an approved method during the slot cutting operation and removed immediately upon completion of the cutting operations. Discharge of the residue into the storm drainage system is not permitted.

New detector cards shall conform to the requirements of Section 86.05.01 of the County Standard Specifications except they shall be 4-channel units.

### **DETECTOR HANDHOLES**

Detector handholes shall conform to Standard Detail E/5A of the County Standard Details Manual and shall be located as indicated on the project plans.

**DETECTOR LOOP CONDUCTORS AND LEAD-IN CABLE**

Detector loop conductors and lead-in cables shall conform to Section 86.05.03, "Detector Loop Materials," of the County Standard Specifications and the following:

- Detector loop conductors shall have the required information per NEC, Article 310-11 marked on the surface of the conductor insulating jacket. The identification on the tubing is optional.
- Detector lead-in cable shall be labeled and terminated inside the controller cabinet.

Where existing loops require new DLC, the Contractor shall test all existing loops individually and all DLCs prior to disconnecting in the presence of the Project Inspector with method approved by the Project Engineer. The Contractor shall test loop sensitivity with either an approved lightweight motorcycle or an Engineer-approved wind wand. If existing loops and/or DLCs are found defective, the Project Engineer shall be notified for a corrective action. Existing DLC will be used where it tests as serviceable.

If no additional DLC is required in existing conduit runs, the Contractor shall test the existing DLC in the presence of the Project Inspector. If the test shows the DLC to be acceptable, they must be re-used.

All new DLCs shall be Type "B" and loop wires shall be Type 2.

**Measurement and Payment** – The contract unit price paid per each for Detector Loop (6x6), Bike Detector Loop (3x3), and Detector Handhole includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in furnishing and installing detector loops and handholes, complete in place, including detector sensor units, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

Detector lead-in cable shall be considered as included in the lump sum price for Conductors and Wiring, and no additional payment shall be allowed therefor.

**110-13.27 ABANDONING, REMOVING, REINSTALLING AND/OR SALVAGING ELECTRICAL EQUIPMENT**

Work pertaining to this section shall conform to Section 86.07, "Removing, Reinstalling or Salvaging Signal/Electrical Equipment and Facilities," of the County Standard Specifications as amended by the following:

- Equipment specified for removal and reuse shall be maintained and stored by the Contractor. Any damage to the equipment shall be repaired or replaced by the Contractor at no additional cost to the County.

The Contractor shall deliver the Salvaged materials to the following locations for storage. Contractor shall notify TOC 48 hours in advance of the delivery date.

**Santa Clara County TOC  
1505 Schallenberger Road  
San Jose, CA 95131**

**Measurement and Payment** – The contract lump sum price paid for ABANDONING, REMOVING, REINSTALLING AND/OR SALVAGING ELECTRICAL/SIGNAL EQUIPMENT includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in abandoning, removing, reinstalling and/or salvaging electrical/signal equipment, which includes removing existing detector handholes, complete in place, as shown on the plans, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer.

#### **110-13.28 COUNTY-FURNISHED MATERIALS**

County-furnished materials shall conform to Section 86.09 “County-furnished Materials & Equipment” of County Standard Specifications and these Technical Specifications. Installation will be as per plans and as detailed in these Special Provisions.

Miscellaneous hardware, such as spade connectors, electrical tape, and cable ties required to complete the installation will be supplied by the contractor as part of cost of installations.

The Contractor shall pick up all County-furnished equipment at the County of Santa Clara's East Yard located at **1505 Schallenberger Road, San Jose, California 95131**. Unless otherwise specified elsewhere in these Technical Specifications, Contractor shall provide a minimum 3-day advance notice prior to the pickup date. The following equipment will be furnished by the County in accordance to Section 86.09 of the County Standard Specifications.

The Contractor shall sign a receipt, listing all material furnished by the County. All material provided by the County shall be transported, and stored, if necessary, with care appropriate for microprocessor electronic equipment. It shall be the Contractor's responsibility to inspect, examine, assemble, and perform protest for all material furnished by the County. It shall be the Contractors responsibility from the time of pick up until the new equipment is in operation according to plan, to repair or replace any material damaged during delivery or during installations.

#### **The following materials will be furnished by the County:**

- One (1) Fully Loaded Type P controller cabinet assemblies with anchor bolts
- 12 Pelco CCTV Cameras
- Anchor bolts for relocated BBS unit cabinet

The Contractor shall assume full responsibility for County furnished materials once it has been picked-up. The Contractor shall thoroughly inspect all the materials before handling and confirm that all items are received in good condition and note, in writing, any damage on the bill of lading. Testing of County furnished equipment prior to taking possession will be permitted at the Contractor's option.

**Measurement and Payment** - Full compensation for conforming to the provisions of this section will be considered as included in the prices paid for the various items of work to install, complete in place, which shall include transportation from the pickup source to the locations, storage, all miscellaneous electrical hardware, tools, and work incidental thereto, and no additional compensation will be allowed, therefore.

#### 110-13.29 LABELING

All conductors and cables in pull boxes and cabinets are to be tagged and labeled in accordance with the requirements per E/44 of the County Standard Details Manual for new installation or modification to existing wiring.

**Measurement and Payment** - Full compensation for this Work shall be considered as included in the Contract price for Wiring as indicated on the Bid Schedule, and no additional compensation will be allowed, therefore.

#### 110-14 BRIDGE PREVENTIVE MAINTENANCE PROGRAM (LAWRENCE EXPRESSWAY)

Bridge Preventive Maintenance Program (BPMP) on Lawrence Expressway shall conform to applicable sections of the County Standard Specifications, County Standard Details Manual, the 2023 State Standard Specifications and Plans, the details shown on the Project Plans, and these Project Special Provisions.

This BPMP shall be applied on Lawrence Expressway Bridge (County Bridge number 37C0154 only).

Contractor shall submit the BPMP quantities, payment request, invoices, etc. separately from the rest of the project.

##### 110-14.01 GENERAL CONSTRUCTION

Work activities under the bridge must occur between sunrise and 10 p.m.

The County places stakes and marks under Chapter 12, "Construction Surveys," of the Caltrans Survey Manual. County's construction surveys are restricted to establishing "control stakes" only for basic line and grade for the project construction. Contractor must use their own resources to set working stakes from the control stakes. Preserve stakes and marks placed by the County. If the stakes or marks are destroyed, the County replaces them at the County's earliest convenience and deducts the cost from any monies due to or become due to the Contractor. Contractor will not be allowed any adjustment in contract time for such verification or replacement of survey control points by the Engineer.

##### 110-14.02 REMOVE EXISTING ASPHALT CONCRETE ON BRIDGE DECK

This work shall conform to State Standard Specifications Section 60-3.02, details shown on the plans, and these special provisions.



**110-14.03 PREPARE CONCRETE BRIDGE DECK SURFACE**

This work shall consist of cleaning and preparing the portland cement concrete bridge deck surface as shown on the plans and as specified in these special provisions. This work includes abrasive blast cleaning the concrete deck surface with steel shot and blowing the deck surface clean and sawcut and clean at deck joints for repair of concrete spalls and deck treatment using methacrylate resin.

Replate State Standard Specification, Section 60-3-04(1)(d), 4<sup>th</sup> paragraph, with:  
The Contractor shall perform friction testing of the trial overlay under California Test 342.

**Measurement and Payments:**

Full compensation for Prepare Concrete Bridge Deck Surface shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in cleaning and preparing the concrete bridge deck surface including removing contrast treatment except slurry or chip seal contrast treatment, complete in place, as shown on the plans, and as specified in these special provisions, and as directed by the Project Engineer. Friction testing of the trial overlay will be paid part of the bridge deck surface preparation bid item.

**110-14.04 SPALL REPAIR (RAPID-SETTING CONCRETE)**

Spall Repair shall conform to Section 60, "Existing Structures" of the State Standard Specification, the project plans and these Special provisions.

Contractors shall notify Engineer in advance for all concrete spalling and epoxy injection work limit. Work limit shall be approved by Project Engineer prior starting the work.

**110-14.05 METHACRYLATE RESIN BRIDGE DECK TREATMENT**

This work shall conform to Section 60, "Existing Structures" of the State Standard Specification, the project plans and these Special provisions.

**Replace the 4th and 6th paragraphs of State Standard Specification, section 60-3.03B(1)(d) with:**

Test the test area and the final bridge deck surfaces for coefficient of friction using Caltrans Test method.

Coefficient of friction test shall be done by independent firm approved by the County.

Submit test results for approval by the Engineer.

**Add to State Standard Specification, section 60-3.03B(4):**

Payment for testing roadway surfaces for smoothness and coefficient of friction is included in the contract price paid for furnishing and installing methacrylate resin.

**110-14.06 POLYESTER CONCRETE OVERLAY**

This work shall conform to Section 60, "Existing Structures" of the State Standard Specification, the project plans and these Special provisions.

**Replace the 4th and 6th paragraphs of State Standard Specification, section 60-3.04B(1)(d) with:**

Test the test area and the final bridge deck surfaces for smoothness and coefficient of friction using Caltrans Test method. Coefficient of friction test shall be done by independent firm approved by the County.

Submit test results for approval by the Engineer.

**Replace the 1st paragraph of of State Standard Specification, section 51-1.01D(3)(b)(ii) with:**

Test the surface smoothness of the following in the presence of the Engineer:

1. Completed roadway surfaces of structures and approach slabs and the adjacent 50 feet of approach pavement
2. Surfaces of concrete decks to be covered with another material

**Add to State Standard Specification, section 60-3.04B(4):**

Payment for testing roadway surfaces for smoothness and coefficient of friction is included in the contract price paid for furnishing and installing polyester concrete.

**110-14.07 JOINT SEAL TYPE B**

Joints in concrete bridge decks must be sealed in conformance with the details shown on the plans, the provisions in Section 51, "Concrete Structures," of the State Standard Specifications, and these special provisions.

Saw cutting of grooves will not be required at existing joints that are to be sealed with Type B joint seal unless ordered by the Project Engineer. The Contractor must make saw cuts as ordered by the Project Engineer. Saw cutting prior to installation of Type B joint seals shall be required to provide a clean edge.

**Measurement and Payment:**

The contract price paid per linear foot for "Sealing Joint (Type B)" for Type A or Type B shall include full compensation for furnishing all labor, materials, saw cutting, tools, equipment, and incidentals and for doing all the work involved in sealing joints, complete in place, as shown on the plans, as specified in the State Standard Specifications and these special provisions.

**110-14.08 STENCIL BRIDGE IDENTIFICATION**

The bridge number shall be painted on the bridge BARRIER or APPROACH SIDE as shown in the plans. This bridge identification information should be in a place visible to traffic from the roadway at both the upper and lower levels of traffic. At the upper level, it shall be painted on the bridge barrier near the paving notch to the

right of approaching traffic on both ends of the structure. At the lower level, if required, it shall be painted on a column or wingwall to the right of approaching traffic.

Bridge ID shall read:

LAWRENCE EXPRESSWAY  
37C0154  
1966

Letters = 3" Tall, Approx. 1-1/2" wide, with about 3/4" spacing between end of letter to start of next letter.  
Word spacing is approx.. 2-1/2"

**Measurement and Payments:**

Stencil bridge identification will be measured and paid for by each item.

The contract price paid per each for Paint bridge identification includes furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in painting bridge identification as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

**110-15 SUPPLEMENTAL WORK**

Supplemental Work shall be as defined in Section 1.02, "Definitions", and shall comply with Section 4.07, "Extra Work", of the County Standard Specifications.

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## SECTION 111 – BID FORMS

# BID FORMS

Bid Form No.:	Title
1	Bid Proposal
2A	Certification Of Subcontracting Limitations And Designation Of Subcontractors
2B	Certification Of Subcontracting Limitations And Designation Of Subcontractors
3	Statement Regarding Violation of Law Or Safety Regulation
4	Designation of Insurance And Bonding Companies
5	Equal Opportunity Requirements
6	Non-Collusion Affidavit
7	Stop Notice Information
8	Bidder's Bond

**PLEASE NOTE:** These forms are designed to contain essential information concerning the Bidder and the Bid, and must be completed such that they can be read. If any of the completed forms are illegible, the County may, at its option, declare the entire bid unresponsive. **PLEASE PRINT LEGIBLY.**

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**BID FORM 1 - BID PROPOSAL****FROM:**

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

MAILING ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

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

EMAIL ADDRESS: \_\_\_\_\_

(Provide email address and name of person to contact regarding bids)

TO: The County of Santa Clara, herein called Owner:

1. Pursuant to and in compliance with the Notice to Bidders and the Contract Documents relating to  
**Lawrence Expressway Pavement Rehabilitation Project Between Quito Rd and Homestead Rd**

the undersigned Bidder, having become thoroughly familiar with the terms and conditions of the Contract Documents and with the local conditions affecting the performance and the costs of the Work at the place where the Work is to be done and having fully inspected the Work site in all particulars, hereby proposes and agrees to fully perform the Work within the Contract time stated and in strict accordance with the Contract Documents, including providing any and all labor and materials, and performing all the Work required to construct and to complete said Work in accordance with the requirements of the Contract Documents for the following sum of money as indicated on the Schedule of Quantities and Prices, Total Base Bid Price (Sum of Bid Items 1 through 41 Inclusive).

2. Accompanying this Bid Proposal is \_\_\_\_\_ (insert word "cash," "cashier's check," "certified check," or "Bidder's Bond" as the case may be) an amount equal to at least ten percent (10%) of the total of the Bid including all Additive and Alternative Items. A Total Dollar Value of \$\_\_\_\_\_

3. **ADDENDA**

☐ No Addenda received.

☐ Addenda received as listed below:

Acknowledged receipt of each Addendum must be included with the Bid. Failure to acknowledge receipt of all Addenda may cause the Bid to be considered non-responsive.

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

## 4. BID SCHEDULE

CONTRACTOR'S NAME:							
Bid Item No. (F/S)	REF	Bid Item Description	Quantity	Units	Unit Price	Bid Item Total	
1		110-12.02 MOBILIZATION	1	LS			
2		110-05 PROGRESS SCHEDULE(CRITICAL PATH METHOD)	1	LS			
3	S	110-06.01 TRAFFIC CONTROL SYSTEMS	1	LS			
4		110-06.01 CONSTRUCTION AREA SIGNS	1	LS			
5		110-06.01 TEMPORARY STRIPING AND PAVEMENT MARKING	1	LS			
6		110-06.02 TEMPORARY PEDESTRIAN ACCESS ROUTE	1	LS			
7		110-06.03 PORTABLE CHANGEABLE MESSAGE SIGN	4	EA			
8		110-06.08 PROJECT INFORMATION SIGN	2	EA			
9		110-07.01 PREPARE ESCAPE	1	LS			
10		110-07.01 TEMPORARY DRAINAGE INLET PROTECTION	52	EA			
11		110-07.02 JOB SITE MANAGEMENT	1	LS			
12		110-12.08.01 STREET SWEEPING	1	LS			
13		110-10.01 CONTRACTOR-SUPPLIED BIOLOGIST	1	LS			
14		110-10.02 CONTRACTOR-SUPPLIED ARBORIST	1	LS			
15	S	110-11.01 LEAD COMPLIANCE PLAN	1	LS			
16		110-11.03 TREATED WOOD WASTE	19600	LB			
17		110-12.06 POTHOLING	30	EA			
18		110-12.09 CLEARING AND GRUBBING (LS)	1	LS			
19		110-12.10 TRAFFIC STRIPING REMOVAL	1	LS			
20		110-12.11 REMOVE TREE	9	EA			
21		110-12.12 REMOVE ROADSIDE SIGN	293	EA			
22		110-12.13 RELOCATE ROADSIDE SIGN	2	EA			
23		110-12.14 REMOVE ASPHALT CONCRETE PAVEMENT (CY)	132	CUYD			
24		110-12.14 REMOVE ASPHALT CONCRETE DIKE	44	LF			
25		110-12.14 REMOVE ASPHALT CONCRETE WALKWAY	50	SQYD			
26		110-12.15 REMOVE CONCRETE CURB (LF)	2,171	LF			
27		110-12.15 REMOVE CONCRETE (CURB AND GUTTER)	1,500	LF			
28		110-12.15 REMOVE CONCRETE (VALLEY GUTTER)	24	LF			
29		110-12.15 REMOVE CONCRETE (APRON)	180	SQFT			
30		110-12.15 REMOVE CONCRETE SIDEWALK (SQYD)	85	SQYD			
31		110-12.15 REMOVE CONCRETE ISLAND (PORTIONS) (SQYD)	59	SQYD			
32		110-12.16 COLD PLANE ASPHALT CONCRETE CONFORMS	58,366	SQYD			
33		110-12.17 RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	23,524	TON			
34		110-12.18 MINOR HOT MIX ASPHALT	180	TON			
35		110-12.18 HOT MIX ASPHALT CONCRETE DIKE (TYPE A)	35	LF			
36		110-12.19 TACK COAT	102	TON			
37		110-12.20 COLD IN-PLACE RECYCLING (CIR)	346,502	SQYD			
38		110-12.22 MINOR CONCRETE (CURB) (LF)	525	LF			
39		110-12.22 MINOR CONCRETE (CURB AND GUTTER) (LF)	1,085	LF			
40		110-12.22 MINOR CONCRETE (VALLEY GUTTER) (LF)	24	LF			

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CONTRACTOR'S NAME:							
Bid Item No. (F/S)	REF	Bid Item Description	Quantity	Units	Unit Price	Bid Item Total	
41		110-12.22 MINOR CONCRETE (ISLAND PAVING) (SQFT)	135	SQFT			
42		110-12.22 MINOR CONCRETE (SIDEWALK) (SQFT)	1,039	SQFT			
43		110-12.22 MINOR CONCRETE (CURB RAMP) (SQFT)	1,650	SQFT			
44		110-12.22 MINOR CONCRETE (APRON) (SQFT)	180	SQFT			
45		110-12.22 MINOR CONCRETE (VEGETATION CONTROL) (SQFT)	134	SQFT			
46		110-12.22 MINOR CONCRETE (6" SLAB) (SQFT)	36	SQFT			
47		110-12.23 RETROFIT ISLAND PASSTHROUGH	34	EA			
48		110-12.23 ADJUST EXISTING MANHOLE TO GRADE	24	EA			
49		110-12.23 ADJUST EXISTING VALVES & COVERS TO GRADE	11	EA			
50		110-12.24 ADJUST EXISTING MONUMENTS TO GRADE	7	EA			
51		110-12.25 CHAIN LINK FENCE (TYPE CL-4)	197	LF			
52		110-12.26 DELINEATOR (CLASS 1)	8	EA			
53		110-12.27 GUARD RAILING DELINEATOR	24	EA			
54		110-12.28 CONCRETE BARRIER DELINEATOR	23	EA			
55		110-12.29 PAVEMENT MARKER (RETROREFLECTIVE)	3,744	EA			
56		110-12.30 OBJECT MARKER (TYPE P)	7	EA			
57		110-12.31 CONCRETE BARRIER MARKER	77	EA			
58		110-12.32 ROADSIDE SIGN	313	EA			
59		110-12.33 REMOVE GUARDRAIL	2,363	LF			
60		110-12.34 SALVAGE CRASH CUSHION	1	EA			
61		110-12.35 REMOVE CRASH CUSHION	1	EA			
62		110-12.35 REMOVE CRASH CUSHION (SAND FILLED)	1	EA			
63		110-12.36 MIDWEST GUARDRAIL SYSTEM (STEEL POST)	2,094	LF			
64		110-12.36 MIDWEST GUARDRAIL SYSTEM (8' STEEL POST)	1,231	LF			
65		110-12.36 DOUBLE MIDWEST GUARDRAIL SYSTEM (STEEL POST)	81	LF			
66		110-12.37 TRANSITION RAILING (TYPE AGT)	6	EA			
67		110-12.38 END ANCHOR ASSEMBLY (TYPE SFT-M)	3	EA			
68		110-12.39 RAIL TENSIONING ASSEMBLY	1	EA			
69		110-12.40 ALTERNATIVE IN-LINE TERMINAL SYSTEM	5	EA			
70		110-12.41 ALTERNATIVE MEDIAN TERMINAL SYSTEM	1	EA			
71		110-12.43 ALTERNATIVE CRASH CUSHION	3	EA			
72		110-12.44 CRASH CUSHION, SAND FILLED	3	EA			
73		110-12.45 CONCRETE BARRIER (TYPE 60MS)	3,211	LF			
74		110-12.45 CONCRETE BARRIER (TYPE 60MGF Mod)	294	LF			
75		110-12.45 CONCRETE BARRIER (TYPE 60SD Mod)	36	LF			
76		110-12.46 CONCRETE BARRIER TRANSITION	45	LF			
77	S	110-12.47 THERMOPLASTIC PAVEMENT STRIPE - Detail 40	2,482	LF			
78	S	110-12.47 THERMOPLASTIC PAVEMENT STRIPE - Detail 12	76,689	LF			
79	S	110-12.47 THERMOPLASTIC PAVEMENT STRIPE - Detail 22	489	LF			
80	S	110-12.47 THERMOPLASTIC PAVEMENT STRIPE - Detail 25	36,000	LF			

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<b>CONTRACTOR'S NAME:</b>							
<b>Bid Item No. (F/S)</b>		<b>REF</b>	<b>Bid Item Description</b>	<b>Quantity</b>	<b>Units</b>	<b>Unit Price</b>	<b>Bid Item Total</b>
81	S	110-12.47	THERMOPLASTIC PAVEMENT STRIPE - Detail 37B	2,100	LF		
82	S	110-12.47	THERMOPLASTIC PAVEMENT STRIPE - Detail 38	20,600	LF		
83	S	110-12.47	THERMOPLASTIC PAVEMENT STRIPE - Detail 39	36,400	LF		
84	S	110-12.47	THERMOPLASTIC PAVEMENT STRIPE - Detail 39A	3,600	LF		
85	S	110-12.48	THERMOPLASTIC PAVEMENT MARKING	24,000	SQFT		
86	S	110-12.48	BIKE LANE GREEN PAVEMENT MARKING	3,000	SQFT		
87	S	110-12.49	PAINT EXISTING CURB - YELLOW	40	SQFT		
88	S	110-12.49	PAINT EXISTING CURB - WHITE	200	SQFT		
89		110-13.04	FURNISH & INSTALL TEMPORARY VIDEO DETECTION SYSTEM	1	LS		
90	S	110-13.09	CONDUIT (4-3" Schedule 80 HDPE bundle)	475	LF		
91	S	110-13.09	CONDUIT (3-3" Schedule 80 HDPE bundle)	135	LF		
92	S	110-13.09	CONDUIT (3" Schedule 80 HDPE)	2,060	LF		
93	S	110-13.09	CONDUIT (2" Schedule 80 HDPE)	160	LF		
94	S	110-13.11	PULL BOX (#5)	25	EA		
95	S	110-13.11	PULL BOX (#6)	4	EA		
96	S	110-13.11	PULL BOX (N40E)	4	EA		
97	S	110-13.12	WIRING	1	LS		
98	S	110-13.17	INSTALL COUNTY-FURNISHED(ICF) CCTV CAMERA	12	EA		
99	S	110-13.23	PEDESTRIAN SENSOR	30	EA		
100	S	110-13.26	INDUCTIVE TRAFFIC LOOPS, VEHICLE	479	EA		
101	S	110-13.26	INDUCTIVE TRAFFIC LOOPS, BICYCLE	29	EA		
102	S	110-13.26	DETECTOR HANDHOLES	93	EA		
103	S	110-13.25	APS PPB	6	EA		
104	S	110-13.08	1-B POLE WITH FOUNDATION	1	EA		
105	S	110-13.08	PPB POST	1	EA		
106	S	110-13.21	ICF CONTROLLER ASSEMBLY WITH FOUNDATION	1	EA		
107	S	110-13.22	REPLACE BATTERY BACK UP SYSTEM	1	EA		
108	S	110-13.16	TYPE III-AF SERVICE ENCLOSURE & EQUIPMENT	1	EA		
109	S	110-13.13	FIBER OPTIC CABLE	1	LS		
110	S	110-13.14	FIBER OPTIC CABLE SPLICE ENCLOSURE	1	EA		
111	S	110-13.27	ABANDONING, REMOVING, REINSTALLING AND/OR SALVAGING ELECTRICAL/SIGNAL EQUIPMENT	1	LS		
112		110-15	SUPPLEMENTAL WORK	1,448,000	EA	\$1.00	
<b>BRIDGE PREVENTIVE MAINTENACE PROGRAM (BPMP)</b>							
113		110-06.01	CONSTRUCTION AREA SIGNS	1	LS		
114		110-06.01	TRAFFIC CONTROL SYSTEM	1	LS		
115		110-06.03	PORTABLE CHANGEABLE MESSAGE SIGN	2	EA		
116		110-07.01	EROSION AND SEDIMENT CONTROL PLAN ELEMENT (ESCAPE)	1	LS		
117		110-12.02	MOBILIZATION	1	LS		
118		110-11.01	LEAD COMPLIANCE PLAN	1	LS		

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CONTRACTOR'S NAME:							
Bid Item No. (F/S)	REF	Bid Item Description	Quantity	Units	Unit Price	Bid Item Total	
119		110-12.09 CLEARING AND GRUBBING	1	LS			
120		110-12.10 TRAFFIC STRIPING REMOVAL	1	LS			
121	S	110-12.29 PAVEMENT MARKER (RETROREFLECTIVE)	102	EA			
122	S	110-12.47 THERMOPLASTIC PAVEMENT STRIPE (WHITE)	2250	LF			
123	S	110-12.47 THERMOPLASTIC PAVEMENT STRIPE (YELLOW)	750	LF			
124	S	110-12.48 THERMOPLASTIC PAVEMENT MARKING (CALTRANS TYPE VI ARROW)	42	SF			
125	S	110-12.48 THERMOPLASTIC PAVEMENT MARKING (CALTRANS TYPE III(L) ARROW)	84	SF			
126		110-14.03 PREPARE CONCRETE BRIDGE DECK SURFACE	33750	SF			
127		110-14.04 BRIDGE DECK METHACRYLATE RESIN TREATMENT	33750	SF			
128		110-14.05 FURNISH BRIDGE DECK TREATMENT MATERIAL	422	GAL			
129		110-14.07 JOINT SEAL TYPE B	475	LF			
130		110-14.09 SPALL REPAIR (FAST SETTING CONCRETE)	337.5	SF			
131		110-14.02 REMOVAL ASPHALT CONCRETE PAVEMENT (ON BRIDGE DECK)	4410	SF			
132		110-14.06 FURNISH POLYESTER CONCRETE OVERLAY	5625	CF			
133		110-14.06 PLACE POLYESTER CONCRETE OVERLAY (BRIDGE DECK)	33750	SF			
134		110-14.08 STENCIL BRIDGE IDENTIFICATION	2	EA			
135		110-14 REPLACE DAMAGED CHAIN LINK FENCE	10	LF			
136		110-14 VERTICAL CLEARANCE SIGN	2	EA			
137		110-14 INJECT CRACK (EPOXY)	100	LF			
138		110-12.20 COLD IN-PLACE RECYCLING (CIR)	2000	SQYD			
139		110-12.16 COLD PLANE ASPHALT CONCRETE CONFORMS	400	SQYD			
140		110-12.17 RUBBERIZED HOT MIX ASPHALT (GAP GRADED)	350	TON			
141		110-15 SUPPLEMENTAL WORK (BPMP)	208,000	EA	\$1.00		

<b>TOTAL CONTRACT PRICE FOR ITEMS 1 THROUGH 141 ABOVE:</b>	<b>\$</b>
Write In Total Amount in Words Above	

NOTES: When shown, (F) denotes "Final Pay Quantity Item" and (S) denotes "Specialty Item."

5. The names of all persons interested in the foregoing Bid as principals are as follows:

## NOTES:

- If Bidder or other interested person is a corporation, state legal name of corporation, the State where incorporated, and names of the president and secretary thereof;
- If a partnership, state name of the firm, and names of all individual partners composing firm;
- If Bidder or other interested person is an individual, state first and last names in full.

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6. California Contractor's license number is: \_\_\_\_\_ Expiration date: \_\_\_\_\_  
Class: \_\_\_\_\_

## NOTES:

- If Bidder is a corporation, the legal name of the corporation shall be set forth below together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation;
- If Bidder is a partnership, the name of the firm shall be set forth below together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and
- If Bidder is an individual, the Bidder shall sign below.

<b>BIDDER'S SIGNATURE:</b> _____	<b>DATE:</b> _____
<b>BIDDER'S NAME (PRINT):</b> _____	
<b>TITLE (PRINT):</b> _____	

## BASIS FOR AWARD OF CONTRACT

1. A Contract, without additive and/or deductive Bid items, will be awarded to the "Responsible bidder" submitting the lowest responsive Base Bid (as may be corrected in accordance with paragraph 5 below). For a contract using additive and/or deductive Bid items, Public Contract Code section 20103.8 prescribes how additive and/or deductive Bid items are to be considered in awarding a public contract. Absent a statement in this section stating how additive and/or deductive items are to be considered, pursuant to Public Contract Code section 20103.8, the lowest bid shall be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items. In the event of tie bids, the Bid that was submitted earlier, as reflected by the date and time stamp affixed to the Bid at the time of its submission, will be selected.
2. "Responsible bidder" (per Public Contract Code section 1103) is a bidder who has demonstrated the attribute of trustworthiness, as well as quality, fitness, capacity, and experience to satisfactorily perform the public works contract.
3. Owner reserves the right to reject this Bid (see Section 100-10, "Bid Acceptance/Rejection", of these Special Provisions). This Bid shall remain open and shall not be withdrawn for a period of sixty (60) days from the date prescribed for its opening.
4. If written notice of the acceptance of this Bid is mailed or delivered personally to the Bidder within sixty (60) days after the date set for the opening of this Bid, or at any time thereafter before it is withdrawn, the undersigned Bidder shall execute and deliver the Agreement contained in the Contract Documents to Owner in accordance with this Bid as accepted. The Bidder shall also furnish and deliver to Owner the Performance Bond, Payment Bond for Public Works as specified, Contractor's Certification of Worker's Compensation, and proof of insurance coverages as required by these Special Provisions, all within twenty (20) days after the date of the Notice of Award. The contract Bonds and Insurance shall be satisfactory to, and on the forms approved by Owner. Notice of Award and requests for additional information will be addressed to the Bidder at the address set forth above.
5. Wherever in this Bid Proposal an amount is stated in both words and figures, in case of discrepancy between words and figures, the words shall prevail. If all or any portion of this Bid Proposal is required to be given in unit prices and totals and a discrepancy exists between any such unit prices and totals so given, **the unit prices shall prevail** in computing the extensions for the totals shown on the Bid Schedule, and for purposes of computation of payments for increased or decreased quantities of actual authorized work performed in the completion of the Contract. If the Bid Proposal contains an arithmetical error in the computation of unit price extensions (summation of bid item totals), **Owner will correct and revise the total Base Bid price accordingly. Owner will not make any changes in the totals shown on the Bid Schedule for "lump sum."**

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### BID FORM 2A - CERTIFICATION OF SUBCONTRACTING LIMITATIONS & DESIGNATION OF SUBCONTRACTORS

Pursuant to the California Subletting and Subcontracting Fair Practices Act, Public Contract Code sections 4100 *et seq.* ("Subcontractor Listing Law"), **Bidder shall completely fill in the form on the next page (Bid Form 2B) for each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work in an amount in excess of one-half of one percent of the prime contractor's total bid**, or in the case of bids or offers for construction of streets or highways, including bridges, in excess of one-half of one percent of the prime contractor's total bid or ten thousand dollars (\$10,000.00), whichever is greater.

If more than one subcontractor is listed for the same kind of Work, state the portion of Work each subcontractor will perform. If a bidder fails to specify a subcontractor as required hereunder or if a bidder specifies more than one subcontractor for the same portion of work, the bidder agrees that bidder shall, and is fully qualified to, perform that portion of the work itself. "Subcontractor" means a contractor, within the meaning of Business and Professions Code section 7026, who contracts directly with the Bidder, performing work or labor or render service to the Bidder.

Failure to list required information may result in bid determined to be non-responsive. Bidder shall list all Subcontractors, their Place of Business (physical address), California contractor's license number issued by the Contractors State License Board, California Department of Industrial Relations Contractor's Registration Number (DIR), and Description, Bid Item Numbers, and Dollar values of the subcontractor(s)' Work. "Specialty" Item of Work subcontractors shall be so designated.

Contractor hereby certifies that it shall perform with its own organization Contract Work amounting to **not less than 50%** of the original total Contract price, excluding the Supplemental Work allowance and any designated "Specialty Item," (\*) both of which may be deducted from the original Contract price before computing the amount of Work required to be performed by the Contractor with its own organization. Bidder's failure to list a subcontractor for any portion of the Work in excess of one-half of one percent of Bidder's total Base Bid signifies that Bidder will self-perform that portion of the Work with its own forces.

<b>BIDDER:</b> _____	<b>BIDDER'S DIR #:</b> _____
<b>BIDDER'S SIGNATURE:</b> _____	<b>DATE:</b> _____
<b>BIDDER'S NAME (PRINT):</b> _____	
<b>TITLE (PRINT):</b> _____	

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**BID FORM 2B - CERTIFICATION OF SUBCONTRACTING LIMITATIONS & DESIGNATION OF SUBCONTRACTORS**

Subcontractor's Name, Business Address, CA Contractor's License Number, and DIR Registration Number, and Email Address	Bid Item Number And description	Specialty Item of work (Yes/No)	Percentage and Dollar Value of portion of work per bid item
Company Name:  Business Address:  License Number: DIR Number: Email:			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
Company Name:  Business Address:  License Number: DIR Number: Email:			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
Company Name:  Business Address:  License Number: DIR Number: Email:			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
			% /\$
			% /\$

BIDDER'S SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

BIDDER'S NAME (PRINT): \_\_\_\_\_

TITLE (PRINT): \_\_\_\_\_

**NOTE:** 1. To list additional Subcontractors, submit completed copies of this Bid Form 2B as needed; fill in the number of additional pages in the space provided: **This Bid Package includes \_\_\_\_\_ page(s) of Bid Form 2B**

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**BID FORM 3 - STATEMENT REGARDING VIOLATION OF LAW OR SAFETY REGULATION**

Has the Bidder, or any officer of the Bidder, or any employee of the Bidder, who may have 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 safety regulation:

YES \_\_\_\_\_ NO \_\_\_\_\_

If your answer is YES, explain the circumstances.

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

A Bid may be rejected on the basis of a Bidder, any officer of such Bidder, or any employee of such Bidder who has a proprietary interest in such Bidder, having been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local project because of a violation of law or a safety regulation.

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

**BIDDER'S SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**BIDDER'S NAME (PRINT):** \_\_\_\_\_

**TITLE (PRINT):** \_\_\_\_\_

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**BID FORM 4 - DESIGNATION OF INSURANCE AND BONDING COMPANIES****DESIGNATION OF INSURANCE COMPANY(IES) AND AGENT OR BROKER**

The following insurance company(ies) and agent or broker will provide policies of insurance or insurance certificates as are required by the Contract Documents:

Insurance Company(ies) (providing coverages): \_\_\_\_\_

Admitted in California: YES \_\_\_\_\_ NO \_\_\_\_\_

Agent or Broker: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

**DESIGNATION OF BONDING COMPANY AND AGENT OR BROKER**

The following surety company and agent or broker will provide Payment and Performance Bonds as are required by the Contract Documents:

Surety Company (providing Bonds): \_\_\_\_\_

Admitted in California: YES \_\_\_\_\_ NO \_\_\_\_\_

Agent or Broker: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

**NOTE: Bonding company must be admitted in the State of California.**

**BIDDER'S SIGNATURE:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

**BIDDER'S NAME (PRINT):** \_\_\_\_\_

**TITLE (PRINT):** \_\_\_\_\_

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**BID FORM 5 - EQUAL OPPORTUNITY REQUIREMENTS**

In connection with the performance of Work under this Contract, Contractor agrees as follows:

1. The County of Santa Clara is an equal opportunity employer. Contractor shall comply with all applicable federal, state, and local laws and regulations including Santa Clara County's equal opportunity requirements. Such laws include but are not limited to the following:

- Title VII of the Civil Rights Act of 1964 as amended;
- Americans with Disabilities Act of 1990;
- The Age Discrimination in Employment Act of 1967
- The Rehabilitation Act of 1973 (sections 503 and 504);
- The Equal Pay Act of 1963;
- California Fair Employment and Housing Act (Government Code section 12900 *et seq.*);
- California Labor Code sections 1101, 1102, and 1197.5; and
- The Genetic Information Nondiscrimination Act of 2008.

In addition to the foregoing, Contractor shall not discriminate against any subcontractor, employee, or applicant for employment because of age, race, color, national origin, ancestry, religion, sex, gender identity, gender expression, sexual orientation, mental disability, physical disability, medical condition, political belief, organizational affiliation, or marital status in the recruitment, selection for training (including but not limited to apprenticeship), hiring, employment, assignment, promotion, layoff, rates of pay or other forms of compensation. Nor shall Contractor discriminate in the provision of services provided under this contract because of age, race, color, national origin, ancestry, religion, sex, gender identity, gender expression, sexual orientation, mental disability, physical disability, medical condition, political beliefs, organizational affiliations, or marital status.

Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the awarding authority setting forth these requirements.

2. The Contractor herein certifies that:

- Paragraph 1 set forth above shall be included in all subcontracts.
- Contractor shall notify all employees and all sources of employee referrals, (including unions, employment agencies, advertisements, department of employment) of the required compliance with Paragraph 1 above.

The undersigned, in submitting Bid for performing the following Work by Contract, hereby certifies that it will comply with the Equal Opportunity Requirements.

<b>BIDDER'S SIGNATURE:</b>	<b>DATE:</b>
<b>BIDDER'S NAME (PRINT):</b>	_____
<b>TITLE (PRINT):</b>	_____

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## BID FORM 6 - NONCOLLUSION AND LEVINE ACT AFFIDAVIT

In accordance with Public Contract Code section 7106, **Non-collusion Declaration To Be Executed By Bidder And Submitted With Bid**

The undersigned declares:

I am the (Title) \_\_\_\_\_ Of (Company) \_\_\_\_\_

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.

Bidder certifies that it will comply and will ensure that its agents (as that term is defined under 2 Cal. Code Regs. § 18438.3(a)) and its subcontractors identified in this proposal and/or later identified in an agreement with the County ("Subcontractor") comply, with California Government Code section 84308 ("Levine Act"), which (1) requires a party to a proceeding involving a contract, including a competitive solicitation process, to disclose on the record of the proceeding any contribution, as defined by Government Code section 84308(a)(6), of more than \$250 that the party or their agent has made to any member of the County Board of Supervisors, or any Other Elected County Officer (if they may participate in the proceeding), within the prior 12 months, and (2) prohibits a party to a proceeding involving a contract, including a competitive solicitation process, from making a contribution, as defined by Government Code section 84308(a)(6), of more than \$250 to any Elected County Officer participating in the proceeding during the proceeding and for 12 months following the final decision in the proceeding. Proposer agrees to submit any disclosures required to be made under the Levine Act at <https://www.sccgov.org/levineact>. If the contract awarded under this solicitation is to be considered or voted upon by the County's Board of Supervisors, the Proposer shall complete the Levine Act Contractor Form: Identification of Subcontractors and Agents, and if applicable, shall ensure that any Subcontractor completes the Levine Act Subcontractor Form: Identification of Agents, and the Proposer must ensure that all forms are submitted to the County prior to execution of the contract.

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 of 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 \_\_\_\_\_, at \_\_\_\_\_, \_\_\_\_\_.

Date City State

BIDDER'S PRINCIPAL SIGNATURE: \_\_\_\_\_

BIDDER'S PRINCIPAL NAME (PRINT): \_\_\_\_\_

BIDDER'S PRINCIPAL TITLE (PRINT): \_\_\_\_\_

The following form of acknowledgment should be used. If any other form of acknowledgment is used, there must be submitted a certified copy of unrevoked resolution of authority for the attorney-in-fact.

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

STATE OF CALIFORNIA  
COUNTY OF SANTA CLARA

On \_\_\_\_\_ before me, \_\_\_\_\_  
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.

(Seal)

\_\_\_\_\_  
Notary Public for the State of California

**BID FORM 7 - STOP NOTICE INFORMATION**

The following is provided for the information of contractors, subcontractors and suppliers of labor, materials, equipment, and services under County Public Works contracts, and is not intended as legal advice. Advice of legal counsel should be obtained to ensure compliance with legal requirements relating to public works stop notices.

**WHERE TO FILE:** All original stop notices and preliminary 20 day notices (if required) must be filed with the County of Santa Clara, Clerk of the Board of Supervisors, located at 70 West Hedding Street, East Wing, 10<sup>th</sup> Floor, San Jose, California 95110.

**STOP NOTICE CONTENTS:** See Civil Code **sections 8100** *et seq.* and 9352. Written notice, signed and verified by the claimant and including information such as the kind of labor, equipment, materials or services provided or agreed to be provided by the claimant; the name of the person/entity to or for whom the same was done or provided; the amount in value of that already done or provided and an estimate of the total amount to be provided.

**WHO MAY SERVE STOP NOTICE:** See California Civil Code **section 9100**. All persons who have not been paid in full and who have provided work for a public works contract for a work of improvement, if the work is authorized by a direct contractor, subcontractor, architect, project manager, or other person having charge of all or part of the public works contract; laborers, and; persons described in Public Contract Code section 4107.7.

**HOW THE STOP NOTICE IS SERVED:** See California Civil Code **sections 8106** *et seq.* and 9354. Served by personal service, registered mail, or certified mail.

**TIME FOR SERVICE:** See Civil Code **section 9356**. Stop payment notices must be served before the expiration of: 30 days after recording of a Notice of Completion (also known as "Notice of Acceptance") or Notice of Cessation, if such notice is recorded. If no such notice is recorded, 90 days after actual completion or cessation.

**NOTICE OF COMPLETION:** See California Civil Code §9362. Provided that a stop notice claimant has paid to the Clerk of the Road Department the sum of \$2.00 at the time of filing a stop notice, the Fiscal Officer shall provide that claimant with a copy of the recorded Notice of Completion or after the cessation of labor has been deemed a completion of a public work, or after the acceptance of completion, whichever is later, by personal service or registered or certified mail.

**NOTICE OF RECORDING:** See Civil Code **section 9362**. Provided that a stop payment notice claimant has paid to the Clerk of the Board of Supervisors the sum of \$10.00 at the time of filing a stop notice, the County shall provide that claimant with notice of the filing of a Notice of Completion or Cessation, or completion by acceptance or cessation, by personal service, or registered or certified mail.

**RELEASE OF STOP PAYMENT NOTICE:** See Civil Code **sections 8120** et seq., 9400 et seq., and 9364. A stop payment notice can be released if the original contractor files a corporate surety bond with the Clerk of the Board of Supervisors, in the amount of 125% of the stop notice claim. Alternatively, the original contractor may file an affidavit pursuant to Civil Code sections 9400 through 9402, stating objections to the validity of the stop payment notice. A counter-affidavit may be filed by the claimant pursuant to **Civil Code section 9406**, and a summary legal proceeding may be held pursuant to **Civil Code section 9408** et seq., to determine the validity of the stop payment notice. If no counter-affidavit is filed, the stop payment notice funds shall be released. Alternatively, the stop payment notice claimant may file a release in a form which substantially complies with Civil Code sections 8132 through 8138.

**STOP PAYMENT NOTICE LAWSUIT:** See Civil Code sections 9500 through 9510. These sections provide that a stop payment notice is perfected only by the filing of a lawsuit. A lawsuit must be filed no sooner than 10 days after service of a stop notice, and no later than 90 days after the expiration of the time for filing stop payment notices. Notice of suit must be given to the Clerk of the Board of Supervisors within 5 days after commencement. The court has the discretionary right to dismiss the lawsuit if it is not brought to trial within 2 years.

**I HEREBY ACKNOWLEDGE THAT I HAVE RECEIVED AND READ THE ABOVE STOP PAYMENT NOTICE INFORMATION AND IF I AM AWARDED THIS CONTRACT, I AGREE TO INCLUDE A COPY OF THIS BID FORM IN ALL SUBCONTRACTS AND CONTRACTS FOR LABOR, MATERIALS, EQUIPMENT, AND SERVICES THAT I ENTER INTO FOR THIS PROJECT.**

<b>BIDDER'S SIGNATURE:</b>	_____	<b>DATE:</b>	_____
<b>BIDDER'S NAME (PRINT):</b>	_____		
<b>TITLE (PRINT):</b>	_____		

**BID FORM 8 - BIDDER'S BOND**

**WHEREAS**, we, \_\_\_\_\_ as Principal,  
and \_\_\_\_\_ as Surety,

are held and firmly bound unto the County of Santa Clara, a political subdivision of the State of California (hereinafter called the "County"), in the penal sum of TEN PERCENT (10%) of the total aggregate amount of the Bid, including all additives and/or all alternate bid items, of the Principal above named, submitted by said Principal to County 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 and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that a Bid to County for certain construction specifically described as follows:

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for which Bids are to be opened on \_\_\_\_\_, 20\_\_\_\_ has been submitted by Principal to County:

**NOW, THEREFORE**, if the aforesaid Principal shall not withdraw said Bid within the period specified therein after the opening of the same, or, if no period be specified, within sixty (60) days after said opening, and shall within the period specified therefore, or if no period be specified, within twenty (20) days after the prescribed forms are presented to Principal for signature, enter into a written Contract with the County, in the prescribed form, in accordance with the Bid as accepted, and file the two Bonds with the County, one to guarantee faithful Performance and the other to guarantee Payment for labor and materials, as required by law, or in the event of the withdrawal of said Bid within the period specified or the failure to enter into such contract and give such Bonds within the time specified, if the Principal shall pay County the difference between the amount specified in said Bid and the amount for which the County may procure the required Work and/or supplies, if the latter amount be in excess of the former, together with all costs incurred by the County in again calling for bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

Surety for value received, hereby stipulates and agrees that no change, extension of time, alterations, or addition to the terms of the contract on the call for Bids, or to the Work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this Bond, and it does, hereby, waive notice of any such change, extension of time, alteration, or addition to the terms of specifications

In the event suit is brought upon this Bond by the County of Santa Clara and judgment is recovered, Surety shall pay all costs incurred by the County of Santa Clara in such suit, including a reasonable attorney's fee to be fixed by the court in accordance with applicable statutory law.

**IN WITNESS WHEREOF**, we have hereunto set our hands and seals on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**PRINCIPAL:**\_\_\_\_\_  
Signature\_\_\_\_\_  
Name\_\_\_\_\_  
Title\_\_\_\_\_  
Address**SURETY:**\_\_\_\_\_  
Signature\_\_\_\_\_  
Name\_\_\_\_\_  
Title\_\_\_\_\_  
Address

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**NOTE TO SURETY COMPANY:**

The following form of acknowledgment should be used. If any other form of acknowledgment is used, there must be submitted a certified copy of unrevoked resolution of authority for the attorney-in-fact.

**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**

**SURETY COMPANY ATTORNEY-IN-FACT**

STATE OF CALIFORNIA  
COUNTY OF SANTA CLARA

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared, known to me to be the duly authorized Attorney-in-Fact of the corporate Surety named in the within instrument, known to me to be authorized to execute that instrument on behalf of said corporation; known to me to be the person whose name is subscribed to such instrument, as the Attorney-in-Fact of said corporation, and acknowledge to me that he (she) subscribed the name of said corporation thereto as Surety, and his (her) own name as Attorney-in-Fact and that said corporation executed the same.

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  
(Seal)

\_\_\_\_\_  
Notary Public for the State of California with principal  
office in Santa Clara County.

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**BID FORM 9 – AGREEMENT TO BE BOUND****SANTA CLARA COUNTY  
COUNTYWIDE PROJECT LABOR AGREEMENT**

This Agreement is entered into this 24 day of January, 2017, by and between the County of Santa Clara (hereinafter, the "County"), together with contractors and subcontractors of all tiers, who shall become signatory to this Agreement by signing the "Agreement To Be Bound" (Addendum A) (all of whom are referred to herein as "Contractor(s)/Employer(s)"), and the Santa Clara and San Benito Counties Building & Construction Trades Council ("Council") and its affiliated local Unions that have executed this Agreement (all of whom are referred to collectively as "Union" or "Unions").

The purpose of this Agreement is to promote efficiency of construction operations during the County's Construction Project ("Project") as defined herein, and to provide for peaceful settlement of labor disputes and grievances without strikes or lockouts, thereby promoting the County's interest in assuring the timely and economical completion of the Project. The County and the Council may mutually agree in writing to add components and projects to be covered under this Agreement.

WHEREAS, the timely and successful completion of the Project is of the utmost importance to the County to meet the needs of the County and to avoid increased costs resulting from delays in construction; and

WHEREAS, large numbers of workers of various skills will be required in the performance of the construction work, including those to be represented by the Unions signatory to this Agreement and employed by contractors and subcontractors who are also signatory to this Agreement; and

WHEREAS, it is recognized that on a project of this magnitude with multiple contractors and bargaining units on the job site at the same time over an extended period of time, the potential for work disruption is substantial, without an overriding commitment to maintain continuity of work; and

WHEREAS, the interests of the County, the Unions, the Contractor(s)/ Employer(s) and the public would be best served if the construction work proceeded in an orderly manner without disruption because of strikes, sympathy strikes, work stoppages, picketing, lockouts, slowdowns or other interferences with work; and

WHEREAS, the Contractor(s)/Employer(s) and the Unions desire to mutually establish and stabilize wages, hours and working conditions for the workers employed on the Project by the Contractor/Employer(s), and further, to encourage close cooperation among the Contractor/Employer(s) and the Union(s) so that a satisfactory, continuous and harmonious relationship will exist among the parties to this Agreement; and

WHEREAS, the parties agree that one of the primary purposes of this Agreement is to avoid the tensions that might arise on the Project if Union and non-union workers of different employers were to work side by side on the Project, thereby leading to labor disputes that could delay completion of the Project; and

WHEREAS, the Agreement is not intended to replace, interfere with, abrogate, diminish or modify existing local or national collective bargaining agreements in effect during the duration of the Project, insofar as a legally binding agreement exists between the Contractor(s)/Employer(s) and the affected Union(s), except to the extent that the provisions of this Agreement are inconsistent with said collective bargaining agreements, in which event, the provisions of this Agreement shall prevail; and

WHEREAS, the contracts for construction work on the Project will be awarded in accordance with the applicable provisions of the Public Contract Code and other applicable California law; and

WHEREAS, the County has the absolute right to select the lowest responsive and responsible bidder for the award of the construction contract on the Project; and

WHEREAS, the County places high priority upon the development of comprehensive programs for the recruitment, training and employment of traditionally underrepresented and targeted workers, and recognizing the ability of local pre-apprenticeship and apprenticeship programs to provide meaningful and sustainable careers in the building and construction industry; and

WHEREAS, the parties to this Agreement pledge their full good faith and trust to work towards a mutually satisfactory completion of the Project; and

WHEREAS, the County of Santa Clara has previously entered into project labor agreements with the Unions for prior projects and has experienced positive benefits with its relationship with the Unions. The County Board of Supervisors has approved the use of this Agreement.

NOW, THEREFORE, IT IS AGREED BETWEEN AND AMONG THE PARTIES HERETO, AS FOLLOWS:

#### **ARTICLE 1 DEFINITIONS**

1.1 "Agreement" means this Project Labor Agreement.

1.2 "Agreement to be Bound" means the agreement (attached hereto and incorporated herein as Addendum A) which shall be executed by each and every Contractor(s)/Employer(s) as a condition of performing Project Work.

1.3 "Completion" means that point at which there is Final Acceptance by the County of a Construction Contract. For this definition of "Completion," "Final Acceptance" shall mean that point in time at which the engineer for the County has determined upon final inspection that the work has been completed in all respects and all required contract documents, contract drawings, warranties, certificates, manuals and data have been submitted and training completed in accordance with the contract documents and the County has executed a written acceptance of the work

1.4 "Construction Contract" means the public works or improvement contract(s) (including design-bid, design-build, lease-leaseback or other contract under which construction of the Project is done) awarded by the County that are necessary to complete the Project.

1.5 "Contractor(s)/Employer(s)" or "Contractor(s)" or "Employer(s)" means any individual, firm, partnership or corporation, or combination thereof, including joint ventures, that is an independent business enterprise, and their successors and assigns, that enters into a contract with the County with respect to the construction of any part of the Project, under contract terms and conditions approved by the County and which incorporate this Agreement, and any of its contractors or subcontractors of any tier.

1.6 "Council" means the Santa Clara and San Benito Counties Building & Construction Trades Council.

1.7 "County" means Santa Clara County, its authorized employees, agents, and administrative staff.

1.8 "Master Agreement" or "Schedule A" means the Master Collective Bargaining Agreement of each craft Union signatory hereto, copies of which shall be provided to the County upon request.

1.9 "Project" means all County construction projects funded in whole or in part with County funds and approved by the Board of Supervisors in accordance with the County's Public Works Contracts Board Policy 5.7. The County and the Council may mutually agree in writing to add additional components to the Project's Scope of Work to be covered under this PLA.

1.10 "Project Manager" means the person(s) or business entity(ies) designated by the County to oversee all phases of construction on the Project and to oversee the implementation of this Agreement and who works under the guidance of the County's Authorized Representative.

1.11 "Union" or "Unions" means the Santa Clara and San Benito Counties Building & Construction Trades Council, AFL-CIO, ("the Council") and any affiliated Union signatory to this Agreement, acting on their own behalf and on behalf of their respective affiliates and member organizations, whose names are subscribed hereto and who have through their officers executed this Agreement ("Signatory Unions").

## **ARTICLE 2 SCOPE OF AGREEMENT**

2.1 Parties: The Agreement shall apply to and is limited to all Contractor(s)/ Employer(s) performing or subcontracting work under the Construction Contract(s) on the Project (including subcontractors at any tier), the County, the Council and its affiliated Unions signatory to this Agreement.

2.2 Applicability: The Agreement shall govern all Construction Contracts awarded on County Projects in accordance with the County Public Works Contracts Board Policy 5.7. For the purposes of this Agreement, the Construction Contract shall be considered complete as set forth in Section 1.3, except when the County's authorized representative directs a Contractor to engage in repairs, warranty work, or modifications as required under the Construction Contract with the County.



2.3 Covered Work: This Agreement covers, without limitation, all on-site site preparation, surveying, construction, alteration, demolition, installation, improvement, painting or repair of buildings, structures and other works, and related activities for the Project that is within the craft jurisdiction of one of the Unions and which is directly or indirectly part of the Project, including, without limitation to the following examples, geotechnical and exploratory drilling, temporary HVAC, landscaping and temporary fencing, pipelines (including those in linear corridors built to serve the project), pumps, pump stations, and modular furniture installation. On-site work includes work done for the Project in temporary yards, dedicated sites, or areas adjacent to the Project, and at any on-site or off-site batch plant constructed solely to supply materials to the Project. This scope of work includes all soils and materials testing and inspection where such testing and inspection is a classification in which a prevailing wage determination has been published.

2.3.1 This Agreement shall apply to any start-up, calibration, commissioning, performance testing, repair, and operational revisions to systems and/or subsystems performed for the Project after completion unless it is performed by County employees.

2.3.2 This Agreement covers all on-site fabrication work over which the County or Contractor(s)/Employer(s) possess the right of control (including work done for the Project in any temporary yard or area established for the Project.). Additionally, this Agreement covers any off-site work, including fabrication necessary for the Project defined herein, that is covered by a current Schedule A Agreement or local addenda to a National Agreement of the applicable Union(s) that is in effect as of the execution date of this Agreement.

2.3.3. The furnishing of supplies, equipment or materials which are stockpiled for later use shall not be covered by this Agreement. However, construction trucking work, such as the delivery of ready-mix, asphalt, aggregate, sand or other fill or material which are incorporated into the construction process as well as the off-hauling of debris and excess fill, material and/or mud, shall be covered by the terms and conditions of this Agreement. Contractor/Employer(s), including brokers, of persons providing construction trucking work shall provide certified payroll records to the County within ten (10) days of written request or as required by bid specifications.

2.3.4 Work covered by this Agreement within the following craft jurisdictions shall be performed under the terms of their National Agreements as follows: the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, and the National Agreement of Elevator Constructors, and any instrument calibration work and loop checking shall be performed under the terms of the UA/IBEW Joint National Agreement for Instrument and Control Technicians, with the exception that Articles IV, XIII and XIV of this Agreement shall apply to such work.

2.4 Exclusions. The following shall be excluded from the scope of this Agreement:

2.4.1 The Agreement shall not apply to a Contractor(s)/Employer's non-construction craft employees, including but not limited to executives, managerial employees, engineering employees and supervisors above the level of General Foreman (except those covered by existing Master Agreements), staff engineers or other professional engineers, administrative and management personnel.

2.4.2 This Agreement shall not apply to any work performed on or near or leading to the site of work covered by this Agreement that is undertaken by state, city or other governmental bodies or their contractors; or by public or private utilities or their contractors.

2.4.3 This Agreement shall not apply to off-site maintenance of leased equipment and on-site supervision of such work.

2.4.4 The County shall not be required to comply with this Agreement for any work performed with its own forces as permitted by the Public Contract Code.

2.5 Award of Contracts: It is understood and agreed that the County shall have the right to select any qualified bidder for the award of the Construction Contract(s) under this Agreement. The bidder need only be willing, ready and able to execute and comply with this Agreement. It is further agreed that this Agreement shall be included in all invitations to bid or solicitations for proposals from contractors or subcontractors for work on the Project that are issued on or after the effective date of this Agreement. A copy of all invitations to bid shall be provided at time of issuance to the Council.

### **ARTICLE 3 EFFECT OF AGREEMENT**

3.1 By executing the Agreement, the Unions and the County agree to be bound by each and all of the provisions of the Agreement.

3.2 By accepting the award of work under a Construction Contract for the Project, whether as contractor or subcontractor, the Contractor/Employer agrees to be bound by each and every provision of the Agreement and agrees that it will evidence its acceptance prior to the commencement of work by executing the Agreement To Be Bound in the form attached hereto as Addendum A.

3.3 At the time that any Contractor/Employer enters into a subcontract with any subcontractor providing for the performance of work under a Construction Contract, the Contractor/Employer shall provide a copy of this Agreement, as it may from time to time be modified, to said subcontractor and shall require the subcontractor as a condition of accepting an award of a construction subcontract to agree in writing, by executing the Agreement To Be Bound, to be bound by each and every provision of this Agreement prior to the commencement of work. The obligations of a contractor may not be evaded by subcontracting.

3.4 This Agreement shall only be binding on the signatory parties hereto and their successors and assigns and shall not apply to the parents, affiliates, subsidiaries, or other ventures of any such party. Each Contractor/Employer shall alone be liable and responsible for its own individual acts and conduct and for any breach or alleged breach of this Agreement. Any dispute between the Union(s) and the Contractor/Employer respecting compliance with the terms of the Agreement shall not affect the rights, liabilities, obligations and duties between the signatory Union(s) and other Contractor(s)/Employer(s) party to this Agreement.

3.5 It is mutually agreed by the parties that any liability by a signatory Union to this Agreement shall be several and not joint. Any alleged breach of this Agreement by a signatory Union shall not affect the rights, liabilities, obligations and duties between the signatory Contractor(s)/Employer(s) and the other Union(s) party to this Agreement.



3.6 The provisions of this Agreement, including Schedules A's, which are incorporated herein by reference, shall apply to the work covered by this Agreement, notwithstanding the provisions of any other local, area and/or national agreements which may conflict with or differ from the terms of this Agreement. Where a subject covered by the provisions of this Agreement is also covered by a Schedule A, to the extent there is inconsistency, the provisions of this Agreement shall prevail. Where a subject is covered by the provisions of a Schedule A and is not covered by this Agreement, the provisions of the Schedule A shall prevail.

#### **ARTICLE 4**

#### **WORK STOPPAGES, STRIKES, SYMPATHY STRIKES AND LOCKOUTS**

4.1 The Unions, County and Contractor(s)/Employer(s) covered by the Agreement agree that for the duration of the Project:

4.1.1 There shall be no strikes, sympathy strikes, work stoppages, picketing, hand billing or otherwise advising the public that a labor dispute exists, or slowdowns of any kind, for any reason, by the Unions or employees employed on the Project, at the job site of the Project or at any other facility of County because of a dispute on the Project. Disputes arising between the Unions and Contractor(s)/Employer(s) on other County projects are not governed by the terms of the Agreement or this Article.

4.1.2 There shall be no lockout of any kind by a Contractor/Employer of workers employed on the Project.

4.1.3 If a master collective bargaining agreement expires before the Contractor/Employer completes the performance of work under the Construction Contract and the Union or Contractor/Employer gives notice of demands for a new or modified master collective bargaining agreement, the Union agrees that it will not strike on work covered under this Agreement and the Union and the Contractor/Employer agree that the expired master collective bargaining agreement shall continue in full force and effect for work covered under this Agreement until a new or modified master collective bargaining agreement is reached. If the new or modified master collective bargaining agreement provides that any terms of the master collective bargaining agreement shall be retroactive, the Contractor/ Employer agrees to comply with any retroactive terms of the new or modified master collective bargaining agreement which are applicable to employees who were employed on the projects during the interim, with retroactive payment due within seven (7) days of the effective date of the modified Master Agreement.

4.1.4 In the very rare case of nonpayment of wages or trust fund contributions on the Project, the Union shall give the County and the Contractor/Employer(s) three (3) business days' written notice when nonpayment of trust fund contributions has occurred and two (2) business day's written notice when nonpayment of wages has occurred or when paychecks being tendered to a financial institution normally recognized to honor such paychecks will not honor such paycheck as a result of insufficient funds, of the intent to withhold labor from the Contractor/Employer(s)' or their subcontractor's workforce, during which time the Contractor/Employer shall have the opportunity to correct the default. In this instance, a Union's withholding of labor (but not picketing) from a Contractor/Employer who has failed to pay its fringe benefit contributions or failed to meet its weekly

payroll shall not be considered a violation of this Article. The County or the prime Contractor may elect to issue joint checks for the disputed delinquencies. Upon written notification to the Union(s) of this election by the County or the prime Contractor, the Union(s) shall promptly order all employees to return to work, or, if within the 72-hour or 48-hour notice period as applicable, shall not withhold labor from Contractor(s) with which the Union(s) have a dispute over, respectively, payroll or trust fund contributions. If the Union does not receive copies of the joint checks within three business days of notification, the Union may resume withholding of labor without further notice. The Union(s) and subject Contractor(s) agree to use their best efforts to resolve any dispute over wage or trust fund contributions in a prompt and expeditious manner in order to minimize any disruption of work of the subject Contractor(s), and the County shall have the right to participate in such efforts. This section 4.1.4 shall not be invoked for a single inadvertent error in the amount of the payment to an individual employee.

4.1.5 If the County contends that any Union has violated this Article, it will notify in writing the Senior Executive of the Council and the Senior Executive of the Union, setting forth the facts alleged to violate the Article, prior to instituting the expedited arbitration procedure set forth below. The Council will immediately use his/her best efforts to cause the cessation of any violation of this Article. The leadership of the Union will immediately inform the membership of their obligations under this Article.

4.2 Expedited Arbitration: Any party to this Agreement shall institute the following procedure, prior to initiating any other action at law or equity, when a breach of this Article is alleged to have occurred:

4.2.1 A party invoking this procedure shall notify Robert Hirsch, as the permanent arbitrator, or Barry Winograd, as the alternate arbitrator under this procedure. In the event that the permanent arbitrator is unavailable at any time, the alternate will be contacted. If neither is available, then a selection shall be made from the list of arbitrators in Article 12.2. Notice to the arbitrator shall be by the most expeditious means available, with notices by facsimile, email or telephone to the County and the party alleged to be in violation, and to the Council and involved local Union if a Union is alleged to be in violation.

4.2.2 Upon receipt of said notice, the County will contact the designated arbitrator named above or his alternate who will attempt to convene a hearing within twenty-four (24) hours if it is contended that the violation still exists.

4.2.3 The arbitrator shall notify the parties by facsimile, email or telephone of the place and time for the hearing. Said hearing shall be completed in one session, which, with appropriate recesses at the arbitrator's discretion, shall not exceed twenty-four (24) hours unless otherwise agreed upon by all parties. A failure of any party to attend said hearings shall not delay the hearing of evidence or the issuance of an award by the arbitrator.

4.2.4 The sole issue at the hearing shall be whether or not a violation of Article IV, Section 4.1 of the Agreement has occurred. The arbitrator shall have no authority to consider any matter of justification, explanation or mitigation of such violation or to award damages, which issue is reserved for court proceedings, if any. The award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one



shall be issued within fifteen (15) days, but its issuance shall not delay compliance with or enforcement of the award. The arbitrator may order cessation of the violation of this Article and other appropriate relief and such award shall be served on all parties by hand or registered mail upon issuance. If the Arbitrator determines that a violation of this Article has occurred, the breaching party shall, within eight hours of receipt of the decision, take all steps necessary to immediately cease such activities and return to work. Should a party found in violation of this Article fail to comply with an Arbitrator's award to cease the violation by the beginning of the next regularly scheduled shift following the expiration of the eight hour period after receipt of the Arbitrator's decision, the party in violation shall pay to the affected party as liquidated damages the sum of ten thousand dollars (\$10,000.00) per shift for which it failed to comply, or portion thereof, until such violation is ceased. The Arbitrator shall retain jurisdiction to resolve any disputes regarding the liquidated damages claimed under this section.

4.2.5 Such award may be enforced by any Court of competent jurisdiction upon the filing of this Agreement and all other relevant documents referred to above in the following manner. Written notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the arbitrator's award as issued under Section 4.3(4) of this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order or enforcement. The Court's order or orders enforcing the arbitrator's award shall be served on all parties by hand or delivered by certified mail.

4.2.6 Any rights created by statute or law governing arbitration proceedings inconsistent with the above procedure, or which interfere with compliance, are waived by the parties.

4.2.7 The fees and expenses of the arbitrator shall be divided equally between the party instituting the arbitration proceedings provided in this Article and the party alleged to be in breach of its obligation under this Article.

## **ARTICLE 5 PRE-CONSTRUCTION CONFERENCE**

5.1 Timing: Upon request of the County or the Council, the Project Manager shall convene and conduct a pre-job conference with the Unions and with representatives of all involved Contractors/Employers, who shall be prepared to announce craft assignments and to discuss in detail the scope of work and other issues as set forth below, at a location mutually agreeable to the Council at least 14 calendar days prior to:

- (a) The commencement of any Project Work, and
- (b) The commencement of Project Work on each subsequently awarded Construction Contract.

5.2 The conference shall be attended by a representative of each participating Contractor and each affected Union and the Council and County may attend at their discretion.

5.3 Pre-Job Conference: The pre-job conference will consist of:

- (a) A listing of each Contractor's scope of work;
- (b) The craft assignments;



- (c) The estimated number of craft workers required to perform the work;
- (d) Transportation arrangements;
- (e) The estimated start and completion dates of the work; and
- (f) Discussion of pre-fabricated materials.

5.4 Joint Administrative Committee: This Agreement is intended to provide close cooperation between management and labor. To that end, the County and Council shall each designate two representatives to serve on a Joint Administrative Committee ("JAC"), each of whom may designate an alternate. JAC members may invite participation by a Contractor or Union as needed. The Committee shall meet periodically, at the request of any member, to review progress on the Project, and to discuss matters of general concern, such as safety and security. It is intended that the committee serve as a forum to foster communication between management and labor, and to assist the Unions and the Contractors to complete the Project in an economic and efficient manner without interruption, delays or work stoppages. The Committee shall have no authority to review grievances or disputes involving this Agreement, which are subject to the applicable grievance procedure.

#### **ARTICLE 6 NO DISCRIMINATION**

6.1 The Contractor(s)/Employer(s) and Unions agree to comply with all anti-discrimination provisions of federal, state and local law, to protect employees and applicants for employment, on the Project.

#### **ARTICLE 7 UNION SECURITY**

7.1 The Contractor(s)/Employer(s) recognize the Union(s) as the sole bargaining representative of all craft employees working within the scope of this Agreement.

7.2 All employees who are employed by Contractor(s)/Employer(s) to work on the Project will be required to become members and maintain membership in the appropriate Union on or before 8 days of consecutive or cumulative employment on the Project. Membership under this section shall be satisfied by the tendering of periodic dues and fees uniformly required to the extent allowed by the law.

7.3 Authorized representatives of the Unions shall have access to the Projects whenever work covered by this Agreement is being, has been, or will be performed on the Project.

#### **ARTICLE 8 REFERRAL**

8.1 Contractor(s)/Employer(s) performing construction work on the Project described in the Agreement shall, in filling craft job requirements, utilize and be bound by the registration facilities and referral systems established or authorized by the Unions signatory hereto. The Contractor/Employer(s) shall have the right to reject any applicant referred by the Union(s), in accordance with the applicable Master Agreement.

8.2 The Contractor(s) shall have the unqualified right to select and hire directly all supervisors above the level of general foreman it considers necessary and desirable, without such persons being referred by the Union(s).

8.3. In the event that referral facilities maintained by the Union(s) are unable to fill the requisition of a Contractor/Employer for employees within a forty-eight (48) hour period (Saturdays, Sundays and Holidays excluded) after such requisition is made by the Contractor/Employer(s), the Contractor/Employer(s) shall be free to obtain workers from any source. A Contractor who hires any workers to perform covered work on the Project pursuant to this Section shall immediately provide the appropriate Union with the name and address of such employee(s) and shall immediately refer such employee(s) to the appropriate Union to satisfy the requirements of Article VII of this Agreement.

8.4. Targeted Hiring: In order to increase construction job opportunities for the traditionally underrepresented and targeted workers, the parties agree to comply with the Targeted Hiring Agreement, Addendum B.

#### **ARTICLE 9 WAGES AND BENEFITS**

9.1 All Contractor(s)/Employer(s) agree to pay contributions to the vacation, pension and other form of deferred compensation plan, apprenticeship, worker protection and assistance, and health benefit funds established by the applicable Master Agreement for each hour worked on the Project in the amounts designated in the Master Agreements of the appropriate local Unions.

9.2 By signing this Agreement, the Contractor(s)/Employer(s) adopt and agree to be bound by the written terms of the legally established Trust Agreements, as described in section 9.1, and which may from time to time be amended, specifying the detailed basis on which payments are to be made into, and benefits paid out of, such Trust Funds. The Contractors authorize the parties to such local trust agreements to appoint trustees and successor trustees to administer the trust funds and hereby ratify and accept the trustees so appointed as if made by the Contractor(s). The Contractor(s) agrees to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) requires such document(s).

9.3 Wages, Hours, Terms and Conditions of Employment: The wages, hours and other terms and conditions of employment on the Project shall be governed by the Master Agreement of the respective crafts, to the extent such Master Agreement is not inconsistent with this Agreement. Where a subject is covered by the Master Agreement and not covered by this Agreement, the Master Agreement will prevail. When a subject is covered by both the Master Agreement and this Agreement, to the extent there is any inconsistency, this Agreement will prevail.

9.4 Holidays: The holidays shall be as set forth in the applicable Master Agreement.

#### **ARTICLE 10 APPRENTICES**

10.1 Recognizing the need to develop adequate numbers of competent workers in the construction industry, the Contractor/Employer(s) shall employ apprentices from California State-approved Joint Apprenticeship Programs in the respective crafts to perform such work as is within their capabilities and which is customarily performed by the craft in which they are indentured.

10.2 The apprentice ratios will be in compliance with the applicable provision of the California Labor Code and Prevailing Wage Rate Determination.

10.3 Consistent with the Master Agreements, there shall be no restrictions on the utilization of apprentices in performing the work of their craft provided they are properly supervised.

#### **ARTICLE 11 HELMETS TO HARDHATS**

11.1 The Contractor(s)/Employer(s) and the Unions recognize a desire to facilitate the entry into the building and construction trades of veterans who are interested in careers in the building and construction industry. The Contractor(s)/ Employer(s) and Unions agree to utilize the services of the Center for Military Recruitment, Assessment and Veterans Employment (hereinafter "Center") and the Center's "Helmets to Hardhats" program to serve as a resource for preliminary orientation, assessment of construction aptitude, referral to apprenticeship programs or hiring halls, counseling and mentoring, support network, employment opportunities and other needs as identified by the parties.

11.2 The Unions and Contractor(s)/Employer(s) agree to coordinate with the Center to participate in an integrated database of veterans interested in working on the Project and of apprenticeship and employment opportunities for this Project. To the extent permitted by law, the Unions will give credit to such veterans for bona fide, provable past experience.

#### **ARTICLE 12 COMPLIANCE**

12.1 It shall be the responsibility of the Contractor(s)/Employer(s) and Unions to investigate and monitor compliance with the provisions of the Agreement contained in Article 9. Nothing in this Agreement shall be construed to interfere with or supersede the usual and customary legal remedies available to the Unions and/or employee benefit Trust Funds to collect delinquent Trust Fund contributions from Contractor(s)/ Employer(s) on the Project. To the extent required by law, the County shall monitor and enforce compliance with the prevailing wage requirements of the state, and the Contractors/Employers' compliance with this Agreement.

#### **ARTICLE 13 GRIEVANCE ARBITRATION PROCEDURE**

13.1 Project Labor Disputes: All Project labor disputes involving the application or interpretation of the Master Collective Bargaining Agreement to which a signatory Contractor/Employer and a signatory Union are parties, and all disputes involving employee discipline and/or discharge, shall be resolved pursuant to the resolution procedures of the Master Collective Bargaining Agreement. Consistent with the Schedule A agreements, no employee working on the Project shall be disciplined or dismissed without just cause. All disputes relating to the interpretation or application of this Agreement shall be subject to resolution by the Grievance arbitration procedures set forth herein.



13.2 No grievance shall be recognized unless the grieving party (Local Union or District Council, on its own behalf, or on behalf of an employee whom it represents, or a Contractor/Employer on its own behalf) provides notice in writing to the party with whom it has a dispute within seven (7) calendar days after becoming aware of the dispute but in no event more than thirty (30) calendar days after it reasonably should have become aware of the event giving rise to the dispute. Timelines may be extended by mutual agreement of the parties.

13.3 Grievances shall be settled according to the following procedures:

Step 1: Within seven (7) calendar days after the receipt of the written notice of the grievance, the Business Representative of the involved Local Union or District Council, or his/her designee, or the representative of the employee, and the representative of the involved Contractor/Employer shall confer and attempt to resolve the grievance.

Step 2: In the event that the representatives are unable to resolve the dispute within seven (7) calendar days of the Step (1) meeting, the Union and the Contractor involved shall meet within seven (7) calendar days thereafter to arrive at a satisfactory settlement thereof. The Union(s) shall notify its International Union representative(s), which shall advise both parties if it intends on participating in a Step 2 meeting. Meeting minutes shall be kept by the Contractor. In the event that these representatives are unable to resolve the dispute, either involved party may submit the grievance in writing within seven (7) calendar days to the Business Manager(s) of the affected Union(s) involved, a Labor Relations or managerial representative of the Contractor/Employer involved, and the Project Manager for discussion and resolution.

Step 3: If the grievance is not settled in Step 2, either party may request the dispute be submitted to arbitration or the time may be extended by mutual consent of the parties. Within seven (7) calendar days after referral of a dispute to Step 3, the representatives shall choose a mutually agreed upon arbitrator for final and binding arbitration. An arbitrator shall be selected by the alternate striking method from the list of seven (7) ) below. The order of striking names from the list of arbitrators shall be determined by a coin toss, the winner of which shall decide whether they wish to strike first or second.

1. William Riker
2. Morris Davis
3. William Engler
4. Tom Angelo
5. Alexander Cohn
6. Robert Hirsch
7. Barry Winograd

13.4 The decision of the Arbitrator shall be final and binding on all parties. The Arbitrator shall have no authority to change, amend, add to or detract from any of the provisions of the Agreement. The expense of the Arbitrator shall be borne equally by both parties. The Arbitrator shall arrange for a hearing on the earliest

available date from the date of his/her selection. A decision shall be given to the parties within five (5) calendar days after completion of the hearing unless such time is extended by mutual agreement. A written opinion may be requested by a party from the presiding arbitrator.

13.5 The time limits specified in any step of the Grievance Procedure may be extended by mutual agreement of the parties. However, failure to process a grievance, or failure to respond in writing within the time limits provided above, without an agreed upon extension of time, shall be deemed a waiver of such grievance without prejudice, or without precedent to the processing of and/or resolution of like or similar grievances or disputes.

13.6 In order to encourage the resolution of disputes and grievances at Steps 1 and 2 of this Grievance Procedure, the parties agree that such settlements shall not be precedent setting.

13.7 Retention: At the time a grievance is submitted under this Agreement or any Master Agreement, the Union(s) may request that the County withhold and retain an amount from what is due and owing to the Contractor(s) against whom the grievance is filed, sufficient to cover the damages alleged in the grievance, should the Union(s) prevail. The amount shall be retained by the County until such time as the underlying grievance giving rise to the retention is withdrawn, settled, or otherwise resolved, and the retained amount shall be paid to whomever the parties to the grievance shall decide, or to whomever an Arbitrator shall so order.

13.8 Should any of the arbitrators listed in Article 4 or above no longer work as a labor arbitrator, the County and the Council shall mutually agree to a replacement.

#### **ARTICLE 14**

##### **WORK ASSIGNMENTS AND JURISDICTIONAL DISPUTES**

14.1 The assignment of Covered Work will be solely the responsibility of the Employer performing the work involved; and such work assignments will be in accordance with the Plan for the Settlement of the Jurisdictional Disputes in the Construction Industry (the "Plan") or any successor Plan.

14.2 All jurisdictional disputes on this Project between or among the building and construction trades Unions and the Employers parties to this Agreement, shall be settled and adjusted according to the present Plan established by the Building and Construction Trades Department or any other plan or method of procedure that may be adopted in the future by the Building and Construction Trades Department. Decisions rendered shall be final, binding and conclusive on the Employers and Unions parties to this Agreement.

14.3 If a dispute arising under this Article involves the Northern California Carpenters Regional Council or any of its subordinate bodies, an Arbitrator shall be chosen by the procedures specified in Article V, Section 5, of the Plan from a list composed of John Kagel, Thomas Angelo, Robert Hirsch, and Thomas Pagan, and the Arbitrator's hearing on the dispute shall be held at the offices of the California State Building and Construction Trades Council in Sacramento, California, within 14 days of the selection of the Arbitrator. All other procedures shall be as specified in the Plan.

14.4 All jurisdictional disputes shall be resolved without the occurrence of any strike, work stoppage, or slow-down of any nature, and the Employer's assignment shall be adhered to until the dispute is

resolved. Individual employees violating this section shall be subject to immediate discharge. Each Employer will conduct a pre-job conference with the Council prior to commencing work. The Prime Employer and the County will be advised in advance of all such conferences and may participate if they wish. Pre-job conferences for different Employers may be held together.

#### **ARTICLE 15 MANAGEMENT RIGHTS**

15.1 Consistent with the Master Labor Agreements, the Contractor/Employer(s) shall retain full and exclusive authority for the management of their operations, including the right to direct their work force in their sole discretion. No rules, customs or practices shall be permitted or observed which limit or restrict production, or limit or restrict the working efforts of employees, except that lawful manning provisions in the Master Agreement shall be recognized.

#### **ARTICLE 16 DRUG & ALCOHOL TESTING**

16.1 The use, sale, transfer, purchase and/or possession of a controlled substance, alcohol and/or firearms at any time during the work day is prohibited.

16.2 Drug and alcohol testing shall be conducted in accordance with the Substance Abuse Prevention Policies set forth in each applicable Schedule A.

#### **ARTICLE 17 SAVINGS CLAUSE**

17.1 The parties agree that in the event any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void as being in contravention of any applicable law, by a court of competent jurisdiction, the remainder of the Agreement shall remain in full force and effect. The parties further agree that if any article, provision, clause, sentence or word of the Agreement is determined to be illegal or void, by a court of competent jurisdiction, the parties shall substitute, by mutual agreement, in its place and stead, an article, provision, clause, sentence or word which will meet the objections to its validity and which will be in accordance with the intent and purpose of the article, provision, clause, sentence or word in question.

17.2 The parties also agree that in the event that a decision of a court of competent jurisdiction materially alters the terms of the Agreement such that the intent of the parties is defeated, then the entire Agreement shall be null and void.

17.3 If a court of competent jurisdiction determines that all or part of the Agreement is invalid and/or enjoins the County from complying with all or part of its provisions and the County accordingly determines that the Agreement will not be required as part of an award to a Contractor/Employer, the Unions will no longer be bound by the provisions of Article 4.



**ARTICLE 18  
TERM**

18.1 The Agreement shall be included in the Bid Documents as a condition of the award of all Construction Contracts for the Project.

18.2 This Agreement shall become effective on the day it is executed by the County and the Council. This Agreement shall apply to each individual Project approved by the Board of Supervisors pursuant to Public Works Contracts Board Policy 5.7 and shall remain in full force and effect until the completion of each individually approved Project in accordance with sections 1.3 and 2.2. Any mutually agreed to substantive changes to the Agreement shall be set forth in writing and shall not be effective unless and until approved by the County Board of Supervisors, the Council and the applicable Unions.

18.3 The County and the Council agree to meet and confer annually, subsequent to approval of this Project Labor Agreement by the County, regarding the status of and experience with the Project covered by the Agreement and any future projects that may be considered for coverage by this Agreement.

**ARTICLE 19  
TERM**

19.1 The Agreement may be executed in counterparts, such that original signatures may appear on separate pages, and when bound together all necessary signatures shall constitute an original. Faxed or emailed PDF signature pages transmitted to other parties to this Agreement shall be deemed equivalent or original signatures.

19.2 Each of the persons signing this Agreement represents and warrants that such person has been duly authorized to sign this Agreement on behalf of the party indicated, and each of the parties signing this Agreement warrants and represents that such party is legally authorized and entitled to enter into this Agreement.

19.3 The parties acknowledge that this is a negotiated agreement, that they have had the opportunity to have this Agreement reviewed by their respective legal counsel, and that the terms and conditions of this Agreement are not to be construed against any party on the basis of such party's draftsmanship thereof.

19.4 The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement. All defined terms used in this Agreement shall be deemed to refer to the singular and/or plural, in each instance as the context and/or particular facts may require.

SANTA CLARA COUNTY

By:   
Dave Cortese, President  
Board of Supervisors

Date: JAN 24 2017

SANTA CLARA AND SAN BENITO COUNTIES  
BUILDING & CONSTRUCTION TRADES COUNCIL


By:   
Josue Garcia, CEO

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

Signed and certified a copy of this document  
Attest:

  
Megan Doyle  
Clerk of the Board of Supervisors

Approved as to Form and Legality


  
Nancy J. Clark  
Lead Deputy County Counsel

#### UNION SIGNATURES

  
ASBESTOS WORKERS LOCAL 16

  
BOILERMAKERS LOCAL UNION 549

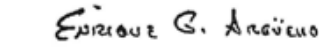
  
BAC LOCAL UNION 3

  
IBEW LOCAL 332

  
ELEVATOR CONSTRUCTORS LOCAL  
UNION 8

  
I.U.P.A.T. DISTRICT COUNCIL 16

  
IRON WORKERS LOCAL 377

  
LABORERS LOCAL UNION 270

  
OPERATING ENGINEERS LOCAL 3

  
OPERATIVE PLASTERERS AND CEMENT  
MASONS LOCAL UNION 400

  
PLASTERERS LOCAL UNION 300


  
ROOFERS LOCAL UNION 95


  
UNITED ASSOCIATION, PLUMBERS &  
PIPEFITTERS LOCAL UNION 355

  
UNITED ASSOCIATION, PLUMBERS &  
PIPEFITTERS LOCAL UNION 393

  
UNITED ASSOCIATION, SPRINKLER  
FITTERS LOCAL UNION 483

  
SHEET METAL WORKERS  
INTERNATIONAL UNION LOCAL 104

  
SIGN, DISPLAY AND ALLIED CRAFTS  
LOCAL UNION 510

  
NORTHERN CALIFORNIA CARPENTERS  
REGIONAL COUNCIL, FOR ITSELF AND  
ITS AFFILIATES

  
LABORERS LOCAL UNION 67

  
TEAMSTERS LOCAL UNION 287



### ADDENDUM A: Agreement To Be Bound

Susan Ellenberg  
President of the Board of Supervisors, County of Santa Clara  
70 West Hedding Street  
East Wing, 10<sup>th</sup> Floor  
San Jose, CA 95110

Re: Santa Clara County Project Labor Agreement.

Dear Ms. Susan Ellenberg,

The undersigned party confirms that it agrees to be a party to and bound by the Santa Clara County Project Labor Agreement as such Agreement may, from time to time, be amended by the parties or interpreted pursuant to its terms.

By executing this **Agreement to Be Bound**, the undersigned party subscribes to, adopts and agrees to be bound by the written terms of the legally established trust agreements as set forth in Article 9.1, as they may from time to time be amended, specifying the detailed basis upon which contributions are to be made into, and benefits made out of, such trust funds and ratifies and accepts the trustees appointed by the parties to such trust funds. The undersigned party agrees to execute a separate Subscription Agreement(s) for Trust Funds when such Trust Fund(s) requires such document(s).

Such obligation to be a party to and bound by this Agreement shall extend to all work covered by the Santa Clara County Project Labor Agreement undertaken by the undersigned party. The undersigned party shall require all of its subcontractors, of whatever tier, to become similarly bound for all their work within the scope of this Agreement by signing an identical Agreement To Be Bound.

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

CONTRACTOR/SUBCONTRACTOR:

Project Contract Number:

California State License Number:

or Motor Carrier (CA) Permit Number

DIR Public Works Registration #

Name and Signature of Authorized Person:

(Print Name)

(Title)

(Signature)

(Date)

## **Addendum B**

### **Targeted Hiring Agreement**

**Purpose.** The Parties to the Santa Clara County Project Labor Agreement ("the Agreement") recognize the mutual needs and public interest in: (1) increasing training and career opportunities for underrepresented and targeted individuals in the construction trades through apprenticeship and pre-apprenticeship programs and (2) developing a pipeline to ensure the continued availability of a skilled, qualified and readily available construction workforce for this and future construction Projects. Furthermore, the Santa Clara & San Benito Counties Building Trades Council ("Council") with other parties, is signatory to the Santa Clara County Construction Careers Collaborative MOU, which is working to establish a coordinated Santa Clara County pre-apprenticeship program to serve as a pipeline for youth and jobseekers into apprenticeship. In furtherance of these goals, the Parties agree to enter into this Targeted Hiring Agreement ("THA") and to participate in the Santa Clara County Community Workforce Pipeline ("the Pipeline").

#### **I. Definitions.**

All capitalized terms not defined in the THA are as defined in the Agreement.

**Approved Pre-Apprenticeship Program.** An Approved Pre-Apprenticeship Program (Program) means the Santa Clara County Trades Orientation Program or an equivalent structured, MC-3 certified pre-apprenticeship program, or Union-sponsored program that: (1) serves Underrepresented Workers, , and (2) that is sponsored by Council-approved community outreach (CBO) groups, affiliates or by Local, State, Regional or National Building Trades Councils.

**Community Workforce Coordinator.** The Community Workforce Coordinator means the work2future Workforce Investment Board, or another entity as determined by mutual written agreement of the Council and the County. The Community Workforce Coordinator is responsible for maintaining an up-to-date list of Targeted Workers who are available for work with their current contact information, and will provide this list to any of the Parties upon request.

**Covered Contractor.** A Covered Contractor means a contractor performing \$250,000 or more of Covered Work on a Project. A Covered Contractor is subject to the Workforce Goal. If a contractor performs less than \$250,000 of Covered Work on a Project, that contractor is not subject to the Workforce Goal, but may nonetheless participate voluntarily in the Workforce Goal.

**Underrepresented Worker.** An Underrepresented Worker is an individual who, prior to commencing work on a Project is at least one of the following: (1) is currently homeless;(2) is currently receiving public assistance; (3) is currently participating in a reentry program (4) has been continuously unemployed for the previous one year; (5) has been emancipated from the foster care system; (6) is a veteran of the U.S. military; or (7) is an at-risk youth.

**Targeted Worker.** A Targeted Worker is an individual who has completed an Approved Pre-Apprenticeship Program.

#### **II. Hiring /Employment Obligations.** Consistent with the Master Labor Agreements, hiring hall procedures, and the Joint Apprenticeship Training Committee ("JATC") rules, standards and

procedures, Covered Contractors shall make good faith efforts to meet the following Workforce Goal related to hiring and employment of workers on the Project:

**Workforce Goal.** Consistent with the requirements of California Labor Code §§ 1776, 1777.5 and 1777.6, each Covered Contractor shall make good faith efforts to reach the goal of employing 1 or more Targeted Worker(s) as First Year Apprentice(s) for at least 25% of the Covered Contractor's apprentice hours on the Project, unless the Contractor demonstrates to the Community Workforce Coordinator that the Targeted Worker(s) worked the maximum feasible hours, or shows other good cause.

- a) Nothing in this THA requires a Covered Contractor either to hire a particular individual or to retain a particular individual in employment. In the event that a Targeted Worker is hired by a Covered Contractor but does not complete the requisite 100 hours of employment, that Covered Contractor shall make good faith efforts to meet the "Alternate Method to Satisfy Workforce Goal" set forth in Part III of the THA.
- b) A Targeted Worker may be assigned to work on the Project or on another jobsite at the employer's discretion, provided that the worker is assigned to the same job classification that would apply to a Targeted Worker on the Project.
- c) The Community Workforce Coordinator, upon request, will refer names of qualified, available, and willing Targeted Workers to the Union and Covered Contractors.
- e) The Unions agree to cooperate with Covered Contractor(s) in providing apprentices as requested. All apprentices shall be properly supervised and paid in accordance with provisions contained within the Master Labor Agreements.
- f) In the event that the Community Workforce Coordinator is unable to refer sufficient qualified, available, and willing Targeted Workers, this section shall not apply until such time as qualified and willing Targeted Workers are available for hire.
- g) The Unions also agree to cooperate with Santa Clara County and community-based organizations designated by mutual agreement of the County and the Council in conducting outreach activities to recruit and refer Underrepresented Worker applicants to Approved Pre-Apprenticeship Programs for which they are qualified or qualifiable.
- h) The Covered Contractor agrees to maintain electronic records documenting employment of and hours worked by Targeted Worker(s), and to provide such records to the General Contractor, the County, or the Community Workforce Coordinator upon request.

**III. Alternate Method to Satisfy Workforce Goal.**

- (a) Covered Contractors who fail to make good faith efforts to meet the Workforce Goal, may also satisfy the Goal by demonstrating that they have accomplished all of the following subject to any Master Labor Agreements, hiring hall procedures, JATC rules and procedures, and standards approved by the Division of Apprenticeship Standards, Department of Industrial Relations, State of California.

- 1) Employ at least one (1) entry-level apprentice on the Project (or for equivalent work on another jobsite, provided that the apprentice is assigned to the same job classification the apprentice would have performed on the Project).
- 2) Through written requests made using a Craft Request Form, offer the Community Workforce Coordinator the first opportunity to provide qualified, available, and willing individuals for employment consideration on entry-level apprentice positions.
- 3) Using a Craft Request Form, request construction trades Unions to dispatch qualified, willing, and available individuals referred by the Community Workforce Coordinator by name when feasible.
- 4) To contact and provide the following information to the Community Workforce Coordinator for all entry-level apprentice job openings on the project in a timely manner when requested:
  - a) description of the job, including the trade and any job requirements for applicants, such as specific qualifications or skills;
  - b) person's name and telephone number at the Covered Contractor's business who will be responsible for answering questions regarding the job opening; and
  - c) description of how applicants should apply for the job

**IV. Consequences of Non-Compliance:** County and the Council shall oversee compliance monitoring of the THA through the MOU with Working Partnerships and the JAC shall consider allegations of non-compliance by a Covered Contractor with the THA. If there is a determination by the JAC that a Covered Contractor has: (1) failed to make good faith efforts to meet the Workforce Pipeline Goal set forth in Part II of the THA, and (2) failed to demonstrate that they have satisfied the Alternate Method as set forth in Part III of the THA, the issue will be referred to the grievance procedure as provided in Article 13 of the Agreement. At any time during the process of compliance review, the JAC shall have the authority to reach a resolution with the Covered Contractor.

**V. Implementation.** The JAC shall help monitor and implement the THA. The Community Workforce Coordinator shall provide the JAC with an annual report and interim reports as requested on the number of registrants by targeted and underrepresented groups, the retained rates in the Program and other key performance indicators of success.

## SECTION 112 – CONTRACT FORMS

# CONTRACT FORMS

Bid Form No.:	Title
1	Construction Contract
2	Performance Bond
3	Payment Bond
4	Escrow Agreement for Security Deposits in Lieu of Retention
5	Sample Certificate of Insurance (Exhibit B-1)
6	Contractor's Certification of Worker's Compensation

\* Form must be acknowledged by a Notary

**RETURN ALL CONTRACT FORMS TO:**

County of Santa Clara  
Roads And Airports Department  
101 Skyport Drive  
San Jose, CA 95110  
(408) 573 – 2400  
Fax (408) 441-0276

**PLEASE NOTE:** It is not necessary to complete these forms to bid on this project; however, in the event the Bidder is awarded the Contract he/she/they shall be required to execute all Contract Forms.

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**CONTRACT FORM 1 – CONSTRUCTION CONTRACT**

THIS IS AN AGREEMENT between the County of Santa Clara “Owner” and

\_\_\_\_\_  
(Insert Contractor’s name) “Contractor”.

Owner and Contractor agree as follows:

**ARTICLE I - SCOPE OF WORK**

Contractor shall furnish all materials and perform all of the work for

\_\_\_\_\_  
(Insert project title)

\_\_\_\_\_  
in accordance with the Contract Documents.

**ARTICLE 2 - CONTRACT PRICE**

As full compensation for furnishing all materials and performing all the Work contemplated and encompassed by this Agreement; for all loss and/or damage, arising out of the Work aforesaid, or from actions of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the Work until its Acceptance by Owner; for all risks of every description connected with the Work; and for all expenses incurred by or in consequence of the suspension or discontinuance of Work thereof, in the manner and according to the Contract Documents, Owner shall pay the amount specified by Contractor on the Bid Form as follows:

\_\_\_\_\_  
(Insert award sum)

less any unearned Supplemental Work allowance.

**ARTICLE 3 - CONTRACT DOCUMENTS**

All rights and obligations of Owner and Contractor are fully set forth and described in the Contract Documents. All parts of the Contract Documents are intended to be correlated so that any Work called for in one part and not mentioned in the other; or vice versa, is to be executed the same as if mentioned in all Contract Documents. The Contract Documents, include this Construction Agreement, Performance Bond, Payment Bond, Insurance Certificate(s), Additional Insured Endorsement, Workers Compensation Certificate, Plans, Technical Specifications, General Specifications, Special Provisions, Bid Schedule, Substitutions and all Contract Change Orders and/or Work Orders, are incorporated herein by reference as though set forth in full. Attention is directed to Section 106(A)(10) of these Special Provisions, which amends Section 5.19, “Coordination, Interpretation, and Order of Precedence of Contract Documents”, of the County Standard Specifications.

Formation of a Contract between the parties requires accomplishment of the following: (1) execution of this Agreement by Contractor; (2) submission by Contractor and acceptance by Owner of the required Contract Bonds, Contractor’s certification regarding Worker’s Compensation, and insurance coverages and documents;

(3) execution of this Agreement by Owner. No Contract is formed until these three elements have been accomplished to the satisfaction of the Owner.

#### ARTICLE 4 - BEGINNING OF WORK

Following acceptance of Contract Bonds, Contractor's certification regarding Worker's Compensation (Contract Form 6 - Contractor's Certification Regarding Worker's Compensation), insurance coverages and documents, and execution of this Agreement by both parties, Owner's Authorized Representative will issue a Notice to Proceed with the Work that will state the first day charged to the Contract Time.

#### ARTICLE 5 - TIME OF COMPLETION

The first day charged shall be within 45 days following the date of the Notice of Award, and all work shall be fully completed within the time limit set forth in the Notice to Bidders.

#### ARTICLE 6 - PREVAILING WAGES

The statement of prevailing wages appearing in the State Labor Surcharge and Equipment Rental Rates and State General Prevailing Wage Rates is hereby specifically referred to and by this reference is made a part of this Construction Agreement. A copy of the State General Prevailing Wage Rates dated **02-22-2024** is on file with the Clerk of the Board of Supervisors. It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this Construction Agreement and the Bid or proposal of said Contractor, then this instrument shall control and nothing herein shall be considered as an acceptance of said terms of said proposal conflicting herewith.

#### ARTICLE 7 – COUNTY STANDARD TERMS

##### (1) BUDGETARY CONTINGENCY

Performance and/or payment by County pursuant to this Agreement is contingent upon the appropriation by County of sufficient funds for deliverables covered by this Agreement. If funding is reduced or deleted by County for services covered by this Agreement, County may, at its option and without penalty or liability, terminate this Agreement or offer an amendment to this Agreement indicating the reduced amount.

##### (2) MERGER AND ACQUISITION

The terms of this Agreement will survive an acquisition, merger, divestiture, or other transfer of rights involving Contractor. In the event of an acquisition, merger, divestiture, or other transfer of rights Contractor must ensure that the acquiring entity or the new entity is legally required to:

Honor all the terms in this Agreement and any pre-acquisition or pre-merger Agreement between Contractor and County, including but not limited to 1) established pricing and fees; and, 2) no price escalation.

30 Days written notice to County following the closing of an acquisition, merger, divestiture, or other transfer of right involving Contractor.



(3) ASSIGNMENT OF CLAYTON ACT, CARTWRIGHT ACT CLAIMS

Contractor hereby assigns to County all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by Contractor for sale to County pursuant to this Agreement.

(4) FOOD AND BEVERAGE STANDARDS

Except in the event of an emergency or medical necessity, the following nutritional standards shall apply to any foods and/or beverages purchased by Contractor with County funds for County-sponsored meetings or events. If food is to be provided, healthier food options shall be offered. "Healthier food options" include (1) fruits, vegetables, whole grains, and low fat and low calorie foods; (2) minimally processed foods without added sugar and with low sodium; (3) foods prepared using healthy cooking techniques; and (4) foods with less than 0.5 grams of trans fat per serving. Whenever possible, Contractor shall (1) offer seasonal and local produce; (2) serve fruit instead of sugary, high calorie desserts; (3) attempt to accommodate special, dietary and cultural needs; and (4) post nutritional information and/or a list of ingredients for items served. If meals are to be provided, a vegetarian option shall be provided, and Contractor should consider providing a vegan option. If pre-packaged snack foods are provided, the items shall contain: (1) no more than 35% of calories from fat, unless the snack food items consist solely of nuts or seeds; (2) no more than 10% of calories from saturated fat; (3) zero trans-fat; (4) no more than 35% of total weight from sugar and caloric sweeteners, except for fruits and vegetables with no added sweeteners or fats; and (5) no more than 360 mg of sodium per serving. If beverages are to be provided, beverages that meet County's nutritional criteria are (1) water with no caloric sweeteners; (2) unsweetened coffee or tea, provided that sugar and sugar substitutes may be provided as condiments; (3) unsweetened, unflavored, reduced fat (either nonfat or 1% low fat) dairy milk; (4) plant-derived milk (e.g., soy milk, rice milk, and almond milk) with no more than 130 calories per 8 ounce serving; (5) 100% fruit or vegetable juice (limited to a maximum of 8 ounces per container); and (6) other low-calorie beverages (including tea and/or diet soda) that do not exceed 40 calories per 8 ounce serving. Sugar-sweetened beverages shall not be provided.

(5) THIRD PARTY BENEFICIARIES

This Agreement does not, and is not intended to, confer any rights or remedies upon any person or entity other than the parties.

(6) CONTRACTOR TRAVEL EXPENSES

Contractor shall be solely responsible for any travel fees or out of pocket expenses.

(7) COUNTY DATA

(a) "County Confidential Information" shall include all material, non-public information (including material, non-public County Data) appearing in any form (including, without limitation, written, oral or displayed), that is disclosed, directly or indirectly, through any means of communication by County, its agents or employees, to Contractor, its agents or employees, or any of its affiliates or representatives.

(b) "County Data" shall mean data and information received by Contractor from County. County Data includes any information or data that is transported across a County network, or that resides in a County-owned information system, or on a network or system under the control and management of a contractor for use by County. As between Contractor and County, all County Data shall remain the property of County.

(c) Contractor shall not acquire any ownership interest in County Data (including County Confidential Information). As between Contractor and County, all County Confidential Information and/or County Data shall remain the property of County. Contractor shall not, without County's written permission, use or disclose County Data (including County Confidential Information) other than in the performance of its obligations under this Agreement.

(d) Contractor shall be responsible for establishing and maintaining an information security program that is designed to ensure the security and confidentiality of County Data, protect against any anticipated threats or hazards to the security or integrity of County Data, and protect against unauthorized access to or use of County Data that could result in substantial harm or inconvenience to County or any end users. Upon termination or expiration of this Agreement, Contractor shall seek and follow County's direction regarding the proper disposition of County Data.

(e) Contractor shall take appropriate action to address any incident of unauthorized access to County Data, including addressing and/or remedying the issue that resulted in such unauthorized access, and notifying County by phone or in writing within 24 hours of any incident of unauthorized access to County Data, or any other breach in Contractor's security that materially affects County or end users. If the initial notification is by phone, Contractor shall provide a written notice within 5 Days of the incident. Contractor shall be responsible for ensuring compliance by its officers, employees, agents, and subcontractors with the confidentiality, privacy, and information security requirements of this Agreement. Should County Confidential Information and/or legally protected County Data be divulged to unauthorized third parties, Contractor shall comply with all applicable federal and state laws and regulations, including but not limited to California Civil Code sections 1798.29 and 1798.82 at Contractor's sole expense. Contractor shall not charge County for any expenses associated with Contractor's compliance with these obligations.

(f) Contractor shall defend, indemnify, and hold County harmless against any claim, liability, loss, injury or damage arising out of, or in connection with, the unauthorized use, access, and/or disclosure of information by Contractor and/or its agents, employees or subcontractors, excepting only loss, injury or damage caused by the sole negligence or willful misconduct of personnel employed by County.

(8) Compliance with All Laws, and Regulations Including Non-Discrimination,  
Equal Opportunity, and Wage Theft Prevention.

Contractor's violation of this provision shall be deemed a material default by Contractor, giving County a right to terminate the Agreement. Examples of such Regulations include but are not limited to California Occupational Safety and Health Act of 1973, Labor Code section 6300 et seq., the Fair Packaging and Labeling Act, and the standards and regulations issued there under. Contractor agrees to indemnify and hold harmless County for any loss, damage, fine, penalty, or any expense whatsoever as a result of Contractor's failure to comply with the acts and any standards or regulations issued thereunder.

(9) COMPLIANCE WITH ALL LAWS

Contractor shall comply with all applicable Federal, State, and local laws, regulations, rules, and policies (collectively, "Laws"), including but not limited to the non-discrimination, equal opportunity, and wage and hour Laws referenced in the paragraphs below.

- (a) Compliance with Non-Discrimination and Equal Opportunity Laws. Contractor shall comply with all applicable Laws concerning nondiscrimination and equal opportunity in employment and contracting, including but not limited to the following: Santa Clara County's policies for contractors on nondiscrimination and equal opportunity; Title VII of the Civil Rights Act of 1964 as amended; Americans with Disabilities Act of 1990; the Age Discrimination in Employment Act of 1967; the Rehabilitation Act of 1973 (Sections 503 and 504); the Equal Pay Act of 1963; California Fair Employment and Housing Act (Government Code sections 12900 et seq.); California Labor Code sections 1101, 1102, and 1197.5; and the Genetic Information Nondiscrimination Act of 2008. In addition to the foregoing, Contractor shall not discriminate against any subcontractor, employee, or applicant for employment because of age, race, color, national origin, ancestry, religion, sex, gender identity, gender expression, sexual orientation, mental disability, physical disability, medical condition, political belief, organizational affiliation, or marital status in the recruitment, selection for training (including but not limited to apprenticeship), hiring, employment, assignment, promotion, layoff, rates of pay or other forms of compensation. Nor shall Contractor discriminate in the provision of services provided under this contract because of age, race, color, national origin, ancestry, religion, sex, gender identity, gender expression, sexual orientation, mental disability, physical disability, medical condition, political beliefs, organizational affiliations, or marital status.
- (b) Compliance with Wage and Hour Laws. Contractor shall comply with all applicable wage and hour Laws, which may include but are not limited to, the Federal Fair Labor Standards Act, the California Labor Code, and, if applicable, any local Minimum Wage, Prevailing Wage, or Living Wage laws.
- (c) Definitions. For purposes of this Section, the following definitions shall apply. A "Final Judgment, Decision, Determination, or Order" shall mean a judgment, decision, determination, or order (a) which is issued by a court of law, an investigatory government agency authorized by law to enforce an applicable Law, an arbiter, or arbitration panel and (b) for which all appeals have been exhausted or the time period to appeal has expired. For pay equity Laws, relevant investigatory government agencies include the federal Equal Employment Opportunity Commission, the California Division of Labor Standards Enforcement, and the California Department of Fair Employment and Housing. Violation of a pay equity Law shall mean unlawful discrimination in compensation on the basis of an individual's sex, gender, gender identity, gender expression, sexual orientation, race, color, ethnicity, or national origin under Title VII of the Civil Rights Act of 1964 as amended, the Equal Pay Act of 1963, California Fair Employment and Housing Act, or California Labor Code section 1197.5, as applicable. For wage and hour Laws, relevant investigatory government agencies include the federal Department of Labor, the California Division of Labor Standards Enforcement, and the City of San Jose's Office of Equality Assurance.
- (d) Prior Judgments, Decisions, or Orders Against Contractor. By signing this Agreement, Contractor affirms that it has disclosed any final judgments, decisions, determinations, or orders that (a) were issued in the five years prior to executing this Agreement by a court or investigatory government agency and (b) found that Contractor violated an applicable wage and hour or pay equity law. Contractor further affirms that it has satisfied and complied with – or has reached agreement with County regarding the manner in which it will satisfy – any such final judgments, decisions, determinations, or orders.

- (e) Violations of Wage and Hour Laws or Pay Equity Laws During Term of Agreement. If at any time during the term of this Agreement, Contractor receives a Final Judgment, Decision, Determination, or Order rendered against it for violation of an applicable wage and hour Law or pay equity Law, then Contractor shall promptly satisfy and comply with any such Final Judgment, Decision, Determination or Order. Contractor shall inform the Office of County Executive-Office of Countywide Contracting Management (OCCM) of any relevant Final Judgment, Decision, Determination, or Order against it within 30 days of the Final Judgment, Decision, Determination, or Order becoming final or of learning of the Final Judgment, Decision, Determination, or Order, whichever is later. Contractor shall also provide any documentary evidence of compliance with the Final Judgment, Decision, Determination, or Order within 5 days of satisfying the Final Judgment, Decision, Determination, or Order. Any notice required by this paragraph shall be addressed to the Office of County Executive-OCCM at 70 W. Hedding Street, East Wing, 11th Floor, San José, CA 95110. Notice provisions in this paragraph are separate from any other notice provisions in this Agreement and, accordingly, only notice provided to the Office of County Executive-OCCM satisfies the notice requirements in this paragraph.
- (f) Access to Records Concerning Compliance with Pay Equity Laws. In addition to and notwithstanding any other provision of this Agreement concerning access to Contractor's records, Contractor shall permit County and/or its authorized representatives to audit and review records related to compliance with applicable pay equity Laws. Upon County's request, Contractor shall provide County with access to any and all facilities and records, including but not limited to financial and employee records, that are related to the purpose of this Section, except where prohibited by federal or state laws, regulations or rules. County's access to such records and facilities shall be permitted at any time during Contractor's normal business hours upon no less than 10 business days' advance notice.
- (g) Pay Equity Notification. Contractor shall (1) directly provide each employee working in California and each person applying for a job in California with a written copy of any applicable pay equity Laws, or (2) electronically disseminate the text of applicable pay equity Laws to each California employee and job applicant, either directly or by posting a copy in conspicuous places available to employees and applicants. Such notification shall occur at least once during the term of this Agreement and, if this Agreement is a multi-year Agreement, at least annually thereafter.
- (h) Material Breach. Failure to comply with any part of this Section shall constitute a material breach of this Agreement. In the event of such a breach, County may, in its discretion, exercise any or all remedies available under this Agreement and/or at law. County may, among other things, take any or all of the following actions:
- (I) Suspend or terminate any or all parts of this Agreement.
  - (II) Withhold payment to Contractor until full satisfaction of a Final Judgment, Decision, Determination, or Order.
  - (III) Offer Contractor an opportunity to cure the breach.

(l) Subcontractors. Contractor shall impose all of the requirements set forth in this Section on any subcontractors permitted to perform work under this Agreement. This includes ensuring that any subcontractor receiving a Final Judgment, Decision, Determination, or Order for violation of an applicable wage and hour Law promptly satisfies and complies with such Final Judgment, Decision, Determination, or Order.

(10) NO SMOKING

Contractor and its employees, agents, and subcontractors, shall comply with the County's No-Smoking Policy, as set forth in the Board of Supervisors Policy Manual section 3.47 (as amended from time to time), which prohibits smoking: (1) at the Santa Clara Valley Medical Center Campus and all County-owned and operated health facilities, (2) within 30 feet surrounding County-owned buildings and leased buildings where the County is the sole occupant, and (3) in all County vehicles.

(11) LIVING WAGE

Unless otherwise exempted or prohibited by law or County policy, contractors that contract with County to provide Direct Services, as defined in County of Santa Clara Ordinance Code Division B36 ("Division B36") and Board Policy section 5.5.5.5 ("Living Wage Policy"), and their subcontractors, where the contract value is \$100,000 or more, must comply with Division B36 and the Living Wage Policy and compensate their employees in accordance with Division B36 and the Living Wage Policy. Compliance and compensation for purposes of this provision includes, but is not limited to, components relating to fair compensation, earned sick leave, paid jury duty, fair workweek, worker retention, fair chance hiring, targeted hiring, local hiring, protection from retaliation, and labor peace. If Contractor and/or a subcontractor violate this provision, the Board of Supervisors or its designee may, at its sole discretion, take responsive actions including, but not limited to, the following:

(a) Suspend, modify, or terminate the Direct Services Contract.

(b) Require Contractor and/or Subcontractor to comply with an appropriate remediation plan developed by County.

(c) Waive all or part of Division B36 or the Living Wage Policy.

This provision shall not be construed to limit an employee's rights to bring any legal action for violation of the employee's rights under Division B36 or any other applicable law. Further, this provision does not confer any rights upon any person or entity other than the Board of Supervisors or its designee to bring any action seeking the cancellation or suspension of a County contract. By entering into this contract, Contractor certifies that it is currently complying with County Code Division B36 and County's Living Wage Policy with respect to applicable contracts, and warrants that it will continue to comply with County Code Division B36 and County's Living Wage Policy with respect to applicable contracts.

**(12) CONFLICTS OF INTEREST; POLITICAL REFORM ACT**

Contractor shall comply, and require its employees, agents, and subcontractors to comply, with all (1) applicable requirements governing avoidance of impermissible client conflicts; and (2) federal, state and local conflict of interest and disclosure laws and regulations including, without limitation, California Government Code section 1090 et seq., the California Political Reform Act (California Government Code section 87100 et seq.) and the regulations of the Fair Political Practices Commission concerning disclosure and disqualification (2 California Code of Regulations section 18700 et seq.). Failure to do so constitutes a material breach of this Agreement and is grounds for immediate termination of this Agreement by County. In accepting this Agreement, Contractor covenants that it presently has no interest, and will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of this Agreement. Contractor further covenants that, in the performance of this Agreement, it will not use any contractor or employ any person having such an interest. Contractor, including but not limited to Contractor's employees, agents, and subcontractors, may be subject to the disclosure and disqualification provisions of the California Political Reform Act of 1974 (the "Act"), that (1) requires such persons to disclose economic interests that may foreseeably be materially affected by the work performed under this Agreement, and (2) prohibits such persons from making or participating in making decisions that will foreseeably financially affect such interests. If the disclosure provisions of the Act are applicable to any individual providing service under the Agreement, Contractor shall, upon execution of this Agreement, provide County with the names, description of individual duties to be performed, and email addresses of all individuals, including but not limited to Contractor's employees, agents and subcontractors, that could be substantively involved in "mak[ing] a governmental decision" or "serv[ing] in a staff capacity" and in that capacity participating in making governmental decisions or performing duties that would be performed by an individual in a designated position, (2 CCR 18700.3), as part of Contractor's service to County under this Agreement. Contractor shall immediately notify County of the names and email addresses of any additional individuals later assigned to provide such service to County under this Agreement in such a capacity. Contractor shall immediately notify County of the names of individuals working in such a capacity who, during the course of the Agreement, end their service to County. Contractor shall ensure that all such individuals identified pursuant to this paragraph understand that they are subject to the Act and shall conform to all requirements of the Act and other applicable conflict of interest and disclosure laws and regulations, and shall file Statements of Economic Interests within 30 days of commencing service pursuant to this Agreement, annually by April 1, and within 30 days of their termination of service pursuant to this Agreement.

**(13) LEVINE ACT COMPLIANCE**

Contractor will comply, and will ensure that its agents (as that term is defined under 2 Cal. Code Regs. § 18438.3(a)) and its subcontractors identified in Contractor's proposal responding to a County solicitation and/or identified in this Agreement ("Subcontractors") comply, with California Government Code section 84308 ("Levine Act") and the applicable regulations of the Fair Political Practices Commission concerning campaign disclosure (2 California Code of Regulations sections 18438.1 – 18438.8), which (1) require a party to a proceeding involving a contract to disclose on the record of the proceeding any contribution, as defined by Government Code section 84308(a)(6), of more than \$250 that the party or their agent has made within the prior 12 months, and (2) prohibit a party to a proceeding involving a contract from making a contribution, as defined by Government Code section 84308(a)(6), of more than \$250 to any County officer during the proceeding and for 12 months following the final decision in the proceeding. Contractor agrees to submit any disclosures required to be made under the Levine Act at the Office of the Clerk of the Board of Supervisors website at <http://www.sccgov.org/levineact>, and Contractor shall require Subcontractors to do the same. If this

Agreement is to be considered or voted upon by the County's Board of Supervisors, Contractor shall complete the Levine Act Contractor Form: Identification of Subcontractors and Agents, and if applicable, shall ensure that any Subcontractor completes the Levine Act Subcontractor Form: Identification of Agents, and Contractor must submit all such forms to the County as a prerequisite to execution of the Agreement.

#### (14) COVID-19 REQUIREMENTS

Contractor shall comply with all County requirements in effect relating to COVID-19 for persons who routinely perform services for County onsite and share airspace with or proximity to other people at a County facility as part of their services for County as set forth in a County Health Order (or similar directives) available at <https://covid19.sccgov.org/home>, and incorporated herein by this reference. Contractor shall comply with all reasonable requests by County for documentation demonstrating Contractor's compliance with this Section.

#### ARTICLE 8 - CONTRACTOR'S LICENSE

Contractors are required by law to be licensed and regulated by the Contractors' State License Board. Any questions concerning contractor licensing must be referred to the Registrar of the Contractors' State License Board Tel. (800-321-CSLB) whose address is:

Contractors' State License Board  
9821 Business Park Drive  
Sacramento, CA 95827

#### ARTICLE 9 – CONTRACT EXECUTION

Unless otherwise prohibited by law or County policy, the parties agree that an electronic copy of a signed contract, or an electronically signed contract, has the same force and legal effect as a contract executed with an original ink signature. The term "electronic copy of a signed contract" refers to a transmission by facsimile, electronic mail, or other electronic means of a copy of an original signed contract in a portable document format. The term "electronically signed contract" means a contract that is executed by applying an electronic signature using technology approved by the County.

IN WITNESS WHEREOF, two identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the County and Contractor respectively, as of the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

#### **CONTRACTOR**

(Signature) _____	Contractor's License No _____
(Printed Name) _____	License Class: _____
Title: _____	License Expiration Date: _____

Address:

Contractor's DIR No.

## COUNTY OF SANTA CLARA

Signed and certified that a copy of this document has been delivered by electronic or other means to the President of the Board of Supervisors.

## ATTEST:

---

**Susan Ellenberg,**

President, Board of Supervisors

---

**Curtis Boone,**

Acting Clerk of the Board of Supervisor

(If this Agreement is signed outside of the State of California, a notarized acknowledgement is required.)

APPROVED AS TO FORM AND LEGALITY:

---

**John A. Castro,**  
Deputy County Counsel

---

**DATE**



**CONTRACT FORM 2 - PERFORMANCE BOND**

**WHEREAS**, the Board of Supervisors of the County of Santa Clara, State of California, and \_\_\_\_\_ hereinafter designated as "Principal" have entered into an Agreement for the furnishing of all materials, labor, services, and equipment necessary, convenient, and proper to:

\_\_\_\_\_ pursuant to the said Agreement dated \_\_\_\_\_, 20 \_\_\_\_\_, and all of the documents attached thereto and incorporated by reference including Plans and Specifications for construction, becoming a part of said Agreement, are hereby referred to and made a part hereof; and,

**WHEREAS**, said Principal is required according to the terms of said Agreement and applicable California State law, to furnish a Bond for the faithful Performance of said Agreement.

**NOW, THEREFORE**, we, the undersigned Principal and (Name of Surety) \_\_\_\_\_ as Surety, are held and firmly bound unto the County of Santa Clara ("Owner") in the penal sum of:

\_\_\_\_\_ Dollars (\$ \_\_\_\_\_), lawful money of the United States of America, to be paid to Owner or its successors and assigns; for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

- A. **THE CONDITION OF THIS OBLIGATION IS SUCH**, that if Principal, or its heirs, executors, administrators, successors, or assigns approved by Owner, shall promptly and faithfully perform the covenants, conditions, and agreements of the Agreement (including all Contract Documents) during the original term and any extensions thereof as may be granted by Owner, with or without notice to Surety, and during the period of any guarantees or warranties required under the Agreement (including all Contract Documents), and shall also promptly and faithfully perform all the covenants, conditions, and agreements of any alteration of the Agreement made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless Owner as stipulated in the Agreement (including all Contract Documents), then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.
- B. No extension of time, change, alteration, modification, deletion, or addition to the Agreement, or of the work required thereunder, or work or actions by Owner to mitigate the damages resulting from any breach in performance by Contractor, or work or actions to protect the work or property, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition, work, or actions

- C. Whenever Principal shall be and declared by Owner in default under the Contract, Surety shall promptly remedy the default, or shall promptly, and in no event later than forty-five (45) days from receipt of such notice or thirty days (30) days following the effective date of a termination of Contractor's right to proceed for default, elect and commence performance of one of the following options:
1. Undertake performance and completion of the Contract, through its agents or independent Contractors (but having qualifications and experience meeting contract requirements in the reasonable judgment of Owner), to perform and complete the Agreement (subject to all Contract Documents) in accordance with its terms and conditions, and to pay and perform all obligations of Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, indemnities, and the payment of liquidated damages; or,
  2. Obtain a bid or bids for completing the Agreement (subject to all Contract Documents) in accordance with its terms and conditions, and, upon determination by Owner of the lowest responsible bidder, arrange for a contract between such bidder and Owner and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Sum remaining on the date of effectiveness of such termination, and to pay and perform all obligations of Principal under the Contract, including, without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages;
- D. Surety's total obligations hereunder shall not exceed the amount set forth above as the Penal Sum. The term "balance of the Contract Sum," as used in this paragraph, shall mean the total amount payable by Owner to the Principal under the Contract and any amendments thereto, less the amount paid by Owner to Principal.
- E. Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Agreement, and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing Owner's rights against the others.
- F. Surety may not use Contractor to complete the Agreement absent Owner's consent. Owner shall have the right, in its sole discretion, to continue the work of the Agreement (subject to all Contract Documents), following a default and/or termination, as necessary to prevent risks of personal injury, property damage, or delay to the Project pending Surety's election described above.
- G. No right of action shall accrue on this bond to or for the use of any person or corporation other than Owner or its successors or assigns.
- H. Surety shall join in any proceedings brought under the Agreement upon Owner's demand, and shall be bound by any judgment. Correspondence or claims relating to this bond shall be sent to Surety at the address set forth below. Notices and elections may be sent by overnight mail, confirmed by email, in addition to methods required by the Agreement

The Surety, by the execution of this Bond, represents and warrants that this Bond has also been duly executed by the Principal with proper authority, and the Surety hereby waives any defense which it might have to reason of any failure by the Principal to execute or properly execute this Bond.

**IN WITNESS WHEREOF** two identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named on the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**PRINCIPAL:****SURETY:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

CONTINUED ON NEXT PAGE ⇨

**NOTE TO SURETY COMPANY:**

The following form of acknowledgment should be used. If any other form of acknowledgment is used, there must be submitted a certified copy of unrevoked resolution of authority for the attorney-in-fact.

**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**

**SURETY COMPANY ATTORNEY-IN-FACT**

STATE OF CALIFORNIA  
COUNTY OF SANTA CLARA

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared,

known to me to be the duly authorized Attorney-in-Fact of the corporate Surety named in the within instrument, known to me to be authorized to execute that instrument on behalf of said corporation; known to me to be the person whose name is subscribed to such instrument, as the Attorney-in-Fact of said corporation, and acknowledge to me that he (she) subscribed the name of said corporation thereto as Surety, and his (her) own name as Attorney-in-Fact and that said corporation executed the same.

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

(Seal)

\_\_\_\_\_  
Notary Public for the State of California with principal  
office in Santa Clara County.

**Original Acknowledgment by Attorney-in-Fact must be attached.  
Original corporate seals of Principal and Surety must be attached.**

**CONTRACT FORM 3 - PAYMENT BOND**

**WHEREAS**, the Board of Supervisors of the County of Santa Clara, State of California, and

hereinafter designated as "Principal" have entered into an Agreement for the furnishing of all materials, labor, services, and equipment necessary, convenient, and proper to:

pursuant to the said Agreement dated \_\_\_\_\_, 20\_\_\_\_ and all of the documents attached thereto and incorporated by reference, becoming a part of said Agreement, are hereby referred to and made a part hereof; and

**WHEREAS**, said Principal is required by Section 8152, Chapter 4 (Bonds), of Title 1 (Works of Improvement Generally), of Part 6 (Works of Improvement) of Division 4 (General Provisions) and Section 9550, Chapter 5 (Payment Bond), of Title 3 (Public Work of Improvement), of Part 6 (Works of Improvement) of Division 4 (General Provisions), of the California Civil Code to furnish a Bond in connection with said Agreement:

**NOW THEREFORE**, we, the Principal and \_\_\_\_\_ as Surety, are held and firmly bound unto the County of Santa Clara 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 and successors and assigns, jointly and severally, firmly by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH** that if said Principal, its Subcontractors, heirs, executors, administrators, successors or assigns shall fail to pay any of the persons named in Section 9100 of the California Civil Code, any amounts due under the Unemployment Insurance Code with respect to work or labor performed by any such claimant, any prevailing wages due, and penalties incurred pursuant to Sections 1774, 1775, 1813, and 1815 of the California Labor Code, any amounts required to be deducted or withheld from the wages of employees of the Principal and its Subcontractors for payment to the United States Government and/or to the State Franchise Tax Board with respect to such work and labor, the Surety will pay for the same in an amount not exceeding the total sum hereinabove specified, and also, in case suit is brought upon this Bond, a reasonable attorney's fee to be fixed by the court. This Bond shall inure to the benefit of any of the persons named in Section 9100 of the California Civil Code, so as to give the 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, deletion, alteration, or

modification in, to, or any contract, plans, specifications, or agreement pertaining or relating to any scheme or work of improvement herein above described or pertaining to or relating to the furnishing of labor, materials, or equipment therefor, 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 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 its obligations hereunder by reason of any breach of contract between the County of Santa Clara and said Principal 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 Section 9100 of the California Civil Code, and has not been paid the full amount of its claim, and that Surety does hereby waive notice of any such change, extension of time, addition, deletion, alteration, or modification herein mentioned.

The Surety, by the execution of this Bond, represents and warrants that this Bond has also been duly executed by the Principal with proper authority, and the Surety hereby waives any defense which it might have to reason of any failure by the Principal to execute or properly execute this Bond.

**IN WITNESS WHEREOF** two identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named on the

\_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

**PRINCIPAL:****SURETY:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Title

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

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**NOTE TO SURETY COMPANY:**

The following form of acknowledgment should be used. If any other form of acknowledgment is used, there must be submitted a certified copy of unrevoked resolution of authority for the attorney-in-fact.

**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**

**SURETY COMPANY ATTORNEY-IN-FACT**

STATE OF CALIFORNIA  
COUNTY OF SANTA CLARA

On \_\_\_\_\_ before me, \_\_\_\_\_ personally appeared,

known to me to be the duly authorized Attorney-in-Fact of the corporate Surety named in the within instrument, known to me to be authorized to execute that instrument on behalf of said corporation; known to me to be the person whose name is subscribed to such instrument, as the Attorney-in-Fact of said corporation, and acknowledge to me that he (she) subscribed the name of said corporation thereto as Surety, and his (her) own name as Attorney-in-Fact and that said corporation executed the same.

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

(Seal)

\_\_\_\_\_  
Notary Public for the State of California with principal  
office in Santa Clara County.

**Original acknowledgment by Attorney-in-Fact must be attached.  
Original corporate seals of Principal and Surety must be attached.**

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**CONTRACT FORM 4 - ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION**

This Escrow Agreement is made and entered into \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by and between: THE COUNTY OF SANTA CLARA whose address is 101 Skyport Drive, San Jose, CA 95110, hereinafter called "**Owner**", and

\_\_\_\_\_ whose address is  
\_\_\_\_\_ hereinafter called "**Contractor**", and

\_\_\_\_\_ whose address is  
\_\_\_\_\_ hereinafter called "**Escrow Agent**".

**For the consideration hereafter set forth, Owner, Contractor, and Escrow Agent agree as follows:**

1. Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Agreement entered between the Owner and Contractor for  
**Lawrence Expressway Pavement Rehabilitation Project Between Quito Rd and Homestead Rd**

\_\_\_\_\_ in the amount of \$\_\_\_\_\_ dated \_\_\_\_\_ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payment of the retention earnings directly to the Escrow Agent at the expense of the Contractor. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of \_\_\_\_\_, and shall be designated the Contractor as the beneficial owner.

2. Owner shall make progress payments to Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that Escrow Agent holds securities in the form and amount specified above.
3. When the Owner makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of Contractor until the time that the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this Agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.
4. Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor, and Escrow Agent.

5. The interest earned on the securities or money market accounts held in escrow and all interest earned on the interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to Owner.
6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from Owner to Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.
7. Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to Escrow Agent from the Owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by Owner.
8. Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of all fees and charges.
9. Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (5) through (8), inclusive, of this Agreement, and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.
10. The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

**On behalf of Owner:****On behalf of Contractor:****On behalf of Escrow Agent:**\_\_\_\_\_  
Signature\_\_\_\_\_  
Signature\_\_\_\_\_  
Signature\_\_\_\_\_  
Name\_\_\_\_\_  
Name\_\_\_\_\_  
Name\_\_\_\_\_  
Title\_\_\_\_\_  
Title\_\_\_\_\_  
Title\_\_\_\_\_  
Address\_\_\_\_\_  
Address\_\_\_\_\_  
Address

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At the time the Escrow Account is opened, Owner and Contractor shall deliver to Escrow Agent a fully executed counterpart of this Escrow Agreement.

**IN WITNESS WHEREOF**, the parties have executed this Escrow Agreement by their proper officers on the date first set forth above.

**OWNER:**

**CONTRACTOR:**

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Signature

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Signature

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Name

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Name

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## CONTRACT FORM 5 – SAMPLE CERTIFICATE OF INSURANCE (EXHIBIT B-1)

Description:					Date:	
This certificate is issued as a matter of information only and confers no rights upon the certified policyholder, and does not amend, extend or alter the coverage afforded by the policies. This is to certify that the policies of insurance listed below have been issued to the insured named below for the policy period indicated, notwithstanding any requirement, term or condition of any contract or other document with respect to which this certificate may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions, and conditions of such policies.						
PRODUCER:			Contact Name			
			PHONE (A/C, No Ext):		FAX (A/C, No):	
			Email Address:			
			COMPANIES/ INSURERS AFFORDING COVERAGE			
INSURED			Company A			
			Company B			
			Company C			
			Company D			
Co. Ltr	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
	<b>GENERAL LIABILITY</b> <input type="checkbox"/> Commercial General Liability <input type="checkbox"/> Claims Made <input type="checkbox"/> Occur <input type="checkbox"/> Owner's & Cont. Prot. <input type="checkbox"/> _____				GENERAL AGGREGATE \$ _____ PROD-COMP/OP AGG. \$ _____ PERS & ADV INJURY \$ _____ EACH OCCURRENCE \$ _____ FIRE DAMAGE \$ _____ (Any one fire) MED. EXPENSE \$ _____ (Any one person)	
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> Any Auto <input type="checkbox"/> All Owned Autos <input type="checkbox"/> Scheduled Autos <input type="checkbox"/> Hired Autos <input type="checkbox"/> Non-Owned Autos <input type="checkbox"/> _____				COMBINEDSINGLE LIMIT \$ _____ BODILY INJURY \$ _____ (Per Person) BODILY INJURY \$ _____ (Per Accident) PROPERTY DAMAGE \$ _____	
	<b>GARAGE LIABILITY</b> <input type="checkbox"/> Any Auto <input type="checkbox"/> _____				AUTO ONLY- EA. ACC. \$ _____ <u>OTHER THAN AUTO ONLY:</u> EACH ACCIDENT \$ _____ AGGREGATE \$ _____	
	<b>EXCESS LIABILITY</b> <input type="checkbox"/> Umbrella Form <input type="checkbox"/> Other Than Umbrella Form				EACH OCCURRENCE \$ _____ AGGREGATE \$ _____	
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> The proprietor/partners/executive officers are <input type="checkbox"/> Incl. <input type="checkbox"/> Excl.				<u>STATUTORY LIMITS</u> EACH ACCIDENT \$ _____ DISEASE- POLICY LIMIT \$ _____ DISEASE-EA. EMPLOYEE \$ _____	
	<b>OTHER</b>					
<b>CERTIFICATE HOLDER</b> County of Santa Clara Roads & Airports Department 101 Skyport Drive San Jose, CA 95110-1302			<b>DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS</b>			
			<b>AUTHORIZED REPRESENTATIVE</b>			

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**CONTRACT FORM 6 - CONTRACTOR'S CERTIFICATION OF WORKER'S  
COMPENSATION**

Contract with the County of Santa Clara for the construction of:

PROJECT TITLE: \_\_\_\_\_

PROJECT NO.: \_\_\_\_\_

Labor Code section 3700 states in part:

Every employer except the state shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation by one or more insurers duly authorized to write compensation insurance in this state.
- (b) By securing from the Director of Industrial Relations a certificate on consent to self-insure either as an individual employer, or as one employer in a group of employers, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his or her employees ...

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's 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.

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

By: \_\_\_\_\_  
(Contractor)

\_\_\_\_\_  
(Official Title)

(Labor Code section 1861 requires that this Contractor certification must be signed and filed by the Contractor with the public agency prior to performing any Work. Contractor must return this signed certification along with Contract Form 1 – Contract Agreement.)

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