

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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*Serious Drought.
Help save water!*

April 15, 2016

07-LA-5-13.8/19.2

07-300704

Project ID 0713000492

ACNHPI-005-2(979)E

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN LOS ANGELES COUNTY IN AND NEAR CITY OF COMMERCE AND LOS ANGELES FROM ROUTE 5/710 SEPARATION TO MAIN STREET UNDERCROSSING to revise the project plans, 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 Tuesday, April 26, 2016.

Project plan sheet 11 is replaced and attached for substitution for the like-numbered sheet.

Project plan sheets 246A, 246B, 246C, 251A, 252A, 252B, and 253A are added and attached for addition to the project

In the *Notice to Bidders and Special Provisions*, in the "STANDARD PLANS LIST," the following Standard Plans are added as follows:

"RSP ES-2A Electrical Systems (Service Equipment)"

"RSP ES-2C Electrical Systems (Service Equipment Enclosure Notes, Type III Series)"

"RSP ES-2E Electrical Systems (Service Equipment Enclosure and Typical Wiring Diagram, Type III-B Series)"

"RSP ES-5D Electrical Systems (Curb and Shoulder Termination, Trench, and Handhole Details)"

"ES-6B Electrical Systems (Electrolier Anchorage and Grouting for Types 15 and 21, Barrier Rail Mounted)"

"RSP ES-7M Electrical Systems (Signal and Lighting Standard, Detail No. 1)"

"RSP ES-7N Electrical Systems (Signal and Lighting Standard, Detail No. 2)"

"RSP ES-11 Electrical Systems (Foundation Installations)"

"ES-13B Electrical Systems (Fuse Rating, Kinking and Banding Detail)"

*"Provide a safe, sustainable, integrated and efficient transportation system
to enhance California's economy and livability"*

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In the Special Provisions, Section 86-2.06, 86-2.09E, and 86-5.01A(1) are replaced as attached.

In the Special Provisions, Section 86-6.02 is deleted.

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.

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/07/07-300704

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,


for CARRIE BOWEN
District Director

Attachments

Add to section 86-2.06A(1) of the RSS for section 86-2.06, after the 1st paragraph:

Cover marking must be as follows:

1. *SERVICE* for service circuits between service point and service disconnect
2. *SERVICE IRRIGATION* for circuits from service equipment enclosure to irrigation controller
3. *SERVICE BOOSTER PUMP* for circuits from service equipment enclosure to the booster pump
4. *TDC POWER* for circuits from service equipment enclosure to telephone demarcation cabinet
5. *LIGHTING* for lighting system
6. *SIGN ILLUMINATION* for sign illumination system
7. *SIGNAL AND LIGHTING* for signal and lighting system
8. *RAMP METER* for ramp metering system
9. *TMS* for traffic monitoring station
10. *FLASHING BEACON* for flashing beacon system
11. *CMS* for changeable message sign system
12. *INTERCONNECT* for interconnect conduit and cable system

CONTRACT NO. 07-300704

REPLACED PER ADDENDUM NO. 1 DATED APRIL 15, 2016

Replace the 3rd paragraph in section 86-2.06A(2) of the RSS for section 86-2.06 with:

In a ground or sidewalk area, embed the bottom of a pull box in crushed rock.

Replace "Reserved" in section 86-2.06B of the RSS for section 86-2.06 with:

86-2.06B(1) General

86-2.06B(1)(a) Summary

Section 86-2.06B includes specifications for installing non-traffic-rated pull boxes.

86-2.06B(1)(b) Submittals

Before shipping pull boxes to the job site, submit a list of materials used to fabricate the pull boxes to METS. Include:

1. Contract number
2. Manufacturer's name
3. Manufacturer's installation instructions
4. Your contact information

Submit reports for pull boxes from an NRTL-accredited laboratory.

Before installing a pull box and cover, submit the manufacturer's replacement warranty for them.

86-2.06B(1)(c) Quality Control and Assurance

86-2.06B(1)(c)(i) Functional Testing

The pull box and cover must be tested under ANSI/SCTE 77, "Specification for Underground Enclosure Integrity."

86-2.06B(1)(c)(ii) Warranty

Provide a 2-year manufacturer's replacement warranty for the pull box and cover. The warranty period starts on the date of Contract acceptance.

Deliver replacement parts within 5 business days after you receive notification of a failed pull box, cover, or both to the Department's Maintenance Electrical Shop at:

7316 E. Bandini Blvd.

Commerce, CA. 90040

(213) 620-2194

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86-2.06B(2) Materials

The pull box and cover must comply with ANSI/SCTE 77, "Specification for Underground Enclosure Integrity," for tier 22 load rating and must be gray or brown.

Each pull box cover must have an electronic marker cast inside. If tamper resistant cover is used, place an electronic marker inside pull box.

A pull box extension must be made of the same material as the pull box and attached to the box to maintain the minimum combined depths.

Include recesses for a hanger if a transformer or other device must be placed in a pull box.

The bolts, nuts, and washers must be a captive design.

The captive bolt must be capable of withstanding a torque from 55 to 60 ft-lb and a minimum pull-out strength of 750 lb. Perform the test with the cover in place and the bolts torqued. The pull box and cover must not be damaged while performing the test.

Hardware must be stainless steel with 18 percent chromium and 8 percent nickel content.

Galvanize ferrous metal parts under section 75-1.05.

The manufacturer's instructions must include:

1. Quantity and size of entries that can be made without degrading the strength of the pull box below the tier 22 load rating
2. Locations where side entries cannot be made
3. Acceptable method for creating the entry

The tier 22 load rating must be labeled or stenciled by the manufacturer on the inside and outside of the pull box and on the underside of the cover.

86-2.06B(3) Construction

Do not install a pull box in curb ramps or driveways.

A pull box for a post or a pole standard must be located within 5 feet of the standard. Place the pull box adjacent to the back of the curb or edge of the shoulder. If this is impractical, place the pull box in a suitable, protected, and accessible location.

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REPLACED PER ADDENDUM NO. 1 DATED APRIL 15, 2016

Replace the 1st paragraph of section 86-2.09E with:

Splices must be insulated by "Method B."

Delete the 6th and 7th paragraphs of section 86-2.09E.

Replace 8th & 9th paragraphs of section 86-2.09E with:

Splices must be insulated by "Method B."

Use Method B as follows:

1. Cover the splice area completely with an electrical insulating coating and allow it to dry.
2. Apply 3 layers of half-lapped 80 mils PVC tape.
3. Apply 2 layers of 120 mils Butyl rubber stretchable tape with liner.
4. Apply 3 layers of half-lapped 6 mils PVC pressure-sensitive adhesive tape.
5. Cover the entire splice with an electrical insulating coating and allow it to dry.

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REPLACED PER ADDENDUM NO. 1 DATED APRIL 15, 2016

Add to section 86-5.01A(1):

Loop wire must be Type 1.

Loop detector lead-in cable must be Type B.

Slots must be filled with hot-melt rubberized asphalt sealant.

For Type E detector loops, sides of the slot must be vertical and the minimum radius of the slot entering and leaving the circular part of the loop must be 1-1/2 inches. Slot width must be a maximum of 5/8 inch. Loop wire for circular loops must be Type 2. Slots of circular loops must be filled with hot-melt rubberized asphalt sealant.

Fill slots in concrete with hot-melt rubberized asphalt sealant for loop detectors.

Install Type 1 or 2 inductive loop conductor except for Type E loops detectors use Type 2.

Install conductor continuous without splices except at the pull box.

Center the detectors in the traffic lanes.

Do not splice the detector conductor.

Mark the location of the inductive loop detectors so the distance between the side of the loop and a lead-in sawcut from an adjacent detector is at least 2 feet. The distance between lead-in sawcuts must be at least 6 inches.

Sawcut the slots. The slot bottoms must be smooth with no sharp edges. For Type E detector loops, saw the slots so the sides are vertical.

Do not allow residue from slot-cutting activities to flow across shoulders or lanes occupied by traffic. Remove the residue before it flows off the pavement surface and dispose of it.

Wash the slots clean using water and blow dry with compressed air to remove all moisture and debris.

Identify the start of the conductor.

Waterproof the ends of Type 2 loop conductor before installing it in the conduit to prevent moisture from entering the cable.

Install the loop conductor in the slots and lead-in sawcut using a 3/16- to 1/4-inch-thick wood paddle. Hold the conductors in place at the bottom of the slot with wood paddles during placement of the sealant.

Wind adjacent loops on the same sensor unit channel in opposite directions.

Twist the conductors for each loop into a pair consisting of a minimum of 2 turns per foot before placing them in the lead-in sawcut and the conduit leading to the pull box. Do not install more than 2 twisted pairs of conductors per lead-in sawcut.

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Provide 5 feet of slack in the pull box.

Test each loop for continuity, circuit resistance, and insulation resistance before filling the slots with sealant.

Remove excess sealant from the adjacent road surface before it sets. Do not use solvents to remove the excess.

Identify the loop conductor pair in the pull box with the start with the letter *S* and the end with the letter *F*. Band conductors in pairs by lane in the pull box adjacent to the loops and in the cabinet. Identify each pair with detector designation and loop number.

All splices must be soldered using the hot iron, pouring, or dipping method. Do not perform open-flame soldering.

For Detector lead-in cable:

1. Waterproof the ends of the lead-in cable before installing it in the conduit to prevent moisture from entering the cable.
2. Splice loop conductors for each direction of travel for the same phase, terminating in the same pull box, to a separate lead-in cable which must run from the pull box adjacent to the loop detector to a sensor unit mounted in the controller cabinet. Install lead-in cable continuous without splices except at the pull box.
3. Verify in the presence of the Engineer that the loops are operational before making the final splices between loop conductors and the lead-in cable.
4. Identify and tag each lead-in cable with detector designation at the cabinet and pull box adjacent to the loops.

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REPLACED PER ADDENDUM NO. 1 DATED APRIL 15, 2016