

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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*Serious Drought.  
Help save water!*

December 16, 2014

05-SB-246-12.3/R16.7

05-OC6404

Project ID 0500000021

Addendum No. 1

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SANTA BARBARA COUNTY NEAR LOMPOC FROM CEBADA CANYON ROAD TO HAPGOOD ROAD (EAST).

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, January 14, 2015.

This addendum is being issued to revise the project plans, the *Notice to Bidders and Special Provisions*, the *Bid book*, and the *Information Handout*.

Project plan sheets 175 and 282 are replaced and attached for substitution for the like-numbered sheets.

In the Special Provisions, Section 1-1.01, is replaced as attached

In the Special Provisions, Section 39-2.01D(5), is added as attached.

In the Special Provisions, Section 39-2.02B, is added as attached.

In the Special Provisions, Section 83-1.02C(2), is replaced as attached.

In the Special Provisions, Section 88-1.02B, is added as follows :

**"Add to section 88-1.02B:**

Filter fabric for underdrain must be Class A."

The *Information Handout*, Item 11 " Alternative In-line Terminal Systems" is replaced as attached.

Addendum No. 1  
Page 2  
December 16, 2014

05-SB-246-12.3/R16.7  
05-0C6404  
Project ID 0500000021

In the *Bid* book, in the "Bid Item List," Item 112 is replaced.

In the *Bid* book, in the "Bid Item List," Items 130 and 131 are added.

In the *Bid* book, in the "Bid Item List," Item 129 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](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/05/05-0C6404](http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/05/05-0C6404)**

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

# DIVISION I GENERAL PROVISIONS

## 1 GENERAL

Add to section 1-1.01:

### Bid Items and Applicable Sections

Item code	Item description	Applicable section
028196	TEMPORARY ALTERNATIVE CRASH CUSHION	12
028197	COMPOST BERM	21
028198	CENTER LINE RUMBLE STRIP (HMA, GROUD-IN INDENTATIONS)	39
028199	84" ALTERNATIVE FLARED END SECTION	72
028329	FILTER FABRIC	88

**39-2.01D (5)**

3. In-place HMA quality requirements shown in the following table:

**Type A HMA Acceptance In Place**

Quality characteristic	Test method	Requirement
Asphalt binder content (%)	AASHTO T 308 Method A	JMF -0.3, +0.5
HMA moisture content (max, %)	AASHTO T 329	1
Air voids content at $N_{design}$ (%) <sup>a, b</sup>	AASHTO T 269	4 ± 1.5
Voids in mineral aggregate on plant-produced HMA (min, %) <sup>a</sup> Gradation: No. 4 3/8-inch 1/2-inch 3/4-inch 1-inch with NMAS <sup>g</sup> = 1-inch with NMAS <sup>g</sup> = 3/4-inch	SP-2 Asphalt Mixture Volumetrics <sup>c</sup>	15.5–18.5 14.5–17.5 13.5–16.5 12.5–15.5 12.5–15.5 13.5–16.5
Dust proportion	SP-2 Asphalt Mixture Volumetrics	0.6–1.5
Density of core (% of max theoretical density) <sup>e, f</sup>	California Test 375	91–97
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	AASHTO T 324 (Modified)	10,000 15,000 20,000 25,000
Hamburg wheel track (min number of passes at inflection point) Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	AASHTO T 324 (Modified)	10,000 10,000 12,500 15,000
Moisture susceptibility (min, psi, dry strength)	AASHTO T 283	100
Moisture susceptibility (min, psi, wet strength)	AASHTO T 283	70

<sup>a</sup>Prepare 3 briquettes. Report the average of 3 tests.

<sup>b</sup>The Engineer determines the bulk specific gravity of each lab-compacted briquette under AASHTO T 275, Method A, and theoretical maximum specific gravity under AASHTO T 209, Method A.

<sup>c</sup>Determine bulk specific gravity under AASHTO T 275, Method A.

<sup>d</sup>The Engineer determines the laboratory-prepared HMA value for mix design verification only.

<sup>e</sup>The Engineer determines percent of theoretical maximum density under California Test 375 except the Engineer uses:

1. AASHTO T 275 to determine in-place density of each density core
2. AASHTO T 209, Method A to determine theoretical maximum density instead of calculating test maximum density

<sup>f</sup>The Engineer determines theoretical maximum density under AASHTO T 209, Method A, at the frequency specified in California Test 375, Part 5. D.

<sup>g</sup>NMAS means nominal maximum aggregate size.

**39-2.02B**

The mix design must comply with the requirements shown in the following table:

**Type A HMA Mix Design Requirements**

Quality characteristic	Test method	Requirement
Air voids content (%)	AASHTO T 269 <sup>a</sup>	$N_{initial} > 8.0$ $N_{design} = 4.0$ ( $N_{design} = 5.0$ for 1-inch aggregate) $N_{max} > 2.0$
Gyrations compaction (no. of gyrations)	AASHTO T 312	$N_{initial} = 8$ $N_{design} = 85.0$ $N_{max} = 130$
Voids in mineral aggregate (min, %) <sup>b</sup> Gradation: No. 4 3/8-inch 1/2-inch 3/4-inch 1-inch with NMAS <sup>e</sup> = 1-inch with NMAS <sup>e</sup> = 3/4-inch	SP-2 Asphalt Mixture Volumetrics	16.5–19.5 15.5–18.5 14.5–17.5 13.5–16.5 13.5–16.5 14.5–17.5
Dust proportion	SP-2 Asphalt Mixture Volumetrics	0.6–1.5
Hamburg wheel track (min number of passes at 0.5-inch rut depth) Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	AASHTO T 324 (Modified) <sup>c</sup>	10,000 15,000 20,000 25,000
Hamburg wheel track (min number of passes at the inflection point) Binder grade: PG 58 PG 64 PG 70 PG 76 or higher	AASHTO T 324 (Modified) <sup>c</sup>	10,000 10,000 12,500 15,000
Moisture susceptibility, dry strength (min, psi)	AASHTO T 283 <sup>c</sup>	100
Moisture susceptibility, wet strength (min, psi)	AASHTO T 283 <sup>c,d</sup>	70

<sup>a</sup>Calculate the air voids content of each specimen using AASHTO T 275, Method A, to determine bulk specific gravity. Use AASHTO T 209, Method A, to determine theoretical maximum specific gravity. Use a digital manometer and pycnometer when performing AASHTO T 209.

<sup>b</sup>Measure bulk specific gravity using AASHTO T 275, Method A.

<sup>c</sup>Test plant produced HMA.

<sup>d</sup>Freeze thaw required.

<sup>e</sup>NMAS means nominal maximum aggregate size.

**Replace section 83-1.02C(2) with:**

**83-1.02C(2) Alternative In-Line Terminal System**

Alternative in-line terminal system must be furnished and installed as shown on the plans and under these special provisions.

The allowable alternatives for an in-line terminal system must consist of one of the following or a Department-authorized equal.

1. TYPE SKT-SP-MGS for steel posts TERMINAL SYSTEM - Type SKT-MGS terminal system must be a SKT 350 sequential kinking terminal, system length 53'-1-1/2", manufactured by Road Systems, Inc., located in Big Spring, Texas, and must include items detailed for Type SKT-MGS terminal system shown on the plans. The SKT 350 sequential kinking terminal can be obtained from the distributor, Universal Industrial Sales, P.O. Box 699, Pleasant Grove, UT 84062, telephone (801) 785-0505 or from the distributor, Gregory Highway Products, 4100 13th Street, S.W., Canton, OH 44708, telephone (330) 477-4800.
2. TYPE X-LITE - Type X-Lite terminal system must be a 31" X-Lite Guard Rail End Terminal as manufactured by Barrier Systems, Inc., located in Vacaville, CA, and must include items detailed for Type 31" X-Lite terminal system shown on the plans. The 31" X-Lite Guard Rail End Terminal can be obtained from the distributor, Statewide Safety and Signs, Inc., 130 Grobric Court, Fairfield, CA 94533, telephone (800) 770-2644.
3. TYPE 31" X-TENSION - Type 31" X-Tension terminal system must be a 31" X-Tension Guard Rail End Terminal as manufactured by Barrier Systems, Inc., located in Vacaville, CA, and must include items detailed for Type 31" X-Tension terminal system shown on the plans. The 31" X-Tension Guard Rail End Terminal can be obtained from the distributor, Statewide Safety and Signs, Inc., 130 Grobric Court, Fairfield, CA 94533, telephone (800) 770-2644.

Submit a certificate of compliance for terminal systems.

Terminal systems must be installed under the manufacturer's installation instructions and these specifications. Each terminal system installed must be identified by painting the type of terminal system in neat black letters and figures 2 inches high on the backside of the rail element between system posts numbers 4 and 5. Paint must be metallic acrylic resin type spray paint. Before applying terminal system identification, the surface to receive terminal system identification must be removed of all dirt, grease, oil, salt, or other contaminants by washing the surface with detergent or other suitable cleaner. Rinse thoroughly with fresh water and allow to fully dry.

For Type SKT-SP-MGS terminal system, install the soil tube with soil plate attached at Post 1, hinged breakaway post at Post 2, and 6'-0" W6 x 9 steel posts at Posts 3 through 8. Use a W6 x 15 steel post at Post 1. The soil tube with soil plate must be, at the Contractor's option, driven with or without pilot holes, or placed in drilled holes. Space around the steel foundation tubes must be backfilled with selected earth, free of rock, placed in layers approximately 4 inches thick and each layer must be moistened and thoroughly compacted.

For Type 31" X-Lite terminal system, all crimped posts and line posts must be W6 x 8.5 or W6 x 9 steel posts. All posts, must be, at the Contractor's option, either driven or placed in drilled holes. Space around the crimped posts, Post 2 with attached soil plate and lines posts must be backfilled with selected earth, free of rock, placed in layers approximately 4 inches thick and each layer must be moistened and thoroughly compacted. All blocks must be wood or plastic.

For Type 31" X-Tension terminal system, the steel bottom post and I-beam post must be placed in drilled hole. The soil anchor and steel line posts must be, at the Contractor's option, either driven or placed in drilled holes. Space around the steel bottom post, steel line posts and soil anchor must be backfilled with selected earth, free of rock, placed in layers approximately 4 inches thick and each layer must be moistened and thoroughly compacted. All blocks must be plastic.

After installing the terminal system, dispose of surplus excavated material in a uniform manner along the adjacent roadway where designated by the Engineer.

**BID ITEM LIST****05-0C6404**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	705311	18" ALTERNATIVE FLARED END SECTION	EA	2		
102	705315	24" ALTERNATIVE FLARED END SECTION	EA	7		
103	705319	30" ALTERNATIVE FLARED END SECTION	EA	1		
104	705321	36" ALTERNATIVE FLARED END SECTION	EA	3		
105	705323	42" ALTERNATIVE FLARED END SECTION	EA	1		
106	028199	84" ALTERNATIVE FLARED END SECTION	EA	12		
107	720121	ROCK SLOPE PROTECTION (1/2 T, METHOD A) (CY)	CY	580		
108	721013	ROCK SLOPE PROTECTION (1/4 T, METHOD B) (CY)	CY	1,510		
109	721015	ROCK SLOPE PROTECTION (LIGHT, METHOD B) (CY)	CY	480		
110	721026	ROCK SLOPE PROTECTION (NO. 1, METHOD B) (CY)	CY	1,540		
111	721030	ROCK SLOPE PROTECTION (1/2 T, METHOD B) (CY)	CY	580		
112	729011	ROCK SLOPE PROTECTION FABRIC (CLASS 8)	SQYD	5,050		
113 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	8,550		
114	800007	FENCE (TYPE BW, 5-STRAND, METAL POST)	LF	6,850		
115	800101	TEMPORARY FENCE (TYPE BW)	LF	450		
116	801270	20' WIRE MESH GATE	EA	2		
117	820107	DELINEATOR (CLASS 1)	EA	67		
118	832006	MIDWEST GUARDRAIL SYSTEM (STEEL POST)	LF	2,060		
119	832070	VEGETATION CONTROL (MINOR CONCRETE)	SQYD	730		
120	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	3		

**BID ITEM LIST****05-0C6404**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121	839585	ALTERNATIVE FLARED TERMINAL SYSTEM	EA	3		
122	840504	4" THERMOPLASTIC TRAFFIC STRIPE	LF	147,000		
123	840506	8" THERMOPLASTIC TRAFFIC STRIPE	LF	4,280		
124	840515	THERMOPLASTIC PAVEMENT MARKING	SQFT	1,760		
125	840523	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)	LF	1,920		
126	840525	4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 36-12)	LF	21,500		
127	850111	PAVEMENT MARKER (RETROREFLECTIVE)	EA	8,910		
128	860807	INDUCTIVE LOOP DETECTOR (LS)	LS	LUMP SUM	LUMP SUM	
129	BLANK					
130	028329	FILTER FABRIC	SQYD	28,800		
131	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

**TOTAL BID:****\$**  

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