

**DEPARTMENT OF TRANSPORTATION**

ES-OE MS #43  
1727 30TH Street, 2ND Floor  
Sacramento, CA 95816



July 2, 2001

02-Teh-5-R43.6/R44.7  
02-2618U4  
ACNHI-005-8(317)648N

Addendum No. 2

Dear Contractor:

This addendum is being issued to the contract for construction on State highway in TEHAMA COUNTY IN AND NEAR RED BLUFF FROM SACRAMENTO RIVER BRIDGE NO. 08-0096 TO 0.6 km SOUTH OF DIBBLE CREEK BRIDGE.

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 July 10, 2001.

This addendum is being issued to revise the Project Plans, the Notice to Contractors and Special Provisions, and the Proposal and Contract.

Project Plan Sheet 69 is revised as follows:

"The column heading titled "PAVEMENT MARKERS (RETROREFLECTIVE-RECESSED)" shown under the table for "TRAFFIC STRIPE & PAVEMENT MARKERS" is revised to read: "PAVEMENT MARKERS (RETROREFLECTIVE)".

In the Special Provisions, Section 10-1.03, "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," the twentieth paragraph is revised as follows:

"The following contract items of work, shall be incorporated into the SWPPP as "Temporary Water Pollution Control Practices": Temporary straw bales, temporary silt fence, temporary fiber roll. The Contractor's attention is directed to these special provisions provided for each temporary water pollution control practice."

In the Special Provisions, Section 10-1.03, "WATER POLLUTION CONTROL (STORM WATER POLLUTION PREVENTION PLAN)," the thirty-ninth paragraph is revised as follows:

"In order to provide effective erosion control the Contractor may be directed to apply permanent erosion control in small or multiple units as disturbed soil areas are deemed substantially complete by the Engineer. The Contractor's attention is directed to "Erosion Control Type D" of these special provisions."

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In the Special Provisions, Section 10-1.04, "TEMPORARY FIBER ROLL," the first and second paragraphs are revised as follows:

"Temporary fiber rolls shall conform to the details shown on the plans for fiber rolls in the "Construction Site Best Management Practices (BMPs) Manual" of the CalTrans Storm Water Quality Handbooks, the provisions in Section 20-3, "Erosion Control," of the Standard Specifications, and these special provisions. Copies of the "Construction Site Best Management Practices (BMPs) Manual" of the CalTrans Storm Water Quality Handbooks may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520. Copies of the Manuals may also be obtained from the Department's Internet Web Site at: <http://www.dot.ca.gov/hq/construc/stormwater.html>.

Temporary fiber rolls shall be furnished, installed, maintained, and removed at the locations shown on the plans in the Contractor's Storm Water Pollution Prevention Plan (SWPPP), as approved by the Engineer."

In the Special Provisions, Section 10-1.05, "TEMPORARY SILT FENCE," the first and second paragraphs are revised as follows:

"Temporary silt fence shall conform to the details shown on the plans for silt fence in the "Construction Site Best Management Practices (BMPs) Manual" of the CalTrans Storm Water Quality Handbooks, and these special provisions. Copies of the "Construction Site Best Management Practices (BMPs) Manual" of the CalTrans Storm Water Quality Handbooks may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520. Copies of the Manuals may also be obtained from the Department's Internet Web Site at: <http://www.dot.ca.gov/hq/construc/stormwater.html>.

Temporary silt fence shall be furnished, installed, maintained, and removed at the locations shown in the Contractor's Storm Water Pollution Prevention Plan (SWPPP), as approved by the Engineer."

In the Special Provisions, Section 10-1.08, "TEMPORARY STRAW BALE BARRIER," the first and second paragraphs are revised as follows:

"Temporary straw bale barrier shall conform to the details shown on the plans for straw bale barriers in the "Construction Site Best Management Practices (BMPs) Manual" of the CalTrans Storm Water Quality Handbooks, and these special provisions. Copies of the "Construction Site Best Management Practices (BMPs) Manual" of the CalTrans Storm Water Quality Handbooks may be obtained from the Department of Transportation, Material Operations Branch, Publication Distribution Unit, 1900 Royal Oaks Drive, Sacramento, California 95815, Telephone: (916) 445-3520. Copies of the Manuals may also be obtained from the Department's Internet Web Site at: <http://www.dot.ca.gov/hq/construc/stormwater.html>.

Temporary straw bale barrier shall be furnished, installed, maintained, and removed at the locations shown in the Contractor's Storm Water Pollution Prevention Plan (SWPPP), as approved by the Engineer."

In the Special Provisions, Section 10-1.09, "COOPERATION," is revised as attached.

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In the Special Provisions, Section 10-1.16, "MAINTAINING TRAFFIC," the following are added after the last paragraph as follows:

"At locations where falsework pavement lighting through falsework are designated, falsework lighting shall be installed in conformance with the provisions in Section 86-6.11, "Falsework Lighting," of the Standard Specifications.

Openings shall be provided through bridge falsework for the use of public traffic at each location where falsework is constructed over the streets or routes listed in the following table. The type, minimum width, height, and number of openings at each location, and the location and maximum spacing of falsework lighting, if required for each opening, shall conform to the requirements in the table. The width of vehicular openings shall be the clear width between temporary railings or other protective work. The spacing shown for falsework pavement lighting is the maximum distance center to center in meters between fixtures.

Route 5 Northbound at  
 Adobe Road Overcrossing  
 (Bridge No. 08-0157)

	Number	Width	Height
Vehicle Openings	1	11.9	4.7
	Location	Spacing	
Falsework Pavement Lighting	R and L	9	

(Width and Height in meters)  
 (R = Right side of traffic. L = Left side of traffic)  
 (C = Centered overhead)

Route 5 Southbound at  
 Adobe Road Overcrossing  
 (Bridge No. 08-0157)

	Number	Width	Height
Vehicle Openings	1	11.9	4.7
	Location	Spacing	
Falsework Pavement Lighting	R and L	9	

(Width and Height in meters)  
 (R = Right side of traffic. L = Left side of traffic)  
 (C = Centered overhead)

The exact location of openings will be determined by the Engineer."

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In the Special Provisions, Section 10-1.40, "PILING," the first through the eighth paragraphs shown under "GENERAL" are replaced as attached.

In the Special Provisions, Section 10-1.40, "PILING," in subsection "STEEL PIPE PILING" the following paragraphs are deleted:

**"Jetting and Drilling**

Jetting or drilling to obtain the specified penetration in conformance with the provisions in Section 49-1.05, "Driving Equipment," of the Standard Specifications shall not be used for driven type piles.

**Predrilled Holes**

Piles shall be driven in oversized drilled holes in conformance with the provisions in Section 49-1.06, "Predrilled Holes," of the Standard Specifications at the abutments to the corresponding bottom of hole elevation of 83 meters."

In the Special Provisions, Section 10-1.40, "PILING," the following paragraphs are added after the last paragraph as follows

**"MEASUREMENT AND PAYMENT (PILING)**

Measurement and payment for the various types and classes of piles shall conform to the provisions in Sections 49-6.01, "Measurement," and 49-6.02, "Payment," of the Standard Specifications and these special provisions.

The third paragraph in Section 49-6.02, "PAYMENT," of the Standard Specifications is amended to read:

"The contract price paid per meter for cast-in-drilled-hole concrete piling shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all work involved in drilling holes, disposing of material resulting from drilling holes, temporarily casing holes and removing water when necessary, furnishing and placing concrete and reinforcement, and constructing reinforced concrete extensions, complete in place, to the required penetration, as shown on the plans, as specified in these specifications and in the special provisions, and as directed by the Engineer.

Full compensation for furnishing and placing additional testing reinforcement, for load test anchorages, and for cutting off test piles as specified, shall be considered as included in the contract price paid for piling of the type or class shown in the Engineer's Estimate, and no additional compensation will be allowed.

No additional compensation or extension of time will be made for additional foundation investigation, installation and testing of indicator piling, cutting off piling and restoring the foundation investigation and indicator pile sites, and review of request by the Engineer.

Full compensation for conforming to the provisions in "Steel Pipe Piling" of these special provisions shall be considered as included in the contract prices paid for the various items of work involved, and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.491, "PLASTIC PIPE," is added as follows:

**"10-1.491 PLASTIC PIPE**

Plastic pipe shall conform to the provisions in Section 64, "Plastic Pipe," of the Standard Specifications."

In the Special Provisions, Section 10-1.492, "REINFORCED CONCRETE PIPE," is added as attached.

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In the Special Provisions, Section 10-1.493, "CORRUGATED METAL PIPE," is added as follows:

**"10-1.493 CORRUGATED METAL PIPE**

Corrugated steel pipe culverts shall conform to the provisions in Section 66, "Corrugated Metal Pipe," of the Standard Specifications and these special provisions.

Corrugated steel pipe shall be fabricated from zinc-coated steel sheet."

In the Special Provisions, Section 10-1.55, "SLOPE PAVING," is replaced with Section 10-1.55, "SLOPE PAVING (COBBLE)," as attached.

In the Special Provisions, Section 10-1.61, "METAL BEAM GUARD RAILING," entire subsection titled "TERMINAL SYSTEM (TYPE CAT) is deleted.

In the Special Provisions, Section 10-1.615, "CRASH CUSHION (TYPE CAT)," is added as attached.

In the Special Provisions, Section 10-1.63, "CONCRETE BARRIER," is replaced with the following:

"Concrete barriers shall conform to the provisions in Section 83-2, "Barriers," of the Standard Specifications."

In the Special Provisions, Section 10-1.66, "PAVEMENT MARKERS," the fourth and fifth paragraphs are deleted.

In the Proposal and Contract, the Engineer's Estimate Item 102 is revised, Items 130 through 133 are added and Items 48 and 129 are deleted as attached.

To Proposal and Contract book holders:

Replace pages 5, 8 and 9 of the Engineer's Estimate in the Proposal with the attached revised pages 5, 8 and 9 of the Engineer's Estimate. The revised Engineer's Estimate is to be used in the bid.

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

Submit bids in the Proposal and Contract 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 office is sending this addendum by UPS overnight mail to Proposal and Contract book holders to ensure that each receives it.

If you are not a Proposal and Contract 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,

ORIGINAL SIGNED BY

REBECCA D. HARNAGEL, Chief  
Plans, Specifications & Estimates Branch  
Office of Office Engineer

Attachments

**10-1.09 COOPERATION**

Attention is directed to Section 7-1.14, "Cooperation," and Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications and these special provisions.

It is anticipated that work by other contractors may be in progress adjacent to or within the limits of this project during progress of the work on this contract. Projects are listed as follows:

Contract No.	Co-Rte-kp	Description of Work
02-372904	Teh-5-35.4/67.7	Improve roadside recovery area
02-373904	Teh-5-36.2/41.5	Replace edgedrains
02-2993U4	Teh-5-42.2/43.0	Bridge deck rehabilitation, improve intersection
02-2993U4	Teh-5-45.0/46.0	Bridge deck rehabilitation, improve intersection

Relocation of the following utility facilities will require coordination with the Contractor's operations. It is anticipated that the relocation will occur during Stage 2 construction. The Contractor shall make the necessary arrangements with the utility company, through the Engineer, and shall submit a schedule of work, verified by a representative of the utility company, to the Engineer. The schedule of work shall provide not less than the following number of working days, as defined in Section 8-1.06, "Time of Completion," of the Standard Specifications for the utility company to complete their work:

Utility	Location	Working Days
Underground gas line	STA "A" 2+20 to "A" 5+50	10

In the event that the utility facilities mentioned above are not removed or relocated within the number of working days specified and, if in the opinion of the Engineer, the Contractor's operations are delayed or interfered with by reason of the utility facilities not being relocated within the number of working days specified, the State will compensate the Contractor for the delays to the extent provided in Section 8-1.09, "Right of Way Delays," of the Standard Specifications, and not otherwise, except as provided in Section 8-1.10, "Utility and Non-Highway Facilities," of the Standard Specifications.

## 10-1.40 PILING

### GENERAL

Piling shall conform to the provisions in Section 49, "Piling," of the Standard Specifications, and these special provisions.

Section 49-1.05, "Driving Equipment," of the Standard Specifications is amended by adding the following paragraph after the seventh paragraph:

The use of followers or underwater hammers for driving piles will be permitted if authorized in writing by the Engineer. When a follower or underwater hammer is used, its efficiency shall be verified by furnishing the first pile in each bent or footing sufficiently long and driving the pile without the use of a follower or underwater hammer.

The first and second paragraphs in Section 49-4.01, "Description," of the Standard Specifications are amended to read:

Cast-in-place concrete piles shall consist of one of the following:

- A. Steel shells driven permanently to the required bearing value and penetration and filled with concrete.
- B. Steel casings installed permanently to the required penetration and filled with concrete.
- C. Drilled holes filled with concrete.
- D. Rock sockets filled with concrete.

The drilling of holes shall conform to the provisions in these specifications. Concrete filling for cast-in-place concrete piles is designated by compressive strength and shall have a minimum 28-day compressive strength of 25 MPa. At the option of the Contractor, the combined aggregate grading for the concrete shall be either the 25-mm maximum grading, the 12.5-mm maximum grading, or the 9.5-mm maximum grading. Concrete shall conform to the provisions in Section 90, "Portland Cement Concrete," and Section 51, "Concrete Structures." Reinforcement shall conform to the provisions in Section 52, "Reinforcement."

Unless otherwise specified, welding of any work performed in conformance with the provisions in Section 49, "Piling," of the Standard Specifications, shall be in conformance with the requirements in AWS D1.1.

Foundation recommendations are included in the "Information Handout" available to the Contractor as provided for in Section 2-1.03, "Examination of Plans, Specifications, Contract, and Site of Work," of the Standard Specifications.

Attention is directed to "Welding " of these special provisions.

Difficult pile installation is anticipated due to the presence of dense gravel layers.

Alternative "X" type piles shall have a dimension, T, not less than 355 mm at all locations.

### Jetting and Drilling

Jetting or drilling to obtain the specified penetration in conformance with the provisions in Section 49-1.05, "Driving Equipment," of the Standard Specifications shall only be used for driven type piles at the locations and to the bottom of jet or hole elevations listed in the following table. Materials resulting from jetting or drilling holes shall be disposed of in conformance with the provisions in Section 19-2.06, "Surplus Material," of the Standard Specifications.

Bridge Name or Number	Abutment Number	Bent Number	Elevation of Bottom of Jet or Hole
08-0157	1		75 meters
08-0157		2	70.4 meters
08-0157	3		72.6 meters

### Pre drilled Holes

Piles shall be driven in oversized drilled holes in conformance with the provisions in Section 49-1.06, "Pre drilled Holes," of the Standard Specifications at the abutments to the corresponding bottom of hole elevation of 83 meters."

#### **10-1.492 REINFORCED CONCRETE PIPE**

Reinforced concrete pipe shall conform to the provisions in Section 65, "Reinforced Concrete Pipe," of the Standard Specifications and these special provisions.

Where embankment will not be placed over the top of the pipe, a relative compaction of not less than 85 percent shall be required below the pipe spring line for pipe installed using Method 1 backfill in trench, as shown on Standard Plan A62D. Where the pipe is to be placed under the traveled way, a relative compaction of not less than 90 percent shall be required unless the minimum distance between the top of the pipe and the pavement surface is the greater of 1.2 m or one half of the outside diameter of the pipe.

Except as otherwise designated by classification on the plans or in the specifications, joints for culvert and drainage pipes shall conform to the plans or specifications for standard joints.

When reinforced concrete pipe is installed in conformance with the details shown on Revised Standard Plan A62DA, the fifth paragraph of Section 19-3.04, "Water Control and Foundation Treatment," of the Standard Specifications shall not apply.

When solid rock or other unyielding material is encountered at the planned elevation of the bottom of the bedding, the material below the bottom of the bedding shall be removed to a depth of 1/50 of the height of the embankment over the top of the culvert, but not less than 150 mm nor more than 300 mm. The resulting trench below the bottom of the bedding shall be backfilled with structure backfill material in conformance with the provisions in Section 19-3.06, "Structure Backfill," of the Standard Specifications.

The excavation and backfill below the planned elevation of the bottom of the bedding will be paid for as extra work as provided in Section 4-1.03D, "Extra Work," of the Standard Specifications.

The Outer Bedding shown on Revised Standard Plan A62DA shall not be compacted prior to placement of the pipe.

### 10-1.55 SLOPE PAVING (COBBLE)

Cobble slope paving, consisting of cast-in-place portland cement concrete or shotcrete bases with mortared cobble surfaces, shall conform to the provisions in Section 72-6, "Slope Paving," of the Standard Specifications and these special provisions.

A test panel at least 1.2 m x 1.8 m in size, consisting of cobble paving with a 0.8 m broomed concrete border on one side, shall be successfully completed at a location approved by the Engineer before beginning work on the cobble slope paving. The test panel shall be constructed and finished with the materials, tools, equipment and methods to be used in constructing the cobble slope paving. If ordered by the Engineer, additional test panels shall be constructed until the specified cobble slope paving is obtained, as determined by the Engineer.

The test panel approved by the Engineer shall be used as the standard of comparison in determining acceptability of the cobble slope paving.

The river rock cobbles shall measure between 125 mm and 175 mm in the largest dimension. Flat or needle shapes will not be accepted unless the thickness of the individual pieces is greater than 100 mm.

The cobbles shall conform to the quality requirements specified in Section 72-5, "Concreted-Rock Slope Protection," of the Standard Specifications.

The cobbles shall be placed on a setting bed of mortar. The cement mortar bedding shall conform to the following:

A. Portland cement shall conform to the requirements in Section 90-2.01, "Portland Cement," of the Standard Specifications.

Hydrated lime shall conform to ASTM Designation: C 207, Type S.

Mortar sand shall be commercially produced for masonry work and free of organic impurities and lumps of clay and shale.

Mortar shall consist, by volume, of one part portland cement, 0 to 1/2 parts of hydrated lime, and 2 1/4 to 3 parts of mortar sand. Sufficient water shall be added to make a workable mortar. Each batch of mortar shall be accurately measured and thoroughly mixed. Mortar shall be freshly mixed as required. Mortar shall not be retempered more than one hour after mixing. The amount of lime shall be reduced as necessary to prevent leaching and efflorescence on finished surfaces.

A proprietary, premixed packaged blend of cement, lime, and sand, without color, that requires only water to prepare for use as brick mortar or grout may be furnished for mortar. Packages of premix shall bear the manufacturer's name, brand, weight, and color identification. The manufacturer's recommended mixing proportions and procedures shall be furnished to the Engineer.

Where the mortar bed will be placed, the top surface of the shotcrete or concrete base shall be lightly and evenly scored horizontally and vertically with a metal scratcher having grooves not more than 25 mm apart.

Where the mortar bed will be placed, the shotcrete or concrete base shall be cured by the water method for at least 2 days.

Cobbles shall be laid and embedded in a mortar setting bed approximately 75 mm thick with the top half of each cobble exposed above the surface of the mortar. The cobbles shall be placed such that the upper surface of all cobbles are in a plane within approximately 50 mm. Cobbles shall be placed such that the maximum number of cobbles with the minimum amount of mortar is exposed. The colors and sizes of cobbles shall be randomly distributed throughout the area. Cobbles shall be shoved tight so that mortar is flushed completely into the joints. The mortar surface shall be trimmed to the mid depth of cobbles.

The exposed portion of all cobbles shall be cleaned of all mortar.

Slope paving (cobble) will be measured by the square meter. The area to be paid for will be calculated from the lengths and widths of slope paving as shown on the plans. Broomed concrete areas adjacent to slope paving with cobbles will be measured and paid for as slope paving (cobble). The contract price paid per square meter for slope paving (cobble) shall include full compensation for furnishing all labor, materials (including river rock cobbles), tools, equipment, and incidentals, and for doing all the work involved in constructing slope paving, complete in place, including test panels, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

#### **10-1.615 CRASH CUSHION (TYPE CAT)**

Crash cushion (Type CAT) and crash cushion (Type CAT) backup shall be furnished and installed as shown on the plans and in conformance with these special provisions.

Crash cushion (Type CAT) shall be a CAT-350 Crash Cushion Attenuating Terminal as manufactured by Trinity Industries, Inc., and shall include all the items detailed for crash cushion (Type CAT) shown on the plans.

Crash cushion (Type CAT) backup shall consist of items detailed for crash cushion (Type CAT) backup shown on the plans and shall conform to the provisions in Section 83-1.02B, "Metal Beam Guard Railing," of the Standard Specifications.

Excluding the crash cushion (Type CAT) backup, arrangements have been made to insure that any successful bidder can obtain the CAT-350 Crash Cushion Attenuating Terminal from the manufacturer, Trinity Industries, Inc., P.O. Box 99, 950 West 400S, Centerville, UT 84014, Telephone 1-800-772-7976. The price quoted by the manufacturer for the CAT-350 Crash Cushion Attenuating Terminal, FOB Centerville, Utah is \$2,850, not including sales tax.

The above price will be firm for orders placed on or before July 31, 2002, provided delivery is accepted within 90 days after the order is placed.

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 crash cushion (Type CAT) conforms with the contract plans and specifications, conforms to the prequalified design and material requirements, and was manufactured in conformance with the approved quality control program.

The crash cushion (Type CAT) shall be installed in conformance with the manufacturer's installation instructions and these requirements. The steel foundation tubes with soil plates attached, shall be, at the Contractor's option, either driven, with or without pilot holes, or placed in drilled holes. Space around the steel foundation tubes shall be backfilled with selected earth, free of rock, placed in layers approximately 100 mm thick and each layer shall be moistened and thoroughly compacted. Wood posts shall be inserted into the steel foundation tubes by hand. Before the wood posts are inserted, the inside surfaces of the steel foundation tubes to receive the wood posts shall be coated with a grease which will not melt or run at a temperature of 65°C or less. The edges of the wood posts may be slightly rounded to facilitate insertion of the post into the steel foundation tubes.

Surplus excavated material remaining after the crash cushion (Type CAT) and backup have been constructed shall be disposed of in a uniform manner along the adjacent roadway where designated by the Engineer.

Crash cushion (Type CAT) and crash cushion (Type CAT) backup will be measured as units determined from actual count in place in the completed work.

The contract unit prices paid for crash cushion (Type CAT) and for crash cushion (Type CAT) backup shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in furnishing and installing crash cushion (Type CAT) and crash cushion (Type CAT) backup, complete in place, including excavation, backfill, and disposal of surplus material, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

**ENGINEER'S ESTIMATE  
02-2618U4**

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	M3	525		
42 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	M3	335		
43	198001	IMPORTED BORROW	M3	73 700		
44	198200	SUBGRADE ENHANCEMENT FABRIC	M2	24 000		
45	200001	HIGHWAY PLANTING	LS	LUMP SUM	LUMP SUM	
46 (S)	203003	STRAW (EROSION CONTROL)	TONN	22		
47 (S)	203014	FIBER (EROSION CONTROL)	KG	4400		
48	BLANK					
49 (S)	203024	COMPOST (EROSION CONTROL)	KG	18 700		
50 (S)	203045	PURE LIVE SEED (EROSION CONTROL)	KG	490		
51 (S)	203056	COMMERCIAL FERTILIZER (EROSION CONTROL)	KG	830		
52 (S)	203061	STABILIZING EMULSION (EROSION CONTROL)	KG	750		
53	208000	IRRIGATION SYSTEM	LS	LUMP SUM	LUMP SUM	
54	208742	200 MM CORRUGATED STEEL PIPE CONDUIT (1.63 MM THICK)	M	97		
55 (S)	209503	BOOSTER PUMP SYSTEM	EA	1		
56	250201	CLASS 2 AGGREGATE SUBBASE	M3	5880		
57	260201	CLASS 2 AGGREGATE BASE	M3	8560		
58	390155	ASPHALT CONCRETE (TYPE A)	TONN	13 900		
59	394002	PLACE ASPHALT CONCRETE (MISCELLANEOUS AREA)	M2	98		
60	394040	PLACE ASPHALT CONCRETE DIKE (TYPE A)	M	580		

**ENGINEER'S ESTIMATE  
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Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
101	721420	CONCRETE (DITCH LINING)	M3	22		
102 (S-F)	721810	SLOPE PAVING (COBBLE)	M2	620		
103	729010	ROCK SLOPE PROTECTION FABRIC	M2	370		
104	731502	MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	M3	83		
105 (F)	750001	MISCELLANEOUS IRON AND STEEL	KG	101		
106 (S)	021460	FRAME AND GRATE (TYPE 600-12X)	EA	16		
107 (S)	021461	FRAME AND GRATE (TYPE 900R)	EA	8		
108 (S)	800051	FENCE (TYPE WM, METAL POST)	M	800		
109	800391	CHAIN LINK FENCE (TYPE CL-1.8)	M	44		
110 (S)	801274	4.9 M WIRE MESH GATE	EA	2		
111	820107	DELINEATOR (CLASS 1)	EA	63		
112	820112	MARKER (CULVERT)	EA	30		
113	832001	METAL BEAM GUARD RAILING	M	48		
114 (S-F)	833032	CHAIN LINK RAILING (TYPE 7)	M	147		
115 (F)	833142	CONCRETE BARRIER (TYPE 26 MODIFIED)	M	148		
116 (S)	839220	DOUBLE METAL BEAM GUARD RAILING (WOOD POST)	M	31		
117 (S)	839551	TERMINAL SECTION (TYPE B)	EA	4		
118 (S)	839568	TERMINAL ANCHOR ASSEMBLY (TYPE SFT)	EA	4		
119 (S)	839601	CRASH CUSHION (TYPE CAT)	EA	2		
120 (S)	840515	THERMOPLASTIC PAVEMENT MARKING	M2	160		

**ENGINEER'S ESTIMATE  
02-2618U4**

Item	Item Code	Item	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121 (S)	840560	THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)	M	7800		
122 (S)	850122	PAVEMENT MARKER (RETROREFLECTIVE)	EA	390		
123 (S)	860251	SIGNAL AND LIGHTING (LOCATION 1)	LS	LUMP SUM	LUMP SUM	
124 (S)	860252	SIGNAL AND LIGHTING (LOCATION 2)	LS	LUMP SUM	LUMP SUM	
125 (S)	860401	LIGHTING	LS	LUMP SUM	LUMP SUM	
126	860797	ELECTRICAL SERVICE (IRRIGATION)	LS	LUMP SUM	LUMP SUM	
127	860798	BOOSTER PUMP ELECTRICAL SYSTEM	LS	LUMP SUM	LUMP SUM	
128 (S)	860930	TRAFFIC MONITORING STATION	LS	LUMP SUM	LUMP SUM	
129	BLANK					
130	074028	TEMPORARY FIBER ROLL	M	100		
131	074029	TEMPORARY SILT FENCE	M	100		
132	074030	TEMPORARY STRAW BALE	M	100		
133	999990	MOBILIZATION	LS	LUMP SUM	LUMP SUM	

**TOTAL BID: \_\_\_\_\_**