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March 30, 2010

03-Sut-99-10.9/14.7
03-1A4324
SARRA-P099(529)E

Addendum No. 3

Dear Contractor:

This addendum is being issued to the contract for CONSTRUCTION ON STATE HIGHWAY IN SUTTER COUNTY NEAR NICOLAUS FROM POWER LINE ROAD TO 0.1 MILE SOUTH OF LAUREL AVENUE.

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, April 7, 2010.

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 9, 12, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 35, 38, 43, 44, 64, 66, 68, 69, 70, 71, 72, 73, 74, 75, 78, 80, 82, 90, 91, 108, 120, 121, 129, 130, 131, 181, 205, 207, 208, 227, 228, 229, 230, 292, 295, 296 and 297 are revised. Copies of the revised sheets are attached for substitution for the like-numbered sheets.

Project Plan Sheet 82A is added. A copy of the added sheet is attached for addition to the project plans.

In the Special Provisions, Section 5-1.11, "SUPPLEMENTAL PROJECT INFORMATION," the following items are added:

- "16. State Lands Commission permit 1766.9
- 17. United States Fish and Wildlife Service Biological Opinion
- 18. ABC (Bubble Curtain) Sample Detail"

In the Special Provisions, Section 5-1.12, "NATURAL RESOURCES PROTECTION PLAN," is revised as attached.

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In the Special Provisions, Section 10-1.01, "ORDER OF WORK," the following paragraphs are added after the first paragraph:

"The Contractor shall obtain all necessary permits and approvals from Sutter County including, but not limited to, borrow areas and haul roads. The Contractor shall provide the Engineer documentation that all necessary permits and approvals have been obtained from Sutter County prior to beginning construction.

Exclusion of bats from the existing Feather River Bridge must occur between August 15 and October 31. Exclusion of birds must occur outside the anticipated nesting dates. Materials used for the exclusion of birds and bats should be removed immediately after work on the existing Feather River Bridge is complete or as directed by the Engineer.

The Department will apply for a variance from the Central Valley Flood Protection District (CVFPD) for work proposed between November 1 and April 15. CVFPD is authorized to grant variances in 2 week increments. The Contractor shall be responsible for preparing a detailed schedule for any work proposed during this time frame and submit any other required information to the Engineer prior to September 1. Additionally the Contractor shall be responsible for preparing an evacuation plan that will be submitted with the variance request.

Full compensation for preparing a detailed schedule, evacuation plan, and any other additional information required for the variance 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 10-1.031, "AQUATIC SOUND ATTENUATION SYSTEM," is added as attached.

In the Special Provisions, Section 10-1.30, "EXISTING HIGHWAY FACILITIES," subsection "ACCESS OPENING, SOFFIT," is deleted.

In the Special Provisions, Section 10-1.52, "PILING," subsection "MEASUREMENT AND PAYMENT (PILING)," the fourth paragraph is revised as follow:

"Full compensation for cleaning out the open ended steel shells prior to installing reinforcement and filling with concrete, for disposing of materials removed from the inside of the pile, and for placing seal course concrete due to condition where it is impossible or inadvisable in the opinion of the Engineer to dewater the open ended cast-in-steel-shell concrete piling, and dewatering the open ended steel shells, as shown on the plans, as specified in these special provisions, and as directed by the Engineer, shall be considered as included in the contract unit price paid for drive pile, and no additional compensation will be allowed therefor."

In the Special Provisions, Section 10-1.54, "CONCRETE STRUCTURES," subsection "MEASUREMENT AND PAYMENT," the following paragraph is added after the last paragraph:

"Full compensation for furnishing and installing access opening covers in soffits of new cast-in-place box girder bridges shall be considered as included in the contract price paid per cubic yard for structural concrete, bridge and no separate payment will be made therefor."

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In the Bid book, in the "Bid Item List," Items 70, 134, 136, 149, 157 and 158 are revised, Item 50 is deleted as attached.

To Bid book holders:

Replace pages 5, 6, 9 and 10 of the "Bid Item List" in the Bid book with the attached revised pages 5, 6, 9 and 10 of the Bid Item List. The revised Bid Item List is to be used in the bid.

Attached is a copy of the Information Handout State Lands Commission Permit, United States Fish and Wildlife Service Biological Opinion and Bubble Curtain Sample Detail.

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 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/03/03-1A4324

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,

ORIGINAL SIGNED BY

IGNACIO SANCHEZ DEL REAL
Acting Office Chief
Office of Plans, Specifications & Estimates
Office Engineer
Division of Engineering Services

Attachments

5-1.12 NATURAL RESOURCES PROTECTION PLAN

GENERAL

Summary

This work includes preparing a plan to protect biological resources and completing the items of work described in the plan.

General Requirements

Prepare a Natural Resources Protection Plan that defines measures you will take to maintain project compliance with all environmental laws, regulations, and PLAC requirements.

Comply with the requirements of "Biological Resource Information Program."

This project is within or near habitat for regulated species:

Giant garter snake, <i>Thamnophis gigas</i>
Chinook Salmon, <i>Oncorhynchus tshawytscha</i>
Steelhead, <i>Oncorhynchus mykiss</i>
Green Sturgeon, <i>Acipenser medirostris</i>
Swainson's Hawk, <i>Buteo swainsonii</i>
Bats
Birds

Quality Assurance

The Natural Resources Protection Plan must be prepared and signed by a biologist knowledgeable of the species or habitats discussed and address species protection measures.

Quality Control

At minimum, the Natural Resources Protection Plan includes:

- List of species and habitats addressed in the plan
- List of protocols for species protection surveys, with full protocols in an appendix
- Protection measures for regulated species likely to occur in the project site
- Protective radii for regulated species encounters
- Implementation plan for protection measures, including monitoring schedule
- Monitoring duties
- Justification for each instance where protection measures and an implementation plan are not necessary for a regulated species
- Schedule for inspecting protection measures
- Schedule for maintaining protection measures
- Schedule for submittal of monitoring reports
- Response plan for instances where regulated species are encountered
- Content and schedule for a Biological Resource Information Program
- Protection measures required within each LOP area
- Location and schedule of fence installation and removal, with identification of species or habitats to be protected by each Environmentally Sensitive Area and Biological Monitoring Area
- Protection measures required within each Biological Monitoring Area
- Preparation of a Migratory bird protection plan for protected bird species to be surveyed for within 500 feet of construction activities (except *Buteo swainsonii* which will be surveyed for in a ½ mile radius). This plan will be prepared even if no birds are found within 500 feet of construction activities. This plan will include, but is not limited to including the following:
 - Survey schedule
 - Protection measures
 - Nesting prevention measures
 - Nesting prevention measures for bridge nesting birds
 - Implementation and monitoring plan
 - Report submittal schedule
- Preparation of a bat protection plan for the existing bridge. This plan will include but is not limited to including the following:
 - Survey schedule
 - Protection measures, nesting prevention measures including one-way doors
 - Implementation and monitoring plan
 - Report submittal schedule

The following Appendices do not have to be prepared by a biologist but do have to be part of the Natural Resource Protection Plan before acceptance of the plan:

As an Appendix to the Natural Resource Protection Plan a 401 Implementation plan will be prepared by the contractor and approved by the Engineer. This plan will identify measures that will address the requirements of the 401 including, but not limited to the following:

- Worker awareness plan
- Monitoring and reporting plan
- Cost Breakdown – Determine quantities required to complete work. Submit to the Engineer the quantities as part of the cost breakdown. The sum of the amounts for the units of work listed in the cost breakdown must equal the contract lump sum price bid for the work. Include overhead and profit for each unit of work listed in the cost breakdown. If mobilization is a bid item, include bond premium, temporary construction facilities, and material plants into the mobilization bid item, otherwise, include in each unit of work listed in the cost breakdown. Do not include costs for traffic control system in the cost breakdown. The cost breakdown may be used to determine partial payment and to calculate payment adjustments for additional costs incurred due to a change order. If a change order increases or decreases the quantities, payment adjustment may be determined under Section 4-1.03D, "Extra Work." Water sampling and analysis for in-water work and related activities as specified in CRWQB 401 permit (WDID#5A51CR00047) will be considered as part of the Natural Resource Protection Plan and will be included in the contract lump sum price

As an Appendix to the Natural Resource Protection Plan a Bridge Construction Plan (Bridge CP) will be prepared to address the measures identified in the Biological Opinion (NOAA) and the 1602 Streambed Alteration Agreement (CDFG). This plan will need to be approved by NOAA and CDFG prior to acceptance of the Natural Resource Protection Plan. The updated Bridge CP must be available onsite at all times. The Bridge CP shall include but is not limited to the following:

- Measures to coordinate with the Caltrans bioacoustical monitor
- A detailed schedule of pile driving activities for piers 3 thru 8
- A Plan B, which is a plan that will be implemented when the peak dB threshold has been exceeded
- Design and construction of the proposed attenuation casing and bubble curtain
- A commitment to have the most current Bridge CP onsite at all times
- A commitment to notify the Engineer 48 hours prior to any in-water work
- Measure(s) stating that an attenuation casing with a confined bubble curtain will be used for all in-water, permanent piles (piers 4,5,6 & 7)
- Measure(s) stating that an attenuation casing with a confined bubble curtain must be used for all in-water temporary piles (equal to or greater than 24" diameter) including but not limited to bent piles and trestle piles that are driven between June 15 and July 14. From July 15 to October 1 the temporary bent piles and trestle piles will not require an attenuation casing with confined bubble curtain

As an Appendix to the Natural Resources Protection Plan a "Flood Evacuation Plan" as referenced in the 1602 Streambed Alteration Agreement will be prepared and approved by CDFG and any other resource agencies that reference the "Flood Evacuation Plan" in their permits or agreements. Prior to accepting the Natural Resource Protection Plan the "Flood Evacuation Plan" will be drafted. Working in the floodplain between October 15 and May 1 is prohibited without an approved plan. This plan shall include but is not limited to including the following:

- Agency contact information
- Timelines
- Equipment and material list and a methodology for removing those materials within 24 hrs
- Monitoring and reporting of potential flood threats

MEASUREMENT AND PAYMENT

The contract lump sum price paid for Natural Resources Protection Plan includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in Natural Resources Protection Plan as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

10-1.031 AQUATIC SOUND ATTENUATION SYSTEM

GENERAL

Summary

The work consists of furnishing, installing, operating, monitoring, maintaining, and removing an aquatic sound attenuation system to reduce underwater sound generated by blasting or driving piles in the water.

Approved aquatic sound attenuation systems include:

1. Air bubble curtain used with attenuation casing

With Approval from National Marine Fisheries Service and the California Department of Fish and Game the following aquatic sound attenuation systems may be used.

1. Dewatered attenuation casing
2. Dewatered cofferdam

Working Drawings

Submit working drawings and the supplement for the sound attenuation system to the Engineer for approval in conformance with the provisions in Section 5-1.02, "Plans and Working Drawings," of the Standard Specifications, except as otherwise noted.

Working drawings and the supplement shall be signed by a mechanical engineer registered in the State of California. Working drawings shall include the following:

1. Complete details of the system including mechanical and structural details.
2. Details of anchorage components, air compressors, supply lines, distribution manifolds, aeration pipes and frame.
3. Details of proposed means of isolating noise-producing systems on the driving platform.
4. Details of meters, gauges, and recording devices.
5. Details of the manufacturer's recommendations for installation of the flow meters in conditions of laminar flow and nonlaminar flow.

The supplement to the working drawings shall include the following:

1. Documentation of previous successful use of the system to be used for sound attenuation on this project.
2. Materials list including the name of the manufacturer and the source, model number, description, and standard of manufacture.
3. Manufacturer's descriptive data and catalog cuts for all products proposed for the system including air compressors.

Submit the working drawings and supplement to the Engineer within 20 working days of approval of the contract. Allow the Engineer 20 working days to review the submittal. If revisions are required by the Engineer, revise and resubmit the working drawings and supplement within 15 working days of receipt of the Engineer's comments. Allow the Engineer 5 working days to review the revisions.

Cost Break-Down

The cost break-down shall conform to the provisions in Section 86-1.03, "Cost Break-Down," of the Standard Specifications and to these special provisions.

Furnish a cost break-down for the contract lump sum item of aquatic sound attenuation system.

The cost break-down shall be submitted to the Engineer for approval with the working drawings and shall follow the same approval timeline. The cost break-down shall be approved, in writing, by the Engineer before any partial payment for the item of aquatic sound attenuation system will be made.

The cost break-down shall include the following items:

1. Working drawing preparation.
2. Installation, inspection, maintenance, and removal of the system at each location.

Inspection

Make provisions for the Engineer to inspect the sound attenuation system for proper operation before each deployment and as necessary during deployment. Proper operation during deployment will be determined by observation of the gauges in the monitoring station and by other methods determined by the Engineer.

Keep a continuous electronic log of air pressure and air flow meters and gauges when the system is operating for driving permanent 48 inch or larger diameter steel piling. Gauges shall be installed above the water line and shall be easily accessible to the Engineer. Readings shall be logged every minute and at times when variation in the readings exceed 10 percent, as determined by the Engineer. Maintain a graphical plot showing the variation of the meter readings with time.

Air pressure and air flow meters and gauges shall be calibrated by a private laboratory approved by the Engineer prior to use in the air bubble curtain system. Meters shall be accurate to within 2 percent.

Monitor the condition of the sound attenuation system and prepare inspection reports daily during pile installation operations and no less than every other day during periods of no activity.

MATERIAL

Air Bubble Curtain

An air bubble curtain system is generally composed of an oil free air compressor, supply lines to deliver the air, distribution manifolds or headers, perforated aeration pipes, and a frame. The frame facilitates transport and placement of the system, keeps the aeration pipes stable, and provides ballast to counteract the buoyancy of the aeration pipes in operation.

The air bubble curtain system shall conform to the following:

1. Air bubble system shall consist of multiple and concentric layers of perforated aeration pipes stacked vertically in accordance with the following:

Water Depth (ft)	No. of Layers
0 to less than 15	2
15 to less than 30	4
30 to less than 50	7
50 to less than 65	10
65 to less than 80	13
80 to less than 100	16
100 to less than 115	19

2. Pipes in any layer shall be arranged in a geometric pattern, which shall allow for the pile driving or blasting operation to be completely enclosed by bubbles for the full depth of the water column and for a radial dimension of no more than 20-inches as measured from the outside surface of the pile.
3. The lowest layer of perforated aeration pipes shall be designed to ensure contact with the mudline without sinking into the mud.
4. The system shall provide a bubble flux of 70 ft³ (cubic feet) of air per minute per linear foot of pipe in each layer. Air holes shall be 1/16 inch in diameter and shall be spaced approximately 3/4 inch apart. Air holes shall be placed in 4 adjacent rows along the pipe to provide uniform bubble flux.
5. Meters shall be provided in accordance with the following:

5.1. Pressure meters shall be installed at all inlets to aeration pipelines and at points of lowest pressure in each branch of the aeration pipeline.

Attenuation Casing

Attenuation casings shall consist of steel shells encompassing piles and shall conform to the following requirements:

1. Dewatered or equipped with an air bubble curtain between the pile and the casing prior to pile driving.
2. Of sufficient strength to withstand the loads from installation, removal, water and earth pressures.
3. A minimum of 24 inches greater in diameter than the diameter of the pile and shall be centered at the center of the pile it encompasses.
4. Extending from above the water line to at least 20-inches below the original ground.

Cofferdam

Cofferdams shall conform to the following requirements:

1. Continuous (no openings in the sides).
2. Made of concrete or steel members.
3. Extending from above the water line to at least 20-inches below the original ground.
4. Dewatered prior to pile driving.

CONSTRUCTION

The sound attenuation system is not required for pile or casing installation using a vibratory hammer.

The approved sound attenuation system shall be operating prior to beginning pile driving at any given pile location.

If the attenuation system fails, as determined by the Engineer, pile driving shall immediately stop. Piling driving shall not resume until the attenuation system at that location is again operating in conformance with the requirements of this section, as determined by the Engineer. Examples of failure of the attenuation system include:

1. The pressure or flow rate in any meter falls below 90 percent of its operating value during the pile driving or blasting operation.
2. During inspection of the perforated pipe the Engineer determines that erosion of the holes or debris has clogged the holes that will degrade the performance of the system.
3. Excessive fish mortality.

Install, maintain, monitor, operate and remove the attenuation system taking into account the site conditions including configuration of the river bottom; water velocity; water surface conditions; air and water temperatures; and the requirements of pile installation including anchoring, moving, and dismantling the system, and positioning of pile and pile driving equipment relative to the sound attenuation system.

The water level at the site is expected to rise and fall significantly. The design of the system shall ensure that the attenuation system extends from from the lake bottom to the water surface during any water level condition.

Pile driving equipment shall be isolated from the platform it sits on. The isolation shall be such that noise from the pile driving operation is not transmitted through the platform to the water. The platform supporting the pile driving equipment is not required to be contained within the attenuation system.

Provide means to prevent direct or reflected light from pile driving operations from shining directly into the water. At least 15 minutes prior to and during pile driving operations, the Contractor shall not shine light directly into the water in areas adjacent to piles being driven.

Dewatering shall conform to the provisions in "Construction Site Management" of these special provisions.

MEASUREMENT AND PAYMENT

Full compensation for aquatic sound attenuation system including all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in aquatic sound attenuation regardless of which method is chosen, complete in place, including working drawings and the supplement submittals for the sound attenuation system, maintaining, monitoring, recording, and removing the attenuation system, as specified in these special provisions, and as directed by the Engineer shall be considered as included in the contract lump sum price paid for Natural Resources Protection Plan and no additional compensation will be allowed therefor.

Full compensation for isolating the pile driving equipment from the platform and for preventing light from shining into the water shall be considered as included in the contract lump sum price paid for Natural Resources Protection Plan and no additional compensation will be allowed therefor.

BID ITEM LIST
03-1A4324

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
41	150821	REMOVE HEADWALL	EA	4		
42	150823	REMOVE DOWNDRAIN	EA	6		
43	017062	REMOVE SIPHON	EA	2		
44	017063	REMOVE WINGWALL	EA	1		
45	150857	REMOVE ASPHALT CONCRETE SURFACING	SQFT	132,170		
46	152320	RESET ROADSIDE SIGN	EA	20		
47	152381	RELOCATE GATE	EA	1		
48	152390	RELOCATE ROADSIDE SIGN	EA	15		
49	153103	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	86,300		
50	BLANK					
51	160101	CLEARING AND GRUBBING	LS	LUMP SUM	LUMP SUM	
52	190101	ROADWAY EXCAVATION	CY	63,800		
53	190110	LEAD COMPLIANCE PLAN	LS	LUMP SUM	LUMP SUM	
54 (F)	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	670		
55 (F)	192020	STRUCTURE EXCAVATION (TYPE D)	CY	98		
56 (F)	193003	STRUCTURE BACKFILL (BRIDGE)	CY	355		
57	193114	SAND BACKFILL	CY	350		
58	198001	IMPORTED BORROW	CY	103,000		
59	198007	IMPORTED MATERIAL (SHOULDER BACKING)	TON	410		
60	203001	EROSION CONTROL (BLANKET)	SQYD	410		

BID ITEM LIST
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Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
61	203012	EROSION CONTROL (DRILL SEED)	SQYD	226,000		
62	203016	EROSION CONTROL (TYPE D)	SQYD	74,700		
63	203021	FIBER ROLLS	LF	84,700		
64	203025	COMPOST, INCORPORATE	SQYD	7,970		
65	203026	MOVE-IN/MOVE-OUT (EROSION CONTROL)	EA	18		
66	260201	CLASS 2 AGGREGATE BASE	CY	54,400		
67	390131	HOT MIX ASPHALT	TON	54,000		
68	390133	HOT MIX ASPHALT (TYPE B)	TON	925		
69	390134	HOT MIX ASPHALT (OPEN GRADED)	TON	190		
70	390138	RUBBERIZED HOT MIX ASPHALT (OPEN GRADED)	TON	7,650		
71	391007	PAVING ASPHALT (BINDER, GEOSYNTHETIC PAVEMENT INTERLAYER)	TON	9		
72	393003	GEOSYNTHETIC PAVEMENT INTERLAYER	SQYD	6,750		
73	394060	DATA CORE	LS	LUMP SUM	LUMP SUM	
74	394074	PLACE HOT MIX ASPHALT DIKE (TYPE C)	LF	450		
75	394077	PLACE HOT MIX ASPHALT DIKE (TYPE F)	LF	3,140		
76	394090	PLACE HOT MIX ASPHALT (MISCELLANEOUS AREA)	SQYD	29		
77	397005	TACK COAT	TON	110		
78	042113	FURNISH 48" STEEL PIPE PILING	LF	596		
79	042114	DRIVE 48" STEEL PIPE PILE	EA	4		
80	490746	FURNISH PILING (CLASS 140) (ALTERNATIVE W)	LF	3,258		

BID ITEM LIST**03-1A4324**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
121	665023	24" CORRUGATED STEEL PIPE (.079" THICK)	LF	1,350		
122	665717	18" SLOTTED CORRUGATED STEEL PIPE (.079" THICK)	LF	89		
123	690123	24" CORRUGATED STEEL PIPE DOWNDRAIN (.079" THICK)	LF	74		
124	691004	10" CORRUGATED STEEL FLUME DOWNDRAIN	LF	310		
125	692104	10" TAPERED INLET	EA	9		
126	692209	24" DOWNDRAIN SLIP JOINT	EA	3		
127	692309	24" ANCHOR ASSEMBLY	EA	8		
128	692364	10" FLUME ANCHOR ASSEMBLY	EA	34		
129	703460	24" WELDED STEEL PIPE CASING (BRIDGE)	LF	136		
130	705015	24" STEEL FLARED END SECTION	EA	1		
131	705204	18" CONCRETE FLARED END SECTION	EA	4		
132	705206	24" CONCRETE FLARED END SECTION	EA	6		
133	719598	CLASS 4 CONCRETE (BACKFILL)	CY	28		
134	721007	ROCK SLOPE PROTECTION (1/4 TON, METHOD B)	CY	3,990		
135	721008	ROCK SLOPE PROTECTION (LIGHT, METHOD B)	CY	310		
136	729010	ROCK SLOPE PROTECTION FABRIC	SQYD	3,840		
137 (F)	750001	MISCELLANEOUS IRON AND STEEL	LB	5,203		
138 (F)	750041	ISOLATION CASING	LB	44,655		
139 (F)	750505	BRIDGE DECK DRAINAGE SYSTEM	LB	15,831		
140	800320	CHAIN LINK FENCE (TYPE CL-4)	LF	50		

BID ITEM LIST**03-1A4324**

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Item Total
141	820107	DELINEATOR (CLASS 1)	EA	88		
142	017067	HIGHWAY POST MARKER	EA	8		
143	017068	CONCRETE BARRIER MARKER (NON-IMPACTABLE)	EA	61		
144	820151	OBJECT MARKER (TYPE L-1)	EA	2		
145	832003	METAL BEAM GUARD RAILING (WOOD POST)	LF	2,950		
146	832070	VEGETATION CONTROL (MINOR CONCRETE)	SQYD	1,860		
147 (F)	833128	CONCRETE BARRIER (TYPE 25 MODIFIED)	LF	8		
148	839302	SINGLE THRIE BEAM BARRIER (WOOD POST)	LF	25		
149	839311	DOUBLE THRIE BEAM BARRIER (WOOD POST)	LF	50		
150	839541	TRANSITION RAILING (TYPE WB)	EA	7		
151	839581	END ANCHOR ASSEMBLY (TYPE SFT)	EA	2		
152	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	2		
153	839585	ALTERNATIVE FLARED TERMINAL SYSTEM	EA	4		
154	839603	CRASH CUSHION (ADIEM)	EA	2		
155	839701	CONCRETE BARRIER (TYPE 60)	LF	170		
156	017069	CONCRETE BARRIER (TYPE 60 MODIFIED)	LF	92		
157	839703	CONCRETE BARRIER (TYPE 60C)	LF	2,530		
158	017070	CONCRETE BARRIER (TYPE 60C MODIFIED)	LF	44		
159 (F)	839720	CONCRETE BARRIER (TYPE 732)	LF	6,662		
160	839723	CONCRETE BARRIER (TYPE 732B)	LF	150		