

**COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS**

SPECIFICATIONS

FOR

**Keyes Road at TID Ceres Main Canal
Bridge Replacement Project
State Bridge No. 38C-193
Contract No. 9659**

BOARD OF SUPERVISORS

Kristin Olsen, Chairwoman	District No. 1
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**Jody Hayes, Chief Executive Officer
David A. Leamon, Public Works Director**

The Specifications contained herein have been prepared by or under the direction of the following registered engineer.



Approved By: PAUL SAINI, RCE/QSD-P/MBA

Bid Opening Time and Date: 2:00 P.M., Tuesday, June 23, 2020

COUNTY OF STANISLAUS DEPARTMENT OF PUBLIC WORKS

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COUNTY OF STANISLAUS DEPARTMENT OF PUBLIC WORKS

PART I - INVITATION TO BIDDERS

Contractors are invited to submit written, formal bids for the Keyes Road Bridge at T.I.D. Ceres Main Canal, State Bridge No. 38C-0193. Estimated Construction cost for this project is less than \$800,000. The work to be accomplished includes replacement of the Keyes Road Bridge at TID Ceres Canal.

Plans and Specifications are available for viewing on the Modesto Reprographics webpage at www.modestoplanroom.com. Paper copies are available from Modesto Reprographics. Call (209) 544-2400 for questions regarding the purchase of plans and specifications.

Technical Questions: All questions must be submitted in writing. Email your questions to paul.saini@stancounty.com fax your questions to (209) 541-2509, Attn: Paul Saini.

Bid forms are provided in the Section titled "Bid Proposal". Bids shall be submitted in a sealed envelope and plainly marked "**Bid Proposal for Keyes Road Bridge at T.I.D. Ceres Main Canal, State Bridge No. 38C-193.**" Bid envelopes shall be addressed to: Stanislaus County, Department of Public Works, Attn: Marcie Ryan, 1716 Morgan Road, Modesto CA, 95358. Bid envelopes must be delivered to Public Works Morgan Road office prior to 2:00 p.m., June 23, 2020, as evidenced by the administrative staff's date/time stamp on the envelopes. The bids will be publicly opened at the 1716 Morgan Road, Modesto, CA 95358 office and read by Public Works administration staff after bid closing.

EVENT DESCRIPTION	ANTICIPATED DATE
Project Advertisement	May 15 2020
Last Day Contractors Clarification Requests	June 16, 2020
Issuance of Addendum (if required)	June 18, 2020
Bid Opening	June 23, 2020
Board Approval of Contract	August 11, 2020
Notice to Proceed	October 01, 2020

The award of the contract, if it be awarded, will be to the lowest responsible bidder whose bid proposal complies with all the requirements prescribed.

The lowest bid shall be the lowest bid price on the base contract without consideration of the prices on the additive or deductive items.

All bids will be compared on the basis of the Engineer's Estimate of the quantities of work to be done.

Other such items and details not mentioned herein that are required by the Plans, Standard Specifications or Special Provisions shall be performed, placed, constructed or detailed.

A pre-construction conference shall be required prior to the "Notice to Proceed".

The contractor shall possess a Class A License from the time this contract is awarded through contract acceptance.

This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

The successful bidder shall furnish a payment bond and a performance bond.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to 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 at the time the contract is awarded.

Pursuant to Sections 1770 and 1773 of the Labor Code, the Board of Supervisors has ascertained the general prevailing rate of per diem wages applicable to the work to be done for straight time, overtime, Saturday, Sunday, and holiday work. These wage rates are set forth by the Director of the Department of Industrial Relations and are available at the agencies web site and are on file with the Department of Public Works and hereby made a part of the agreement.

Pursuant to and in accordance with the Provisions of Public Contract Code Section 22300, the contractor may elect to substitute securities for retention monies withheld by the County or to request payment of retention monies earned to an escrow agent.

COUNTY OF STANISLAUS

DEPARTMENT OF PUBLIC WORKS

PART II - INFORMATION FOR BIDDERS

1. DATE AND PLACE FOR OPENING PROPOSALS

Pursuant to the "Invitation to Bidders", sealed proposals for performing the work will be received by Stanislaus County Public Works administrative staff.

At the place and time set forth in said "Invitation to Bidders", they will be publicly opened and read. The awarding of the agreement, if awarded, will be made by said Board of Supervisors as soon thereafter as practicable.

2. PRINTED FORM OF PROPOSALS

All proposals must be made upon the blank proposal as included in PART III - PROPOSAL, and must give the price data in figures, and must be signed by the bidder. In accordance with the directions in the proposal, in order to insure consideration the proposal must be enclosed in a return envelope furnished by the bidder, and plainly marked: **"Proposal for the Keyes Road Bridge at T.I.D. Ceres Main Canal, State Bridge No. 38C-193"** and addressed to the Stanislaus County Public Works, Attn: Marcie Ryan, 1716 Morgan Road, Modesto, CA 95358. No bid may be withdrawn within Sixty (60) days after time of opening.

3. OMISSIONS AND DISCREPANCIES

Should a bidder find discrepancies in, or omissions from, the drawings or other contract documents, or should the bidder be in doubt as to their meaning, it shall at once notify the Engineer in writing who may send a written instruction to all bidders.

4. ACCEPTANCE OR REJECTION OF PROPOSALS

The Board of Supervisors reserves the right to reject any or all proposals. Without limiting the generality of the foregoing, any proposal that is incomplete, obscure, or irregular may be rejected. Any proposal having erasures or corrections in the price sheet may be rejected. Any proposal that omits a bid on any one or more items in the price sheet may be rejected. Any proposal in which unit prices are obviously unbalanced may be rejected. Any proposal accompanied by an insufficient or irregular bidder's bond may be rejected. Any proposal that does not include and have attached a list of all subcontractors, complete with names and addresses, may be rejected.

Also, the Board reserves the right to reject the proposal of any bidder who is not responsible. The successful bidder shall be licensed by the State of California to perform the work required by the plans and specifications and shall endorse its license number on the proposal. The Board may require additional evidence of experience, financial responsibility, or corporate existence, at its option. Each bidder shall endorse its address to which notices hereunder may be directed on the proposal.

A bidder may be deemed not to be responsible and its bid rejected if a listed subcontractor is not responsible. Responsibility of any bidder or of any listed subcontractor shall be determined at the sole discretion of the Board. Bidder must not be on Caltrans no bid list. Any proposal that does not comply with Section 410(a)(1) Public Contract Code (PCC) may be rejected.

5. CASH, CERTIFIED CHECK, CASHIER'S CHECK OR BIDDER'S BOND

All proposals shall be accompanied by cash, a certified check, certified to by some responsible bank or banker, a cashier's check on a bank, or a bidder's bond prepared and guaranteed by an admitted corporate surety made payable to the "County of Stanislaus" in the amount of ten percent (10%) of the total bid, unless otherwise specified. All such cash or checks will be returned to the respective bidder within ten (10) days after the proposals are opened, except those which the Board of Supervisors elects to hold until the successful bidder has executed the contract. Thereafter, all remaining cash or checks, including that of the successful bidder, will be returned within five (5) days after the issuance of the Notice to Proceed.

6. ACCEPTANCE OF PROPOSALS AND ITS EFFECT

Within ninety (90) days after the opening of the bid proposals, the Board of Supervisors will act upon them. The acceptance of a proposal will be notice in writing signed by a duly authorized representative of the Board of Supervisors and no other act of the Board of Supervisors shall constitute the acceptance of a bid proposal. The acceptance of a bid proposal shall bind the successful bidder to execute the contract and to be responsible for liquidated damages, as provided in Article SC-08. The rights and obligations provided for in the contract shall become effective and binding upon the parties only with its formal execution by the Board of Supervisors or its authorized designee.

7. MANDATORY PRE-BID MEETING AND SITE VISIT – Not Applicable.**8. BID PROTEST**

Any Bid protest must be submitted in writing to the County's offices (Attention: Linda Allsop), before 5:00 p.m. of the tenth (10) day following posting on the official bulletin board of the Clerk of the Board of Notice of Intent to Award for Construction. Time will be determined by County staff using the official clock of the Clerk of the Board. County will use reasonable efforts to deliver by facsimile a copy of Notice of Intent to Award for Construction to all Bidders who submitted Bids no later than the Business Day after issuance, although any delay or failure to do so will not extend the Bid protest deadline described above.

The initial protest must contain a complete statement of the basis for the protest.

The protest must refer to the specific portion of the document that forms the basis for the protest.

The protest must include the name, address, and telephone number of the person representing the protesting party.

Only Bidders who the County otherwise determines are responsive and responsible are eligible to protest a Bid; protests from any other Bidder will not be considered.

The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all other Bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.

The procedure and time limits set forth in this paragraph are mandatory and are Bidder's sole and exclusive remedy in the event of a Bid protest. Bidder's failure to comply with these procedures shall constitute a waiver of any right to further pursue the Bid protest, including filing a Government Code

Claim or legal proceedings. A Bidder may not rely on a protest submitted by another Bidder, but must timely pursue its own protest.

9. WITHDRAWAL OF BIDS

Bidders may withdraw their Bids at any time prior to the Bid opening time fixed in this Information to Bidders, only by written request for the withdrawal of Bid filed with the County at the County's office. Bidder or its duly authorized representative shall execute request to withdraw Bid. The submission of a Bid does not commit the County to award a contract for the Project, to pay costs incurred in the preparation of a Bid, or to procure or contract for any goods or services.

10. TIME FOR EXECUTING CONTRACT AND DAMAGES FOR FAILURE TO EXECUTE After Notice of Award, the successful Bidder must execute and submit the following documents as indicated below:

1. Submit the following documents to County by 2:00 p.m. of the tenth (10) Day following Notice of Award. Execution of Contract by County depends upon approval of these documents, and any other document identified in County's Notice of Award:
 - a. Agreement: To be executed by successful Bidder. Submit four originals, each bearing an original signature.
 - b. Construction Performance Bond: To be executed by successful Bidder and surety, in the amount set forth in Construction Performance Bond. Submit one original.
 - c. Construction Labor and Material Payment Bond: To be executed by successful Bidder and surety, in the amount set forth in Construction Labor and Materials Payment Bond. Submit one original.
 - d. Insurance certificates and endorsements required by Special Conditions Article **SC-11**, INSURANCE. Submit one original set.
 - e. One complete set of documentary information received or generated by successful Bidder in preparation of Bid prices for its Bid, as set forth in Escrow Bid Documents.
 - f. The Guaranty in the form set forth in Guaranty. Submit four originals, each bearing an original signature.
 - g. Any other item described in Notice of Award (if any).
2. County shall have the right to communicate directly with Apparent Low Bidder's proposed performance bond surety, to confirm the performance bond. County may elect to extend the time to receive faithful performance and labor and material payment bonds.
3. The damages to the County for such breach will include loss from interference with its construction program and other items whose accurate amount will be difficult or impossible to compute. The amount of the cash, certified check, cashier's check or bidder's bond accompanying the proposal of such bidder shall be forfeited and applied by the Board of Supervisors as liquidated damages for such breach. In the event any bidder whose proposal shall be accepted shall fail or refuse to execute the contract as accepted as hereinbefore provided, the Board of Supervisors may, at its option, determine that such bidder has

Addendum No. 1, June 18, 2020

abandoned the contract and thereupon his proposal and the acceptance thereof shall be null and void and the County shall be entitled to liquidated damages as provided in the Special Conditions. In such event, the Board of Supervisors may award the contract to the next low responsible bidder or bidders.

11. DETERMINATION OF LOW BIDDER

Except where the Board of Supervisors exercises the right reserved herein to reject any or all proposals, the contract will be awarded by said Board to the responsible bidder who has submitted the lowest bid. Quantities are approximate, only being as a basis for the comparison of bids. The Board of Supervisors reserves the right to increase, decrease or omit portions of the work as may be deemed necessary or advisable by the Engineer.

12. TIME FOR BEGINNING AND COMPLETING THE WORK

The Contractor shall commence work within five (5) calendar days after the date of the Notice to Proceed, and shall complete the work within 110 working days. The date of the Notice to Proceed shall constitute the first working day.

13. PRICES

The prices are to include the furnishing of all materials, plant, equipment, tools, scaffolds, and all other facilities, and the performance of all labor and services necessary or proper for completion of the work, except such as may be otherwise expressly provided in the contract documents.

14. INTERPRETATION OF ADDENDA

Oral interpretations shall not be made to any bidder as to the meaning of any of the contract documents, or be effective to modify any of the provisions of the contract documents. Every request for an interpretation shall be made in writing at least ten (10) calendar days prior to the bid opening and addressed and forwarded to Public Works Engineering, Attn: Paul Saini, 1716 Morgan Road, Modesto, California 95358.

15. RIGHT TO MAKE CORRECTIONS

The Engineer/Architect shall have the right to make such corrections and interpretations as may be deemed necessary for the fulfillment of the intent of the specifications. The Contractor shall be responsible for calling apparent errors or omissions to the attention of the Engineer/Architect for his corrections and/or interpretation. The Contractor shall not take advantage of said apparent errors or omissions.

16. SUBSTITUTIONS OF SECURITIES FOR WITHHELD PAYMENTS

Except as otherwise prohibited by law, the Contractor may elect to receive all payments due under the contract pursuant to without any retention. If the Contractor so elects, he shall deposit with the County securities with a value equal to the monies that would otherwise be withheld by the County. Said securities shall be as provided in Section 22300 of the Public Contract Code and shall be approved by the County as to both sufficiency and form.

17. CONSTRUCTION PAYMENT BOND & LABOR AND MATERIALS BOND SURETY

A surety insurer admitted in the State of California by the Department of Insurance shall execute Construction Payment Bond and Construction Labor and Materials Bond. County shall verify Surety's admission by either: (1) printing out information from the website of the Department of Insurance confirming that Surety is an admitted surety insurer; or, (2) obtaining a certificate from the County Clerk confirming that Surety is an admitted insurer. County shall attach such verification to Construction Payment Bond and Construction Labor and Materials Bond.

18. CONFORMED CONSTRUCTION DOCUMENTS

Following Award of Contract, County may prepare a conformed set of Contract Documents reflecting Addenda issued during bidding, which shall, failing objection, constitute the approved set of Contract Documents.

**COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS**

PART III - PROPOSAL

STANISLAUS COUNTY BOARD OF SUPERVISORS

FOR THE CONSTRUCTION OF

**Keyes Road Bridge at T.I.D. Ceres Main Canal
State Bridge No. 38C-0193**

NAME OF BIDDER: _____

BUSINESS P.O. BOX: _____

CITY, STATE, ZIP: _____

BUSINESS STREET ADDRESS: _____

(Please include even if P.O. Box used)

CITY, STATE, ZIP: _____

TELEPHONE NO: () _____
Area Code

FAX NO: () _____
Area Code

CONTRACTOR LICENSE NO.: _____

The work for which this proposal is submitted is for construction in conformance with the special provisions (including the payment of not less than the State general prevailing wage rates or Federal minimum wage rates), the project plans described below, including any addenda thereto, the contract annexed hereto, and also in conformance with the California Department of Transportation Standard Plans, dated 2015, the California Department of Transportation Standard Specifications, dated 2015, and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished.

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items. The bidder shall set forth for each unit basis item of work a unit price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for that purpose. In the case of unit basis items, the amount set forth under the "Item Total" column shall be the product of the unit price bid and the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the unit price shall prevail, except as provided in (a) or (b), as follows:

- (a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount as the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;
- (b) Decimal Errors. If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage wise the unit price or item total in the Item Total.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise, if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.

Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cent symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the COUNTY OF STANISLAUS, and that discretion will be exercised in the manner deemed by the COUNTY OF STANISLAUS to best protect the public interest in the prompt and economical completion of the work. The decision of the COUNTY OF STANISLAUS respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

Accompanying this proposal shall be a bidder's bond issued by a California admitted surety, or certified or cashier's check, or cash in the amount of ten percent (10%) of the proposal as a form of bidder's security.

If this proposal shall be accepted and the undersigned shall fail to enter into the contract and furnish the 2 bonds in the sum required by Article SC-14, BONDS, with surety satisfactory to the COUNTY OF STANISLAUS, within ten (10) days, not including Saturdays, Sundays and legal holidays, after the bidder has received notice from the COUNTY OF STANISLAUS that the contract has been awarded, the COUNTY OF STANISLAUS may, at its option, determine that the bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void and the forfeiture of the security accompanying this proposal shall operate and the same shall be the property of the COUNTY OF STANISLAUS.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with the COUNTY OF STANISLAUS, in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the following prices, to wit:

CONTRACTOR'S BID SHEET
Keyes Road Bridge at T.I.D. Ceres Main Canal
State Bridge No. 38C-0193

Item No.	SP No.	Item	Estimated Quantity	Unit of Measure	Unit Price (In Figures)	Item Total (In Figures)
1	SP-02	Environmental Mitigation (Lead Compliance Plan)	1	LS		
2	SP-03	Water Pollution Control (WPC)	1	LS		
3	SP-05	Dust Control	1	LS		
4	SP-09	Mobilization	1	LS		
5	SP-10	Portable Changeable Message Signs	2	EA		
6	SP-11	Temporary Traffic Control	1	LS		
7	SP-13	Relocate Roadside Signs	8	EA		
8	SP-14	Relocate Existing Mailbox	3	EA		
9	SP-15	Clearing & Grubbing	1	LS		
10	SP-15	Sawcut Existing Pavement	54	LF		
11	SP-16	Imported Borrow (F)	2,040	CY		
12	SP-16	Earthwork (F)	1	LS		
13	SP-16	Existing Pavement Removal (F)	25,784	SF		
14	SP-16	Excavation Safety	1	LS		
15	SP-17	Aggregate Road Base (Class II)	743	TON		
16	SP-18	Hot Mix Asphalt Concrete (Type A)	794	TON		
17	SP-19	Monument Preservation and Re-establishment	4	EA		
18	SP-20	Alternative Flared Terminal System (Crash Cushion)	2	EA		
19	SP-21	Thermoplastic Striping (Det. 18)	460	LF		
20	SP-21	Thermoplastic Striping (Det. 21)	490	LF		
21	SP-21	Thermoplastic Striping (Det. 27B)	1900	LF		
22	SP-22	As-Built Drawings	1	LS		
23	SP-26	Bar Reinforcing Steel (Box Culvert) (F)	30,100	LB		

CONTRACTOR'S BID SHEET - Continued
Keyes Road Bridge at T.I.D. Ceres Main Canal
State Bridge No. 38C-193

24	SP-27	Bridge Removal	1	LS		
25	SP-28	Concrete Barrier (Type 836 Modified) (F)	75	LF		
26	SP-29	Structural Concrete, Box Culvert (F)	104	CY		
27	SP-30	Structural Concrete, Warped Wingwall (F)	27	CY		
29	SP-31	Concrete, Channel Lining (F)	6	CY		
29	SP-32	Project Funding Signs	2	EA		

Total Estimate: _____

(SIGNED) _____

Date: _____

All line items must have an entry placed in its appropriate box, and this form must be signed for the bid to be accepted as complete

ADDENDUM SHEET**Keyes Road Bridge at T.I.D. Ceres Main Canal
State Bridge No. 38C-193**

<u>ADDENDUM</u>	<u>DATED</u>	<u>DATE RECEIVED</u>	<u>INITIALS</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Contractor _____

Address _____

Phone () _____ Fax () _____

(SIGNED) _____ Date: _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

SUBCONTRACTORS LIST

The Bidder shall list the name and address of each subcontractor to whom the Bidder proposes to subcontract portions of the work, as required by the provisions in Section 2-1.33C, "Subcontractor List," of the Standard Specifications. Photocopies of this form may be used for additional subcontractors.

Subcontractor:	License #	DIR/PWCR #	License Classification(s):
Business Address:			DBE (Yes/No):
Bid Item(s):			Amount:
Subcontractor:	License #:	DIR/PWCR #	License Classification(s):
Business Address:			DBE (Yes/No):
Bid Item(s):			Amount:
Subcontractor:	License #:	DIR/PWCR #	License Classification(s):
Business Address:			DBE (Yes/No):
Bid Item(s):			Amount:
Subcontractor:	License #:	DIR/PWCR #	License Classification(s):
Business Address:			DBE (Yes/No):
Bid Item(s):			Amount:
Subcontractor:	License #:	DIR/PWCR #	License Classification(s):
Business Address:			DBE (Yes/No):
Bid Item(s):			Amount:

(SIGNED) _____ Date: _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

BID DOCUMENTS REQUIRED AT BID OPENING

It is required that the following documents must be completed, signed, and submitted with the Proposal at bid opening. Failure to complete or provide any of the required documents will be deemed an incomplete and rejected bid.

- Contractor's Bid Sheet
- Addendum Sheet
- Subcontractors List
- Insurance Requirements Acknowledgement
- Equal Employment Opportunity Certification (for Contractor and each Subcontractor)
- Non-Discrimination of Individuals with Disabilities
- Noncollusion Affidavit
- Public Contract code
- Debarment and Suspension Certification
- W-9 Form
- Proposal Signature Sheet
- Bidder's Bond

EXHIBIT B

Insurance Requirements for Construction Contracts

Contractor shall procure and maintain for the duration of the contract, and for 3 years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees, or subcontractors.

MINIMUM SCOPE AND LIMIT OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than \$3,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** Insurance Services Office Form Number CA 0001 covering Code 1 (any auto), with limits no less than \$1,000,000 per accident for bodily injury and property damage.
3. **Workers' Compensation** insurance as required by the State of California, with Statutory Limits, and Employers' Liability insurance with a limit of no less than \$1,000,000 per accident for bodily injury or disease.
4. **Builder's Risk** (Course of Construction) insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.
5. **Surety Bonds** as described below.
6. **Professional Liability** (if Design/Build), with limits no less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.
7. **Contractors' Pollution Legal Liability** and/or Asbestos Legal Liability and/or Errors and Omissions (if project involves environmental hazards) with limits no less than \$1,000,000 per occurrence or claim, and \$2,000,000 policy aggregate.

If the contractor maintains broader coverage and/or higher limits than the minimums shown above, the County requires and shall be entitled to the broader coverage and/or higher limits maintained by the contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the County.

Application of Excess Liability Coverage: Contractors may use a combination of primary, and excess insurance policies which provide coverage as broad as ("follow form" over) the underlying primary policies, to satisfy the Required Insurance provisions.

Other Insurance Provisions

The insurance policies are to contain, or be endorsed to contain, the following provisions:

Additional Insured Status

The County, its officers, officials, employees, agents and volunteers are to be covered as additional insureds on the CGL and Auto policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations and automobiles owned, leased, hired, or borrowed by or on behalf of the Contractor. General liability and Auto liability coverage can be provided in the form of an endorsement to the Contractor's insurance (**at least** as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37 forms if later revisions used).

Primary Coverage

For any claims related to this contract, the Contractor's insurance coverage shall be primary coverage **at least** as broad as ISO CG 20 01 04 13 as respects the County, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by the County, its officers, officials, employees, agents or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

Builder's Risk (Course of Construction) Insurance

Contractor may submit evidence of Builder's Risk Insurance in the form of Course of Construction coverage. Such coverage shall name the County as a loss payee as their interest may appear.

If the project does not involve new or major reconstruction, at the option of the County, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken, or destroyed during the performance of the Work, including during transit, installation, and testing at the County's site.

Reporting

Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the County or its officers, officials, employees, agents or volunteers.

Notice of Cancellation

Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the County. Notification of insurance cancellation to the County will be contractors' responsibility.

Waiver of Subrogation

Contractor hereby agrees to waive rights of subrogation (except for Professional Liability) which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of the County for all work performed by the Contractor, its employees, agents and subcontractors.

Self-Insured Retentions

Self-insured retentions must be declared to and approved by the County. At the option of the County, either: the contractor shall cause the insurer shall reduce or eliminate such self-insured retentions as respects the County, its officers, officials, employees, and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the County guaranteeing payment of losses and related investigations, claim administration, and defense expenses. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or County.

Acceptability of Insurers

Insurance is to be placed with California admitted insurers (licensed to do business in California) with a current A.M. Best's rating of no less than A-VII, however, if no California admitted insurance company provides the required insurance, it is acceptable to provide the required insurance through a United States domiciled carrier that meets the required Best's rating and that is listed on the current List of Approved Surplus Line Insurers (LASLI) maintained by the California Department of Insurance.

Claims Made Policies

If any coverage required is written on a claims-made coverage form:

1. The retroactive date must be shown, and this date must be before the execution date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of contract work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective, or start of work date, the Contractor must purchase extended reporting period coverage for a minimum of five (5) years after completion of contract work.
4. A copy of the claims reporting requirements must be submitted to the County for review.
5. If the services involve lead-based paint or asbestos identification/remediation, the Contractors Pollution Liability policy shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification/remediation, the Contractors Pollution Liability policy shall not contain a mold exclusion, and the definition of Pollution shall include microbial matter, including mold.

Verification of Coverage

Contractor shall furnish the County with original certificates and amendatory endorsements, or copies of the applicable insurance language, effecting coverage required by this contract. All certificates and endorsements are to be received and approved by the County before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The County reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

Subcontractors

Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that County is an additional insured on insurance required from subcontractors. For CGL coverage subcontractors shall provide coverage with a format least as broad as CG 20 38 04 13.

Surety Bonds

Contractor shall provide the following Surety Bonds:

1. Bid bond
2. Performance bond
3. Payment bond
4. Maintenance bond

The Payment Bond and the Performance Bond shall be in a sum equal to the contract price. If the Performance Bond provides for a one-year warranty a separate Maintenance Bond is not necessary. If the warranty period specified in the contract is for longer than one year a Maintenance Bond equal to 10% of the contract price is required. Bonds shall be duly executed by a responsible corporate surety, authorized to issue such bonds in the State of California and secured through an authorized agent with an office in California.

Special Risks or Circumstances

County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other circumstances.

Insurance Limits

The limits of insurance described herein shall not limit the liability of the Contractor and Contractor's officers, employees, agents, representatives or subcontractors. Contractor's obligation to defend, indemnify and hold the County and its officers, officials, employees, agents and volunteers harmless under the provisions of this paragraph is not limited to or restricted by any requirement in the Agreement for Contractor to procure and maintain a policy of insurance.

[SIGNATURES SET FORTH ON THE FOLLOWING PAGE]

_____ Exempt from Auto – I will not utilize a vehicle in the performance of my work with the County.

_____ Exempt from WC – I am exempt from providing workers' compensation coverage as required under Section 67 and 3700 of the California Labor Code.

I acknowledge the insurance requirements listed above.

Print Name: _____ Date: _____

Signature: _____ Date: _____

Vendor Name: _____

See Insurance Requirements Acknowledgement

SAMPLE

For CEO-Risk Management Division use only

Exception: Course of construction insurance waived for Public Work Project.

Approved by CEO-Risk Management Division: _____ Date: _____

INSURANCE REQUIREMENTS ACKNOWLEDGEMENT

Your insurance agent must thoroughly review the contract specifications before he issues the Certificate of Insurance. Insurance requirements are as specified in Article **SC-11**, INSURANCE.

ACKNOWLEDGEMENT of receipt of, and AGREEMENT to obtain/provide an insurance policy for the subject project as per the requirements set forth herein above by both the Contractor and Insurance Agent as listed in our project specifications, Section **SC-11** Insurance.

Signature of Contractor	Date
Contractor	Federal ID No.
Street Address	
City, State, Zip	() Phone Number
Type of Business: <input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Partnership <input type="checkbox"/> Non-Profit 501 (c)(3) <input type="checkbox"/> Other, please explain: _____	

Signature of Insurance Agent	Date
Insurance Agent / Firm Name	
Street Address	
City, State, Zip	() Phone Number

Insurance Type	Amount	Policy Number
General Liability		
Auto Liability		
Umbrella Liability		
Workers Comp/Employers Liability (per State of California)		
All-Risk Course of Construction (if applicable)		
Railroad Protective Liability (if applicable)		

Note: Use copies of this form when more than one broker/agent is used.

Addendum No. 1, June 18, 2020

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

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

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

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

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

(SIGNED) _____ Date: _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

NON-DISCRIMINATION OF INDIVIDUALS WITH DISABILITIES

POLICY STATEMENT

In compliance with 29 U.S.C. 794 and 42 U.S.C. 12132, it is the policy of the County of Stanislaus that it will not aid or perpetuate discrimination against a qualified individual with a disability by funding an agency, organization, or person that discriminates on the basis of handicap disability in providing any aid, benefit, or service to beneficiaries of the program or activity.

The County is committed to provide access to all County services, programs, and meetings open to the public to people with disabilities.

In this regard, County and all of its contractors and subcontractors will take all reasonable steps in accordance with 29 U.S.C. 794 and 42 U.S.C. 12132 to ensure that individuals with disabilities have the maximum opportunity for the same level of aid, benefit, or service as any other individual.

CERTIFICATION

Each agency, organization, or person seeking a bid, contract, or agreement with the County of Stanislaus shall sign a Certification of Compliance with 29 U.S.C. 794 and 42 U.S.C. 12132.

CERTIFICATION OF BIDDER REGARDING NON-DISCRIMINATION OF INDIVIDUALS WITH DISABILITIES

The Bidder hereby certifies that he/she/it is in compliance with 29 U.S.C. 794, 42 U.S.C. 12132,, the applicable administrative requirements promulgated in response thereto, and any other applicable Federal laws and regulations relating to discrimination and participation of individuals with disabilities.

Name of Bidder: _____

By: _____
(Signature)

Name: _____
(Printed)

Title: _____

Dated: _____

This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

NON-COLLUSION AFFIDAVIT(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

TO THE COUNTY OF STANISLAUS DEPARTMENT OF PUBLIC WORKS

_____, being duly sworn, deposes and says that he or she is
_____, of _____ the party making the foregoing
bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that 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, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract, that all statements contained in the bid are true; and, further, that 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, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

(SIGNED) _____ Date: _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

PUBLIC CONTRACT CODE

Public Contract Code Section 10285.1 Statement

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

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

Public Contract Code Section 10162 Questionnaire

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

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

Yes ____ No ____

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

Public Contract Code 10232 Statement

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

(SIGNED) _____ Date: _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

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

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

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

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

(SIGNED) _____ Date: _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete. Providing false information may result in criminal prosecution or administrative sanctions.

Form **W-9**
(Rev. October 2018)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

► Go to www.irs.gov/FormW9 for instructions and the latest information.

Give Form to the
requester. Do not
send to the IRS.

Print or type.
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ► _____	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
6 City, state, and ZIP code	
7 List account number(s) here (optional)	

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number	
<div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div>	<div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div>
OR	
Employer identification number	
<div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div>	<div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div> <div style="border: 1px solid black; width: 100%; height: 20px; margin-bottom: 2px;"></div>

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here

Signature of
U.S. person ►

Date ►

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to www.irs.gov/FormW9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
 - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
 - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
 - Form 1099-S (proceeds from real estate transactions)
 - Form 1099-K (merchant card and third party network transactions)
 - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
 - Form 1099-C (canceled debt)
 - Form 1099-A (acquisition or abandonment of secured property)
- Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.
- If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.*

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

Note: If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States.

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items.

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code*, later, and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code*, later, and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account (other than an account maintained by a foreign financial institution (FFI)), list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9. If you are providing Form W-9 to an FFI to document a joint account, each holder of the account that is a U.S. person must provide a Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note: ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C corporation, or S corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box on line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box on line 3.

IF the entity/person on line 1 is a(n) . . .	THEN check the box for . . .
• Corporation	Corporation
• Individual • Sole proprietorship, or • Single-member limited liability company (LLC) owned by an individual and disregarded for U.S. federal tax purposes.	Individual/sole proprietor or single-member LLC
• LLC treated as a partnership for U.S. federal tax purposes, • LLC that has filed Form 8832 or 2553 to be taxed as a corporation, or • LLC that is disregarded as an entity separate from its owner but the owner is another LLC that is not disregarded for U.S. federal tax purposes.	Limited liability company and enter the appropriate tax classification. (P= Partnership; C= C corporation; or S= S corporation)
• Partnership	Partnership
• Trust/estate	Trust/estate

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space on line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 5 ²
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a) J—

A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note: You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns. If this address differs from the one the requester already has on file, write NEW at the top. If a new address is provided, there is still a chance the old address will be used until the payor changes your address in their records.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN.

If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note: See *What Name and Number To Give the Requester*, later, for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at www.SSA.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/Businesses and clicking on Employer Identification Number (EIN) under Starting a Business. Go to www.irs.gov/Forms to view, download, or print Form W-7 and/or Form SS-4. Or, you can go to www.irs.gov/OrderForms to place an order and have Form W-7 and/or SS-4 mailed to you within 10 business days.

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note: Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if item 1, 4, or 5 below indicates otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code*, earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), ABLE accounts (under section 529A), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor ⁴
For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
15. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

¹ List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

² Circle the minor's name and furnish the minor's SSN.

³ You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

⁴ List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships*, earlier.

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Pub. 5027, Identity Theft Information for Taxpayers.

Victims of identity theft who are experiencing economic harm or a systemic problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at spam@uce.gov or report them at www.ftc.gov/complaint. You can contact the FTC at www.ftc.gov/idtheft or 877-IDTHEFT (877-438-4338). If you have been the victim of identity theft, see www.IdentityTheft.gov and Pub. 5027.

Visit www.irs.gov/identitytheft to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

PROPOSAL SIGNATURE SHEET

Accompanying this proposal is _____ (insert the words “cash,” “cashier’s check,” “certified check,” or “bidder’s bond,” (\$ _____),” as the case may be) in amount equal to at least ten percent of the total of the bid.

The names of all persons interested in the foregoing proposal as principals are as follows:

If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a copartnership, state true name of firm, also names of all individual copartners composing firm; if bidder or other interested person is an individual, state first and last names in full.

Licensed in conformance with an act providing for the registration of contractors,

License No. _____ Classification(s) _____

Expiration Date _____

ADDENDA – THIS PROPOSAL IS SUBMITTED WITH RESPECT TO THE CHANGES TO THE CONTRACT INCLUDED IN ADDEND NUMBER/S _____

(Fill in addenda numbers if addenda have been received and insert, in this Proposal, any Engineer's Estimate sheets that were received as part of the addenda.)

By my signature on this proposal I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this proposal I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Noncollusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date: _____

Signature and Title of Bidder

Business Address: _____

Place of Business: _____

Place of Residence: _____

Note: This sheet must be completed and submitted with your bid for your bid to be accepted as complete.

**COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS**

BIDDER'S BOND

We, _____ as Principal, and _____ as Surety are bound unto the County of Stanislaus, State of California, hereafter referred to as "Obligee", in the penal sum of ten percent (10%) of the total amount of the bid of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally,

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

WHEREAS, the Principal is submitted to the Obligee, for the Keyes Road Bridge at T.I.D. Ceres Main Canal project, for which bids are to be opened at Stanislaus County Public Works office located at 1716 Morgan Road, Modesto, CA 95358, June 23, 2020.

NOW, THEREFORE, if the Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in conformance with the bid, and files two bonds with the Obligee, one to guarantee faithful performance of the contract and the other to guarantee payment for labor and materials as provided by law, then this obligation shall be null and void; otherwise, it shall remain in full force.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Dated: _____

Principal

Surety

By: _____
Attorney-in-fact

NOTE: Signatures of those executing for the surety must be properly acknowledged.

CERTIFICATE OF ACKNOWLEDGEMENT

ATTACH APPROPRIATE NOTARY CERTIFICATE AND SEAL

Note: A Bidder's Bond must be completed and submitted with your bid for your bid to be accepted as complete.

RELATIONS WITH RAILROAD (n/a)

This project does not involve the use of railroad properties or adjustments to railroad facilities.

STATE PREVAILING WAGE RATES

For current rates go to the California Department of Industrial Relations webpage at the following:

<http://www.dir.ca.gov/dlsr/DPreWageDetermination.htm>

PART IV – SAMPLE AGREEMENT, BONDS, AND GUARANTEE

COUNTY OF STANISLAUS CONSTRUCTION AGREEMENT

THIS AGREEMENT, entered into by and between _____ whose place of business is located at _____ (“Contractor”), and the County of Stanislaus (“County”), acting under and by virtue of the authority vested in the County by the laws of the State of California.

WHEREAS, County, by its Resolution No. _____ adopted on the _____ day of _____, 20____ awarded a construction contract in the amount of _____ to Contractor for the following project.

Keyes Road Bridge at T.I.D. Ceres Main Canal County Contract Number: 9659

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and County agree as follows:

Article 1. Work

- 1.1 Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents.

Article 2. Architect/Engineer and Project Manager

- 2.1 _____ designed the Project and furnished the Plans and Specifications. _____ shall have the rights assigned to Architect/Engineer in the Contract Documents.
- 2.2 County has designated the Public Works Construction Manager as its Project Manager to act as County’s Representative in all matters relating to the Contract Documents.

Article 3. Contract Time and Liquidated Damages

- 3.1 Contractor shall commence Work on the date established in the Notice to Proceed. County reserves the right to modify or alter the Commencement Date of the Work.
- 3.2 Contractor shall achieve Final Completion of the entire Work and be ready for Final Payment in accordance with Contract Closeout _____ Working Days from the date when the Contract Time commences to run as provided in the Agreement.
- 3.3 Liquidated Damages shall comply with SC-08 of the Special Conditions and 8-1.10 of the Standard Specifications.

- 3.4 Liquidated damages shall apply cumulatively and except as provided below, shall be presumed to be the damages suffered by County resulting from delay in completion of the Work.
- 3.5 Liquidated damages for delay shall only cover administrative, overhead, interest on bonds, and general loss of public use damages suffered by County as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from County (for example, delay claims of other contractors, subcontractors, tenants, or other third parties), and defense costs thereof.

Article 4. Contract Sum

- 4.1 County shall pay Contractor the Contract Sum _____ **Dollars** (\$_____) for completion of Work in accordance with Contract Documents as set forth in Contractor's Bid (Exhibit A).

Article 5. Contractor's Representations

In order to induce County to enter into this Agreement, Contractor makes the following representations and warranties:

- 5.1 Contractor has visited the Site and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions, and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.
- 5.2 Contractor has examined thoroughly and understood all reports of exploration and tests of subsurface conditions, as-built drawings, drawings, products specifications or reports, available for Bidding purposes, of physical conditions, including Underground Facilities, which have been made available for Bidders or which may appear in the Drawings. Contractor accepts the determination set forth in these Documents of the limited extent of the information contained in such materials upon which Contractor may be entitled to rely. Contractor agrees that except for the information so identified, Contractor does not and shall not rely on any other information contained in such reports and drawings.
- 5.3 Contractor has conducted or obtained and has understood all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in Section 5.2 of this Document that pertain to the subsurface conditions, as-built conditions, Underground Facilities and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance or furnishing of Work, as Contractor considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of the Special

Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.

- 5.4 Contractor has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

Article 6. Contract Documents

- 6.1 Contract Documents consist of the following documents, including all changes, addenda, and modifications thereto:

Agreement
Public Works Request for Proposal
Contractor's Response
Project Plans
Project Specifications
State Standard Specifications and Standard Plans
County's Insurance Requirements – (Exhibit B)
Encroachment Permit (if applicable)
Form FHWA-1273 (if applicable)

Article 7. Indemnity

- 7.1 County and each of its officers, employees, consultants and agents including, but not limited to the Board, Architect/Engineer and each County Representative, shall not be liable or accountable in any manner for loss or damage that may happen to any part of the Work; loss or damage to materials or other things used or employed in performing the Work; injury, sickness, disease, or death of any person; or damage to property resulting from any cause whatsoever except their sole negligence, willful misconduct or active negligence, attributable to performance or character of the Work, and Contractor releases all of the foregoing persons and entities from any and all such claims.
- 7.2 To the furthest extent permitted by law (including without limitation California Civil Code Section 2782), Contractor shall assume defense of, and indemnify and hold harmless, County and each of its officers, employees, consultants and agents, including but not limited to the Board, Architect/Engineer and each County representative, from claims, suits, actions, losses and liability of every kind, nature and description, including but not limited to claims and fines of regulatory agencies and attorney's fees and consultant's fees, directly or indirectly arising out of, connected with or resulting from performance of the Work, failure to perform the Work, or condition of the Work which is caused in whole or part by any act or omission of Contractor, Subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether it is caused in part by the negligence of County or by any person or entity required to be indemnified hereunder.

- 7.3 With respect to third-party claims against Contractor, Contractor waives any and all rights to any type of express or implied indemnity against County and each of its officers, employees, consultants and agents including, but not limited to County, the Board, Architect/Engineer and each County representative.
- 7.4 Approval or purchase of any insurance contracts or policies shall in no way relieve from liability nor limit the liability of Contractor, its Subcontractors of any tier, or the officers or agents of any of them.
- 7.5 To the furthest extent permitted by law (including, without limitation, Civil Code Section 2782), the indemnities, releases of liability and limitations of liability, claims procedures, and limitations of remedy expressed throughout the Contract Documents shall apply even in the event of breach of contract, negligence (active or passive), fault or strict liability of the party(is) indemnified, released, or limited in liability, and shall survive the termination, rescission, breach, abandonment, or completion of the Work or the terms of the Contract Documents. If Contractor fails to perform any of these defense or indemnity obligations, County may in its discretion back charge Contractor for County's costs and damages resulting therefrom and withhold such sums from progress payments or other contract moneys which may become due.
- 7.6 The indemnities in the Contract Documents shall not apply to any indemnified party to the extent of its sole negligence or willful misconduct; nor shall they apply to County or other indemnified party to the extent of its active negligence.

Article 8. Miscellaneous

- 8.1 Terms and abbreviations used in this Agreement are defined in Special Conditions, Section 1: DEFINITIONS AND TERMS and will have the meaning indicated therein.
- 8.2 It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of County or acting as an employee, agent, or representative of County, liable on this Agreement or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of the County is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.
- 8.3 Contractor shall not assign any portion of the Contract Documents, and may subcontract portions of the Contract Documents only in compliance with the Subcontractor Listing Law, California Public Contract Code §4100 *et seq.*
- 8.4 The Contract Sum includes all allowances (if any).
- 8.5 In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, Contractor or Subcontractor offers and agrees to assign to the awarding body all rights, title and interest in and to all causes of

action it may have under Section 4 of the Clayton Act (15 U.S.C. §15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time County tenders final payment to Contractor, without further acknowledgment by the parties.

- 8.6 Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are deemed included in the Contract Documents and on file at County's Office, and shall be made available to any interested party on request. Pursuant to California Labor Code §1861, Contractor represents that it is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.
- 8.7 Should any part, term or provision of this Agreement or any of the Contract Documents, or any document required herein or therein to be executed or delivered, be declared invalid, void or unenforceable, all remaining parts, terms and provisions shall remain in full force and effect and shall in no way be invalidated, impaired or affected thereby. If the provisions of any law causing such invalidity, illegality or unenforceability may be waived, they are hereby waived to the end that this Agreement and the Contract Documents may be deemed valid and binding agreements, enforceable in accordance with their terms to the greatest extent permitted by applicable law. In the event any provision not otherwise included in the Contract Documents is required to be included by any applicable law, that provision is deemed included herein by this reference (or, if such provision is required to be included in any particular portion of the Contract Documents, that provision is deemed included in that portion).
- 8.8 This Agreement and the Contract Documents shall be deemed to have been entered into in the County of Stanislaus, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in Stanislaus County Superior Court. Contractor accepts the Claims Procedure in Special Conditions, Article SC-16, WORK DISPUTES, as a claims procedure by agreement under the California Government Code, Title 1, Division 3.6, Part 3, Chapter 5.
- 8.9 Notices: Any notices, documents, correspondence or other communications concerning this Agreement or the work hereunder may be provided by personal delivery, facsimile or mail and shall be addressed as set forth below. Such communication shall be deemed served or delivered: a) at the time of delivery if such communication is sent by personal delivery; b) at the time of transmission if such communication is sent by facsimile; and c) 48 hours after deposit in the U.S. Mail as reflected by the official U.S. postmark if such communication is sent through regular United States mail.

If to County:

If to Contractor:

IN WITNESS WHEREOF the parties have executed this Agreement in quadruplicate the day and year first above written.

COUNTY OF STANISLAUS

CONTRACTOR

By: _____
David A. Leamon, Director
Department of Public Works

By: _____

APPROVED AS TO FORM:

Thomas E. Boze, County Counsel

By: _____
Todd James
Deputy County Counsel

END OF AGREEMENT

SAMPLE CONSTRUCTION PERFORMANCE BOND

This Construction Performance Bond ("Bond") is dated _____ in the penal sum of _____ which is one hundred percent of the Contract Sum, and is entered into by and between the parties listed below to ensure the faithful performance of the Construction Contract listed below. This Bond consists of this page and the Bond Terms and Conditions as stated on the following page. Any singular reference to _____ ("Contractor"), _____ ("Surety"), County of Stanislaus ("County"), or other party shall be considered plural where applicable.

CONTRACTOR:_____
Name_____
Address_____
City/State/Zip**SURETY:**_____
Name_____
Principal Place of Business_____
City/State/Zip**CONSTRUCTION CONTRACT:****CONTRACT NUMBER:**

Dated _____ in the Amount of \$ _____ (the "Penal Sum").

CONTRACTOR:

Company: (Corp. Seal)

Signature_____
Name_____
Title**SURETY:**

Company: (Corp. Seal)

Signature_____
Name_____
Title

SAMPLE CONSTRUCTION PERFORMANCE BOND TERMS AND CONDITIONS

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to County for the complete and proper performance of the Construction Contract, which is incorporated herein by reference.
2. If Contractor completely and properly performs all of its obligations under the Construction Contract, Surety and Contractor shall have no obligation under this Bond.
3. If there is no County Default, Surety's obligation under this Bond shall arise after:
 - 3.1 County has declared a Contractor Default under the Construction Contract pursuant to the terms of the Construction Contract; and
 - 3.2 County has agreed to pay the Balance of the Contract Sum:
 - 3.2.1 To Surety in accordance with the terms of this Bond and the Construction Contract; or
 - 3.2.2 To a contractor selected to perform the Construction Contract in accordance with the terms of this Bond and the Construction Contract.
4. When County has satisfied the conditions of Paragraph 3, Surety shall promptly (within thirty (30) Days) and at Surety's expense elect to take one of the following actions:
 - 4.1 Arrange for Contractor, with consent of County, to perform and complete the Construction Contract (but County may withhold consent, in which case the Surety must elect an option described in Paragraphs 4.2, 4.3 or 4.4, below); or
 - 4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; provided, that Surety may not select Contractor as its agent or independent contractor without County's consent; or
 - 4.3 Undertake to perform and complete the Construction Contract by obtaining bids from qualified contractors acceptable to County for a contract for performance and completion of the Construction Contract and, upon determination by County of the lowest responsive and responsible Bidder, arrange for a contract to be prepared for execution by County and the contractor selected with County's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract; and, if Surety's obligations defined in Paragraph 6, below, exceed the Balance of the Contract Sum, then Surety shall pay to County the amount of such excess; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances and, after investigation and consultation with County, determine in good faith its monetary obligation to County under Paragraph 6, below, for the performance and completion of the Construction Contract and, as soon as practicable after the amount is determined, tender payment therefore to County with full explanation of the payment's calculation. If County accepts Surety's tender under this Paragraph 4.4, County may still hold Surety liable for future damages then unknown or unliquidated resulting from the Contractor Default. If County disputes the amount of Surety's tender under this Paragraph 4.4, County may exercise all remedies available to it at law to enforce Surety's liability under Paragraph 6, below.
5. If Surety does not proceed as provided in Paragraph 4, then Surety shall be deemed to be in default on this Bond ten (10) Days after receipt of an additional written notice from County to Surety demanding that Surety perform its obligations under this Bond. At all times County shall be entitled to enforce any remedy available to County at law or under the Construction Contract including, without limitation, and by way of example only, rights to perform work, protect Work, mitigate damages, advance critical Work to mitigate schedule delay, or coordinate Work with other consultants or contractors.
6. Surety's monetary obligation under this Bond is limited by the amount of this Bond identified herein as the Penal Sum. This monetary obligation shall augment the Balance of the Contract Sum. Subject to these limits, Surety's obligations under this Bond are commensurate with the obligations of Contractor under the Construction Contract. Surety's obligations shall include, but are not limited to:
 - 6.1 The responsibilities of Contractor under the Construction Contract for completion of the Construction Contract and correction of Defective Work;
 - 6.2 The responsibilities of Contractor under the Construction Contract to pay liquidated damages, and for damages for which no liquidated damages are specified in the Construction Contract, actual damages caused by non-performance of the Construction Contract including, but not limited to, all valid and proper backcharges, offsets, payments, indemnities, or other damages;
 - 6.3 Additional legal, design professional and delay costs resulting from Contractor Default or resulting from the actions or failure to act of the Surety under Paragraph 4, above (but excluding attorney's fees incurred to enforce this Bond).
7. No right of action shall accrue on this Bond to any person or entity other than County or its successors or assigns.
8. Surety hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, purchase orders and other obligations, including changes of time. Surety consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, Modification, deletion, or addition to the Contract Documents, or of the Work required thereunder, shall release or exonerate Surety on this Bond or in any way affect the obligations of Surety on this Bond.
9. Any proceeding, legal or equitable, under this Bond shall be instituted in any court of competent jurisdiction where a proceeding is pending between County and Contractor regarding the Construction Contract, or in the courts of the County of Stanislaus, or in a court of competent jurisdiction in the location in which the Work is located. Communications from County to Surety under Paragraph 3.1 of this Bond shall be deemed to include the necessary agreements under Paragraph 3.2 of this Bond unless expressly stated otherwise.
10. All notices to Surety or Contractor shall be mailed or delivered (at the address set forth on the signature page of this Bond), and all notices to County shall be mailed or delivered as provided in the Agreement. Actual receipt of notice by Surety, County or Contractor, however accomplished, shall be sufficient compliance as of the date received at the foregoing addresses.
11. Any provision in this Bond conflicting with any statutory or regulatory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein.
12. Definitions
 - 12.1 Balance of the Contract Sum: The total amount payable by County to Contractor pursuant to the terms of the Construction Contract after all proper adjustments have been made under the Construction Contract, for example, deductions for progress payments made, and increases/decreases for approved Modifications to the Construction Contract.
 - 12.2 Construction Contract: The agreement between County and Contractor identified on the signature page of this Bond, including all Contract Documents and changes thereto.
 - 12.3 Contractor Default: Material failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract including, but not limited to, "default" or any other condition allowing a termination for cause as provided in Section 8-1.11 of the State of California, Department of Transportation, Standard Specifications.
 - 12.4 County Default: Material failure of County, which has neither been remedied nor waived, to pay Contractor progress payments due under the Construction Contract or to perform other material terms of the Construction Contract, if such failure is the cause of the asserted Contractor Default and is sufficient to justify Contractor termination of the Construction Contract.

SAMPLE CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND

This Construction Labor and Material Payment Bond ("Bond") is dated _____ in the penal sum of _____ which is one hundred percent of the Contract Sum, and is entered into by and between the parties listed below to ensure the faithful performance of the Construction Contract listed below. This Bond consists of this page and the Bond Terms and Conditions as stated on the following page. Any singular reference to _____ ("Contractor"), _____ ("Surety"), County of Stanislaus ("County"), or other party shall be considered plural where applicable.

CONTRACTOR:_____
Name_____
Address_____
City/State/Zip**SURETY:**_____
Name_____
Principal Place of Business_____
City/State/Zip**CONSTRUCTION CONTRACT:****CONTRACT NUMBER:**

Dated _____ in the Amount of \$ _____ (the "Penal Sum").

CONTRACTOR:

Company: (Corp. Seal)

Signature_____
Name_____
Title**SURETY:**

Company: (Corp. Seal)

Signature_____
Name_____
Title

SAMPLE CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND
TERMS AND CONDITIONS

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to County and to Claimants, to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.
2. With respect to County, this obligation shall be null and void if Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimant; and
 - 2.2 Defends, indemnifies and hold harmless County from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Construction Contract, provided County has promptly notified Contractor and Surety (at the address set forth on the signature page on this Bond) or any claims, demands, lien or suits and tendered defense of such claims, demands, liens or suits to Contractor and Surety, and provided there is no County Default.
3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly through its Subcontractors, for all sums due Claimants. If Contractor or its Subcontractors, however, fail to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to Work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of Contractor or Subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, then Surety shall pay for the same, and also, in case suit is brought upon this Bond, a reasonable attorney's fee, to be fixed by the court.
4. Consistent with the California's Mechanic's Lien Law, Civil Code §3082, *et seq.*, Surety shall have no obligation to Claimants under this Bond unless the Claimant has satisfied all applicable notice requirements.
5. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety under this Bond.
6. Amounts due Contractor under the Construction Contract shall be applied first to satisfy claims, if any, under any Construction Performance Bond and second, to satisfy obligations of Contractor and Surety under this Bond.
7. County shall not be liable for payment of any costs, expenses, or attorney's fees of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
8. Surety hereby waives notice of any change, including changes to time, to the Construction Contract or to related subcontracts, purchase orders and other obligations. Surety further hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Construction Contract, or to the Work to be performed thereunder, or materials or equipment to be furnished thereunder or the Specifications accompanying the same, shall in any way affect its obligations under this Bond, and it does hereby waive any requirement of notice or any such change, extension of time, alteration or addition to the terms of the Construction Contract or to the Work or to the Specifications or any other changes.
9. Suit against Surety on this Bond may be brought by any Claimant, or its assigns, at any time after the Claimant has furnished the last of the labor or materials, or both, but, per Civil Code §3249, must be commenced before the expiration of six (6) months after the period in which stop notices may be filed as provided in Civil Code §3184.
10. All notices to Surety or Contractor shall be mailed or delivered (at the address set forth on the signature page of this Bond), and all notices to County shall be mailed or delivered as provided in Agreement. Actual receipt of notice by Surety, County or Contractor, however accomplished, shall be sufficient compliance as of the date received at the foregoing address.
11. This Bond has been furnished to comply with the California Mechanic's Lien Law including, but not limited to, Civil Code §3247, 3248, *et seq.* Any provision in this Bond conflicting with said statutory or other legal requirements shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
12. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
13. Definitions:
 - 13.1 Claimant: An individual or entity having a direct contract with Contractor or with a Subcontractor of Contractor to furnish labor, materials or equipment for use in the performance of the Contract, as further defined in California Civil Code §3181. The intent of this Bond shall be to include without limitation in the terms "labor, material or equipment" that part of water, gas, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a stop notice might be asserted. The Term Claimant shall also include the Unemployment Development Department as referred to in Civil Code §3248(b),
 - 13.2 Construction Contract: The agreement between County and Contractor identified on the signature page of this Bond, including all Contract Documents and changes thereto.
 - 13.3 County Default: Material failure of County, which has neither been remedied nor waived, to pay the Contractor as required by the Construction Contract, provided that failure is the cause of the failure of Contractor to pay the Claimants and its sufficient to justify termination of the Construction Contract.

SAMPLE GUARANTEE

TO: The County of Stanislaus ("County"), for construction of the

The undersigned guarantees all construction performed on this Project and also guarantees all material and equipment incorporated therein.

Contractor hereby grants to County for a period of one (1) year following the date of Final Acceptance of the Work completed, or such longer period specified in the Contract Documents, its unconditional warranty of the quality and adequacy of all of the Work including, without limitation, all labor, materials and equipment provided by Contractor and its Subcontractors of all tiers in connection with the Work.

Neither final payment nor use nor occupancy of the Work performed by the Contractor shall constitute an acceptance of Work not done in accordance with this Guarantee or relieve Contractor of liability in respect to any express warranties or responsibilities for faulty materials or workmanship. Contractor shall remedy any defects in the Work and pay for any damage resulting therefrom, which shall appear within one year, or longer if specified, from the date of Final Acceptance of the Work completed.

If within one (1) year after the date of Final Acceptance of the Work completed, or such longer period of time as may be prescribed by laws or regulations, or by the terms of Contract Documents, any Work is found to be Defective, Contractor shall promptly, without cost to County and in accordance with County's written instructions, correct such Defective Work. Contractor shall remove any Defective Work rejected by County and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, County may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, County shall have all rights and remedies granted by law.

Inspection of the Work shall not relieve Contractor of any of its obligations under the Contract Documents. Even though equipment, materials, or Work required to be provided under the Contract Documents have been inspected, accepted, and estimated for payment, Contractor shall, at its own expense, replace or repair any such equipment, material, or Work found to be Defective or otherwise not to comply with the requirements of the Contract Documents up to the end of the guarantee period.

All abbreviations and definitions of terms used in this Agreement shall have the meanings set forth in the Contract Documents, including, without means of limitation, Special Provisions.

The foregoing Guarantee is in addition to any other warranties of Contractor contained in the Contract Documents, and not in lieu of, any and all other liability imposed on Contractor under the Contract Documents and at law with respect to Contractor's duties, obligations, and performance under the Contract Documents. In the event of any conflict or inconsistency between the terms of this Guarantee and any warranty or obligation of the Contractor under the Contract Documents or at law, such inconsistency or conflict shall be resolved in favor of the higher level of obligation of the Contractor.

(SIGNATURE NEXT PAGE)

Date: _____

Contractor's Name

Signature

Print Name

Title

Street Address

City, State, Zip Code

COUNTY OF STANISLAUS DEPARTMENT OF PUBLIC WORKS

PART V - SPECIAL CONDITIONS

SC-01 DEFINITIONS AND TERMS

The work herein shall be done in accordance with the Standard Specifications, and the Standard Plans dated 2015, of the California Department of Transportation insofar as the same may apply and these Special Provisions.

In case of conflict between the Standard Specifications and these Special Provisions, the Special Provisions shall take precedence.

Whenever in the Standard Specifications, Standard Plans, Special Provisions, Invitation to Bidders, Proposal, Contract, or other contract documents the following terms are used, the intent and meaning shall be interpreted as follows:

State or State of California – County of Stanislaus

Department of Transportation – Stanislaus County, Department of Public Works

Director of Transportation – Stanislaus County, Director of Public Works

District Director – Stanislaus County, Director of Public Works

Engineer – Resident Engineer

Attorney General – Stanislaus County, County Counsel

Contract – Agreement

Amendments to the Standard Specifications set forth in these Specifications shall be considered as part of the Standard Specifications for the purposes set forth in Section 5-1.02, "Contract Components," of the Standard Specifications. Whenever either the term "Standard Specifications is amended" or the term "Standard Specifications are amended" is used in the Special Provisions, the indented text or table following the term shall be considered an amendment to the Standard Specifications. In case of conflict between such amendments and the Standard Specifications, the amendments shall take precedence over and be used in lieu of the conflicting portions.

Attention is directed to Section 1 of the Standard Specifications and to the following additional and qualifying definitions:

Board of Supervisors – Board of Supervisors, Stanislaus County, State of California.

Contractor – Any person or persons, firm, partnership, corporation or a combination thereof who have entered into a contract with any person, corporation, company, special district, the County of Stanislaus as a party or parties of the second part, or his or their legal representatives, for the construction of any capital improvement within the County of Stanislaus.

County – County of Stanislaus, a political subdivision of the State of California.

Design Engineer – Any person or persons, firm, partnership or corporation legally authorized to practice civil engineering in the State of California who prepares improvement plans and specifications for any improvement or portion of any improvement within the County of Stanislaus.

Department – Department of Public Works, County of Stanislaus.

Developer/Subdivider – A person, firm, partnership, corporation, association, or agent thereof who causes land to be divided into a subdivision or causes existing property to be developed for himself or for others.

Director – The Public Works Director of County of Stanislaus, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties delegated to them.

Standards and Specifications – Improvement Specifications and Standards of the County of Stanislaus, Public Works Department. In case of conflicts, The Standard Specifications and Standard Plans of the State of California and Special Provisions should take precedence over The Improvement Specifications and Standards of The County of Stanislaus.

Laboratory – Any testing agency or quality control firm licensed to practice in the State of California.

Owner – County of Stanislaus.

Project Plans – The project plans are specific details and dimensions peculiar to the work and are supplemented by the Standard Plans and Standard Drawings insofar as they may apply.

Special Provisions – The special provisions are specific clauses setting forth conditions or requirements peculiar to the work and supplementary to the Standard Specifications of the State of California.

Standard Plans – Standard Plans 2015 of the State of California Department of Transportation unless otherwise noted on the Project Plans.

Standard Details – Standard Details of the County of Stanislaus, unless otherwise noted on The Project Plans.

Standard Specifications – Standard Specifications 2015 of the State of California, Department of Transportation.

SC-02 PROPOSAL REQUIREMENTS AND CONDITIONS

The bidder's attention is directed to the provisions in Section 2, "Bidding," of the Standard Specifications and these Special Conditions for the requirements and conditions which the bidder must observe in the preparation of the proposal form and the submission of the bid.

In addition to the subcontractors required to be listed in conformance with Section 2-1.10, "Subcontractor List," of the Standard Specifications, each proposal shall have listed therein the portion of work that will be done by each subcontractor listed. A sheet for listing the subcontractors is included in Part III.

The form of Bidder's Bond mentioned in Section 2-1.34, "Bidder's Security," of the Standard Specifications will be found in Part III.

In conformance with Public Contract Code Section 7106, a Noncollusion Affidavit is included in Part III.

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

SC-03 EXCAVATION SAFETY PLANS

Attention is directed to Section 7-1.02K(6)(b), "Excavation Safety" of the Standard Specifications and these Special Conditions.

The Contractor's attention is directed to the provisions, which require submitting a shoring/bracing plan for County's Review and approval.

Approval by the Engineer of the shoring drawings or shoring inspection performed by the Engineer shall in no way relieve the Contractor of full responsibility for adequacy of the shoring.

When construction is taking place in a public area, the Contractor shall take all necessary precautions to protect the public from the hazards of open excavations. Trenches shall be covered at night, on weekends, and during non-working hours.

SC-04 CONTROL OF MATERIALS

Attention is directed to Section 6-1.01 of the Standard Specifications.

The Contractor shall comply with Section 6-1.02, "Department-Furnished Materials," of the Standard Specifications and these Special Conditions. The following materials shall be furnished to the Contractor:

NONE.

The Contractor shall be responsible for Quality Control. Contractor Quality Control shall comply with 6-2.02 of the Standard Specifications.

The County will perform Quality Assurance testing per 6-2.03 of the Standard Specifications and according to the County's Quality Assurance program.

SC-05 LEGAL RELATIONS AND RESPONSIBILITY

Prevailing Wage and Certified Payrolls

The Contractor shall comply with Section 7-1.02K(2) "Wages" and Section 7-1.02K(3) "Certified Payroll Records (Labor Code §1776)" of the Standard Specifications.

The general prevailing wage rates determined by the Director of Industrial Relations, for the County in which the work is to be done, are available at the County of Stanislaus Department of Public Works, Construction Division, 1716 Morgan Road, Modesto, CA 95358 and the Division of Labor Statistics and Research web page:

http://www.dir.ca.gov/DLSR/statistics_research.html

These wage rates are not included in the Proposal and Agreement for the project. Changes, if any, to the general prevailing wage rates will be available at the same location.

The County does not accept Certified Payroll Submittals by electronic filing.

Immediate changes:

- **Duty to notify DIR when awarding a contract for a public works project, using the online [PWC-100 form](#).** This requirement, found in Labor Code Section 1773.3, now applies to *all* public works projects. Previously it applied to projects subject either to apprenticeship or DIR compliance monitoring requirements.
- **Elimination of the obligation to pay DIR for compliance monitoring on state bond-funded projects and other projects that required use of DIR's Compliance Monitoring Unit (CMU).** *DIR will continue to monitor compliance on these projects but will not charge awarding bodies for any services provided on or after June 20, 2014 [the effective date of SB 854]. The alternative of using a DIR-approved Labor Compliance Program (LCP) or a project labor agreement in lieu of the CMU on one of these projects has also been eliminated. However, for ongoing projects that were using one of the alternatives, monitoring should continue until the project is completed.*

Phased-in changes:

I. Public Works Contractor Registration Program

- **All contractors and subcontractors who bid or work on a public works project must register and pay an annual fee to DIR.** The phase-in timetable is as follows:

July 1, 2014: Registration program became effective and first contractors registered. Initial registrations will be valid through June 30, 2015.

March 1, 2015: No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with DIR.

April 1, 2015: No contractor or subcontractor may work on a public works project unless registered with DIR. All projects bid before March 1, 2015, or awarded prior to April 1, 2015 will not trigger the registration requirements.

- **Once the registration requirement becomes mandatory (March 1, 2015 for bids and April 1, 2015 for projects awarded), an awarding body may not accept a bid or enter into a contract for public work with an unregistered contractor.**
 - DIR maintains an up-to-date [listing of registered contractors](#).
 - There are *exceptions* to the registration requirement for bidders in circumstances where a CSLB license would not be required at the time of bidding.
 - Additional exceptions and protections are included in the registration laws to limit bid challenges, allow some violations to be cured through payment of penalty fees, and allow unregistered contractors to be replaced with registered ones.

II. NOTICE REQUIREMENTS

- **January 1, 2015:** The call for bids and contract documents must include the following information:

- No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) unless registered with the 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 (awarded on or after April 1, 2015) 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.
- **[To be determined]:** The awarding body must post or require the prime contractor to post job site notices prescribed by regulation. (*See* 8 Calif. Code Reg. §16451(d) for the notice that previously was required for projects monitored by the CMU.)

III. FURNISHING OF ELECTRONIC CERTIFIED PAYROLL RECORDS TO LABOR COMMISSIONER

- **All contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement).** The phase-in timetable for this requirement is as follows:

June 20, 2014 [immediate]: Any project that was being monitored by the CMU/Labor Commissioner prior to the adoption of SB 854 will continue to be monitored by the Labor Commissioner afterward; and the contractors on those projects must continue to furnish certified payroll records to the Labor Commissioner until the project is complete.

April 1, 2015: For all new projects awarded on or after this date, the contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner.

Anytime: For projects besides those listed above, the Labor Commissioner may at any time require the contractors and subcontractors to furnish electronic certified payroll records. *The Labor Commissioner anticipates requiring this for green energy school projects that receive Proposition 39 funding.*

January 1, 2016: The requirement to furnish electronic certified payroll records to the Labor Commissioner will apply to all public works projects, whether new or ongoing.

Exceptions: The Labor Commissioner may (but is not required to) excuse contractors and subcontractors from furnishing electronic certified payroll records to the Labor Commissioner on a project that is under the jurisdiction of one of the four legacy DIR-approved labor compliance programs (Caltrans, City of Los Angeles, Los Angeles Unified School District, and County of Sacramento) or that is covered by a qualifying project labor agreement.

These new requirements will apply to all public works that are subject to the prevailing wage requirements of the Labor Code, without regard to funding source.

Ongoing projects that were subject to Labor Compliance Program (LCP) or Compliance Monitoring Unit (CMU) requirements prior to the adoption of SB 854:

Older projects (contract for public work was awarded prior to January 1, 2012): The LCP requirements and alternatives that applied to projects funded by Propositions 47, 55, or 84 and to certain design-build projects *remain in effect*. These monitoring and compliance requirements must continue to be observed through the end of the project, even if the Labor Commissioner starts monitoring the project pursuant to SB 854.

More recent projects (contract for public work was awarded on or after January 1, 2012): All requirements for state bond-funded projects and other design-build and specially authorized projects to use the CMU or a specified alternative *have been repealed*. However, it is important to note the following:

- Any project that was being monitored by the CMU/Labor Commissioner prior to the adoption of SB 854 will continue to be monitored by the Labor Commissioner after; and the contractors on those projects must continue to furnish certified payroll records to the Labor Commissioner until the project is complete.
- Bond funding agencies (such as the State Allocation Board) may still require that awarding bodies demonstrate past compliance with DIR requirements in order to qualify for retroactive funding. In particular, awarding bodies may need to show that they notified DIR of the project using the PWC-100.
- The LCP requirement for past, present, and future projects funded by Proposition 84 (Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006) *remains in effect*. This LCP requirement must continue to be observed, even if the Labor Commissioner also monitors the project pursuant to SB 854.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to 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 at the time the contract is awarded.

Apprentices

The Contractor shall comply with Section 7-1.02K(4) "Apprentices" of the Standard Specifications to ensure compliance and complete understanding of the law regarding apprentices.

Water Pollution

Water pollution Control shall comply with SP-03, "Water Pollution Control (WPC)" of the Special Provisions.

Sound Control Requirements

Sound control shall conform to the provisions in Section 14-8.02, "Noise Control," of the Standard Specifications and these Special Conditions.

The noise level from the Contractor's operations, between the hours of 9:00 p.m. and 6:00 a.m., shall not exceed 86 DBA at a distance of 50 feet. This requirement shall not relieve the Contractor from responsibility for complying with local ordinances regulating noise level.

The noise level requirement shall apply to the equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed there for.

Permits

The Contractor shall conform to the requirements of Section 5-1.20B “Permits, Licenses, Agreement, and Certification” of Standard Specifications and these Special Conditions. The Contractor shall conform to the requirements of:

Compensation for conforming to the requirements of “Permits” shall be included in the various items of work, and no additional compensation will be allowed.

Notice and Removal of Asbestos and Hazardous Substances

When the presence of asbestos or hazardous substances are not shown on the plans or indicated in the specifications and the Contractor encounters materials which the Contractor reasonably believes to be asbestos or a hazardous substance as defined in Section 25914.1 of the Health and Safety Code, and the asbestos or hazardous substance has not been rendered harmless, the Contractor may continue work in unaffected areas reasonably believed to be safe. The contractor shall immediately cease work in the affected area and report the condition to the Engineer in writing.

Contractor shall give a written Notice of Hazardous Materials Condition to County promptly, before any of the following conditions are disturbed (except in an emergency as required by Article SC-22, Emergencies, and in no event later than twenty-four (24) hours after first observance of any:

- a. Material that Contractor believes may be hazardous waste or hazardous material, as defined in Section 25117 of the Health and Safety Code (including, without limitation, asbestos, lead, PCBs, petroleum and related hydrocarbons, and radioactive material) that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law (“hazardous material”); or
- b. Other material that may present an imminent substantial danger to persons or property exposed thereto in connection with Work at the Site (“other materials”).

Except as otherwise provided in the Contract Documents or as provided by applicable law, Contractor shall not be required to give any notice for the disturbance or observation of any such hazardous materials or other materials where such matter is disturbed or observed as part of the scope of Work under the Contract Documents (such as hazardous waste or hazardous material investigation, remediation or disposal activities which are identified as the subject of Work under the Contract Documents), where Contractor complies with all requirements in the Contract Documents and applicable law respecting such materials.

Contractor’s Notice of Hazardous Materials Condition shall indicate whether the hazardous materials or other materials were shown or indicated in the Contract Documents to be within the scope of Work, and whether the hazardous materials or other materials were brought to the Site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible.

Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed hazardous waste or materials if:

- a. Contractor knew of the existence of such hazardous materials or other materials at the time Contractor submitted its Bid; or
- b. Contractor should have known of the existence of such hazardous material or other materials as a result of its having the responsibility to obtain additional or supplementary examinations,

investigation, explorations, tests, studies, and data concerning the conditions at or contiguous to the Site prior to submitting its Bid; or

- c. Contractor failed to give the written notice within the time required by this Article.

If County determines that conditions involve hazardous materials or other materials and that a change in Contract Document terms is justified, County will issue either a Request for Proposal or Construction Change Directive under the procedures described in the Contract Documents, including without limitation Article SC-17 Alterations and Modifications. If County determines that conditions do not involve hazardous materials or other materials or that no change in Contract Document terms is justified, County will notify Contractor in writing, stating the reasons for its determination.

If County and Contractor are unable to agree on entitlement to or as to the amount or length of any adjustment in the Contract Sum or Contract Time required under this section, Contractor shall proceed with the Work as directed by County and may make a claim as provided in Article SC-16, WORK DISPUTES.

In addition to the parties' other rights under this section, if Contractor does not agree to resume Work based on a reasonable belief that it is unsafe, or does not agree to resume Work under special conditions, County may order the disputed portion of Work deleted from the Work, or performed by others, or County may invoke its right to terminate Contractor's right to proceed under the Contract Documents in whole or in part, for convenience or for cause as the facts may warrant. If Contractor does not agree with County's determination of any adjustment in the Contract Sum or Contract Time as a result, Contractor may make a claim as provided in Article SC-16, WORK DISPUTES.

In conformance with Section 25914.2 of the Health and Safety Code, removal of asbestos or hazardous substances including exploratory work to identify and determine the extent of the asbestos or hazardous substance will be performed by separate contract.

If exploratory or removal work delays the current controlling operation, the delay will be considered a right-of-way delay and the Contractor shall be compensated for the delay in conformance with the provisions in Section 8-1.07, "Delays" of the Standard Specifications.

Public Convenience

Where work is to be performed in residential or commercial driveways, suitable provisions approved by the Engineer shall be made by the Contractor prior to commencing work. The Contractor shall minimize the duration of said blocking and notify the property owners of this need at least forty-eight (48) hours in advance.

Contractor shall provide access to each residential or commercial establishment each evening. No driveway shall be closed over a weekend. No driveway shall be closed for more than a total of eight (8) hours. Where concrete has been removed, a temporary surface shall be placed suitable to provide vehicular access to the property if reconstruction has not been completed by that evening. Access to private property shall be provided at all times during construction except when access must be denied to protect forms or to permit improvements to be constructed. The County may require grading to the back of the new driveway approach so as to provide adequate access. Such work shall be done at no additional compensation.

Public Safety

The Contractor shall provide for the safety of traffic and the public in conformance with the provisions in Section 7-1.04, "Public Safety," of the Standard Specifications and these Special Conditions.

Except for installing, maintaining and removing traffic control devices, whenever work is performed or equipment is operated in the following work areas, the Contractor shall close the adjacent traffic lane unless otherwise provided in the Standard Specifications and these Special Conditions:

Approach Speed of Public Traffic Posted Limit Miles Per Hour	Work Areas
45	Within 6 feet of a traffic lane but not on a traffic lane
35 to 45	Within 3 feet of a traffic lane but not on a traffic lane

The lane closure provisions of this section shall not apply if the work area is protected by permanent or temporary railing or barrier.

When traffic cones or delineators are used to delineate a temporary edge of a traffic lane, the line of cones or delineators shall be considered to be the edge of the traffic lane, however, the Contractor shall not reduce the width of an existing lane to by more than two (2) feet without written approval from the Engineer.

When work is not in progress on a trench or other excavation that required closure of an adjacent lane, the traffic cones or portable delineators used for the lane closure shall be placed off of and adjacent to the edge of the traveled way. The spacing of the cones or delineators shall be not more than the spacing used for the lane closure.

Suspended loads or equipment shall not be moved nor positioned over public traffic or pedestrians.

The Contractor shall install temporary railing (Type K) between a lane open to public traffic and an excavation, obstacle or storage area when the following conditions exist:

- A. The near edge of the excavation is 15' or less from the edge of the lane, except:
 - i. Excavations covered with sheet steel or concrete covers of adequate thickness to prevent accidental entry by traffic or the public.
 - ii. Excavations protected by existing barrier or railing.
 - iii. Trenches less than 1' wide for irrigation pipe or electrical conduit, or excavations less than 1' in depth.
- B. Excavations parallel to the lane for the purpose of pavement widening or reconstruction.
- C. Excavations in side slopes, where the slope is steeper than 4:1 (horizontal:vertical).
- D. Temporarily Unprotected Permanent Obstacles. The work includes the installation of a fixed obstacle together with a protective system, such as a sign structure together with protective railing, and the Contractor elects to install the obstacle prior to installing the protective system; or the Contractor, for the Contractor's convenience and with permission of the Engineer, removes a portion of an existing protective railing at an obstacle and does not replace such railing complete in place during the same day.

- E. Storage Areas. Material or equipment is stored within 12' of the lane and the provisions of the Standard Specifications and these Special Conditions do not otherwise prohibit the storage.

The approach end of temporary railing (Type K), installed in conformance with the provisions in this section "Public Safety" and in Section 7-1.04 "Public Safety," of the Standard Specifications, shall be offset a minimum of 15' from the edge of the traffic lane open to public traffic. The temporary railing shall be installed on a skew toward the edge of the traffic lane of not more than 1' transversely to 10' longitudinally with respect to the edge of the traffic lane. If the 15' minimum offset cannot be achieved, the temporary railing shall be installed on the 10:1 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 shall be installed at the approach end of the temporary railing.

Temporary railing (Type K) shall conform to the provisions in Section 12-3.20 "Type K Temporary Railing," of the Standard Specifications. Temporary railing (Type K) conforming to the details shown on 2015 Standard Plan T3A and T3B may be used.

Temporary crash cushion modules shall conform to the provisions in Section 12-3.22, "Temporary Crash Cushion Module" of the Standard Specification.

Full compensation for conforming to the provisions in this section "Public Safety," including furnishing and installing temporary railing (Type K) and temporary crash cushion modules, shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefore.

Cooperation

The Contractor shall conform to the requirements of Section 5-1.20 "Coordination with Other Entities" of the Standard Specifications and these Special Conditions.

Compensation for conforming to the requirements of "Cooperation" shall be included in the various items of work and no additional compensation will be allowed.

SC-06 PROSECUTION AND PROGRESS

Subcontracting

Attention is directed to the provisions in Section 5-1.13, "Subcontracting," of the Standard Specifications, and SC-2, "Proposal Requirements and Conditions," of these Special Conditions.

Pursuant to the provisions of Section 1777.1 of the Labor Code, the Labor Commissioner publishes and distributes a list of contractors ineligible to perform work as a subcontractor on a public works project. This list of debarred contractors is available from the Department of Industrial Relations web site at:

<http://www.dir.ca.gov/DLSE/Debar.html>

Each subcontract and any lower tier subcontract that may in turn be made shall include the "Required Contract Provisions Federal-Aid Construction Contracts" in SC-12 of these Special Conditions. This requirement shall be enforced as follows:

Noncompliance shall be corrected. Payment for subcontracted work involved shall be withheld from progress payments due, or to become due, until correction is made. Failure to comply may result in termination of the contract.

Prosecution

The Contractor shall comply with the provisions in Section 8-1.04B, "Standard Start," Section 8-1.05, "Time," and Section 8-1.10, "Liquidated Damages," of the Standard Specifications and these Special Provisions.

Liquidated Damages

The County will withhold liquidated damages per calendar day as described in Section 8-1.10, "Liquidated Damages" of the Standard Specifications. The actual daily withhold will be determined according to the chart in Section 8-1.10A, "General" of the Standard Specifications.

The amount specified may, at the option of the County, be deducted from any payments due or to become due to the Contractor.

County may deduct from any money due or to become due to Contractor subsequent to time for completion of entire Work and extensions of time allowed pursuant to provisions hereof, a sum representing then-accrued liquidated damages. Should Contractor fall behind the approved Progress Schedule, County may deduct liquidated damages based on its estimated period of late completion. County need not wait until Final Completion to withhold liquidated damages from Contractor's progress payments. Should money due or to become due to Contractor be insufficient to cover aggregate liquidated damages due, then Contractor forthwith shall pay the remainder of the assessed liquidated damages to County.

Preconstruction Conference

Prior to the issuance of the Notice to Proceed, a pre-construction conference shall be held at the County of Stanislaus, Department of Public works, Engineering Division, 1716 Morgan Road, Modesto, California, for the purpose of discussing with the 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. The Contractor's representative at this conference shall include all major superintendents for the work and may include subcontractors.

All work within the channel shall be completed between November 2 - March 15, 2020. The TID has reserved the right, by agreement, to give forty-eight (48) hour notice and flood the channel after February 15. This provision is exercised only in drought conditions. The CONTRACTOR is encouraged to accelerate his schedule to complete in channel work by February 15. However, the CONTRACTOR is at liberty to communicate with TID, to receive potential updates on the possibility of flooding of the channel by February 15, and adjust the project schedule accordingly. All irrigation line work shall be completed by February 15. The liquidated damage clause will be exercised for non-completion of irrigation line work by February 15.

SC-07 MEASUREMENT AND PAYMENT**Payment**

The County makes contract payments according to Section 9, "Payment" of the Standard Specifications.

Withholds

The County may withhold payment for noncompliance per Section 9-1.16E, "Withholds" of the Standard Specifications.

Progress Payments

Attention is directed to Section 9-1.16, "Progress Payments," and 9-1.17, "Payment After Contract Acceptance," of the Standard Specifications and these Special Conditions.

For the purpose of making progress payments pursuant to Section 9-1.16, "Progress Payments," of the Standard Specifications, the amount set forth for the contract items of work hereinafter listed shall be deemed to be the maximum value of said contract item of work which will be recognized for progress payment purposes.

After acceptance of the contract pursuant to Section 5-1.46, "Final Inspection and Contract Acceptance," of the Standard Specifications, the amount, if any, payable for a contract item of work in excess of the maximum value for progress payment purposes hereinabove listed for said item, will be included for payment in the first estimate made after acceptance of the contract.

No partial payment will be made for any materials on hand which are furnished but not incorporated in the work.

Withholding of Retention Monies

Pursuant to and in accordance with the provisions of Public Contract Code Section 20146, the County shall retain 5 percent of the estimated value of the work done and 5 percent of the value of 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 the Contractor.

Payment of Withheld Funds

Pursuant to and in accordance with the provisions of Public Contract Code Section 22300, the contractor may elect to substitute securities for retention monies withheld by the County or to request payment of retention monies earned to an escrow agent.

Final Payment and Claims

Attention is directed to Section 9-1.17D, "Final Payment and Claims," of the Standard Specifications.

SC-08 GEOTECHNICAL DATA AND EXISTING CONDITIONS

The following geotechnical data and existing conditions data is provided to assist the bidder in preparing their bid. This data is supplied for informational purposes. These materials are not contract documents and Contractor shall not in any manner rely on the information in these materials. Subject to the foregoing, Contractor shall make its own independent investigation of all conditions affecting the Work and must not rely on information provided by County.

The project's Geotechnical Soils Report prepared by Kleinfelder dated September 6, 2019 is included as supplemental information in Appendix "C".

SC-09 SITE DATA

The following site data is provided to assist the bidder in preparing their bid. This data is supplied for informational purposes. These materials are not contract documents and Contractor shall not in any manner rely on the information in these materials. Subject to the foregoing, Contractor shall make its own independent investigation of all conditions affecting the Work and must not rely on information provided by County.

SC-10 BONDS

At or before the date indicated in Part II – INFORMATION TO BIDDERS, Contractor shall file with County the following bonds:

- a. Corporate surety bond, in the form of Construction Performance Bond, in the penal sum of 100% of the Contractor's Bid as accepted, to guaranty faithful performance of the Work; and

- b. Corporate surety bond, in the form of Construction Labor and Material Payment Bond, in the penal sum of 100% of the Contractor's Bid as accepted, to guaranty payment of wages for services engaged and of bills contracted for materials, supplies, and equipment used in performance of Contract Documents.

Sureties shall be satisfactory to County. Corporate sureties on these bonds and on bonds accompanying Bids shall be duly licensed to do business in the State of California and shall have an A.M. Best Company financial rating of [A,VII] or better in termination of the contract.

SC-11 INSURANCE

At or before the date specified in Instructions to Bidders, Contractor shall furnish to County satisfactory proof that Contractor has in force continuously for the entire period covered by the Contract the classes of insurance in the form and with limits and deductibles as specified in Exhibit B.

SC-12 WORK DISPUTES

All disputes shall comply with the provisions of Assembly Bill No. 626 (an act to add and repeal Section 9204 of the Public Contract Code, relating to public contracts. Approved by the Governor: September 29, 2016) and requirements set forth in section 5-1.43, "Potential Claim and Dispute Resolution," of the Standard Specifications.

SC-13 ALTERATIONS AND MODIFICATIONS

The County reserves the right to make changes to the plans and specifications in accordance with section 4-1.05, "Changes and Extra Work," of the Standard Specifications.

SC-14 DISCOVERY OF CONFLICTS, ERRORS, OMISSIONS, OR DISCREPANCIES

In case of discovery by Contractor of conflict, discrepancies, errors, or omissions among the various Contract Documents the matter shall be submitted in writing by Contractor to Engineer for clarification. Any work affected by Contractor prior to clarification by Engineer shall be at Contractor's risk.

SC-15 DIFFERING SITE CONDITIONS

See Section 4-1.06, "Differing Site Conditions" of the Standard Specifications.

If either of the following conditions is encountered at Site when digging trenches or other excavations that extend deeper than four (4) feet below the surface, Contractor shall give a written Notice of Differing Site Conditions to County promptly before conditions are disturbed, except in an emergency as required by Article SC-22, Emergencies, and in no event later than seven (7) days after first observance of:

- a. Subsurface or Latent physical conditions which differ materially from those indicated in the Contract Documents; or
- b. Unknown physical conditions of an unusual nature or which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.

In response to Contractor's Notice of Differing Site Conditions under this paragraph, County will investigate the identified conditions, and if they differ materially and cause increase or decrease in Contractor's cost of, or time required for, performance of any part of the Work, County will issue either a Request for Proposal or a Construction Change Directive under the procedures described in the Contract Documents, including without limitation Article SC-17 Alterations and Modifications. If County determines that physical conditions at the Site are not latent or are not materially different from those

indicated in Contract Documents or that no change in terms of the Contract Documents is justified, County will so notify Contractor in writing, stating reasons.

Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed Latent or materially different Site conditions (whether above or below grade) if:

- a. Contractor knew of the existence of such conditions at the time Contractor submitted its Bid; or
- b. Contractor should have known of the existence of such conditions as a result of having complied with the requirements of Contract Documents, or
- c. Contractor was required to give written Notice of Differing Site Conditions and failed to do so within the time required.

SC-16 TIME ADJUSTMENT AND ENTITLEMENTS FOR DELAYS

Contractor may receive a time extension and be compensated for delays caused directly and solely by the County. Submit an RFI per 8-1.07, "Delays" of the Standard Specifications.

All delay related time adjustments shall be per Section 8-1.07B, "Time Adjustments" of the Standard Specifications.

All delay related payment adjustments shall be per Section 8-1.07C, "Payment Adjustment" of the Standard Specifications.

SC-17 EMERGENCIES

In emergencies affecting the safety or protection of persons or Work or property at the Site or adjacent thereto, Contractor, without special instruction or authorization from County, is obligated to act to prevent threat and damage, injury or loss, until directed otherwise by County. Contractor shall give County prompt written notice if Contractor believes that any significant changes in Work or variations from Contract Documents have been caused thereby. If County determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Change Order or Construction Change Directive will be issued to document the consequences of such action.

SC-18 WORKING DAYS AND LEGAL HOLIDAYS

County will provide inspectors during work days at no cost to the Contractor. Work days shall be defined as hours between 7 a.m. and 5 p.m. any day Monday through Friday of any week, excluding the following legal holidays:

- New Year's Day, January 1
- Martin Luther King Day, January, third Monday
- President's Day, February, third Monday
- Memorial Day, May, last Monday
- Independence Day, July 4
- Labor Day, September, first Monday
- Veteran's Day, November 11
- Thanksgiving Day, November, fourth Thursday
- Friday after Thanksgiving Day
- Christmas Eve, 1PM -5PM
- Christmas Day, December 25

If the Contractor elects to schedule work outside normal hours of work, the Contractor shall request the additional days or hours at least forty-eight (48) hours prior to the work. No work shall be done outside of the normal working hours, without the prior consent of the County. The Contractor shall be responsible for payment to the County for providing inspectors for those days or hours. Inspector costs shall be the full reimbursable rate established by the County. Rates will be available to the Contractor at the pre-construction meeting if requested.

SC-19 SUBMITTALS

Each submittal should meet the requirements of Section 5-1.23, "Submittals" of the Standard Specification and these Special Conditions.

Each Submittal must include:

1. Contract Number.
2. Designation as an "Action" or "Informational" Submittal
3. Sequential submittal number
4. A concise description of the material or item submitted
5. Be referenced to the bid item and Specification section

Submittals may be rejected if they are missing required information or do not meet the requirements of the Specification.

**COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS**

PART VI – SPECIAL PROVISIONS

SP-01 ORDER OF WORK

Attention is directed to Section 7-1.04, “Public Safety,” of the Standard Specifications.

Within fifteen (15) calendar days of the date shown on the Notice to Proceed the Contractor shall provide submittals to the Engineer as specified in these special provisions. The submittals shall consist of manufacturer’s shop drawings, specifications, and the performance characteristics of the equipment specified on the Plans and in these Special Provisions.

The Engineer shall have a maximum of fifteen (15) calendar days in which to review and approve or reject each submittal from the Contractor.

The Contractor shall submit a Storm Water Pollution Prevention Plan and schedule for approval, prior to beginning the contract work.

The Contractor must submit a **Staging Plan** and a **Traffic Control Plan** for review and approval by the Engineer. Construction staging is to occur within the County Right-of-Way. The Staging Plan and Traffic Control Plan must be approved prior to commencement of construction activities.

The Contractor shall submit a Lead Compliance Plan for review and approval by the Engineer prior to removal of any striping.

The Contractor shall notify the adjacent residents of the project in writing 48 hours in advance. The written notice shall include the time and date the road work may affect the residents. The Contractor shall submit to the Engineer a sample of the notification flyer for review and approval prior to distribution to the residents. Contractor shall adjust work schedule to accommodate the residents waste pickup days.

In the event a temporary road, ramp or driveway closure is necessary, the Contractor shall give the property owners and business owners 48 hours advance notice prior to closure.

The Contractor shall raise all frames, covers, existing survey monuments, manholes, water valves, and grates and other facilities to finished grade.

The Contractor shall construct the project in stages generally described as follows, unless otherwise approved by the Engineer:

Stage 1: Clearing and Grubbing.

Stage 2: Remove Existing Bridge

Stage 3: Construct new bridge structure.

Stage 4: Grade the access roads adjacent to Keyes Road.

Stage 5: Construct roadway improvements along Keyes Road while maintaining access to properties within the project limits.

Stage 6: Install Keyes Road roadway improvements (aggregate base and AC paving)

The final order of work is to place all permanent traffic striping and pavement markings.

SP-02 ENVIRONMENTAL MITIGATION (LEAD COMPLIANCE PLAN)

Environmental reevaluation will be required if the scope of the project changes to include additional areas of activities, or if previously unknown cultural or other sensitive resources are discovered.

A lead compliance plan for worker health and safety must be prepared by a Certified Industrial Hygienist and must be implemented prior to the start of construction activities. This plan is needed in order to minimize worker exposure to lead chromate or lead while handling grindings containing thermoplastics.

The Contractor is responsible for disposal of thermoplastic grindings. Stanislaus County will provide a temporary EPA ID number and sign the manifest prior to properly disposing of hazardous waste.

Full compensation for preparation, submittal, and implementation of a lead compliance plan shall be considered as included in the contract lump sum price paid for **Environmental Mitigation (Lead Compliance Plan)**, and no additional compensation will be allowed.

SP-03 WATER POLLUTION CONTROL (WPC)

GENERAL

Summary

Discharges of storm water from the project must comply with NPDES General Permit for "Storm Water Discharges Associated with Construction and Land Disturbance Activities" (Order No. 2009-0009-DWQ, NPDES No. CAS000002) hereinafter called the "Permit." Manage work activities to reduce the discharge of pollutants to surface waters, groundwater, or municipal separate storm sewer systems including work items shown:

- 1) Identify a Qualified SWPPP Practitioner (QSP). The QSP is responsible for all inspections; maintenance and repair of BMPs, and sampling activities at the project location.
- 2) Prepare a Storm Water Pollution Prevention Plan (SWPPP). SWPPP preparation must be by a Qualified SWPPP Developer (QSD) and includes obtaining SWPPP approval, amending the SWPPP, preparing a Construction Site Monitoring Program (CSMP), and monitoring and inspecting Best Management Practices (BMPs) at the job site.
- 3) Prepare Storm Water Annual Reports. Storm Water Annual Report preparation includes certifications, training, monitoring and inspection results, and obtaining Storm Water Annual Report acceptance.
- 4) Perform Storm Water Sampling and Analysis. Storm water sampling and analysis includes the testing of storm water quality per qualifying rain event. If specified for the risk level, the work includes preparation, collection, analysis, and reporting of storm water samples for turbidity, pH, and other constituents.
- 5) Prepare Rain Event Action Plan. If specified for the risk level, REAP preparation includes preparing and submitting REAP forms and monitoring weather forecasts.

Do not start field work until:

1. SWPPP is approved by the County and,
2. All Permit Registration Documents (PRDs) have been uploaded onto SMARTS and a WDID is issued; and
3. A QSP has been assigned to the project and has been identified to the County.

This project is Risk Level 1.

Submittals

Within 20 days after contract approval, start the following process for SWPPP approval:

1. Submit 2 copies of the SWPPP and allow 20 days for the Engineer's review. If revisions are required, the Engineer provides comments and specifies the date that the review stopped.
2. Change and resubmit the SWPPP within 15 days of receipt of the Engineer's comments. The Engineer's review resumes when the complete SWPPP is resubmitted.
3. When the County approves the SWPPP, submit an electronic pdf copy and 3 printed copies of the approved SWPPP.
4. If the Engineer requests changes to the SWPPP based on RWQCB comments, amend the SWPPP within 10 days.

Submit:

1. Storm water training records including training dates and subjects for employees and subcontractors. Include dates and subjects for ongoing training, including tailgate meetings.
2. Employee training records:
 - a. Within 5 days of SWPPP approval for existing employees
 - b. Within 5 days of training for new employees
 - c. At least 5 days before sub-Contractors start work for sub-Contractor's employees
3. Within 24 hours of completing an inspection report or visual monitoring report, submit as an informational submittal.
4. REAP as needed, 48 hours prior to a likely precipitation event.

All submittals required by this Special Provision shall be submitted by one electronic pdf copy and 2 printed copies, unless otherwise specified.

Submit documentation for the Storm Water Annual Report as needed for the site risk level. Submit all documentation for the Annual report no later than the first business day in August or within 15 days of contract acceptance if construction ends before July 1st. Submittal and approval of Annual report documentation will be considered a controlling operation of work until acceptable Annual report information is received.

Quality Control and Assurance Training

Provide Storm Water Training for;

- 1) Project Managers;
- 2) Supervisory Personnel;
- 3) Employees involved with BMP work and/or inspections.

Train all employees, including subcontractor's employees, in the following topics:

- 1) BMP rules and regulations
- 2) Implementation and maintenance for
 - a. Temporary Soil Stabilization
 - b. Temporary Sediment Control
 - c. Tracking Control
 - d. Wind Erosion Control
 - e. Material pollution prevention and control
 - f. Waste Management

- g. Non-stormwater management
- h. Identifying and handling hazardous substances
- i. Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Employees must receive initial BMP training before working on the job site. Conduct weekly training meeting covering:

- 1) BMP deficiencies and corrective actions;
- 2) BMPs that are required for work activities during the week;
- 3) Spill prevention and control;
- 4) Material delivery, storage, use, and disposal;
- 5) Waste management;
- 6) Non-storm water management procedures.

Qualified SWPPP Practitioner

Assign one QSP to implement the SWPPP. The QSP must comply with the Permit qualifications for a QSP.

At the job site, the QSP must:

- 1) Be responsible for BMP work;
- 2) Be the primary contact for BMP work;
- 3) Oversee the maintenance of BMP practices;
- 4) Oversee and enforce hazardous waste management practices;
- 5) Have the authority to mobilize crews to make immediate repairs to BMP practices;
- 6) Ensure that all employees have current water pollution control training;
- 7) Implement the approved SWPPP;
- 8) Perform inspections of BMP practices identified in the SWPPP;
- 9) Perform inspections and reports for visual monitoring;
- 10) Prepare and implement the REAPs;
- 11) Sampling and analysis; and
- 12) Preparation and submittal of:
 - a. NAL Exceedance Reports
 - b. SWPPP Annual Certification
 - c. Annual Report Documents
 - d. BMP status reports

Samples taken for laboratory analysis must follow water quality sampling procedures and be analyzed by a State-Certified Laboratory under 40 CFR Part 136, "Guidelines Establishing Test Procedures for the Analysis of Pollutants."

The CSMP must identify the State-Certified Laboratory, type of test equipment to be used for field sampling (pH pen and turbidity meter), sample containers, preservation requirements, holding times, and analysis methods. For a list of state-certified laboratories, go to:

<http://www.cdph.ca.gov/certliclabs/Pages/ELAP.aspx>

Qualified SWPPP Developer (QSD)

Identify the QSD responsible for the SWPPP preparation and any amendments or revisions. The QSD must comply with the Permit qualifications for a QSD.

The QSD must amend the SWPPP if:

- 1) Changes in work activities could affect the discharge of pollutants;
- 2) BMP practices are added;
- 3) Changes in the amount of disturbed soil are substantial;

- 4) Objectives for reducing or eliminating pollutants in storm water discharges have not been achieved;
or
- 5) There is a Permit violation.

The County will review all amendments or revisions to the SWPPP.

Whenever the Contractor amends the SWPPP, follow the same process specified for SWPPP approval. Retain a printed copy of the approved SWPPP at the job site.

Implementation Requirements

Obtain, install, and maintain a rain gauge at the job site or use a public available weather station. Observe and record daily precipitation. It is the Contractor's responsibility to provide daily storm water data, even if the public weather system is not functional.

Monitor the National Weather Service Forecast Office on a daily basis. For forecasts, go to:

<http://www.srh.noaa.gov/forecast>

Continue SWPPP and REAP implementation during any temporary suspension of work activities.

Measurement and Payment

The contract lump sum price paid for **Water Pollution Control (WPC)** includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work involved in preparing, obtaining approval of, and amending the SWPPP and CSMP, inspecting water pollution control practices, installing and maintaining BMP's, preparing and submitting of a REAP, and preparation, collection, analysis and reporting of Storm Water samples as specified in the Standard Specifications and these special provisions, and as directed by the County and submitting annual report documentation.

Payment for Water Pollution Control will be made as follows:

1. After the Engineer approves the SWPPP, the County will include 50 percent of the Bid Item price in the monthly progress payment.
2. 90 percent of the Bid Item price will be paid over the life of the contract.
3. After contract acceptance and approval of the Annual Report, the County will pay the remaining 10 percent.

Deficiency Correction

Whenever the Contractor receives a Notice to Correct or the County identifies a deficiency in the implementation of the approved SWPPP, the Contractor is required to:

- 1) Correct the deficiency immediately, unless the County agrees to a later date for making the correction; and
- 2) Correct the deficiency before precipitation occurs.

If the Contractor fails to correct the deficiency by the agreed date or before the onset of precipitation, the County may correct the deficiency and deduct the cost of correcting the deficiency from payment. The Contractor will be back billed for the time and materials (+10%) to correct all deficiencies.

If the Contractor receives a Notice of Violation, the County will allow 24 hours for the violation to be corrected. If the violation is not corrected, the County will take action and correct the deficiency. The Contractor will be back billed for the time and materials (+10%) to correct all deficiencies.

For each failure to submit completed Storm Water Annual Report Documents, preparation of a REAP, inspect or monitor a qualifying discharge event, or correct a Notice of Violation by the due date the

County will withhold payments per Section 9-1.16E(3) “Performance Failure Withholds” of the Standard Specifications.

Each failure to comply with any part of these special provisions and each failure to implement water pollution control practices are considered separate performance failures.

SP-04 JOB SITE MANAGEMENT

Job Site Management must conform to the provisions in Section 13-4, “Job Site Management,” of the State Standard Specifications and these special provisions.

Measurement and Payment

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-storm water management, and dewatering activities, including identifying, sampling, testing, handling, and disposing of hazardous waste resulting from the Contractors activities, as shown on the plans, as ordered by the Engineer and in accordance with the Standard Specifications and these Special Provisions shall be considered as included in the contract lump sum price paid for **Water Pollution Control (WPC)** and no additional compensation will be allowed.

SP-05 DUST CONTROL

Dust Control work shall conform to Section 10-5 “Dust Control” of the Standard Specifications. and these special provisions.

The Contractor shall implement all adequate fugitive dust control measures and ensure that the fugitive dust control measures are implemented in a timely manner during project construction on the Project Site. The Contractor shall use measures to control fugitive dust that are outlined in the San Joaquin Valley Air Pollution Control District, *Guidance for Assessing and Mitigating Air Quality Impacts*, to remain in compliance with the District Regulation VIII. Fugitive dust control measures shall include:

- Apply water to all visible unpaved surfaces and areas;
- Limit or reduce vehicle speed on unpaved roads and traffic areas to 10 miles per hour;
- Earth or other material that has been deposited by trucking or earth moving equipment, erosion by water, or other means onto paved streets shall be promptly removed;
- Cover haul trucks with a tarp or other suitable cover, or wet the top of load enough to limit visible dust emissions;
- Asphalt, oil, water or suitable chemicals shall be applied on stockpiled materials and other surfaces that give rise to airborne dust;
- All earthmoving activities shall cease when sustained winds exceed 15 miles per hour;
- The Contractor shall take responsible precautions to prevent the entry of unauthorized vehicles during non-work hours; and
- The Contractor shall keep a daily log of activities to control fugitive dust.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in applying dust control, in accordance with the Standard Specifications and these Special Provisions, shall be considered as included in the contract lump sum price paid for **Dust Control** and no additional compensation will be allowed.

SP-06 PROGRESS SCHEDULE

Progress schedules are required for this contract and shall be submitted in conformance with the provisions in Section 8-1.02, "Schedule," of the Standard Specifications, unless otherwise authorized in writing by the Engineer.

SP-07 WATERING

Watering must comply with Section 10-6 "Watering" of the Standard Specifications and these Special Provisions. The Contractor shall be responsible for developing a water supply and furnishing all water required for the work. Water must be non-potable. Non-potable water must be recycled or other sources in accordance with State Standards and Regulations.

Measurement and Payment

Full compensation for furnishing all labor, materials, tool, equipment and incidentals for doing all work involved with watering all in accordance with the Standard Specifications and these Special Provisions shall be considered as included in the contract price paid for the various items of work involved and no additional compensation will be allowed.

SP-08 EXISTING FACILITIES

Work involving existing property and facilities shall conform to Section 5-1.36, "Property and Facility Preservation," and Section 15, "Existing Facilities" of the State Standard Specifications and these special provisions.

Prior to construction, the contractor shall locate all survey monuments, utility boxes, manhole covers, etc., and establish swing ties or temporary markers.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least 3 working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground facility. Regional notification centers include but are not limited to the following:

Underground Service Alert Northern California (USA)

811 or 1-800-227-2600

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in existing facilities, in accordance with the Standard Specifications and these Special Provisions, shall be considered as included in the contract price paid for the various items of work involved and no additional compensation will be allowed.

SP-09 MOBILIZATION

Mobilization shall conform to the provisions in Section 9-1.16D, "Mobilization," of the Standard Specifications.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in mobilization, in accordance with Section 9-1.16D, "Mobilization", of the Standard Specifications and these Special Provisions, shall be considered as included in the contract unit price paid for **Mobilization** and no additional compensation will be allowed.

SP-10 PORTABLE CHANGEABLE MESSAGE SIGNS

The Contractor shall furnish, place, operate, and maintain six (2) Portable Changeable Message Signs as shown on the Traffic Control Plans or where designated by the Engineer in conformance with the provisions of Section 12, "Construction Area Traffic Control Devices," of the Standard Specifications for the duration of the project or as directed by the Engineer.

Measurement and Payment

Full compensation for furnishing, placing and maintaining six (2) Portable Changeable Message Signs as specified in this special provision or as directed by the Engineer shall be considered as included in the contract price paid for the by **Portable Changeable Message Signs**, and no additional compensation will be allowed.

SP-11 TEMPORARY TRAFFIC CONTROL

Flagging, construction area signs, temporary rail (Type K), and all other traffic control devices furnished, installed, maintained, and removed when no longer required shall conform to the provisions in Section 12, "Temporary Traffic Control," of the Standard Specifications and these Special Provisions.

Prior to the start of project construction along roadways, the contractor shall develop and implement a Detour Plan for the eastbound and westbound Keyes Road at the project site and a County approved Traffic Control Plan. Both plans shall include such items as traffic control requirements, resident notification of access closure, and daily access restoration. The contractor shall specify dates and times of road closures or restrictions, if any, and shall ensure that adequate access will be provided for emergency vehicles and to residential and commercial properties along Keyes Road. The plans shall be coordinated with the Stanislaus County Sheriff's Department and the Fire Districts, as appropriate, if construction will require road closures or lane restrictions.

The Contractor shall submit traffic control plans. Said plans shall be approved by the Engineer before the affected item of work is begun. Traffic control plans shall show the placement of all signs, barricades, delineators and other traffic control devices required by the Contractor's operation. The Contractor is to maintain traffic at all time, except as noted.

Traffic Control Systems and construction area traffic control devices shall be in accordance with the current California Manual on Uniform Traffic Control Devices. The traffic control system for lane closures and full closures shall be in accordance with Standard Plans T-11, T-12 and T-13.

The Contractor may be required to cover certain signs during the progress of the work. Signs that are no longer required or that convey inaccurate information to the public shall be immediately covered or removed, or the information shall be corrected. Covers for construction area signs shall be of sufficient size and density to completely block out the complete face of the signs. The retroreflective face of the covered signs shall not be visible either during the day or at night. Covers shall be fastened securely so that the signs remain covered during inclement weather. Covers shall be replaced when they no longer cover the signs properly.

Attention is directed to Sections 7-1.03, "Public Convenience," 7-1.04, "Public Safety," of the Standard Specifications and to the provisions in "Public Safety" of these Special Provisions. Nothing in these Special Provisions shall be construed as relieving the Contractor from the responsibilities specified in Section 7-1.04, "Public Safety," of the Standard Specifications.

The Contractor shall provide pilot cars to maintain traffic as needed during lane closures.

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

Personal vehicles of the Contractor's employees shall not be parked on the traveled way or shoulder.

In the event a temporary road, ramp or driveway closure is necessary, The Contractor shall give the property owners and business owners 48 hours advance notice prior to closure.

Advance warning signs if any shall be furnished, installed and maintained by the Contractor.

If any component in the Traffic Control System is displaced or ceases to operate or function as specified, from any cause during the progress of the work, the Contractor shall immediately repair said component to its original condition or replace said component and shall restore the component to its original location.

When lane closures are made for work periods only, at the end of each work period, all components of the Traffic Control System, except portable delineators placed along open trenches or excavation adjacent to the traveled way shall be removed from the traveled way and shoulder.

The Contractor shall furnish, erect and maintain all construction area traffic control devices within the project and at all public road entrances to the project.

Access by public traffic to all driveways on Keyes Road and adjacent cross streets shall be maintained at all times.

Measurement and Payment

Full compensation for furnishing all labor (including flagging costs), materials, tools, equipment and incidentals, for preparing and submitting Detour Plans and Traffic Control Plans and for doing all work involved in maintaining traffic, including maintaining the roadbed in a smooth and even condition for passage of public traffic, furnishing, installing, and maintaining such signs, lights, flares necessary to expedite passage of public traffic through or around the work, and providing pilot cars as needed, all as specified in Sections 7-1.03, "Public Convenience," and 7-1.04, "Public Safety," of the Standard Specifications, these Special Provisions and as directed by the Engineer shall be considered as included in the contract price paid for **Temporary Traffic Control** and no additional compensation will be allowed.

SP-12 CONSTRUCTION STAKING

Stanislaus County shall provide construction staking services in accordance with the provisions in "Construction Surveys - Attachment B" available on Public Works website at www.stancounty.com/publicworks/. The "Attachment B" is hereby made part of these Special Provisions and the Contractor shall follow staking request procedures as outlined in the document.

Measurement and Payment

Full compensation for coordination and cooperation involved in construction staking, in accordance with the Standard Specifications and these Special Provisions, shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed

therefor.

SP-13 RELOCATE ROADSIDE SIGNS

Existing roadside signs shall be removed and relocated at new locations shown on the plans. Each roadside sign shall be installed at the new location on the same day said sign is removed from its original location.

When construction is complete the signs shall be installed in final position on posts or supports equivalent to the original.

Measurement and Payment

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with reset roadside sign all in accordance with the plans, specifications and these Special Provisions shall be considered as included in the contract unit price paid for the **Relocate Roadside Signs** and no additional compensation will be allowed.

SP-14 RELOCATE EXISTING MAILBOX

The Contractor shall relocate existing mailboxes, including joint/gang and private mailboxes, which interfere with construction operations. Existing mailboxes shall be accessible for delivery at all times. Existing mailboxes shall either be installed on posts set in the ground or installed on temporary supports approved by the engineer.

When construction is complete, the existing mailboxes shall be installed in final position on posts or supports equivalent to the original.

Newspaper boxes on individual posts, attached to fences, or other supports will be considered as separate mailboxes for measurement and payment. Additional compensation will not be allowed for newspaper boxes attached to existing mailbox posts.

Measurement and Payment

Full compensation for furnishing all labor, materials, tool, equipment, and incidentals for doing all work involved with Relocate Existing Mailbox as necessary (regardless of the number of moves required), and for furnishing new posts, planks and hardware as necessary to reset the mailboxes, shall be considered as included in the contract unit price paid for the **Relocate Existing Mailbox** and no additional compensation will be allowed.

SP-15 CLEARING AND GRUBBING

Clearing and grubbing shall conform to the provision in Section 17-2, "Clearing and Grubbing," and Section 15, "Existing Facilities" of the Standard Specifications and these Special Provisions.

FIELD CONFIRMATION OF THE OBSTRUCTIONS

It shall be the Contractor's responsibility to remove all obstructions including, but not limited to, trees and other vegetation, within the proposed work area which interfere with the work shown on the drawings. **It is the responsibility of the Contractor to inspect the project site, prior to bidding, to ensure all the necessary removal of obstructions are reflected in the Contractor's bid.** The location of the obstructions shown on the plans is figurative only. The County does not guarantee the exact location of items shown. It shall be the Contractor's responsibility to determine which items are going to interfere with this work.

All improvements remaining either wholly or partially within the right of way that interfere with the work, including, but not limited to, retaining walls, footings, walks, curbs, paving, AC dike, and slabs

above ground, trees, stumps, roots, tree trimming, orchard and landscaping irrigation pipes, valves and hose bibs shall be demolished and removed as part of the work included under clearing and grubbing.

Measurement and Payment

Full compensation for furnishing all labor, materials, tool, equipment, and incidentals for performing all work involved with field confirmation of the obstructions all in accordance with the approved project plans, specifications and these Special Provisions shall be considered as included in the contract lump sum price paid for **Clearing and Grubbing** and no additional compensation will be allowed.

REMOVAL OF TRAFFIC STRIPES AND MARKINGS

Work shall be done per Section 14-11.12 of the Standard Specifications.

Measurement and Payment

Full compensation for conforming to the requirements of this section shall be considered as included in the contract lump sum price paid for **Clearing and Grubbing** and no additional compensation will be allowed.

REMOVE EXISTING PAVEMENT

At appropriate stage during Project's construction, typically in advance of placement of new roadway section operations, per coordination with the Engineer the Contractor, at his own expense, shall haul away all material removed in order to facilitate the construction of new roadway section. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, transporting and disposal of the existing pavement section to be removed as shown on the project plans and in accordance with the Standard Specifications and these Special Provisions shall be considered as included in the lump sum contract price paid for **Clearing and Grubbing** and no additional compensation will be allowed.

TAPER GRIND AND LAP JOINT

Existing asphalt concrete pavement shall be cold planed at the locations and to the dimensions shown on the plans. Planing asphalt concrete pavement shall be performed by the cold planing method. Planing of the asphalt concrete pavement shall not be done by the heater planing method.

Cold planing machines shall be equipped with a cutter head not less than 30 inches in width and shall be operated so that no fumes or smoke will be produced. The cold planing machine shall plane the pavement without requiring the use of a heating device to soften the pavement during or prior to the planning operation.

The depth, width, and shape of the cut shall be as shown on the construction detail plans or as designated by the Engineer. The final cut shall result in a uniform surface conforming to the typical cross sections. The outside lines of the planed area shall be neat and uniform. Planing asphalt concrete pavement operations shall be performed without damage to the surfacing to remain in place and shall be the entire width of the area to be surfaced.

Planed widths of pavement shall be continuous except for intersections at cross streets where the planning shall be carried around the corners and through the conform lines. Following planing operations, a drop-off of more than 0.15-foot will not be allowed between adjacent lanes open to public traffic.

Where transverse joints are planned in the pavement at conform lines no drop-off shall remain between the existing pavement and the planed area when the pavement is opened to public traffic. If asphalt concrete has not been placed to the level of existing pavement before the pavement is to be opened to public traffic a temporary asphalt concrete taper shall be constructed. Asphalt concrete for temporary tapers shall be placed to the level of the existing pavement and tapered on a slope of 1:30 (Vertical:

Horizontal) or flatter to the level of the planed area.

Asphalt concrete for temporary tapers shall be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers shall be completely removed, including the removal of loose material from the underlying surface, before placing the permanent surfacing.

Operations shall be scheduled so that not more than 7 days shall elapse between the time when transverse joints are planed in the pavement at the conform lines and the permanent surfacing is placed at the conform lines.

The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be disposed of in conformance with the provisions in Section 5-1.20B of the Standard Specifications. Removal operations of cold planed material shall be concurrent with planning operations and follow within 50 feet of the planer, unless otherwise directed by the Engineer.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all work involved with Taper Grind and Lap Joint construction and disposing of planed material, including construction of lap joints and the components involved including pavement reinforcing fabric, furnishing the asphalt concrete for and constructing, maintaining, removing, and disposing of temporary asphalt concrete tapers as specified in the Standard Specifications and these Special Provisions shall be considered as included in the contract lump sum price paid for **Clearing and Grubbing** and **Sawcut Existing Pavement** and no additional compensation will be allowed.

SP-16 EARTHWORK AND ROADWAY EXCAVATION

Earthwork shall conform to the applicable requirements of Section 19, "Earthwork," of the Standard Specifications, except as herein provided.

The Contractor shall excavate only as much trench as can effectively backfilled in the same day. All trenches in the roadway area shall be paved with temporary paving the same day the pavement cut is made. All trenches shall be backfilled so that traffic can cross at the close of each days work or protected to the satisfaction of the Engineer. There shall be no open trench left in the roadway area after normal working hours.

Material Testing shall be per SC-6, "Control of Materials" of the Special Conditions.

Street embankments and cut areas shall be graded and compacted as described in this Section. After all utilities and storm sewers have been installed, the subgrade shall be fine graded and restored to required grade, and then proof-rolled, utilizing a fully loaded tandem axle truck having a gross weight not less than 40,000 pounds and with the tires inflated to not less than 70 psi.

ROADWAY EXCAVATION, COMPACTION AND EARTHWORK (F)

The quantity of roadway excavation shall be considered a final pay quantity as per Section 9-1.02C, "Final Pay Item Quantities," of the Standard Specifications.

Measurement and Payment

The price paid for the Road Excavation, Compaction and Earthwork shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved in

excavating, grading, transporting, filling, compacting and disposing of material, including filling between the back of walk and right of way, proof rolling, earthwork required for construction of asphalt concrete paving and concrete facilities as shown on the Plans and all in accordance with the Standard Specifications and these Special Provisions shall be considered as included in the contract unit price paid for the **Imported Borrow (F), Earthwork (F), and Existing Pavement Removal (F)** and no additional compensation will be allowed.

The quantities of Imported Borrow, Earthwork, and Existing Pavement Removal shall be considered final pay quantities as per Section 9-1.02C, "Final Pay Item Quantities," of the Standard Specifications.

EXCESS FILL MATERIAL

The Contractor is to make every effort to balance the earthwork of project site. If necessary, the Contractor is to off-haul excess fill materials to the nearest acceptable location and to coordinate with the Engineer. Contractor is to determine if excess fill contains any contaminants or toxic substances. If excess fill is found to be contaminated beyond levels allowed by relevant regulatory agency, the Contractor is to follow proper hazardous waste protocol when disposing of contaminated excess fill.

Measurement and Payment

Full compensation for furnishing all labor, materials, tool, transportation, equipment and incidentals for doing all work involved with Excess Fill Material all in accordance with the Standard Specifications and these Special Provisions shall be considered as included in the contract price paid for the various items of **Clearing and Grubbing** and no additional compensation will be allowed.

EXCAVATION SAFETY

Excavation Safety shall conform to Section 7-1.02K(6)(b) "Excavation Safety" of the Standard Specifications, the Standard Specifications, and these Special Provisions.

Excavation for structures shall be considered "open excavations."

The requirements as set forth by the State Division of Industrial Safety for the provision of worker protection from the hazard of caving ground are minimum requirements. In addition, the Contractor shall provide, for the life of the Contract, the same protection for any person, including the Engineer or any of his/her representatives, subcontractors, or any other person required to be exposed to such hazard in the performance of the work, inspection of the work, or any other reason.

Measurement and Payment

The contract lump sum price paid for **Excavation Safety** shall include full compensation for furnishing all labor, material, services, tools, equipment and incidentals, and for doing all the work involved in excavation shoring, complete in place, including the design of the shoring system, preparation of the safety plan, removal and disposal of shoring materials, excavation and replacement of sloped sides of excavations, in accordance with the Standard Specifications, these Special Provisions, and as directed by the Engineer and no additional payment will be allowed therefor.

SP-17 AGGREGATE ROAD BASE (CLASS II)

Aggregate base must comply with Section 26, "Aggregate Bases," of the Standard Specifications and these special provisions.

Aggregate Base shall be Class 2.

Aggregate Base will be paid by the ton per Section 9 "Payment" and Section 26-1.04 "Payment" of the Standard Specifications.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all work the work involved in constructing Aggregate Road Base (Class II), complete in place, as specified in the Standard Specifications and these Special Provisions, and as directed by the Engineer shall be considered as included in the contract unit price paid for **Aggregate Road Base (Class II)** and no additional compensation will be allowed.

SP-18 HOT MIX ASPHALT CONCRETE (TYPE A)

This SP section of Hot Mix Asphalt (HMA) specifications ONLY shall conform to 2010 Caltrans Standard Specifications.

This work shall consist of furnishing and placing asphalt concrete in conformance with Section 39, "Hot Mix Asphalt" (HMA) of the Standard Specifications and these Special Provisions.

Hot Mix Asphalt concrete shall be Type A.

The asphalt binder shall be grade PG 64-10 as specified in the Standard Specifications, unless otherwise approved by the Engineer. Aggregates shall be ½ inch grading as specified in Section 39-1.02E, "Aggregate," of the Standard Specifications.

RAP: only 15% may be allowed in the mix design and should be clearly noted in the Job Mix Formula submitted by the Contractor for review and approval.

Perform Hot Mix Asphalt work according to Section 39-3 "Method Construction Process" of the Standard Specifications. Material testing shall be per SC-04, "Control of Materials" of the Special Conditions.

Attention is directed to 39-1.11 "Transporting, Spreading, and Compacting" of the Standard Specifications.

A drop off of more than 0.15-foot will not be allowed at any time between adjacent lanes open to public traffic. The final lift of HMA for all streets shall be placed after all work related to underground facilities, excavations, reconstruction, trench pavement, and pre-paving work has been completed.

HMA smoothness requirements shall conform to 39-1.12B "Straightedge" of the Standard Specifications. Section 39-1.12C, "Profilograph" of the Standard Specifications shall not apply. Smoothness that does not meet the straightedge requirements shall be corrected per 39-1.12D "Smoothness Correction" of the Standard Specifications.

The completed surfacing shall be true to grade and cross section, of uniform smoothness and texture, compacted firmly, and free from depressions, humps or irregularities.

Measurement and Payment

Full compensation for furnishings all labor, materials, tools equipment and incidentals for all work performed under this section " Hot Mix Asphalt Concrete (Type A)," including driveways, AC Dikes, surfacing miscellaneous areas, various HMA items and Tack Coat, and any other items related to Hot Mix Asphalt, shall be considered as included in the contract unit price paid for various **Hot Mix Asphalt Concrete (Type A)**, and no additional compensation will be allowed.

SP-19 MONUMENT PRESERVATION AND RE-ESTABLISHMENT

Contractor shall review section 8771 and section 8725 of the business and professions code and section 605 of the California Penal Code to ensure that monument preservation has been properly addressed. This section will require a Licensed Land Surveyor.

The contractor is responsible for perpetuating, preserving, and re-establishing all survey monumentation. Prior to construction, all monuments shall be located and referenced by or under the direction of a licensed land surveyor. If based upon record research, no monuments exist, then a statement from a licensed Land surveyor that no monuments exist will be sufficient. A corner record or record of survey of the references shall be filed with the county surveyor. If the monument is inside an existing monument box, the contractor shall attempt to reuse the box. If the box is not reusable contractor shall obtain new monument boxes and lids from Stanislaus County Public Works at 1716 Morgan Road. After roadway construction is complete contractor shall have a Licensed Surveyor to mark the location for the placement of the monument box and contractor shall install the monument box and lid to finished grade then the contractor shall have a Licensed Surveyor install the monument inside the existing box and complete post project corner records or a record of survey shall be filed at the completion of the project.

When the project is creating a new roadway alignment, the contractor shall set new monument wells and survey monuments at the locations specified on the plans, per the County Standards. The contractor shall then prepare and record a post-construction record of survey or corner records of the new monuments placed. All work shall be performed by a licensed land surveyor and coordinated through the office of the County Surveyor.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in preserving, re-establishing, and establishing the new survey monument shall be considered included in the contract unit price paid for by **Monument Preservation and Re-Establishment**, and no additional compensation will be allowed.

SP-20 ALTERNATIVE FLARED TERMINAL SYSTEM

Alternative flared terminal system shall conform to provisions in Section 83, "Railings and Barriers" of Standard Specification and shall be Type TAU-M crash cushion or approved equal. If using Type TAU-M, it must be a TAU-M system with speed rating Test Level 3 as manufactured by Lindsay Transportation Solutions, 180 River Road, Rio Vista, California 94571, Telephone (888) 800-3691 and must include items detailed by the manufacturer. The type TAU-M crash cushion can be obtained from the following distributor: Address Telephone no. STATEWIDE TRAFFIC SAFETY AND SIGNS 522 LINDON LANE NIPOMO, CA 93444 (805) 929-5070.

Terminal systems must be installed under the manufacturer's installation instructions and these specifications.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary for the alternative flared terminal system as specified in the plans, State Standard Plans, these Special Provisions, and as directed by the Engineer will be considered as included in the contract unit price for **Alternative Flared Terminal System (Crash Cushion)** and no additional compensation will be allowed.

SP-21 THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS

Thermoplastic traffic stripes (traffic lines) and pavement markings with enhanced wet-night visibility shall conform to the provisions in Sections 84, "Markings" of the Standard Specifications and as specified in these Special Provisions.

Thermoplastic material for traffic stripes and pavement markings shall be applied at a minimum thickness of 0.100 inch.

Thermoplastic traffic stripes and pavement markings with enhanced wet-night visibility shall consist of a single uniform layer of thermoplastic and a layer of bonded core elements and a layer of glass beads as follows:

The 1st layer of bonded core elements shall be 3M Bonded Core All Weather Reflective Elements for use in thermoplastic traffic stripes and pavement markings. The color of the bonded core elements shall match the color of the stripe or marking to which they are being applied.

The 2nd layer of glass beads shall comply with AASHTO M247 Type 2.

Both bonded core elements and glass beads must be surface treated for use with thermoplastic under the manufacturer's instructions.

The bonded core elements (surface-drop) shall contain either clear or yellow tinted microcrystalline ceramic beads bonded to the opacified core. These elements shall not be manufactured using lead, chromate or arsenic. All "dry performing" microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 1.8 when tested using the liquid oil immersion method. All "wet performing" microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 2.30 when tested using the oil immersion method.

Gradations for the Bonded Core Elements

Element Gradations Mass Percent Passing (ASTM D1214)		
US Mesh	Micron	"S" series
12	1700	85-100
14	1410	70-96
16	1180	50-90
18	1000	5-60
20	850	0-25
30	600	0-7

A sample of bonded core reflective elements supplied by the manufacturer shall show resistance to corrosion of their surface after exposure to a 1 % solution (by weight) of sulfuric acid. The 1 % acid solution shall be made by adding 5.7 cc of concentrated acid into 1000 cc of distilled water.

The bonded core elements shall be surface treated to optimize embedment and adhesion to the thermoplastic binder.

Minimum retroreflectivity values [mcd(ft²)(fc)] metric equivalent [mcd(m²)(lux)] are shown below:

Minimum Initial Retroreflectivity Values

Test Method	White	Yellow
Dry (ASTM E1710)	700	500
Wet recovery (ASTM E2177)	280	250
Wet continuous (ASTM E2832)	90	75

Note: Increased element drop may be necessary to compensate for increased surface area characteristic of rough pavement surfaces.

Mobile truck mounted applicators shall be capable of traveling at a uniform, predetermined speed over variable road grades to produce uniform application of striping material, following straight lines and making normal curves in a true arc. The equipment shall be capable of air blasting the pavement, applying the stripe and immediately dropping the bonded core elements and glass beads in a single pass at speeds of up to 8 MPH.

Walk-behind cart applicators shall be capable of uniform application of striping material at walking speeds, following straight lines and making tight turns symbols and legends. Mobile equipment must be available to air blast the areas immediately prior to hand cart application. The walk-behind cart shall be capable of applying the molten binder and immediately dropping the bonded core elements and glass beads in a single pass at walking speeds.

The equipment shall be capable of application of bonded core elements and glass beads to the surface of the pavement marking by double drop application. The element dispenser for the first drop shall be attached to the striping machine in such a manner that the elements are dispensed closely behind the binder application device. The bead dispenser for the second drop shall be attached to the striping machine in such a manner that the beads are dispensed immediately after the first drop (bonded core elements).

The applicator for the bonded core elements and glass beads shall be capable of delivering a uniform drop rate at required application speeds. The bonded core elements and glass beads are applied such that they appear uniform on the entire traffic marking.

The specified reflective media shall be dropped immediately after binder application. Reflective media consists of retroreflective elements followed by glass beads commonly called "Double-Drop" and shall be applied to achieve the application rates shown below.

Bonded Core Element Application Rates for Thermoplastic Binders

Units	Minimum for smooth pavement surfaces
Lb. per 4 in. ln. ft.	0.022
Lb. per 100 sq. ft.	6.6
Gr. per 4 in. ln. ft.	10

Note: Increased element drop may be necessary to compensate for increased surface area characteristic of rough pavement surfaces

Application Rates for Glass Beads

Units	AASHTO M247 (Type 2)
Lb. per 4 in. ln. ft.	0.048
Gr. per 4 in. ln. ft.	22
Lb. per 100 sq. ft.	14.4

Note: Increased glass bead may be necessary to compensate for increased surface area characteristic of rough pavement surfaces

Within 3-7 days of applying a thermoplastic traffic stripe or pavement marking with enhanced wet-night visibility, the Contractor shall test the retroreflectivity using a reflectometer in the presence of the Engineer under ASTM E1710. For continuous lines, reflectance measurements must be made at approximately 20 feet intervals. For skip lines, measurements must be taken at two random locations on each skip. The Contractor shall provide all equipment necessary to conduct field tests.

Retroreflective pavement markers to be installed along with thermoplastic traffic striping shall conform to the provisions in Section 81-3.02C, "Retroreflective Pavement Markers," of the Standard Specifications and these Special Provisions.

Measurement and Payment

The quantity of Thermoplastic Traffic Stripes (Enhanced Wet-Night Visibility) to be paid for will be determined by measuring the length of traffic stripes applied. No deductions will be made for gaps in traffic striping. Payment for thermoplastic traffic stripes will be made at the contract unit price bid per linear foot of corresponding thermoplastic striping detail. The quantity of Thermoplastic Pavement Markings (Enhanced Wet-Night Visibility) to be paid for will be determined by the actual area of pavement markings applied.

The prices paid for **Thermoplastic Striping** and **Thermoplastic Pavement Markings** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work included in furnishing, placing and testing Thermoplastic Striping and Thermoplastic Pavement Markings (regardless of the number, widths, and patterns of individual stripes involved in each traffic stripe), including establishing alignment for stripes, and layout work, complete in place, as shown on the plans, as specified herein, and as directed by the engineer, and no additional compensation will be allowed.

Full compensation for furnishing and installing various types of retroreflective Thermoplastic Striping and Pavement Markings shall be considered as included in the corresponding contract unit prices paid for the following bid items, and no additional compensation will be allowed:

Thermoplastic Striping (Det. 18)

Thermoplastic Striping (Det. 21)

Thermoplastic Striping (Det. 27B)

SP-22 AS-BUILT DRAWINGS

The Contractor shall maintain a neatly marked set of full-size as-built record drawings showing all changes to the plans. As-built record drawings shall reflect change orders, and modifications to all improvements constructed. Where necessary, supplemental drawings shall be prepared and submitted by the Contractor.

Prior to acceptance of the project, the Contractor shall deliver to the Engineer, two sets of neatly marked as-built record drawings, including a scanned "PDF" file, showing the information required above. As-built record drawings shall be reviewed and the complete as-built record drawing set shall be current with all changes and deviations redlined as a precondition to the final progress payment approval and/or final acceptance. Submittal of acceptable As-built Drawings may be considered as a controlling operation of work.

Measurement and Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in providing as-built drawings, in accordance with the Standard Specifications and these Special Provisions, shall be considered as included in the contract lump sum price paid for **As-Built Drawings** and no additional compensation will be allowed.

SP-23 RELATIONS WITH TURLOCK IRRIGATION DISTRICT

OVERHEAD HIGH VOLTAGE ELECTRICAL LINES

Attention is directed to existing overhead high voltage electrical lines in the proximity of the work area. These overhead high voltage electrical lines are owned and maintained by Turlock Irrigation District (TID). The Contractor is responsible for complying with all laws, regulations, and orders in accordance with Section 7 “Legal Relations and Responsibility to the Public” for work around existing overhead high voltage lines

Notify TID at least 14 calendar days prior to performing any work under or adjacent to the overhead electrical lines by contacting Mike Nixon at 209-883-8335.

Full compensation for coordination and cooperation with utility companies shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

CERES MAIN CANAL

Flows within Ceres Main Canal are managed and maintained by Turlock Irrigation District (TID).

Comply with Section 7 and Section 13 of the Standard Specifications.

It shall be the Contractor’s responsibility to ascertain conditions of flow in channels where construction operations might interfere with such flows, and cooperate with all owners involved in maintaining channel flow.

Complete all work inside of Ceres Main Canal within the timeframe specified below.

The Contractor shall be aware that there may be flows in the Ceres Main Canal during construction activities. Prior to commencement of construction, the Contractor shall coordinate his work with TID as part of their encroachment process. Bridge construction or other construction operations associated with work in the Main Canal will only be allowed during the period between November 4th and March 1st, or unless otherwise approved by TID.

Operational Irrigation Flows: March 1 to November 3 up to approximately 350 cubic feet per second (cfs).

Flood Release Flows: November 4 through March 1 with flows reaching approximately 30 cfs. This is not normal operation and would only occur in an emergency when the upstream canals used for transporting storm water were not available.

Construction Window: November 4 to March 1. A small amount of nuisance water may be present in the channel due to local rain events. Additionally, backwater from storm water flows downstream (south) of the site are present intermittently, so a coffer dam will be necessary to prevent this water from entering the construction zone within the channel.

It will be the Contractor’s responsibility to deal with any such flows according to these special provisions. Further information regarding flows in Ceres Main Canal can be obtained by contacting Turlock Irrigation District at 209-883-8367.

The Contractor may perform work outside of the Construction Window specified above (after receiving contract approval) if:

1. The Contractor obtains written approval from the Engineer and TID
2. The Contractor can demonstrate that they will accommodate the Operational Irrigation or Flood Release Flows.

Channel diversion must be consistent with the methods and materials shown. Substitutions or variations of the channel diversion must be submitted to the Engineer. Acceptance is subject to the approval of the wildlife agencies and is not guaranteed. The plans must include a detailed description of the methods the Contractor will employ to construct the channel diversion in accordance with these special provisions and the permits obtained for this project, included elsewhere in these special provisions. The plans must include schematic diagrams listing construction materials required, location of temporary cofferdams, pipes or other diversions, if required.

Any fill material used for channel diversion must be placed so that the material can be completely removed. All surfaces must be covered with a non-erodable material to prevent erosion, water pollution and damage to the channel diversion.

The Contractor is responsible for maintenance of the channel diversion and must immediately repair any leaks or scour damage as directed by the Engineer. Damage to the channel diversion from any cause during the progress of the work must be repaired or replaced by the Contractor at their sole expense.

When no longer required for the work, the temporary channel diversions must be completely removed. Removed materials shall become property of the Contractor and must be removed from the project site unless otherwise approved in writing by the Engineer.

Do not commence work with any construction in the channel until the channel diversion plan has been reviewed and accepted by the Engineer and Turlock Irrigation District. The Engineer's review of the channel diversion plan will be completed within 15 working days of receipt of the submittal. Upon acceptance of the submittal, the Engineer will submit the channel diversion plan to the Turlock Irrigation District.

In the event the submittal is rejected, the Engineer's review of any subsequent re-submittals will be completed within ten (10) working days of the re-submittal. The Contractor is not entitled to any extension of time, or any other compensation for delays in commencement of construction due to the rejection of the channel diversion plan.

Acceptance by the Engineer of the channel diversion plan or inspection of the channel diversion plan by the Engineer will in no way relieve the Contractor from the full responsibility of the channel diversion plan.

The Contractor will not be entitled to any additional compensation for conforming to the requirements of the permits acquired for this project and these special provisions.

The Contractor must not stockpile any materials, or park or store any equipment within the banks of Ceres Main Canal.

Access by Turlock Irrigation District to all canal access roads off Keyes Road and shall be maintained at all times. Upon removal of the channel diversion, the channel must be restored to the pre-construction configuration as directed by the Engineer.

Payment for conforming to the requirements of this section is included in the prices paid for the various

contract items of work and no additional compensation will be allowed therefor.

SP-24 STRUCTURE EXCAVATION

Structure Excavation shall conform to the applicable requirements of Section 19-1 "General", and Section 19-3, "Structure Excavation and Backfill," of the Standard Specifications.

Full compensation for structure excavation shall be considered as included in the unit price paid for **"Structural Concrete, Box Culvert (F)"** and no additional compensation will be allowed therefor.

SP-25 STRUCTURE BACKFILL

Structure Backfill shall conform to the applicable requirements of Section 19-3 "Structure Excavation and Backfill" of the Standard Specifications and these Special Provisions.

Any soft, unsuitable sediment must be excavated to expose firm undisturbed soil. Remove material below the bottom of culverts and replace the material with Class 2 AB or lean concrete base as shown or as directed by the Engineer and compact it as specified for structure backfill in section 19-3.03E.

If the material is to be replaced with Class 2 aggregate base, compact it as specified for structure backfill in section 19-3.03E. The relative compaction must be at least 95 percent. Place subgrade enhancement geotextile between the subgrade and the Class 2 aggregate base as specified in section 19-10. If groundwater is encountered below the bottom of the retaining wall footings, substitute lean concrete base for Class 2 aggregate base. If lean concrete base is used instead of Class 2 aggregate base, subgrade enhancement geotextile is not required.

Lean concrete base must comply with section 28-2.

Class 2 aggregate base and subgrade enhancement geotextile fabric placed below bottom of culverts is paid for as structure backfill. Lean concrete base substituted for Class 2 aggregate base below bottom of culverts is paid for as structure backfill.

Full compensation for structure backfill shall be considered as included in the unit price paid for **"Structural Concrete, Box Culvert (F)"** and no additional compensation will be allowed therefor.

SP-26 BAR REINFORCING STEEL (BOX CULVERT)

Bar reinforcing steel shall conform to the provisions in Section 52, "Reinforcement," of the Standard Specifications.

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with the installation of reinforcement all in accordance with the plans, specifications and these Special Provisions shall be considered as included in the contract unit price paid for **"Bar Reinforcing Steel (Box Culvert)(F)"**, and no additional compensation will be allowed.

The quantity of Bar Reinforcing Steel (Box Culvert) shall be considered a final pay quantity as per Section 9-1.02C, "Final Pay Item Quantities," of the Standard Specifications.

SP-27 BRIDGE REMOVAL

Bridge Removal shall conform to the applicable requirements of Section 60-2.02, "Bridge Removal," of the Standard Specifications, except as herein provided.

Existing bridge number: Br. No. 38C0193 and TID slope paving to extents noted on Plans.

Full removal of existing 2-span reinforced concrete slab bridge; reinforced concrete pier wall and abutments on spread footings; TID slope paving to extents noted on Plans. Removed concrete will be Contractor's property.

The price paid for **Bridge Removal** shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals for doing all the work involved with removing existing bridge as shown on the Plans and as specified in these Special Provisions shall be considered as included in the contract lump sum price paid for the “**Bridge Removal**” and no separate payment will be made therefor.

The quantity of Bridge Removal shall be considered a final pay quantity as per Section 9-1.02C, “Final Pay Item Quantities,” of the Standard Specifications.

SP-28 CONCRETE BARRIER (TYPE 836 MODIFIED)

Concrete Barrier (Type 836 Modified) shall be constructed in conformance with the provisions in Section 83-3, “Concrete Barriers,” of the Standard Specifications and these Special Provisions.

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with constructing concrete barrier all in accordance with the plans, specifications and these Special Provisions shall be considered as included in the contract unit price paid for “**Concrete Barrier (Type 836 Modified)(F)**” and no separate payment will be made therefor.

The quantity of Concrete Barrier (Type 836 Modified) shall be considered a final pay quantity as per Section 9-1.02C, “Final Pay Item Quantities,” of the Standard Specifications.

SP-29 STRUCTURAL CONCRETE, BOX CULVERT

Structural concrete shall conform to provisions in Section 51 “Concrete Structures” of the Standard Specification and these Special Provisions.

Full compensation for furnishing all labor materials, tool, equipment and incidentals for doing all work involved with placing concrete in accordance with the plans, specifications and these Special Provisions shall be considered as included in the contract unit price paid for “**Structural Concrete, Box Culvert (F)**” and no separate payment will be made therefor.

The quantity of Structural Concrete shall be considered a final pay quantity as per Section 9-1.02C, “Final Pay Item Quantities,” of the Standard Specifications.

SP-30 STRUCTURAL CONCRETE, WARPED WINGWALL

Structural concrete, warped wingwall shall consist of constructing warped wingwalls in conformance with the details shown on the plans and these special provisions.

Structural concrete shall conform to provisions in Section 51 “Concrete Structures” of the Standard Specification and these Special Provisions.

Bar reinforcing steel shall conform to the provisions in Section 52, “Reinforcement,” of the Standard Specifications.

Structure excavation and backfill shall conform to the provisions provided in Section 19-1 “General”, and Section 19-3, “Structure Excavation and Backfill,” of the Standard Specifications and these Special Provisions.

The contract price paid per cubic yard for “**Structural Concrete, Warped Wingwall (F)**” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the warped wingwalls complete in place, including excavation and backfill, and furnishing and installing reinforcing steel, as shown on the plans, as specified in these special provisions and the Standard Specifications, and as directed by the Engineer.

The quantity of Structural Concrete, Warped Wingwall shall be considered a final pay quantity as per Section 9-1.02C, “Final Pay Item Quantities,” of the Standard Specifications.

SP-31 CONCRETE, CHANNEL LINING

Channel lining shall conform to provisions in Section 72 “Slope Protection” of the Standard Specification and these Special Provisions.

The contract price paid per cubic yard for “**Concrete, Channel Lining (F)**” shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in constructing the channel lining complete in place, including excavation and backfill, and furnishing and installing reinforcing steel, as shown on the plans, as specified in these special provisions and the Standard Specifications, and as directed by the Engineer.

The quantity of Structural Concrete shall be considered a final pay quantity as per Section 9-1.02C, “Final Pay Item Quantities,” of the Standard Specifications.

SP-32 PROJECT FUNDING SIGN

Construction funding signs shall be wood post signs and sign panels must be 0.080” thick, unframed, single sheet aluminum panels per MUTCD C48. Signs shall conform to the provisions in Section 82, “Signs and Markers,” of the Standard Specifications.

Prior to manufacture signage, contractor shall secure approval for sign concept from the Engineer. Install single post 4’ x 4.5’ construction project funding signs, per MUTCD C48, at the locations designated by the Engineer before starting major work activities visible to highway users. Keep construction project funding signs clean and in good repair at all times.

The background for signs must be Type II retroreflective sheeting on the Authorized Material List for signing and delineation materials. The legend must be retroreflective, except for nonreflective black letters and numbers. The colors blue and orange must comply with PR Color No. 3 and No. 6, respectively, as specified in the Federal Highway Administration’s *Color Tolerance Chart*. See next sheet for Project Sign Details.

When authorized, remove and salvage signs upon completion of project and deliver to the County at 1716 Morgan Road.

Measurement and Payment

Full compensation for furnishing all labor, materials, tool, equipment, and incidentals for doing all work involved with installing, maintaining, removing and salvaging construction project funding signs in accordance with the plans, specifications and these Special Provisions shall be considered as included in the contract price paid for by the **Project Funding Signs** and no additional compensation will be allowed.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

NOTES:

Use when the project involves Senate Bill 1 funds.



**C48
(CA)**

ENGLISH UNITS

A	B
48	30

COLORS: LEGEND - BLACK (ARIAL BOLD ITALIC)
 BACKGROUND - WHITE AND FLUORESCENT ORANGE
 SENATE BILL 1 LOGO - CMYK COORDINATES FOR SB1 LOGO ARE AS FOLLOWS:
 BROWN (C 80%, M 80%, Y 80%, K 20%), LIGHT CREAM (C 0%, M 2%, Y 7%, K 0%),
 BLUE (C 75%, M 23%, Y 1%, K 0%), GREEN (C 90%, M 20%, Y 80%, 0%),
 YELLOW GOLD (C 0%, M 38%, Y 85%, K 4%), RED (C 16%, M 84%, Y 65%, K 3%)
 BE WORK ZONE ALERT RIBBON: PANTONE #299 BLUE AND ORANGE
 (SEE VECTOR GRAPHICS FILES FOR SB1 LOGO AND BE WORK ZONE ALERT
 RIBBON) ALL COLORS TO BE RETROREFLECTIVE, EXCEPT FOR BLACK

1/11/19

**COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS**

PART VII – DRAWINGS & PERMITS

DRAWINGS:

Sheet 1:	COVER SHEET
Sheet 2:	NOTES
Sheet 3:	DETAILS AND SECTIONS
Sheet 4:	DEMOLITION PLAN
Sheet 5-6:	PLAN AND PROFILE
Sheet 7-8 :	GRADING PLAN
Sheet 9:	PAVEMENT DELINEATION & STRIPING PLAN
Sheet 10:	EROSION CONTROL PLAN
Sheet 11:	GENERAL LAYOUT & NOTES
Sheet 12-13:	BOX CULVERT DETAILS
Sheet 14:	LOG OF TEST BORINGS

ATTACHMENTS:

Attachment "A" – Agreement Consenting to Common Use between Turlock Irrigation District and Stanislaus County.

Attachment "B" – Construction Surveys.

Attachment "C" – Geotechnical Soil's Report Logs & Borings.

**COUNTY OF STANISLAUS
DEPARTMENT OF PUBLIC WORKS**

**PART VIII – REVISED STANDARD PLANS AND REVISED
STANDARD SPECIFICATIONS**

REVISED STANDARD PLANS

The revised standard plans (RSPs) are available for viewing on the Modesto Reprographics webpage at www.modestoplanroom.com.

REVISED STANDARD SPECIFICATIONS

The revised standard specifications are available for viewing on the Modesto Reprographics webpage at www.modestoplanroom.com.

AGREEMENT CONSENTING TO COMMON USE

This Agreement is made on _____, 2020 by and between the Turlock Irrigation District, a political subdivision, hereinafter called "DISTRICT", and Stanislaus County, a political subdivision of the State of California, hereinafter referred to as "COUNTY".

This Agreement is made with reference to the following facts:

A. DISTRICT is in possession of certain real property in Stanislaus County consisting of a strip of land, 80 feet in width, with certain canal improvements thereon, which real property is commonly known and referred to as DISTRICT's Ceres Main Canal.

B. COUNTY desires, at COUNTY's expense to widen the existing crossing facility by which Keyes Road crosses over the DISTRICT's Ceres Main Canal, and to make such improvements to DISTRICT's Ceres Main Canal as are necessary to maintain said canal crossing in light of the widening of COUNTY's crossing facility. This includes Turlock Irrigation District Canal property.

C. The widened crossing facility will occupy a portion of DISTRICT's property for the Ceres Main Canal, which portion is hereinafter referred to as the "Area of Common Use", and is described and depicted on Exhibit "A" and Exhibit "B" attached hereto.

NOW, THEREFORE, IT IS AGREED as follows:

1. DISTRICT, pursuant to the terms and conditions hereinafter set forth, hereby consents to the COUNTY's proposed widening of the crossing facility and to the common use by the DISTRICT and COUNTY of said widened crossing facility and "Area of Common Use".

2. COUNTY acknowledges DISTRICT's title to DISTRICT's facilities within the "Area of Common Use". Except in emergencies, DISTRICT shall give reasonable notice to COUNTY before performing any work on DISTRICT's facilities in the "Area of Common Use" when such work will obstruct the free flow of traffic. In all cases, DISTRICT shall make adequate provisions for the protection of the traveling public when performing work on the DISTRICTS's facilities in the "Area of Common Use".
3. Except in emergencies, COUNTY shall give reasonable notice to DISTRICT before performing any work on COUNTY's property or facilities in the "Area of Common Use" when such work could potentially obstruct the free flow of water through DISTRICT's canal, and COUNTY shall endeavor to perform such work during the non-irrigation season. In all cases COUNTY shall make adequate provisions for the protection of DISTRICT property and facilities when performing work on COUNTY's property or facilities in the "Area of Common Use".
4. The widening of the crossing facility consented to in Paragraph 1 of this Agreement shall be coordinated with the DISTRICT so that construction work will be carried out during the non-irrigation season. In that respect, the parties hereto are mindful of the fact that DISTRICT's irrigation season is ordinarily from March 15, through November 1, of each year.
5. COUNTY shall perform all design, construction, and inspection, of the entire project, and DISTRICT shall review the final plans prior to the construction of the crossing facility. DISTRICT's review of COUNTY's plans shall not be construed as confirming or endorsing the design nor as

any warranty of safety or reliability. DISTRICT shall not, by reason of such review or failure to review, be responsible for strength, details of design, adequacy or safety of COUNTY's proposed details and work.

6. COUNTY shall maintain the entire work zone in a safe manner and shall provide adequate safety barricades and lights to protect the safety of persons using any adjacent canal bank or street or any part of DISTRICT property. Upon completion of the work, COUNTY shall leave the entire work zone in a clean, neat, and orderly condition. The COUNTY shall insure that no materials or liquids, other than clean and uncontaminated water, are allowed to enter the DISTRICT's canal.
7. COUNTY shall provide for monument preservation as required by Section 8771 of the California Business and Professions code. DISTRICT shall provide COUNTY with a copy of the most current Monument Preservation Form to be signed and stamped by an individual authorized to practice Land Surveying within the State of California for each maintenance or construction event contemplated by this Agreement.
8. Prior to the completion of the crossing facility by COUNTY, DISTRICT shall inspect the construction to satisfy itself that the work was performed in accordance with the plans and is complete.
9. Except as expressly set forth herein, this Agreement shall not in any way alter, modify, or terminate any of DISTRICT's rights in its property. Both COUNTY and DISTRICT shall use the "Area of Common Use" in such a manner as to not interfere unreasonably with the rights of the other. Nothing herein contained shall be constructed as a release or waiver of any claim for

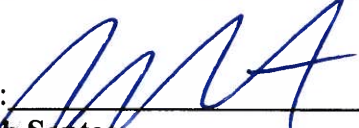
compensation or damages which DISTRICT or COUNTY may now have, or may hereafter acquire, resulting from the construction of additional facilities or the alteration of existing facilities by either COUNTY or DISTRICT in such a manner as to cause an unreasonable interference with the use of the "Area of Common Use" by the other.

10. DISTRICT hereby grants to COUNTY TWO (2) temporary construction easements, to be used by COUNTY only for the construction period as established in this Agreement. These temporary easements shall terminate and cease to exist on the date COUNTY files for record, in the office of the County Recorder of Stanislaus County, a notice of completion for the widening project, designated as Project No. CAMS 009659. The size and location of these temporary easements are described and depicted on Exhibit "C" and Exhibit "D" attached hereto.
11. This Agreement shall inure to the benefit of and be binding upon the successors and assigns of both parties.
12. COUNTY shall defend, indemnify and hold harmless DISTRICT, (including its directors, officers, agents and employees) from and against any and all claims arising from any act or omission, or negligence of COUNTY or of COUNTY's supervisors, officers, contractors, agents, or employees, in connection with the construction, maintenance, and use consented to in Paragraph 1 of this Agreement and the use of such COUNTY property and facilities by the COUNTY or the public; except to the extent that any such loss was caused by the negligence of the DISTRICT.


13. This Agreement shall operate to give COUNTY the rights herein provided for only insofar as DISTRICT may do so under and by virtue of the rights that DISTRICT has in DISTRICT's property.
14. COUNTY will be responsible for the ongoing structural maintenance of the entire road crossing from outside face of headwall to outside face of headwall to insure DISTRICT can pass the required design flow. The COUNTY will be responsible for the maintenance of new structures and gates constructed by COUNTY throughout the first irrigation season following construction.
15. Time is of the essence of each provision of this agreement.
16. All exhibits referred to in this Agreement are attached hereto and incorporated herein by reference.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed
on the day and year first above written.

TURLOCK IRRIGATION DISTRICT

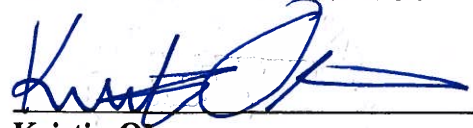
By: 

Rob Santos
President

By: 

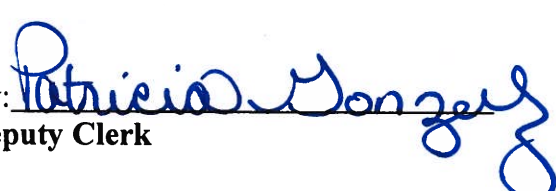
Tami Wallenburg
Executive Secretary to
the Board of Directors of the
Turlock Irrigation District

COUNTY OF STANISLAUS



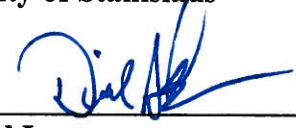
Kristin Olsen
Chairwoman of the Board of Supervisors

ATTEST
Elizabeth A. King
Clerk of the Board of Supervisors of
the County of Stanislaus, State of
California

By: 

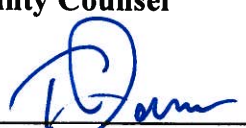
Patricia Gonzalez
Deputy Clerk

APPROVED AS TO CONTENT:
County of Stanislaus

By: 

David Leamon
Director of Public Works

APPROVED AS TO FORM:
Thomas E. Boze
County Counsel

By: 

Todd James,
Deputy County Counsel

EXHIBIT "A"

LAND DESCRIPTION

The lands referred to herein below is situated in the County of Stanislaus, State of California and is described as follows:

Easement A:

Being a portion the of the Northeast Quarter of Section 35, Township 4 South, Range 9 East, Mount Diablo Base & Meridian, more particularly described as follows:

COMMENCING at a concrete monument with a brass plate in monument well, marking the Northeast corner of Section 35 per the map recorded in Book 28 of Surveys at page 72 Stanislaus County Records;

Thence along the Northerly line of said section 35, also being the centerline of Keyes Road, North 89°24'03" West, 21.74 feet; Thence leaving said centerline, South 00°35'57" West, 20.00 feet to a point on the South Right-of Way line of Keyes Road, also being the **POINT OF BEGINNING**; Thence Westerly along said Right of Way, North 89°24'03" West, 58.08 feet to the westerly side line of the Ceres Main Canal; Thence along said westerly line, South 00°04'12" West, 2.65 feet; Thence leaving said westerly line South 89°24'01" East, 21.75 feet; Thence North 00°35'57" East, 0.88 feet; Thence South 89°25'59" East, 36.31 feet; Thence North 00°35'57" East, 1.75 feet to the **POINT OF BEGINNING**.

Containing 121 square feet more or less.

Easement B:

Being a portion the of the Southeast Quarter of Section 26, Township 4 South, Range 9 East, Mount Diablo Base & Meridian, more particularly described as follows:

COMMENCING at a concrete monument with a brass plate in monument well, marking the Northeast corner of Section 35 per the map recorded in Book 28 of Surveys at page 72 Stanislaus County Records;

Thence along the Easterly line of said section 26, North 0°23'13" East, 20.00 feet to a point on the North Right of Way line of Keyes Road, also being the **POINT OF BEGINNING**; Thence Westerly along said Right of Way, North 89°24'03" West, 58.88 feet; Thence leaving said Right of Way North 0°35'48" East, 1.75 feet; Thence South 89°23'55" East, 36.31 feet; Thence North

EXHIBIT "A"

00°42'27" East, 0.90 feet; Thence South 89°24'12" East, 22.57 feet to the East line of said Section 26; Thence along said East line, South 0°23'13" West, 2.65 feet to the **POINT OF BEGINNING**.

Containing 123 square feet more or less.

The **BASIS OF BEARINGS** of this description is the North line of Section 35, also being the center line of Keyes Road, taken as bearing North 89°24'03" West as shown on the Record of Survey in Book 28 Page 72, on file at the Stanislaus County Surveyor's Office.

A PLAT OF THE ABOVE DESCRIBED PARCEL(S) OF LAND IS ATTACHED HERETO AS EXHIBIT "B" AND BY THIS REFERENCE MADE A PART HEREOF.

END DESCRIPTION

This real property description has been prepared by me, or under my direction, in conformance with the requirements of the Professional Land Surveyors' Act.

Stephen J. Pyle
Stephen J. Pyle
Professional Land Surveyor
California No. 8385



November 08, 2019
Date

0 10 20
SCALE: 1" = 20'

EXHIBIT "C"

LAND DESCRIPTION

The lands referred to herein below is situated in the County of Stanislaus, State of California and is described as follows:

Temporary Construction Easement A:

Being a portion the of the Northeast Quarter of Section 35, Township 4 South, Range 9 East, Mount Diablo Base & Meridian, more particularly described as follows:

COMMENCING at a concrete monument with a brass plate in monument well, marking the Northeast corner of Section 35 per the map recorded in Book 28 of Surveys at page 72 Stanislaus County Records;

Thence along the easterly line of said Section 35, South 00°04'12" West, 20.00 feet to a point on the Southerly right-of way line of Keyes Road, also being the **POINT OF BEGINNING**;

Thence continuing along the easterly line of said Section 35, South 00°04'12" West, 100.00 feet;

Thence leaving said easterly line, North 89°23'49" West, 80.00 feet to a point on the westerly line of the Ceres Main Canal (80.00 foot wide);

Thence along said westerly line, North 00°04'12" East, 99.99 feet to a point on the southerly right of way line of said Keyes Road;

Thence leaving said westerly line and along said southerly right of way line, South 89°24'03" East, 80.00 feet the **POINT OF BEGINNING**.

Containing 8000 square feet more or less.

Temporary Construction Easement B:

Being a portion the of the Southeast Quarter of Section 26, Township 4 South, Range 9 East, Mount Diablo Base & Meridian, more particularly described as follows:

COMMENCING at a concrete monument with a brass plate in monument well, marking the Northeast corner of Section 35, Township 4 South, Range 9 East, Mount Diablo Base & Meridian, per the map recorded in Book 28 of Surveys at page 72 Stanislaus County Records;

EXHIBIT "C"

Thence along the Easterly line of said Section 26, North 0°23'16" East, 20.00 feet to a point on the Northerly right of way line of Keyes Road, also being the **POINT OF BEGINNING**;

Thence Westerly along the Northerly right of way of said Keyes Road, North 89°24'03" West, 80.00 feet to a point on the westerly line of the Ceres Main Canal (80.00 foot wide);

Thence leaving said right of way and along the westerly line of said Ceres Main Canal, North 0°23'16" East, 100.00 feet;

Thence leaving said westerly line, South 89°23'37" East, 80.00 feet to a point on the easterly line of said Section 26;

Thence along the easterly line of said Section 26, South 00°23'16" West, 99.99 feet to the **POINT OF BEGINNING**.

Containing 8000 square feet more or less.

The **BASIS OF BEARINGS** of this description is the North line of Section 35, also being the center line of Keyes Road, taken as bearing North 89°24'03" West as shown in the map recorded in Book 28 of Surveys at page 72 Stanislaus County Records.

A PLAT OF THE ABOVE DESCRIBED PARCEL(S) OF LAND IS ATTACHED HERETO AS EXHIBIT "D" AND BY THIS REFERENCE MADE A PART HEREOF.

END DESCRIPTION

This real property description has been prepared by me, or under my direction, in conformance with the requirements of the Professional Land Surveyors' Act.

Stephen J. Pyle

Stephen J. Pyle
Professional Land Surveyor
California No. 8385



November 8, 2019

Date

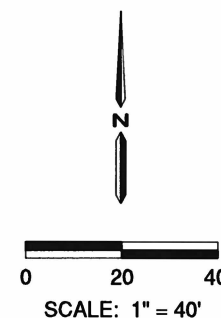


11/08/2019

LINE TABLE		
LINE #	DIRECTION	LENGTH
L1	S0°04'12"W	20.00'
L2	N0°23'16"E	20.00'

LEGEND

P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
R.O.W.	RIGHT OF WAY
S.F.	SQUARE FEET
4/9	T4S, R9E



1165 Scenic Drive, Suite A
Modesto, CA 95350
odellengineering.com

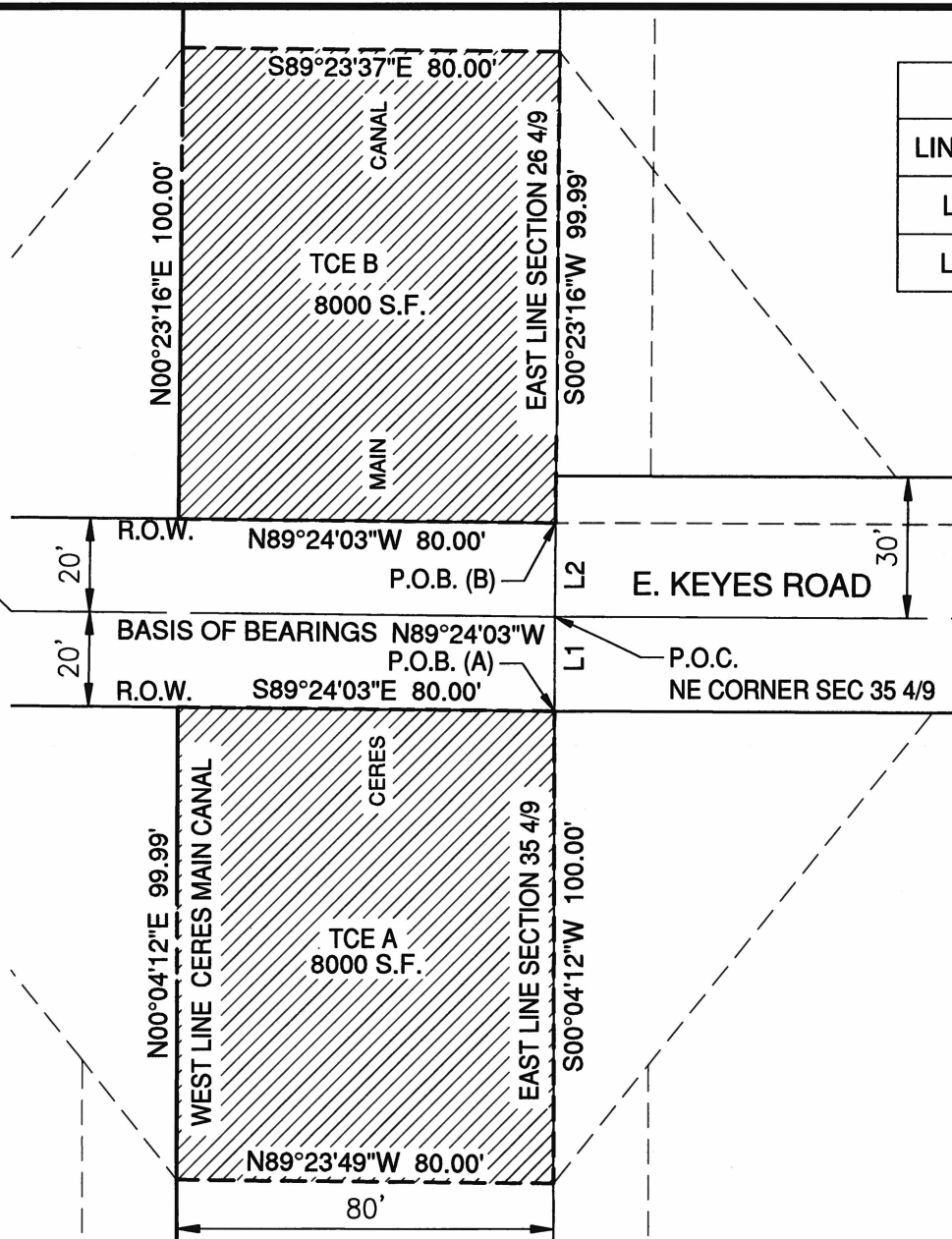
DESCRIPTION: EXHIBIT D

SCALE:	1"=40'	DATE:	NOVEMBER 8, 2019
JOB NO.:	35820		
FILE:	35820-KEYESRD-TID TCE.DWG		

1
of
1

MOFFETT ROAD

N. 1/4 CORNER
SECTION 35 4/9



ATTACHMENT “B”

STANISLAUS COUNTY

CONSTRUCTION SURVEYS

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DEFINITIONS AND TERMS

Contractor	Any person or persons, firm, partnership, corporation or a combination thereof who have entered into a contract with any person, corporation, company, special district, the County of Stanislaus as a party or parties of the second part, or his or their legal representatives, for the construction of any capital improvement within the County of Stanislaus.
Department	Department of Public Works, Stanislaus County or authorized representative
Project Engineer	An authorized representative of the Resident Engineer.
Resident Engineer (RE)	Engineer responsible for the contract administration.
Structure Representative	The Resident Engineer's representative responsible for the satisfactory completion of structures on an improvement project.
Surveys	The Resident Engineer's representative authorized to perform the construction surveys as described in this manual.

1. GENERAL

The Department is responsible for providing construction surveys to establish “control stakes”, also known as “grade stakes” for basic line and grade for project construction unless the contract specifies otherwise. From these control stakes the Contractor sets, when needed, supplemental “working stakes.” The control stakes are also used by the Resident Engineer (RE) or the Structure Representative to check the work for contract compliance.

These survey provisions provide policy, procedures and general information regarding Department-furnished construction stakes—the types of stakes furnished, and their density, placement, and markings. These procedures are subject to requirements in Contract specifications, Contract Change Orders (CCOs), or other provisions approved by the RE.

2. POLICY

The Department’s basic policy regarding Department-furnished construction stakes, as defined by this document is to provide the necessary control stakes to establish the lines and grades required for the completion of the work.

Working stakes used by the Contractor in actually performing the work are the Contractor’s responsibility and are to be set by the Contractor’s forces based on Department-furnished control stakes. Methods used to establish working stakes are at the Contractor’s option. These methods may include any means capable of maintaining the necessary tolerances as required by this manual and/or by the RE. Except for any contractual restrictions, the Contractor has the right to employ reasonable means and methods to execute the work on a project, including the use of Automated Machine Guidance (AMG) equipment.

The density of control stakes, as defined by this manual, will not be increased. When conditions and tolerances for the type of work involved permit, fewer construction stakes will be set, as determined by the RE.

Examples are:

1. Only one set of control stakes describing the final grade may be set to complete a roadway involving minor grading;
2. One set of stakes may be used for both final grade stakes and for curb stakes;
3. Existing pavement may be used to control contiguous widening work, instead of final grade stakes;
4. Control stakes may be set at larger intervals when Automated Machine Guidance (AMG) is used.

Nothing contained in this manual is to be construed to limit the surveyors’ basic responsibilities related to land surveying work as contained in the Professional Land Surveyor’s Act.

2.1 Responsibilities

The responsibilities described in this section pertain to construction surveys. To be fully successful, all parties must act in concert. Each must cooperate to ensure a good working relationship.

Business and Professions Code section 8726(e) provides that a land surveyor has legal authority to:

“By the use of the principles of land surveying determines the position for any monument or reference point which marks a property line, boundary, or corner, or sets, resets, or replaces any monument or reference point.”

All reference points necessary to allow the setting of control stakes will be set by Surveys. All monuments that mark a property line, boundary line, or corner must be set, replaced, or referenced under the responsible charge of a licensed land surveyor per section 8771 (b) of the Land Surveyor’s Act.

Construction stakes must be set under the responsible charge of a licensed land surveyor or civil engineer. Stakes set that are referenced to California Coordinate System (CSS) coordinates must be set under the responsible charge a person authorized to practice land surveying in the State of California.

2.2 Surveys

Construction staking is the responsibility of Surveys. The construction surveys will be performed in cooperation with the Resident Engineer and the Structure Representative.

The following are the responsibilities of Surveys:

1. Reviews site conditions for survey party safety.
2. Ensures conformity with this Manual.
3. Provides horizontal and vertical project control monuments and a project control diagram.
4. Performs construction staking in numeric order as shown on the “Request for Construction Staking” form unless otherwise directed by the RE.
5. Performs construction staking prior to contract award, as determined necessary by the Project Engineer and/or Resident Engineer.
6. Begins staking within 2 working days of receipt of a completed Request for Construction Staking form from the Resident Engineer.
7. Not perform any construction staking without a request signed by the Resident Engineer.
8. Determine that the area is prepared for staking and notify the Resident Engineer if it is not.
9. Set the construction stakes in the order and location requested, noting any changes on the field notes.

10. Complete form (SC-3013), indicating the date(s) that the staking started and was completed, and listing the total surveys crew hours needed to complete any stakes or reset stakes.
11. Sign, date and return completed form with a copy of the field notes for all work performed to the RE within 2 working days of date staking was completed.
12. Surveyor shall not act upon any staking request that may involve restaking unless a reset is marked by the Contractor or approved by the RE.
13. Surveyor shall notify the RE immediately of any discrepancy with regards to whether a staking request involves restaking.
14. Attends the pre-construction meeting with the Resident Engineer, Contractor and Structure Representative to discuss project control, amount of construction stakes, and any AMG details before construction starts.
15. Performs all Department-furnished construction staking that requires the use of a survey party.
16. Determines the methods and procedures to accomplish the Department-furnished construction staking.
17. Checks data furnished by the Project Engineer for completeness and discrepancies.
18. Checks the conformity of planned lines and grades with existing conditions at pavement “conforms”, curb and gutter joints, inlets and outlets of drainage facilities, etc.; advises the Resident Engineer of any problems; makes minor adjustments to lines and grades under the direction of the Resident Engineer.
19. Advises the Resident Engineer of any discovered design issues regarding lines and grades, and records the issues in daily survey party reports.
20. Keeps the Resident Engineer informed of pertinent construction staking issues; accepts construction staking requests only from the Resident Engineer; and keeps adequate records of Department-furnished construction staking efforts (work accomplished, dates, time and resources required, survey data and restaking).
21. Preserves, references, or replaces all survey monuments according to Section 8771 of the Business and Professions Code.
22. Verifies that all staking is clearly written and readily visible.
23. Communicates with the Structure Representative on the availability of safety-related protection equipment for work on superstructures.
24. When the Contractor is using AMG for construction, Surveys will:
 - a. Verify survey control and provide the RE with coordinates and elevation for the local control calibration points to ensure datum consistency.
 - b. Review the written calibration report provided by the Contractor using Global Navigation Satellite Systems (GNSS) technology. If the report is rejected, Surveys will confer with the RE and Contractor as soon as practical to resolve any problems.
 - c. Set additional control to assist the RE staff in checking and inspection of project.

2.3 Resident Engineer (RE)

The Resident Engineer (RE) is responsible for the satisfactory administration and completion of the project, including the coordination of construction surveys in cooperation with Surveys and the Structure Representative.

The following are the responsibilities of the RE:

1. At the preconstruction meeting or other times, explains to the Contractor with the assistance of Surveys (i) the Department-furnished construction staking procedures as detailed in this manual; (ii) the procedures and contract requirements for requesting Department-furnished construction staking; (iii) the contract requirements regarding preservation of Department-furnished stakes, and (iv) staking furnished when AMG is used.
2. Coordinates priorities and schedules for all requests for Department-furnished construction stakes.
3. Verifies that the Contractor's request for Department-furnished construction stakes are acceptable.
4. Works with the Project Engineer and Surveys to deliver needed electronic design files to the Contractor for use with AMG.
5. Checks the final construction lines and grades against Department-furnished stakes to verify that the work was performed at the proper line and grade.
6. Determines when restaking costs are to be assessed to the Contractor and coordinates with Surveys.
7. Resolves design issues regarding lines and grades; and checks/approves line and grade adjustments made by Surveys.
8. Settles disputes regarding staking priorities and schedules.

2.4 Structure Representative

The Structure Representative is responsible for the satisfactory completion of structures on an improvement project. The Structure Representative will also ensure that Surveys is apprised of all Structures-specific project safety issues and that Surveys be apprised in a timely manner of situations that would affect construction survey operations for a structure.

The following are the responsibility of the Structure Representative:

1. Confers with Surveys regarding the need for Surveys support for the structures on a project and coordinates the assignment of resources for the requested support from Surveys.
2. Coordinates with Surveys regarding any special job-specific safety training that may be required to perform a construction survey for a structure (i.e. fall protection, confined spaces, water safety, railroad safety training).
3. Establishes with Surveys a communications protocol to be used for the life of the project when requesting Surveys support.
4. Verifies that the Contractor's requests for Department-furnished construction stakes for structures are acceptable.

5. Interprets and translates all requests for construction stakes for a structure to stations and offsets that are referenced to a horizontal alignment shown on the contract plans.
6. Recommends to the RE when the Contractor is to be assessed re-staking costs associated with structures.
7. Establishes the priorities and schedules for requests for construction staking for structures with the RE and Surveys.

2.5 Contractor

The following are the responsibilities of the Contractor:

1. Discusses scheduling of staking needs for Contractor operations and time estimates of staking operations with the RE and Surveys at the pre-construction conference and throughout the project.
2. Makes only one (1) staking request per form and numbers the forms in numerical order, i.e. 1, 2, 3, etc. (Note: Construction staking will be performed in numeric order unless otherwise directed by the RE.)
3. Requests Department-furnished construction stakes a minimum of three (3) full working days in advance of starting an operation that will use the stakes. Include estimated time to perform staking operations in addition to three (3) full working days notice when determining the start of specific construction operations.
4. Submits a suitable Construction Survey Request (Form SC-3013) for Department-furnished construction stakes, ensuring that the requested staking area is ready for stakes and that the stakes will begin to be used within 5 days of staking.
5. Coordinates construction operations so that areas to receive stakes are relatively clear of construction equipment activity, in order that stakes can be set in a safe and expeditious manner.
6. Submits all requests for Department-furnished construction stakes to the RE for approval.
7. Preserves Department-furnished construction stakes, including those requested by the RE.
8. Sets working stakes (i.e., “Bluetops”) as required to complete the work.
9. Reports suspect staking or design issues immediately to the RE.
10. If using AMG, develops the needed electronic files and provides copies to the RE. If any design issues are discovered while creating the files, the RE will be notified promptly so a resolution can be determined.
11. If using AMG, utilizes and constrains to the provided local survey control points.

2.6 Project Engineer

The project Engineer will provide all files requested by Surveys as needed. The following information is a partial list of the typical delivery in the Survey file:

1. Final contract plans and annotated roadway cross-sections.
2. Control diagram and coordinate list for the control used to design the project.
3. All roadway alignments including main lines, ramps, branch connections, frontage roads, and detours.
4. Roadway slope stake listings (one or two stations per page), for all roadway and detour alignments.
5. Drainage cross-sections, alignments with station/offset and coordinates for angle points, end points, curve data, and structure locations with station/offset and coordinates to the centerline point at the flow line.
6. All profiles including roadway, curb and gutter, ditch, and channel.
7. All lay-out lines including ditches, channels, retaining walls, sound walls and benches, with station/offset and coordinates for angle points, end points and curve data.
8. Taper, transition curve, super elevation diagrams, and flare locations, including sufficient data to precisely define beginning and ending locations and elevations, radius points, offsets, and parabolic curve base line distances.
9. Data for structures including abutment and wing wall lay-out lines, abutment fills, and pier alignments.

Note: All design data will be delivered to Surveys in both digital and hard copy Format.

3. REQUESTS FOR CONSTRUCTION STAKING

The Contractor is required to provide a written request for Department-furnished construction stakes to the Resident Engineer (RE). To facilitate the Contractor's written request and to ensure that all necessary information is included in the request, the RE will furnish the Contractor with a supply of Form SC-3013, "Request for Construction Staking," for this use. Requests for stakes will only be accepted by Surveys from the RE.

Prior to contract award, requests for construction surveys originate from the Project Engineer or RE. After contract award, most requests will be initiated by the Contractor. Exceptions include control surveys, monument staking, surveys for design information, and surveys to determine pay quantities.

When the Contractor requires construction stakes, the Contractor will notify the RE of his requirements, in writing, on form SC-3013, three (3) full working days in advance of starting operations that require the stakes. Surveys begins staking within two (2) full working days of receipt of a completed Request for Construction Staking form from the RE. Some requests for stakes will require more time to complete, thus requiring the Contractor to allow for staking time in addition to the three (3) full working days in advance of operations that will use the stakes. The Contractor, RE, and Surveys will discuss staking time estimates.

If the area or facility is not prepared satisfactorily for the stakes, as determined by the RE, the staking request will be voided by the RE and the Contractor must submit a

new Request for Construction Staking form when the area or facility has been properly prepared. If a survey party has been mobilized to an area that is not ready for stakes, the RE may charge the Contractor with restaking charges for the survey party's time.

After receiving form SC-3013 from the RE, Surveys schedules the work. To facilitate scheduling, requests will include calendar dates to indicate when the stakes are needed and all requests should be specific as to area and types of stakes to be set. If a request includes more stakes than the advance notice gives time to prepare for, it should be returned to the RE for a discussion on scheduling with the Contractor.

4. REQUEST FOR CONSTRUCTION STAKING FORM SC-3013

All staking requests must be submitted on Form SC-3013.

4.1 Contractor

The Contractor will fill out the following sections of the form:

1. Project information (if not pre-printed).
2. Type of Staking: slope stakes, curb stakes, drainage, etc.
3. Stakes are either Original or Reset.
4. Location: alignment, beginning and ending stations, drainage structures, etc.
5. Date: The Contractor will indicate the date that the site will be ready for stakes, and when the Contractor intends to begin work using the stakes.
6. In the Comments section, Contractor will indicate requested offsets for the reference points, and any other relevant instructions.
7. Contractor's signature and date of request.

4.2 Resident Engineer

The RE will review the form as follows:

1. Verify that the request date and date that the stakes will be used allow enough days for Surveys to complete the work.
2. Verify that stakes listed as "Original" are not "Reset".
3. Checks that the designated areas are ready for work.
4. In consultation with Surveys, determines that the staking request allows time for Surveys to complete the work in the time requested. If there is a scheduling issue, the RE will hold a meeting with the Contractor and Surveys to resolve the issue.
5. If the RE determines that the Request is not complete due to the failure to complete (1) through (3) above, the RE will return the request to the Contractor.
6. When the RE determines that the request is acceptable, the RE will sign and date the form and forward it to Surveys.
7. If the request is for restaking, the RE will review the time actually charged by Surveys, calculate the costs, determine if the restaking costs are to be charged to the Contractor, and sign the determination.

4.3 Surveys

Surveys will review the form as follows:

1. Verify that the request date and date that the stakes will be used allow for the minimum two (2) full working days for Surveys to complete the work.
2. Verify that stakes listed as “Original” are not “Reset”.
3. Checks that the designated areas are ready for work.
4. In consultation with RE, determines that the staking request allows time for Surveys to complete the work in the time requested. If there is a scheduling issue, the RE will hold a meeting with the Contractor and Surveys to resolve the issue.

Surveys will fill out the following sections of the form:

1. Date: Surveys will indicate the date staking began and the date staking was completed.
2. Indicate whether or not the staking is a reset.
3. Indicate the name and equipment number of each person and equipment respectively that was onsite working. (Note: equipment refers to vehicles or construction equipment used, not survey instruments.)
4. Description of labor and equipment, i.e. Labor Classification for personal.
5. Hours spent onsite working for each person and equipment.
6. Was time spent on reset, yes or no.
7. Date personnel and equipment were onsite working.
8. Sign and date and return completed form with a copy of the field notes for all worked performed to the RE within 2 working days of date staking was completed.

5. RESTAKING

The Contractor shall preserve stakes and marks placed by the Department. If the stakes or marks are destroyed, the Department replaces them at the Department’s earliest convenience and deducts the cost from the Contractor.

Surveys will keep an accurate record of time required to complete restaking and report to the Resident Engineer and the Structure Representative any restaking that is done on form SC-3013. The RE is responsible for determining if charges for restaking will be made.

6. ALTERNATIVES TO NORMAL STAKING

As determined by the Resident Engineer in cooperation with Surveys, additional Department-furnished construction stakes will be provided for areas of staged construction, as necessary, to provide control for the lines and grades.

Department-furnished construction stakes will be provided for facilities not covered by this document to control lines and grades, as determined necessary by the RE and the Structure Representative in cooperation with Surveys.

In cooperation with the RE, the Structure Representative, and the Contractor, alternate Department-furnished construction stakes (stake density, placement, and markings) will be considered to facilitate the Contractor's construction methods.

For reconstruction and rehabilitation work, other Department-furnished construction stakes might be requested when the stakes described by this document are impractical, as determined by the RE in cooperation with Surveys. For example, reference marks with a stationing identification might be painted on existing pavement and a hardcopy listing provided to the Contractor of elevations, distances, or cuts/fills as appropriate.

7. AUTOMATED MACHINE GUIDANCE (AMG)

Automated Machine Guidance (AMG) technology uses positioning devices, alone or in combination, such as the Global Navigation Satellite System (GNSS), Total Stations, and/or rotating laser levels to determine the real time X, Y, and Z position of construction equipment and compare that position against a 3D Digital Design Model (DDM) stored in an onboard computer. A computer display shows the operator or grade checker several perspectives and delta values of their position compared to the design surface. This technology has the potential to increase the Contractor's efficiency, increase the Contractor's productivity, reduce the number of survey stakes required, and reduce construction working days.

7.1 Supplemental Project Control

AMG may require a higher density of control monuments than needed for conventional methods. Setting additional monuments for machine guidance is part of construction staking. The Contractor must utilize and constrain to the provided project survey control points for the Digital Terrain Model (DTM), DDM, and construction equipment locations to match.

GNSS satellite signals can be subject to interference from canyons, buildings, trees or even fencing. Additional monuments will be set when needed for adequate site coverage. Not all locations are suitable for AMG techniques, and it is the Contractor's responsibility to determine if the site conditions are practical for AMG.

Surveys involvement in projects using AMG technology can vary from project to project, but in general may include the following:

1. Report any issues to the Project Engineer and the RE.
2. Assist the Project Engineer with data format conversion as expertise permits.
3. Recover, verify, and evaluate project survey control used to develop the existing ground surface for consistency and create a site calibration prior to construction.
4. Perform terrain checks to identify any changes from earlier mapping.
5. Establish supplemental project control as needed for AMG operations.
6. Meet with the RE and the Contractor to discuss control, calibration, and staking.
7. Provide the Contractor with the latest control points. Provide the RE and Contractor with coordinates and elevation for the local survey control calibration points to ensure project consistency.
8. Review the Contractor's calibration report and compare with the Department's calibration.
9. Assist the RE with inspection of line and grade in areas without conventional staking. Surveys may assist the RE with project inspection using survey equipment, the project model, and survey control if so resourced and requested.
10. Surveys will set additional control to assist the RE staff in checking and inspection of project.
11. Deliver the files necessary to the RE in order for the RE to evaluate work completed by AMG methods.
12. Act as an advisor to the RE as requested on GNSS and AMG issues.

7.2 Suggested Best practices for Surveys include:

Set conventional slope stakes at all “conform” stations, beginning and end of curves, and begin and end of transitions to aid with inspections. Set stakes as requested by the RE for inspection purposes.

Set other construction stakes as necessary. The use of AMG will not eliminate the need for the staking of structures, drainage, utilities, etc.

8. OFFICE PREPARATION & PRECONSTRUCTION CONFERENCE

8.1 Office Preparation

Surveys is responsible for confirming that data obtained from the Project Engineer is both complete and suitable. Missing data, conflicts and uncertainties must be reported to the Project Engineer and/or the Resident Engineer as appropriate. Surveys should not revise design data without the approval of the Project Engineer and/or the RE.

Surveys should develop a strong partnership with the Project Engineer to ensure that all information needed by Surveys is provided in a ready-to-use format. Duplication of efforts by the Project Engineer and Surveys must be avoided.

Whenever practical, the Surveys office prepares the information for staking, called the staking package. The staking package should include all information required to efficiently stake the project. Generally, a construction survey effort should not begin without a completed staking package produced in an office environment where efficient, appropriate data processing capability is available. Use of survey party time to prepare the package should be minimized.

8.2 Preconstruction Conference

Resident Engineer/Surveys: Surveys will have a preconstruction meeting with the RE. Any Party Chief(s) permanently assigned to a project should attend this meeting. This meeting will occur soon after the RE is assigned. The purpose of this meeting is to establish a working relationship between the RE and Surveys and to review the anticipated survey work, including tentative schedules and project-specific safety issues. Anticipated survey requests prior to contract award should also be discussed.

Resident Engineer/Contractor: Surveys will attend the pre-construction meeting between the RE and the Contractor. The RE will provide the Contractor with a copy of this Manual and explain that, along with the Standard Specifications, it represents the Department's procedures concerning Department-furnished construction stakes. Surveys should be ready to describe the types, density, placement and marking of stakes. The RE will explain the construction staking request process, including the Contractor's responsibilities of coordinating construction operations so that areas to receive stakes are relatively clear of construction equipment activity, in order that stakes can be set in a safe and expeditious manner. Calibration and control issues must be discussed on AMG projects. The need for preserving stakes and the restaking process should also be discussed.

Structure Representative/Surveys: Surveys will have a preconstruction meeting with the RE and the Structure Representative on projects that have structures. This meeting should occur soon after the Structure Representative is assigned. The purpose of this meeting is to establish a working relationship between the Structure Representative and Surveys and to review the anticipated survey work, including tentative schedules. Anticipated survey requests prior to contract award should also be discussed. This meeting may occur in conjunction with the Preconstruction Conference between the RE and Surveys.

9. STAKE TOLERANCES & FIELD NOTES

9.1 Tolerances

Tolerances stated for each type of control stake in this chapter indicates the acceptable deviation of the position of each reference point from its computed position relative to the given alignment and grade. When the stake is positioned within its tolerances, it is deemed “good.” Staked positions are generally checked using electronic stakeout reports and, if within tolerances, the staked position is accepted. For precise measurements such as structures, reference points may also have an accuracy relative to each other.

Horizontal Control

The head of a nominal 1”x1” wooden ginnie is 0.06’ square. A point set to a tolerance of 0.03’ will fall on the head of the ginnie, and is considered within tolerance. The same is true for most metal spikes. If larger ground stakes are used, tacks or punch marks will be set to achieve the required tolerance for a given reference point. All rough grade stakes shall be set within 1.0’ foot of calculated positions. All other stakes shall be set to the 0.03’ tolerance as described above.

Vertical Control

All rough grade elevations shall be marked to the nearest 0.10’ (tenth) of a foot. All other grade stakes shall be set within 0.02’ foot vertically of calculated position.

9.2 Field Notes

Construction survey field notes in the form of electronic stakeout reports, stakeout listings with actual staked positions noted, or other suitable forms, will be filed with the Resident Engineer upon completion of the survey. The RE will provide copies to the Contractor upon request.

10. STAKE TYPES AND MARKINGS

The stake marking shall be an agreed upon format from the RE, General Contractor and Surveys.

Distances and cuts/fills are measured from the reference point for the stake to the point (feature) being staked (referenced, located). For most staking, the reference point for measurements is the ground stake. The elevation markings are for the top of the reference point. Examples of ground stakes are (a) small wooden hub (ginnie) in front of the marker/reference stake, (b) a wooden hub and tack in front of the marker/reference stake, (c) a spike driven in front of the marker stake, (d) a concrete nail in AC pavement (e) a scribed “X” on PCC pavement, or (f) the marker stake itself, depending on the precision required and field conditions (typically for fencing and clearing limits).

48” lath with flagging are used only when extra visibility is needed, typically when stakes are in tall vegetation, or as guard stakes to protect survey control monuments and marker stakes.

11. TYPICAL CONSTRUCTION STAKES

This manual outlines the typical types, density, and placement of construction stakes. Alternate locations (positions) for the stakes may be used if required by the construction conditions, as determined by Surveys.

11.1 Clearing Stakes

Clearing Stakes are set to show the limits of clearing and grubbing. Clearing Stakes are only set when the limits are not defined by the contract. Clearing stakes are set for: Clearing-only contracts, contracts requiring clearing to be completed for new aerial photography/ remote sensing before grading, and where necessary as determined by the RE in cooperation with Surveys to protect and preserve desirable natural features.

Stake Set:

Lath at clearing limit, no reference point.

Spacing:

Space longitudinally as necessary to provide intervisibility, but not less than 100 feet.

Markings:

Mark “CLEAR LIMIT” on the lath facing the centerline.

Setting Tolerance:

Stakes should be set within 1.0 foot of planned clearing limit. Consider using a greater accuracy in park lands, areas where the entire right-of-way is to be cleared like orchards or urban areas, and where there is possibility of damage to highway facilities or utilities.

Checking:

Check stakes visually and by reviewing the electronic stakeout reports and/or survey notes.

11.2 Rough Grade Stakes

Rough grade stakes are set to aid rough finishing of the grading plane. They are set when requested by the RE when cuts or fills are greater than 30 feet. Intermediate slope stakes will serve as rough grade stakes if within 30 feet (cut/ fill) of the grading plane. The RE should discuss the need for rough grade stakes with the Contractor using AMG prior to construction.

Stakes Set:

Reference point with a marker stake on only one line per roadbed, such as the centerline of construction.

Spacing:

Space longitudinally every 50 to 100 feet, as determined by Surveys with the concurrence of the RE, depending on the construction conditions, alignment and grade.

Markings:

Stakes should be marked “RGS” for rough grade stake and identify the line and station and off-set, if any, on which they are set, and give the cut/fill to finished grade for the point the stake references.

Setting Tolerance:

Stakes should be set within 1.0 foot for stationing, 0.1 foot for horizontal offset, and 0.1 foot vertically of calculated position.

Checking:

Check stakes visually and by reviewing the electronic stakeout reports and/or survey notes.

11.3 Final Grade Stakes

Final grade stakes are set when the rough finishing of the grading plane is completed. Final grade stakes are set only once for each grading plane. This one set of final grade stakes controls all elements of the structural section (the grading plane, subbase, base, and pavement). In some cases, one set of stakes may be used for several purposes, such as slopes, final grades and curbs.

11.4 Staged Construction

The RE, in cooperation with Surveys determines stakes needed for staged construction. A common form of staged construction is widening of existing pavement. Generally, the longitudinal spacing for this type of staged construction is the same as conventional construction, but the types of stakes and markings used will depend on conditions found on specific projects.

11.5 Drainage Stakes

Stake Set:

Reference point and marker and line stakes for the following points in drainage facilities:

- Ends of facilities
- Grade breaks

- Alignment breaks
- Junctions
- Inlets and similar facilities
- Skewed cut-off lines, when necessary as determined by the RE in cooperation with Surveys.

Note: The plumbing of risers and other similar facilities is the Contractor's responsibility; no reference stakes are set for plumbing.

11.6 Curb Stakes

On some cases, one set of stakes may be used for several purposes, such as slopes, final grades and curbs.

Stake Set:

Reference point and marker stake at a constant horizontal offset distance from the flow line.

Spacing:

Space longitudinally every 50 feet and at beginning and end of curb and beginning and end of horizontal and vertical curves. When grade is less than 0.3 percent or radius of curvature is less than 1000 feet space every 25 feet. A lesser spacing may be used for flares, tapers or curb returns when necessary, as determined by the RE.

Curb returns are typically staked based on the length of curve at gutter line. Curb returns having a length of curve less than 10' are staked at only the BCR and ECR.

Curb returns having a 10' to 20' length of curve are typically staked at the BCR, ECR, and 1/2 Δ . Curb returns having a length of curve greater than 20' are typically staked at the BCR, ECR, and 1/4 Δ intervals.

Curb ramps are constructed by the Contractor from the dimensions in the Construction Details and Standard Plans. Additional stakes may be set if requested by the RE. When practicable, a radius point may be staked to facilitate construction for curb returns having a radius of 25' or less. No other line stakes are set.

Markings:

Reference stakes show the horizontal offset distance, cuts/fills to the curb flow line, and for non-standard curbs, cuts/fills (from the flow line) to the top-front-edge of the lip.

11.7 Major Structure Stakes – Ground

The extent of construction stakes for major structures such as bridges varies, depending on the type and complexity of the structure and its construction. In most cases GPS equipment will not be used by Surveyor or the Contractor to set major structure stakes. Staking of footings (bents, abutments, wingwalls, etc.) is normally provided by Surveys. Surveys, in cooperation with the RE and the Structure Representative, will determine the actual staking provided.

No stakes are set by Surveys for the following:

- The locations of individual piles,
- Individual pile cutoff elevations
- Falsework

Stakes Set:

For footings (Bents, Abutments, and Wingwalls), two reference points, each with a marker stake that provides elevation, distance and line references for the controlling lines. A third reference stake, for “line only,” is set when required by the construction conditions, as determined by the Surveys personnel in cooperation with the Structure Representative. Generally, for footings, bents, and abutments, a set of reference stakes is established on each side of the structure.

Markings:

Reference stakes for major structures provide references for only the controlling lines for the structure and reference elevations.

The identification of the major structure component being staked (abutment, wing-wall, pier, etc.)

Generally, for major structures, a set of stakes will consist of two reference stakes, each providing line, distance, and elevation. Where appropriate, a third “line only” stake also will be set.

11.8 Major Structure Stakes - Superstructure

The extent of control stakes for superstructures is a combination of stakes provided by Surveys and the Structure Representative. The types, density, and placement of control stakes are dependent on the complexity of the superstructure. Surveys, in cooperation with the RE and the Structure Representative, will determine the actual staking provided.

This section describes the typical superstructure staking provided by Surveys. The Structure Representative may provide additional Department-furnished control stakes for the superstructure.

Stakes Set:

Temporary bench marks on the tops of columns marked “TBM”.

One set of control stakes at a constant offset to the alignment set on the soffit forms. The Structure Representative will determine the offset.

Spacing:

Space longitudinally every 25 feet.

Markings:

Stakes should be marked “STR” for structure stake and identify the alignment station and offset.

Setting Tolerances:

Stakes will be set to within 0.02 feet horizontally or 0.02 feet vertically.

Note: The control stakes on the soffit will not have vertical information.

Checking:

Check stakes visually and by reviewing the electronic stakeout reports and/or survey notes.

11.9 Miscellaneous Stakes

Contour Grading:

Construction stakes for contour grading vary with the design and terrain. Surveys, in cooperation with the RE, will determine what stakes are provided. Generally, stakes are set at a longitudinal spacing of 50 feet. A “grid” pattern of stakes might be used for areas of relatively shallow fills or cuts. Stakes should be marked in the same manner as rough grade stakes.

Utilities:

Utility work generally is controlled by adjacent construction staking or adjacent facilities, and no stakes are set. If separate stakes are necessary, as determined by the RE in cooperation with Surveys, stakes will be provided in the same manner shown for similar roadway work.

Stakes set for water and sewer lines at a longitudinal spacing of 50 feet; a 25 foot spacing will be used when the grade is less than 0.3 percent or when the radius of curvature is less than 1000 feet.

Sidewalks:

Stakes are set only as determined necessary by the RE for sidewalks that meander or change grade independently as compared to controlling elements such as adjacent curbs or nearby building foundations.

Signs:

When necessary, as determined by the RE, stakes are provided to locate signs.

Channels, Dikes, and Ditches:

Major channels and dikes are controlled by slope stake references. For ditches, reference stakes are provided for line and grade breaks, when necessary, as determined by the RE.

Subsurface Drains:

Stakes are set only as determined necessary by the RE. Set stakes for subsurface drains in the same manner as for drainage pipes. Stabilization trenches and permeable blankets are controlled by slope stakes or contour grading stakes.

Overside Drains:

For straight discharge overside drains, stakes (references) are provided only for longitudinal location. Alignment and grade breaks will only be staked at the direction of the RE.

Markers:

Markers are located by stakes (or references), as determined necessary by the RE.

Railings and Barriers:

Where railings and barriers are controlled by adjacent construction staking or adjacent facilities, no stakes are provided, except stakes that establish the beginning and end of each railing or barrier. All staking is to the base of the barrier only.

Where construction staking is necessary, as determined by the RE, stakes (references) are generally provided for alignment and grade at a spacing of 50 feet along the facility. 25 foot spacing will be used: (a) when the radius of curvature is less than 1000 feet; (b) in areas of superelevation transition; and (c) within 100 feet of “conforms” or bridges. A lesser spacing will be used for flares, when necessary, as determined by Surveys.

Hot Mix Asphalt Dikes:

Stakes are provided only at the beginning and end of HMA dikes.



Geotechnical Report

September 6, 2019
File No.: 20200375.001A

Cornerstone Structural Engineering Group, Inc.
986 W Alluvial Ave
Fresno, California 93711

Attn: Mr. Chris Ingle

**SUBJECT: Foundation Report
Keyes Road Bridge Over Ceres Canal (Replacement)
State Bridge No. 38C-New
Keyes, Stanislaus County, California**

Dear Mr. Ingle:

The attached Foundation Report presents the results of the preliminary geotechnical study for the Keyes Road Bridge over Ceres Canal (Replacement) located in Stanislaus County, California. This report describes our study and provides conclusions and recommendations for use in foundation design.

We appreciate the opportunity to provide geotechnical engineering services to Cornerstone Structural Engineering Group, Stanislaus County, and other project designers. We trust this information meets your current needs. If there are any questions concerning the information presented in this report, please contact this office at your convenience.

Respectfully Submitted,

KLEINFELDER, INC.

Exequiel Sinco, PE
Senior Professional

Stephen P. Plauson, PE, GE
Principal Geotechnical Engineer



**FOUNDATION REPORT
KEYES RD BRIDGE OVER CERES CANAL
(REPLACEMENT)
BRIDGE NO. 38C-NEW
STANISLAUS COUNTY, CALIFORNIA**

KLEINFELDER PROJECT #20200375.001A

September 6, 2019

A report prepared for:

Cornerstone Structural Engineering Group, Inc.
986 W Alluvial Ave
Fresno, CA 93711

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ONLY THE CLIENT OR ITS DESIGNATED REPRESENTATIVES MAY USE THE DOCUMENT AND ONLY FOR THE SPECIFIC PROJECT FOR WHICH THIS REPORT WAS PREPARED.

Prepared For:
Cornerstone Structural Engineer Group, Inc.
986 W Alluvial Ave
Fresno, CA 93711

**FOUNDATION REPORT
KEYES RD BRIDGE OVER CERES CANAL (REPLACEMENT)
BRIDGE NO. 38C-NEW
STANISLAUS COUNTY, CALIFORNIA**

Kleinfelder Job No.: 20200375.001A

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September 6, 2019

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1 INTRODUCTION

1.1 GENERAL

This report presents results of the preliminary geotechnical investigation for the proposed Keyes Road Bridge over Ceres Canal (Replacement) located in Stanislaus County, California. The scope of services consisted of a field exploration program, a laboratory testing program, preliminary engineering analysis, and preparation of this written report. The purpose of this investigation was to evaluate the general soil conditions and provide geotechnical recommendations and opinions to aid in preliminary foundation design.

1.2 SCOPE OF SERVICES

The report provides the following:

- A description of the proposed project
- A summary of the field exploration and laboratory testing programs
- Comments on the regional geology and site engineering seismology, including the recommended peak acceleration and Caltrans Seismic Design Criteria Version 2.3.09 ARS curve
- Comments on liquefaction potential and potential for seismically induced settlement
- Preliminary recommendations for design of a replacement bridge, including factored bearing capacity and net permissible contact stress for conventional spread footing foundations for box culverts and wingwalls
- Recommendations for lateral capacity of spread footings for box culverts and wingwalls
- Comments on initial soil stiffness and ultimate equivalent lateral pressure by Caltrans procedures for endwalls and warped wingwalls
- Recommended flexible pavement structural sections
- Comments on the corrosion potential of foundation soil, and
- Log of Test Borings drawing

1.3 PROJECT DESCRIPTION

The proposed project will involve the replacement of the Keyes Road Bridge over Ceres Canal. The existing structure was built in 1920 and consists of a two-span, reinforced concrete bridge with reinforced concrete pier walls and diaphragm abutments founded on spread footings. The

existing bridge has a total span of about 22 feet and a deck width of about 32 feet. The Ceres Main Canal is a concrete lined trapezoidal channel.

It is understood the existing structure will be replaced with a reinforced concrete two (2) cell reinforced concrete box culvert (RCB) with a length of about 43.5 feet and a width of about 24 feet. The openings of the RCB are 11 feet in width and 5 feet in height. The replacement bridge will be constructed on the existing alignment and will provide for approximately one 12-foot travel lane and an 8-foot shoulder in both the east and west bound direction. At the new structure location, the invert of the box culvert will be about 6 feet below the existing road grade and the road profile will be raised 6 inches. The existing canal lining will continue through the structure crossing.

Tables 1.3-1 provides the foundation data used for the geotechnical evaluation of foundations.

**TABLE 1.3-1
DOUBLE BOX CULVERT FOUNDATION DATA**

Road Finished Grade Elev. ¹ (ft)	Bottom of Foundation Elev. (ft)	Foundation Size ² (ft)		S _p ³
		L	B	
89.0	81.4	43.5	24	1"

Notes: (1) At the centerline of Keyes Road at Station 10+00.27.
 (2) L is measured perpendicular to the roadway and B is measure parallel to the roadway.
 (3) Permissible settlement under service load.

1.4 POLICY EXCEPTIONS

Other than the planned 2H:1V slopes, no known exceptions to Caltrans policy were made in the geotechnical evaluation for the foundations for this project.

2 FIELD EXPLORATION AND LABORATORY TESTING

2.1 FIELD EXPLORATION AND TESTING

The field exploration for the project consisted of drilling two (2) test borings near the location of the bridge replacement on Friday May 15, 2019. The borings were drilled with a CME 75 truck mounted drill rig. Boring B-1 was drilled using hollow stem auger techniques and boring B-2 was drilled with hollow stem auger and mud rotary techniques. The approximate locations of the test borings are indicated on the Log of Test Borings drawing in Appendix A of this report.

The earth materials encountered in the test borings were visually classified in the field and a continuous log was recorded. Where possible, in-place samples of soil units were collected from the test boring at selected depths by driving a 2.5-inch I.D. split barrel sampler containing brass liners into the undisturbed soil with a 140-pound automatic safety hammer free falling a distance of 30-inches. In addition, an ASTM D1586 standard penetrometer without liners (barrel I.D. of 1.5 inches) was driven 18-inches in the same manner. This latter sampling procedure generally conformed to the ASTM D1586 test procedure. Resistance to sampler penetration over the last 12-inches is noted on the Log of Test Borings as the "Penetration Index". The penetration indices listed on the Log of Test Borings have not been corrected for the effects of overburden pressure, sampler size, rod length, or hammer efficiency. In addition, bulk samples were obtained from auger cuttings at both of the borings.

Penetration rates determined in general accordance with ASTM D1586 were used to aid in evaluating the consistency, compression, and strength characteristics of the foundation soils.

2.2 LABORATORY TESTS

Laboratory tests were performed on selected samples to evaluate certain characteristics and engineering properties. The laboratory testing program was designed with emphasis on the evaluation of geotechnical properties of foundation materials as they pertain to the proposed construction. The laboratory testing program included performing the following tests:

- Unit Weight (ASTM D2937)
- Moisture Content (ASTM D2216)

- Grain Size Distribution (ASTM D422, without hydrometer)
- Material in Soils Finer than No. 200 (75- μ m) Sieve (ASTM D1140)
- Direct Shear (ASTM D3080)
- Maximum Density/Optimum Moisture (California Test Method No. 216)
- Soluble Sulfates (California Test Method No. 417)
- Soluble Chlorides (California Test Method No. 422)
- Resistivity and pH (California Test Method No. 643)
- R-value (California Test Method No. 301)

The laboratory tests results are shown in Appendix B. The soluble sulfate, soluble chloride, pH, and minimum resistivity results are presented in Section 4.0 ("Corrosion Potential").

Compression and strength characteristics were determined based on published, correlations with sample penetration rates. Table 2.2-1 provides a summary of geotechnical design parameters used.

**TABLE 2.2-1
GEOTECHNICAL DESIGN PARAMETERS**

Depth (ft)	Material	γ_t (pcf)	γ_b (pcf)	Φ (°)
0 to 51½	Pleistocene Poorly Graded Sand, Silty Sand, Sandy Silt and Silt	128	66	33

3 SITE CONDITIONS

3.1 SURFACE CONDITIONS AND TOPOGRAPHY

The bridge site is located along Keyes Road and surrounded by relatively flat agricultural terrain west of Keyes, California. The existing Keyes Road is a 2-lane paved major collector road with one travel lane each for east and west bound traffic. The general topography along the alignment was relatively flat on either side of the canal. The canal invert is presently estimated at approximately 6 feet below the road level. At the time of investigation, the canal was flowing relatively full.

3.2 REGIONAL GEOLOGY

The project site lies in the central portion of the San Joaquin Valley in the Great Valley geomorphic province in California. This province was formed by the filling of a large structural trough or downwarp in the underlying bedrock. The trough is situated between the Sierra Nevada Range on the east and the Coast Range on the west. Both of these mountain ranges were initially formed by uplifts that occurred during the Jurassic and Cretaceous periods of geologic time (greater than 65 million years ago). Renewed uplift began in the Sierra Nevada during the Tertiary time and is continuing today. The trough that underlies the valley is asymmetrical, with the greatest depths of sediments near the western margin. The sediments that fill the trough originated as erosion material from the adjacent mountains and foothills.

3.3 EARTH MATERIALS

The following description provides a general summary of the subsurface conditions encountered during the field exploration and further validated by the laboratory testing program. For a more thorough description of the actual conditions encountered at the specific boring location, refer to the Log of Test Borings presented in Appendix A. All soils have been classified according to the Unified Soil Classification System (ASTM D2487).

The surface earth materials in the project vicinity are mapped as arkosic alluvial sand as part of the Modesto Formation. The foundation soils encountered in the test borings consist of silty sand to poorly graded sand with intermittent layers of sandy silt and silt. The consistencies of

the silt are stiff and the relative densities of the granular materials (sand/sandy silt) ranged from medium dense to very dense.

3.4 GEOLOGIC HAZARDS

Based on the site conditions encountered, it is anticipated that geologic hazards of slope instability, deep subsidence, hydrocompactive soil, or ground rupture will not impact the site.

3.5 GROUNDWATER CONDITIONS

Groundwater was encountered in Boring B-1 at a depth of approximately 33 feet below ground surface. The groundwater depth in boring B-2 was obscured by the drilling mud, however, based on sample degree of saturation, groundwater was assumed in Boring B-2 at a depth of approximately 45 feet below ground surface. Published data from nearby wells indicate the current general ground water depth is approximately 37 feet below ground surface. It is possible that groundwater in the area could also be affected by variations in rainfall, agricultural irrigation activities, or other factors not apparent at the time the test borings were explored. The Ceres Main Canal is lined and therefore would not be expected to greatly influence the groundwater provided the canal liner is properly maintained.

4 CORROSION EVALUATION

4.1 CORROSION TESTING RESULTS

Soil samples from Boring B-1 were tested to evaluate the soluble sulfate content, soluble chloride content, minimum resistivity, and pH. Specific test results are presented in Table 4.1-1.

**TABLE 4.1-1
CORROSION RELATED TESTING**

Boring No.	Depth (ft)	Soluble Sulfate (mg/kg)	Soluble Chloride (mg/kg)	Minimum Resistivity (ohm-cm)	pH
B-1	5 to 10	15.9	1.1	5,090	7.27

Laboratory tests indicate the soluble sulfates, soluble chlorides, minimum resistivity and pH are outside the Caltrans threshold limits for corrosion. Consequently, the site would be considered to be a non-corrosive environment with respect to foundation concrete and steel reinforcement.

5 SEISMIC RECOMMENDATIONS

5.1 LOCAL FAULTING

There are no known faults which cut through the local soil at the site. The project site is not located in an Alquist-Priolo Earthquake Fault Zone, as defined by Special Publication 42 (revised 2007) published by the California Geologic Survey (CGS). Numerous faults and shear zones within the region could influence the project site.

5.2 SEISMIC DESIGN CRITERIA

Seismic design parameters were developed in accordance with the Seismic Design Criteria (SDC) Version 2.0, dated April 2019 and the ARS On-line tool v2.3.09.

The project site is located in a region with the potential for relatively low seismic activity. The more significant faults that could influence the project site include the Orestimba section of the Great Valley 07 Fault (Fault ID 138), the Santa Cruz Mountains section of the San Andreas Fault (Fault ID 158), and the Quinto section of the Great Valley 08 Fault (Fault ID 160). According to the Caltrans fault database, the Orestimba section of the Great Valley 07 Fault has a reverse fault with a dip angle of 15 degrees and assigned a Maximum Magnitude (M_{Max}) of 6.7, the Santa Cruz Mountains section of the San Andreas Fault is a right lateral strike slip fault with a dip angle of 90 degrees and assigned a M_{max} of 8.0, and the Quinto section of the Great Valley 08 Fault is a reverse fault with a dip angle of 15 degrees and assigned a M_{max} of 6.8.

Based on the data from the borings, the site can be classified as Soil Profile Type D and Soil Profile Classification S1 in accordance with SDC version 2.0 dated April 2019. V_{s30} estimates were evaluated at both boring locations. Boring B-1 reported a V_{s30} of 277 m/s and boring B-2 reported a V_{s30} of 285 m/s. An average of the two shear wave velocities was used for the evaluation. The site is not located within a California deep soil basin region, as defined by Caltrans, so $Z_{1.0}$ and $Z_{2.5}$ were considered not applicable. Site characteristics and governing deterministic faults are summarized in Table 5.2-1.

**TABLE 5.2-1
SITE CHARACTERISTICS AND
GOVERNING DETERMINISTIC FAULTS PARAMETERS**

Site Coordinates	Lat = 37.5512332 deg, Long = -120.938896 deg
Shear Wave Velocity	281 m/s
Depth to $V_s=1.0$ km/s, $Z_{1.0}$	N/A
Depth to $V_s=2.5$ km/s, $Z_{2.5}$	N/A
Fault Name and ID Number	Great Valley 07 Fault (Orestimba), No. 138
Maximum Magnitude (M_{Max})	6.7
Fault Type	Reverse
Fault Dip	15 degrees
Dip Direction	West
Bottom of Rupture Plane	9.60 km
Top of Rupture Plane (Z_{tor})	7.00 km
R_{RUP}^1	23.528 km
R_{JB}^2	23.463 km
R_X^3	22.448 km
F_{norm} (1 for normal, 0 for others)	0
F_{rev} (1 for reverse, 0 for others)	1
Fault Name and ID Number	San Andreas Fault (Santa Cruz Mts), No. 158
Maximum Magnitude (M_{Max})	8.0
Fault Type	Right Lateral Strike Slip
Fault Dip	90 degrees
Dip Direction	Vertical
Bottom of Rupture Plane	14.80 km
Top of Rupture Plane (Z_{tor})	0 km
R_{RUP}^1	93.942 km
R_{JB}^2	93.942 km
R_X^3	93.942 km
F_{norm} (1 for normal, 0 for others)	0
F_{rev} (1 for reverse, 0 for others)	0
Fault Name and ID Number	Great Valley 08 Fault (Quinto), No. 160
Maximum Magnitude (M_{Max})	6.8
Fault Type	Reverse
Fault Dip	15 degrees
Dip Direction	West
Bottom of Rupture Plane	6.00 km
Top of Rupture Plane (Z_{tor})	0 km
R_{RUP}^1	36.664 km
R_{JB}^2	36.664 km
R_X^3	23.380 km
F_{norm} (1 for normal, 0 for others)	0
F_{rev} (1 for reverse, 0 for others)	1
Notes: ¹ R_{RUP} = Closest distance from the site to the fault rupture plane. ² R_{JB} = Joyner-Boore distance; the shortest horizontal distance to the surface projection of the rupture area. ³ R_X = Horizontal distance from the site to the fault trace or surface projection of the top of the rupture plane.	

5.2.1 Deterministic Response Spectrum

The deterministic response spectrum was calculated using the Caltrans Deterministic Spreadsheet and checked using ARS Online as required by Caltrans

5.2.2 Probabilistic Response Spectrum

The probabilistic response spectrum was developed using the ARS Online and USGS deaggregation.

5.2.3 Design Response Spectrum

The upper envelope of the deterministic and probabilistic spectral values determines the design response spectrum. The probabilistic response spectra was found to govern for all periods of the spectra for a period of up to 5 seconds. The recommended acceleration and displacement design response spectra are presented graphically and numerically in Appendix C.

5.2.4 References

Caltrans. Caltrans ARS Online, http://dap3.dot.ca.gov/ARS_Online/

Caltrans. Geotechnical Services Manual

Caltrans. Seismic Design Criteria, Appendix B Design Spectrum Development

USGS. <https://earthquake.usgs.gov/hazards/interactive/>

5.3 LIQUEFACTION POTENTIAL

In order for liquefaction of soils due to ground shaking to occur, it is generally accepted that four conditions will exist:

- The subsurface soils are in a relatively loose state,
- The soils are saturated,
- The soils are non-plastic, and
- Ground motion is of sufficient intensity to act as a triggering mechanism.

The design PHGA, based on the Minimum Spectrum for California, is 0.34g, with a Moment Magnitude of 6.36. Kleinfelder's liquefaction potential evaluation was performed using the Youd

et al. (2001) procedures. It is Kleinfelder's finding that in this area the potential for seismically induced liquefaction is unlikely.

6 FOUNDATION RECOMMENDATIONS

6.1 GENERAL

Based on the field exploration, laboratory testing, and geotechnical analyses, the soils at the site are suitable for supporting the planned bridge structure. Based on the assumed loading conditions, soils at the site, and discussions with Cornerstone Structural Engineering Group, Inc., the site is suitable for supporting the planned bridge structure by use of a reinforced concrete double cell box culvert. Data is present for site specific design of reinforced concrete box (RCB) culvert.

6.2 CULVERT DESIGN

6.2.1 Lateral Loads

The minimum and maximum restrained lateral earth pressures of the native soil, backfilled in accordance with Caltrans Standard Specifications (CSS) Section 19, are presented in Table 6.2-1. These values are the recommended unfactored lateral earth pressure loading range for use in the Service Limit and Strength Limit load evaluation of the box culvert. Caltrans Standard Plans, May 2018, for RCB's are based on the soil surrounding the planned RCB having minimum and maximum lateral earth pressures equal to 36 lb/ft³ and 120 lb/ft³ and maximum cover density of 140 lb/ft³. Based on the analysis of the native soil, the soil will exhibit minimum and maximum restrained lateral earth pressures and earth cover density meeting the design requirements in Caltrans Standard Plans. Consequently, the use of Caltrans Standard Plans for design of the RCB would be appropriate. The pressures are based on the use of on-site soils for wall backfill.

**TABLE 6.2-1
UNFACTORED LATERAL EARTH PRESSURES
AGAINST BOX CULVERT SIDEWALLS**

Condition	Static
Minimum Pressure (psf/ft of depth)	58
Maximum Pressure (psf/ft of depth)	96

When evaluating the culvert for Extreme Load, a dynamic increment of 15 psf/foot of depth should be added to the static lateral earth pressures. The dynamic increment is based on the Mononobe/Okabe method using a design ground acceleration of one-half the PHGA.

6.2.2 Bearing and Settlement

Based on the field exploration, laboratory testing, and geotechnical analyses, the soils at the site are suitable for supporting the RCB. Table 6.2-2 presents the preliminary design bearing elevations, geometry, and minimum footing embedment for the culvert invert slab based on the assumed data (Table 1.3-1). Table 6.2-2 also provides the factored gross nominal bearing capacity for use with Service, Strength, and Extreme Event loading conditions.

It was determined that a permissible bearing capacity of 2.0 ksf produced 1-inch of settlement as presented in Table 6.2-2. Settlement was evaluated using methods by Hough. Hough's method utilizes field data while allowing for consideration of the induced stresses from loads and stress history of the foundation soil. FHWA considers the method conservative.

TABLE 6.2-2
FOUNDATION DESIGN RECOMMENDATIONS^{1,2}

Footing Size ³ (ft)		BOF Elev. (ft)	Minimum Embedment Depth (ft)	Total Permissible Support Settlement (inches)	Permissible Net Contact Stress (ksf)	Factored Gross Nominal Bearing Resistance (ksf)	
L	B					Strength $\phi_b=0.45$	Extreme $\phi_b=1.0$
43.5	24	81.4	1	1	2.0	10.1	22.4

Notes: (1) Recommendations are based on the furnished foundation geometry and the loading conditions. The footing contact area is taken as equal to the effective footing area, where applicable.
(2) See MTD 4-1 for definitions and applications of the recommended design parameters.
(3) L is measured perpendicular to the roadway and B is measured parallel to the roadway.

Differential settlement is anticipated to be reduced to half of the total settlement across the length/width of the RCB.

The design bearing stress/resistance given in Table 6.2-2 requires that the RCB will be placed on unyielding native soil or approved engineered fill. Any soft, unsuitable sediment in the channel bottom should be excavated to expose firm undisturbed soil and removed from project

site. Based on observations for preliminary planning it should be anticipated that a general excavation depth of 12 to 18 inches may be required to remove unsuitable soil. However, isolated deeper areas deemed unsuitable could exist, which may require deeper excavation.

If unstable foundation conditions are encountered, it will be necessary to stabilize the area prior to foundation construction. Any soft, unsuitable sediment must be excavated to expose firm undisturbed soil. Material removed below the bottom of culverts shall be replaced with Class 2 AB or lean concrete base, compacted as specified for structure backfill in CSS Section 19-3.03E (latest edition).

If the material is to be replaced with Class 2 aggregate base, an enhancement geotextile shall be placed between the subgrade and the Class 2 aggregate base as specified in section 19-10. If groundwater is encountered below the bottom of the retaining wall footings, substitute lean concrete base for Class 2 aggregate base. If lean concrete base is used instead of Class 2 aggregate base, subgrade enhancement geotextile is not required.

Kleinfelder should be contacted to observe and approve the exposed subgrade prior to stabilizing the working/foundation area.

6.2.3 Resistance to Lateral Loading

Static lateral loads applied to foundations can be resisted by a combination of passive lateral bearing and base friction. Allowable and factored nominal passive pressures and frictional coefficients for Service Limit and Extreme Event are presented in Table 6.2-3. The passive pressure considers a conservative value of wall friction (δ) equal to one-half the angle of internal friction (Φ), to allow for formed foundations.

**TABLE 6.2-3
SLIDING RESISTANCE OF FOUNDATION SOILS**

Mode of Resistance	Service $\phi=0.85$	Extreme $\phi=1.0$
Frictional Coefficient (Native Soil)	0.55	0.65
Frictional Coefficient (Class 2 AB)	0.71	0.84
Mode of Resistance	Service $\phi=0.5$	Extreme $\phi=1.0$
Passive Pressure (psf/ft of depth) ¹	415	830
Lateral translation needed to develop passive pressure ²	0.005	0.026D

Notes: (1) Passive pressure is presented for level adjacent ground surface.
 (2) D is depth of footing below adjacent grade. Lateral translation will be in same units as D.

If the deflection resulting from the strain necessary to develop the passive pressure is within structural tolerance, the passive pressure and frictional resistance can be used in combination. Otherwise, additional passive pressure values could be provided based on tolerable deflection. It is suggested this strain compatibility approach be considered instead of an arbitrary reduction in passive pressure.

6.3 WINGWALLS

6.3.1 Lateral Loads

Table 6.3-1 provides lateral earth pressures that can be used for project specific design of headwalls, endwalls, and wingwalls. The recommended values do not include lateral pressures due to the hydrostatic forces. Therefore, wall backfill should be adequately drained to prevent an excessive hydrostatic imbalance. The Table 6.3-1 values are less than used in Caltrans Standard Plan wingwalls, as such, standard Caltrans walls could be used.

**TABLE 6.3-1
LATERAL LOAD DESIGN PARAMETERS, DRAINED**

Lateral Loads	Design Value
Estimated Friction Angle	34°
Uniform Surcharge Coefficient	0.29
Unfactored Active Pressure	40 (psf/ft of depth)
Dynamic Active Incremental Increase	15 (psf/ft of depth)

The Special Provisions requires that backfill placed within a 1:1 zone extending upward from the base of the RCB consist of low expansion granular fill (Expansion Index less than 10).

Should retaining walls be influenced by surcharge loads, the surcharge against the walls can be evaluated by multiplying the surcharge pressure by the earth pressure coefficient. Surcharge loads should be modeled as a uniform pressure against the wall by multiplying the surcharge load by the earth pressure coefficient.

For site specific design, appropriate load factors should be applied to the active pressure and dynamic increment. The factored dynamic increment would be added to the factored active pressure for Extreme Event consideration. Caltrans approach to seismic design considers the distribution of the dynamic increment to be an upright triangle (similar to the active pressure). Consequently, the resultant load for the active pressure and dynamic increment would both be applied at 0.33 H from the base, where H is the total retained height. The effect of wall friction would allow the resultant lateral earth pressure to be directed downward at an angle of 30 degrees from the horizontal. The dynamic increment is based on the Mononobe/Okabe method using a design ground acceleration of one-half the PHGA.

6.3.2 Warped Wingwalls

Proposed warped wingwalls shall be supported on approved undisturbed native soil channel slopes or properly engineered fill. The native soils have strength characteristics that result in design earth pressures compatible with Caltrans Standard Plans. Provided that the Special Provisions specify that imported backfill consist of soil similar to the native soil or soil having a ϕ angle of at least 34 degrees, Caltrans Standard Plans design could be used.

6.4 BOTTOM OF SLAB CUTOFF WALL

The Ceres Main Canal is lined, as such a Caltrans Standard Plans cutoff walls are not required unless deemed necessary the design engineer.

6.5 ROADWAY SLOPES

The soil profile and soil properties were input into the computer program GeoStudio. The critical failure surface searching method was specified for analysis using a random technique for generating circular surfaces. The analysis indicates that roadway slopes constructed at the proposed gradient of 2:1 (H:V) to a height of up to 5 feet are anticipated to be stable in gross failure mode.

6.6 EARTHWORK

Planned earthwork will be minimal (culvert backfill and roadway subgrade). In general, any required fill or backfill should be constructed in accordance with the latest Caltrans Standard Specifications.

6.7 PAVEMENT

The subgrade Resistance-value (R-value) for the on-site soil was evaluated for the approach roadway subgrade in the laboratory on near surface soil samples obtained from the test borings. Testing was in conformance with California Test Method 301. Results indicate a design R-value of 65. For design purposes, an R-value of 50 was used to determine preliminary flexible pavement sections.

Preliminary flexible pavement sections have been determined for a range of assumed Traffic Indexes (TI) of 6.0, 7.0, and 8.0. Estimated structural sections for asphalt concrete (HMA) are provided in Table 6.7-1. The pavement design recommendations presented are based upon the California Department of Transportation (Caltrans) design procedures, including the gravel equivalent safety factor on the wearing surface.

**TABLE 6.7-1
PAVEMENT STRUCTURAL SECTIONS**

Assumed TI	Design R-value	Pavement Structural Section (2 Layer)
6.0	50	0.25 HMA / 0.35' AB
7.0	50	0.30 HMA / 0.45' AB
8.0	50	0.40' HMA / 0.45' AB

The HMA should conform to, and be placed in accordance with, Section 39 of the latest revision of the Caltrans Standard Specifications (CSS). Class 2 aggregate base (AB) should be in conformance with the Section 26 of the CSS. AB, and at least the upper 0.65 feet of subgrade should be compacted to 95% of maximum dry density. Subgrade compaction should also comply with any Stanislaus County Standards, if more stringent.

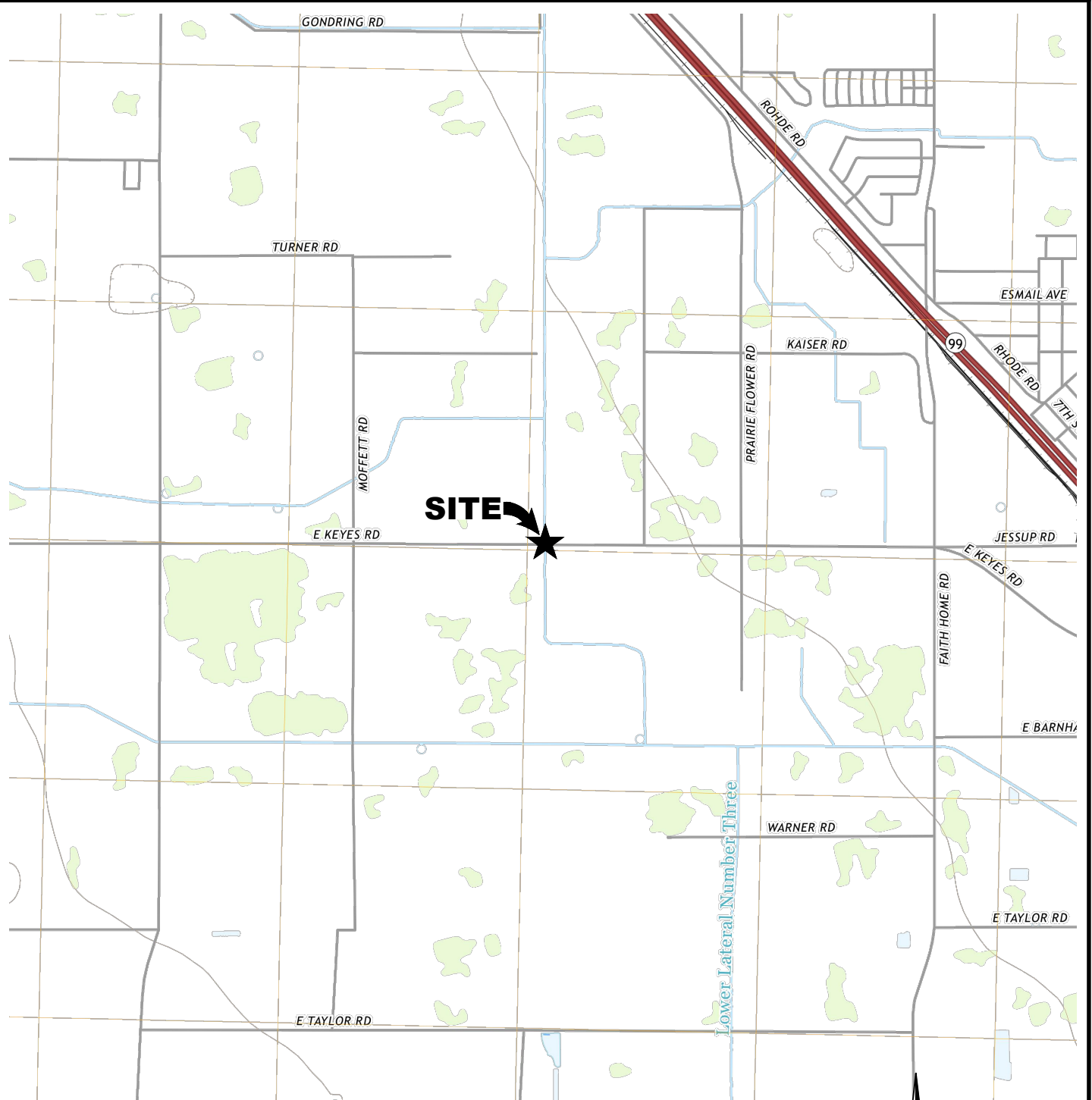
7 CLOSURE

The conclusions and recommendations in this report are for the preliminary design of the proposed Keyes Road Bridge over the Ceres Canal, located in Stanislaus County, California, as described in the text of this report. The findings, conclusions, and recommendations presented in this report were prepared in accordance with generally accepted geotechnical engineering practice. No warranty, express or implied, is made. The field exploration program and this report were based on the proposed project information provided to Kleinfelder.

This report is intended for use by Cornerstone Structural Engineering Group, Inc., Stanislaus County, and their subconsultants. When final design geometry and loads have been determined, a final Foundation Report will need to be submitted.

The scope of the geotechnical services did not include an environmental site assessment for the presence or absence of hazardous/toxic materials in the soil, surface water, groundwater or atmosphere, or the presence of wetlands.

APPENDIX A
VICINITY MAP AND LOG OF TEST BORINGS



SOURCE: U.S.G.S. 7.5' Topographic series,
Ceres, California Quadrangle 2018.

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.

0 2000 4000
SCALE: 1" = 2000' SCALE IN FEET



PROJECT NO. 20200375
DRAWN BY: DMF
CHECKED BY: VT
DATE: 06/2019
REVISED: 06/2019

SITE VICINITY MAP

KEYES ROAD BRIDGE
AT T.I.D. CERES MAIN CANAL
STANISLAUS COUNTY, CALIFORNIA

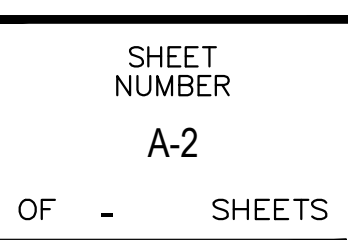
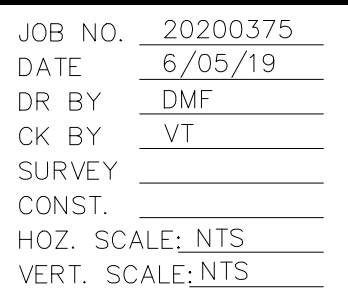
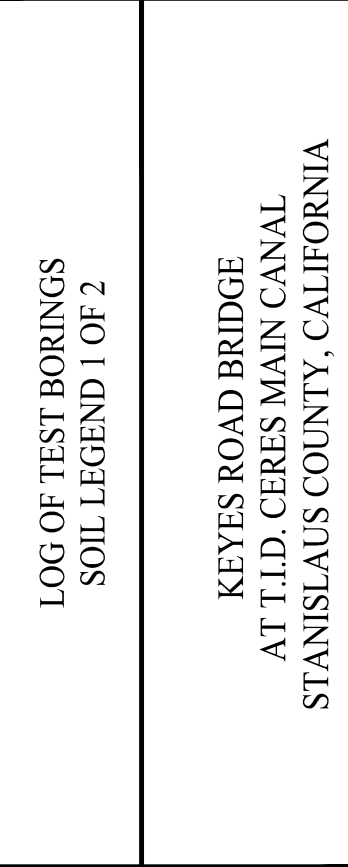
FIGURE

A-1

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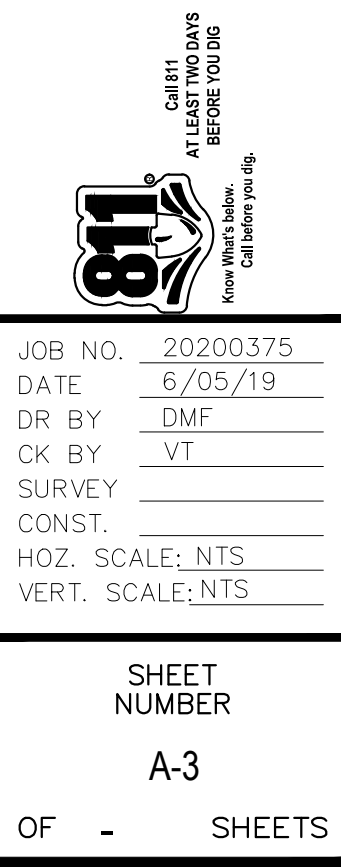
STANISLAUS COUNTY
 DEPARTMENT OF PUBLIC WORKS
 ENGINEERING AND OPERATIONS DIVISION
 1716 MORGAN ROAD — MODESTO, CA 95358

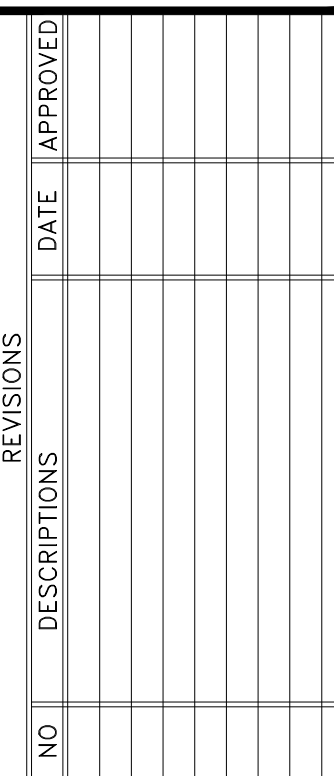


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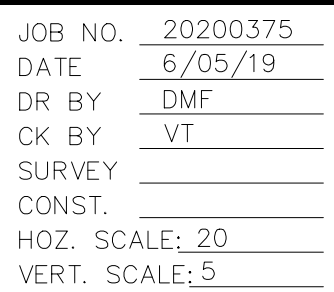
FIELD AND LABORATORY TESTING	
(C)	Consolidation (ASTM D 2435)
(CL)	Collapse Potential (ASTM D 5333)
(CP)	Compaction Curve (CTM 216)
(CR)	Corrosivity Testing (CTM 643, CTM 422, CTM 417)
(CU)	Consolidated Undrained Triaxial (ASTM D 4767)
(DS)	Direct Shear (ASTM D 3080)
(EI)	Expansion Index (ASTM D 4829)
(M)	Moisture Content (ASTM D 2216)
(OC)	Organic Content—% (ASTM D 2974)
(P)	Permeability (CTM 220)
(PA)	Particle Size Analysis (ASTM D 422)
(PI)	Plasticity Index (AASHTO T 90) Liquid Limit (AASHTO T 89)
(PL)	Point Load Index (ASTM D 5731)
(PM)	Pressure Meter
(R)	R—Value (CTM 301)
(SE)	Sand Equivalent (CTM 217)
(SG)	Specific Gravity (AASHTO T 100)
(SL)	Shrinkage Limit (ASTM D 427)
(SW)	Swell Potential (ASTM D 4546)
(UC)	Unconfined Compression—Soil (ASTM D 2166) Unconfined Compression—Rock (ASTM D 2938)
(UU)	Unconsolidated Undrained Triaxial (ASTM D 2850)
(UW)	Unit Weight (ASTM D 4767)

PARTICLE SIZE		
Description		Size (in.)
Boulder		Greater than 12
Cobble		3 – 12
Gravel	Coarse	$3/4 - 3$
	Fine	$1/5 - 3/4$
Sand	Coarse	$1/16 - 1/5$
	Medium	$1/64 - 1/16$
	Fine	$1/300 - 1/64$
Silt and Clay		Less than $1/300$

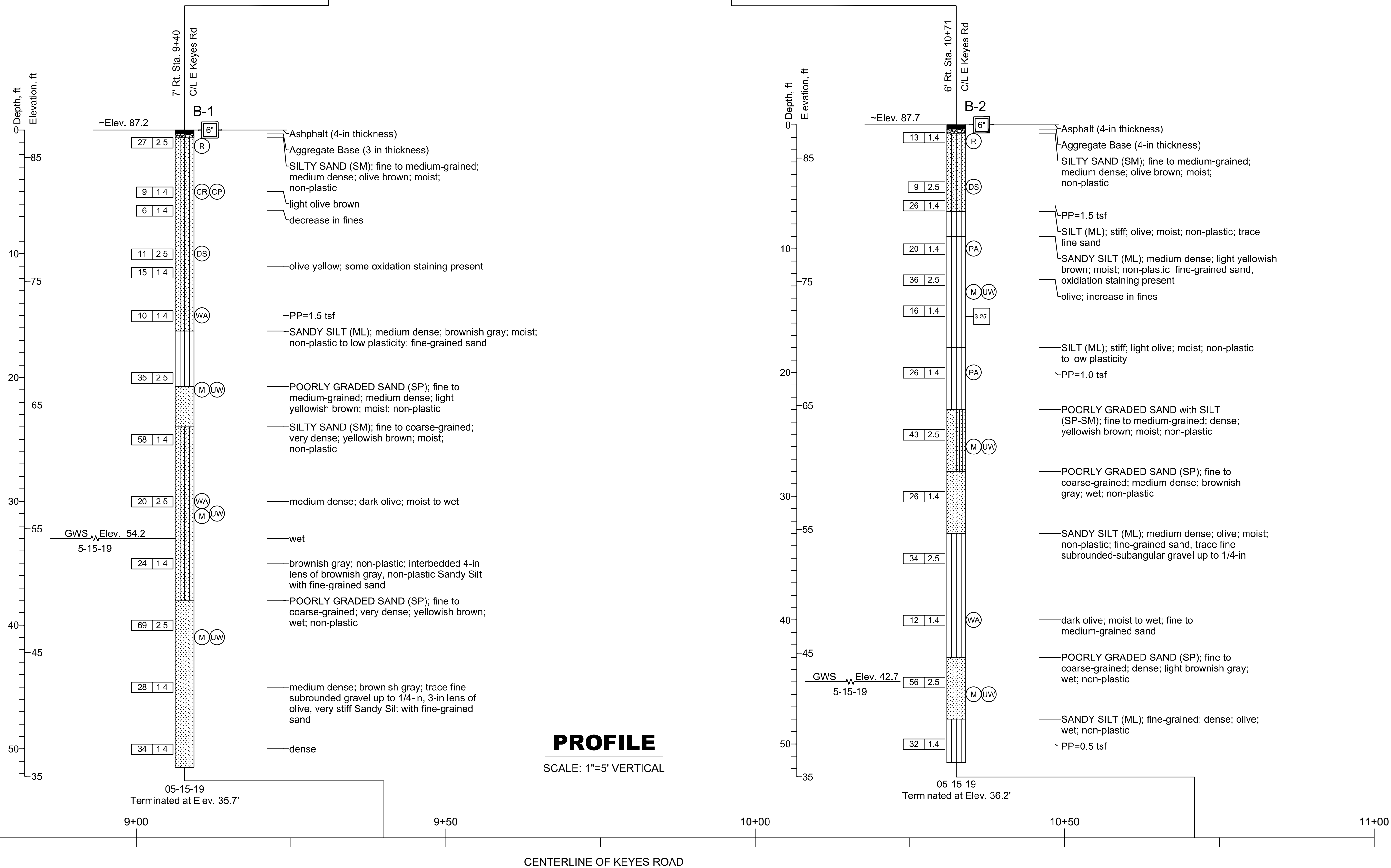
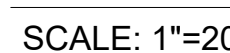




KEYES ROAD BRIDGE
AT T.I.D. CERES MAIN CANAL
STANISLAUS COUNTY, CALIFORNIA



OF - SHEETS



1. 1.4-INCH DIAMETER SAMPLES WERE TAKEN USING A STANDARD PENETRATION TEST (SPT) SPLIT BARREL SAMPLER WITH AN INSIDE DIAMETER (ID) OF 1.4 INCHES AND AN OUTSIDE DIAMETER (OD) OF 2.0 INCHES.
2. 2.5-INCH DIAMETER TUBE SAMPLES WERE TAKEN USING A CALIFORNIA SPLIT BARREL SAMPLER WITH AN ID OF 2.5 INCHES AND AN OD OF 3.0 INCHES.
3. ALL DRIVE SAMPLES WERE DRIVEN WITH 140 LB HAMMER WITH A FALLING HEIGHT OF 30 INCHES.

APPENDIX B

LABORATORY TESTS

Exploration ID	Depth (ft.)	Sample Description	Water Content (%)	Dry Unit Wt. (pcf)	Sieve Analysis (%)			Atterberg Limits			Additional Tests
					Passing 3/4"	Passing #4	Passing #200	Liquid Limit	Plastic Limit	Plasticity Index	
B-1	1.0	SILTY SAND (SM)									R-Value= 64
B-1	5.0	SILTY SAND (SM)									pH= 7.27
											Resistivity= 5090
											Sulfates= 15.9
											Chlorides= 1.1
B-1	10.0	SILTY SAND (SM)									Direct Shear=
											Peak Cohesion: 160 psf
											Peak Friction Angle: 33.2°
											Design Cohesion: 0 psf
											Design Friction Angle: 33.0°
B-1	15.0	SILTY SAND (SM)					18				
B-1	21.0	POORLY GRADED SAND (SP)	4.3	104.8							
B-1	30.0	SILTY SAND (SM)					14				
B-1	31.0	SILTY SAND (SM)	13.4	120.1							
B-1	41.0	POORLY GRADED SAND (SP)	16.8	105.0							
B-2	1.0	SILTY SAND (SM)									R-Value= 66
B-2	5.0	SILTY SAND (SM)									Direct Shear=
											Peak Cohesion: 0 psf
											Peak Friction Angle: 33.0°
											Design Cohesion: 0 psf
											Design Friction Angle: 33.0°
B-2	10.0	SANDY SILT (ML)			100	100	55				
B-2	13.5	SANDY SILT (ML)	9.5	120.1							
B-2	20.0	SILT (ML)			100	100	88				
B-2	26.0	POORLY GRADED SAND WITH SILT (SP-SM)	9.3	118.8							
B-2	40.0	SANDY SILT (ML)					51				
B-2	46.0	POORLY GRADED SAND (SP)	17.3	114.5							

Refer to the Geotechnical Evaluation Report or the supplemental plates for the method used for the testing performed above.
NP = NonPlastic



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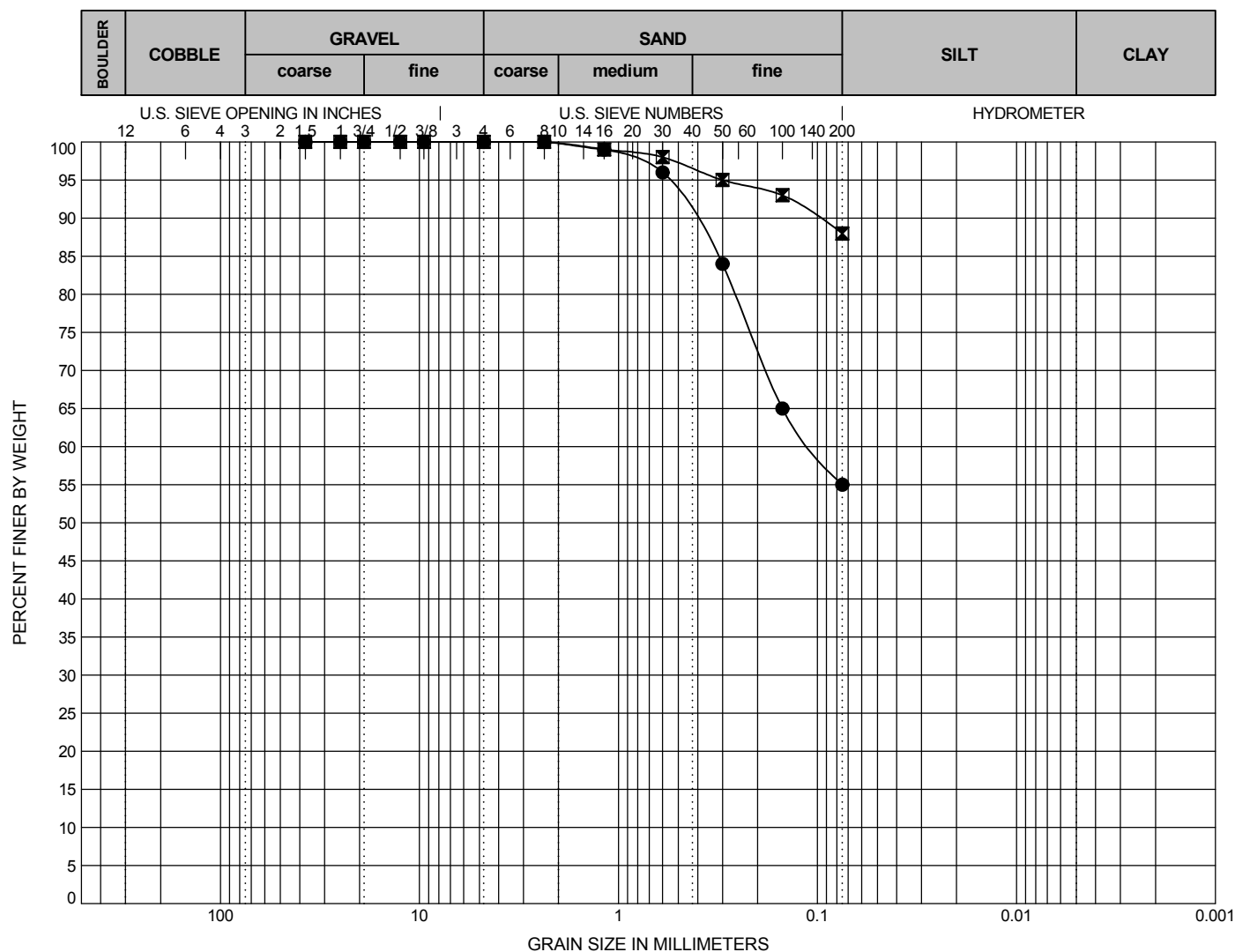
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LABORATORY TEST RESULT SUMMARY

KEYES ROAD BRIDGE
AT T.I.D. CERES MAIN CANAL
STANISLAUS COUNTY, CALIFORNIA

FIGURE

B-1

[illegible]

Sieve Analysis and Hydrometer Analysis testing performed in general accordance with ASTM D6913(Sieve Analysis) and ASTM D7928 (Hydrometer Analysis).
NP = Nonplastic
NM = Not Measured

Coefficients of Uniformity - $C_u = D_{60} / D_{10}$
 Coefficients of Curvature - $C_c = (D_{30})^2 / D_{60} D_{10}$
 D_{60} = Grain diameter at 60% passing
 D_{30} = Grain diameter at 30% passing
 D_{10} = Grain diameter at 10% passing



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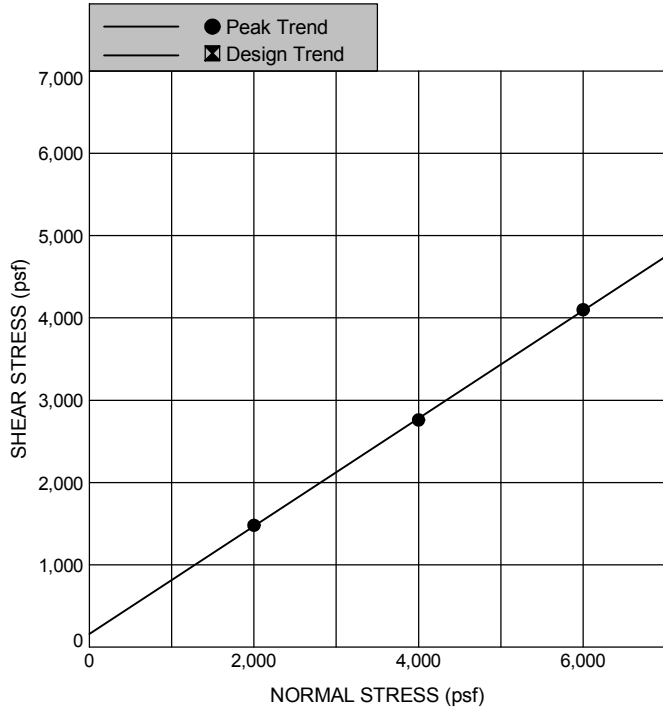
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SIEVE ANALYSIS

KEYES ROAD BRIDGE
AT T.I.D. CERES MAIN CANAL
STANISLAUS COUNTY, CALIFORNIA

FIGURE

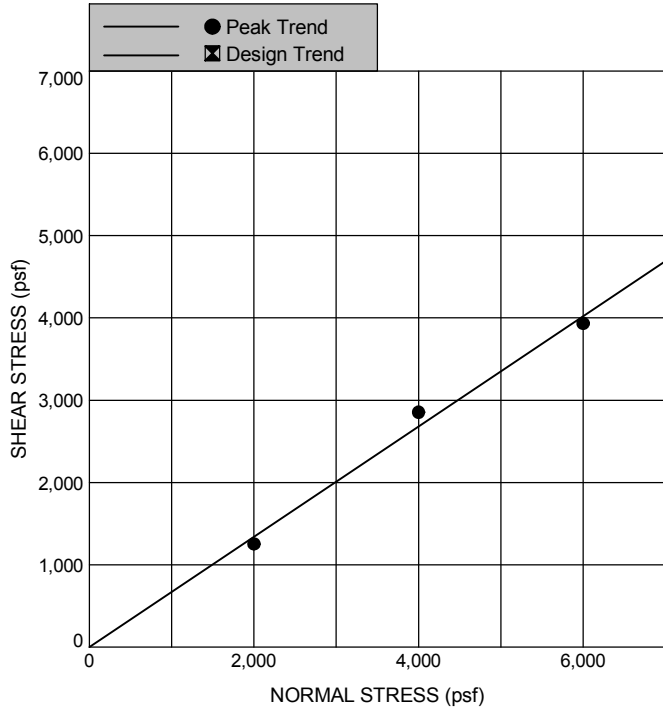
B-2



Exploration ID		Depth (ft.)	Sample Description				
B-1		10	SILTY SAND (SM)				
Passing #4 (%)		Passing #200 (%)		Liquid Limit	Plastic Limit	Plasticity Index	Specific Gravity
NM		NM		NM	NM	NM	
Initial	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in²)	Height (in)
	1	10.2	104.0	45.7	0.590	4.60	0.96
	2	9.9	107.9	49.1	0.532	4.60	0.96
	3	7.8	111.0	42.3	0.490	4.60	0.96
At Test	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in²)	Height (in)
	1	19.2	108.3		0.547	4.60	0.93
	2	19.3	115.2		0.462	4.60	0.92
	3	17.1	119.0		0.417	4.60	0.91
Specimen No.		Peak Shear Stress (psf)	Design Shear Stress (psf)		Horizontal Displacement (in)	Normal Stress (psf)	Strain Rate (in/min)
1		1480			0.2800	2000	0.01
2		2760			0.4000	4000	0.01
3		4100			0.3800	6000	0.01
Results		Cohesion (psf)		Friction ϕ (deg)		Tan ϕ (deg)	
Peak		160		33.22			
Design		0		33			

Testing performed in general accordance with ASTM D3080.
 NP = Nonplastic
 NM = Not Measured

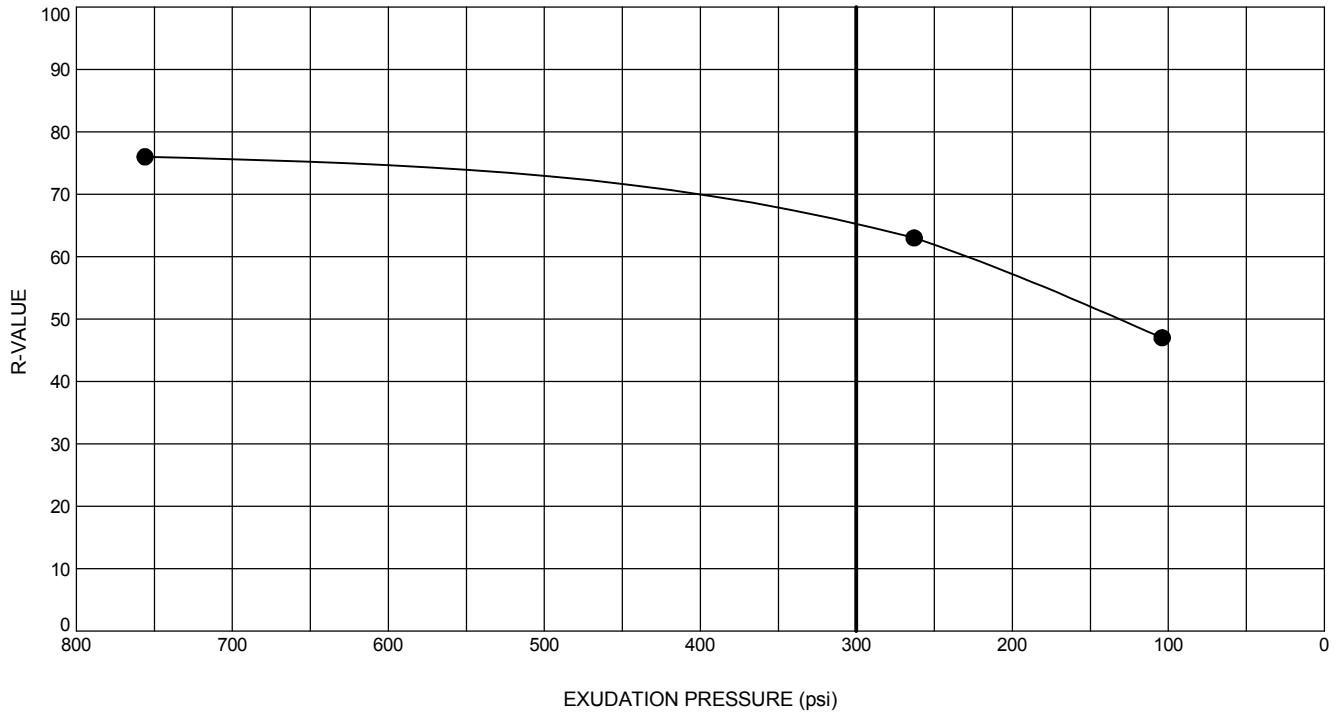
	PROJECT NO.: 20200375.001A	DIRECT SHEAR	FIGURE B-3
	DRAWN BY: VT CHECKED BY: ES DATE:	KEYES ROAD BRIDGE AT T.I.D. CERES MAIN CANAL STANISLAUS COUNTY, CALIFORNIA	



Exploration ID		Depth (ft.)	Sample Description				
B-2		5	SILTY SAND (SM)				
Passing #4 (%)		Passing #200 (%)		Liquid Limit	Plastic Limit	Plasticity Index	Specific Gravity
NM		NM		NM	NM	NM	
Initial	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in ²)	Height (in)
	1	6.9	111.3	37.7	0.485	0.72	0.96
	2	6.4	109.5	33.0	0.510	0.72	0.96
	3	6.3	108.2	31.4	0.528	0.72	0.96
At Test	Specimen No.	Water Content (%)	Dry Unit Weight (pcf)	Saturation (%)	Void Ratio	Area (in ²)	Height (in)
	1	16.5	114.4		0.458	4.60	0.94
	2	17.3	114.7		0.467	4.60	0.93
	3	16.5	117.7		0.443	4.60	0.91
Specimen No.		Peak Shear Stress (psf)		Design Shear Stress (psf)	Horizontal Displacement (in)	Normal Stress (psf)	Strain Rate (in/min)
1		1254			0.2400	2000	0.01
2		2854			0.2600	4000	0.01
3		3934			0.3400	6000	0.01
Results		Cohesion (psf)		Friction ϕ (deg)		Tan ϕ (deg)	
Peak		0		33			
Design		0		33			


Testing performed in general accordance with ASTM D3080.
 NP = Nonplastic
 NM = Not Measured

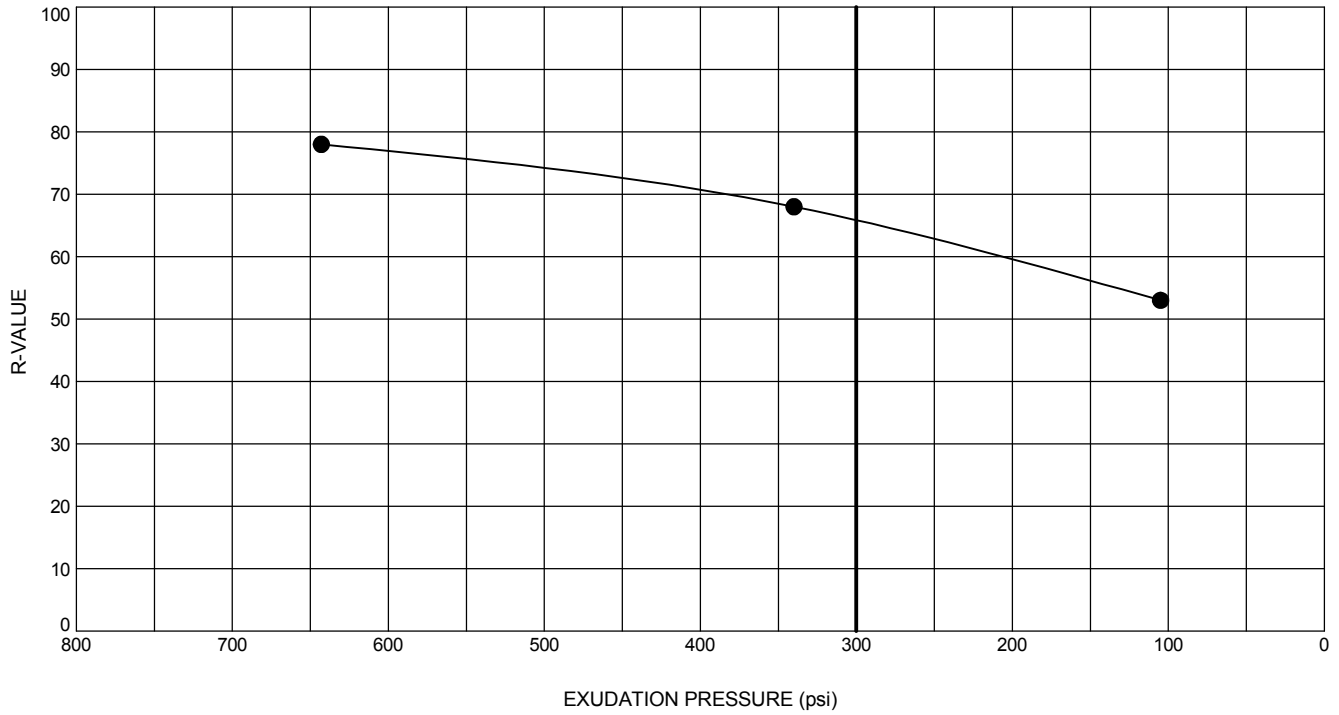
	PROJECT NO.: 20200375.001A	DIRECT SHEAR	FIGURE B-4
	DRAWN BY: VT CHECKED BY: ES DATE:	KEYES ROAD BRIDGE AT T.I.D. CERES MAIN CANAL STANISLAUS COUNTY, CALIFORNIA	



Exploration ID		Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
B-1		1 - 5	SILTY SAND (SM)			64
Specimen No.	Moisture at Time of Test (%)		Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	9.4		123.8	0	104	47
2	8.4		124.7	0	263	63
3	7.4		123.0	0	756	76


Testing performed in general accordance with ASTM D2844.

	PROJECT NO.: 20200375.001A		R-VALUE	FIGURE
	DRAWN BY: CHECKED BY: DATE:	VT ES	KEYES ROAD BRIDGE AT T.I.D. CERES MAIN CANAL STANISLAUS COUNTY, CALIFORNIA	B-5

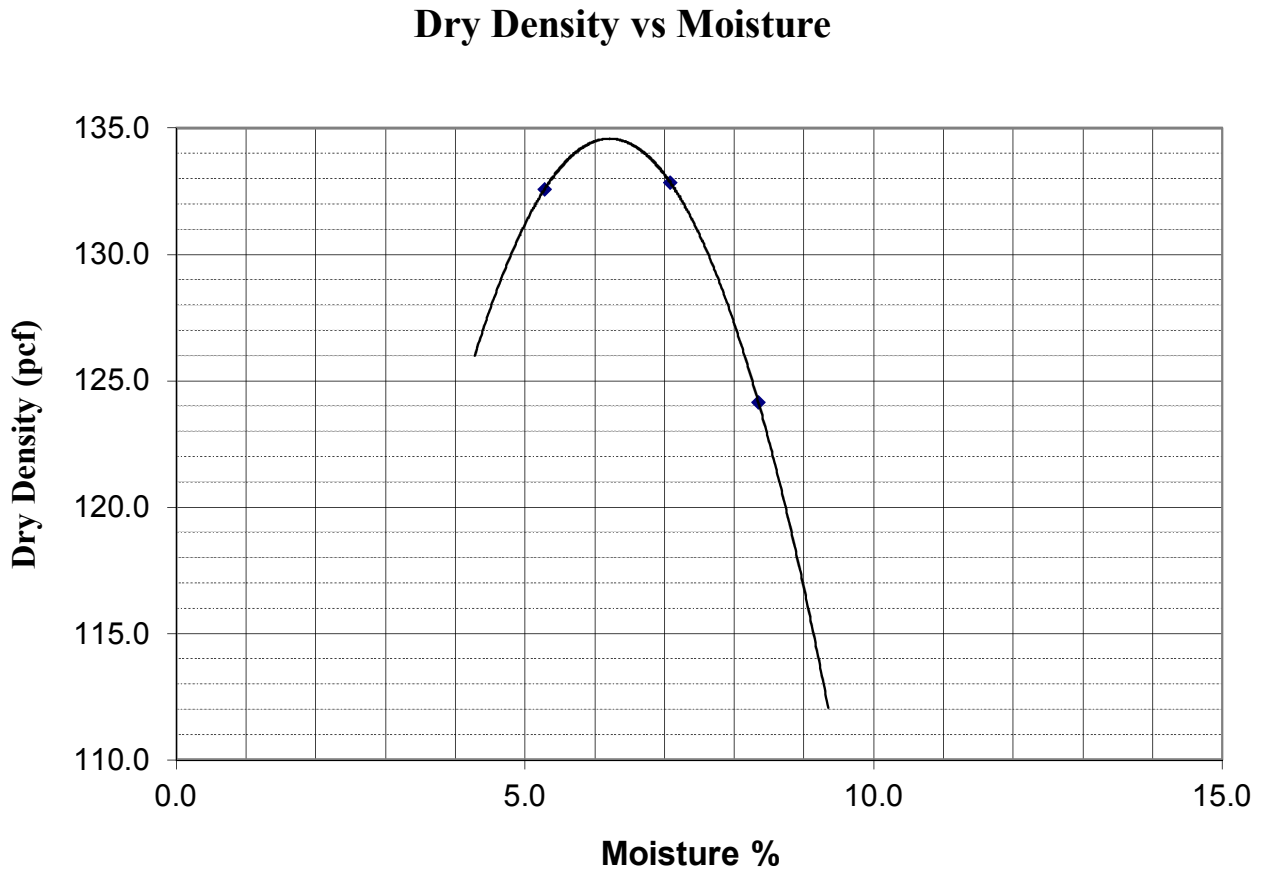


Exploration ID		Depth (ft.)	Sample Description			R-Value @ 300 psi Exudation Pressure
B-2		1 - 5	SILTY SAND (SM)			66
Specimen No.	Moisture at Time of Test (%)		Dry Unit Weight (pcf)	Expansion Pressure (psi)	Exudation Pressure (psi)	Corrected Resistance Value
1	9.6		123.9	0	105	53
2	8.5		123.8	0	340	68
3	7.8		126.0	0	643	78

Testing performed in general accordance with ASTM D2844.

	PROJECT NO.: 20200375.001A		R-VALUE		FIGURE B-6
	DRAWN BY: VT	CHECKED BY: ES	KEYES ROAD BRIDGE AT T.I.D. CERES MAIN CANAL STANISLAUS COUNTY, CALIFORNIA		
DATE:					

Material Description:	Silty Sand (SM)		
Sample/Lab No:	B-1 @ 0-5 ft		
Sample Location:	Kleinfelder - Merced	Sample Depth:	0-5 ft
Source:	Native		
Grading:	+3/4" Sieve	0.0%	-3/4" Sieve 100.0%



Dry Density (pcf)	Moisture Content (%)
132.6	5.3
132.9	7.1
124.1	8.3

Maximum Dry Density(pcf) @ Optimum Moisture(%):

134.6	6.3
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9969 Horn Rd., Sacramento, CA 95827

PROJECT NO.: 20200375
ENTRY BY: J. Sykes
CHECKED BY: N. Strid
DATE: 6/7/2019

California Test Method No. 216

KEYES ROAD BRIDGE
AT T.I.D. CERES MAIN CANAL
STANISLAUS COUNTY, CALIFORNIA

FIGURE

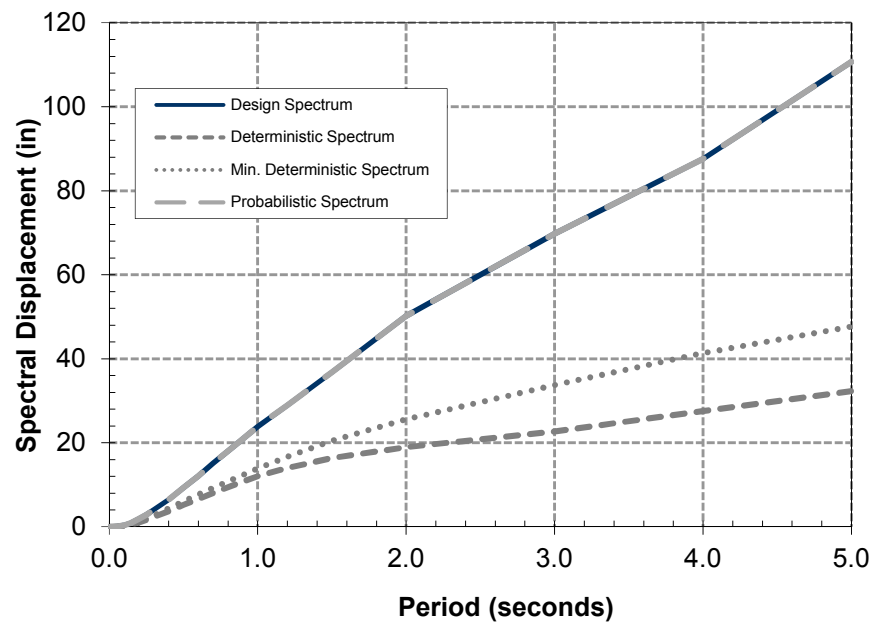
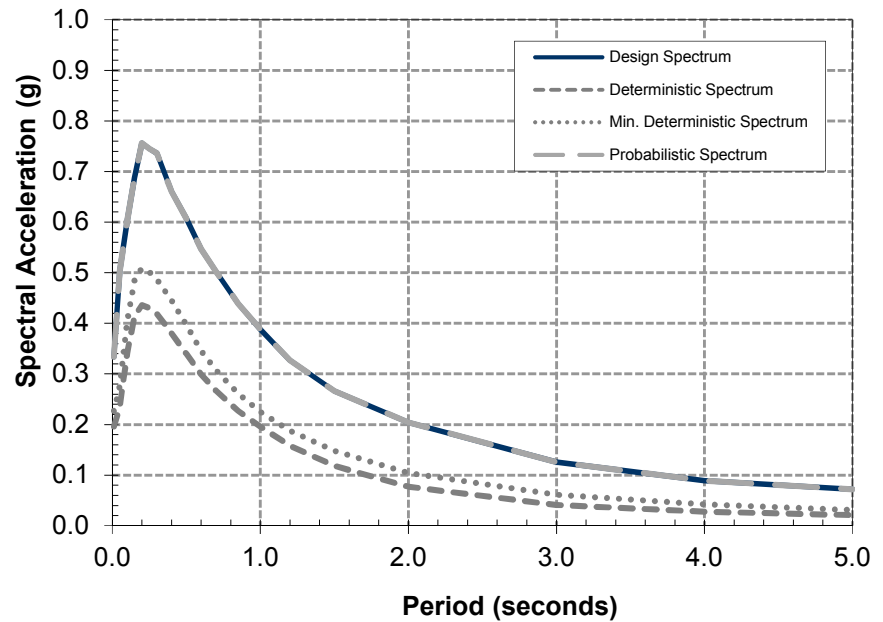
B-7

APPENDIX C ARS CURVE

SITE DATA

Latitude:	37.5512	Shear Wave Velocity	281 m/s
Longitude:	-120.9389	Depth to Vs = 1.0 km/s:	N/A
		Depth to Vs = 2.5 km/s:	N/A

Period (s)	SA (g)	SD (in)
0.01 (PGA)	0.334	0.00
0.05	0.504	0.08
0.1	0.602	0.37
0.15	0.688	0.95
0.2	0.756	1.86
0.25	0.745	2.86
0.3	0.736	4.07
0.4	0.660	6.49
0.5	0.607	9.33
0.6	0.547	12.11
0.7	0.502	15.13
0.85	0.439	19.51
1	0.388	23.86
1.2	0.327	28.96
1.5	0.266	36.81
2	0.204	50.18
3	0.126	69.74
4	0.089	87.57
5	0.072	110.70



PROJECT NO	20200375
DRAWN:	5/24/19
DRAWN BY:	V. TINOCO
CHECKED BY:	S. PLAUSON

CALTRANS ARS CURVES

KEYES ROAD BRIDGE
AT T.I.D. CERES MAIN CANAL
STANISLAUS COUNTY, CALIFORNIA

ATTACHMENT

C-1