



**FORT COLUMBIA TIDAL RECONNECTION PROJECT  
US 101 MP 3.24  
CHINOOK, WASHINGTON  
PACIFIC COUNTY**

**CONSTRUCTION SPECIFICATIONS  
SPECIAL PROVISIONS**



**TETRA TECH, INC.**  
1020 SW Taylor Street, Suite 530  
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August 2010

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US 101 MP 3.24  
CHINOOK, WASHINGTON  
PACIFIC COUNTY**



EXPIRES: 09/25/2011

**CONSTRUCTION SPECIFICATIONS  
SPECIAL PROVISIONS**

**COLUMBIA RIVER ESTUARY RIVER TASKFORCE (CREST)  
750 COMMERCIAL STREET, ROOM 205  
ASTORIA, OREGON 97103  
503-325-0435**

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## STANDARD SPECIFICATIONS

### INTRODUCTION

The following Amendments and Special Provisions shall be used in conjunction with the 2010 Standard Specifications for Road, Bridge, and Municipal Construction.

### AMENDMENTS TO THE STANDARD SPECIFICATIONS

The following Amendments to the Standard Specifications are made a part of this contract and supersede any conflicting provisions of the Standard Specifications. For informational purposes, the date following each Amendment title indicates the implementation date of the Amendment or the latest date of revision.

Each Amendment contains all current revisions to the applicable section of the Standard Specifications and may include references which do not apply to this particular project.

### AMENDMENTS NOT RELATED TO PROJECT SCOPE OF WORK

The following is a list of current Amendments to the Standard Specifications which do not relate to any items in this project's scope of work and have not been included in this document. If any of these amendments do become necessary for the progress of the work, the Contracting Agency will provide a copy to the Contractor. Copies of all current amendments are also available at the Washington State Department of Transportation internet web site at <http://www.wsdot.wa.gov/>.

- SECTION 1-02 BID PROCEDURES AND CONDITIONS**, January 4, 2010.
- SECTION 5-01 CEMENT CONCRETE PAVEMENT REHAB.**, Jan. 4, 2010.
- SECTION 5-05 CEMENT CONCRETE PAVEMENT**, April 5, 2010
- SECTION 6-03 STEEL STRUCTURES**, April 5, 2010.
- SECTION 6-07 PAINTING**, April 5, 2010.
- SECTION 6-09 MODIFIED CONCRETE OVERLAYS**, January 4, 2010.
- SECTION 6-12 NOISE BARRIER WALLS**, April 5, 2010.
- SECTION 6-17 PERMANENT GROUND ANCHORS**, January 4, 2010.
- SECTION 7-04 STORM SEWERS**, January 4, 2010.
- SECTION 8-03 IRRIGATION SYSTEMS**, January 4, 2010.
- SECTION 8-08 RUMBLE STRIPS**, April 5, 2010.
- SECTION 8-14 CEMENT CONCRETE SIDEWALKS**, April 5, 2010.
- SECTION 8-17 IMPACT ATTENUATOR SYSTEMS**, April 5, 2010.
- SECTION 8-20 ILLUMINATION, TRAFFIC SIGNAL SYSTEMS**, April 5, 2010.
- SECTION 8-21 PERMANENT SIGNING**, January 4, 2010.
- SECTION 9-08 PAINTS AND RELATED MATERIALS**, January 4, 2010
- SECTION 9-15 IRRIGATION SYSTEM**, January 4, 2010.
- SECTION 9-22 MONUMENT CASE**, January 4, 2010.
- SECTION 9-29 ILLUMINATION, SIGNAL, ELECTRICAL**, April 5, 2010.
- SECTION 9-30 WATER DISTRIBUTION MATERIALS**, January 4, 2010

## **SECTION 1-01 DEFINITIONS AND TERMS**

### **1-01.3 Definitions**

(September 12, 2008 APWA GSP)

This Section is supplemented with the following:

All references in the Standard Specifications to the terms "State", "Department of Transportation", "Washington State Transportation Commission", "Commission", "Secretary of Transportation", "Secretary", "Headquarters", and "State Treasurer" shall be revised to read "Contracting Agency". All references to "State Materials Laboratory" shall be revised to read "Contracting Agency designated location". The venue of all causes of action arising from the advertisement, award, execution, and performance of the contract shall be in the Superior Court of the County where the Contracting Agency's headquarters are located.

## **SECTION 1-06 CONTROL OF MATERIALS**

April 5, 2010

### **1-06.1 Approval of Materials Prior to Use**

This section is supplemented with the following new sub-section:

#### **1-06.1(4) Fabrication Inspection Expense**

In the event the Contractor elects to have items fabricated beyond 300 miles from Seattle, Washington the Contracting Agency will deduct from payment due the Contractor costs to perform fabrication inspection on the following items:

- Steel Bridges and Steel Bridge components
- Cantilever Sign Structures and Sign Bridges
- Cylindrical, Disc, Pin, and Spherical Bearings
- Modular Expansion Joints
- Additional items as may be determined by the Engineer.

The deductions for fabrication inspection costs will be as shown in the Payment Table below.

<b>Zone</b>	<b>Place of Fabrication</b>	<b>Reduction in Payment</b>
1	Within 300 airline miles from Seattle	None
2	Between 300 and 3,000 airline miles from Seattle	\$700.00 per *inspection day
3	Over 3,000 airline miles from Seattle	\$1,000 per *inspection day, but not less than \$2,500 per trip

\*Note - An inspection day includes any calendar day or portion of a calendar day spent inspecting at or traveling to and from a place of fabrication.

Where fabrication of an item takes place in more than one zone, the reduction in payment will be computed on the basis of the entire item being fabricated in the furthest of zones where any fabrication takes place on that item.

The rates for Zone 2 and 3 shall be applied for the full duration time of all fabrication inspection activities to include but not limited to; plant approvals, prefabrication meetings, fabrication, coatings and final inspection.

**1-06.2(2)A General**

Table 2 “Pay Factors” on page 1-39 is revised to read:

**Table 2  
 Pay Factors**

PAY FACTOR	Minimum Required Percent of Work Within Specification Limits for a Given Factor (PU + PL) – 100															
	Category	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10 to n=11	n=12 to n=14	n=15 to n=17	n=18 to n=22	n=23 to n=29	n=30 to n=42	n=43 to n=66	n=67 to ∞
1.05						100	100	100	100	100	100	100	100	100	100	100
1.04					100	99	97	95	96	96	96	97	97	97	97	97
1.03				100	98	96	94	92	93	93	94	95	95	96	96	
1.02				99	97	94	91	89	90	91	92	93	93	94	94	
1.01	100	100	100	98	95	92	89	87	88	89	90	91	92	92	93	
1.00	69	75	78	80	82	83	84	85	86	87	88	89	90	91	92	
0.99	66	72	76	78	80	81	82	83	84	85	86	87	89	90	91	
0.98	64	70	74	76	78	79	80	81	82	84	85	86	87	88	90	
0.97	63	68	72	74	76	77	78	79	81	82	83	84	86	87	88	
0.96	61	67	70	72	74	75	76	78	79	81	82	83	84	86	87	
0.95	59	65	68	71	72	74	75	76	78	79	80	82	83	84	86	
0.94	58	63	67	69	71	72	73	75	76	78	79	80	82	83	85	
0.93	57	62	65	67	69	71	72	73	75	76	78	79	80	82	84	
0.92	55	60	63	66	68	69	70	72	73	75	76	78	79	81	82	
0.91	54	59	62	64	66	68	69	70	72	74	75	76	78	79	81	
0.90	53	57	61	63	65	66	67	69	71	72	74	75	77	78	80	
0.89	51	56	59	62	63	65	66	68	69	71	72	74	75	77	79	
0.88	50	55	58	60	62	64	65	66	68	70	71	73	74	76	78	
0.87	49	53	57	59	61	62	63	65	67	68	70	71	73	75	77	
0.86	48	52	55	58	59	61	62	64	66	67	69	70	72	74	76	

(Continued)

Table 2 “Pay Factors” on page 1-40 is revised to read:

**Table 2**  
**Pay Factors (continued)**

PAY FACTOR	Minimum Required Percent of Work Within Specification Limits for a Given Factor $(P_U + P_L) - 100$														
	n=3	n=4	n=5	n=6	n=7	n=8	n=9	n=10 to n=11	n=12 to n=14	n=15 to n=17	n=18 to n=22	n=23 to n=29	n=30 to n=42	n=43 to n=66	n=67 to ∞
0.85	46	51	54	56	58	60	61	62	64	66	67	69	71	72	75
0.84	45	49	53	55	57	58	60	61	63	65	66	68	70	71	73
0.83	44	48	51	54	56	57	58	60	62	64	65	67	69	70	72
0.82	43	47	50	53	54	56	57	59	61	62	64	66	67	69	71
0.81	41	46	49	51	53	55	56	58	59	61	63	64	66	68	70
0.80	40	44	48	50	52	54	55	56	58	60	62	63	65	67	69
0.79	39	43	46	49	51	52	54	55	57	59	61	62	64	66	68
0.78	38	42	45	48	50	51	52	54	56	58	59	61	63	65	67
0.77	36	41	44	46	48	50	51	53	55	57	58	60	62	64	66
0.76	35	39	43	45	47	49	50	52	54	56	57	59	61	63	65
0.75	33	38	42	44	46	48	49	51	53	54	56	58	60	62	64
REJECT	Values Less Than Those Shown Above														
Reject Quality Levels Less Than Those Specified for a 0.75 Pay Factor															
Note: If the value of $(P_U + P_L) - 100$ does not correspond to a $(P_U + P_L) - 100$ value in this table, use the next smaller $(P_U + P_L) - 100$ value.															

**SECTION 1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

April 5, 2010

**1-07.13(4) Repair of Damage**

The last sentence in the first paragraph is revised to read:

For damage qualifying for relief under Sections 1-07.13(1), 1-07.13(2), 1-07.13(3), or 8-17.5, payment will be made in accordance with Section 1-09.4 using the estimated Bid item “Reimbursement for Third Party Damage”.

**1-07.16(2) Vegetation Protection and Restoration**

The second paragraph is revised to read:

Damage which may require replacement of vegetation includes torn bark stripping, broken branches, exposed root systems, cut root systems, poisoned root systems, compaction of surface soil and roots, puncture wounds, drastic reduction of surface roots or leaf canopy, changes in grade greater than 6-inches, or any other changes to the location that may jeopardize the survival or health of the vegetation to be preserved.

The third paragraph is revised to read:

When large roots of trees designated to be saved are exposed by the Contractor’s operation, they shall be wrapped with heavy, moist material such as burlap or canvas for protection and to prevent excessive drying. The material shall be kept moist and securely fastened until the roots are covered to finish grade. All material and fastening material shall be removed from the roots before covering. All roots 1-inch or larger in diameter, which are damaged, shall be pruned with a sharp saw or pruning shear. Damaged, torn, or ripped bark shall be removed as ordered by the Engineer at no additional cost to the Contracting Agency.

The fourth paragraph is revised to read:

Any pruning activity required to complete the Work as specified shall be performed by a Certified Arborist as designated by the Engineer.

## **SECTION 1-08 PROSECUTION AND PROGRESS**

April 5, 2010

### **1-08.1 Subcontracting**

The second and third sentences in the eighth paragraph are revised to read:

This Certification shall be submitted to the Project Engineer on WSDOT form 421-023, "Quarterly Report of Amounts Paid as MBE/WBE Participants", quarterly for the State fiscal quarters: January 1 through March 31, April 1 through June 30, July 1 through September 30, October 1 through December 31, and for any remaining portion of a quarter through Physical Completion of the Contract. The report is due 20 calendar days following the fiscal quarter end or 20-calendar days after Physical Completion of the Contract.

The last sentence in the ninth paragraph is revised to read:

When required, this "Quarterly Report of Amounts Credited as DBE Participation" is in lieu of WSDOT form 421-023, "Quarterly Report of Amounts Paid as MBE/WBE Participants".

### **1-08.5 Time for Completion**

The last two sentences in the first paragraph are revised to read:

When any of these holidays fall on a Sunday, the following Monday shall be counted a nonworking day. When the holiday falls on a Saturday, the preceding Friday shall be counted a nonworking day. The days between December 25 and January 1 will be classified as nonworking days.

## **SECTION 1-09 MEASUREMENT AND PAYMENT**

January 4, 2010

### **1-09.9 Payments**

The first paragraph is revised to read:

The basis of payment will be the actual quantities of Work performed according to the Contract and as specified for payment.

The Contractor shall submit a breakdown of the cost of lump sum Items to enable the Project Engineer to determine the Work performed on a monthly basis. Lump sum item breakdowns shall be submitted prior to the first progress payment that includes payment for the Bid Item in question. A breakdown is not required for lump sum items that include a basis for incremental payments as part of the respective Specification. Absent a lump sum breakdown the Project Engineer will make a determination based on information available. The Project Engineer's determination of the cost of work shall be final.

In the third paragraph, the second sentence is deleted.

## **SECTION 1-10 TEMPORARY TRAFFIC CONTROL**

April 5, 2010

In Division 1-10, all references to "truck mounted" are revised to read "transportable".

### **1-10.2(3) Conformance to Established Standards**

In the fifth paragraph, the reference "(TMA's)" is deleted.

### **1-10.3(2)C Lane Closure Setup/Takedown**

In the second paragraph, the reference to "TMA/arrow board" is revised to read "transportable attenuator/arrow board".

### **1-10.3(3)A Construction Signs**

In the fourth paragraph "height" is replaced with "top of the ballast".

### **1-10.3(3)J Truck Mounted Attenuator**

The title for this section is revised to read:

### **1-10.3(3)J Transportable Attenuator**

In the second and fourth paragraphs, the references to "TMA" are revised to read "Transportable Attenuator".

In the first paragraph, the first sentence is revised to read:

Where shown on an approved traffic control plan or where ordered by the Engineer, the Contractor shall provide, operate, and maintain transportable impact attenuators as required in Section 9-35.12.

In the third paragraph, the reference to "truck's" is revised to read "host vehicle's".

### **1-10.4(2) Item Bids with Lump Sum for Incidentals**

All references to "Truck Mounted Impact Attenuator(s)" are revised to read "Transportable Attenuator(s)".

In the eighth paragraph, the first sentence is revised to read:

"Transportable Attenuator" will be measured per each one time only for each host vehicle with mounted or attached impact attenuator used on the project.

In the last sentence of the ninth paragraph, the reference to "TMA" is replaced with "transportable attenuator".

**1-10.5(2) Item Bids with Lump Sum for Incidentals**

All references to "truck mounted impact attenuator(s)" are revised to read "transportable attenuator(s)".

**SECTION 2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP**

April 5, 2010

**2-01.3(2) Grubbing**

In the first paragraph Item 2. e. is revised to read:

- e. Upon which embankments will be placed except stumps may be close-cut or trimmed as allowed in Section 2-01.3(1) item 3.

**SECTION 2-02 REMOVAL OF STRUCTURES AND OBSTRUCTIONS**

January 4, 2010

**2-02.3 Construction Requirements**

The fourth paragraph is revised to read:

The Contractor may dispose of waste material in Contracting Agency owned sites if the Special Provisions or the Engineer permits it. Otherwise, the Contractor shall arrange to dispose of waste at no expense to the Contracting Agency and the disposal shall meet the requirements of Section 2-03.3(7)C.

**SECTION 5-04 HOT MIX ASPHALT**

April 5, 2010

**5-04.3(8)A1 General**

The second sentence in the second paragraph is revised to read:

Statistical evaluation will be used for a class of HMA with the same PG grade of asphalt binder, when the Proposal quantities exceed 4,000-tons.

The third paragraph is revised to read:

Nonstatistical evaluation will be used for the acceptance of HMA when the Proposal quantities for a class of HMA, with the same PG grade of asphalt binder, are 4,000-tons or less.

**5-04.3(8)A4 Definition of Sampling Lot and Sublot**

The first sentence in the first paragraph is revised to read:

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance with a maximum of 15 sublots per lot; the final lot for a mix design may be increased to 25 sublots

**5-04.3(10)B1 General**

The first sentence in the second paragraph is revised to read:

A lot is represented by randomly selected samples of the same mix design that will be tested for acceptance with a maximum of 15 sublots per lot; the final lot for a mix design may be increased to 25 sublots.

**SECTION 6-02 CONCRETE STRUCTURES**

April 5, 2010

**6-02.3(6) Placing Concrete**

The third paragraph is revised to read:

All foundations, forms, and contacting concrete surfaces shall be moistened with water just before the concrete is placed. Any standing water on the foundation, on the concrete surface, or in the form shall be removed.

The following new sentence is added after the fourth sentence in the fourth paragraph:

The submittal to the Engineer shall include justification that the concrete mix design will remain fluid for interruptions longer than 30-minutes between placements.

**6-02.3(10)D Concrete Placement, Finishing, and Texturing**

The following paragraph is inserted at the beginning of this section:

Before placing bridge approach slab concrete, the subgrade shall be constructed in accordance with Sections 2-06 and 5-05.3(6).

**6-02.3(11) Curing Concrete**

In the fifth paragraph "Type 1D" is revised to read "Type 1D, Class B".

**6-02.3(17)F Bracing**

Under the heading "**Temporary Bracing for Bridge Girders**", the table is revised to read:

<b>Girder Series</b>	<b>Distance in Inches</b>
W42G	30
W50G	42
W58G	63
W74G	66
Prestressed concrete tub girders with webs with flanges	30
WF36G, WF42G, WF50G, WF58G, WF66G, WF74G, WF83G, WF95G, and WF100G	70

W32BTG, W38BTG, and W62BTG	70
WF74PTG, WF83PTG, WF95PTG, and WF100PTG	70

**6-02.3(17)N Removal of Falsework and Forms**

The first paragraph including table is revised to read:

If the Engineer does not specify otherwise, the Contractor may remove forms based on an applicable row of criteria in the table below. Both compressive strength and minimum time criteria must be met if both are listed in the applicable row. The minimum time shall be from the time of the last concrete placement the forms support. In no case shall the Contractor remove forms or falsework without the Engineer's approval.

<b>Concrete Placed In</b>	<b>Percent of Specified Minimum Compressive Strength<sup>1</sup></b>	<b>Minimum Compressive Strength<sup>1</sup></b>	<b>Minimum Time</b>
Columns, walls, non-sloping box girder webs, abutments, footings, pile caps,, traffic and pedestrian barriers, and any other side form not supporting the concrete weight.	—	—	3 days
Columns, walls, non-sloping box girder webs, abutments, traffic and pedestrian barriers, and any other side form not supporting the concrete weight or other loads.	—	1400 psi	18 hours
Side forms of footings, pile caps, and shaft caps. <sup>2</sup>	—	—	18 hours
Crossbeams, shaft caps, struts, inclined columns and inclined walls.	80	—	5 days
Bridge decks supported on wood or steel stringers or on steel or prestressed concrete girders. <sup>3</sup>	80	—	10 days
Box girders, T-beam girders, and flat-slab Superstructure. <sup>3</sup>	80	—	14 days
Arches. <sup>3</sup>	80	—	21 days
<p>1 Strength shall be proved by test cylinders made from the last concrete placed into the form. The cylinders shall be cured according to WSDOT FOP for AASHTO T 23.</p> <p>2 Curing compound shall be immediately applied to the sides when forms are removed.</p> <p>3 Where continuous spans are involved, the time for all spans will be determined by the last concrete placed affecting any span.</p>			

The third and fourth paragraphs are deleted.

The fifth paragraph is revised to read:

Curing shall comply as required in Section 6-02.3(11). The concrete surface shall not become dry during form removal if removed during the cure period.

**6-02.3(20) Grout for Anchor Bolts and Bridge Bearings**

In the fourth paragraph “9-20.3(4)” is revised to read “Section 9-20.3(4)”.

**6-02.3(24) Reinforcement**

This first paragraph is revised to read:

Although a bar list is normally included in the Plans, the Contracting Agency does not guarantee its accuracy and it shall be used at the Contractor’s risk. Reinforcement fabrication details shall be determined from the information provided in the Plans.

The third paragraph is deleted.

**6-02.3(24)C Placing and Fastening**

The eighth paragraph is revised to read:

Mortar blocks may be accepted based on a Manufacturer’s Certificate of Compliance.

The 14th paragraph is revised to read:

Clearances for main bars shall be at least:

4-inches between:	Bars and the surface of any concrete masonry exposed to the action of salt or alkaline water.
3-inches between:	Bars and the surface of any concrete deposited against earth without intervening forms.
2-½-inches between:	Adjacent bars in a layer. Bridge deck bars and the top of the bridge deck.
2-inches between:	Adjacent layers. Bars and the surface of concrete exposed to earth. Reinforcing bars and the faces of forms for exposed aggregate finish.
1-½-inches between:	Bars and the surface of concrete when not specified otherwise in this Section or in the Plans. Barrier and curb bars and the surface of concrete.
1-inch between:	Slab bars and the bottom of the slab. Slab bars and the top surface of the bottom slab of a cast-in-place concrete box girder.

The following new paragraph is inserted after the 14th paragraph:

Cover to ties and stirrups may be ½-inch less than the values specified for main bars but shall not be less than 1-inch.

### **6-02.3(24)F Mechanical Splices**

Items 1, 2, and 3 in the fourth paragraph are revised to read:

1. Mechanical splices shall develop at least 125 percent of the specified yield strength of the unspliced bar. The ultimate tensile strength of the mechanical splice shall exceed that of the unspliced bar.
2. The total slip of the bar within the spliced sleeve of the connector after loading in tension to 30.0 ksi and relaxing to 3.0 ksi shall not exceed the following measured displacements between gage points clear of the splice sleeve:
  - a. 0.01 inches for bar sizes up to No. 14.
  - b. 0.03 inches for No. 18 bars.
3. The maximum allowable bar size for mechanical laps splices shall be No. 6.

### **6-02.3(25) Prestressed Concrete Girders**

Under the heading "**Prestressed Concrete Wide Flange I Girder**" the last sentence is revised to read:

WSDOT standard girders in this category include Series WF36G, WF42G, WF50G, WF58G, WF66G, WF74G, WF83G, WF95G and WF100G.

Under the heading "**Spliced Prestressed Concrete Girder**" the last sentence is revised to read:

WSDOT standard girders in this category include Series WF74PTG, WF83PTG, WF95PTG and WF100PTG.

### **6-02.3(25)L Handling and Storage**

In the third sentence of the second paragraph, the reference to "1-foot-9-inches" is revised to read "3-foot-0-inches".

### **6-02.3(25)N Prestressed Concrete Girder Erection**

The seventh paragraph is supplemented with the following:

The aspect ratio (height/width) of oak block wedges at the girder centerline shall not exceed 1.0.

### **6-02.3(26)E Ducts**

Beneath the heading "**Ducts for Internal Embedded Installation**" the second sentence in the second paragraph is revised to read:

Polypropylene ducts shall conform to ASTM D 4101 with a cell classification range of PP0340B14541 to PP0340B67884.

**6-02.3(28)F Tolerances**

The reference to "PCI-MNL-166" is revised to read "PCI-MNL-116".

**SECTION 6-10 CONCRETE BARRIER**

January 4, 2010

**6-10.3(1) Precast Concrete Barrier**

In the 12th paragraph, the first sentence is revised to read:

Only 1 section less than 20-feet long for single slope barrier and 10-feet long for all other barriers may be used in any single run of precast barrier, and it must be at least 8-feet long.

**6-10.3(6) Placing Concrete Barrier**

The first paragraph is revised to read:

Precast concrete barrier Type 2, 3, 4 and transitions shall rest on a paved foundation shaped to a uniform grade and section. The foundation surface for precast concrete barrier Type 2, 3, 4 and transitions shall meet this test for uniformity:

When a 10-foot straightedge is placed on the surface parallel to the centerline for the barrier, the surface shall not vary more than ¼-inch from the lower edge of the straightedge. If deviations exceed ¼-inch, the Contractor shall correct them as required in Section 5-04.3(13).

In the second paragraph, the first sentence is revised to read:

The Contractor shall align the joints of all precast barrier segments so that they offset no more than ¼-inch transversely and no more than ¾-inch vertically.

**SECTION 8-01 EROSION CONTROL AND WATER POLLUTION CONTROL**

(April 5, 2010)

**8-01.2 Materials**

In the first paragraph, the following is inserted after the first sentence:

Corrugated Polyethylene Drain Pipe      9-05.1(6)

**8-01.3(1) General**

In the sixth paragraph, the first sentence is revised to read:

When natural elements rut or erode the slope, the Contractor shall restore and repair the damage with the eroded material where possible, and remove and dispose of any remaining material found in ditches and culverts.

In the seventh paragraph the first two sentences are deleted.

The table in the seventh paragraph is revised to read:

**Western Washington (West of the Cascade Mountain crest)**

May 1 through September 30	17 Acres
October 1 through April 30	5 Acres

**Eastern Washington (East of the Cascade Mountain crest.)**

April 1 through October 31	17 Acres
November 1 through March 31	5 Acres

The eighth paragraph is revised to read:

The Engineer may increase or decrease the limits based on project conditions.

The ninth paragraph is revised to read:

Erodible earth is defined as any surface where soils, grindings, or other materials may be capable of being displaced and transported by rain, wind, or surface water runoff.

The 10th paragraph is revised to read:

Erodible earth not being worked, whether at final grade or not, shall be covered within the specified time period, (see the tables below) using an approved soil covering practice.

**Western Washington (West of the Cascade Mountain crest)**

October 1 through April 30	2-days maximum
May 1 to September 30	7-days maximum

**Eastern Washington (East of the Cascade Mountain crest.)**

October 1 through June 30	5-days maximum
July 1 through September 30	10-days maximum

**8-01.3(1)A Submittals**

This section is revised to read:

When a Temporary Erosion and Sediment Control (TESC) Plan is included in the Plans, the Contractor shall either adopt or modify the existing TESC Plan. If modified, the Contractor's TESC Plan shall meet all requirements of Chapter 6-2 of the current edition of the WSDOT Highway Runoff Manual. The Contractor shall provide a schedule for TESC Plan implementation and incorporate it into the Contractor's progress schedule. The Contractor shall obtain the Engineer's approval of the TESC Plan and schedule prior to the beginning of Work. The TESC Plan shall cover all areas that maybe affected inside and outside the

limits of the project (including all Contracting Agency-provided sources, disposal sites, and haul roads, and all nearby land, streams, and other bodies of water).

The Contractor shall allow at least 5-working days for the Engineer to review any original or revised TESC Plan. Failure to approve all or part of any such Plan shall not make the Contracting Agency liable to the Contractor for any Work delays.

**8-01.3(1)B Erosion and Sediment Control (ESC) Lead**

In the last paragraph, "Form Number 220-030 EF" is revised to read "WSDOT Form Number 220-030 EF".

**8-01.3(1)C Water Management**

In number 2., the reference to "Standard Specification" is revised to read "Section".

Number 3., is revised to read:

3. Offsite Water

Prior to disruption of the normal watercourse, the Contractor shall intercept the offsite stormwater and pipe it either through or around the project site. This water shall not be combined with onsite stormwater. It shall be discharged at its pre-construction outfall point in such a manner that there is no increase in erosion below the site. The method for performing this Work shall be submitted by the Contractor for the Engineer's approval.

**8-01.3(1)D Dispersion/Infiltration**

This section is revised to read:

Water shall be conveyed only to dispersion or infiltration areas designated in the TESC Plan or to sites approved by the Engineer. Water shall be conveyed to designated dispersion areas at a rate such that, when runoff leaves the area, and enters waters of the State, turbidity standards are achieved. Water shall be conveyed to designated infiltration areas at a rate that does not produce surface runoff.

**8-01.3(2)B Seeding and Fertilizing**

The fourth paragraph is revised to read:

The seed applied using a hydroseeder shall have a tracer added to visibly aid uniform application. This tracer shall not be harmful to plant, aquatic or animal life. If cellulose fiber mulch or wood fiber mulch is used as a tracer, the application rate shall not exceed 250-pounds per acre.

In the fifth paragraph, "hydro seeder" is revised to read "hydroseeder".

**8-01.3(2)D Mulching**

In the second paragraph, the second sentence is revised to read:

Wood strand mulch shall be applied by hand or by straw blower on seeded areas.

In the third paragraph, "1" is revised to read "a single" and "hydro seeder" is revised to read "hydroseeder".

In the fourth paragraph, "MBFM" is revised to read "MBFM/FRM".

**8-01.3(2)E Tacking Agent and Soil Binders**

The following new paragraph is inserted at the beginning of this Section:

Tacking agent or soil binders applied using a hydroseeder shall have a mulch tracer added to visibly aid uniform application. This tracer shall not be harmful to plant, aquatic or animal life. If cellulose fiber mulch or wood fiber mulch is used as a tracer, the application rate shall not exceed 250-pounds per acre.

The paragraph "**Soil Binding Using Bonded Fiber Matrix (BFM)**" is supplemented with the following:

The BFM may require a 24 to 48 hour curing period to achieve maximum performance and shall not be applied when precipitation is predicted within 24 to 48 hours, or on saturated soils, as determined by the Engineer.

The last paragraph including title is revised to read:

**Soil Binding Using Mechanically-Bonded Fiber Matrix (MBFM) or Fiber Reinforced Matrix (FRM)**

The MBFM/FRM shall be hydraulically applied in accordance with the manufacturer's installation instructions and recommendations.

**8-01.3(2)F Dates for Application of Final Seed, Fertilizer, and Mulch**

The first paragraph is revised to read:

Unless otherwise approved by the Engineer, the final application of seeding, fertilizing, and mulching of slopes shall be performed during the following periods:

**Western Washington<sup>1</sup>**

(West of the Cascade Mountain crest)  
March 1 through May 15  
September 1 through October 1

**Eastern Washington**

(East of the Cascade Mountain crest)  
October 1 through November 15 only

<sup>1</sup>Where Contract timing is appropriate, seeding, fertilizing, and mulching shall be accomplished during the fall period listed above. Written permission to seed after October 1 will only be given when Physical Completion of the project is imminent and the environmental conditions are conducive to satisfactory growth.

**8-01.3(2)G Protection and Care of Seeded Areas**

The first paragraph is revised to read:

The Contractor shall be responsible to ensure a healthy stand of grass. The Contractor shall restore eroded areas, clean up and properly dispose of eroded materials, and reapply the seed, fertilizer, and mulch, at no additional cost to the Contracting Agency.

In the second paragraph, number 1. is revised to read:

1. At the Contractor's expense, seed, fertilizer and mulch shall be reapplied in areas that have been damaged through any cause prior to final inspection, and reapplied to areas that have failed to receive a uniform application at the specified rate.

**8-01.3(2)H Inspection**

The first sentence is revised to read:

Inspection of seeded areas will be made upon completion of seeding, temporary seeding, fertilizing, and mulching.

The third sentence is revised to read:

Areas that have not received a uniform application of seed, fertilizer, or mulch at the specified rate, as determined by the Engineer, shall be reseeded, refertilized, or remulched at the Contractor's expense prior to payment.

**8-01.3(2)I Mowing**

In the first paragraph, the last sentence is revised to read:

Trimming around traffic facilities, Structures, planting areas, or other features extending above ground shall be accomplished preceding or simultaneously with each mowing.

**8-01.3(3) Placing Erosion Control Blanket**

In the first sentence, "Standard" is deleted.

The second sentence is revised to read:

Temporary erosion control blankets, having an open area of 60-percent or greater, may be installed prior to seeding.

**8-01.3(4) Placing Compost Blanket**

In the first paragraph, "before" is revised to read "prior to".

The last sentence is revised to read:

Compost shall be Coarse Compost.

**8-01.3(5) Placing Plastic Covering**

The first sentence is revised to read:

Plastic shall be placed with at least a 12-inch overlap of all seams.

**8-01.3(6)A Geotextile-Encased Check Dam**

The first paragraph is deleted.

**8-01.3(6)B Rock Check Dam**

This section including title is revised to read:

**8-01.3(6)B Quarry Spall Check Dam**

The rock used to construct rock check dams shall meet the requirements for quarry spalls.

**8-01.3(6)D Wattle Check Dam**

This section is revised to read:

Wattle check dams shall be installed in accordance with the Plans.

**8-01.3(6)E Coir Log**

This section is revised to read:

Coir logs shall be installed in accordance with the Plans.

**8-01.3(9)A Silt Fence**

In the second paragraph, the second sentence is revised to read:

The strength of the wire or plastic mesh shall be equivalent to or greater than what is required in Section 9-33.2(1), Table 6 for unsupported geotextile (i.e., 180 lbs. grab tensile strength in the machine direction).

**8-01.3(9)B Gravel Filter, Wood Chip or Compost Berm**

In the second paragraph, the last sentence is deleted.

The third paragraph is revised to read:

The Compost Berm shall be constructed in accordance with the detail in the Plans. Compost shall be Coarse Compost.

**8-01.3(9)C Straw Bale Barrier**

This section is revised to read:

Straw Bale Barriers shall be installed in accordance with the Plans.

**8-01.3(9)D Inlet Protection**

This section is revised to read:

Inlet protection shall be installed below or above, or as a prefabricated cover at each inlet grate, as shown in the Plans. Inlet protection devices shall be installed prior to beginning clearing, grubbing, or earthwork activities.

Geotextile fabric in all prefabricated inlet protection devices shall meet or exceed the requirements of Section 9-33.2, Table 1 for Moderate Survivability, and the minimum filtration properties of Table 2.

When the depth of accumulated sediment and debris reaches approximately  $\frac{1}{2}$  the height of an internal device or  $\frac{1}{3}$  the height of the external device (or less when so specified by the manufacturers) or as designated by the Engineer, the deposits shall be removed and stabilized on site in accordance with Section 8-01.3(16).

**8-01.3(10) Wattles**

In the first paragraph, the third sentence is revised to read:

Excavated material shall be spread evenly along the uphill slope and be compacted using hand tamping or other method approved by the Engineer.

This section is supplemented with the following new paragraph:

The Contractor shall exercise care when installing wattles to ensure that the method of installation minimizes disturbance of waterways and prevents sediment or pollutant discharge into waterbodies.

**8-01.3(12) Compost Sock**

In the first paragraph, "sock" is revised to read "socks" and "streambed" is revised to read "waterbodies".

In the second paragraph "bank" is revised to read "slope".

In the third paragraph "and" is revised to read "or".

This section is supplemented with the following new paragraph:

Compost for Compost Socks shall be Coarse Compost.

**8-01.3(14) Temporary Pipe Slope Drain**

The first paragraph is revised to read:

Temporary pipe slope drain shall be Corrugated Polyethylene Drain Pipe and shall be constructed in accordance with the Plans

The last paragraph is revised to read:

Placement of outflow of the pipe shall not pond water on road surface.

**8-01.3(15) Maintenance**

In the fourth paragraph, the last sentence is revised to read:

Clean sediments may be stabilized on site using approved BMPs as approved by the Engineer.

**8-01.3(16) Removal**

In the second paragraph, the last sentence is revised to read:

This may include, but is not limited to, ripping the soil, incorporating soil amendments, and seeding with the specified seed.

**8-01.4 Measurement**

The eighth paragraph is revised to read:

Silt fence, gravel filter, compost berms, and wood chip berms will be measured by the linear foot along the ground line of completed barrier.

**8-01.5 Payment**

The following bid items are relocated after the bid item "Check Dam":

“Inlet Protection”, per each.

“Gravel Filter Berm”, per linear foot.

The following new paragraph is inserted before the bid item "Stabilized Construction Entrance":

The unit Contract price per linear foot for “Check Dam” and “Gravel Filter Berm” and per each for “Inlet Protection” shall be full pay for all equipment, labor and materials to perform the Work as specified, including installation, removal and disposal at an approved disposal site.

The paragraph after the bid item "Temporary Curb" is revised to read:

The unit Contract price per linear foot for temporary curb shall include all costs to install, maintain, remove, and dispose of the temporary curb.

The bid item "Mulching with MBFM" is revised to read "Mulching with MBFM/FRM".

**SECTION 8-02 ROADSIDE RESTORATION**

January 4, 2010

**8-02.3(2) Roadside Work Plan**

In the first paragraph, the second sentence is revised to read:

The roadside work plan shall define the Work necessary to provide all Contract requirements, including: wetland excavation, soil preparation, habitat, Structure placement, planting area preparation, seeding area preparation, bark mulch and compost placement, seeding, planting, plant replacement, irrigation, and weed control in narrative form.

The first sentence under "**Progress Schedule**" is revised to read:

A progress schedule shall be submitted in accordance with Section 1-08.3. The Progress Schedule shall include the planned time periods for Work necessary to provide all Contract requirements in accordance with Sections 8-01, 8-02, and 8-03.

The first sentence under "**Weed and Pest Control Plan**" is revised to read:

The Weed and Pest Control Plan shall be submitted and approved prior to starting any Work defined in Sections 8-01, and 8-02.

In the third paragraph under "**Weed and Pest Control Plan**" the first and second sentences are revised to read:

The plan shall be prepared and signed by a licensed Commercial Pest Control Operator or Consultant when chemical pesticides are proposed. The plan shall include methods of weed control; dates of weed control operations; and the name, application rate, and Material Safety Data Sheets of all proposed herbicides.

The last paragraph under "**Plant Establishment Plan**" is deleted.

**8-02.3(2)A Chemical Pesticides**

This section is deleted.

**8-02.3(2)B Weed and Pest Control**

This section is deleted.

**8-02.3(3) Planting Area Weed Control**

This section including title is revised to read:

**8-02.3(3) Weed and Pest Control**

The Contractor shall control weed and pest species within the project area using integrated pest management principles consisting of mechanical, biological and chemical controls that are outlined in the Weed and Pest Control Plan or as designated by the Engineer.

Those weeds specified as noxious by the Washington State Department of Agriculture, the local Weed District, or the County Noxious Weed Control Board and other species identified by the Contracting Agency shall be controlled on the project in accordance with the weed and pest control plan.

The Contractor shall control weeds not otherwise covered in accordance with Section 8-02.3(3)A, **Planting Area Weed Control** in all areas within the project limits, including erosion control seeding area and vegetation preservation areas, as designated by the Engineer.

This section is supplemented with the following new sub-sections:

**8-02.3(3)A Planting Area Weed Control**

All planting areas shall be prepared so that they are weed and debris free at the time of planting and until completion of the project. The planting areas shall include the entire ground surface, regardless of cover, all planting beds, areas around plants, and those areas shown in the Plans.

All applications of post-emergent herbicides shall be made while green and growing tissue is present. Should unwanted vegetation reach the seed stage, in violation of these Specifications, the Contractor shall physically remove and bag the seed heads. All physically removed vegetation and seed heads shall be disposed of offsite at no cost to the Contracting Agency.

Weed barrier mats shall be installed as shown in the Plans. Mats shall be 3-feet square and shall be secured by a minimum of 5-staples per mat. Mats and staples shall be installed according to the manufacturer's recommendations.

**8-02.3(3)B Chemical Pesticides**

Application of chemical pesticides shall be in accordance with the label recommendations, the Washington State Department of Ecology, local sensitive area ordinances, and Washington State Department of Agriculture laws and regulations. Only those herbicides listed in the table *Herbicides Approved for Use on WSDOT Rights of Way* at [http://www.wsdot.wa.gov/Maintenance/Roadside/herbicide\\_use.htm](http://www.wsdot.wa.gov/Maintenance/Roadside/herbicide_use.htm) may be used.

The applicator shall be licensed by the State of Washington as a Commercial Applicator or Commercial Operator with additional endorsements as required by the Special Provisions or the proposed weed control plan. The Contractor shall furnish the Engineer evidence that all operators are licensed with appropriate endorsements, and that the pesticide used is registered for use by the Washington State Department of Agriculture. All chemicals shall be delivered to the job site in the original containers. The licensed applicator or operator shall complete a Commercial Pesticide Application Record (DOT Form 540-509) each day the pesticide is applied, and furnish a copy to the Engineer by the following business day.

The Contractor shall ensure confinement of the chemicals within the areas designated. The use of spray chemical pesticides shall require the use of anti-drift and activating agents, and a spray pattern indicator unless otherwise allowed by the Engineer.

The Contractor shall assume all responsibility for rendering any area unsatisfactory for planting by reason of chemical application. Damage to adjacent areas, either on or off the

Highway Right of Way, shall be repaired to the satisfaction of the Engineer or the property owner, and the cost of such repair shall be borne by the Contractor.

**8-02.3(5) Planting Area Preparation**

In the first paragraph, the second sentence is revised to read:

Material displaced by the Contractor's operations that interferes with drainage shall be removed from the channel and disposed of as approved by the Engineer.

**8-02.3(7) Layout of Planting**

The second paragraph is deleted.

**8-02.3(8) Planting**

In the second paragraph, the first and second sentences are revised to read:

Under no circumstances will planting be permitted during unsuitable soil or weather conditions as determined by the Engineer. Unsuitable conditions may include frozen soil, freezing weather, saturated soil, standing water, high winds, heavy rains, and high water levels.

The fourth paragraph is revised to read:

Plants shall not be placed below the finished grade.

The fifth paragraph is revised to read:

Planting hole sizes for plant material shall be in accordance with the details shown in the Plans. Any glazed surface of the planting hole shall be roughened prior to planting.

The following new paragraph is inserted after the fifth paragraph:

All cuttings shall be planted immediately if buds begin to swell.

**8-02.3(9) Pruning, Staking, Guying, and Wrapping**

In the first paragraph, the last sentence is revised to read:

All other pruning shall be performed only after the plants have been in the ground at least one year and when plants are dormant.

**8-02.3(13) Plant Establishment**

In the third paragraph, the first sentence is revised to read:

During the first-year plant establishment period, the Contractor shall perform all Work necessary to ensure the resumption and continued growth of the transplanted material.

In the fourth paragraph, "propose" is revised to read "submit".

**8-02.3(15) Live Fascines**

In the first paragraph, the fourth sentence is revised to read:

Dead branches may be placed within the live fascine and on the side exposed to the air.

In the second paragraph, the third sentence is deleted.

In the second paragraph, the seventh sentence is revised to read:

The live stakes shall be driven through the live fascine vertically into the slope.

**8-02.4 Measurement**

The seventh paragraph is revised to read:

Fine compost, medium compost and coarse compost will be measured by the cubic yard in the haul conveyance at the point of delivery.

**8-02.5 Payment**

The following new paragraph is inserted above the paragraph beginning with "Payment shall be increased to 90-percent.....":

Plant establishment milestones are achieved when plants meet conditions described in Section 8-02.3(13).

The following is inserted after the bid item "Fine Compost":

"Medium Compost", per cubic yard.

The paragraph for the bid item "Weed Control" is revised to read:

"Weed and Pest Control", will be paid in accordance with Section 1-09.6.

The following new paragraph is inserted after the bid item "Soil Amendment":

The unit Contract price per cubic yard for "Soil Amendment" shall be full pay for furnishing and incorporating the soil amendment into the existing soil.

The following new paragraph is inserted after the bid item "Bark or Wood Chip Mulch":

The unit Contract price per cubic yard for "Bark or Wood Chip Mulch" shall be full pay for furnishing and spreading the mulch onto the existing soil.

**SECTION 8-15 RIPRAP**

January 4, 2010

### **8-15.2 Materials**

The referenced sections for the following items are revised to read:

Heavy Loose Riprap	9-13
Light Loose Riprap	9-13
Hand Placed Riprap	9-13
Sack Riprap	9-13
Quarry Spalls	9-13

## **SECTION 9-01 PORTLAND CEMENT**

April 5, 2010

### **9-01.2(1) Portland Cement**

In the first paragraph, all the text after “shall not exceed 8-percent by weight” is deleted and the paragraph ends.

In the second paragraph, “per” is revised to read “in accordance with”.

## **SECTION 9-03 AGGREGATES**

January 4, 2010

In this Division, all references to "AASHTO TP 61" are revised to read "AASHTO T 335".

## **SECTION 9-04 JOINT AND CRACK SEALING MATERIALS**

January 4, 2010

### **9-04.11 Butyl Rubber**

This section including title is revised to read:

#### **9-04.11 Butyl Rubber and Nitrile Rubber**

Butyl rubber shall conform to ASTM D 2000, M1 BA 610. If the Engineer determines that the area will be exposed to petroleum products Nitrile rubber shall be utilized and conform to ASTM D 2000, M1 BG 610.

## **SECTION 9-07 REINFORCING STEEL**

January 4, 2010

### **9-07.5(1) Epoxy Coated Dowel Bars (For Cement Concrete Pavement)**

This sections title is revised to read:

#### **9-07.5(1) Epoxy Coated Dowel Bars (For Cement Concrete Pavement Rehabilitation)**

## **SECTION 9-14 EROSION CONTROL AND ROADSIDE PLANTING**

April 5, 2010

### **9-14.3 Fertilizer**

In the first paragraph, the second sentence is revised to read:

It may be separate or in a mixture containing the percentage of total nitrogen, available phosphoric acid, water-soluble potash, or sulfur in the amounts specified.

### **9-14.4(1) Straw**

This section is revised to read:

Straw shall be in an air dried condition free of noxious weeds, seeds, and other materials detrimental to plant life. Hay is not acceptable.

All straw material shall be Certified Weed Free Straw using North American Weed Management Association (NAWMA) standards or the Washington Wilderness Hay and Mulch (WWHAM) program run by the Washington State Noxious Weed Control Board. Information can be found at <http://www.nwcb.wa.gov>.

In lieu of Certified Weed Free Straw, the Contractor shall provide documentation that the material is steam or heat treated to kill seeds, or shall provide U.S., Washington, or other State's Department of Agriculture laboratory test reports, dated within 90 days prior to the date of application, showing there are no viable seeds in the straw.

Straw mulch shall be suitable for spreading with mulch blower equipment.

### **9-14.4(2) Wood Cellulose Fiber**

This section including title is revised to read:

#### **9-14.4(2) Fiber Mulch**

All Fiber Mulch materials shall be in a dry condition free of noxious weeds, seeds, and other materials detrimental to plant life. Fiber Mulch shall be suitable for spreading with a hydroseeder or mulch blower equipment.

This section is supplemented with the following new sub-sections:

#### **9-14.4(2)A Cellulose Fiber Mulch**

Cellulose Fiber Mulch shall be recycled (pulp) fiber such as newsprint, magazine stock, corrugated cardboard, cotton or straw. It shall be free from chemical printing ink, germination inhibitors, and chlorine bleach and shall contain no rock, metal, and plastic.

If Cellulose Fiber Mulch contains cotton or straw, the Contractor shall provide documentation that the material is steam or heat treated to kill seeds, or shall provide U.S., Washington, or other State's Department of Agriculture laboratory test reports, dated within 90 days prior to the date of application, showing there are no viable seeds in the mulch.

Cellulose Fiber Mulch shall be manufactured in such a manner that when agitated in slurry tanks with water, the fibers will become uniformly suspended, without clumping, to form a homogeneous slurry. When hydraulically applied, the material shall form a strong moisture-holding mat that allows the continuous absorption and infiltration of water.

Cellulose Fiber Mulch shall contain a dye to facilitate placement and inspection of the material. Dye shall be non-toxic to plants, animals, and aquatic life and shall not stain concrete or painted surfaces.

Cellulose Fiber Mulch furnished by the Contractor shall be pre-packaged by the manufacturer. The Contractor shall supply independent test results from the National Transportation Product Evaluation Program (NTPEP) or other accredited, independent testing laboratory as approved by the Engineer to assure compliance with the minimum requirements in the following table:

<b>Properties</b>	<b>Test Method</b>	<b>Requirements</b>
Water Holding Capacity	ASTM D 7367	1,000 percent minimum
Organic Matter Content	ASTM D 586*	90 percent minimum
Moisture Content	ASTM D 644*	15 percent maximum
Seed Germination Enhancement	ASTM D 7322*	200 percent minimum
Performance in Protecting Slopes from Rainfall-Induced Erosion	ASTM D 6459 with 0.12-inch average raindrop size. Test in one soil type. Soil tested shall be loam as defined by the National Resources Conservation Service (NRCS) Soil Texture Triangle ***	C Factor = 0.15 maximum using Revised Universal Soil Loss Equation (RUSLE)

\* ASTM test methods developed for Rolled Erosion Control Products (RECPs) with the only modification being that Hydraulic Erosion Control Products (HECPs) are applied to the test plot.

\*\*\*Available at:

[http://soils.usda.gov/education/resources/lessons/texture/textural\\_tri\\_hi.jpg](http://soils.usda.gov/education/resources/lessons/texture/textural_tri_hi.jpg)

**9-14.4(2)B Wood Fiber Mulch**

Wood Fiber Mulch shall be thermally processed, defibrated, wood fiber from natural or recycled wood chips or similar woody material. The wood shall be manufactured to produce long-strand fibers that physically interlock to form a strong moisture holding mat that allows the absorption and infiltration of water. Wood Fiber Mulch shall be free from paper, straw, cotton, jute, hemp, coconut, rock, metal, and plastic.

Wood Fiber Mulch shall contain a dye to facilitate placement and inspection of the material. Dye shall be non-toxic to plants, animals, and aquatic life and shall not stain concrete or painted surfaces.

Wood Fiber Mulch shall be manufactured in such a manner that when agitated in slurry tanks with water, the fibers will be uniformly suspended to form a homogeneous slurry.

Wood Fiber Mulch furnished by the Contractor shall be pre-packaged by the manufacturer. The Contractor shall supply independent test results from the National Transportation Product Evaluation Program (NTPEP) or other accredited, independent testing laboratory as approved by the Engineer to assure compliance with the minimum requirements in the following table:

<b>Properties</b>	<b>Test Method</b>	<b>Requirements</b>
Long Strand Fibers	WSDOT Test Method T 126	A minimum of 50% of the fiber, by mass, is collected on the combination of No. 8, No. 16, and No. 24 sieves
Water Holding Capacity	ASTM D 7367	1,300 percent minimum
Organic Matter Content	ASTM D 586*	90 percent minimum
Moisture Content	ASTM D 644*	15 percent maximum
Seed Germination Enhancement	ASTM D 7322*	300 percent minimum
Performance in Protecting Slopes from Rainfall-Induced Erosion	ASTM D 6459 with 0.12-inch average raindrop size. Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle ***	C Factor = 0.15 maximum using Revised Universal Soil Loss Equation (RUSLE)

\* ASTM test methods developed for Rolled Erosion Control Products (RECPs) with the only modification being that Hydraulic Erosion Control Products (HECPs) are applied to the test plot.

\*\*\* Available at:

[http://soils.usda.gov/education/resources/lessons/texture/textural\\_tri\\_hi.jpg](http://soils.usda.gov/education/resources/lessons/texture/textural_tri_hi.jpg)

**9-14.4(3) Bark or Wood Chips**

The first paragraph is revised to read:

Bark or wood chip mulch shall be derived from Douglas fir, pine, or hemlock species and shall not contain resin, tannin, or other compounds in quantities that would be detrimental to plant life. Sawdust shall not be used as mulch.

This section is supplemented with the following:

Bark or wood chips when tested shall be according to WSDOT Test Method T 123 prior to placement and shall meet the following loose volume gradation:

Sieve Size	Percent Passing	
	Minimum	Maximum
2"	95	100
No. 4	0	30

**9-14.4(4) Wood Strand Mulch**

This first paragraph is revised to read:

Wood strand mulch shall be a blend of angular, loose, long, thin wood pieces that are frayed, with a high length-to-width ratio and shall be derived from native conifer or deciduous trees. A minimum of 95 percent of the wood strand shall have lengths between 2 and 10-inches. At least 5 percent of the length of each strand shall have a width and thickness between  $\frac{1}{16}$  and  $\frac{1}{2}$ -inch. No single strand shall have a width or thickness greater than  $\frac{1}{2}$ -inch.

The mulch shall not contain salt, preservatives, glue, resin, tannin, or other compounds in quantities that would be detrimental to plant life. Sawdust or wood chips or shavings shall not be acceptable. Products shall be tested according to WSDOT Test Method 125 prior to acceptance.

**9-14.4(6) Gypsum**

This section is revised to read:

Gypsum shall consist of Calcium Sulfate (CaSO<sub>4</sub>·2H<sub>2</sub>O) in a pelletized or granular form. 100 percent shall pass through a No. 8 sieve.

**9-14.4(7) Tackifier**

This section is revised to read:

Tackifiers are used as a tie-down for soil, compost, seed, and/or mulch. Tackifier shall contain no growth or germination inhibiting materials, and shall not reduce infiltration rates. Tackifier shall hydrate in water and readily blend with other slurry materials.

All tackifiers shall meet the following requirements:

Properties	Test Method	Requirements
Viscosity*	ASTM D 2364	4000 cPs minimum

\*Testing shall be performed by an accredited independent laboratory.

This section is supplemented with the following new sub-sections:

**9-14.4(7)A Organic Tackifier**

Organic tackifier shall be derived from natural plant sources and shall have an MSDS that demonstrates to the satisfaction of the Engineer that the product is not harmful to plants, animals, and aquatic life.

**9-14.4(7)B Synthetic Tackifier**

Synthetic tackifier shall have an MSDS that demonstrates to the satisfaction of the Engineer that the product is not harmful to plants, animals, and aquatic life.

**9-14.4(8) Compost**

In the third paragraph, number 1. is revised to read:

1. Compost material shall be tested in accordance with U.S. Composting Council Testing Methods for the Examination of Compost and Composting (TMECC) 02.02-B, "Sample Sieving for Aggregate Size Classification".

Fine Compost shall meet the following gradation:

Sieve Size	Percent Passing	
	Minimum	Maximum
2"	100	
1"	95	100
5/8"	90	100
1/4"	75	100

Maximum particle length of 6-inches.

Medium Compost shall meet the following gradation:

Sieve Size	Percent Passing	
	Minimum	Maximum
2"	100	
1"	95	100
5/8"	90	100
1/4"	75	85

Maximum particle length of 6-inches.

Medium Compost shall have a Carbon to Nitrogen ratio (C:N) between 18:1 and 30:1. The Carbon to Nitrogen ratio shall be calculated using the dry weight of "Organic Carbon" using TMECC 04.01A divided by the dry weight of "Total N" using TMECC 04.02D.

Coarse Compost shall meet the following gradation:

Sieve Size	Percent Passing	
	Minimum	Maximum
3"	100	
1"	90	100
3/4"	70	100
1/4"	40	60

Maximum particle length of 6-inches.

In number 8. of the third paragraph, the reference to "manufacturer" is revised to read "Contractor".

**9-14.4(8)A Compost Approval**

This sections title is revised to read:

**9-14.4(8)A Compost Submittal Requirements**

The first sentence is revised to read:

The Contractor shall submit the following information to the Engineer for approval:

Number 1. is revised to read:

1. The Qualified Products List printed page or a Request for Approval of Material (DOT Form 350-071EF).

In number 3., the reference to "manufacturer" is revised to read "Contractor" and the reference to "analyses" is revised to read "analysis".

**9-14.4(8)B Compost Acceptance**

This section is revised to read:

Fourteen days prior to application, the Contractor shall submit a sample of the compost approved for use, and a STA test report dated within 90 calendar days of the application, and the list of feed stocks by volume for each compost type to the Engineer for review.

The Contractor shall use only compost that has been tested within 90 calendar days of application and meets the requirements in Section 9-14.4(8). Compost not conforming to the above requirements or taken from a source other than those tested and accepted shall not be used.

**9-14.4(9) Bonded Fiber Matrix (BFM)**

This section is revised to read:

Bonded Fiber Matrix (BFM) shall be a hydraulically-applied blanket/mulch/matrix comprised of biodegradable, thermally processed, defibrated, long strand fibers from natural or recycled wood chips or similar woody material, weed free straw, cotton, coconut, jute, and/or hemp. The fibers shall physically interlock to form a strong moisture holding mat that allows the absorption and infiltration of water. BFM shall be free from rock, metal, or plastic. It shall contain no more than 15 percent recycled paper and meets the requirements in Section 9-14.4(2)A.

The BFM shall be manufactured in such a manner that when agitated in slurry tanks with water, the fibers will be uniformly suspended to form a homogeneous slurry.

Within 48 hours the BFM shall bond with the soil surface to create a continuous, absorbent, flexible erosion resistant blanket that allows for seed germination and plant growth.

BFM shall contain a dye to facilitate placement and inspection of the material. Dye shall be non-toxic to plants, animal, and aquatic life and shall not stain concrete or painted surfaces.

BFM shall be furnished premixed by the manufacturer. The BFM shall be furnished with an MSDS that demonstrates to the satisfaction of the Engineer that the product is not harmful to plants, animals, and aquatic life. Under no circumstances will field mixing of additives or components be acceptable.

The Contractor shall supply independent test results from the National Transportation Product Evaluation Program (NTPEP) or other accredited independent testing laboratory as approved by the Engineer to assure compliance with the minimum requirements in the following table:

<b>Properties</b>	<b>Test Method</b>	<b>Requirements</b>
Long Strand Fibers	WSDOT Test Method T 126	A minimum of 50% of the fiber, by mass, is collected on the combination of No. 8, No. 16, and No. 24 sieves
Tackifier, Type A or Type B	See Section 9-14.4(7)A	Minimum 10 percent by weight of a cross-linked, polysaccharide, hydro-colloid tackifier
Water Holding Capacity	ASTM D 7367	1,300 percent minimum
Organic Matter Content	ASTM D 586*	90 percent minimum
Moisture Content	ASTM D 644*	15 percent maximum
Seed Germination Enhancement	ASTM D 7322*	500 percent minimum
Performance in Protecting Slopes from Rainfall-Induced Erosion	ASTM D 6459 with 0.12-inch average raindrop size.** Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle ***	C Factor = 0.10 maximum using Revised Universal Soil Loss Equation (RUSLE)
Thickness	ASTM D 6525*	0.10-inch minimum
Ground Cover	ASTM D 6567*	97 percent minimum
Mass Per Unit Area	ASTM D 6566*	10.0 oz/yd <sup>2</sup> minimum

\* ASTM test methods developed for Rolled Erosion Control Products (RECPs) with the only modification being that Hydraulic Erosion Control Products (HECPs) are applied to the test plot.

\*\* Utah State Protocol of 2.5:1 slope with rainfall simulated at 5-inches per hour for 60 minute duration, or TTI Protocol of 2:1 slope with rainfall simulated at 3.5-inches per hour with three successive test durations of 30 minutes each test in 24 hour intervals may be substituted.

\*\*\* Available at:  
[http://.soils.usda.gov/education/resources/lessons/texture/textural\\_tri\\_hi.jpg](http://.soils.usda.gov/education/resources/lessons/texture/textural_tri_hi.jpg)

**9-14.4(10) Mechanically Bonded Fiber Matrix (MBFM)**

This section including title is revised to read:

**9-14.4(10) Mechanically Bonded Fiber Matrix (MBFM) or Fiber Reinforced Matrix (FRM)**

The MBFM/FRM shall be a hydraulically-applied blanket/mulch/matrix comprised of biodegradable, thermally processed, defibrated, long-strand fibers from natural or recycled wood chips or similar woody material, straw, coconut, jute, and/or hemp. The MBFM/FRM shall contain a minimum of 5% by weight of biodegradable or photodegradable polyfibers that are bent in multiple locations on each strand and that physically interlock with the wood fibers to form a strong moisture holding mat that allows the absorption and infiltration of water. The MBFM/FRM shall contain a cross-linked polysaccharide tackifier. MBFM/FRM shall be free from paper, rock, metal, and plastic.

MBFM/FRM shall be manufactured in such a manner that when agitated in slurry tanks with water, the fibers will be uniformly suspended to form a homogeneous slurry.

The MBFM/FRM shall require no curing period upon application, and shall bond with the soil surface to create a continuous, porous, absorbent, and flexible erosion resistant blanket that allows for seed germination and plant growth.

MBFM/FRM shall be furnished premixed by the manufacturer. The MBFM/FRM shall be furnished with an MSDS that demonstrates to the satisfaction of the Engineer that the product is not harmful to plants, animals, and aquatic life. Under no circumstances will field mixing of additives or components be acceptable.

The Contractor shall supply independent test results from the National Transportation Product Evaluation Program (NTPEP) or other accredited independent testing laboratory as approved by the Engineer to assure compliance with the minimum requirements in the following table:

<b>Properties</b>	<b>Test Method</b>	<b>Requirements</b>
Long Strand Fibers	WSDOT Test Method T 126	A minimum of 50% of the fiber, by mass, is collected on the combination of No. 8, No. 16, and No. 24 sieves
Tackifier, Type A or Type B	See Section 9-14.4(7)A	Minimum 10 percent by weight of a cross-linked, polysaccharide, hydro-colloid tackifier
Water Holding Capacity	ASTM D 7367	1,500 percent minimum

<b>Properties</b>	<b>Test Method</b>	<b>Requirements</b>
Organic Matter Content	ASTM D 586*	90 percent minimum
Moisture Content	ASTM D 644*	15 percent maximum
Seed Germination Enhancement	ASTM D 7322*	500 percent minimum
Performance in Protecting Slopes from Rainfall-Induced Erosion	ASTM D 6459 with 0.12-inch average raindrop size.** Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle ***	C Factor = 0.05 maximum using Revised Universal Soil Loss Equation (RUSLE)
Thickness	ASTM D 6525*	0.15-inch minimum
Ground Cover	ASTM D 6567*	98 percent minimum
Mass Per Unit Area	ASTM D 6566*	11.0 oz/yd <sup>2</sup> minimum

\* ASTM test methods developed for Rolled Erosion Control Products (RECPs) with the only modification being that Hydraulic Erosion Control Products (HECPs) are applied to the test plot.

\*\* Utah State Protocol of 2.5:1 slope with rainfall simulated at 5-inches per hour for 60 minute duration, or TTI Protocol of 2:1 slope with rainfall simulated at 3.5-inches per hour with three successive test durations of 30 minutes each test in 24 hour intervals may be substituted.

\*\*\* Available at:

[http://soils.usda.gov/education/resources/lessons/texture/textural\\_tri\\_hi.jpg](http://soils.usda.gov/education/resources/lessons/texture/textural_tri_hi.jpg)

**9-14.5(1) Polyacrylamide (PAM)**

The third and fourth sentences are revised to read:

The minimum average molecular weight shall be greater than 5 mg/mole and minimum 30 percent charge density. The product shall contain at least 80 percent active ingredients and have a moisture content not exceeding 10 percent by weight.

This section is supplemented with the following:

PAM shall be delivered in a dry granular or powder form.

**9-14.5(2) Erosion Control Blanket**

This section is revised to read:

Temporary erosion control blanket shall be made of natural plant fibers and meet the following requirements:

<b>Properties</b>	<b>ASTM Test Method</b>	<b>Requirements</b>
Protecting Slopes from Rainfall-	D 6459 with 0.12-inch average raindrop size.* Test in one soil	Maximum C factor of 0.15 using Revised

<b>Properties</b>	<b>ASTM Test Method</b>	<b>Requirements</b>
Induced Erosion	type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle**	Universal Soil Loss Equation (RUSLE)
Dry Weight per Unit Area	D 6475	0.36 lb/sq. yd. minimum
Performance in Protecting Earthen Channels from Stormwater-Induced Erosion	D 6460 Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle**	1.0 lb/sq. ft. minimum
Seed Germination Enhancement	D 7322*	200 percent minimum

Netting, if present, shall be biodegradable with a life span not to exceed one year.

\* Utah State Protocol of 2.5:1 slope with rainfall simulated at 5-inches per hour for 60 minute duration, or TTI Protocol of 2:1 slope with rainfall simulated at 3.5-inches per hour with three successive test durations of 30 minutes each test in 24 hour intervals may be substituted.

\*\* Available at:

[http://soils.usda.gov/education/resources/lessons/texture/textural\\_tri\\_hi.jpg](http://soils.usda.gov/education/resources/lessons/texture/textural_tri_hi.jpg)

Permanent erosion control blanket or turf reinforcing mat shall consist of UV stabilized fibers, filaments, or netting and shall meet the following requirements:

<b>Properties</b>	<b>ASTM Test Method</b>	<b>Requirements</b>
UV Stability	D 4355	Minimum 80 percent strength retained after 500 hours in a xenon arc device
Protecting Slopes from Rainfall-Induced Erosion	D 6459 with 0.12-inch average raindrop size.* Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle **	Maximum C factor of 0.15 using Revised Universal Soil Loss Equation (RUSLE)
Dry Weight per Unit Area	D 6475	0.50 lb/sq. yd. minimum
Performance in Protecting Earthen Channels from Stormwater-Induced Erosion	D 6460 Test in one soil type. Soil tested shall be loam as defined by the NRCS Soil Texture Triangle**	2.0 lb/sq. ft. minimum
Seed Germination Enhancement	D 7322	200 percent minimum

\* Utah State Protocol of 2.5:1 slope with rainfall simulated at 5-inches per hour for 60 minute duration, or TTI Protocol of 2:1 slope with rainfall simulated at 3.5-inches per

hour with three successive test durations of 30 minutes each test in 24 hour intervals may be substituted.

\*\* Available at:

[Http://soils.usda.gov/education/resources/lessons/texture/textural\\_tri\\_hi.jpg](http://soils.usda.gov/education/resources/lessons/texture/textural_tri_hi.jpg)

This section is supplemented with the following new sub-section:

**9-14.5(2)A Erosion Control Blanket Approval**

The Contractor shall select Erosion Control Blanket products that bear the Quality and Data Oversight and Review (QDOR) seal from the Erosion Control and Technology Council (ECTC). All materials selected shall be currently listed on the QDOR products list available at <http://www.ectc.org/qdor>.

**9-14.5(4) Geotextile - Encased Check Dam**

In the second paragraph, the second and third sentences are revised to read:

The geotextile material shall overhang the foam by at least 6-inches at each end, and shall have apron type flaps that extend a minimum of 24-inches on each side of the check dam. The geotextile material shall meet the requirements for Temporary Silt Fence in Section 9-33.

**9-14.5(5) Wattles**

This section is revised to read:

Wattles shall consist of cylinders of biodegradable plant material such as straw, coir, compost, wood chips, excelsior, or wood fiber or shavings encased within biodegradable netting. Wattles shall be a minimum of 5-inches in diameter. Netting material shall be clean, evenly woven, and free of encrusted concrete or other contaminating materials such as preservatives. Netting material shall be free from cuts, tears, or weak places and shall have a minimum lifespan of 6 months.

Compost filler shall be Coarse Compost and shall meet the material requirements as specified in Section 9-14.4(8). If wood chips are used they shall meet the material requirements as specified in Section 9-14.4(3). If wood shavings are used, 80 percent of the fibers shall have a minimum length of 6-inches between 0.030 and 0.50-inches wide, and between 0.017 and 0.13-inches thick.

**9-14.5(6) Compost Sock**

This section is revised to read:

Compost socks shall consist of extra heavy weight biodegradable fabric, with a minimum strand thickness of 5 mils. The fabric shall be filled with Coarse Compost. Compost Socks shall be at least 8-inches in diameter. The fabric shall be clean, evenly woven, and free of encrusted concrete or other contaminating materials and shall be free from cuts, tears, broken or missing yarns, and be free of thin, open, or weak areas and shall be free of any type of preservative.

Coarse Compost filler shall meet the material requirements as specified in Section 9-14.4(8).

Wood stakes for compost socks shall be made from untreated Douglas fir, hemlock, or pine species. Wood stakes shall be 2-inch by 2-inch nominal dimension and 36-inches in length,

**9-14.5(7) Coir Log**

This section is revised to read:

Coir logs shall be made of 100 percent durable coconut (coir) fiber uniformly compacted within woven netting made of bristle coir twine with minimum strength of 80 lbs tensile strength. The netting shall have nominal 2-inch by 2-inch openings. Log segments shall have a maximum length of 20 feet, with a minimum diameter as shown in the Plans. Logs shall have a minimum density of 7 lbs/cf.

Stakes shall be untreated Douglas fir, hemlock, or pine species. Wood stakes shall have a notch to secure the rope ties. Rope ties shall be of ¼-inch diameter commercially available hemp rope.

**9-14.6(1) Description**

The fourth paragraph is revised to read:

Cuttings are live plant material without a previously developed root system. Source plants for cuttings shall be dormant when cuttings are taken. All cuts shall be made with a sharp instrument. Cuttings may be collected. If cuttings are collected, the requirement to be nursery grown or held in nursery conditions does not apply. Written permission shall be obtained from property owners and provided to the Engineer before cuttings are collected. The Contractor shall collect cuttings in accordance with applicable sensitive area ordinances. Cuttings shall meet the following requirements:

- A. Live branch cuttings shall have flexible top growth with terminal buds and may have side branches. The rooting end shall be cut at an approximate 45 degree angle.
- B. Live stake cuttings shall have a straight top cut immediately above a bud. The lower, rooting end shall be cut at an approximate 45 degree angle. Live stakes are cut from one to two year old wood. Live stake cuttings shall be cut and installed with the bark intact with no branches or stems attached, and be ½ to 1½-inch in diameter.
- C. Live pole cuttings shall have a minimum 2-inch diameter and no more than three branches which shall be pruned back to the first bud from the main stem.

Rhizomes shall be a prostrate or subterranean stem, usually rooting at the nodes and becoming erect at the apex. Rhizomes shall have a minimum of two growth points. Tubers shall be a thickened and short subterranean branch having numerous buds or eyes.

**9-14.6(2) Quality**

The first paragraph is revised to read:

At the time of delivery all plant material furnished shall meet the grades established by the latest edition of the American Standard for Nursery Stock, (ASNS) ANSI Z60.1 and shall conform to the size and acceptable conditions as listed in the Contract, and shall be free of all foreign plant material.

The third paragraph is revised to read:

All plant material shall be purchased from a nursery licensed to produce plants for sale in Washington State.

This section is supplemented with the following new paragraph:

All nurseries and nursery vendors must have a business license issued by the Washington State Department of Licensing with a "Nursery" endorsement. Upon request, the Contractor shall furnish the Engineer with copies of the applicable licenses and endorsements.

**9-14.6(3) Handling and Shipping**

Item numbers 8 and 9 are revised to read:

8. Size. (Height, runner length, caliper, etc. as required.)
9. Signature of shipper by authorized representative.

Item numbers 10 and 11 are deleted.

**9-14.6(7) Temporary Storage**

The first paragraph is revised to read:

Plants stored under temporary conditions prior to installation shall be the responsibility of the Contractor.

**SECTION 9-16 FENCE AND GUARDRAIL**

January 4, 2010

**9-16.3(2) Posts and Blocks**

The first sentence in the second paragraph is revised to read:

Timber posts and blocks shall conform to the grade specified in Section 9-09.2.

**SECTION 9-23 CONCRETE CURING MATERIALS AND ADMIXTURES**

April 5, 2010

**9-23.1 Sheet Materials for Curing Concrete**

In the first paragraph, "AASHTO M 171" is revised to read "ASTM C 171".

**9-23.2 Liquid Membrane Forming Concrete Curing Compounds**

In the first sentence of the first paragraph, "AASHTO M 148" is deleted and "(ASTM C 309)" is revised to read "ASTM C 309".

**SECTION 9-33 CONSTRUCTION GEOSYNTHETIC**

April 5, 2010

**9-33.4(3) Acceptance Samples**

The third paragraph is revised to read:

Samples from the geosynthetic roll will be taken to confirm the material meets the property values specified. Samples will be randomly taken at the job site by the Contractor in accordance with WSDOT T 914 in the presence of the Project Engineer.

The first sentence in the sixth paragraph is revised to read:

For each geosynthetic roll that is tested and fails the Project Engineer will select two additional rolls from the same lot for sampling and retesting. The Contractor shall sample the rolls in accordance with WSDOT T 914 in the presence of the Project Engineer.

**SECTION 9-35 TEMPORARY TRAFFIC CONTROL MATERIALS**

January 4, 2010

**9-35.0 General Requirements**

In the first paragraph, the item "Truck Mounted Attenuator" is revised to read "Transportable Attenuator".

In the second paragraph, the third sentence is revised to read:

Unless otherwise noted, Requests for Approval of Material (RAM) and Qualified Products List (QPL) submittals are not required.

**9-35.12 Truck-Mounted Attenuator**

This section including title is revised to read:

**9-35.12 Transportable Attenuator**

Transportable attenuators are Truck-Mounted Attenuators (TMA) or Trailer-Mounted Attenuators (TMA-trailer). The transportable attenuator shall be mounted on, or attached to a host vehicle with a minimum weight of 15,000 pounds and a maximum weight in accordance with the manufacturer's recommendations. Ballast used to obtain the minimum weight requirement, or any other object that is placed on the vehicle shall be securely anchored such that it will be retained on the vehicle during an impact. The Contractor shall

provide certification that the transportable attenuator complies with NCHRP 350 Test level 3 requirements. Lighter host vehicles proposed by the Contractor are subject to the approval of the Engineer. The Contractor shall provide the Engineer with roll-ahead distance calculations and crash test reports illustrating that the proposed host vehicle is appropriate for the attenuator and the site conditions.

The transportable attenuator shall have a chevron pattern on the rear of the unit. The standard chevron pattern shall consist of 4-inch yellow stripes, alternating non-reflective black and retro-reflective yellow sheeting, slanted at 45 degrees in an inverted "V" with the "V" at the center of the unit.

This section is supplemented with the following new sub-sections:

**9-35.12(1) Truck-Mounted Attenuator**

The TMA may be selected from the approved units listed on the QPL or submitted using a RAM.

The TMA shall have an adjustable height so that it can be placed at the correct elevation during usage and to a safe height for transporting. If needed, the Contractor shall install additional lights to provide fully visible brake lights at all times.

**9-35.12(2) Trailer-Mounted Attenuator**

The TMA-trailer may be selected from the approved units listed on the QPL or submitted using a RAM.

If needed, the Contractor shall install additional lights to provide fully visible brake lights at all times.

**9-35.12(3) Submittal Requirements**

For transportable attenuators listed on the QPL, the Contractor shall submit the QPL printed page or a QPL Acceptance Code entered on the RAM (WSDOT Form 350-071EF) for the product proposed for use to the Engineer for approval. The Contractor shall submit a RAM for transportable attenuators not listed on the QPL.

## SPECIAL PROVISIONS

### INTRODUCTION TO THE SPECIAL PROVISIONS

The work on this project shall be accomplished in accordance with the *Standard Specifications for Road, Bridge and Municipal Construction*, 2010 edition, as issued by the Washington State Department of Transportation (WSDOT), (hereafter “Standard Specifications”). The Standard Specifications, as modified or supplemented by the Amendments to the Standard Specifications and these Special Provisions, all of which are made a part of the Contract Documents, shall govern all of the Work.

These Special Provisions are made up of both General Special Provisions (GSPs) from various sources, which may have project-specific fill-ins; and project-specific Special Provisions. Each Provision either supplements, modifies, or replaces the comparable Standard Specification, or is a new Provision. The deletion, amendment, alteration, or addition to any subsection or portion of the Standard Specifications is meant to pertain only to that particular portion of the section, and in no way should it be interpreted that the balance of the section does not apply.

The project-specific Special Provisions are not labeled as such. The GSPs are labeled under the headers of each GSP, with the date of the GSP and its source, as follows:

(date)	General Special Provision
(*****)	Notes a revision to a General Special Provision and also notes a Project Specific Special Provision.
(Regions date)	Region Special Provision
(BSP date)	Bridges and Structures Special Provision

Also incorporated into the Contract Documents by reference are:

- *Manual on Uniform Traffic Control Devices for Streets and Highways*, currently adopted edition, with Washington State modifications, if any
- *Standard Plans for Road, Bridge and Municipal Construction*, WSDOT, current edition

Contractor shall obtain copies of these publications, at Contractor’s own expense.

## **DIVISION 1 - GENERAL REQUIREMENTS**

### **DESCRIPTION OF WORK**

#### **Description of Work**

(March 13, 1995 - WSDOT GSP)

This contract provides for the reconnection of tidal salmonid habitat by installing temporary bypass road, constructing a four sided culvert including headwalls and wingwalls, channel construction and associated habitat enhancements, filling existing culvert, traffic control and other work, all in accordance with the attached Contract Plans, these Contract Provisions, and the Standard Specifications. The four-sided culvert is located at US 101 MP 3.24, south of the Town of Chinook, Pacific County, Washington.

#### **1-01 DEFINITIONS AND TERMS**

##### **1-01.1 General**

The following abbreviations and terms are defined here as they are used in any Contract documents and Specifications. When used in the Proposal Form to denote items of Work and units of measurements, abbreviations are defined to mean the full expression.

##### **1-01.3 Definitions**

(\*\*\*\*\*)

This Section is supplemented with the following:

All references in the Standard Specifications to the terms “State”, “Department of Transportation”, “Washington State Transportation Commission”, “Commission”, “Secretary of Transportation”, “Secretary”, “Headquarters”, and “State Treasurer” shall be revised to read “Contracting Agency (Columbia River Estuary Study Taskforce, hereafter “CREST”)”.

All references to “State Materials Laboratory” shall be revised to read “Contracting Agency designated location”.

The venue of all causes of action arising from the advertisement, award, execution, and performance of the contract shall be in the Superior Court of the Pacific County.

#### **Additive**

A supplemental unit of work or group of bid items, identified separately in the proposal, which may, at the discretion of the Contracting Agency, be awarded in addition to the base bid.

**Alternate**

One of two or more units of work or groups of bid items, identified separately in the proposal, from which the Contracting Agency may make a choice between different methods or material of construction for performing the same work.

**Contract Documents**

See definition for “Contract”.

**Contract Time**

The period of time established by the terms and conditions of the contract within which the work must be physically completed.

**Dates**

***Bid Opening Date***

The date on which the Contracting Agency publicly opens and reads the bids.

***Award Date***

The date of the formal decision of the Contracting Agency to accept the lowest responsible and responsive bidder for the work.

***Contract Execution Date***

The date the Contracting Agency officially binds the agency to the contract.

***Notice to Proceed Date***

The date stated in the Notice to Proceed on which the contract time begins.

***Substantial Completion Date***

The day the Engineer determines the Contracting Agency has full and unrestricted use and benefit of the facilities, both from the operational and safety standpoint, and only minor incidental work, replacement of temporary substitute facilities, or correction or repair remains for the physical completion of the total contract.

***Physical Completion Date***

The day all of the work is physically completed on the project. All documentation required by the contract and required by law does not necessarily need to be furnished by the Contractor by this date.

***Completion Date***

The day all the work specified in the contract is completed and all the obligations of the Contractor under the contract are fulfilled by the Contractor. All documentation required by the contract and required by law must be furnished by the Contractor before establishment of this date.

***Final Acceptance Date***

The date on which the Contracting Agency accepts the work as complete.

**Notice of Award**

The written notice from the Contracting Agency to the successful bidder signifying the Contracting Agency’s acceptance of the bid.

**Notice to Proceed**

The written notice from the Contracting Agency or Engineer to the Contractor authorizing and directing the Contractor to proceed with the work and establishing the date on which the contract time begins.

**Traffic**

Both vehicular and non-vehicular traffic, such as pedestrians, bicyclists, wheelchairs, and equestrian traffic.

**1-02 BID PROCEDURES AND CONDITIONS**

**1-02.2 Plans and Specifications**

(October 1, 2005 APWA GSP)

Delete this section and replace it with the following:

Information as to where Bid Documents can be obtained or reviewed will be found in the Call for Bids (Advertisement for Bids) for the work.

After award of the contract, plans and specifications will be issued to the Contractor at no cost as detailed below:

<b>To Prime Contractor</b>	<b>No. of Sets</b>	<b>Basis of Distribution</b>
Reduced plans (11" x 17") and Contract Provisions	1	Furnished automatically upon award.
Large plans (e.g., 22" x 34") and Contract Provisions	2	Furnished only upon request.

Additional plans and Contract Provisions may be purchased by the Contractor by payment of the cost stated in the Call for Bids.

**1-02.5 Proposal Forms**

(October 1, 2005 APWA GSP)

Delete this section and replace it with the following:

At the request of a bidder, the Contracting Agency will provide a proposal form for any project on which the bidder is eligible to bid.

The proposal form will identify the project and its location and describe the work. It will also list estimated quantities, units of measurement, the items of work, and the materials to be furnished at the unit bid prices. The bidder shall complete spaces on the proposal form that call for, but are not limited to, unit prices; extensions; summations; the total bid amount;

signatures; date; and, where applicable, retail sales taxes and acknowledgment of addenda; the bidder's name, address, telephone number, and signature; the bidder's D/M/WBE commitment, if applicable; a State of Washington Contractor's Registration Number; and a Business License Number, if applicable. Bids shall be completed by typing or shall be printed in ink by hand, preferably in black ink. The required certifications are included as part of the proposal form.

The Contracting Agency reserves the right to arrange the proposal forms with alternates and additives, if such be to the advantage of the Contracting Agency. The bidder shall bid on all alternates and additives set forth in the proposal forms unless otherwise specified.

Any correction to a bid made by interlineation, alteration, or erasure, shall be initialed by the signer of the bid. The bidder shall make no stipulation on the Bid Form, nor qualify the bid in any manner.

A bid by a corporation shall be executed in the corporate name, by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign).

A bid by a partnership shall be executed in the partnership name, and signed by a partner. A copy of the partnership agreement shall be submitted with the Bid Form if any D/M/WBE requirements are to be satisfied through such an agreement.

A bid by a joint venture shall be executed in the joint venture name and signed by a member of the joint venture. A copy of the joint venture agreement shall be submitted with the Bid Form if any D/W/MBE requirements are to be satisfied through such an agreement.

#### **1-02.6 Preparation of Proposal**

(October 10, 2008 APWA GSP)

Supplement the second paragraph with the following:

4. If a minimum bid amount has been established for any item, the unit or lump sum price must equal or exceed the minimum amount stated.

#### **1-02.7 Bid Deposit**

(October 1, 2005 APWA GSP)

Supplement the second paragraph with the following:

Bid bonds shall contain the following:

1. Contracting Agency-assigned number for the project;
2. Name of the project;
3. The Contracting Agency named as obligee;
4. The amount of the bid bond stated either as a dollar figure or as a percentage which represents five percent of the maximum bid amount that could be awarded;

5. Signature of the bidder's officer empowered to sign official statements. The signature of the person authorized to submit the bid should agree with the signature on the bond, and the title of the person must accompany the said signature;
6. The signature of the surety's officer empowered to sign the bond and the power of attorney.

If so stated in the Contract Provisions, bidder must use the bond form included in the Contract Provisions.

### **1-02.9 Delivery of Proposal**

(October 1, 2005 APWA GSP)

Supplement the second paragraph with the following:

Each proposal shall be submitted in a sealed envelope, with the Project Name and Project Number as stated in the Advertisement for Bids clearly marked on the outside of the envelope, or as otherwise stated in the Bid Documents, to ensure proper handling and delivery.

### **1-02.13 Irregular Proposals**

(March 25, 2009 APWA GSP)

Supplement the second paragraph with the following:

1. A proposal will be considered irregular and will be rejected if:
  - a. The Bidder is not prequalified when so required;
  - b. The authorized proposal form furnished by the Contracting Agency is not used or is altered;
  - c. The completed proposal form contains any unauthorized additions, deletions, alternate Bids, or conditions;
  - d. The Bidder adds provisions reserving the right to reject or accept the award, or enter into the Contract;
  - e. A price per unit cannot be determined from the Bid Proposal;
  - f. The Proposal form is not properly executed;
  - g. The Bidder fails to submit or properly complete a Subcontractor list, if applicable, as required in Section 1-02.6;
  - h. The Bidder fails to submit or properly complete a Disadvantaged, Minority or Women's Business Enterprise Certification, if applicable, as required in Section 1-02.6;
  - i. The Bid Proposal does not constitute a definite and unqualified offer to meet the material terms of the Bid invitation; or
  - j. More than one proposal is submitted for the same project from a Bidder under the same or different names.

## **1-04 SCOPE OF WORK**

**1-04.2 Coordination of Contract Documents, Plans, Special Provisions, Specifications, and Addenda**

(October 1, 2005 APWA GSP)

Supplement the second paragraph with the following:

Any inconsistency in the parts of the contract shall be resolved by following this order of precedence (e.g., 1 presiding over 2, 2 over 3, 3 over 4, and so forth):

1. Addenda,
2. Proposal Form,
3. Special Provisions, including APWA General Special Provisions, if they are included,
4. Contract Plans,
5. Amendments to the Standard Specifications,
6. WSDOT Standard Specifications for Road, Bridge and Municipal Construction,
7. Contracting Agency's Standard Plans (if any), and
8. WSDOT Standard Plans for Road, Bridge, and Municipal Construction.

**1-07 LEGAL RELATIONS AND RESPONSIBILITIES TO THE PUBLIC**

**1-07.5 Environmental Regulations**

(August 3, 2009 WSDOT GSP)

Section 1-07.5 is supplemented with the following:

***Environmental Commitments***

The following Provisions summarize the requirements, in addition to those required elsewhere in the Contract, imposed upon the Contracting Agency by the various documents referenced in the Special Provision PERMITS AND LICENSES. Throughout the work, the Contractor shall comply with the following requirements:

**General**

The Contractor shall ensure that the Project Manager representing the Prime Contractor and all Subcontractors has read and understands this Special Provision. Prior to commencing any work on site, the Contractor shall provide the Engineer with a signed statement from the Project Manager stating that the Project Manager has read, understands and will abide by the conditions of this Special Provision.

**Wetlands and Water Quality**

The following restrictions and requirements pertain to work throughout the project limits:

**1-07.5A(1)**

(August 3, 2009)

A copy of the WSDOT/DOE Implementing Agreement on Surface Water Quality Standards must be kept on site at all times.

**1-07.5A(7)**

(August 3, 2009)

When the Contract allows performing the Work from the shoreline, impacts to bank and shoreline vegetation shall be minimized and replanted immediately per Section 1-07.5(2). Work shall be conducted in a manner to avoid deformation of the streambed.

**1-07.5A(9)**

(August 3, 2009)

Materials shall not be stored where high tides, wave action or upland runoff can cause the materials to enter into waters of the State including wetlands.

**1-07.5A(14)**

(August 3, 2009)

During any operation involving saw cutting of concrete, all water generated by the cutting operation shall be controlled and contained, to be disposed of on land with no possibility of entry to waters of the State, including wetlands.

**1-07.5A(19)**

(\*\*\*\*\*)

Any temporary fills placed for the temporary bypass road in the wetland must be removed in their entirety and areas returned to their preexisting elevation.

**1-07.5B**

(August 3, 2009)

**Payment**

All costs to comply with this special provision for the environmental commitments and requirements are incidental to the contract and are the responsibility of the Contractor. The Contractor shall include all related costs in the associated bid prices of the contract.

**1-07.6(3)**

(August 3, 2009)

The Contracting Agency has obtained the below-listed permit(s) for this project. A copy of the permit(s) is attached as an appendix for informational purposes. All contacts with the permitting agency concerning the below-listed permit(s) shall be through the Contracting Agency. The Contractor shall obtain additional permits as necessary. All costs to obtain and comply with additional permits shall be included in the applicable bid items for the work involved.

<b>Name of document</b>	<b>Permitting Agency</b>	<b>Permit Reference #</b>
Dept. of the Army Section 404 Permit	USACE, Seattle District	No. 385664-09-01
Section 401 Water Quality Certification	WA Dept. of Ecology	No. 385664-09-01

Aquatic Resources  
Use Authorization

WA Dept. of  
Natural Resources

No. 385664-09-01

Hydraulic Project  
Approval

WA Dept. of Fish & Wildlife No. 117397-1

## **1-07.15 Temporary Water Pollution/Erosion Control**

### ***Spill Prevention, Control and Countermeasures Plan***

(August 3, 2009)

Section 1-07.15(1) is supplemented with the following:

The Contractor shall address the following items in the SPCC Plan in addition to the requirements of Section 1-07.15(1):

#### **Mixing, Transfers, & Storage**

1. All oil, fuel or chemical storage tanks or containers shall be diked and located on impervious surfaces so as to prevent spill from escaping.
2. All liquid products shall be stored and mixed on impervious surfaces in a secure water tight environment and provide containment to handle the maximum volume of liquid products on site at any given time.
3. Proper security shall be maintained to prevent vandalism.
4. Drip pans or other protective devices shall be required for all transfer operations.

#### **Spills**

Paint and solvent spills shall be treated as oil spills and shall be prevented from reaching storm drains or other discharges. No cleaning solvents or chemicals used for tool or equipment cleaning may be discharged to the ground or water.

#### **Maintenance of Equipment**

Fuel hoses, oil drums, oil or fuel transfer valves and fittings, etc, shall be checked regularly for drips or leaks and shall be maintained and stored properly to prevent spills into State waters.

#### **Disposal**

Spilled waste, chemicals or petroleum products shall be transported off site for disposal at a facility approved by the Department of Ecology. The materials shall not be discharged to any sanitary sewer without approval of the local sewer authority.

### **Reporting and Cleanup**

The Contractor's designated person for managing and implementing the SPCC Plan shall report hazardous material spills as follows:

Spills into State water (including ponds, ditches, seasonally dry streams, and wetlands) – Immediately call all of the following:

National Response Center	1-800-424-8802
WA State Div. of Emergency Management (24 hr)	1-800-258-5990
Ecology *** Southwest *** Regional Office	*** (360) 407-6300 ***

Spill to Soil (Including encounters of pre-existing contamination):

Ecology \*\*\* Southwest \*\*\* Regional Office \*\*\* (360) 407-6300 \*\*\*  
Report immediately if threatening to health or environment (i.e., explosive, flammable, toxic vapors, shallow groundwater, nearby creek), otherwise within 90 days

Underground Storage Tank (confirmed release of material)

Ecology \*\*\* Southwest \*\*\* Regional Office \*\*\* (360) 407-6300 \*\*\*  
Report within 24 hours

### **1-07.17(1) Utilities and Similar Facilities**

(April 2, 2007)

Section 1-07.17 is supplemented with the following:

Locations and dimensions shown in the Plans for existing facilities are in accordance with available information obtained without uncovering, measuring, or other verification.

The following addresses and telephone numbers of utility companies known or suspected of having facilities within the project limits are supplied for the Contractor's convenience:

Northwest Utility Notification Center: 1-800-424-5555  
(Provided for general reference only)

CenturyTel – Fiberoptic/Telephone  
360-295-3284

Pacific County PUD – Overhead electric  
Peninsula Operations Center (POC)  
Long Beach Office  
9610 Sandridge Road  
PO Box 619

Long Beach, WA 98631  
360-642-3191

Chinook Water District – Water  
228 Chinook Valley Road  
P.O. Box 191  
Chinook, WA 98614  
Contact: Charles Fraley, Plant Manager  
360-777-8770

Public and private utilities, or their Contractors, will furnish all work necessary to adjust, relocate, replace, or construct their facilities unless otherwise provided for in the Plans or these Special Provisions. Such adjustment, relocation, replacement, or construction will be done during the prosecution of the work for this project. It is anticipated that utility adjustment, relocation, replacement or construction within the project limits will be completed as follows:

**Overhead electric utilities** will be relocated by the utility owner. The contractor is responsible for temporary support and protection measures during construction. Coordination with the utility owner is the responsibility of the contractor.

**Underground water and fiber optic utilities** will be supported and protected-in-place by the contractor. Water and fiber optic utilities shall remain fully operational throughout the life of this contract. Coordination with the utility owners and Contracting Agency for temporary and permanent requirements is the responsibility of the contractor.

The Contractor shall attend a mandatory utility preconstruction meeting with the Engineer, all affected subcontractors, and all utility owners and their contractors prior to beginning onsite work.

### **07.23 (1) Public Convenience And Safety**

(SWR December 3, 2001)

The second paragraph of Section 1-07.23(1) is supplemented with the following:

To disrupt public traffic as little as possible, the Contractor shall permit traffic to pass through the work with the least possible inconvenience or delay. The Contractor shall limit the total delay to the public, to a maximum of \*\*\* 20 \*\*\* minutes, during travel through the project. If the delay becomes greater than \*\*\* 15 \*\*\* minutes, the Contractor shall immediately begin to take action to cease the operations that are causing the delays. If the \*\*\* 15 \*\*\* minute delay limit has been exceeded, as determined by the Engineer, the Contractor shall provide to the Engineer, a written proposal to revise his work operations to meet the \*\*\* 15 \*\*\* minute limit. This

proposal shall be approved by the Engineer prior to resuming any work requiring traffic control.

## **1-08 PROSECUTION AND PROGRESS**

### **1-08.05 Time for Completion**

(March 13, 1995)

Section 1-08.5 is supplemented with the following:

This project shall be physically completed within \*\*\* 44 \*\*\* working days.

## **1-10 TEMPORARY TRAFFIC CONTROL**

### **1-10.2 Traffic Control Management**

#### **1-10.2(1) General**

(December 1, 2008)

Section 1-10.2(1) is supplemented with the following:

Only training with WSDOT TCS card and WSDOT training curriculum is recognized in the State of Washington. The Traffic Control Supervisor shall be certified by one of the following:

The Northwest Laborers-Employers Training Trust  
27055 Ohio Ave.  
Kingston, WA 98346  
(360) 297-3035

Evergreen Safety Council  
401 Pontius Ave. N.  
Seattle, WA 98109  
1-800-521-0778 or  
(206) 382-4090

The American Traffic Safety Services Association  
15 Riverside Parkway, Suite 100  
Fredericksburg, Virginia 22406-1022  
Training Dept. Toll Free (877) 642-4637  
Phone: (540) 368-1701

## **DIVISION 2 - EARTHWORK**

### **2-01 CLEARING, GRUBBING, AND ROADSIDE CLEANUP**

#### **2-01.3 Construction Requirements**

(December 1, 2008)

Section 2-01.3 is supplemented with the following:

The Contractor shall collect and stockpile sufficient quantities of woody debris from within the limits of clearing for the purpose of constructing all specified Large Woody Debris Structures throughout the project limits within the wetland. Rootwads shall remain intact during removal, transport, and storage. See Special Provision **8-26 LARGE WOODY DEBRIS**.

## DIVISION 5 – SURFACE TREATMENT AND PAVEMENTS

### 5-04 HOT MIX ASPHALT

#### 5-04.3 Construction Requirements

##### 5-04.3(7)A Mix Design

Delete this section and replace it with the following;

1. **General.** Prior to the production of HMA, the Contractor shall determine a design aggregate structure and asphalt binder content in accordance with WSDOT Standard Operating Procedure 732. Once the design aggregate structure and asphalt binder content have been determined, the Contractor shall submit the HMA mix design on DOT form 350-042 demonstrating the design meets the requirements of Sections 9-03.8(2) and 9-03.8(6). HMA accepted by nonstatistical evaluation requires a mix design verification. For HMA accepted by commercial evaluation only the first page of DOT form 350-042 and the percent of asphalt binder is required. In no case shall the paving begin before the determination of anti-strip requirements has been made. Anti-strip requirements will be determined by:
  - a. Testing by WSDOT in accordance with TM 718.
  - b. Testing by Contractor in accordance with WSDOT TM 718.
  - c. Historical aggregate source anti-strip use provided by WDOT.

The mix design will be the initial Job Mix Formula (JMF) for the HMA being produced. Any additional adjustments to the JMF will require the approval of the Project Engineer and may be made per Section 9-03.8(7).

2. **Mix Design Verification.** Verification shall be accomplished by one of the following processes:
  - a. Submit samples to WSDOT State Materials Lab for WSDOT verification testing in accordance with WSDOT Standard Specifications.
  - b. The contracting agency will perform tests to verify the mix design in accordance with the Field Verification Testing Process.
  - c. Reference a mix design that has been previously verified by the Field Verification Testing Process or verified by WSDOT State Materials Lab on a previous project.
  - d. Perform Field Verification Testing on a sample of HMA provided by the Contractor prior to paving.

Mix design verification is valid for one year from the date of verification. At the discretion of the Engineer, agencies may accept mix designs verified beyond the verification year with certification from the Contractor that the materials and sources are the same as those shown on the original mix design.

3. **Field Verification Testing Process.** The Contracting agency will collect three Production Samples of HMA on the first day of paving per AASHTO T 168 sampling procedures.
  - a. The Contracting agency will test one Production Sample in accordance with section 5-04.3(8)A for field verification per the requirements of Section 9-03.8(7).
  - b. If the test results from the first Production Sample are within the tolerances of section 9-03.8(7), the mix design will be considered verified and the test results will be used as acceptance sample number one.
  - c. If the test results from the first Production Sample are outside the tolerances of section 9-03.8(7), the other two samples will be tested and the results of all three tests will be used for acceptance in accordance with Section 5-04.5(1) and will be used in the calculation of the CPF the maximum CPF shall be 1.00.
  
4. Prior to the first day of paving, six Ignition Furnace Calibration Samples shall be obtained to calibrate the Ignition Furnaces used for acceptance testing of the HMA. Calibration samples shall be provided by the Contractor when directed by the Engineer. Calibration samples shall be prepared in accordance with WSDOT SOP 728.

#### **5-04.3(8)A1 General**

Delete these sections and replace them with the following:

(\*\*\*\*\*)

Acceptance of HMA shall be as defined under nonstatistical or commercial evaluation.

Nonstatistical evaluation will be used for all HMA not designated as Commercial HMA in the contract documents.

Commercial evaluation will be used for Commercial HMA and for other classes of HMA in the following applications: sidewalks, road approaches, ditches, slopes, paths, trails, gores, prelevel, and pavement repair. Other nonstructural applications of HMA accepted by commercial evaluation shall be as approved by the Project Engineer. Sampling and testing of HMA accepted by commercial evaluation will be at the option of the Project Engineer. Commercial HMA can be accepted by a contractor certification letter stating the material meets the HMA requirements defined in the contract.

#### **5-04.3(8)A4 Definition of Sampling Lot and Sublot**

Delete this section and replace it with the following:

(\*\*\*\*\*)

For the purpose of acceptance sampling and testing, a lot is defined as the total quantity of material or work produced for each job mix formula (JMF) placed. Only one lot per mix

design will be expected to occur. The initial JMF is defined in Section 5-04.3(7)A Mix Design. The Contractor may request a change in the JMF in accordance with Section 9-03.8(7). If the request is approved, all of the material produced up to the time of the change will be evaluated on the basis of tests on samples taken from that material and a new lot will begin.

For proposal quantities less than 2500 tons sampling and testing for evaluation shall be performed as described in 5-04.3(7)A, item 3, Field Verification Testing Process. The verification sample referenced in item 3b may be used as an acceptance sample, additional testing will be at the discretion of the Engineer. When using a previously verified mix design, testing for volumetric properties may be waived at the engineer's discretion. At least one acceptance sample is required when using this method of acceptance.

For proposal quantities greater than 2500 tons sampling and testing for evaluation shall be performed as described in 5-04.3(7)A, item 3, Field Verification Testing Process, for the first 2500 tons of mix placed. The verification sample referenced in item 3b may be used as an acceptance sample for the first 2500 tons of mix placed. Additional testing will be at the rate of one sample per 800 tons of mix placed or as directed by the Engineer. When using a previously verified mix design, testing for volumetric properties may be waived at the engineer's discretion.

#### **5-04.3(8)A5 Test Results**

Delete this section and replace it with the following:

(\*\*\*\*\*)

The Engineer will furnish the Contractor with a copy of the results of all acceptance testing performed in the field at the beginning of the next paving shift. The Engineer will also provide the Composite Pay Factor (CPF) of the completed sublots after three sublots have been produced. The CPF will be provided by the midpoint of the next paving shift after sampling. Sublot sample test results (gradation and asphalt binder content) may be challenged by the Contractor. For HMA mixture accepted by statistical evaluation with a mix design that did not meet the verification tolerances, the test results in the test section including the percent air voids (Va) may be challenged. To challenge test results, the Contractor shall submit a written challenge within 7-calendar days after receipt of the specific test results. A split of the original acceptance sample will be sent for testing to either the Region Materials Laboratory or the State Materials Laboratory as determined by the Project Engineer. The split of the sample with challenged results will not be tested with the same equipment or by the same tester that ran the original acceptance test. The challenge sample will be tested for a complete gradation analysis and for asphalt binder content. The results of the challenge sample will be compared to the original results of the acceptance sample test and evaluated according to the following criteria:

##### **Deviation**

U.S. No. 4 sieve and larger Percent passing  $\pm 4.0$

U.S. No. 8 sieve Percent passing  $\pm 2.0$

U.S. No. 200 sieve Percent passing  $\pm 0.4$

Asphalt binder Percent binder content  $\pm 0.3$   
Va Percent Va  $\pm 0.7$

If the results of the challenge sample testing are within the allowable deviation established above for each parameter, the acceptance sample test results will be used for acceptance of the HMA. The cost of testing will be deducted from any monies due or that may come due the Contractor under the Contract at the rate of \$250 per challenge sample. If the results of the challenge sample testing are outside of any one parameter established above, the challenge sample will be used for acceptance of the HMA and the cost of testing will be the Contracting Agency's responsibility.

#### **5-04.3(8)A7 Test Section – HMA Mixtures**

(\*\*\*\*\*)

Delete this section.

#### **5-04.5(1)A Price Adjustments for Quality of HMA Mixture**

Delete the first paragraph and table and replaced them with the following:

(\*\*\*\*\*)

Statistical analysis of quality of gradation and asphalt content will be performed based on Section 1-06.2 using the following price adjustment factors:

<b>Table of Price Adjustment Factors</b>	
<b>Constituent</b>	<b>Factor "F"</b>
All aggregate passing: 1 1/2", 1", 3/4", 1/2", 3/8" and No. 4 sieves	2
All aggregate passing No. 8	15
All aggregate passing No. 200 sieve	20
Asphalt binder	52

Delete items 1-3 in Paragraph two and replaced with the following:

(\*\*\*\*\*)

A pay factor will be calculated for sieves listed in Section 9-03.8(7) for the class of HMA and for the asphalt binder.

1. **Nonstatistical Evaluation.** Each lot of HMA produced under Nonstatistical Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit contract price with no further evaluation. When one or more constituents fall outside the nonstatistical acceptance tolerance limits in Section 9-03.8(7), the lot shall be evaluated in accordance with Section 1-06.2 to determine the appropriate CPF. The nonstatistical tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

2. **Commercial Evaluation.** If sampled and tested, HMA produced under Commercial Evaluation and having all constituents falling within the tolerance limits of the job mix formula shall be accepted at the unit contract price with no further evaluation. When one or more constituents fall outside the commercial acceptance tolerance limits in Section 9-03.8(7), the lot shall be evaluated to determine the appropriate CPF. The commercial tolerance limits will be used in the calculation of the CPF and the maximum CPF shall be 1.00. When less than three sublots exist, backup samples of the existing sublots or samples from the street shall be tested to provide a minimum of three sets of results for evaluation.

For each lot of HMA produced under Nonstatistical or Commercial Evaluation when the calculated CPF is less than 1.00, a Nonconforming Mix factor (NCMF) will be determined. The NCMF equals the algebraic difference of CPF minus 1.00 multiplied by 60 percent. The Job Mix Compliance Price Adjustment will be calculated as the product of the NCMF, the quantity of HMA in the lot in tons, and the unit contract price per ton of the mix.

If a constituent is not measured in accordance with these Specifications, its individual pay factor will be considered 1.00 in calculating the composite pay factor.

#### **5-04.5(1)B Price Adjustments for Quality of HMA Compaction**

Delete this section and replace it with the following:

(\*\*\*\*\*)

The maximum CPF of a compaction lot is 1.00

For each compaction lot of HMA when the CPF is less than 1.00, a Nonconforming Compaction Factor (NCCF) will be determined. THE NCCF equals the algebraic difference of CPF minus 1.00 multiplied by 40 percent. The Compaction Price Adjustment will be calculated as the product of the NCCF, the quantity of HMA in the lot in tons and the unit contract price per ton of the mix.

## **DIVISION 6 - STRUCTURES**

### **6-02 CONCRETE STRUCTURES**

#### **6-02.1 Description**

Supplement this section with the following:

(\*\*\*\*\*)

This work shall consist of furnishing and installing a Precast Reinforced Concrete Four Sided Structure with a 12 foot span, a 12 foot rise, and a length of 80 feet, including foundations, headwalls and wingwalls.

#### **6-02.3 Construction Requirements**

##### **6-02.3(28) Precast Reinforced Concrete Panels**

##### **6-02.3(28)1 Precast Reinforced Four Sided Structures**

Supplement this section with the following:

(\*\*\*\*\*)

##### **Precast Reinforced Concrete Four Sided Structures**

###### **Manufacturing Plant Quality Control Program**

The manufacturing plant of precast reinforced concrete four sided structures shall be certified by one of the organizations specified in Section 6-02.3(28).

###### **Design Criteria**

The precast reinforced concrete four sided structures shall be designed in accordance with the current AASHTO LRFD Bridge Design Specifications, including an HL-93 vehicular live load.

Precast reinforced concrete three sided structures shall be precast rigid frames with monolithic upper corners internally reinforced for moment and shear resistance, except as otherwise noted. Connecting separate and individually precast concrete panels together to form the specified three sided frame geometry may be acceptable provided the following additional requirements are satisfied:

1. The structure system shall provide moment and shear resistance from the lateral load from backfill placed full width and full height at one side only of the three sided structure.
2. The structure system receives the approval of the Bridge and Structures Office and the Hydraulics Office.

**Approved Products**

The following products are approved for use as precast reinforced concrete four sided structures with spans less than 26 feet, when designed, fabricated, and constructed in accordance with Section 6-02.3(28) as supplemented in these Special Provisions:

Product Name	Manufacturer
Four Sided Culvert	Utility Vault Company P.O. Box 588 Auburn, WA 98071-0588 (253) 839-3500 1-800-892-1538 Fax: (253) 735-4201
Four Sided Hydraulic Structure	Central Pre-Mix Prestress Company P.O. Box 3366 Spokane, WA 99220-3366 (509) 533-0267 Fax: (509) 534-3013
Pre-Cast, 4- Sided Bridge	Granite Precasting & Concrete, Inc. 4116 Bakerview Spur Bellingham, WA 98226 (800) 808-2251 Fax: (360) 671-0780
Four Sided Box Culvert	Hanson Pipe & Precast, Inc Attention: Sig Franson 755 NE Columbia BLVD PO Box 11305 Portland, OR 97211 (503) 285-3817 Mobile: (503) 709-0371 Fax: (503) 286-0603

**6-02.3(28)A Shop Drawings**

The third paragraph of Section 6-02.3(28)A is supplemented with the following:

(\*\*\*\*\*)

**Precast Reinforced Concrete Four Sided Structures**

For Four sided structures, the Contractor shall submit two sets of design calculations to the Bridge and Structures Engineer with the eight sets of shop drawings submitted for the Engineer's approval.

The Contractor shall affirm with the design calculations submitted with the shop drawings for the Engineer's approval that the three sided structure conforms to the specified design criteria. The design calculations shall include, but not be limited to, analysis of the following elements:

1. Flexure (substructure and superstructure).
2. Compression in the walls.
3. Shear (substructure and superstructure).
4. Design footing bearing pressure versus allowable soil bearing pressure.
5. Deflection.
6. Minimum and maximum reinforcement ratios.
7. Distribution of flexural reinforcement.
8. Fatigue.
9. Live load distribution.

For Four sided structures, in addition to items 1 through 6 under shop drawing content requirements, the following shop drawing details shall be submitted:

1. Footing and slab base details.
2. Wingwall and cutoff wall details.
3. Erection and backfill procedure.
4. Complete, site specific, itemized bar list for all steel reinforcement.

All design calculations and shop drawings for the precast reinforced concrete three sided structures shall be stamped and signed by a Professional Engineer in accordance with Section 6-01.9.

### **6-02.3(28)B Casting**

Section 6-02.3(28)B is supplemented with the following:

(\*\*\*\*\*)

#### **Precast Reinforced Concrete Four Sided Structure**

The precast reinforced concrete four sided structure fabricator shall notify the Washington State Department of Transportation Materials and Fabrication Inspection Section at least five working days in advance of beginning fabrication of the structures for this project.

Whenever the minimum finished backfill depth above the top of the structure is less than 1'-0", either all steel reinforcing bars in the span unit shall be epoxy-coated in accordance with Sections 6-02.3(24)H and 9-07.3, or the minimum concrete cover dimension from the face of concrete to the face of the top mat of steel reinforcing bars shall be 2-1/2".

Whenever the minimum concrete cover dimension from the face of concrete to the face of the top mat of steel reinforcing bars is less than 1-1/2", the top mat of steel reinforcing bars in the span unit shall be epoxy-coated in accordance with Sections 6-02.3(24)H and 9-07.3.

The Contractor may strip forms from precast reinforced concrete four sided structures after the concrete reaches a minimum compressive strength of 3,000 psi, provided the precast reinforced concrete four sided structure remains in the casting bed in accordance with Section 6-02.3(28)G as supplemented in these Special Provisions. All damage from stripping is the Contractor's responsibility.

### **6-02.3(28)E Finishing**

Section 6-02.3(28)E is supplemented with the following:

(\*\*\*\*\*)

#### **Precast Reinforced Concrete Four Sided Structures**

The Contractor shall finish all exposed surfaces of the structure with a Class 2 finish.

The Contractor shall mark the following information, using waterproof paint, on the inside of a vertical leg of each section of the structure:

- Design Loads
- Span and Rise dimension
- Job Number
- Fabrication Date
- Manufacturer's Name and Trademark

### **6-02.3(28)G Handling and Storage**

Section 6-02.3(28)G is supplemented with the following:

(\*\*\*\*\*)

#### **Precast Reinforced Concrete Four Sided Structures**

The Contractor shall not move four sided structure sections from the casting bed into storage until the concrete reaches a minimum compressive strength of 70 percent of the final design strength specified in the shop drawing and design calculation submittal.

The Contractor shall pick, move, and store the four sided structure sections in the cast position until the concrete reaches a minimum compressive strength equal to the final design strength specified in the shop drawing and design calculation submittal.

### **6-02.3(28)H Shipping**

Section 6-02.3(28)H is supplemented with the following:

(\*\*\*\*\*)

#### **Precast Reinforced Concrete Four Sided Structure**

Prior to shipping, the precast reinforced concrete four sided structure fabricator shall furnish the Inspector a complete documentation package for each structure.

The documentation package shall include the following information for each structure:

1. Concrete batch tickets.
2. Concrete cylinder break results.
3. Material certifications.
4. Copies of all changes from the Plans and Specifications.

### **6-02.3(28)I Erection**

Section 6-02.3(28)I is supplemented with the following:

(\*\*\*\*\*)

#### **Precast Reinforced Concrete Four Sided Structures**

The Contractor shall erect and backfill precast reinforced concrete four sided structures in accordance with the erection sequence specified in the shop drawings approved by the Engineer, and the construction equipment restrictions specified in Section 6-02.3(25)O.

Adjacent precast units shall be connected by welding the weld-tie anchors in accordance with Section 6-02.3(25)O. The weld-tie anchor spacing shall not exceed 6'-0". After connecting the weld-tie anchors, the Contractor shall paint the exposed metal surfaces with one coat of field primer conforming to Section 9-08.1(2)F. Keyways shall be filled with grout conforming to Section 6-02.3(25)O.

### **6-02.5 Payment**

Section 6-02.5 is supplemented with the following:

#### **6-02.5(1) Precast Reinf. Conc. Four Sided Structure No. \_\_\_\_", lump sum**

(\*\*\*\*\*)

"Precast Reinf. Conc. Four Sided Structure No. \_\_\_\_", lump sum.

The lump sum contract price for "Precast Reinf. Conc. Four Sided Structure No. \_\_\_\_" shall be full pay for performing the work as specified, including footings, slab bases, wingwalls, and headwalls.

**DIVISION 7 – DRAINAGE STRUCTURES, STORM SEWERS, SANITARY SEWERS,  
WATER MAINS, AND CONDUITS**

**7-08 GENERAL PIPE INSTALLATION REQUIREMENTS**

**7-08.3 Construction Requirements**

Section 7-08.3 is supplemented with the following:

(\*\*\*\*\*)

Where noted in the Plans, the entire length of existing culvert pipe shall be completely filled with Controlled Density Fill (CDF).

At least ten days in advance of the filling operations, the Contractor shall submit to the Engineer for approval the proposed method and equipment to be utilized to ensure the pipes are completely filled.

**DIVISION 8 – MISCELLANEOUS CONSTRUCTION**

**8-01 EROSION CONTROL AND WATER POLLUTION CONTROL**

**8-01.3 Construction Requirements**

**8-01.3(2)B Seeding, Fertilizing and Mulching**

Section 8-01.3(2)B is supplemented with the following:

(\*\*\*\*\*)

Grass seed, of the following composition, proportion, and quality shall be applied at the rates shown below on all areas requiring seeding within the project:

Kind and Variety of Seed in Mixture by Common Name and <u>(Botanical name)</u>	Pounds Pure Live Seed <u>(PLS) Per Acre</u>
*****	
Pacific Reed Grass (Calamagrostis Nutkaensis)	5.00
Tufted Hair Grass (Deschampsia Cespitosa)	5.00
Salt Grass (Distichlis Spicata)	5.00
Northern Mannagrass (Glyceria Borealis)	2.00
Lyngby’s Sedge (Carex Lyngbyei)	2.00
Marsh Clover (Trifolium Wormskjoldii)	1.00
Total Pounds PLS Per Acre	20.00
***	

Seeds shall be certified “Weed Free,” indicating there are no noxious or nuisance weeds in the seed.

## 8-15 RIPRAP

### 8-15.1 Description

Supplement Section 8-15.1 with the following:

(xxxxxx)

Rock protection shall consist of the following:

**Streambed Material:** two-parts light loose riprap to one-part cobbles. Streambed Material is to be placed for scour protection within the culvert, extending to the limits of the wingwalls on the east end of the culvert, as shown in the Plans.

**Armor Rock:** four-parts heavy loose riprap to one part light loose riprap. Armor Rock is to be placed for wind-wave scour protection along the US 101 embankment and between the wingwalls on the west end of the culvert in a continuous layer that is tied-into the existing rock slope protection as shown in the Plans.

**Native Sandy Substrate:** native sandy soils excavated from on site and stockpiled for use in the constructed channel. Native Sandy Substrate is to be placed on top of the Streambed Material and Armor Rock as shown in the Plans.

### 8-15.2 Materials

Supplement Section 8-15.2 with the following:

(xxxxxx)

Cobbles shall meet the requirements of the following section for “12 inch Cobbles”:  
9-03.11(2) Streambed Cobbles

Native Sandy Substrate shall meet the requirements of the following section:  
9-03.14(3) Common Borrow

Approval and acceptance of Native Sandy Substrate material shall be by visual inspection per the Contracting Agency or engineer.

### 8-15.3 Construction Requirements

#### 8-15.3(2) Loose Riprap

Replace Section 8-15.3(2) with the following:

(xxxxxx)

Loose riprap and cobble materials shall be placed in such a manner that all relatively large stones shall be essentially in contact with each other, and all voids filled with the finer materials to provide a well graded compact mass.

When dumping or placing, care shall be used to avoid disturbing the underlying material. A 12-inch tolerance for Armor Rock and 6-inch tolerance for Streambed Material will be allowed from slope plane and grade line in the finished surface.

The contractor may mix riprap and cobble materials before placement to achieve the specified mixes of Streambed Material and Armor Rock. The contractor shall place riprap and cobble materials in layers that are approximately the thickness of , ensuring that rock in each layer is tamped with a backhoe bucket during placement for compaction, to minimize voids, for maximum rock-to-rock contact, and so that all rocks are resistant to overturning or movement from flows and wave action.

After Streambed Material is placed, the contractor shall place native sandy substrate on top of the Streambed Material to the finish grades shown in the Plans. The Contractor shall wash sandy substrate down and into the Streambed Material to fill voids in the matrix with high pressure water. Sand is sufficiently washed into the rock matrix when wash-water and sand ceases to infiltrate into the rock.

Final placement shall be as directed and approved by the Contracting Agency. Acceptance of placed Armor Rock and Streambed Material shall be prior to completion of this work.

#### **8-15.4 Measurement**

Section 8-15.4 is supplemented with the following:

(August 6, 2007)

“Heavy loose riprap”, “Light loose riprap”, “Cobbles” and “Streambed boulders” will be measured by the ton.

#### **8-15.5 - Payment**

Section 8-15.5 is supplemented with the following:

(August 6, 2007)

"Heavy loose riprap", per ton.

"Light loose riprap", per ton.

“Cobbles”, per ton.

“Streambed Boulders”, per ton

#### **8-26 LARGE WOODY DEBRIS**

Add Section 8-26 in its entirety.

(xxxxxx)

**Description**

Work under this section consist of placing large woody debris (LWD) in accordance with the Plans and these Special Provisions.

**Material**

Large woody debris (LWD) shall be trees salvaged during clearing and grubbing. LWD to be placed in the constructed channel shall be alder, spruce or big leaf maple logs with rootwad attached, and minimum 20 foot trunk length. All LWD shall be a minimum of 12 inches in diameter measured 5 feet above the top of the crown. All wood will be inspected by the Contracting Agency upon selection from the salvage pile and before installation.

All boulders for LWD ballast shall comply with Specification 9-03.11(4) for Habitat Boulders. Sizes shall be as shown on the Plans.

**Construction Requirements**

LWD shall be installed as shown on the Plans. The contractor shall vary plan view orientation of the logs within the limits shown and as directed by the Engineer. Number of logs in each LWD structure is as shown on the Plans. The Contractor shall install and position the LWD to the satisfaction of the Engineer prior to the placement and compaction of native backfill.

LWD shall be installed after final grades have been met but prior to final surface preparation, compost blanket and soil amendment application, seeding, or placement of bark mulch.

Key LWD trunks into the bank with a minimum length as shown on the Plans. Excavate trenches to install wood into the bank and backfill with native material. Place large boulders on top of the logs as ballast to keep the logs in place. Ballast boulders shall be completely buried after backfilling over the LWD. Compact the backfill over the LWD to 90 percent. Scarify surface of backfilled and graded areas to facilitate revegetation.

All undesirable growth from LWD shall be treated so as to remove and/or prevent growth, including sprouts, suckers and roots prior to installation in the wetland area in accordance with the approved Weed and Pest Control Plan. All attached root systems shall only be pruned if designated by the Engineer.

**Measurement**

LWD will be measured per each log in completed structures installed in the project area.

**Payment**

Payment will be made in accordance with Section 1-04.1 for the following items:

“Large Woody Debris”, per each

The unit contract price per each for “Large Woody Debris” shall be full pay for installing the large wood debris as specified including excavation, backfill and compaction, and any required vegetative control measures.

**DIVISION 9 – MATERIALS**

**9-03 AGGREGATES**

**9-03.8(2) HMA Test Requirements**

Section 9-03.8(2) is supplemented with the following:

(\*\*\*\*\*)

ESAL's

The number of ESAL's for the design and acceptance of the HMA shall be in the range of more than 300,000 to less than 3 million.

**9-03.8(7) HMA Tolerances and Adjustments**

(\*\*\*\*\*)

Delete Item 1 and replace it with the following:

- Job Mix Formula Tolerances.** After the JMF is determined as required in 5-04.3(7)A, the constituents of the mixture at the time of acceptance shall conform to the following tolerances:

	<b>Nonstatistical Evaluation</b>	<b>Commercial Evaluation</b>
Aggregate, percent passing		
1", 3/4", 1/2", and 3/8" sieves	±6%	±8%
U.S. No. 4 sieve	±6%	±8%
U.S. No. 8 sieve	±6%	±8%
U.S. No. 200 sieve	±2.0%	±3.0%
Asphalt Binder	±0.5%	±0.7%

These tolerance limits constitute the allowable limits as described in Section 1-06.2. The tolerance limit for aggregate shall not exceed the limits of the control points section, except the tolerance limits for sieves designated as 100% passing will be 99-100. The tolerance limits on sieves shall only apply to sieves with control points.

**9-13 RIPRAP, QUARRY SPALLS, SLOPE PROTECTION, AND ROCK WALLS**

**9-13.1 Loose Riprap**

**9-13.1(1) Heavy Loose Riprap**

Section 9-13.1(1) is replaced by the following:

(\*\*\*\*\*)

Heavy loose riprap shall be well-graded and meet the following requirements for grading:

Approx. Size (in.)	Percent Passing (%)
40 - 48	80 - 100
20 - 36	30 - 60
3 - 9	10 - 30

**9-13.1(2) Light Loose Riprap**

Section 9-13.1(2) is replaced by the following:

(\*\*\*\*\*)

Light loose riprap shall be well-graded and meet the following requirements for grading:

Approx. Size (in.)	Percent Passing (%)
16 - 24	80 - 100
10 - 16	30 - 60
3 - 10	10 - 30

**9-33 CONSTRUCTION GEOSYNTHETIC**

**9-33.2 Geosynthetic Properties**

**9-33.2(1) Geotextile Properties**

Section 9-33.2(1) is supplemented with the following:

For this project geotextile for separation will be woven high strength. Property requirements are as follows:

Grab tensile strength of 315 ib. min.  
Puncture resistance of 900 ib. min

Tear strength of 113 lb. min.

See table 3 of the standard specifications for additional property requirements.

## **STANDARD PLANS**

(December 7, 2009 WSDOT GSP)

The State of Washington Standard Plans for Road, Bridge and Municipal Construction M21-01 transmitted under Publications Transmittal No. PT 09-013, effective December 7, 2009 is made a part of this contract.

The Standard Plans are revised as follows:

### All Standard Plans

All references in the Standard Plans to "Asphalt Concrete Pavement" shall be revised to read "Hot Mix Asphalt".

All references in the Standard Plans to the abbreviation "ACP" shall be revised to read "HMA".

### B-10.20 and B10.40

Substitute "step" in lieu of "handhold" on plan

### C-3, C-3B, C-3C

Note 1 is revised as follows: replace reference F-2b with F-10.42

### C-4

Deleted

### C-10 (sheet 2 of 2)

COVER PLATE DETAIL, dimension of the 1" dia. holes, changes from 8" to 3"

### F-10.20

GENERAL NOTE

Revise as follows:

Replace reference to F-3 with F-30.10

### F-40.12 through F-40.18

The following note is added to these five plans:

Note 7. To the maximum extent feasible, the ramp cross slope shall not exceed 2%.

### G-24.40

Existing callout - CORNER BOLT (TYP.)

New callout - CORNER BOLT OR SHOULDER BOLT (TYP.)

J-5  
Deleted

J-7a  
Deleted

J-40.10, Section A  
replace 3" MIN. with 3" MAX.

J-40.30  
Diamond Note 2:  
Was = Copper Split Bolt Clamp  
Is = Copper Solder Less Crimp Connector

K-80.30  
In the NARROW BASE, END view, the reference to Std. Plan C-8e is revised to Std. Plan K-80.35

L-20.10, Sheet 1  
Delete all references to tension cable and substitute tension wire.  
Add knuckled selvage is required on the top edge of the fence fabric.

L-20.10, Sheet 2  
Delete all references to tension cable and substitute tension wire.  
All rope thimbles, wire rope clips and seizing are not required.

L-30.10, Sheet 1  
Delete all references to tension cable and substitute tension wire.

L-30.10, Sheet 2  
Delete all references to tension cable and substitute tension wire.  
All rope thimbles, wire rope clips and seizing are not required.

M-1.60  
COLLECTOR DISTRIBUTOR ROAD OFF- CONNECTION, taper dimensions of 225' MIN. is changed to 300' MIN.

The following are the Standard Plan numbers applicable at the time this project was advertised. The date shown with each plan number is the publication approval date shown in the lower right-hand corner of that plan. Standard Plans showing different dates shall not be used in this contract.

A-10.10-00.....8/07/07	A-30.35-00.....10/12/07	A-50.20-01.....9/22/09
A-10.20-00.....10/05/07	A-40.00-00.....8/11/09	A-50.30-00.....11/17/08
A-10.30-00.....10/05/07	A-40.10-01.....8/11/09	A-50.40-00.....11/17/08
A-20.10-00.....8/31/07	A-40.15-00.....8/11/09	A-60.10-01.....10/14/09

A-30.10-00.....11/08/07	A-40.20-00.....9/20/07	A-60.20-01.....8/11/09
A-30.15-00.....11/08/07	A-40.50-00.....11/08/07	A-60.30-00.....11/08/07
A-30.30-00.....11/08/07	A-50.10-00.....11/17/08	A-60.40-00.....8/31/07

B-5.20-00.....6/01/06	B-30.50-00.....6/01/06	B-75.20-01.....6/10/08
B-5.40-00.....6/01/06	B-30.70-01.....8/31/07	B-75.50-01.....6/10/08
B-5.60-00.....6/01/06	B-30.80-00.....6/08/06	B-75.60-00.....6/08/06
B-10.20-00.....6/01/06	B-30.90-01.....9/20/07	B-80.20-00.....6/08/06
B-10.40-00.....6/01/06	B-35.20-00.....6/08/06	B-80.40-00.....6/01/06
B-10.60-00.....6/08/06	B-35.40-00.....6/08/06	B-82.20-00.....6/01/06
B-15.20-00.....6/01/06	B-40.20-00.....6/01/06	B-85.10-01.....6/10/08
B-15.40-00.....6/01/06	B-40.40-00.....6/01/06	B-85.20-00.....6/01/06
B-15.60-00.....6/01/06	B-45.20-00.....6/01/06	B-85.30-00.....6/01/06
B-20.20-01.....11/21/06	B-45.40-00.....6/01/06	B-85.40-00.....6/08/06
B-20.40-02.....6/10/08	B-50.20-00.....6/01/06	B-85.50-01.....6/10/08
B-20.60-02.....6/10/08	B-55.20-00.....6/01/06	B-90.10-00.....6/08/06
B-25.20-00.....6/08/06	B-60.20-00.....6/08/06	B-90.20-00.....6/08/06
B-25.60-00.....6/01/06	B-60.40-00.....6/01/06	B-90.30-00.....6/08/06
B-30.10-00.....6/08/06	B-65.20-00.....6/01/06	B-90.40-00.....6/08/06
B-30.20-01.....11/21/06	B-65.40-00.....6/01/06	B-90.50-00.....6/08/06
B-30.30-00.....6/01/06	B-70.20-00.....6/01/06	B-95.20-01.....2/03/09
B-30.40-00.....6/01/06	B-70.60-00.....6/01/06	B-95.40-00.....6/08/06

C-1.....2/10/09	C-4e.....2/20/03	C-14i.....2/10/09
C-1a.....10/14/09	C-4f.....6/30/04	C-14j.....12/02/03
C-1b.....10/31/03	C-5.....10/14/09	C-14k.....2/10/09
C-1c.....5/30/97	C-6.....5/30/97	C-15a.....7/3/08
C-1d.....10/31/03	C-6a.....10/14/09	C-15b.....7/3/08
C-2.....1/06/00	C-6c.....1/06/00	C-16a.....11/08/05
C-2a.....6/21/06	C-6d.....5/30/97	C-16b.....11/08/05
C-2b.....6/21/06	C-6f.....7/25/97	C-20.14-01.....10/14/09
C-2c.....6/21/06	C-7.....10/31/03	C-20.15-00.....10/14/09
C-2d.....6/21/06	C-7a.....10/31/03	C-20.18-00.....10/14/09
C-2e.....6/21/06	C-8.....2/10/09	C-20.19-00.....10/14/09
C-2f.....3/14/97	C-8a.....7/25/97	C-20.40-01.....10/14/09
C-2g.....7/27/01	C-8b.....2/10/09	C-20.42-01.....10/14/09
C-2h.....3/28/97	C-8e.....2/21/07	C-22.14-00.....2/03/09
C-2i.....3/28/97	C-8f.....6/30/04	C-22.16-00.....2/03/09
C-2j.....6/12/98	C-10.....7/31/98	C-22.40-01.....10/05/07
C-2k.....7/27/01	C-13.....7/3/08	C-23.60-01.....10/14/09
C-2n.....7/27/01	C-13a.....7/3/08	C-25.18-01.....9/20/07
C-2o.....7/13/01	C-13b.....7/3/08	C-25.20-04.....10/14/09
C-2p.....10/31/03	C-13c.....7/3/08	C-25.22-03.....10/14/09
C-3.....10/04/05	C-14a.....7/3/08	C-25.26-01.....10/14/09
C-3a.....10/04/05	C-14b.....7/26/02	C-25.80-01.....7/3/08
C-3b.....10/04/05	C-14c.....7/3/08	C-28.40-00.....2/06/07

C-3c.....6/21/06	C-14d.....7/3/08	C-40.14-00.....2/03/09
C-4b.....6/08/06	C-14e.....7/3/08	C-40.16-00.....2/03/09
C-4b.....6/08/06	C-14h.....2/10/09	C-40.18-01.....10/14/09
		C-90.10-00.....7/3/08
D-2.02-00.....11/10/05	D-2.44-00.....11/10/05	D-3b.....6/30/04
D-2.04-00.....11/10/05	D-2.46-00.....11/10/05	D-3c.....6/30/04
D-2.06-01.....1/06/09	D-2.48-00.....11/10/05	D-4.....12/11/98
D-2.08-00.....11/10/05	D-2.60-00.....11/10/05	D-6.....6/19/98
D-2.10-00.....11/10/05	D-2.62-00.....11/10/05	D-10.10-01.....12/02/08
D-2.12-00.....11/10/05	D-2.64-01.....1/06/09	D-10.15-01.....12/02/08
D-2.14-00.....11/10/05	D-2.66-00.....11/10/05	D-10.20-00.....7/8/08
D-2.16-00.....11/10/05	D-2.68-00.....11/10/05	D-10.25-00.....7/8/08
D-2.18-00.....11/10/05	D-2.78-00.....11/10/05	D-10.30-00.....7/8/08
D-2.20-00.....11/10/05	D-2.80-00.....11/10/05	D-10.35-00.....7/8/08
D-2.30-00.....11/10/05	D-2.82-00.....11/10/05	D-10.40-01.....12/02/08
D-2.32-00.....11/10/05	D-2.84-00.....11/10/05	D-10.45-01.....12/02/08
D-2.34-01.....1/06/09	D-2.86-00.....11/10/05	D-15.10-01.....12/02/08
D-2.36-02.....1/06/09	D-2.88-00.....11/10/05	D-15.20-01.....1/06/09
D-2.38-00.....11/10/05	D-2.92-00.....11/10/05	D-15.30-01.....12/02/08
D-2.40-00.....11/10/05	D-3.....7/13/05	
D-2.42-00.....11/10/05	D3a.....12/02/08	
E-1.....2/21/07	E-4.....8/27/03	
E-2.....5/29/98	E-4a.....8/27/03	
F-10.12-00.....12/20/06	F-30.10-00.....1/23/07	F-40.18-00.....2/07/07
F-10.16-00.....12/20/06	F-40.10-01.....10/05/07	F-40.20-00.....10/05/07
F-10.40-01.....7/3/08	F-40.12-00.....2/07/07	F-42.10-00.....10/05/07
F-10.42-00.....1/23/07	F-40.14-00.....2/07/07	F-80.10-00.....1/23/07
F-10.62-01.....9/05/07	F-40.15-00.....2/07/07	
F-10.64-02.....7/3/08	F-40.16-00.....2/07/07	
G-10.10-00.....9/20/07	G-24.60-00.....11/08/07	G-70.20-00.....10/5/07
G-20.10-00.....9/20/07	G-25.10-01.....1/06/09	G-70.30-00.....10/5/07
G-22.10-01.....7/3/08	G-30.10-00.....11/08/07	G-90.10-00.....1/06/09
G-24.10-00.....11/08/07	G-50.10-00.....11/08/07	G-90.20-00.....1/06/09
G-24.20-00.....11/08/07	G-60.10-00.....8/31/07	G-90.30-00.....1/06/09
G-24.30-00.....11/08/07	G-60.20-00.....8/31/07	G-90.40-01.....10/14/09
G-24.40-01.....12/02/08	G-60.30-00.....8/31/07	G-95.10-00.....11/08/07
G-24.50-00.....11/08/07	G-70.10-00.....10/5/07	G-95.20-01.....7/10/08
		G-95.30-01.....7/10/08
H-10.10-00.....7/3/08	H-32.10-00.....9/20/07	H-70.10-00.....9/05/07
H-10.15-00.....7/3/08	H-60.10-01.....7/3/08	H-70.20-00.....9/05/07
H-30.10-00.....10/12/07	H-60.20-01.....7/3/08	H-70.30-01.....11/17/08

I-10.10-01.....8/11/09	I-30.40-00.....10/12/07	I-50.20-00.....8/31/07
I-30.10-01.....8/11/09	I-30.50-00.....11/14/07	I-60.10-00.....8/31/07
I-30.15-00.....8/11/09	I-40.10-00.....9/20/07	I-60.20-00.....8/31/07
I-30.20-00.....9/20/07	I-40.20-00.....9/20/07	I-80.10-01.....8/11/09
I-30.30-00.....9/20/07	I-50.10-00.....9/20/07	

J-1f.....6/23/00	J-16c.....2/10/09	J-28.24-00.....8/07/07
J-3.....8/01/97	J-18.....2/10/09	J-28.26-01.....12/02/08
J-3b.....3/04/05	J-19.....2/10/09	J-28.30-01.....10/14/09
J-3c.....6/24/02	J-20.....9/02/05	J-28.40-01.....10/14/09
J-3d.....11/05/03	J-20.10-00.....10/14/09	J-28.42-00.....8/07/07
J-6c.....4/24/98	J-20.15-00.....10/14/09	J-28.45-00.....8/07/07
J-7c.....6/19/98	J-20.16-00.....10/14/09	J-28.50-00.....8/07/07
J-7d.....4/24/98	J-20.20-00.....10/14/09	J-28.60-00.....8/07/07
J-8a.....5/20/04	J-20.26-00.....10/14/09	J-28.70-00.....11/08/07
J-8b.....5/20/04	J-21.10-00.....10/14/09	J-40.10-01.....10/14/09
J-8c.....5/20/04	J-21.15-00.....10/14/09	J-40.30-00.....1/06/09
J-8d.....5/20/04	J-21.16-00.....10/14/09	J-75.10-00.....2/10/09
J-9a.....4/24/98	J-21.17-00.....10/14/09	J-75.20-00.....2/10/09
J-10.....7/18/97	J-21.20-00.....10/14/09	J-75.30-00.....2/10/09
J-11b.....9/02/05	J-22.15-00.....10/14/09	J-75.40-00.....10/14/09
J-12.....2/10/09	J-22.16-00.....10/14/09	J-75.45-00.....10/14/09
J-16a.....3/04/05	J-28.10-00.....8/07/07	J-90.10-00.....2/10/09
J-16b.....2/10/09	J-28.22-00.....8/07/07	J-90.20-00.....2/10/09

K-10.20-01.....10/12/07	K-26.40-01.....10/12/07	K-40.60-00.....2/15/07
K-10.40-00.....2/15/07	K-30.20-00.....2/15/07	K-40.80-00.....2/15/07
K-20.20-01.....10/12/07	K-30.40-01.....10/12/07	K-55.20-00.....2/15/07
K-20.40-00.....2/15/07	K-32.20-00.....2/15/07	K-60.20-02.....7/3/08
K-20.60-00.....2/15/07	K-32.40-00.....2/15/07	K-60.40-00.....2/15/07
K-22.20-01.....10/12/07	K-32.60-00.....2/15/07	K-70.20-00.....2/15/07
K-24.20-00.....2/15/07	K-32.80-00.....2/15/07	K-80.10-00.....2/21/07
K-24.40-01.....10/12/07	K-34.20-00.....2/15/07	K-80.20-00.....12/20/06
K-24.60-00.....2/15/07	K-36.20-00.....2/15/07	K-80.30-00.....2/21/07
K-24.80-01.....10/12/07	K-40.20-00.....2/15/07	K-80.35-00.....2/21/07
K-26.20-00.....2/15/07	K-40.40-00.....2/15/07	K-80.37-00.....2/21/07

L-10.10-00.....2/21/07	L-40.10-00.....2/21/07	L-70.10-01.....5/21/08
L-20.10-00.....2/07/07	L-40.15-00.....2/21/07	L-70.20-01.....5/21/08
L-30.10-00.....2/07/07	L-40.20-00.....2/21/07	

M-1.20-01.....1/30/07	M-7.50-01.....1/30/07	M-24.60-02.....2/06/07
M-1.40-01.....1/30/07	M-9.50-01.....1/30/07	M-40.10-00.....9/20/07
M-1.60-01.....1/30/07	M-9.60-00.....2/10/09	M-40.20-00.....10/12/07
M-1.80-02.....8/31/07	M-11.10-01.....1/30/07	M-40.30-00.....9/20/07

M-2.20-01.....1/30/07	M-15.10-01.....2/06/07	M-40.40-00.....9/20/07
M-2.40-01.....1/30/07	M-17.10-02.....7/3/08	M-40.50-00.....9/20/07
M-2.60-01.....1/30/07	M-20.10-01.....1/30/07	M-40.60-00.....9/20/07
M-3.10-02.....2/10/09	M-20.20-01.....1/30/07	M-60.10-00.....9/05/07
M-3.20-01.....1/30/07	M-20.30-02.....10/14/09	M-60.20-01.....2/03/09
M-3.30-02.....2/10/09	M-20.40-01.....1/30/07	M-65.10-01.....5/21/08
M-3.40-02.....2/10/09	M-20.50-01.....1/30/07	M-80.10-00.....6/10/08
M-3.50-01.....1/30/07	M-24.20-01.....5/31/06	M-80.20-00.....6/10/08
M-5.10-01.....1/30/07	M-24.40-01.....5/31/06	M-80.30-00.....6/10/08