DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
OFFICE ENGINEER
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SACRAMENTO, CA 95816-8041
FAX (916) 227-6214
www.dot.ca.gov/hq/esc/oe

Serious Drought.
Help save water!

September 25, 2014

11-SD-5-R29.1/R30.5
11-0223U4
Project ID 1112000102
ACNHPI-005-1(625)E
HPLUSTPL-6211(119)E

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SAN DIEGO COUNTY IN SAN DIEGO FROM 0.4 MILE SOUTH OF GENESEE AVENUE OVERCROSSING TO SORRENTO VIADUCT.

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 Thursday, October 9, 2014.

This addendum is being issued to revise the project plans, the *Notice to Bidders and Special Provisions*, the *Bid* book, *Information Handout*, and the Federal Minimum Wages with Modification Number 13 dated 08/22/14.

Project plan sheets 116, 589, 602, 604, 605, 606, 607, 610, 612, 613, 614, 615, 616, 619, 621, 624, 625, 626, 627, 630, 631, 632, 633, 634, 635, 756, 757, 763, 767, 768, 769, 771, 792, 811 and 812 are replaced and attached for substitution for the like-numbered sheets.

Project plan sheets 607A, 607B, 616A, 616B, and 627A are added and attached for addition to the project plans.

In the Special Provisions, Section 1-1.01, "GENERAL," is added as follows:

"Add to the table in section 1-1.01:

Item code	Item description	Applicable section
028162	SHOTCRETE FACING (TYPE 1)	53
028163	SHOTCRETE FACING (TYPE 2)	53

"

In the Special Provisions, Section 2 BIDDING, 2-1.06B Supplemental Project Information, is replaced as attached.

In the Special Provisions, Section 19-6.03E, is replaced as follows:

"Add to section 19-6.03E:

Each row of the temporary facing units (wire baskets) must be battered 0.5 in per 1.5 ft during construction."

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In the Special Provisions, Section 19-6.04, is added as follows:

"Add to section 19-6.04:

Payment for Geosynthetic Reinforced Embankment (GRE) wall excavation, GRE wall backfill (Retained Soil), GRE wall backfill (Reinforced Soil), and pervious backfill material, as shown on the plans, is included in the price paid for Geosynthetic Reinforced Embankment."

In the Special Provisions, Section 46-3.01A, the first paragraph is replaced as follows:

"Section 46-3 includes specifications for constructing soil nails and strut nails."

In the Special Provisions, DIVISION IV "STRUCTURES," Section 53 "SHOTCRETE" is added as attached.

In the Special Provisions, Section 59-11.02, "Materials," the fourth paragraph is replaced as follows:

"You may use Natina Products, LLC to provide the materials, labor and equipment for staining galvanized surfaces at their facility located at 95875 Avenue 70, Mecca, CA, 92254. The quoted price for the materials, labor and equipment to stain the following items, not including sales tax and delivery is:

Chain Link Fence (Type CL-4): $1.85 per LF
4' Chain Link Gate (Type CL-4) $9.50 each
Chain Link Railing (Type 7 Modified): $3.45 per LF
Cable Railing: $4.50 per LF"

In the Special Provisions, Section 83-1.02E, the first paragraph is replaced as follows:

"Stain all exposed galvanized surfaces including cable, posts, rails and hardware with Natina Steel under section 59-11."

In the Special Provisions, Section 83-1.02I, the first paragraph is replaced as follows:

"Stain all exposed galvanized surfaces including posts, rails and hardware with Natina Steel under section 59-11."

In the Special Provisions, Section 86, "86-4.04," is added as follows:

"Replace item 2 in the first paragraph of section 86-4.04 with:

2. Pipe fitting made of ductile iron, galvanized steel, or bronze."

In the Special Provisions, Section 86, "86-4.04I(1)," is deleted.

In the Special Provisions, Section 86-6.14, "INDUCTION LUMINAIRES," is replaced as attached.

The *Information Handout* "COVER" is replaced as attached.

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In the *Bid* book, in the "Bid Item List," Items 334, 335, and 336 are added.

In the *Bid* book, in the "Bid Item List," Item 333 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, attachments and the modified wage rates are available for the Contractors' download on the Web site:

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/11/11-0223U4

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,

LAURIE BERMAN
District Director

Attachments

Add to section 2-1.06B:

The Department makes the following supplemental project information available:

Supplemental Project Information

Means	Description
Included in the *Information Handout*	Regional Water Quality Control Board, dated 6/01/12 United States Army Corps of Engineers, dated 6/21/12 United States Army Corps of Engineers extension, dated 5/21/14 California Department of Fish and Wildlife, dated 5/04/2012 Coastal Development Permit, dated 12/12/13 Coastal Development Permit extension, dated 3/20/14 Coastal Development Permit substantial conformance, dated 6/13/14 U.S. Fish and Wildlife Service Biological Opinion, dated 3/23/11 U.S. Fish and Wildlife Service Biological Opinion Amendment ,dated 2/06/12 UCSD License Agreement Exhibit "B" Stipulation for Judgment in Condemnation Revised Geotechnical Design Report, dated 3/28/14 Genesee Avenue Overcrossing (OC) Foundation Report, dated 4/10/12 Genesee Avenue (OC) Foundation Report, dated 5/2/12 Genesee Avenue OC Seismic Design Recommendations, dated 12/5/11 Genesee Avenue Pedestrian OC Foundation Report, dated 5/24/12 Genesee Avenue Pedestrian OC Revised Foundation Reports, dated 5/30/12, 7/2/12, and 1/28/13 Genesee Avenue Pedestrian OC Seismic Design Recommendations, dated 3/27/12 Retaining Wall 3 Revised Foundation Report, dated 3/21/14 Retaining Wall 4 Revised Foundation Report, dated 3/21/14 Retaining Wall 8 Foundation Report, dated 3/8/12 Retaining Wall 8 Foundation Report Addenda, dated 6/21/12 Retaining Wall 11 Foundation Report, dated 12/14/12 Retaining Wall 13 Foundation Report, dated 3/28/14 Retaining Wall 14 Foundation Report, dated 3/28/14 Retaining Wall 15 Foundation Report, dated 3/8/12 Section 77 Approved Materials List City of San Diego Water Source Letters Battery Backup System Retaining Wall 13, 14 and 15 Recommendation Electronic Files
Available as specified in the *Standard Specifications*	Bridge as-built drawings Design Cross Sections
Included with the project plans	Logs of Test Borings
Available for inspection at the Transportation Laboratory	Rock core samples from the 2011 Caltrans foundation investigation are available for viewing by bidders at the Geotechnical Services (Transportation Laboratory), Department of Transportation 5900 Folsom Blvd., Sacramento, CA. Potential bidders are to allow the State seven days to prepare and display the rock cores.

^^

53 SHOTCRETE

Add to section 53:

53-4 SHOTCRETE FACING

53-4.01 GENERAL

53-4.01A Summary

Section 53-4 includes specifications for placing shotcrete facing on geosynthetic reinforced embankment walls.

Shotcrete facing includes integrally colored shotcrete, surface finish, architectural treatment, bearing plate with studs, epoxy coated anchor bar reinforcement with concrete encasement, corrugated plastic sheathing, and welded wire reinforcement.

Shotcrete facing of the types listed below is required at the following locations:

1. Shotcrete Facing (Type 1) at geosynthetic reinforced embankment walls RW13 and RW14.
2. Shotcrete Facing (Type 2) at geosynthetic reinforced embankment wall RW15.

53-4.01B Definitions

Not Used

53-4.01C Submittals

Not Used

53-4.01D Quality Control and Assurance

Not Used

53-4.02 MATERIALS

53-4.02A General

Shotcrete facing must be integrally pigmented color concrete. The color must match Davis Color No. 5447, Mesa Buff.

53-4.02B Shotcrete Facing (Type 1)

Bearing plate with studs must comply with section 46-3.02B.

Anchor bar reinforcement must comply with section 46-3.02C and section 52-2.03.

Corrugated plastic sheathing must comply with section 46-3.02D.

Welded wire reinforcement must comply with section 52-1.02C.

Anchor bar concrete encasement must comply with section 19-3.02G.

53-4.03 CONSTRUCTION

53-4.03A General

Shotcrete facing must receive a vertical heavy broom finish and the architectural treatment shown.

54-4.03B Shotcrete Facing (Type 1)

Place bearing plate with studs as shown.

Place anchor bar reinforcement as shown.

Place corrugated plastic sheathing as shown.

Place welded wire reinforcement as shown.

Place anchor bar concrete encasement under section 62-4.

53-4.04 PAYMENT

Shotcrete facing is measured along the slope of areas placed.

Add to section 86:

86-6.14 INDUCTION LUMINAIRES

86-6.14A General

86-6.14A(1) Summary

Section 86-6.14 includes specifications for installing 165 W (maximum power consumption) induction luminaires.

86-6.14A(2) Definitions

correlated color temperature (CCT): Absolute temperature in Kelvin of a blackbody whose chromaticity most nearly resembles that of the light source.

house side lumens: Lumens from a luminaire directed to light up areas between the fixture and the pole (e.g., sidewalks at intersection or areas off of the shoulders on freeways).

power factor: Ratio of the real power component to the complex power component.

street side lumens: Lumens from a luminaire directed to light up areas between the fixture and the roadway (e.g., traveled ways, freeway lanes).

surge protection device (SPD): Subsystem or component that can protect the unit against short duration voltage and current surges.

86-6.14A(3) Submittals

Product submittals, for each luminaire model, must include:

1. Product specification sheets
2. Manufacturer's testing data
3. The IES files
4. Initial and depreciated isofootcandle diagrams showing the specified minimum illuminance for the particular application. The diagrams must be calibrated to feet and show a 40 by 40 foot grid. The diagrams must be calibrated to the mounting height specified for that particular application. Also provide diagrams for a mounting height of 34 feet for each luminaire model. The depreciated isofootcandle diagrams must be calculated at the minimum operational life.
5. Documentation of NEMA and IP ratings as verified by a recognized testing laboratory

Submit warranty documentation as an informational submittal before installing induction luminaires.

86-6.14A(4) Quality Control and Assurance

86-6.14A(4)(a) General

Provide manufacturer's documentation verifying that the induction luminaire model(s) and serial numbers for this project are covered by the manufacturer's replacement warranty.

86-6.14A(4)(b) Warranty

Furnish a minimum 6-year replacement warranty from the manufacturer of the luminaire against any defects or failures. Furnish a minimum 3-year replacement warranty from the manufacturer of the photoelectric unit against any defects or failures. The manufacture date must be within 1 year of installation. The effective date of the warranty is the date of installation. Furnish replacement luminaire and photoelectric unit within 10 days after receipt of the failed luminaire or photoelectric unit. The Department does not pay for the replacement. Deliver replacements to the following department maintenance electrical shop:

District 11 Signal Laboratory

7181 Opportunity Road

San Diego, CA 92111.

Notify the Engineer and the Caltrans Electrical Supervisor, telephone (858) 467-4010.

86-6.14B Materials

86-6.14B(1) General

Each luminaire must consist of an assembly that utilizes induction light components as the light source. The luminaire must:

1. Have an initial lumen rating of 12,000 or more
2. Have a lamp life rating of 75,000 hours or more
3. Be designed to operate at an average nighttime operating temperature of 70 degrees F
4. Operate at an average operating time of 10 or more hours per night
5. Have an operating temperature range from -30 to +130 degrees F.
6. Have a lumen maintenance of 70 percent, or better, of the initial lumen output, at 60,000 hours
7. Be UL listed for luminaires in wet locations or an equivalent standard from a recognized testing laboratory
8. Be from the same manufacturer and model for the wattage and application shown
9. Have induction components that are interchangeable, within the same luminaire model, without requiring special tools. Troubleshooting components must not require special diagnostic tools or individual energy usage metering systems.

86-6.14B(2) Luminaire Identification

Each luminaire must have the following identification permanently marked inside the unit and outside of its packaging box:

1. Manufacturer's name
2. Trademark
3. Model no.
4. Serial no.
5. Date of manufacture (month-year)
6. Lot number
7. Contract number
8. Rated voltage
9. Rated wattage
10. Rated power in VA
11. Luminaire Efficiency Rating (LER)
12. Lamps must be permanently marked with the CCT rating in Kelvin, color rendering index (CRI), and wattage.

86-6.14B(3) Electrical Requirements

Each luminaire must comply with the following requirements:

1. The luminaire must operate from a 60 ± 3 Hz AC power source. The fluctuations of line voltage must have no visible effect on the luminous output. Luminaire must operate over a voltage range of 105 to 300 V(ac). The operating voltages for this option are 120 V(ac) and 240 V(ac). External transformers are not permitted as components for the luminaire input voltage.
2. The power factor of the luminaire must be 0.90 or greater
3. The total harmonic distortion must not exceed 10%. An integral factory installed standard ballast is required that includes inherent thermal protection.
4. The in-rush current must be limited to 28 amps for a duration no longer than 170 µs. Leakage current must not exceed 0.5 milliamps.
5. The ignition time for the lamps must be less than 1.0 seconds.

86-6.14B(4) Surge Suppression and Electromagnetic Interference

The luminaire on-board circuitry must include an SPD to withstand high repetition noise transients caused by utility transients and other interference. The SPD must comply with UL 1449 or UL 1283.

Radio frequency interference requirements for power supplies must meet FCC 47 CFR Part 18.

86-6.14B(5) Compatibility

The luminaire must be operationally compatible with currently used lighting control systems and photoelectric controls.

86-6.14B(6) Photometric Requirements

The luminaire must comply with the following:

1. The CCT must be 3000 or 4000 K when not shown.
2. The CRI must be 80 or greater.
3. The isofootcandle distribution must meet or exceed the minimum values for LED Roadway 1, 150 W HPS, or 180 W LPS.

The luminaire must not allow more than:

1. 10 percent of the rated lumens to project above 80 degrees from vertical
2. 2.5 percent of the rated lumens to project above 90 degrees from vertical

86-6.14B(7) Thermal Management

The passive thermal management of the heat generated by the induction components must have enough capacity to ensure proper operation of the luminaire over the minimum operation life. Thermal management must be passive by design and consist of a heat sink with no moving mechanical parts or liquids.

The light output variation must not deviate greater than 15% over a temperature range of 40 to 130 degrees F.

86-6.14B(8) Physical and Mechanical Requirements

Each luminaire must comply with the following:

1. Be UL listed under UL 1598 for luminaires in wet locations, or meet or exceed ratings of NEMA 4 or the following ANSI/IEC ratings. The NEMA and ANSI/IEC IP ratings must be verified by a recognized testing laboratory:
   1.1 Housing protected to an ANSI/IEC rating of IP 54
   1.2 Optical assembly protected to an ANSI/IEC rating of IP 65
2. Be a single, self-contained device, not requiring on-site assembly for installation. The power supply for the luminaire must be integral to the unit.
3. Have a Cobra Head shape and be of nominal dimensions not exceeding 36" long by 19" wide by 12" high.
4. Weigh 35 pounds or less.
5. Have a housing primarily constructed of die-cast aluminum or of galvanized steel. Seams must be CNC formed and GTAW welded. Finish must be powder-coated a gray color.
6. Provide easy access to internal components. Include an external latch capable of being operated with one hand. No internal components must fall out when the lower door assembly is opened.
7. The fixture openings and doors must be sealed and gasketed. The components within the fixture assembly must be easily accessible via a hinged door separable from the upper assembly. The lower door must be removable. All screws must be stainless steel. Captive screws are required on accessible components that require maintenance after installation.

8. Provide a generator compartment, with a quick-disconnect type (using plug and receptacle, or similar) conductor for easy removal of the generator from the fixture. For the removal process, the generator must also have a safety lanyard or restraining device to prevent the generator falling out. The power door must be hinged and secured to the luminaire housing separately from the optical chamber. The power supply must be electrically connected to the power door with a NEMA rated quick-disconnect device. All doors must be secured to prevent accidental opening.
9. The lens must be 1/4-inch-thick tempered glass, or approved equal with gasketed door. Lens discoloration will be considered a failure under warranty.
10. The reflector must be precision-formed aluminum.
11. Luminaires must mount on mast arms with nominal 2-inch outside diameters (to 2-3/8 inches) with no more than six hex bolts and three brackets or clamps. Adjustment of the fixture 5 degrees from the axis of the tenon, in multiple steps, must be an integral feature.
12. The luminaire must be assembled and manufactured such that its internal components are adequately supported to withstand mechanical shock and vibration from high winds and other sources.
13. Field wires connected to the luminaire must terminate on a barrier-type terminal block secured to the housing. The terminal screws must be captive and equipped with wire grips for conductors up to no. 6 AWG. Each terminal position must be clearly identified.
14. Conductors and terminals must be identified.
15. Printed circuit boards must conform to chapter 1, section 6 of TEES.

If components are mounted on a down-opening door, the door must be hinged and secured to the luminaire housing separately from the refractor or flat lens frame. The door must be easily removable and replaceable, and secured to the housing to prevent accidental opening. A safety cable must mechanically connect the door to the housing.

Each luminaire must meet the following control requirements:

1. Furnish each mounted luminaire with an ANSI C136.10-compliant, locking-type photocontrol receptacle. The receptacle must comply with section 86-6.11A. Each receptacle must be rotatable (so the window can be adjusted to the north).
2. Furnish a photoelectric unit with each fixture.

BID ITEM LIST

11-0223U4

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
321	860402	LIGHTING (CITY STREET)	LS	LUMP SUM	LUMP SUM	
322	027854	LIGHTING (BIKE FACILITY)	LS	LUMP SUM	LUMP SUM	
323	860460	LIGHTING AND SIGN ILLUMINATION	LS	LUMP SUM	LUMP SUM	
324	860797	ELECTRIC SERVICE (IRRIGATION)	LS	LUMP SUM	LUMP SUM	
325	860889	MODIFY TRAFFIC MONITORING STATION	LS	LUMP SUM	LUMP SUM	
326	027855	REMOVE TRAFFIC MONITORING STATION	LS	LUMP SUM	LUMP SUM	
327	860990	CLOSED CIRCUIT TELEVISION SYSTEM	LS	LUMP SUM	LUMP SUM	
328	861101	RAMP METERING SYSTEM (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
329	861102	RAMP METERING SYSTEM (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
330	861103	RAMP METERING SYSTEM (LOCATION 3)	LS	LUMP SUM	LUMP SUM	
331	995100	WATER METER CHARGES	LS	LUMP SUM	LUMP SUM	
332	995200	IRRIGATION WATER SERVICE CHARGES	LS	LUMP SUM	LUMP SUM	
333	BLANK					
334	028162	SHOTCRETE FACING (TYPE 1)	SQFT	18,900		
335	028163	SHOTCRETE FACING (TYPE 2)	SQFT	44,600		
336	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID: **$** _____

REPLACED PER ADDENDUM NO. 1 DATED SEPTEMBER 25, 2014