

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

OFFICE ENGINEER

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July 20, 2012

04-Ala-92,880-var

04-153004

Project ID 0400020302

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN ALAMEDA COUNTY AT VARIOUS LOCATIONS.

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, July 25, 2012.

This addendum is being issued to revise the Project Plans, the Notice to Bidders and Special Provisions, and the Bid book.

Project Plan Sheets 3, 4, 5, 6, 7, 8, 11, 12, 14, 15, 25, 48, 97, 98, and 100 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheet.

Project Plan Sheet 28A is added. A copy of the added sheet is attached for addition to the project plans.

In the Special Provisions, Section 10-1.55, "GABION," subsection "Rock," the fourth paragraph is revised as follows:

"The maximum unit weight of a rock-filled gabion shall be 68 pounds per cubic foot. Verification of the 68 pounds per cubic foot shall be performed when ordered by the Engineer. Verification shall be performed on the smallest standard gabion size to be used on the project. The rock supplied for the project shall be used for verification. Filling shall be done using the same method intended for actual construction. The weight of a rock-filled gabion shall be determined using available certified scales. The volume for calculating the unit weight shall be determined on the theoretical volume of the standard gabion which is rock-filled and weighed."

In the Special Provisions, Section 10-1.60, "GEOSYNTHETIC REINFORCED EMBANKMENT," is added as attached.

In the Special Provisions, Section 10-1.61, "CRASH CUSHION, SAND FILLED," is added as attached.

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In the Bid book, in the "Bid Item List," Items 23, 30, 36, 39, 46, 49, 51, 52, 53, 58, 77, and 79, are revised, Items 108, 109 and 110 are added and Item 107 is deleted as attached.

To Bid book holders:

Replace pages 4, 5, 6 and 8 of the "Bid Item List" in the Bid book with the attached revised pages 4, 5, 6 and 8 of the Bid Item List. The revised Bid Item List is to be used in the bid.

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.

Indicate receipt of this addendum by filling in the number of this addendum in the space provided on the signature page of the Bid book.

Submit bids in the Bid book you now possess. Holders who have already mailed their book will be contacted to arrange for the return of their book.

Inform subcontractors and suppliers as necessary.

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

http://www.dot.ca.gov/hq/esc/oe/project_ads_addenda/04/04-153004

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 REBECCA D. HARNAGEL
Chief, Office of Plans, Specifications & Estimates
Office Engineer
Division of Engineering Services

Attachments

10-1.60 GEOSYNTHETIC REINFORCED EMBANKMENT

GENERAL

Summary

This work includes placing geosynthetic reinforcement on compacted backfill at design elevations and locations. Comply with Section 19, "Earthwork," and Section 88, "Geosynthetics" of the Standard Specifications.

MATERIALS

Geosynthetic Reinforcement

LTDS values of geosynthetic reinforcement must comply with Section 88-1.04, "Reinforcement," of the Standard Specifications and the following:

Geosynthetic Reinforcement Type	LTDS (lb/ft)
Primary(Geogrid)	2190

Each roll must be labeled with:

1. Manufacturer's name
2. Production identification
3. Roll dimensions
4. Lot number
5. Date of manufacture

Backfill

Backfill must be free from:

1. Organic material
2. Soft or poor durability particles
3. Recycled materials such as glass, shredded tires, concrete rubble, or other unsuitable materials as determined by the Engineer

Backfill must comply with the requirements in the Imported Borrow (Lightweight Aggregate) elsewhere in these Special provisions.

CONSTRUCTION

Foundation Preparation

Remove loose or extraneous material and sharp objects that may come in contact with the geosynthetic reinforcement. Compact foundation under Section 19-5.03, "Relative Compaction (95 Percent)," of the Standard Specifications.

Geosynthetic Reinforcement Placement

Place geosynthetic reinforcement within 3 inches of the design elevations.

Unless otherwise shown, at least 3 inches of compacted backfill is required between layers of geosynthetic reinforcement.

Geosynthetic reinforcement must be:

1. Secured with staples, pins, or small piles of backfill
2. Placed without wrinkles
3. Aligned with the primary strength direction perpendicular to slope contours
4. Spliced under manufacturer's recommendations
5. Butted edge-to-edge for straight slope contours
6. Butted edge-to-edge at the slope face and fanned out or overlapped into the backfill for curved slope contours

Cover geosynthetic reinforcement with backfill within the same work shift.

Place at least 6 inches of backfill on the geosynthetic reinforcement before operating or driving equipment or vehicles over it, except for equipment or vehicles used under the conditions specified below for spreading backfill.

You may drive equipment or vehicles for spreading backfill directly on the geosynthetic reinforcement if:

1. You comply with manufacturer's recommendations
2. Vehicles have rubber tires
3. Traffic repetitions are minimized
4. Speed of less than 5 miles per hour is maintained
5. Sudden braking and sharp turning is avoided

Where guard railing posts will be placed at the top crest of the geosynthetic reinforced embankment and the geosynthetic reinforcement interferes with placement of posts, you may precut reinforcement of affected layers into cross-shaped patterns. The precutting dimensions must not exceed post dimensions by more than 12 inches.

Do not extend geosynthetic reinforcement into pavement structural section.

If the geogrid reinforcement is damaged during construction, replace it or repair it. Repair by placing additional reinforcement to cover the damaged area and:

1. For reinforcement placed parallel to slope contours, overlapping 5 aperture openings or 8 inches whichever is greater
2. For reinforcement placed perpendicular to slope contours, splicing the edges as recommended by the manufacturer

If the geotextile reinforcement is damaged during construction, replace it.

Backfill Placement and Compaction

Grade and compact backfill to ensure the reinforcement remains taut.

Compact backfill nominally under Imported Borrow (Lightweight Aggregate) elsewhere in these Special provisions. If hand-operated equipment is used to compact backfill, do not place more than 6 inches of backfill before compacting.

Construct embankment slope under Section 19-2.05, "Slopes," of the Standard Specifications.

Use hand-operated equipment to compact backfill areas within 3 feet of:

1. Slope contours
2. Underground structures

Disking and plowing is not allowed in the reinforced area.

MEASUREMENT AND PAYMENT

Geosynthetic reinforcement is measured and paid for by the square yard.

The contract price paid per square yard for geosynthetic reinforcement includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in placing geosynthetic reinforcement complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer."

10-1.61 CRASH CUSHION, SAND FILLED

Sand filled crash cushions shall be furnished and installed as shown on the plans and in conformance with these special provisions.

A sand filled crash cushion shall consist of a grouping of sand filled modules.

Crash cushions shall be installed at the following locations:

Location 4 at Lt Sta IBR 22+30.03

At the Contractor's option, modules for use in sand filled crash cushions shall be either Energite III Inertial Modules, Fitch Inertial Modules or Traffix Sand Barrels manufactured after March 31, 1997, or equal:

1. Energite III and Fitch Inertial Modules, manufactured by Energy Absorption Systems, Inc., 35 East Wacker Drive, Suite 1100, Chicago, IL 60601:
 - 1.1. Northern California: Traffic Control Service, Inc., 8585 Thys Court, Sacramento, CA 95828, telephone (800) 884-8274, FAX (916) 387-9734
 - 1.2. Southern California: Traffic Control Service, Inc., 1818 E. Orangethorpe, Fullerton, CA 92831-5324, telephone (800) 222-8274, FAX (714) 526-9501
2. Traffix Sand Barrels, manufactured by Traffix Devices, Inc., 220 Calle Pintoresco, San Clemente, CA 92672, telephone (949) 361-5663, FAX (949) 361-9205
 - 2.1. Northern California: United Rentals, Inc., 1533 Berger Drive, San Jose, CA 95112, telephone (408) 287-4303, FAX (408) 287-1929
 - 2.2. Southern California: Statewide Safety & Sign, Inc., P.O. Box 1440, Pismo Beach, CA 93448, telephone (800) 559-7080, FAX (805) 929-5786

Modules contained in the crash cushion shall be of the same type at each location. The color of the modules shall be the standard yellow color as furnished by the vendor, with black lids. The exterior components of the modules shall be formulated or processed to resist deterioration from ambient ultraviolet rays. The modules shall exhibit good workmanship free from structural flaws and objectionable surface defects.

The Contractor shall provide the Engineer with a Certificate of Compliance from the manufacturer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," of the Standard Specifications. The Certificate of Compliance shall certify that the crash cushions comply with the contract plans and specifications, conform to the prequalified design and material requirements, and were manufactured in conformance with the approved quality control program.

Sand for filling the modules shall be clean washed concrete sand of commercial quality. At the time of placing in the modules, the sand shall contain not more than 7 percent water, as determined by California Test 226.

Modules placed on bridge decks shall be provided with positioning blocks fastened to the deck surface. Positioning blocks shall be shaped as segments of a ring and placed along the inner or outer periphery of the module wall. A minimum of 2 blocks, a minimum of one-sixth of a ring in length shall be provided for each module. Positioning blocks and fasteners shall be of a material that is corrosion and water resistant.

Module cylinders shall be filled with sand in conformance with the manufacturer's directions and to the sand capacity in pounds for each module shown on the plans.

Lids shall be securely attached as recommended by the manufacturer.

A Type R or Type P marker panel shall be attached to the front of the crash cushion as shown on the plans, when the closest point of the crash cushion array is within 12 feet of the traveled way. The marker panel, when required, shall be firmly fastened to the crash cushion with commercial quality hardware or by other methods approved by the Engineer.

Sand filled crash cushions, regardless of the number of modules required in each sand filled crash cushion, will be measured and paid for by the unit as crash cushion, sand filled. The quantity to be paid for will be determined from actual count of the units in place in the completed work.

The contract unit price paid for crash cushion, sand filled shall include full compensation for furnishing all labor, materials (including sand and marker panels), tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing crash cushions, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

BID ITEM LIST

04-153004

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
21	129100	TEMPORARY CRASH CUSHION MODULE	EA	124		
22	141103	REMOVE YELLOW THERMOPLASTIC TRAFFIC STRIPE (HAZARDOUS WASTE)	LF	5,070		
23	150204	ABANDON CULVERT (LF)	LF	560		
24	150662	REMOVE METAL BEAM GUARD RAILING	LF	1,040		
25	150668	REMOVE FLARED END SECTION	EA	4		
26	150714	REMOVE THERMOPLASTIC TRAFFIC STRIPE	LF	5,070		
27	150722	REMOVE PAVEMENT MARKER	EA	220		
28	150744	REMOVE ROADSIDE SIGN (WOOD POST)	EA	4		
29	150747	REMOVE ROADSIDE SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	4		
30	150809	REMOVE CULVERT (LF)	LF	570		
31	150820	REMOVE INLET	EA	12		
32	150826	REMOVE MANHOLE	EA	1		
33	152390	RELOCATE ROADSIDE SIGN	EA	10		
34	152430	ADJUST INLET	EA	1		
35	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	12,600		
36	153121	REMOVE CONCRETE (CY)	CY	120		
37	153221	REMOVE CONCRETE BARRIER	LF	110		
38	155003	CAP INLET	EA	3		
39	160102	CLEARING AND GRUBBING (LS)	LS	LUMP SUM	LUMP SUM	
40	190101	ROADWAY EXCAVATION	CY	10,600		

BID ITEM LIST**04-153004**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	190110	LEAD COMPLIANCE PLAN	EA	1		
42	023193	IMPORTED BORROW (LIGHTWEIGHT AGGREGATE)	CY	4,180		
43	203002	EROSION CONTROL (COMPOST BLANKET)	CY	27		
44	203021	FIBER ROLLS	LF	1,420		
45	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	4		
46	203031	EROSION CONTROL (HYDROSEED) (SQFT)	SQFT	44,000		
47	206401	MAINTAIN EXISTING IRRIGATION FACILITIES	LS	LUMP SUM	LUMP SUM	
48	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
49	208808	8" WELDED STEEL PIPE CONDUIT (.250" THICK)	LF	740		
50	250401	CLASS 4 AGGREGATE SUBBASE	CY	1,930		
51	260303	CLASS 3 AGGREGATE BASE (CY)	CY	1,040		
52	280000	LEAN CONCRETE BASE	CY	770		
53	390132	HOT MIX ASPHALT (TYPE A)	TON	6,030		
54	394074	PLACE HOT MIX ASPHALT DIKE (TYPE C)	LF	87		
55	394076	PLACE HOT MIX ASPHALT DIKE (TYPE E)	LF	2,260		
56	394090	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	SQYD	12		
57	397005	TACK COAT	TON	0.8		
58 (F)	510502	MINOR CONCRETE (MINOR STRUCTURE)	CY	520		
59 (F)	560218	FURNISH SIGN STRUCTURE (TRUSS)	LB	27,025		
60 (F)	560219	INSTALL SIGN STRUCTURE (TRUSS)	LB	27,025		

BID ITEM LIST

04-153004

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	560248	FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	140		
62	560249	FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	270		
63	561016	60" CAST-IN-DRILLED-HOLE CONCRETE PILE (SIGN FOUNDATION)	LF	50		
64	566011	ROADSIDE SIGN - ONE POST	EA	14		
65	568001	INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	32		
66	568017	INSTALL ROADSIDE SIGN PANEL ON EXISTING POST	EA	1		
67	620060	12" ALTERNATIVE PIPE CULVERT	LF	12		
68	620100	18" ALTERNATIVE PIPE CULVERT	LF	1,880		
69	650010	12" REINFORCED CONCRETE PIPE	LF	24		
70	650014	18" REINFORCED CONCRETE PIPE	LF	60		
71	665010	12" CORRUGATED STEEL PIPE	LF	22		
72	665717	18" SLOTTED CORRUGATED STEEL PIPE (.079" THICK)	LF	450		
73	680902	6" PERFORATED PLASTIC PIPE UNDERDRAIN	LF	270		
74	682049	CLASS 3 PERMEABLE MATERIAL (BLANKET)	CY	550		
75	705307	12" ALTERNATIVE FLARED END SECTION	EA	1		
76	705311	18" ALTERNATIVE FLARED END SECTION	EA	5		
77	721026	ROCK SLOPE PROTECTION (NO. 1, METHOD B) (CY)	CY	0.3		
78	722020	GABION	CY	1,320		
79	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	58		
80 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	10,432		

BID ITEM LIST**04-153004**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	023200	TRAFFIC OPERATIONS SYSTEM (LOCATION 7)	LS	LUMP SUM	LUMP SUM	
102	023201	TRAFFIC OPERATIONS SYSTEM (LOCATION 8)	LS	LUMP SUM	LUMP SUM	
103	023202	TRAFFIC OPERATIONS SYSTEM (LOCATION 9)	LS	LUMP SUM	LUMP SUM	
104	023203	TRAFFIC OPERATIONS SYSTEM (LOCATION 10)	LS	LUMP SUM	LUMP SUM	
105	023204	DIAL UP MODEM	EA	2		
106	023205	GENERAL PACKET RADIO SYSTEM (GPRS) WIRELESS MODEM ASSEMBLY	EA	7		
107	BLANK					
108	198250	GEOSYNTHETIC REINFORCEMENT	SQYD	3890		
109	839591	CRASH CUSHION, SAND FILLED	EA	1		
110	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

TOTAL BID:**\$** _____