

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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www.dot.ca.gov/hq/esc/oe



*Serious Drought.
Help save water!*

February 5, 2016

06-Fre-33-11.1/14.8, 16.9/22.7

06-OT6204

Project ID 0615000218

ACSTP-P033(082)E

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN FRESNO COUNTY IN AND NEAR COALINGA FROM 0.1 MILE WEST OF JACALITOS CREEK BRIDGE TO 0.1 MILE WEST OF MERCED AVENUE AND FROM 0.1 MILE NORTH OF PHELPS AVENUE TO 0.8 MILE NORTH OF PALMER AVENUE to revise the *Notice to Bidders and Special Provisions*.

Submit bids for this work with the understanding and full consideration of this addendum. The revisions declared in this addendum are an essential part of the contract.

Bids for this work will be opened on Wednesday, February 17, 2016.

In the Special Provisions, Section 12-4.02A, is replaced as attached.

In the Special Provisions, Section 12-4.05F, is replaced as attached.

In the Special Provisions, Section 86-5.01E, is added as attached.

To *Bid* book holders:

Inquiries or questions in regard to this addendum must be communicated as a bidder inquiry and must be made as noted in the *Notice to Bidders* section of the *Notice to Bidders and Special Provisions*.

Submit the *Bid* book as described in the *Electronic Bidding Guide* at the Bidders' Exchange website.

http://www.dot.ca.gov/hq/esc/oe/electronic_bidding/electronic_bidding.html

Inform subcontractors and suppliers as necessary.

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06-Fre-33-11.1/14.8, 16.9/22.7
06-0T6204
Project ID 0615000218
ACSTP-P033(082)E

This addendum, EBS addendum file, and attachments are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/06/06-0T6204

If you are not a *Bid* book holder, but request a book to bid on this project, you must comply with the requirements of this letter before submitting your bid.

Sincerely,



SHARRI BENDER EHLERT
District Director
District 6 Central Region

Attachments

Add to section 12-4.02A:

Designated holidays are shown in the following table:

Designated Holidays

Holiday	Date observed
New Year's Day	January 1st
Washington's Birthday	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4th
Labor Day	1st Monday in September
Veterans Day	November 11th
Thanksgiving Day	4th Thursday in November
Christmas Day	December 25th

If a designated holiday falls on a Saturday or Sunday, the following Monday is a designated holiday. If November 11th falls on a Saturday, the preceding Friday is a designated holiday.

The special days are Martin Luther King Day, Cesar Chavez Day, and Easter Sunday weekend including the Friday prior.

For a one-way-reversing traffic-control lane closure, traffic may be stopped in 1 direction for periods not to exceed 10 minutes. After each stoppage, all accumulated traffic for that direction must pass through the work zone before another stoppage is made.

On Fresno 33 at PM 11.1/14.8, the maximum length of a single stationary one-way reversing traffic-control lane closure is 1.0 miles between flaggers.

On Fresno 33 at PM 16.9/22.7, the maximum length of a single stationary one-way reversing traffic-control lane closure is 1.5 miles between flaggers,

The maximum length of the work area inside a lane closure other than a one-way-reversing traffic-control lane closure is 0.5 miles.

Not more than 2 stationary lane closures will be allowed in each direction of travel at one time. Concurrent stationary closures in the same direction of travel must be spaced no closer than 5 miles apart. Closures in the same direction of travel on alternating inside lane/outside lanes must be spaced by an additional 2 miles.

Personal vehicles of your employees must not be parked on the traveled way or shoulders, including sections closed to traffic.

If work vehicles or equipment are parked within 6 feet of a traffic lane, close the shoulder area with fluorescent orange traffic cones or portable delineators. Place the cones or delineators on a taper in advance of the parked vehicles or equipment and along the edge of the traveled way at 25-foot intervals to a point not less than 25 feet past the last vehicle or piece of equipment. Use at least 9 cones or delineators for the taper. Use a W20-1, "Road Work Ahead," W21-5b, "Right/Left Shoulder Closed Ahead," or C24(CA), "Shoulder Work Ahead," sign mounted on a crashworthy, portable sign support with flags. The sign must be 48 by 48 inches and placed as ordered by the Engineer. If a cone or delineator is displaced or overturned, immediately restore the device to its original position or location.

Replace "Reserved" in section 12-4.05F with:

Chart no. F1 Conventional Highway Lane Requirements																									
County: Fresno						Route/Direction: 33/Northbound/Southbound						PM: 11.1/14.8													
Closure limits: 0.1 mile south of Jacalitos Creek Bridge to 0.1 mile west of Merced Avenue 0.1 mile north of Phelps Avenue to 0.8 miles north of Palmer Avenue																									
Hour	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon-Thu							R	R	R	R	R	R	R	R	R										
Fri							R	R	R	R	R	R	R	R											
Sat																									
Sun																									
<p>Legend:</p> <p><input type="checkbox"/> R Provide at least 1 through traffic lane, not less than 12 feet in width, for use by both directions of travel (Reversing Control)</p> <p><input type="checkbox"/> Work allowed within the highway where shoulder or lane closure is not required</p>																									
REMARKS: The full width of the traveled way must be open to traffic when construction activities are not actively in progress.																									

CONTRACT NO. 06-0T6204
REPLACED PER ADDENDUM NO. 2 DATED FEBRUARY 5, 2016

Chart no. F2 Conventional Highway Lane Requirements																									
County: Fresno						Route/Direction: 33/Northbound/Southbound						PM: 16.9/22.7													
Closure limits: 0.1 mile south of Jacalitos Creek Bridge to 0.1 mile west of Merced Avenue 0.1 mile north of Phelps Avenue to 0.8 mile north of Palmer Avenue																									
Hour	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Mon-Thu								R	R	R	R	R	R	R	R										
Fri								R	R	R	R	R	R												
Sat																									
Sun																									
Legend:																									
R		Provide at least 1 through traffic lane, not less than 12 feet in width, for use by both directions of travel (Reversing Control)																							
		Work allowed within the highway where shoulder or lane closure is not required																							
REMARKS: The full width of the traveled way must be open to traffic when construction activities are not actively in progress.																									

CONTRACT NO. 06-0T6204
REPLACED PER ADDENDUM NO. 2 DATED FEBRUARY 5, 2016

Add to section 86-5.01:

86-5.01E Piezo Axle Sensor

86-5.01E(1) General

86-5.01E(1)(a) Summary

Section 86-5.01E includes specifications for installing piezo axle sensor.

86-5.01E(1)(b) Submittals

Submit a certificate of compliance for piezo axle sensor.

Provide 1 installation and operation manual for each group of piezo axle sensors installed.

Submit warranty documentation before installation.

86-5.01E(1)(c) Quality Control and Assurance

86-5.01E(1)(c)(i) Functional Testing

Demonstrate successful functional testing of each piezo axle sensor for each lane of data collection. The acceptance test must consist of the following:

1. Piezo axle sensor must be tested as follows:
 - 1.1. Capacitance must be 20 percent of the sensor's data sheet as provided by the manufacturer
 - 1.2. Dissipation factor must be less than 0.04 nF when measured in the 20 nF range
 - 1.3. Resistance must be greater than 20 Megohms
2. A minimum of 100 per-vehicle records must be collected for each lane. Collected data must meet the following accuracy standards:
 - 2.1. Total volume: ± 3 percent.
 - 2.2. Vehicle classification: 95 percent accurate classification by type.
3. Correct functioning of the communications link must be verified by collecting data files from the on-site equipment with the central office host computer.
4. Continuous operation of the on-site equipment must be checked for 5 consecutive days. Failure of the system to record and store data meeting the requirements set forth in these special provisions for an accumulated time exceeding 3 hours during the 5-day period must be a cause for the acceptance test to be rejected and repeated.

86-5.01E(1)(c)(ii) Warranty

Furnish a 2-year replacement warranty from the manufacturer of the piezo axle sensors against any defects or failures. The effective date of the warranty is the date of installation. Furnish replacement sensors within 30 days after failure notification. The Department does not pay for the replacement. Deliver replacement components to the following department:

1283 N West Avenue, Fresno, CA 93728

86-5.01E(2) Materials

Piezo axle sensor includes installation of the screened transmission cable (STC) and epoxy grout sealant.

86-5.01E(2)(a) Piezo Axle Sensors

Piezo axle sensors must be Class II and must be for vehicle classification purposes. Piezo axle sensors must consist of a piezo-electric copolymer surrounded by a 1/64 inch thick outer brass sheath. Each sensor must be 1/4 inch wide by 1/16 inch thick by 8 feet long with STC attached.

Piezo axle sensors must comply with the requirements shown in the following table:

Characteristic	Requirement
Output uniformity range	±20%
Operating temperature range	-40 to +158 F
Typical output level (for wheel load of 400 pounds at 70 F and 55 mph)	Minimum output signal of 250 mV
Signal-to-noise level	Equal to or greater than 10:1
Insulation resistance	>500 MΩ
Product life	Minimum 25 million equivalent single axle loadings (ESAL)

86-5.01E(2)(b) Screened Transmission Cable

STC must be RG-58C/U coaxial cable, jacketed with high-density polyethylene, rated for direct burial and resistant to nicks and cuts.

86-5.01E(2)(c) Epoxy Grout

Epoxy grout sealant must be Global Resins PU200 or International Road Dynamics AS 475, or equivalent.

86-5.01E(3) Construction

86-5.01E(3)(a) Piezo Axle Sensors

Obtain approval for exact location for installation of the piezo axle sensor. Install the piezo axle sensor in a channel, per manufacturer's specifications, and as directed. Fill the channel with epoxy grout. The grout must not exceed 168 degrees F while curing and must be adequately set before re-opening the lane to traffic.

Comply with section 86-5.01A(4) when cutting slots in the pavement for axle sensors and STC.

86-5.01E(3)(b) Screened Transmission Cable

Provide sufficient length for STC length to reach the cabinet without any splices and keep ten feet of slack. Coil the STC slack in the bottom of the cabinet. Use properly sized captive or spring spade-type terminals, crimped and soldered for STC terminations.

86-5.01E(4) Payment

Not Used.